# Lit and Dark Fiber WAN Services, RFP No. E2717

## Technical Scope of Work: Leased Lit Fiber and Leased Dark Fiber WAN Services — FY2027

### 1. Purpose

The purpose of this technical scope of work is to solicit proposals from qualified service providers for Leased Lit Fiber services or Leased Dark Fiber services capable of meeting the operational, technical, performance, scalability, reliability, and E-Rate requirements of Socorro Independent School District for Funding Year 2027.

The district seeks a turnkey solution that provides secure, reliable, scalable, and cost-effective connectivity between district campuses, non-instructional facilities (NIFs), and network hubs. The proposed solution(s) must support current operational needs while allowing for future growth in bandwidth, resiliency, and network capacity over the contract term and available renewal periods.

### 2. Background and Intent

The district currently relies on a wide area network to provide connectivity among campuses, administrative facilities, instructional support locations, network operations resources, data center services, cloud resources, and Internet access. The district intends to evaluate available WAN service options to determine the turnkey solution that best meets its near-term and long-term needs, including lit fiber or dark fiber solutions proposed by qualified vendors.

The district does not intend to limit responses to a single architecture or technology. Respondents may propose traditional hub-and-spoke designs, ring designs, direct connections, provider-based transport designs, or other architectures that satisfy the technical requirements of this scope. The district will evaluate all responsive proposals that meet the stated requirements and provide the best overall value.

The district's current WAN environment utilizes a point-to-point architecture with 10 Gbps connectivity and LC-to-LC handoffs at service demarcation points. Respondents shall consider the current environment for planning purposes only and may propose alternative architectures that provide equal or greater scalability, resiliency, performance, and long-term value to the district.

### 3. Services Requested

Respondents shall submit proposals for Leased Lit Fiber or Leased Dark Fiber solutions. The district will evaluate lit fiber or dark fiber turnkey solutions independently and compare lifecycle costs, technical capability, scalability, resiliency, and E-Rate eligibility.

Each proposal must clearly identify which service option is being proposed and must include all required costs, assumptions, dependencies, technical specifications, and service commitments necessary to deliver a complete end-to-end turnkey solution.

## 4. General Technical Requirements

All proposed turnkey solutions must provide secure, reliable, high-capacity connectivity between designated district sites and service locations. The solution must be designed to support instructional, administrative, security, voice, video, cloud, data center, and Internet-bound traffic with appropriate performance, availability, and resiliency.

- Minimum service capacity must be 10 Gbps per site unless otherwise specified by the district.
- The district's current WAN environment utilizes 10 Gbps connectivity with LC-to-LC handoffs.
- All proposed turnkey solutions shall provide connectivity to both network hubs.
- The proposed turnkey solution must be scalable to higher bandwidth tiers, including 20, 40, 100 Gbps.
- The proposed turnkey solution must support symmetrical bandwidth traffic.
- The proposed turnkey solution must support low-latency, jitter-sensitive applications, including voice, video, public safety, instructional systems, cloud applications, and data center services.
- The service must terminate at the district-designated demarcation point, which shall be the MDF/Technology room at each campus or facility unless otherwise specified by Socorro ISD.
- All equipment, cabling, optics, handoffs, cross-connects, configuration, testing, and related services required to deliver a complete working turnkey solution must be included in the proposal.
- The provider must clearly identify any required district-provided space, power, rack units, environmental conditions, conduit pathways, or other site dependencies.
- The proposed contract shall include an initial five-year term with the option to extend with four additional (5) five-year terms.
- Traffic must be allowed to pass freely without any restrictions or traffic management policies.
- The proposed turnkey solution shall provide dual, physically diverse entry paths at each site, utilizing separate building entry points and outside routes to minimize the risk of a single point of failure. Where physical diversity is unavailable, vendors shall identify those locations and propose the closest practical alternative.

## 5. District Service Locations

The following district locations shall be included as main WAN service locations. All campuses and district facilities shall be proposed with a default minimum bandwidth of 10 Gbps and shall terminate at the MDF/Technology room unless otherwise specified by Socorro ISD.

| E-Rate Entity # | Site / Building | Service Connection Address | Type | Shared Connection Notes | WAN Role | Minimum Bandwidth | Demarcation |
|---|---|---|---|---|---|---|---|
| 16032752 | SISD Support Services Complex | 201 Tanton Road, El Paso, Texas 79927 | NIF | | District Support Facility | 10 Gbps minimum | MDF/Technology Room |
| 17030471 / 16038333 / 17009059 | SISD Technology Service Center / District Service Center / SISD Transportation | 12440B Rojas Dr., El Paso, Texas 79928 | NIF | Host / Shared Facility | WAN Site / Network Hub | 10 Gbps minimum | MDF/Technology Room |
| 16032749 | SISD Education Center | 12100 Eastlake Dr., El Paso, Texas 79928 | NIF | | District Administrative Facility | 10 Gbps minimum | MDF/Technology Room |
| 17009061 / 17036584 / 17052762 | SISD Student Activities Complex / SISD Student Activities Complex II / SISD Aquatics Center | 1300 Joe Battle, El Paso, Texas 79928 | NIF | Shared facility | District Activities Facility | 10 Gbps minimum | MDF/Technology Room |
| 17009060 | SISD Police Services | 1180 Joe Battle, El Paso, Texas 79928 | NIF | | District Police Services Facility | 10 Gbps minimum | MDF/Technology Room |
| 93161 | Americas High School | 12101 Pellicano Dr., El Paso, Texas 79936 | HS-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 230238 | El Dorado High School | 12401 Edgemere Blvd., El Paso, Texas 79938 | HS-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 16042515 | Eastlake High School | 13000 Emerald Pass Ave., El Paso, Texas 79928 | HS-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 16042805 / 93115 | Options High School / KEYS Academy | 12380 Pine Springs Dr., El Paso, Texas 79928 | HS-Campus / ALT Middle-High School | Shared connection | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 16036044 | Mission Early College High School | 10700 Gateway East Blvd., El Paso, Texas 79927 | HS-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |

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| 93156 | Montwood High School | 12000 Montwood Dr., El Paso, Texas 79936 | HS-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 16049146 | Pebble Hills High School | 14400 Pebble Hills Blvd., El Paso, Texas 79938 | HS-Campus | Host | WAN Site/Network Hub | 10 Gbps minimum | MDF/Technology Room |
| 93112 | Socorro High School | 10150 Alameda Ave., El Paso, Texas 79927 | HS-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 16032747 | Bill Sybert School | 11530 Edgemere Blvd., El Paso, Texas 79936 | K8-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 230241 | Desert Wind School | 1100 Colina De Paz Dr., El Paso, Texas 79928 | K8-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 222373 | Ernesto Serna Fine Arts Academy | 11471 Alameda Ave., El Paso, Texas 79927 | K8-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 211888 | Jane A. Hambric School | 3535 Nolan Richardson Dr., El Paso, Texas 79936 | K8-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 16032756 | John Drugan School | 12451 Pellicano Dr., El Paso, Texas 79928 | K8-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 230240 | Paso Del Norte Fine Arts Academy | 12300 Tierra Este Rd., El Paso, Texas 79938 | K8-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 93144 / 93145 | Capt. Walter E. Clarke Middle School / Sierra Vista STEAM Academy | 1515 Bob Hope Dr., El Paso, Texas 79936 | MS-Campus / ES-Campus | Shared connection | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 211891 | Col. John O. Ensor Middle School | 13600 Ryderwood Ave., El Paso, Texas 79928 | MS-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 189743 / 222372 | Montwood Middle School / Elfida P. Chavez Elementary School | 11710 Pebble Hills Blvd., El Paso, Texas 79936 | MS-Campus / ES-Campus | Shared connection | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 93118 | Salvador H. Sanchez Middle School | 321 N. Rio Vista Rd., El Paso, Texas 79927 | MS-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 93111 | Socorro Middle School | 321 Bovee Rd., El Paso, Texas 79927 | MS-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |

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| 16036087 / 16036086 | Spc. Rafael Hernando III Middle School / Sgt. Roberto Ituarte Elementary School | 3451 Rich Beem Blvd., El Paso, Texas 79938 | MS-Campus / ES-Campus | Shared connection | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 16068362 / 16068363 | Ssg. Manuel R. Puentes Middle School / James P. Butler Elementary School | 14251 Ralph Seitsinger Dr., El Paso, Texas 79938 | MS-Campus / ES-Campus | Shared connection | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 230165 / 230166 | Sun Ridge Middle School / Lujan Chavez Elementary School | 2210 Sun Country Dr., El Paso, Texas 79938 | MS-Campus / ES-Campus | Shared connection | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 93157 | William D. Slider Middle School | 11700 School Ln., El Paso, Texas 79936 | MS-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 93149 | Benito Martinez Elementary School | 2640 Robert Wynn St., El Paso, Texas 79936 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 93116 | Campestre Elementary School | 11399 Socorro Rd., El Paso, Texas 79927 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 16042804 | Chester E. Jordan Elementary School | 13995 Jason Crandall Dr., El Paso, Texas 79938 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 16042512 | Dr. Sue A. Shook Elementary School | 13777 Paseo Del Este Blvd., El Paso, Texas 79928 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 93114 | Escontrias STEAM Academy | 205 Buford Rd., El Paso, Texas 79927 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 93120 | H.D. Hilley Elementary School | 693 N. Rio Vista Rd., El Paso, Texas 79927 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 93152 | Helen Ball Elementary School | 1950 Firehouse Dr., El Paso, Texas 79936 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 93123 | Horizon Heights Elementary School | 13601 Ryderwood Ave., El Paso, Texas 79928 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 93119 | Hueco Elementary School | 300 Old Hueco Tanks Rd., El Paso, Texas 79927 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 16036447 | Hurshel Antwine Middle School | 3830 Rich Beem Blvd., El Paso, Texas 79938 | MS-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |

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| 16032748 | Loma Verde Elementary School | 12150 Ted Houghton Dr., El Paso, Texas 79936 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 16072943 | Mission Ridge Elementary School | 150 Nonap Rd., El Paso, Texas 79928 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 93160 | Myrtle Cooper Elementary School | 1515 Rebecca Ann Dr., El Paso, Texas 79936 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 93155 | O'Shea Keleher Whole Child Academy | 1800 Leroy Bonse Dr., El Paso, Texas 79936 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 16072942 | Purple Heart Elementary School | 14400 GR Campuzano Dr., El Paso, Texas 79938 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 93117 | Robert R. Rojas Elementary School | 500 Bauman Rd., El Paso, Texas 79927 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 93159 | Vista Del Sol Environmental Science Academy | 11851 Vista Del Sol Dr., El Paso, Texas 79936 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 17013099 | Sgt. Jose F. Carrasco Elementary School | 14900 Tierra Mirage Dr., El Paso, Texas 79938 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 17019533 | Cactus Trails Elementary School | 14701 Ralph Seitsinger Dr., El Paso, Texas 79938 | ES-Campus | | Campus Site | 10 Gbps minimum | MDF/Technology Room |
| 17029769 / 17029770 | Col. Ben Narbuth Elementary School / Eastlake Middle School | 12901 Bob Hope Dr., El Paso, Texas 79928 | ES-Campus / MS-Campus | Shared connection | Campus Site | 10 Gbps minimum | MDF/Technology Room |

**Site and Connection Summary:** Socorro ISD lists up to 59 sites eligible to receive service, with 48 total WAN connections due to shared connections. Respondents must account for shared connection locations in their technical design and pricing response. Respondents must clearly describe the procedures, timelines, and associated pricing for site additions, site removals, relocations, and other move, add, and change (MAC) requests that may occur during the contract term. Any costs associated with these services shall be identified in the proposal and remain consistent with the pricing structure offered for the initial deployment.

## 6. Leased Lit Fiber Requirements

A Leased Lit Fiber proposal must provide a managed fiber-based WAN transport service between district-designated sites and service locations. The provider must own, operate, manage, monitor, and maintain the lit service and all provider-side infrastructure required to deliver the service.

- Service must provide a minimum of 10 Gbps symmetrical bandwidth per site unless otherwise specified, must be scalable without additional special construction where feasible.
- Respondents shall provide pricing and scalability options supporting 10 Gbps, 20 Gbps, 40 Gbps, and 100 Gbps operations.
- The provider must identify all non-recurring charges, monthly recurring charges, special construction charges, installation charges, activation charges, taxes, fees, and other costs required to deliver the service.
- The provider must describe the underlying fiber route, network design, resiliency, route diversity, and robustness to include the number of network hops, network hubs, and any third-party facilities used to deliver service.
- The provider must identify the handoff type, optical interface type, demarcation location, equipment footprint, power requirements, and any required district-provided resources.
- The provider must include testing documentation demonstrating that each delivered circuit meets the contracted capacity, latency, packet loss, and performance requirements.

## 7. Leased Dark Fiber Requirements

A Leased Dark Fiber proposal must provide dedicated fiber strands between district-designated locations and service points. The proposal must include all fiber infrastructure, extensions, terminations, testing, maintenance, repair, restoration, documentation, and ongoing operational support required to make the dark fiber available for district use.

- Provider must propose a minimum of two strands, or one fiber pair per site.
- Fiber must be suitable for 10 Gbps service and must be scalable without additional special construction where feasible.
- Respondents shall provide pricing and scalability options supporting 10 Gbps, 20 Gbps, 40 Gbps, and 100 Gbps operations.
- Provider must include maintenance and operations for all proposed dark fiber segments for the duration of the contract.
- Provider must disclose existing fiber, newly constructed fiber, special construction requirements, route maps, route mileage, aerial versus underground segments, splice points, handholes, building entrances, campus laterals, and demarcation details.
- Provider shall furnish industry-standard fiber testing documentation, including Optical Time Domain Reflectometer (OTDR) and acceptance testing results.
- Respondents proposing a dark fiber solution shall identify and separately price any E-Rate eligible Category One equipment required to support the proposed solution. Such equipment shall be presented as an optional line item and shall not be included in the base dark fiber pricing.
    - Network equipment should be Cisco Nexus 9300 (or newer) or equivalent and must include all necessary licenses, software, and/or hardware.

- All proposed equipment shall be new and not refurbished.
- Any proposals for equivalent equipment must include an explanation outlining how the proposed equipment offers the same functionality as the example make and model.
- Proposals should also include an explanation of whether the proposed equipment supports higher bandwidths for future scalability and the ease of upgrading (e.g., a new SFP versus a new line card).

## 8. Network Design and Documentation Requirements

Each respondent must provide sufficient design information for the district to evaluate the technical merit, cost effectiveness, resiliency, and long-term sustainability of the proposed turnkey solution(s).

- Network diagram showing each proposed site, network hubs, provider point of presence, and service path.
- Identification of each circuit path, fiber route, lateral, splice point, handoff point, and demarcation location, as applicable.
- Proper labeling of each fiber load at each campus, NIFs, and hubs.
- Explanation of route diversity, resiliency, robustness, and identification of known single points of failure.
- Description of the proposed architecture, including hub-and-spoke, ring, direct connection, provider network, or alternative design.
- Implementation timeline showing milestones, critical path dependencies, permitting, construction, testing, cutover, and final acceptance.
- Description of any district responsibilities, including site access, power, rack space, conduit access, maintenance windows, and approval processes.
- Respondents shall identify any assumptions regarding conduit availability, rights-of-way, easements, building entrances, pathway access, or construction requirements.
- Although the district may have conduit infrastructure at certain locations, respondents should assume responsibility for providing any conduit necessary to support their proposed solution. Facility aerial fiber installs will not be accepted.

## 9. Service Level Agreement Requirements

All proposals must include a Service Level Agreement that defines service availability, support procedures, escalation paths, response times, restoration objectives, maintenance windows, reporting, and service credits. The SLA must apply to all leased lit fiber and leased dark fiber services included in the proposal.

Provider must maintain 24x7x365 network operations or support function for trouble reporting, escalation, and resolution.

- Provider must include multi-tier escalation contact information.
- Provider must respond to reported outages or service-affecting issues within two hours of district notification.
- Provider must make commercially reasonable efforts to restore service within four hours for major service-affecting outages.
- Provider must provide incident reports within five business days of request following resolution of a major outage.

- Provider shall provide the district with a minimum of forty-eight (48) hours' advance written notice of all scheduled maintenance activities that may affect service availability or performance. Provider shall also communicate the anticipated scope, duration, and potential service impact of all scheduled maintenance activities.
- Provider shall coordinate all maintenance windows with the district and perform such work during district-approved maintenance periods to minimize disruption to instructional, administrative, and operational activities. Except in the event of an emergency or service-affecting outage requiring immediate action, no scheduled maintenance shall be performed without prior district notification and approval.
- Provider must describe available service credits, outage measurement methods, exclusions, escalation procedures, and chronic outage remedies.

## 10. Maintenance and Operations Requirements

For all services, the provider must describe its ongoing maintenance and operations practices. For dark fiber solutions, maintenance must be included as part of the proposal even if the work is performed by a subcontractor. The prime respondent remains responsible for performance, restoration, communication, and SLA compliance.

- Routine maintenance and inspection procedures.
- Scheduled maintenance windows and customer notification practices.
- Unscheduled outage handling and trouble escalation.
- Emergency restoration procedures and agreements with utilities, contractors, or third parties.
- Repair of fiber cuts, replacement of damaged fiber, and replacement of fiber that no longer meets specifications.
- Post-repair testing and documentation.
- Locate request process, 811 registration or equivalent locate services, marker inspection, handhole inspection and security, and repair practices.
- Process for moves, adds, changes, site relocations, and service upgrades.
- Process for end-of-life equipment service and hardware replacements.

## 11. E-Rate and Funding Requirements

The district anticipates seeking E-Rate discounts for eligible services and related costs under applicable Category One rules. Respondents must comply with all applicable FCC and USAC requirements, including requirements related to cost allocation, eligible and ineligible services, lowest corresponding price, Form 470 bidding, invoicing, documentation, and Program Integrity Assurance review.

- Respondent must provide a valid Service Provider Identification Number.
- Respondent must separately identify eligible and ineligible costs.
- Respondent must separately identify monthly recurring charges (MRC), non-recurring charges (NRC), installation charges, special construction charges, maintenance charges, taxes, fees, and any other charges.

- If special construction is proposed, respondent must provide sufficient supporting detail for review, including route information and cost, cost components, labor, materials, design, engineering, project management, bill of materials, and any required cost allocation. The district reserves the right to request additional details.
- Implementation of any resulting agreement is contingent upon district approval, funding availability, issuance of a written Notice to Proceed, E-Rate funding approval, and compliance with applicable procurement and E-Rate requirements. E-Rate funding approval alone shall not constitute a Notice to Proceed. The district reserves the right to delay, modify, or terminate any resulting project if E-Rate funding, Texas State Matching Funds, Board approval, or budgeted funding is unavailable.
- Pricing shall be submitted on a per-site basis and separately identify monthly recurring charges, non-recurring charges, special construction costs, maintenance costs, taxes, fees, and ineligible costs. A district pricing worksheet will be provided for special construction and network hubs hardware.
- For evaluation purposes, pricing may be evaluated across the full potential lifecycle of the agreement, including the initial term and all available renewal options.
- Special Construction Non-Discount Payment Option
  - In the event that the district does not receive Texas State Matching Funds or the district does not have the ten percent payment upfront, please provide special construction pricing options proposed as part of any leased lit fiber or leased dark fiber WAN solution, respondents shall indicate whether they are willing to allow the district's non-discount share of eligible special construction costs to be paid in equal installments over a mutually agreed period following service implementation. An attachment will be required providing additional details.
  - Special Construction Cost Components

    For E-Rate purposes, special construction charges shall be separately identified and itemized. Special construction costs may include but not limited to:
    - Network facility construction
    - Design and engineering
    - Project management
- E-Rate Program Integrity Assurance (PIA) Review
    - For the chosen solution, respondents are required to promptly provide applicant with any information being requested as part of PIA review.
    - Vendors may assist applicant with responding to PIA questions and may speak directly with PIA reviewers.
    - For all responses that include special construction, the respondent agrees to, by submitting its bid, produce all construction labor, construction materials and other cost information requested during PIA review.

## 12. Proposal Response Requirements for Technical Evaluation

Each technical proposal must include enough detail for the district to determine whether the proposed solution satisfies the requirements of this scope and represents the best long-term value.

- Executive overview of the proposed solution.
- Identification of the service option proposed: Leased Lit Fiber, Leased Dark Fiber
- Detailed network architecture and design narrative.
- Network diagrams, route maps, bandwidth tables, and demarcation details.
- Implementation plan, schedule, milestones, risks, and assumptions.
- Service Level Agreement and support model.
- Maintenance and operations plan.
- Testing and acceptance plan.
- Disclosure of subcontractors, third-party providers, shared facilities, or dependencies.
- Exceptions, deviations, or assumptions related to any requirement in this scope.

## 13. Timeline

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| Legal Advertisement for RFP | November 10, 2026 |
| Posting of 470 Application | November 10, 2026 |
| Pre-Bid Conference Meeting/Site Visit | TBD |
| Vendor Question Deadline | November 30, 2026 |
| Bid Opening Date | December 10, 2026 |
| Board Approval | February 16, 2027 |