GISD

GARLAND INDEPENDENT SCHOOL DISTRICT

PURCHASING DEPARTMENT

501 S. Jupiter Garland, Texas 75042

June 18, 2024

ADDENDUM 3, RFP #196-25 (131575)

Structured Cabling Services

This addendum modifies the original document as listed below and is hereby incorporated to the contract documents. Acknowledge receipt of this addendum by returning the completed and signed form with the solicitation response. Failure to submit the addendum may be used as an evaluated factor.

Changes and Extension of Due Date

1. In Specification Number 1 Introduction

From:

1. Introduction

Garland Independent School District (GISD) is seeking qualified inside and outside plant wiring vendors to provide voice and data cabling distribution systems support for service work related to moves, adds, and changes. The service provider(s) must be a current Systimax Business Partner and provide Systimax-certified structured cabling Installation. The area covers Garland, Rowlett, and Sachse. Qualified vendors shall have demonstrated the ability to service and maintain an account the size of Garland ISD. The service provider must provide quality control in Moves, Adds, and Changes (MACs) with quarterly GISD structured cabling system inspections.

<u>To:</u>

1. Introduction

Garland Independent School District (GISD) is seeking qualified inside and outside plant wiring vendors to provide voice and data cabling distribution systems support for service work related to moves, adds, and changes. The service provider(s) must provide Systimax-certified (or equivalent) structured cabling Installation. The area covers Garland, Rowlett, and Sachse. Qualified vendors shall have demonstrated the ability to service and maintain an account the size of Garland ISD. The service provider must provide quality control in Moves, Adds, and Changes (MACs) with quarterly GISD structured cabling system inspections.

2. In Section 3.3 Project Management Section 3.3.4 (fourth bullet)

From:

- **3.3.4.** Vendor is expected to provide project management that oversees the scheduling of cabling installs, meeting deadlines, working with other district vendors, and maintaining efficiency. Project management shall include (but not be limited to) the following:
 - Project management.
 - Scheduling work and managing service tickets using GISD's internal systems.
 - Accountability for the quality and performance of field installations.
 - · Ensure Systimax certification on all work performed.
 - Site Surveys/needs analysis.
 - Inventory management and staging.
 - Submission of cost proposals and reports in a professional and timely manner.
 - · Constantly review job reports to track labor, material, cable test results, and overall

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3.3.4. Vendor is expected to provide project management that oversees the scheduling of cabling installs, meeting deadlines, working with other district vendors, and maintaining efficiency. Project management shall include (but not be limited to) the following:

- Project management.
- Scheduling work and managing service tickets using GISD's internal systems.
- · Accountability for the quality and performance of field installations.
- Ensure Systimax (or equivalent) certification on all work performed.
- Site Surveys/needs analysis.
- Inventory management and staging.
- Submission of cost proposals and reports in a professional and timely manner.
- · Constantly review job reports to track labor, material, cable test results, and overall

3. In Section 3.12 Cabling Methods Section 3.12.1

<u>From</u>

3.12 Cabling Methods.

3.12.1 There shall be no splicing of horizontal communications cables. The successful bidder shall be thoroughly familiar with the cabling methods outlined in the latest release of the BICSI TDMM's (Building Industry Consulting Services International Telecommunications Distribution Methods Manuals) and Systimax Installation Guidelines or, unless otherwise specified, shall supervise the Installation in accordance with the recommendations and best practices outlined in the latest release of the BICSI Telecommunications Cabling Installation Manual.

<u>To:</u>

3.12.1 There shall be no splicing of horizontal communications cables. The successful bidder shall be thoroughly familiar with the cabling methods outlined in the latest release of the BICSI TDMM's (Building Industry Consulting Services International Telecommunications Distribution Methods Manuals) and Systimax Installation Guidelines (or equivalent) or, unless otherwise specified, shall supervise the Installation in accordance with the recommendations and best practices outlined in the latest release of the BICSI Telecommunications Cabling Installation Manual.

4. In Section 3.13 Reference Documents 3.13.1.39, 3.13.1.40, 3.13.1.41, 3.13.1.42

From:

3.13.1.38	(ANSI) X3T9.5	Requirements	for	UTP	at 100	Mbps
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- 3.13.1.39 SYSTIMAX Solutions SYSTIMAX[®] Structured Connectivity Solutions, Performance Specifications, (and Addendum) Latest Issue
- 3.13.1.40 SYSTIMAX Solutions, Components Guide, Latest Issue
- 3.13.1.41 SYSTIMAX Solutions Generic Specifications: Fiber Optic Outside Plant Cable, Latest Issue
- 3.13.1.42 SYSTIMAX Solutions Design & Installation Guidelines, Latest Issue

<u>To:</u>

- 3.13.1.38 (ANSI) X3T9.5 Requirements for UTP at 100 Mbps
- **3.13.1.39** SYSTIMAX Solutions SYSTIMAX[®] Structured Connectivity Solutions, Performance Specifications, (and Addendum) Latest Issue (or equivalent)
- 3.13.1.40 SYSTIMAX Solutions, Components Guide, Latest Issue (or equivalent)
- 3.13.1.41 SYSTIMAX Solutions Generic Specifications: Fiber Optic Outside Plant Cable, Latest Issue (or equivalent)
- 3.13.1.42 SYSTIMAX Solutions Design & Installation Guidelines, Latest Issue (or equivalent)

5. In Section 3.14 Testing and Expectations Section 3.14.1

From:

3.14 Test and Expectations.

3.14.1 All testing must comply with <u>SYSTIMAX warranty specifications</u>.

<u>To:</u>

3.14 Test and Expectations.

3.14.1 All testing must comply with SYSTIMAX warranty specifications (or equivalent)

6. <u>In Section 3.16 Quality Assurance Section 3.16.1</u> <u>From:</u>

3.16 Quality Assurance

3.16.1 The Vendor must provide a SYSTIMAX-certified warranty for all work completed. Systimax Quality Assurance Reports will be requested monthly or quarterly.

<u>To:</u>

3.16 Quality Assurance

3.16.1 The Vendor must provide a SYSTIMAX-certified (or equivalent) warranty for all work completed. Systimax Quality Assurance Reports (or equivalent) will be requested monthly or quarterly.

7. 3.27 Proposal Evaluation Criteria Section 3 and 4

<u>From</u>

	Parameters	Max Points		
1	The purchase price	45		
	3.31.10 Pricing			
2	The reputation of the vendor and the vendor's goods or services	15		
	3.28.1 Executive Summary (Tab 1)			
	3.30.13 Company Profile and Qualifications (Tab 3)			
	3.30.4 References			
3	The quality of the vendor's goods or services	18		
	3.31.7 Manufacturer Warranty Process (Tab 5)			
	3.31.8 Systimax Certifications			
4	The extent to which the goods or services meet the District's needs	19		
	3.31 Overview and Approach to Implementation			
	3.31.6.1 Authorized Systimax Installer Letter			
	3.31.9 Value Added Products/Services			
	3.31.11 Catalog Price Discounts			
	3.32 Exceptions to RFP and Conflicts of Interest			
5	The vendor's past relationship with the District	3		
6	The impact on the ability of the District to comply with the laws and	0		
	rules relating to historically under-utilized businesses (HUB)			
7	The total long-term cost to the District to acquire the vendor's goods	0		
	and services.			
8	For a contract for goods and services, other than goods and services	0		
	related to telecommunications and information services, building			
	construction and maintenance, or instructional materials, whether			
	the vendor or the vendor's ultimate parent company or majority			
	owner: A. has its principal place of business in this state B. employs			
	at least 500 persons in this state			
9	VPAT (Refer to 3.26. UNIFORM INFORMATION AND	0		
	COMMUNICATION TECHNOLOGIES ACCESSIBILITY)			
	Total Points	100		

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1	The purchase price	45
	3.31.10 Pricing	
2	The reputation of the vendor and the vendor's goods or services	15
	3.28.1 Executive Summary (Tab 1)	
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	3.31 Overview and Approach to Implementation	
	3.31.6.1 Authorized Systimax (or equivalent) Installer Letter	
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	and services.	
8	For a contract for goods and services, other than goods and services	0
	related to telecommunications and information services, building	
	construction and maintenance, or instructional materials, whether	
	the vendor or the vendor's ultimate parent company or majority	
	owner: A. has its principal place of business in this state B. employs	
	at least 500 persons in this state	
9	VPAT (Refer to 3.26. UNIFORM INFORMATION AND	0
	COMMUNICATION TECHNOLOGIES ACCESSIBILITY)	
	Total Points	100

8. In Section 3.31.6 Structured Cabling Proposal (Tab5) Section 3.31.6.1

From:

3.31.6 Structured Cabling Proposal (Tab 5)

3.31.6.1 Authorized Systimax Installer Letter

Proposing vendors shall be a current authorized Systimax installer of (all) proposed products, authorized to process returns and warranty claims, and specifically authorized and able to identify order tracking with available online related services. Vendor must be an authorized installer and provide evidence thereof, with a valid authorized installer letter from the manufacturer.

To:

3.31.6 Structured Cabling Proposal (Tab 5)

3.31.6.1 Authorized Systimax (or equivalent) Installer Letter

Proposing vendors shall be a current authorized Systimax (or equivalent) installer of (all) proposed products, authorized to process returns and warranty claims, and specifically authorized and able to identify order tracking with available online related services. Vendor must be an authorized installer and provide evidence thereof, with a valid authorized installer letter from the manufacturer.

9. In Section 3.31.6 Structured Cabling Proposal (Tab5) Section 3.31.7

From:

3.31.7 Manufacturer Warranty and Support Process

Vendor should outline Systimax's and other manufacturer's warranty processes.

<u>To:</u>

3.31.7 Manufacturer Warranty and Support Process

Vendor should outline Systimax's (or equivalent's) and other manufacturer's warranty processes.

10. In Section 3.31.6 Structured Cabling Proposal (Tab5) Section 3.31.8

<u>From</u>

3.31.8 Systimax Certification

Vendors considered for award of this contract shall provide current Systimax badges/certificates for one of the following certifications:

- SYSTIMAX Cabling Installer
 - SYSTIMAX Installation and Maintenance Only ND3361 or FC3361 or SP3361, OR
- SYSTIMAX Cabling Designer and SYSTIMAX Cabling Installer
 - SYSTIMAX Design and Engineering SP3321 and SYSTIMAX Installation and Maintenance – ND/FC/SP3361

To

3.31.8 Systimax (or equivalent) Certification

Vendors considered for award of this contract shall provide current Systimax badges/certificates for one of the following certifications:

- SYSTIMAX Cabling Installer (or equivalent)
 - SYSTIMAX Installation and Maintenance Only ND3361 or FC3361 or SP3361 (or equivalent), OR
- SYSTIMAX Cabling Designer and SYSTIMAX Cabling Installer (or equivalent)
 - SYSTIMAX Design and Engineering SP3321 and SYSTIMAX Installation and Maintenance – ND/FC/SP3361 (or equivalent)

*Updated Specifications attached "Revised Specifications"

11. Pricing Spreadsheet has been updated as attached "Revised Pricing Spreadsheet"

12. Change in due date as follows:

Mayte R Martinez

Assistant Director of Purchasing

From: June 20, 2024, 10:30 a.m. CST **To:** July 18, 2024, 10:30 a.m. CST

Company Nar	ne	
Address		
City	State	Zip
Signature		
Title		

7

REVISED SPECIFICATIONS PROPOSAL # 196-25 STRUCTURED CABLING AND SERVICES

1. Introduction

Garland Independent School District (GISD) is seeking qualified inside and outside plant wiring vendors to provide voice and data cabling distribution systems support for service work related to moves, adds, and changes. The service provider(s) must provide Systimax-certified (or equivalent) structured cabling Installation. The area covers Garland, Rowlett, and Sachse. Qualified vendors shall have demonstrated the ability to service and maintain an account the size of Garland ISD. The service provider must provide quality control in Moves, Adds, and Changes (MACs) with quarterly GISD structured cabling system inspections.

To meet the needs of the GISD, the District reserves the right to award in the following manner:

• A single or multiple vendors

2. Background

Garland Independent School District is the 15th largest school district in Texas. There are approximately 50,000 students in the District consisting of 47 Elementary Schools, 14 Middle Schools, 8 High Schools, 2 additional educational facilities, and 14 administrative facilities. The District encompasses an area of approximately 94 square miles. Garland Independent School District employs more than 7,500 employees.

2.1. GISD network characteristics:

- Hub site to Hub site connected by 100 Gigabit single mode
- Campus to Hub site connected by single mode
- MDF to IDF connected by 10 gigabit (within buildings)
- Classroom connectivity 1000 Mbps
- Average of three (3) wall plates per room and one (1) wireless access point
- Average square footage of Elementary schools = 64,250
- Average square footage of Middle schools = 106,256
- Average square footage of High schools = 318,531
- Approximate number of buildings = 88
- Approximate miles of fiber = 120
- Wireless connection through multi-gig connectivity switch.

3. Vendor Resposibilities

3.1. Demonstration.

3.1.1. At the option of the District, the Proposer may be required to demonstrate the proposed product or service from the initiation of a Move, Add, or Change (MAC) or Project to completion.

3.2. Engineering Support

3.2.1. Vendor must have on staff a Registered Communications Distribution Designer (RCDD) which has been certified through the Building Industry Consulting Services International (BICSI). This RCDD must verify that all proposed and completed installations meet industry standards.

3.3. Project Management

- 3.3.1. The Vendor shall provide a Structured Cabling Project Manager to be located at the GISD Technology building a minimum of two (2) days per week during the contract term.
- 3.3.2. Vendor Project Manager Responsibilities
 - A shared network drive or equivalent electronic storage to save all test results, cost proposals, and workable documents
 - GISD badges and access cards
- **3.3.3.** For major projects or work of significant consideration, the Vendor may be required to provide an onsite project manager to participate in planning meetings, monitor ongoing projects, and provide timely status updates. The cost for providing onsite project management services will be provided as a separate labor cost in daily units. (See pricing spreadsheet.) The cost shall be all-inclusive of any travel and related expenses.
- **3.3.4.** Vendor is expected to provide project management that oversees the scheduling of cabling installs, meeting deadlines, working with other district vendors, and maintaining efficiency. Project management shall include (but not be limited to) the following:
 - Project management.
 - Scheduling work and managing service tickets using GISD's internal systems.
 - Accountability for the quality and performance of field installations.
 - Ensure Systimax (or equivalent) certification on all work performed.
 - Site Surveys/needs analysis.
 - Inventory management and staging.
 - Submission of cost proposals and reports in a professional and timely manner.
 - Constantly review job reports to track labor, material, cable test results, and overall job progress and status.
 - Providing copper cat5e/6/6A test results in both hard copy and soft copy in an organized manner.
 - Providing fiber test results of OTDR and Power Meter in hard copy and soft copy in an organized manner.
 - Organization of information for trend analysis.
 - Development and maintenance of electronic drawings of MDF and IDF closets, including rack elevations.
 - Notification of changes in project scope or timeline.

3.4. Provision.

3.4.1. The Vendor must provide all supervision, labor, tools, equipment, hardware, wiring materials as specified, transportation, unloading, inspection, inventory processes, and return of spare or unused material. Whenever in this RFP the terms "provide," "furnish," "supply," or "install," etc., can be interpreted as requiring the Vendor to both furnish and/or install materials, the Vendor shall take responsibility for both unless specific provisioning/Installation of the materials by the school district is denoted.

3.5. Identification.

3.5.1. The Vendor will identify to the District any work necessitating cutting into or through any part of the building structure, such as girders, beams, concrete, tile floors, or partition ceilings.

3.6. Permits.

3.6.1. The Vendor shall obtain all necessary county, municipal or state work/building permits. The Vendor shall obtain and pay for all permits required and give all legal notices and pay fees required for the work.

3.7. Damage.

3.7.1. The Vendor will be responsible for repairing all damage to the building due to the negligence of its workers and will report to the school district any such damage to the building that may exist or may occur during the occupancy of the quarters.

3.8. Installation.

3.8.1. The Vendor shall install the wire, cable, and associated hardware in accordance with the manufacturer's specifications. The T568B configuration is required. Entire wiring systems should use only one standard communications outlet configuration of TIA-568, T568B.

3.9. Work Hours.

- **3.9.1.** Normal work hours for technicians should be assumed to start after school hours (see table below) to avoid disruption of instructional activities, and pricing should be provided accordingly. If work must be performed during the workday, pre-approval required by GISD Technology.
- **3.9.2.** Vendor shall install respective wiring at the designated facility outside of instructional hours (for campuses) and business hours (for administrative buildings) and work with designated GISD personnel to avoid after-hour events at locations as much as possible:

Facility	Instructional/Business Hours
Pre-Kindergarten	8:10 am – 3:30 pm
Schools	
Elementary Schools	8:10 am – 3:30 pm
	8:50 am – 4 pm for Classical Center at
	Vial
Middle Schools	8:50 am – 4:10 pm
High Schools	7:30 am – 2:50 pm
	7:15 am – 2:40 pm for Gilbreath-Reed
	CTC
Administrative	8:00 am – 4:30 pm

3.11 Storage.

3.11.1 The Vendor shall be responsible for any storage needs.

3.12 Cabling Methods.

3.12.1 There shall be no splicing of horizontal communications cables. The successful bidder shall be thoroughly familiar with the cabling methods outlined in the latest release of the BICSI TDMM's (Building Industry Consulting Services International Telecommunications Distribution Methods Manuals) and Systimax Installation Guidelines (or equivalent) or, unless otherwise specified, shall supervise the Installation in accordance with the recommendations and best practices outlined in the latest release of the BICSI Telecommunications Cabling Installation Manual.

3.13 Reference Documents / Standards / Organizations / Regulations and Codes.

- **3.13.1** All installations must comply with the industry standards listed below. Materials and equipment shall be manufactured, installed, and tested as specified in the **latest editions** of applicable publications, standards, rulings, and determinations. ANSI American National Standards Institute, TIA Telecommunication Industry Association, EIA Electronic Industry Alliance.
 - 3.13.1.1 ANSI/TIA/EIA-568 Commercial Building Telecommunications Cabling Standard
 - **3.13.1.2** TIA/EIA568-B.1 Commercial Building Telecommunications Cabling Standard Part 1: General requirements
 - **3.13.1.3** TIA/EIA568-B.1-1 Commercial Building Telecommunications Cabling Standard - Part 1: General Requirements - Addendum 1 - Minimum 4-Pair UTP and 4-Pair ScTP Patch Cable Bend Radius
 - **3.13.1.4** TIA/EIA568-B.1-2 Commercial Building Telecommunications Cabling Standard - Part 1: General Requirements - Addendum 2 – Grounding and Bonding Specifications for Screened Balanced Twisted Pair Horizontal Cabling
 - **3.13.1.5** TIA/EIA568-B.1-3 Commercial Building Telecommunications Cabling Standard - Part 1: General Requirements - Addendum 3 – Supportable Distances and Channel Attenuation for Optical Fiber Applications by Fiber Type
 - 3.13.1.6 TIA/EIA568-B.1-4 Commercial Building Telecommunications Cabling Standard - Part 1: General Requirements - Addendum 4 - Recognition of Category 6 and 850 nm Laser-Optimized 50/125 μm Multimode Optical Fiber Cabling
 - **3.13.1.7** TIA/EIA568-B.1-5 Commercial Building Telecommunications Cabling Standard - Part 1: General Requirements - Addendum 5 – Telecommunications Cabling for Telecommunications Enclosures
 - **3.13.1.8** TIA/EIA568-B.2 Commercial Building Telecommunications Cabling Standard -Part 2: Balanced Twisted Pair Cabling Components
 - **3.13.1.9** TIA/EIA568-B.2-1 Commercial Building Telecommunications Cabling Standard - Part 2: Balanced Twisted Pair Components - Addendum 1 -Transmission Performance Specifications for 4-Pair 100 Ohm Category 6 Cabling
 - 3.13.1.10 TIA/EIA568-B.2-2 Commercial Building Telecommunications Cabling

Standard - Part 2: Balanced Twisted-Pair Cabling Components - Addendum 2

- **3.13.1.11** TIA/EIA568-B.2-3 Commercial Building Telecommunications Cabling Standard - Part 2: Balanced Twisted-Pair Cabling - Addendum 3 - Additional Considerations for Insertion Loss and Return Loss Pass/Fail Determination
- **3.13.1.12** TIA/EIA568-B.2-5 Commercial Building Telecommunications Cabling Standard - Part 2: Balanced Twisted-Pair Cabling - Addendum 5 – Corrections to TIA-568-B.2
- **3.13.1.13** TIA/EIA568-B.2-3 Commercial Building Telecommunications Cabling Standard - Part 2: Balanced Twisted-Pair Cabling - Addendum 6 – Category 6 related component test procedures
- 3.13.1.14 TIA/EIA568-B.3 Optical Fiber Cabling Components Standard
- 3.13.1.15 TIA/EIA-568-B.3-1 Optical Fiber Cabling Components Standard Addendum 1

 Additional Transmission Performance Specifications for 50/125μm Optical Fiber Cables
- **3.13.1.16** TIA/EIA862 Building Automation Systems Cabling for Commercial Buildings
- **3.13.1.17** TIA/EIA569 Commercial Building Standard for Telecommunications Pathways and Spaces
- **3.13.1.18** ANSI/TIA/EIA-606 The Administration Standards for the Telecommunications Infrastructure of Commercial Building
- **3.13.1.19** ANSI/TIA/EIA-607 Commercial Building Grounding and Bonding Requirements for Telecommunications
- **3.13.1.20** TIA/EIA758-A Customer-owned Outside Plant Telecommunications Infrastructure Standard, May 2005
- 3.13.1.21 ANSI/TIA/EIA-TSB-67 Telecommunications System Bulletin
- **3.13.1.22** TIA/EIA Telecommunications Industry Association/Electronics Industry Alliance
- **3.13.1.23** International Standards Organization/International Electro-technical Commission (ISO/IEC) IS 11801
- **3.13.1.24** FCC Federal Communications Commission
- **3.13.1.25** FCC Part 15 (Radiation Emmissions Limits)
- **3.13.1.26** FCC Part 68 (Connection of Terminal Equipment to the Telephone Network)
- 3.13.1.27 Underwriters Laboratories (UL®) Cable Certification and Follow Up Program
- **3.13.1.28** National Electrical Manufacturers Association (NEMA)
- 3.13.1.29 NEC National Electric Code

- **3.13.1.30** National Electrical Safety Code Handbook (NESC)
- 3.13.1.31 NFPA-70 National Fire Protection Association
- **3.13.1.32** American Society for Testing Materials (ASTM)
- **3.13.1.33** Institute of Electrical and Electronic Engineers (IEEE)
- **3.13.1.34** IEEE Emerald Book: IEEE Recommended Practice for Powering and Grounding Electronic Equipment
- 3.13.1.35 UL Testing Bulletin
- 3.13.1.36 American National Standards Institute
- 3.13.1.37 ANSI/ICEA Insulated Cable Engineers Association
- 3.13.1.38 (ANSI) X3T9.5 Requirements for UTP at 100 Mbps
- **3.13.1.39** SYSTIMAX Solutions SYSTIMAX[®] Structured Connectivity Solutions, Performance Specifications, (and Addendum) Latest Issue (or equivalent)
- **3.13.1.40** SYSTIMAX Solutions, Components Guide, Latest Issue (or equivalent)
- **3.13.1.41** SYSTIMAX Solutions Generic Specifications: Fiber Optic Outside Plant Cable, Latest Issue (or equivalent)
- **3.13.1.42** SYSTIMAX Solutions Design & Installation Guidelines, Latest Issue (or equivalent)
- **3.13.1.43** BICSI-TDMM Manuals-Building Industry Consulting Service International-Telecommunications Distribution Methods Manuals
- **3.13.1.44** BICSI Cabling Installation Manual

3.14 Test and Expectations.

- **3.14.1** All testing must comply with <u>SYSTIMAX warranty specifications</u> (or equivalent)
- **3.14.2** All testing equipment for certification must be provided by the Proposer.
- **3.14.3** All testing equipment must be calibrated on the manufacturer's recommended schedule.
- **3.14.4** All tests must be provided in an organized manner, in electronic form, and, upon request, in hard copy.
- **3.14.5** Copper cable testing:
 - Testing must be conducted using, at the minimum, level 3 test equipment (DSX tester or equivalent).
 - After Installation is complete, a cable test will be performed, and then a NetAlly LINK Runner (or equivalent) must be used to obtain an IP address from the

switch to ensure an active drop.

- **3.14.6** Fiber optic cable testing:
 - Testing must be conducted using an optical time domain reflector (OTDR) and power meter.
 - Conduct tests and inspections after Installation has been completed.

3.15 Labeling and Other Guidelines

- **3.15.1** All labeling must typed utilizing an electronic labeling device such as Brothers, P-Touch, etc.
- **3.15.2** All label schemes, types, and methods must conform to GISD best practices as established below:
 - **3.15.2.1** Labeling
 - **3.15.2.1.1** Coordination with and approval by the Garland ISD Technology Services Department is required on the specific site labeling schema.
 - **3.15.2.1.2** All labels shall be typed (not handwritten)
 - **3.15.2.1.3** Verify room numbers and confirm the final room numbering scheme prior to generating labels.
 - **3.15.2.1.4** Horizontal Cables shall be labeled within 12 inches from the termination point inside the MDF/IDF.
 - **3.15.2.1.5** Horizontal Cables shall be labeled within 6 inches from the termination point at the workstation end.
 - **3.15.2.1.6** Backbone Fiber and Copper Cables shall be labeled within 12 inches of the visible end of the jacket.
 - **3.15.2.1.7** Fiber Innerduct shall be labeled within 12 inches of the point of entry of the fiber optic enclosure.
 - **3.15.2.1.8** Cables shall be labeled identically at both ends.
 - **3.15.2.1.9** MDFs and IDFs Room shall be labeled MDF, IDF01, IDF02, IDF03, etc.
 - **3.15.2.1.10**Equipment cabinets or racks in each MDF or IDF shall be labeled in sequential numeric order. Labels shall be centered on the top front of the equipment rack. The following labeling scheme shall be used:
 - 3.15.2.1.10.1 Label that represents the MDF or IDF Room (MDF, IDF-01, IDF-02, IDF-03, etc.)
 - 3.15.2.1.10.2 Followed by label that represents rack and number (Rack-01, Rack 02, Rack-03, Rack-04, etc)

3.15.2.2 MDF Rack-01

Example

- **3.15.2.2.1** Fiber optic backbone cable labels shall contain the cable origination, cable destination and fiber strand numbers (i.e. MDF-IDF01-001-012).
- **3.15.2.22** Fiber optic couplers panels in fiber enclosures shall be labeled alpha-numeric and indicating the cable origin. A label for each terminated strand shall be

securely placed inside each fiber optic enclosure in the following format: "Strand #s" "Type" To "Closet" "Rm#" (i.e. Strands 1-12 MM To IDF01).

- **3.15.2.2.3** Copper backbone cables labels shall contain the cable origin, cable destination and cable pairs (i.e. MDF-IDF01-001-025).
- **3.15.2.2.4** Horizontal cables shall be labeled identically at each end with Room Designator and port number, with a hyphen separator (i.e. MDF-A-001, MDF-A-002, MDF-A-003, etc.).
- **3.15.2.2.5** Individual patch panels shall be labeled sequentially consistent with the network switch location with a letter and number designating the patch panel in a rack (PP-A1.1, PP-A1.2, PP-A2.1, PP-A2.2, PP-B1.1, PP-B1.2, etc.)
- **3.15.2.2.6** Individual ports on each patch panel shall be labeled sequentially with port number (three digits, ports numbered consecutively across all patch panels) (i.e. 001, 002, 003, etc.)
- **3.15.2.2.7** 110-type blocks shall contain the cable origin, cable destination and pair numbers, under each pair termination (i.e. MDF-IDF01-PR 1-50). 110-type block labels shall be printed on product-specific label strips and placed into label holders.
- **3.15.2.2.8** Workstation Faceplates shall be labeled denoting originating wiring closet (i.e., MDF, IDF-01, IDF-02, etc.) and corresponding patch panel termination location (A1.1-1, A1.2-10, etc.).
 - 3.15.2.2.8.1 Label that represents MDF or IDF Room will be affixed to the top and bottom of the faceplate.
 - 3.15.2.2.8.2 Label that represents patch panel termination will be affixed below each terminated jack.

3.15.2.3 Testing

- **3.15.2.3.1** All test results shall be submitted to the owner along with all other final documentation. Test results shall be submitted in both PDF format and the Native Tester format along with the software needed to read the Native Tester Format.
- **3.15.2.3.2** Terminated fiber optic strands shall be tested bi-directionally end to end be and certifiedin accordance with applicable industry standardsand manufacturer certifications requirements with an OTDR field and Light Meter tester that is within their calibration period.
- **3.15.2.3.3** Terminated backbone coppercable links shall be tested in accordance with applicable industry standards and manufacturer certification requirements for attenuation, continuity, and pin-mapping with approved field tester(s) that are within their calibration period.
- **3.15.2.3.4** Terminated Category 6 and Category 6A UTP cable links shall be tested in accordance with applicable industry standards and manufacturer certification requirements for Category 6 and Category 6A compliance with approved field tester(s) that are within their calibration period.
- 3.15.2.4 As-Built Documentation
 - **3.15.2.4.1** Produce drawings depicting the condition of the Structured Cabling System as

installed produced in AutoCAD 2010 or higher and provided electronically in .DWG and .PDF format. Include the exact dimensions and locations of MDF and IDF layouts, wall elevations, equipment cabinet elevations, cable runways, cable tray, sleeves, backbone and horizontal cable pathways, workstation locations, and numbering and labeling scheme.

- **3.15.2.4.2** A half-size hard copy of the as-built drawings for the applicable region served by the MDF and/or IDFs shall be provided in MDF and each IDF for reference.
- **3.15.2.4.3** Produce cable records for the Structured Cabling System as installed to include a list of all horizontal and backbone cables produced in an Excel format and provided in hardcopy and electronic format indicating cable number, unique cable label, cable type, origin and destination, length, termination method, and pass/fail result.
- **3.15.2.4.4** Produce soft copy of all test results for each cable, including technician's name and datestamp, a list of tested cables, and the individual results for each cable tested. Test results shall be furnished to Garland ISD Technology Services Department in. PDF and native file format at the conclusion of the project.

3.16 Quality Assurance

3.16.1 The Vendor must provide a SYSTIMAX-certified (or equivalent) warranty for all work completed. Systimax Quality Assurance Reports (or equivalent) will be requested monthly or quarterly.

3.17 Purchase Orders, Closeout, Invoice and Payment (Procure to Pay)

- **3.17.1** Installation vendors will be provided a Purchase Order (PO).
- **3.17.2** Installation vendors must adhere to the following closeout procedures for billing and project will be considered complete when the following project deliverables are provided:
 - **3.17.2.1** Electronic document containing location and room details of the completed work.
 - **3.17.2.2** Notification The Contractor shall provide electronic written notification to the Owner when the Contractor is satisfied that the work for a campus has been completed and is ready for inspection.
 - **3.17.2.3** Inspection Within 48 business hours of Contractor notification of completion, GISD MAN/WAN Engineer will inspect the location(s) and report to the Contractor any outstanding issues or work to be completed.
 - **3.17.2.4** Payment Authorization Final payment for a PO will be authorized only after Contractor notification and GISD inspection have been successfully completed and agreed upon by both parties.

3.18 School District Contact

3.18.1 The Vendor must coordinate all work with the GISD MAN/WAN Engineer.

3.19 Clean Up

3.19.1 Upon completion of the work each day, the Vendor must remove all tools, equipment,

rubbish, and debris from the premises and must leave the premises clean and neat.

3.20 Ceiling Tiles

- **3.20.1** The Vendor shall provide for removing and re-installing all ceiling tiles required to install all above-ceiling wire.
 - **3.20.1.1** The Vendor will be responsible for providing (at the Vendor's cost) replacement ceiling tiles damaged during cable installation.
 - **3.20.1.1.1** Photos of ceiling tiles damaged prior to cable installation must provided to GISD before commencement of work. Failure to provide photos will be deemed as Vendor's acceptance of responsibility for replacement of any damaged ceiling tiles.
 - **3.20.1.2** Vendor will provide new (replacement) ceiling tiles of matching size, acoustical rating, color & texture to the surrounding tiles.

3.21 Lift Equipment

- **3.21.1** The Vendor shall be responsible for acquiring lift equipment as required to perform installation, repairs, or other agreed-upon work.
- **3.21.2** Garland ISD bears no liability for accidental damage or injury related to the use of lift equipment.

3.22 Subcontractors

3.22.1 No subcontractors may be utilized unless authorized by GISD.

3.23 Uniforms

3.23.1 Vendor's employees/technicians shall wear company logo shirts with a GISD contractor badge at all times.

3.24 Ordered items

3.24.1 Vendor will keep track of all ordered items, labor hours, and any other relevant project information.

3.25 Proposal Format

3.25.1 The Proposal shall be submitted through iSupplier.

3.25.2 Tab Labels (Sections)

Responses to proposals must be formatted according to the table below. Additionally, all responses to specifications within a tab (section) must adhere to the respective numbering provided. Failure to provide any of the requested information or documents in this solicitation

may result in point deductions.

Tab (Section)	Tab Description	
Tab 1	Executive Summary	
Tab 2	Table of Contents	
Tab 3	Company Profile and Qualifications	
Tab 4	Overview and Approach to Implementation	
Tab 5	Structured Cabling Services Proposal	
Tab 6	Exceptions to RFP and Conflicts of Interest	
Tab 7	Required Forms	

3.26 Timetable

The following timetable is subject to change by GISD. (All listed times are Central Time)

Event	Date and Time
RFP Release Date	5/17/2024
Questions Due to Purchasing Department	5/24/2024 12:00PM
Answers to Questions Posted via	5/29/2024 4:00PM
Addendum	
Proposals Due	6/6/2024 10:30AM
Evaluation of Proposals	6/13/2024 - 6/20/2024
Potential Award (Bond Board Meeting)	8/27/2024
Anticipated Project Start	8/29/2024 (Planning
	Engagement)

3.27 Proposal Evaluation Criteria

An evaluation committee of GISD employees will evaluate proposals. The evaluation team will establish their independent evaluation results of proposals using the following scoring rubric:

	Parameters	Max Points
1	The purchase price	45
	3.31.10 Pricing	
2	The reputation of the vendor and the vendor's goods or services	15
	3.28.1 Executive Summary (Tab 1)	
	3.30.13 Company Profile and Qualifications (Tab 3)	
	3.30.4 References	
3	The quality of the vendor's goods or services	18
	3.31.7 Manufacturer Warranty Process (Tab 5)	
	3.31.8 Systimax (or equivalent) Certifications	
4	The extent to which the goods or services meet the District's needs	19
	3.31 Overview and Approach to Implementation	
	3.31.6.1 Authorized Systimax (or equivalent) Installer Letter	
	3.31.9 Value Added Products/Services	
	3.31.11 Catalog Price Discounts	
	3.32 Exceptions to RFP and Conflicts of Interest	
5	The vendor's past relationship with the District	3

6	The impact on the ability of the District to comply with the laws and rules relating to historically under-utilized businesses (HUB)	0
7	The total long-term cost to the District to acquire the vendor's goods and services.	0
8	For a contract for goods and services, other than goods and services related to telecommunications and information services, building construction and maintenance, or instructional materials, whether the vendor or the vendor's ultimate parent company or majority owner: A. has its principal place of business in this state B. employs at least 500 persons in this state	0
9	VPAT (Refer to 3.26. UNIFORM INFORMATION AND COMMUNICATION TECHNOLOGIES ACCESSIBILITY)	0
	Total Points	100

3.28Structured Cabling Services Proposal

3.28.1 Executive Summary (Tab 1)

- **3.28.1.1** Provide a brief transmittal letter prepared on the Proposer's letterhead and signed by an individual who is authorized to commit the Proposer to the services and requirements in the RFP and proposal. This transmittal letter shall include the following:
- **3.28.1.2** The name, title, address, telephone number, and electronic mail address of the person authorized to bind the Proposer to the contract and who will receive all official notices concerning this RFP.
- **3.28.1.3** The Proposer's understanding of the nature and scope of the services required
- **3.28.1.4** A brief demonstration of the capability to comply with all terms and conditions of this RFP
- **3.28.1.5** A statement of why the firm believes it is best qualified to perform the engagement.
- 3.28.1.6 Acknowledgment of all Addenda to this RFP

3.29Table of Contents (Tab 2)

The Table of Contents and proposal MUST conform to the order and major headings of this RFP.

3.30Company Profile and Qualifications (Tab 3)

3.30.1 Proposer Business Information

- **3.30.1.1** Company name, parent company name.
- **3.30.1.2** Address, city, state, and zip code of business offices.
- **3.30.1.3** Account executive name, title, phone, email, address, city, state, and zip code.
- **3.30.1.4** Primary project contact name, title, phone, email, address, city, state, and zip code.
- **3.30.1.5** Federal Tax ID number.
- **3.30.1.6** Include a copy of Dun & Bradstreet's Comprehensive Report on the company issued within the last 12 months.

3.30.2 Proposer Business Description

3.30.2.1 State the nature and scope of the business, including areas of expertise and

specializations.

- **3.30.2.2** Number of years the firm has been in business.
- **3.30.2.3** State whether the organization pursues national, regional, or local business.
- **3.30.2.4** Number of years the company has been licensed to do business in the State of Texas.
- 3.30.2.5 Number of employees
- **3.30.2.6** Identify any claims during the past five (5) years and provide information on any pending litigation, lawsuits, etc. Failure to provide accurate information may be determined to be a material breach of any future agreement or contract with GISD.

3.30.3 Experience and Other Qualifications

- **3.30.3.1** Describe your firm's experience with structured cabling. Specifically, the firm's previous experience with large-scale structured cabling projects.
- **3.30.3.2** Provide two (2) similar structured cabling projects completed in the past five (5) years.

3.30.4 References

- **3.30.4.1** Submit references (see Appendix B References) for three (3) contracts that are similar in scope; preferably K-12 education, higher education, or other governmental agencies, or related engagements that have been completed within the past five (5) years. References will be verified and scored. Non-Responsive references will not receive points. Provide the following for each reference:
- **3.30.4.2** Client name
- **3.30.4.3** Contract term/period
- **3.30.4.4** Estimated Contract value
- 3.30.4.5 Client Number of employees
- **3.30.4.6** Name, title, phone, and email address of the contact person(s) directly involved and/or most familiar with the project
- **3.30.4.7** A brief description of structured cabling projects, including an overview of the project size and quantity of drops installed.

3.31Overview and Approach to Implementation (Tab 4)

3.31.1 Overview of the Solution

Provide a narrative of your proposed structured cabling solution. Clearly state your understanding of the district's structured cabling needs presented by this RFP.

3.31.2 Examination and Acceptance of Existing Conditions

- **3.31.2.1** Examination The vendor shall examine facilities and RFP documents to the extent necessary to plan for efficient installation strategies prior to the delivery of materials to the site or commencement of work. Failure to make the examination shall not result in any Change Order requests or additional costs. Please acknowledge this requirement.
- **3.31.2.2** Acceptance The commencement of work by the vendor shall indicate acceptance of existing conditions unless a written notice of exceptions has been provided to GISD prior to commencement. Please acknowledge this requirement.

3.31.3 Logistics

- **3.31.3.1** Describe your approach for implementation to ensure work is performed during non-instructional/non-business/non-event hours.
- **3.31.3.2** Describe your approach for resolving non-functioning drops discovered immediately following installation.

3.31.4 Proposed Team

- **3.31.4.1** Describe your approach to staffing for GISD. Provide a description of your manpower/resource availability.
- **3.31.4.2** Identify and describe all required team members, by role. GISD must be provided with an account manager and a Structured Cabling Project Manager. Note: Structured Cabling Project Manager shall be the main point of contact regarding the work for GISD. If the vendor seeks to change the Structured Cabling Project Manager during the course of the project, such a change is subject to prior written approval from the GISD. All onsite contractors are subject to fingerprint and background checks, per Senate Bill 9 requirements, with no exceptions.

Name	Phone	Email	Role
			Account Manager
			Structured Cabling Project Manager
			Team Lead (if applicable)
			Installers

- **3.31.4.3** Provide resumes, qualifications, and/or certifications of the Structured Cabling Project Manager, installation team lead(s) (if applicable) and/or any team members that will have a direct role in the delivery and supervision of this project. Resumes or overviews should demonstrate their experience and capabilities for contributing to a successful implementation.
- **3.31.5 District Closed Dates** The District is closed annually to recognize certain events or seasons. The awarded Proposer shall take the following events into consideration when scheduling work. In general, the following events are observed:

[Length] ~Date/Month	Description
[1 week] ~4 th of July	Summer Break
[1 day] September	Labor Day
[1 week] October	Fall Break
[1 week] November	Thanksgiving Break
[~2 weeks] December / January	Winter Break
[1 day] January	Martin Luther King Jr. Day
[1 week] March	Spring Break
[1 day] May	Memorial Day

The district calendar for the implementation years (2025-2030) has not been finalized.

3.31.6 Structured Cabling Proposal (Tab 5)

3.31.6.1 Authorized Systimax (or equivalent) Installer Letter

Proposing vendors shall be a current authorized Systimax (or equivalent) installer of (all) proposed products, authorized to process returns and warranty claims, and specifically authorized and able to identify order tracking with available online related services. Vendor must be an authorized installer and provide evidence thereof, with a valid authorized installer letter from the manufacturer.

3.31.7 Manufacturer Warranty and Support Process

Vendor should outline Systimax's (or equivalent's) and other manufacturer's warranty processes.

3.31.8 Systimax (or equivalent) Certification

Vendors considered for award of this contract shall provide current Systimax badges/certificates for one of the following certifications:

- SYSTIMAX Cabling Installer (or equivalent)
 - SYSTIMAX Installation and Maintenance Only ND3361 or FC3361 or SP3361 (or equivalent), OR
- SYSTIMAX Cabling Designer and SYSTIMAX Cabling Installer (or equivalent)
 - SYSTIMAX Design and Engineering SP3321 and SYSTIMAX Installation and Maintenance – ND/FC/SP3361 (or equivalent)

3.31.9 Value-Added Products/Services

Vendors are encouraged to propose any value-added products and/or services. For example, the vendor can provide 1 drop for every XX number purchased, vendor can provide technician availability for warranty repairs/replacements, vendor can provide XX hours of industry cabling training.

3.31.10Pricing Response to Structured Cabling Services

Vendors must complete and submit the RFP pricing sheet that is provided electronically. Submission of pricing sheet must be in an approved electronic format. While the pricing sheet contains automated formulas, the vendor must ensure that all calculations accurately reflect their proposed pricing. Any questions or requests for the pricing sheet should be directed to the provided contact in the Purchasing Department. Submission of this section in the response should include the following table to provide the overall price, with the row price completed:

Description	Price
Bid listed solution	\$

3.31.11Catalog Price Discounts

The GISD may require additional supplies/equipment. Please identify the discount offered below for these parts/equipment available through your firm (if awarded). Note: Vendors proposing actual pricing and discounts not available shall propose a 0% discount. A blank space may be considered non-responsive.

Amount	Percent (%) Discount Off List Price
\$0 - \$25,000	
\$25,001 - \$50,000	

\$50,001 - \$100,000	
\$100,001 - \$150,000	
\$150,001 - \$250,000	
\$250,001+	

- **3.31.11.1** Indicate your firm's percent (%) discount off the list price for any/all other products not listed in the equipment specification
- **3.31.11.2** Indicate your tier-based discounts:
- **3.31.11.3** Use this section to indicate/propose any other discount scenarios your firm is offering.
- **3.31.11.4** Use this section to indicate any/all other information and/or fees that may not be addressed in this RFP.

3.32Exceptions to RFP and Conflicts of Interest (Tab 6)

- **3.32.1** Note Exceptions Note any exceptions to the requirements and conditions where applicable. Indicate the specific section in this RFP to which the exception applies. Points will be deducted for exceptions that diminish the District's terms and conditions. If exceptions are NOT noted here, the District assumes that the Vendor's proposal meets stated requirements, and any discovered deviation may result in disqualification of the proposal.
- **3.32.2** Conflict of Interest Address the potential, if any, for conflict of interest. Comply with federal, state, and local laws, statutes, and regulations, particularly those addressing conflict of interest.

3.33Required Forms (Tab 7)

Provide the following required forms, if identified below.

END OF SECTION



ELEMENTARY SCHOOLS

- Abbett Elementary School 1 730 W. Muirfield Road, Garland 75044 (972) 675-3000 C-7 Armstrong Elementary School 2 4750 Ben Davis Road, Sachse 75048 (972) 414-7480 D-6 3 Back Elementary School 7300 Bluebonnet Drive, Rowlett 75089 (972) 475-1884 E-5 4 Beaver Technology Center for Math & Science 3232 March Lane, Garland 75042 (972) 494-8301 B-5 5 Bradfield Elementary School 3817 Bucknell Drive, Garland 75042 (972) 494-8303 A-5 Bullock Elementary School 6 3909 Edgewood Drive, Garland 75042 (972) 494-8308 A-4 7 Caldwell Elementary School 3400 Saturn Road, Garland 75041 (972) 926-2500 C-3 8 **Carver Elementary School** 2200 Wynn Joyce Road, Garland, 75043 (972) 487-4415 D-2 Centerville Elementary School 600 Keen Road, Garland 75041 (972) 926-2510 C-3 10 Classical Center at Vial Elementary School 126 Creekview Drive, Garland 75043 (972) 240-3710 D-1 11 Club Hill Elementary School 1330 Colonel Drive, Garland 75043 (972) 926-2520 D-3 12 Cooper Elementary School 1200 Kingsbridge Drive, Garland 75040 C-5 (972) 675-3010 13 Couch Elementary School 4349 Waterhouse Boulevard, Garland 75043 (972) 240-1801 F-2 14 Daugherty Elementary School 500 W. Miller Road, Garland 75041 (972) 926-2530 C-3 Davis Elementary School 15 1621 McCallum Drive, Garland 75042 (972) 494-8205 B-5 16 Dorsey Elementary School 6200 Dexham Road, Rowlett 75089 (972) 463-5595 E-4 17 Ethridge Elementary School 2301 Sam Houston Drive, Garland 75044 (972) 675-3020 B-5 Freeman Elementary School 18 1220 Walnut Street, Garland 75040 (972) 494-8371 C-419 Golden Meadows Elementary School 1726 Travis Street, Garland 75042 (972) 494-8373 B-5 20 Handley Elementary School 3725 Broadway Boulevard, Garland 75043 (972) 926-2540 D-2 21 Heather Glen Elementary School 5119 Heather Glen Drive, Garland 75043 (972) 270-2881 C-2 22 Herfurth Elementary School 7500 Miller Road, Rowlett 75088 (972) 475-7994 G-3 23 Hickman Elementary School 3114 Pinewood Drive, Garland 75044 (972) 675-3150 B-6 SPECIAL SERVICE FACILITIES 75 Agriculture Training Center 2210 Pleasant Valley Road, Sachse 75048 no phone E-6
- 76 Cisneros Prekindergarten School 2826 Fifth Street, Garland 75041 (972) 271-7160 C-3 77 Gilbreath-Reed Career and Technical Center 4885 N. President George Bush Highway Garland 75040 (972) 487-4588 C-6

- 24 Hillside Academy for Excellence 2014 Dairy Road, Garland 75041 (972) 926-2550
- Keeley Elementary School 8700 Liberty Grove Road, Rowlett 75089 25 (972) 412-2140 G-5
- 26 Kimberlin Academy for Excellence 1520 Cumberland Drive, Garland 75040 (972) 926-2560 C-4
- 27 Liberty Grove Elementary School 10201 Liberty Grove Road, Rowlett 75089 (972) 487-4416 . G-6 28 Lister Elementary School
- 3131 Mars Drive, Garland 75040 (972) 675-3030 29 Luna Elementary School
- 1050 Lochness Lane, Garland 75044 (972) 675-3040
- Montclair Elementary School 5200 Broadmoor Drive, Garland 75043 30 (972) 279-4041
- Northlake Elementary School 31 1626 Bosque Drive, Garland 75040 (972) 494-8359
- Park Crest Elementary School 32 2232 Parkcrest Drive, Garland 75041 (972) 926-2571
- 33 Pearson Elementary School 5201 Nita Pearson Drive, Rowlett 75088 (972) 463-7568 G-4 34
- Roach Elementary School 1811 Mayfield Avenue, Garland 75041 (972) 926-2580 B-2
- Rowlett Elementary School 3315 Carla Road, Rowlett 75088 35 (972) 475-3380
- Sewell Elementary School 4400 Hudson Drive, Sachse 75048 36 (972) 675-3050 37
- Shorehaven Elementary School 600 Shorehaven Drive, Garland 75040 (972) 494-8346
- 38 Shugart Elementary School 4726 Rosehill Road, Garland 75043 (972) 240-3700
- Southgate Elementary School 39 1115 Mayfield Avenue, Garland 75041 (972) 926-2590 C-2
- 40 Spring Creek Elementary School 1510 Spring Creek Drive, Garland 75040 (972) 675-3060 B-6
- 41 Steadham Elementary School 6200 Danridge Road, Rowlett 75089 (972) 463-5887 Stephens Elementary School 42
- 3700 Cheyenne Drive, Rowlett 75088 (972) 463-5790 **Toler Elementary School** 43
- 3520 Guthrie Road, Garland 75043 (972) 226-3922 E-1 44
- Walnut Glen Academy for Excellence 3101 Edgewood Drive, Garland 75042 (972) 494-8330 R-4
- 45 Watson Technology Center for Math & Science 2601 Dairy Road, Garland 75041 (972) 926-2600
- C-3 Weaver Elementary School 46 805 Pleasant Valley Road, Garland 75040 (972) 494-8311 D-5
- Williams Elementary School 47 1821 Old Gate Lane, Garland 75042 (972) 926-2610 B-3
- 78 **GISD** Alternative Education Center 2015 Country Club Drive, Garland 75041 (972) 926-2691 D-3
- Parsons Prekindergarten School 79 2202 Richoak Drive, Garland 75044 B-5 (972) 675-8065 80 Pathfinder Achievement Center
 - 221 S. Ninth Street, Garland 75040 (972) 494-8520 Warren School
 - 2625 Anita Drive, Garland 75041 • New Horizons
 - Warren Center (972) 926-2671

MIDDLE SCHOOLS

D-3

D-5

D-7

C-2

D-5

B-3

E-3

F-6

C-4

F-2

G-4

F-3

52

- 50 Austin Academy for Excellence 1125 Beverly Drive, Garland 75040 (972) 926-2620 **Bussey Middle School** 51 1204 Travis Street, Garland 75040 (972) 494-8391 Classical Center at Brandenburg Middle School 626 Nickens Road, Garland 75043 (972) 926-2630 Coyle Middle School
- 53 4500 Skyline Drive, Rowlett 75088 (972) 475-3711 54
- Houston Middle School 2232 Sussex Drive, Garland 75041 (972) 926-2640 Hudson Middle School
- 55 4405 Hudson Drive, Sachse 75048 (972) 675-3070
- 56 Jackson Technology Center for Math & Science 1310 Bobbie Lane, Garland 75042
- (972) 494-8362 Lyles Middle School 57
- 4655 S. Country Club Road, Garland 75043 (972) 240-3720 E-2 O'Banion Middle School 58
- 700 Birchwood Drive, Garland 75043 (972) 279-6103 Schrade Middle School 59
- 6201 Danridge Road, Rowlett 75089 (972) 463-8790
- Sellers Middle School 60 1009 Mars Drive, Garland 75040 (972) 494-8337
- Webb Middle School 61 1610 Spring Creek Drive, Garland 75040
- R-6 (972) 675-3080

ADMINISTRATIVE FACILITIES

- 85 GISD Bond Office 409 N. First Street, Garland 75040 (972) 487-6859 C-4 GISD Employee Clinic 3121 N. President George Bush Highway, 86 Suite B3, Garland 75040 (972) 487-4567 Harris Hill Administration Building 87 501 S. Jupiter Road, Garland 75042 Superintendent Business Operations Career & Technical Education Communications & Public Relations Curriculum, Instruction & Assessment English Language Learners General Counsel GISD Education Foundation Guidance & Counseling Human Resources ORACLE Technology Payroll & Benefits Purchasing Research, Assessment & Accountability Special Education Special Programs Visual & Performing Arts (972) 494-8201 A-4 88 Manuel & Maria Valle Student Services Center 720 Stadium Drive, Garland 75040 Student Services Department
 - Attendance
 - **GRS Giving Room** Enrollment Center
 - Translation Services
- Title III Clinic (972) 494-8255
- 88 Valle Student Services Annex
- Internal Audit (972) 487-4651

HIGH SCHOOLS

D-4

C-5

D-2

F-4

B-3

F-6

B-5

C-2

G-4

C-4

- 65 Garland High School 310 S. Garland Avenue, Garland 75040 (972) 494-8492 C-4
- Lakeview Centennial High School 66 3505 Hayman Drive, Garland 75043 (972) 240-3740 E-2
- Memorial Pathway Academy 67 2825 S. First Street, Garland 75040 (972) 926-2650
- 68 Naaman Forest High School 4843 Naaman Forest Boulevard, Garland 75040 (972) 675-3091 C-6

C-3

- North Garland High School 69 2109 Buckingham Road, Garland 75042 B-5 (972) 675-3120
- 70 **Rowlett High School** 4700 President George Bush Highway, Rowlett 75088 (972) 463-8690 F-4
- Sachse High School 71 3901 Miles Road, Sachse 75048 (972) 414-7450 E-6
- South Garland High School 72 600 Colonel Drive, Garland 75043 (972) 926-2700 D-2

STADIUMS & EVENT CENTER

- Curtis Culwell Center 95 4999 Naaman Forest Boulevard, Garland 75040 (972) 487-4700 C-6 Homer B. Johnson Stadium 1029 Centerville Road, Garland 75041 96 D-3 Williams Stadium 97 510 Stadium Drive, Garland 75040 C-5
- 89 Marvin Padgett Auxiliary Services Center 701 N. First Street, Garland 75040 Geographic Information Systems (GIS) Maintenance School Facilities Security & Telecommunications Student Nutrition Services Warehouse (972) 494-8201 90 Marvin D. Roden Technology Center North end of building: 410 Stadium Drive, Garland 75040 Technology (972) 494-8152 South end of building: 414 Stadium Drive, Garland 75040 Printing Services • Risk Management (972) 494-8201 East end of building:
- 326 Stadium Drive, Garland 75040 Transportation (972) 494-8530 Jill Shugart 91
 - Professional Development Center 870 W. Buckingham, Garland 75040
 - Athletics .
 - Family & Community Engagement
 - Instructional Resource Center (IRC) Organizational Learning
- (972) 487-4450 92 Tax Office
- 901 W. State Street, Garland 75040 (972) 494-8570 C-4
 - D-6

C-4

C-5

C-5

C-5

C-5

NOTE:

C-4

C-3

The number on the left corresponds to the building location symbols Grid coordinates are to the right of the phone number.

C-5

C-5

Map Revised 06-2017

APPENDIX B – REFERENCES PROPOSAL # 196-25 STRUCTURED CABLING SERVICES

Provide at least three (3) references for the most similar contracts, preferably K-12 education, higher education, or other governmental agencies, or related engagements that Proposer has completed within the past five (5) years, using the format shown below. <u>The contact</u> information provided should be an individual that was directly involved and/or most familiar with the Proposer's project. Non-Responsive references will not receive points.

1	Client/Com	pany Information	Co	ntact Information
	Client Name		Name	
	Contract Term/Period		Title	
	Est. Contract Value		Phone	
	Number of Employees		Email	
	Brief Project			
	Description			
	(incl. type of H/W &			
	total units deployed)			
2	Client/Com	pany Information	Co	ntact Information
	Client Name		Name	
	Contract Term/Period		Title	
	Est. Contract Value		Phone	
	Number of Employees		Email	
	Brief Project			
	Description			
	(incl. type of H/W &			
	total units deployed)			
3	Client/Com	pany Information	Со	ntact Information
	Client Name		Name	
	Contract Term/Period		Title	
	Est. Contract Value		Phone	
	Number of Employees		Email	
	Brief Project			
	Description			
	(incl. type of H/W &			
	total units deployed)			

	ltem	(A) Estimated Yearly Qty	(B) Labor Cost per unit	(C) Material Cost per unit (all components)	(D) Labor plus Material cost per unit	(E) Extended Labor & Material Cost
					(B) + (C)	(A) x (D)
Section A	Equipment Racks, Cabinets, Shelves, Wire Managers					
A-1	Provide a CPI 7' free standing equipment cabinet with 19" rails front mesh door & rear double mesh door, and no side panels H83.9xW23.6xD41.3 (43RMU) Z4-21N-113C-C10	1			0	0
A-2	Provide a CPI 7' free standing equipment cabinet with 19" rails front mesh door & rear double mesh door, and solid, 2 each side panels H83.9xW23.6xD41.3 (43RMU) Z4-21N-113C-C12	1			0	0
A-3	Provide and install a 7' CPI Four-post, Open Frame (Black) 84"Hx 19"Wx29"D - Part # 55120- 703	1			0	0
A-4	Provide and install a 7' CPI Two-post relay rack, Open Frame (Black) 84"Hx 19"W - Part # 55053- 703	1			0	0
A-5	Provide Rack Channel Standoffs 3"D Rack Channel, 2U, 6-Hole, Black Part# 12309-702	1			0	0
A-6	Provide Rack Channel Standoffs 3"D Rack Channel, 3U, 9-Hole, Black Part# 12309-703	1			0	0
A-7	Provide Rack Channel Standoffs 3"D Rack Channel, 4U, 12-Hole, Black Part# 12309-704	1			0	0
A-8	Provide and install a CPI campus veritical wire manager 7' H x 3.65" W VCS Series Cable Manager 30161-703	1			0	0
A-9	Provide and install a CPI campus veritical wire manager 7' H x 6" W VCS Series Cable Manager 30162-703	1			0	0
A-10	Provide and install a CPI campus veritical wire manager 7' H x 10" W VCS Series Cable Manager 30163-703	1			0	0
A-11	Provide and install a CPI 21-RMU standard swing gate wall rack with 19" rails and 18"depth. Part #:11791-718	1			0	0
A-12	Provide and install a CPI 27-RMU standard swing gate wall rack with 19" rails and 18"depth. Part #:11807-718	1			0	0
A-13	Provide and install a 24" black CPI CUBE-iT wall- mounted enclosed cabinet with 19"rails, Tempered glass front door, 30" depth. Part#12419-724	1			0	0
A-14	Provide and install a 36" black CPI CUBE-iT wall- mounted enclosed cabinet with 19"rails , Tempered glass front door, 30" depth. Part#12419-736	1			0	0
A-15	Provide and install a 48" black CPI CUBE-iT wall- mounted enclosed cabinet with 19"rails , Tempered glass front door, 30" depth. Part#12419-748	1			0	0
A-16	Provide and install a 60" black CPI CUBE-iT wall- mounted enclosed cabinet with 19"rails , Tempered glass front door, 30" depth. Part# 13496-760	1			0	0

	Provide and install a 72" black CPI CUBE-iT wall- mounted enclosed cabinet with 19"rails , Tempered glass front door, 30" depth. Part#	1			0	0			
A-17	13496-772 Provide and install a Systimax approved (or								
A-18	patch panel. Part #: 760207274	1			0	0			
A-19	equivalent) 48-port 2U distribution modular patch panel. Part #: 760207282	1			0	0			
A-20	Provide and install a 1 RU CPI horizontal cable manager. Part#: CPI 30139-719	1			0	0			
A-21	Provide and install a 2 RU CPI horizontal cable manager.Part#: CPI 30130-719	1			0	0			
Δ-25	Provide Commscope Cat5e data jacks (Blue).	1			0	0			
A-25	Provide Commscope Cat6 data jacks (Blue). Part#:	1			0	0			
A-20	Provide Commscope Cat6 data jacks (Orange).	1			0	0			
A-26	Part#: MGS400-OR (or equivalent) Provide Commscope Cat6A data jacks (Green).	-				0			
A-27	Part#: MGS600-GN (or equivalent)	1			0	0			
	TOTALS SECTION A					0			
Section B	CAT SE Legacy Data Cables installed, Terminated, Labeled, and Tested (Systimax (or equivalent) Products Only)								
	 "M" series flush mounted multi-outlet (ivory) Port configuration includes from 1 to 6 port single gang, the standard being a 4-port single-gang Label Information outlet (Data / Voice) Blank inserts in all vacant ports This will include a minimum of 10 ft of service loop on both ends of cable. AVG 225 ft of 4 pair Systimax 2061 PowerSUM (or equivalent) plenum Cat 5E cable 1 each, 1-foot Systimax (or equivalent) Cat 5E patch cable (MDF end) or as specified by GISD MAN/WAN Engineer. Do not include patch panel costs. Testing shall include a Category 5E level 3 tester and a Fluke LINK Runner to obtain an IP address. All tests must be provided in electronic version. (Hard copy must provided per request) 								
	NON-STANDARD drop pricing should also include installed.	the need to pene	etrate a wall/f	irewall and/or (1) 8-fo	ot section of surface	aceway with box			
B-1	Between 1 and 10 (225' Average) per cable. Part# CommScope 790041913 (Blue) (or equivalent)	50			0	0			
B-1A	Non-standard drop Between 1 and 10 (225' Average) per cable. Part# CommScope 790041913 (Blue) (or equivalent)	1			0	0			
B-2	Between 10 and 25 (225' Average) per cable. Part# CommScope 790041913 (Blue) (or equivalent)	50			0	0			
B-2A	Non-standard drop Between 10 and 25 (225' Average) per cable. Part# CommScope 790041913 (Blue) (or equivalent)	1			0	0			
B-3	Between 26 and 99 (225' Average) per cable. Part# CommScope 790041913 (Blue) (or equivalent)	1			0	0			
<u>B-4</u>	One hundred or more (225' Average) per cable. Part# CommScope 790041913 (Blue) (or equivalent)	1			0	0			

	Ten or more drops lacated in a room adjacent to					
	an MDF/IDF where the cables average less than					
	100' per cable. Part# CommScope 790041913	1			0	0
B-5	(Blue) (or equivalent)					
	Non-standard dron (26 or more / 225' Average)					
	Part# CommScope 7000/1012 (Plue) (or	1			0	0
D C	Part# Commiscope 790041915 (Blue) (of	1			U	0
в-о	equivalent)					
	TOTALS SECTION B					0
	CAT 6 Data Cables Installed, Terminated,					
Section C	Labeled and Tested (Systimax (or equivalent)					
	Products Only)					
	STANDARD drop pricing should include the follow	ing materials.				
	1 each Systimax (or equivalent) modular facentate	nig materials.				
	• MDLS Clins					
	• WIFLS CIIPS					
	• Wi series flush mounted multi-outlet (lvory)					
	 Port configuration includes from 1 to 6 port sing 	le gang, the stand	lard being a 4	l-port single-gang		
	 Label Information outlet (Data / Voice) 					
	 Blank inserts in all vacant ports 					
	This will include a minimum of 10 ft of service loop	o on both ends of	cable.			
	• AVG 225 ft of 4 pair Systimax GigaSpeed 2071 CA	AT6 (or equivalen	t) plenum cal	ole.		
	• 1 each, 1-foot Systimax Cat6A GS8E GigaSpeed X	L (or equivalent)	patch cable (MDF end) or as specifi	ied by GISD MAN/WA	N Engineer.
	 Do not include patch panel costs. 					
	Testing shall include a Category 6 level 3 tester and	d a Fluke LINK Ru	nner to obtai	n an IP address. All tes	sts must be provided i	n electronic
	version. (Hard copy must provided per request)					
	version. (nara copy must provided per request)					
	NON-STANDARD drop pricing should also include	the need to pene	trate a wall/f	irewall and/or (1) 8-fo	ot section of surface	raceway with box
	installed.					
	Cat 6 - Between 1 and 10 (225' Average) per					
	cable. Part# CommScope 700208093 (Blue) (or	200			0	0
C-1	equivalent)					
	Cat 6 - Non-standard drop Between 1 and 10					
	(225' Average) per cable. Part# CommScope	1			0	0
C-1A	700208093 (Blue) (or equivalent)	-			Ū	Ū
017						
	cable. Part# CommScope 700208093 (Blue) (or	200			0	0
C-2	equivalent)					-
	Cat 6 - Non-standard drop Between 10 and 25					
	(225' Average) per cable.Part# CommScope	1			0	0
C-2A	700208093 (Blue) (or equivalent)					
	cable, Part# CommScope 700208093 (Blue) (or					
C-3	equivalent)	50			0	0
23	Cat 6 One hundred or more (225' Average) per					
	cat 0 - One numured of more (225 Average) per					
<u> </u>	cable. Part# CommScope 700208093 (Blue) (or	1			0	0
C-4	equivalent)					
	Cat 6 - Ten or more drops located in a room					
	adjacent to an MDF/IDF where the cables	1			0	0
	average less than 100' per cable. Part#	1			0	U
C-5	CommScope 700208093 (Blue) (or equivalent)					
	Cat 6 - Between 1 and 10 (225' Average) per					
	cable. Part# CommScope 700210024 (Orange) (or	200			0	0
C-6	equivalent)	_00			-	-
	Cat 6 - Non-standard dron Between 1 and 10					
	(225' Average) per cable Part# CommScope	1			0	0
C 6A	700210024 (Orango) (or equivalent)	1			U	U
C-DA	100210024 (Orange) (Or equivalent)					
	cable. Part# CommScope 700210024 (Orange) (or	200			0	0
C-7	equivalent)	200			, , , , , , , , , , , , , , , , , , ,	
	Cat 6 - Non-standard drop Between 10 and 25					
	(225' Average) per cable. Part# CommScope	1			0	0
C-7A	700210024 (Orange) (or equivalent)					
	cable Part# CommScope 700210024 (Orango) (or					
<u> </u>	cable. Farth Commiscope 700210024 (Orange) (of	50			0	0
U-0	equivalent)					

C-9	Cat 6 - One hundred or more (225' Average) per cable. Part# CommScope 700210024 (Orange) (or equivalent)	1			0	0			
C-10	Cat 6 - Ten or more drops located in a room adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 700210024 (Orange) (or equivalent)	1			0	0			
	TOTALS SECTION C					0			
Section D	CAT 6A Data Cables Installed, Terminated, Labeled and Tested (Systimax (or equivalent) Products Only)								
	 STANDARD drop pricing should include the following materials: 1 each, Systimax (or equivalent) modular faceplate: MPLS Clips "M" series flush mounted multi-outlet (ivory) Port configuration includes from 1 to 6 port single gang, the standard being a 4-port single-gang Label Information outlet (Data / Voice) Blank inserts in all vacant ports This will include a minimum of 10 ft of service loop on both ends of cable. AVG 225 ft of 4 pair Systimax GigaSpeed X10D 1091B CAT6A (or equivalent) plenum cable. 1 each, 1-foot Systimax Cat6A GS8E GigaSpeed (or equivalent) XL patch cable (MDF end) or as specified by GISD MAN/WAN Engineer. Do not include patch panel costs. 								
	Testing shall include a Category 6A level 3 tester and a Fluke LINK Runner to obtain an IP address. All tests must be provided in electronic version. (Hard copy must provided per request)								
	NON-STANDARD drop pricing should also include installed.	the need to pene	trate a wall/f	irewall and/or (1) 8-fo	oot section of surface	raceway with box			
D-1	Cat 6A - Between 1 and 10 (225' Average) per cable. Part# CommScope 760107094 (Blue) (or equivalent)	100			0	0			
D-1A	Cat 6A - Non-standard drop Between 1 and 10 (225' Average) per cable. Part# CommScope 760107094 (Blue) (or equivalent)	1			0	0			
D-2	Cat 6A - Between 10 and 25 (225' Average) per cable. Part# CommScope 760107094 (Blue) (or equivalent)	1			0	0			
D-2A	Cat 6A - Non-standard drop Between 10 and 25 (225' Average) per cable. Part# CommScope 760107094 (Blue) (or equivalent)	1			0	0			
D-3	Cat 6A - Between 26 and 99 (225' Average) per cable. Part# CommScope 760107094 (Blue) (or equivalent)	1			0	0			
D-4	Cat 6A - One hundred or more (225' Average) per cable. Part# CommScope 760107094 (Blue) (or equivalent)	1			0	0			
D-5	Cat 6A - Ten or more drops located in a room adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent)	1			0	0			
						5			
Section E	Wireless Access Points - Install CAT 6A Data cables, terminate label, install patch cable at both ends and test. (Systimax (or equivalent) Products Only) Mount wireless access point equipment to ceiling or wall structure as designated. Verify connectivity								

I	STANDARD drop pricing should include the followi	ng materials:						
	Access point mounting hardware will be provided by GISD.							
	This will include a minimum of 10 ft of service loop on both ends of cable.							
	• AVG 225 ft of 4 pair Systimax GigaSpeed X10D 2091B CAT64 (or equivalent) plenum cable							
	A took (MDE and 1) foot Systimax Cat6A Polycod Diamator PUSE MilloGA (are antibulated) at the sets as to a second at the CIC2							
	• Leach, (WDF end) 1-100t Systimax Cat6A Reduced Diameter RJ45 WIN06A (or equivalent) patch cable (Green) or as specified by GISD							
	MAN/WAN Engineer.							
	• 1 each, (Workstation end) 10-foot Systimax Cat6A Reduced Diameter RJ45 MiNo6A (or equivalent) patch cable (Green) or as specified by							
	GISD MAN/WAN Engineer.							
	Do not include natch nanel costs							
	Tosting shall include a Category 6A lovel 2 testor as	ad a Eluko LINK P	unnor to obtai	n an IR addross. All t	osts must be provided	in alactronic		
	resting shall include a category of level 5 tester al	IU A FIUKE LINK K		ii aii ir auuless. Ali u	ests must be provided	III electronic		
	version. (Hard copy must provided per request)							
	NON-STANDARD drop pricing should also include t	the need to pene	trate a wall/fir	ewall and/or (1) 8-fo	ot section of surface i	raceway with box		
	installed.							
	Cat 6A - Between 1 and 10 (225' Average) per							
	cable_Part# CommScope 760107094 (Blue) (or	100			0	0		
F 1	equivalent)	100			0	0		
C-1	equivalent)							
	Cat 6A - Non-standard drop Between 1 and 10							
	(225' Average) per cable. Part# CommScope	1			0	0		
E-1A	760107094 (Blue) (or equivalent)							
	Cat 6A - Between 10 and 25 (225' Average) per							
	cable Part# CommScope 760107094 (Blue) (or	1			0	0		
5.2	equivalent)	T			U	U		
E-Z	equivalent)							
	Lat bA - Non-standard drop Between 10 and 25							
	(225' Average) per cable. Part# CommScope	1			0	0		
E-2A	760107094 (Blue) (or equivalent)							
	Cat 6A - Between 26 and 99 (225' Average) per							
	cable_Part# CommScope 760107094 (Blue) (or	1			0	0		
F-3	equivalent)	1			0	0		
L-3								
	Cat 6A - One hundred or more (225' Average)							
	per cable. Part# CommScope 760107094 (Blue)	1			0	0		
E-4	(or equivalent)							
	Cat 6A - Ten or more drops located in a room							
-								
	adjacent to an MDE/IDE where the cables							
	adjacent to an MDF/IDF where the cables	1			0	0		
	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part#	1			0	0		
E-5	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent)	1			0	0		
E-5	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E	1			0	0		
E-5	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E	1			0	0		
E-5	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured	1			0	0		
E-5 Section F	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured	1			0	0		
E-5 Section F	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling	1			0	0		
E-5 Section F	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable.	5			0	0		
E-5 Section F F-1	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent)	1			0	0		
E-5 Section F F-1	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent)	1			0	0		
E-5 Section F F-1	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount).	1			0	0		
E-5 Section F F-1	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant.	1 5 10			0	0		
E-5 Section F F-1 F-2	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable	1 5 10			0	0		
E-5 Section F F-1 F-2	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch burgle)	1 5 10 10			0	0		
E-5 Section F F-1 F-2 F-3	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle)	1 5 10 10			0	0		
E-5 Section F F-1 F-2 F-3	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle)	1 5 10 10			0	0 0 0 0 0 0 0		
E-5 Section F F-1 F-2 F-3	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors	1 5 10 10 10			0	0 0 0 0 0 0 0 0 0 0 0 0		
E-5 Section F F-1 F-2 F-3	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables	1 5 10 10 10			0	0		
E-5 Section F F-1 F-2 F-3 F-4	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables	1 5 10 10 10			0	0		
E-5 Section F F-1 F-2 F-3 F-4	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables	1 5 10 10 10			0 0 0 0 0	0		
E-5 Section F F-1 F-2 F-3 F-4	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables	1 5 10 10 10 10			0 0 0 0 0 0	0 0 0 0 0 0 0		
E-5 Section F F-1 F-2 F-3 F-4 F-5	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivalent. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables	1 5 10 10 10 10			0 0 0 0 0 0	0 0 0 0 0 0 0		
E-5 Section F F-1 F-2 F-3 F-4 F-5	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables LC Singlmode Systimax (or equivalent) Fiber Connector (Field Installable) Include consumables Grounding NEC approved bus bar (12" w/various	1 5 10 10 10 10			0 0 0 0 0 0	0 0 0 0 0 0		
E-5 Section F F-1 F-2 F-3 F-4 F-5	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables LC Singlmode Systimax (or equivalent) Fiber Connector (Field Installable) Include consumables Grounding NEC approved bus bar (12" w/various lug configuration) and 50' of #6AWG Green	1 5 10 10 10 10			0			
E-5 Section F F-1 F-2 F-3 F-4 F-5	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables LC Singlmode Systimax (or equivalent) Fiber Connector (Field Installable) Include consumables Grounding NEC approved bus bar (12" w/various lug configuration) and 50' of #6AWG Green Insulated solid copper wire for grounding within a	1 5 10 10 10 10 10			0 0 0 0 0 0 0	0 0 0 0 0 0 0		
E-5 Section F F-1 F-2 F-3 F-4 F-5	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables LC Singlmode Systimax (or equivalent) Fiber Connector (Field Installable) Include consumables Grounding NEC approved bus bar (12" w/various lug configuration) and 50' of #6AWG Green Insulated solid copper wire for grounding within a network closet.	1 5 10 10 10 10 10			0 0 0 0 0 0 0	0 0 0 0 0 0 0		
E-5 Section F F-1 F-2 F-3 F-4 F-5 F-6	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables LC Singlmode Systimax (or equivalent) Fiber Connector (Field Installable) Include consumables Grounding NEC approved bus bar (12" w/various lug configuration) and 50' of #6AWG Green Insulated solid copper wire for grounding within a network closet.	1 5 10 10 10 10 10			0 0 0 0 0 0 0	0 0 0 0 0 0 0 0		
E-5 Section F F-1 F-2 F-3 F-4 F-5 F-6	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables LC Singlmode Systimax (or equivalent) Fiber Connector (Field Installable) Include consumables Grounding NEC approved bus bar (12" w/various lug configuration) and 50' of #6AWG Green Insulated solid copper wire for grounding within a network closet.	1 5 10 10 10 10 10			0 0 0 0 0 0 0	0 0 0 0 0 0 0		
E-5 Section F F-1 F-2 F-3 F-4 F-5 F-6	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables LC Singlmode Systimax (or equivalent) Fiber Connector (Field Installable) Include consumables Grounding NEC approved bus bar (12" w/various lug configuration) and 50' of #6AWG Green Insulated solid copper wire for grounding within a network closet.	1 5 10 10 10 10 10						
E-5 Section F F-1 F-2 F-3 F-4 F-5 F-6	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables LC Singlmode Systimax (or equivalent) Fiber Connector (Field Installable) Include consumables Grounding NEC approved bus bar (12" w/various lug configuration) and 50' of #6AWG Green Insulated solid copper wire for grounding within a network closet. Grounding NEC approved bus bar (12" w/various lug configuration) and 200' of #6AWG Green Insulated solid copper wire for grounding to be	1 5 10 10 10 10 10 10			0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0		
E-5 Section F F-1 F-2 F-3 F-4 F-5 F-6	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables LC Singlmode Systimax (or equivalent) Fiber Connector (Field Installable) Include consumables Grounding NEC approved bus bar (12" w/various lug configuration) and 50' of #6AWG Green Insulated solid copper wire for grounding within a network closet. Grounding NEC approved bus bar (12" w/various lug configuration) and 200' of #6AWG Green Insulated solid copper wire for grounding to be run to building MGN. GISD Electrician to	1 5 10 10 10 10 10 10			0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0		
E-5 Section F F-1 F-2 F-3 F-4 F-5 F-6	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables LC Singlmode Systimax (or equivalent) Fiber Connector (Field Installable) Include consumables Grounding NEC approved bus bar (12" w/various lug configuration) and 50' of #6AWG Green Insulated solid copper wire for grounding within a network closet. Grounding NEC approved bus bar (12" w/various lug configuration) and 200' of #6AWG Green Insulated solid copper wire for grounding to be run to building MGN. GISD Electrician to terminate at MGN end.	1 5 10 10 10 10 10 10			0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0		
E-5 Section F F-1 F-2 F-3 F-4 F-5 F-6 F-6	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables LC Singlmode Systimax (or equivalent) Fiber Connector (Field Installable) Include consumables Grounding NEC approved bus bar (12" w/various lug configuration) and 50' of #6AWG Green Insulated solid copper wire for grounding within a network closet. Grounding NEC approved bus bar (12" w/various lug configuration) and 200' of #6AWG Green Insulated solid copper wire for grounding to be run to building MGN. GISD Electrician to terminate at MGN end. #6AWG Green Insulated solid copper wire to be	1 5 10 10 10 10 10 10						
E-5 Section F F-1 F-2 F-3 F-4 F-5 F-6 F-6	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables LC Singlmode Systimax (or equivalent) Fiber Connector (Field Installable) Include consumables Grounding NEC approved bus bar (12" w/various lug configuration) and 50' of #6AWG Green Insulated solid copper wire for grounding within a network closet. Grounding NEC approved bus bar (12" w/various lug configuration) and 200' of #6AWG Green Insulated solid copper wire for grounding to be run to building MGN. GISD Electrician to terminate at MGN end. #6AWG Green Insulated solid copper wire to be run to building MGN, increments of 50' over the	1 5 10 10 10 10 10 10						
E-5 Section F F-1 F-2 F-3 F-4 F-5 F-6 F-6	adjacent to an MDF/IDF where the cables average less than 100' per cable. Part# CommScope 760107094 (Blue) (or equivalent) TOTALS SECTION E Cable Material and Accessories for Structured Cabling 1000' Cat6 outside plant, direct burial cable. Part#: CommScope 790008888 (or equivalent) Walker Single Gang Housing Unit (Floor Mount). Part#: WALKER 1125CHS or equivelant. Caddy J-Hooks (the average size of a single cable run to a 4 inch bundle) LC 50 micron Systimax (or equivalent) Connectors (Field Installable) Include consumables LC Singlmode Systimax (or equivalent) Fiber Connector (Field Installable) Include consumables Grounding NEC approved bus bar (12" w/various lug configuration) and 50' of #6AWG Green Insulated solid copper wire for grounding within a network closet. Grounding NEC approved bus bar (12" w/various lug configuration) and 200' of #6AWG Green Insulated solid copper wire for grounding to be run to building MGN. GISD Electrician to terminate at MGN end. #6AWG Green Insulated solid copper wire to be run to building MGN, increments of 50' over the initial 200'	1 5 10 10 10 10 10 10 10				0 0 0 0 0 0 0 0 0		

F-9	Cable Trays (Cablofil CF54/150 EZ)	10			0	0					
F-10	Cable Trays (Cooper B-line Flextray FT 2 X 12 X 10)	10			0	0					
F-12	Lightning Protection Ditek DTK-MRJ-POE (4 Pair Cat 6) or Equivalent	10			0	0					
E 12	Lightning Protection Ditek DTK-RM12POE (12 Port Patch Panel) or Equivalent	10			0	0					
F-15						0					
						0					
Section G	Surface Raceway and Conduits Provided and Installed.										
	Must use Latch Duct 8ft Pan-way LD profile raceway										
	Must use Leviton Single gang / Dual gang Surface r	nount box									
	The color is electrical ivory										
	The following dimensions are in use:										
	• 0.46in x 0.77in = for 1-4 drops										
	• 0.94 in x 1.51in = for 1-8 arops										
	These must be anchored to the wall.										
	Fach run must include standard Panduit fittings su	ch as couplors, riv	the angles in	sido corpors, outsido (corners tees and can	s roducors and					
	mounting hardware.	ch as couplets, h	giit angles, in	side comers, outside (omers, tees, end cap	s, reducers, and					
	Conduits - schedule 40 PVC (1-1/2 inch and 2 inch)										
	Conduits – Liquid Tight (1 inch)										
	0.46in x 0.77in = for 1-4 drops. Part#: Panduit	10			0	0					
G-1	LD3EI8-A	10			0	0					
G-2	0.60in x 1.01in = for 1-8 drops. Part#: Panduit LD5EI8-A	10			0	0					
G-3	U.94in x 1.51in = for 1-12 drops. Part#: Panduit LD10EI8-A	10			0	0					
G-4	Conduits - schedule 40 PVC (1-1/2 inch) 50 ft increments	10			0	0					
G-5	Conduits - schedule 40 PVC (1-1/2 inch) 20 ft increments	10			0	0					
G-6	Conduits - schedule 40 PVC (2 inch) 50 ft increments	10			0	0					
G-7	Conduits - schedule 40 PVC (2 inch) 20 ft increments	10			0	0					
G-8	Conduits - Liquid Tight (1-inch) 20 ft increments	10			0	0					
G-9	Conduits - Liquid Tight (1-inch) 50 ft increments	10			0	0					
G-10	Provide a Universal Cable Runway, 12", 12"Wx1.5"Hx9.96"L, Black Part #: 10250-712	10			0	0					
G-11	12" CPI ladder rack wall angle mount bracket. Part #: 11421-712	10			0	0					
G-12	12" CPI ladder rack runway mounting plate. Part#: 10595-712	10			0	0					
G-13	Provide a Universal Cable Runway, 18", 18"Wx1.5"Hx9.96"L, Black Part #: 10250-718	10			0	0					
G-14	CPI ladder rack wall angle mount bracket. Part #: 11421-718	10			0	0					
G-15	18" CPI ladder rack runway mounting plate. Part#: 10595-718	10			0	0					
G-16	Provide a Universal Cable Runway, 24", 24"Wx1.5"Hx9.96"L, Black Part #: 10250-724	10			0	0					
G-17	Provide a Cable Runway Radius Drop Cross Member, 11",11"W, Black Part #: 12100-712	10			0	0					

G-18	Provide a Cable Runway Radius Drop Cross Member, 17",17"W, Black Part #: 12100-718	10		0	0
G-19	Provide a Cable Runway Butt-Splice Kit, Black Part #: 11301-701	10		0	0
6-20	Provide a Cable Runway Junction-Splice Kit, Black	10		0	0
6.21	Provide a Cable Runway Swivel-Splice Kit, Black	10		0	0
6-21	Provide a Runway-to-Runway Mounting Kit 9 to	10		0	0
6-22	Provide a Runway-to-Runway Mounting Kit 15 to	10		0	0
6-23	Provide a Runway-to-Runway Mounting Kit 20 to	10		0	0
G-24	24", Black Part #: 10595-724 Provide a RunwayElevation Kit, Black Part #:	10		0	0
G-25	10506-706 TOTALS SECTION G			-	0
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Section H	Patch Cords (All Category 6 and Category 6A must be Systimax (or equivalent) Patch Cords)				
H-1	1-Foot between 1 or more, Dark Gray (Category 6A) Part#: CO199K2-03F001	50		0	0
Н-2	3-Foot between 1 and 100, Dark Gray (Category 6A) Part#: CO199K2-03F003	50		0	0
H-3	3-Foot between 101 or more, Dark Gray (Category 6A) Part#: CO199K2-03F003	50		0	0
H-4	5-Foot between 1 and 100, Dark Gray (Category 6A) Part#: CO199K2-03F005	50		0	0
ш с	5-Foot between 101 or more, Dark Gray	50		0	0
	7-Foot between 1 and 100, Dark Gray (Category	50		0	0
	7-Foot between 101 or more, Dark Gray	50		0	0
П-7	10-Foot between 1 and 100, Gray (Category 6)	50		0	0
H-9	10-Foot between 101 or more, Gray (Category 6)	50		0	0
H-10	20-Foot between 1 and 100, Gray (Category 6) Part# CPC3312-03E020	50		0	0
H-11	20-Foot between 101 or more, Gray (Category 6) Part# CPC3312-03E020	50		0	0
H-12	1-Foot between 1 and 100, Spring Green (Category 6A) Part#: C0199K2-04F001	50		0	0
H-13	1-Foot between 101 or more, Spring Green (Category 6A) Part#: C0199K2-04F001	50		0	0
H-14	3-Foot between 1 and 100, Spring Green (Category 6A) Part#: C0199K2-04F003	50		0	0
H-15	3-Foot between 101 or more, Spring Green (Category 6A) Part#: C0199K2-04F003	50		0	0
H-16	10-Foot between 1 and 100, Spring Green (Category 6A) Part#: C0199K2-04F010	50		0	0
H-17	10-Foot between 101 or more, Spring Green (Category 6A) Part#: C0199K2-04F010	50		0	0
H-18	1-Foot between 1 and 100, Orange (Category 6A) Part#: C0199K2-06001	50		0	0
H-19	1-Foot between 101 or more, Orange (Category 6A) Part#: C0199K2-06001	50		0	0
H-20	3-Foot between 1 and 100, Orange (Category 6A) Part#: C0199K2-06003	50		0	0
H-21	3-Foot between 101 or more, Orange (Category 6A) Part#: C0199K2-06003	50		0	0
H-22	10-Foot between 1 and 100, Orange (Category 6A) Part#: C0199K2-06010	50		0	0

	10-Foot between 101 or more, Orange (Category	50		0	0
H-23	6A) Part#: C0199K2-06010	50		-	°
	TOTALS SECTION H				U
Section J	Fiber Optic Patch Cords (multimode OM4)				
J-1	1 Meter 50 micron dual patch cords LC-LC Systimax (Aqua) (or equivalent). Part#: CommScope FEXLCLC42-MXM001 (or equivalent)	15		0	0
J-2	3 Meter 50 micron dual patch cords LC-LC Systimax (Aqua) (or equivalent). Part#: CommScope FEXLCLC42-MXM003 (or equivalent)	15		0	0
J-3	5 Meter 50 micron dual patch cords LC-LC Systimax (Aqua) (or equivalent). Part#: CommScope FEXLCLC42-MXM005 (or equivalent)	15		0	0
J-4	10 Meter 50 micron dual patch cords LC-LC Systimax (Aqua) (or equivalent). Part#: CommScope FEXLCLC42-MXM010 (or equivalent)	15		0	0
	TOTALS SECTION J				0
Section K	50 Micron Systimax Multi-mode LasrSPEED 550 om4 (or equivalent) interlocking armored fiber optic cable installed, terminated, labeled and tested (Includes fiber shelf on each populated with LC bulkheads and LC Connectors terminated on each strand)				
K-1	(6) strands 50 micron (250' average). Part#: CommScope P-006-OZ-5K-FSUBK (or equivalent)	10		0	0
K-2	(6) strands 50 micron (additional 50'). Part#: CommScope P-006-OZ-5K-FSUBK (or equivalent)	10		0	0
К-З	(12) strands 50 micron (250' average). Part#: CommScope P-012-OZ-5K-FSUBK (or equivalent)	10		0	0
К-4	(12) strands 50 micron (additional 50'). Part#: CommScope P-012-OZ-5K-FSUBK (or equivalent)	10		0	0
К-5	(24) strands 50 micron (250' average). Part#: CommScope P-024-0Z-5K-FSUBK (or equivalent)	10		0	0
К-6	(24) strands 50 micron (additional 50'). Part#: CommScope P-024-OZ-5K-FSUBK (or equivalent) TOTALS SECTION K	10		0	0
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Section L	Fiber Patch Panels				
L-1	1RU Fiber Enclosure (IDF) - EPX 1U sliding panel, (4) G2 style splice cassettes. Part#: EPX-1U-MOD- ENC	5		0	0
L-2	4RU Fiber Enclosure (MDF) - EPX 4U sliding panel, (16) G2 style splice cassettes. Part#: EPX- 4U-MOD-ENC	5		0	0
L-3	9µm Single-Mode Fiber Adapter Plate - Singlemode, 24 LC/UPC with internal shutters. Part#: 360DPis-24LC-SM	5		0	0
L-4	4. 50μm Multimode Fiber Adapter Plate - Multimode OM4, 24 LC/UPC with internal shutters. Part#: 360DPis-24LC-LS	5		0	0
L-5	Fiber Blank Plate - 360GS Mod Panel Blank Adapter. Part#: 360G2-MOD-BLANK-4PK	5		0	0
	TOTALS SECTION L				0

Section M	Labor Requirements					
M-1	Hourly labor rate (Technician Systimax or BICSI Certified (or equivalent))	100			0	0
M-2	Hourly labor rate overtime (Technician Systimax or BICSI Certified (or equivalent))	50			0	0
	TOTALS SECTION M					0
Section N	Lift Rate					
N-1	Lift Rental	1			0	0
	TOTALS SECTION N					0
			0	Grand totals of all sect	ions (A-N)	0