Project: 1108

25-025 - Internal Connections-Structured Cabling (E-Rate)

Adams 12 Five Star Schools

United States, Colorado, Adams County

,,

Audra Vela Audra.L.Vela@adams12.org



Presented By: US

SYSTECION

11871 E 33rd Ave , Aurora CO 80010 Murat Yildirim admin@systec101.com 9706462706 SPIN# 143048893

E-mail: my@systec101.com

Phone: 303-537-7575



Cover Letter

Dear Adams 12 Five Star Schools District.

We are pleased to submit our proposal for the structured cabling project, RFP Number 25-025, for Adams 12 Five Star Schools. Our team's expertise and experience, including our successful completion of over 1,000 Cat 6a cable runs for Adams County School District 14, makes us confident that we can not only meet but exceed the expectations outlined in your RFP.

Scope of Work, Quality Assurance, and Technical Approach

Our proposal aligns with the scope of work, period of performance, and standard terms and conditions specified in the RFP. Our technical approach and project schedule are designed to meet all the required guidelines and milestones. We emphasize quality and safety in all our installations, ensuring they adhere to the RFP's specifications and standards.

Contractual and Compliance Standards

We are fully compliant with all required certifications. Our agreement includes compliance with CORA, ensuring transparency and integrity throughout the project. Additionally, our price proposal, which will remain valid for 120 days, is attached.

We are excited by the opportunity to partner with Adams 12 Five Star Schools on this project and are eager to leverage our expertise to enhance your network infrastructure. Please feel free to reach out to us with any questions or for further discussion of our proposal.

Thank you for your time and consideration.

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Sincerely,

Murat Yildirim

Founder

By signing this cover letter, I, Murat Yildirim, as an authorized representative of SYSTEC101, hereby acknowledge and accept the proposed Scope of Work, the anticipated period of performance, and the standard terms and conditions as outlined in RFP Number 25-025. We have not proposed any changes to the aforementioned aspects of the RFP and agree to comply with all requirements and specifications stated therein.

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Technical Approach

Our technical approach for this cabling project is to utilize a patch panel-to-patch panel upgrade methodology. This strategic approach offers numerous benefits, including enhanced organization, streamlined cable management, and improved troubleshooting capabilities.

We anticipate completing the upgrade of one patch panel per day, ensuring a steady and efficient progression throughout the project. This measured approach also facilitates daily cutover processes, allowing us to transfer connections and restore device functionality by the end of each work shift. This commitment to daily cutover minimizes downtime and ensures that your operations experience minimal disruption.

Throughout the project, our team of skilled technicians will adhere to industry best practices and employ meticulous cable management techniques. This includes proper labeling, bundling, and securing of cables to maintain a clean and organized network infrastructure. By implementing these standards, we enhance the long-term maintainability and scalability of your cabling system.

We have calculated a total of 241 patch panels required for this project. This translates to 241 days for cabling and an additional 12 days for project planning (one day per school). The project is scheduled from April 1, 2025, to March 31, 2026. This timeline ensures the structured progression of work phases, focusing on efficient pathway generation before installation activities commence.

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1. Cabling Pathway Evaluation and Generation

Conduct an initial assessment of the current infrastructure and propose any necessary modifications or path generations to accommodate new cabling. This involves evaluating existing pathways and generating new routes as needed to ensure efficient cable management. The pathway evaluation and any subsequent generation should precede the physical installation work to prevent overlaps and ensure swift project execution.

2. Fiber Optic Cable Runs

Establish fiber optic cable runs from the Main Distribution Frame (MDF) to each Intermediate Distribution Frame (IDF) using single-mode, indoor/outdoor rated 12-strand optical fiber cables. Each fiber will be terminated on both ends with SC connectors, accompanied by a patch cable per side.

3. Cable Support Installation

Install J-Hooks and other necessary support structures to facilitate the traversal of cable bundles. This process includes securing all cables with appropriate fasteners like velcro and tie-wraps. Support installations also involve constructing Chatsworth and Panduit structures within IDF/MDF rooms.

4. Cable Pulling

Execute the pulling of Cat 6A plenum cables to a variety of data outlets across each location. This step includes termination with blue jacks, fitting faceplates, and

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conducting thorough testing and labeling.



Essential Materials

Copper Cabling

- Commscope Category 6A U/UTP Cable, plenum, blue jacket (per ft)
- Commscope Cat 6A unshielded jack (blue)
- Commscope 2-port faceplate (white)
- Commscope blanks (white)
- Commscope 48-port Cat 6A flat patch panel, 2RU (black)
- Panduit strain relief bar
- o Cat 6A patch cord, 1 ft
- o Cat 6A patch cord, 10 ft

Fiber Cabling

- Corning 12-strand tight buffered single-mode (OS2) indoor/outdoor plenum rated fiber optic cable (per ft)
- Corning 12F (OS2) duplex LC adapter panel
- Corning (OS2) LC Connectors
- Corning 1U fiber enclosure
- LC/APC LC/APC Single-mode Duplex Patch Cable, 1M
- LC/APC LC/APC Single-mode Duplex Patch Cable, 3M

Supporting Materials

- Firestop putty
- STI Fire barrier sealant
- ICC 2" Batwing J-hook
- ICC 4" Batwing J-hook
- 3M Electric tapes
- 3/4" Velcro (75ft)
- Labeling kits

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Proposed Timeline Table



School	Patch Panels	Cabling Days	Project Planning (Days)	Total Project Days
Arapahoe Ridge Elementary School	12	12	1	13
Eagleview Elementary School	10	10	1	11
Glacier Peak Elementary School	11	11	1	12
Prairie Hills Elementary School	8	8	1	9
Skyview Elementary School	7	7	1	8
Tarver Elementary School	7	7	1	8
Shadow Ridge Middle School	34	34	1	35
Silver Hills Middle School	27	27	1	28
Horizon High School	49	49	1	50
Mountain Range High School	42	42	1	43
Hunters Glen Elementary School	10	10	1	11
Century Middle School	24	24	1	25
Total	241	241	12	253

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Firm Qualifications&Staff Experience

Founded in 2014, SYSTEC101 has been a cornerstone in the telecommunications and structured cabling industry for over a decade. During this time, SYSTEC101 has cultivated a reputation for providing high-quality, customized information and communication technology (ICT) solutions to a wide array of clients, including both businesses and educational institutions. We have exhibited consistent growth, establishing ourselves as a dependable and innovative service provider in the industry, capable of handling projects of all sizes and complexities.

Qualifications

SYSTEC101 possesses numerous industry-recognized certifications and an extensive portfolio of experience:

- Certifications: SYSTEC101 holds key certifications, including the Building Industry
 Consulting Service International (BICSI) and Registered Communications Distribution
 Designer (RCDD), which highlight the technical expertise and commitment to industry
 standards that SYSTEC101 brings to each project. These certifications demonstrate our
 adherence to best practices and our ability to design and implement cabling systems
 that meet or exceed industry benchmarks.
- Experience: With over 20 years of combined industry experience, the team at SYSTEC101 has been essential in implementing complex cabling projects across various sectors, including education, healthcare, government, and commercial. Our expertise guarantees that we are well-prepared to manage the complex requirements of modern communication networks and can customize our solutions to efficiently meet the specific needs of our clients. We have a proven track record of delivering projects on time and within budget, while maintaining the highest quality standards.

Financial Stability and Viability

SYSTEC101's completion of large-scale projects and strong financial partnerships demonstrate its financial stability and operational viability:

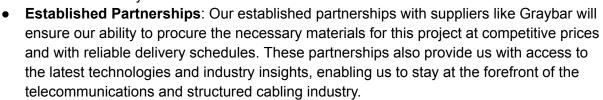
- Successful Project Completion: The successful completion of major projects, such as
 installing over 1,000 Cat 6a cable runs for the Adams County School District 14,
 emphasizes our ability to manage and maintain substantial contracts. This project
 involved meticulous planning, coordination, and execution, and its success is a
 testament to our project management capabilities and technical proficiency.
- **Diverse Project Portfolio**: Our involvement in structured cabling for numerous educational and commercial facilities further suggests sound financial health and resource management, ensuring our ability to meet financial obligations. Our diverse project portfolio demonstrates our versatility and adaptability, as well as our ability to

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tailor our services to the unique requirements of each

client and industry.



Personnel and Staffing

The team assigned to this project consists of seasoned professionals whose detailed resumes highlight a dedication to excellence and technical skill:

- **Team Members**: Each team member offers a wealth of experience and specialized skills, with resumes accessible upon request, showcasing individual accomplishments, experience with past projects, and key competencies in structured cabling and project management. Our team members are not only highly skilled but also passionate about their work and committed to delivering exceptional results.
- Staffing Plan: The staffing plan encompasses roles such as Project Managers, Cabling Technicians, and Support Staff. Project Managers will supervise all project phases to guarantee adherence to timelines and quality standards, while Cabling Technicians will manage the hands-on installation work. Support Staff will furnish the necessary logistical and administrative support to ensure the project operates smoothly and efficiently. Our staffing plan is designed to be flexible and scalable, allowing us to adjust resources as needed to meet the demands of the project.



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References:

1. Adams County School District 14

Project Name: E-Rate, Wireless Access Point Cabling, and 10GB Fiber Optic Interconnect

Contact Information:

David PowellNetwork Administrator Adams County School District

145291 East 60th Ave. Commerce City, CO 80022

Cell: 303.853.3227 dpowell@adams14.org www.adams14.org

Industry of Organization: County School District

Project Accomplishments:

- We have successfully installed over 1000 Cat 6a cable runs and fiber uplinks, ensuring unwavering connectivity throughout the school campuses.
- Gained valuable knowledge and experience in navigating the unique complexities of a school environment, which will be instrumental in successfully executing projects.

Completion Date: 2023

Original Contract Amount: \$367,994.00 Completed Cost Amount: \$367,994.00

2. Rockland County Department of Social Services

Project Name: RFP-RC-2024-006 - Access Point Installation for the Department of Social Services Building L

Contact Information:

Mark Navarro Network Administrator - Rockland County DSS50 Sanatorium Road - Building

L Pomona, New York, 10970

Cell: 845-364-3188 email: mark.navarro@dfa.state.ny.us

Industry of Organization: County government office.

Project Accomplishments:

 Completed the installation of network cabling for the newly implemented Wi-Fi system in the Rockland County Department of Social Services' "Access Point Installation for the Department of Social Services Building L" project (RFP-RC-2024-006).

Completion Date: 2024

Original Contract Amount: \$21,340.83 Completed Cost Amount: \$21,340.83

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3. Trinidad State College Student Housing Cabling Upgrade Project

Project Name: TSC Cat6 Cabling (RCC)

Contact Information:

Terry HindsmanPurchasing Manager

Cell: 720-858-2772 e-mail: terry.hindsman@cccs.edu

Industry of Organization: State College Student Housing

Project Accomplishments:

 Successfully installed over 300 Cat6 cables in student housing facilities spread across four buildings, enhancing the college's infrastructure to provide reliable and high-speed internet connectivity for students residing in these buildings.

Completion Date: 2024

Original Contract Amount: \$135,716.19 Completed Cost Amount: \$135,716.19



25-025 - Internal Connections-Structured Cabling (E-Rate) Bid

Base Proposal

Date: 02/21/2025

SYSTEC101 will be providing the following:

Please note that based on General Contractor's request, SYSTEC101 will furnish and install data communications system to Adams 12 Five Star Schools

Please note that "The performing and bonding rate is not included in this proposal. If required, it will be a 2.7% additional charge from the value of the proposal"

BASE BID

School Name	Each School Total
Arapahoe Ridge Elementary School	\$ 108,860.46
Eagleview Elementary School	\$ 100,148.55
Glacier Peak Elementary School	\$ 81,617.38
Prairie Hills Elementary School	\$ 98,374.81
Skyview Elementary School	\$ 100,143.87
Tarver Elementary School	\$ 106,626.46
Shadow Ridge Middle School	\$ 277,009.25
Silver Hills Middle School	\$ 296,533.30
Horizon High School	\$ 400,076.01
Mountain Range High School	\$ 379,459.87
Hunters Glen Elementary School	\$ 115,111.83
Century Middle School	\$ 245,036.97

Scope of Work Systec will furnish and install data infrastructure for a total of (12) schools as mentioned below.

School Name	Site Address
Arapahoe Ridge Elementary School	13095 N Pecos St, Westminster, CO 80234, United States
Eagleview Elementary School	4601 Summit Grove Pkwy, Thornton, CO 80241, United States
Glacier Peak Elementary School	12060 Jasmine St, Brighton, CO 80602, United States
Prairie Hills Elementary School	13801 Garfield Pl, Thornton, CO 80602, United States
Skyview Elementary School	5021 EAST 123RD AVENUE THORNTON CO, 80241 -3203
Tarver Elementary School	3500 Summit Grove Pkwy, Thornton, CO 80241, United States
Shadow Ridge Middle School	12551 Holly St, Thornton, CO 80241, United States
Silver Hills Middle School	12400 Huron St, Westminster, CO 80234, United States
Horizon High School	5321 E 136th Ave, Thornton, CO 80602, United States
Mountain Range High School	12500 Huron St, Westminster, CO 80234, United States
Hunters Glen Elementary School	13222 Corona St, Thornton, CO 80241, United States
Century Middle School	13000 Lafayette St, Thornton, CO 80241, United States

Arapahoe Ridge Elementary School:

- 1. SYSTEC101 will furnish and install a total of (275) Cat 6A plenum cables (blue) for data to (275) outlets.
- We will furnish and install (275) Cat 6A plenum cables (blue) for data to (275) outlets.
 Each data wall outlet gets (1) Cat 6A jack (blue) on a compatible faceplate (white).

- Each data wall outlet gets (1) Lat ba Jack (blue) on a compatible faceplate (white).
 All empty ports on faceplates will be covered using blanks.
 Furnish and install (1) 12 strand singlemode fiber optic cable from MDF to IDF. Each
 12 strand fiber optic cable will be provided with LC Connectors, Adapter Panels,
 Fiber LIUs and 4 Fiber jumpers at two different sizes.
- 6. J-Hooks will be installed as required to support traversal of the cable bundle.
- 7. All cabling will be secured using velcro, tie-wraps and other necessary supporting material.

- 1. SYSTEC101 will furnish and install a total of (263) Cat 6A plenum cables (blue) for data to (263) outlets.
 2. We will furnish and install (263) Cat 6A plenum cables (blue) for data to (263) outlets.
- Each data wall outlet gets (1) Cat 6A jack (blue) on a compatible faceplate (white).
 All empty ports on faceplates will be covered using blanks.
- 5. No Fiber optic cable is included for this school.
- 6. J-Hooks will be installed as required to support traversal of the cable bundle.
- 7. All cabling will be secured using velcro, tie-wraps and other necessary supporting material.

- 1. SYSTEC101 will furnish and install a total of (195) Cat 6A plenum cables (blue) for data to (195) outlets.
- 2. We will furnish and install (195) Cat 6A plenum cables (blue) for data to (195) outlets.
- 3. Each data wall outlet gets (1) Cat 6A jack (blue) on a compatible faceplate (white).
- 4. All empty ports on faceplates will be covered using blanks.
- 5. Furnish and install (2) 12 strand singlemode fiber optic cable from MDF to IDF. Each 12 strand fiber optic cable will be provided with LC Connectors, Adapter Panels, Fiber LIUs and 4 Fiber jumpers at two different sizes.
- 6. J-Hooks will be installed as required to support traversal of the cable bundle. 7. All cabling will be secured using velcro, tie-wraps and other necessary supporting material.

Prairie Hills Elementary School

- 1. SYSTEC101 will furnish and install a total of (262) Cat 6A plenum cables (blue) for data to (262) outlets.
- 2. We will furnish and install (262) Cat 6A plenum cables (blue) for data to (262) outlets.
- 3. Each data wall outlet gets (1) Cat 6A jack (blue) on a compatible faceplate (white).
- 4. All empty ports on faceplates will be covered using blanks.
- 5. No Fiber optic cable is included for this school.
- 6. J-Hooks will be installed as required to support traversal of the cable bundle.
- 7. All cabling will be secured using velcro, tie-wraps and other necessary supporting material

Skyview Elementary School:

- 1. SYSTEC101 will furnish and install a total of (268) Cat 6A plenum cables (blue) for data to (268) outlets.
- 2. We will furnish and install (268) Cat 6A plenum cables (blue) for data to (268) outlets
- 3. Each data wall outlet gets (1) Cat 6A jack (blue) on a compatible faceplate (white).
- 4. All empty ports on faceplates will be covered using blanks.5. No Fiber optic cable is included for this school.
- 6. J-Hooks will be installed as required to support traversal of the cable bundle.
- 7. All cabling will be secured using velcro, tie-wraps and other necessary supporting material

Tarver Elementary School

- 1. SYSTEC101 will furnish and install a total of (286) Cat 6A plenum cables (blue) for data to (286) outlets
- 2. We will furnish and install (286) Cat 6A plenum cables (blue) for data to (286) outlets
- 3. Each data wall outlet gets (1) Cat 6A jack (blue) on a compatible faceplate (white).
- 4. All empty ports on faceplates will be covered using blanks.
- 5. No Fiber optic cable is included for this school.
- 6. J-Hooks will be installed as required to support traversal of the cable bundle.
- 7. All cabling will be secured using velcro, tie-wraps and other necessary supporting material.

Shadow Ridge Middle School

- 1. SYSTEC101 will furnish and install a total of (697) Cat 6A plenum cables (blue) for data to (697) outlets.
- 2. We will furnish and install (697) Cat 6A plenum cables (blue) for data to (697) outlets.

 3. Each data wall outlet gets (1) Cat 6A jack (blue) on a compatible faceplate (white).

- All empty ports on faceplates will be covered using blanks.
 Furnish and install (7) 12 strand singlemode fiber optic cable from MDF to IDF. Each 12 strand fiber optic cable will be provided with LC Connectors, Adapter Panels, Fiber LIUs and 4 Fiber jumpers at two different sizes.
- 6. J-Hooks will be installed as required to support traversal of the cable bundle.
- 7. All cabling will be secured using velcro, tie-wraps and other necessary supporting material.

Silver Hills Middle School

- 1. SYSTEC101 will furnish and install a total of (767) Cat 6A plenum cables (blue) for data to (767) outlets
- 2. We will furnish and install (767) Cat 6A plenum cables (blue) for data to (767) outlets.
- 3. Each data wall outlet gets (1) Cat 6A jack (blue) on a compatible faceplate (white).
- 4. All empty ports on faceplates will be covered using blanks.
- Furnish and install (2) 12 strand singlemode fiber optic cable from MDF to IDF. Each
 12 strand fiber optic cable will be provided with LC Connectors, Adapter Panels,
 Fiber LIUs and 4 Fiber jumpers at two different sizes.
- 6. J-Hooks will be installed as required to support traversal of the cable bundle.
- 7. All cabling will be secured using velcro, tie-wraps and other necessary supporting material.

Horizon High School

- 1. SYSTEC101 will furnish and install a total of (1011) Cat 6A plenum cables (blue) for data to (1011) outlets.
- We will furnish and install (1011) Cat 6A plenum cables (blue) for data to (1011) outlets
 Each data wall outlet gets (1) Cat 6A jack (blue) on a compatible faceplate (white).
- 4. All empty ports on faceplates will be covered using blanks.
- 5. Furnish and install (6) 12 strand singlemode fiber optic cable from MDF to IDF. Each 12 strand fiber optic cable will be provided with LC Connectors, Adapter Panels, Fiber LIUs and 4 Fiber jumpers at two different sizes.
- 6. J-Hooks will be installed as required to support traversal of the cable bundle.
- 7. All cabling will be secured using velcro, tie-wraps and other necessary supporting material.

Mountain Range High School

- 1. SYSTEC101 will furnish and install a total of (987) Cat 6A plenum cables (blue) for data to (987) outlets.
- 2. We will furnish and install (987) Cat 6A plenum cables (blue) for data to (987) outlets.
- 3. Each data wall outlet gets (1) Cat 6A jack (blue) on a compatible faceplate (white).
- 4. All empty ports on faceplates will be covered using blanks.
- Furnish and install (4) 12 strand singlemode fiber optic cable from MDF to IDF. Each
 12 strand fiber optic cable will be provided with LC Connectors, Adapter Panels,
 Fiber LIUs and 4 Fiber jumpers at two different sizes.
- 6. J-Hooks will be installed as required to support traversal of the cable bundle.
- 7. All cabling will be secured using velcro, tie-wraps and other necessary supporting material.

Hunters Glen Elementary School

- 1. SYSTEC101 will furnish and install a total of (296) Cat 6A plenum cables (blue) for data to (296) outlets.
- 2. We will furnish and install (296) Cat 6A plenum cables (blue) for data to (296) outlets.
- 3. Each data wall outlet gets (1) Cat 6A jack (blue) on a compatible faceplate (white).
- 4. All empty ports on faceplates will be covered using blanks.
- All enipty ports of inacepiates with a be overed using bains.
 Furnish and install (1) 12 strand singlemode fiber optic cable from MDF to IDF. Each 12 strand fiber optic cable will be provided with LC Connectors, Adapter Panels, Fiber LIUs and 4 Fiber jumpers at two different sizes.
- 6. J-Hooks will be installed as required to support traversal of the cable bundle.
- 7. All cabling will be secured using velcro, tie-wraps and other necessary supporting material.

- 1. SYSTEC101 will furnish and install a total of (623) Cat 6A plenum cables (blue) for data to (623) outlets.
- 2. We will furnish and install (623) Cat 6A plenum cables (blue) for data to (623) outlets.

 3. Each data wall outlet gets (1) Cat 6A jack (blue) on a compatible faceplate (white).
- 4. All empty ports on faceplates will be covered using blanks.
- 5. Furnish and install (3) 12 strand singlemode fiber optic cable from MDF to IDF. Each 12 strand fiber optic cable will be provided with LC Connectors. Adapter Panels Fiber LIUs and 4 Fiber jumpers at two different sizes.
- 6. J-Hooks will be installed as required to support traversal of the cable bundle.
- 7. All cabling will be secured using velcro, tie-wraps and other necessary supporting material.

IDF/MDF room

1. We will furnish and install 48-port Cat6A flat unshielded patch panel (black) and strain relief bar rear of the patch panel. All Cat 6 cables will be terminated in these newly installed patch panels.

- 1. We will provide Cat 6A patch cord, 1 ft (blue) at IDF/MDF room end.
- 2. We will provide Cat 6A patch cord, 10 ft (blue) at User end.
- 3. All patch panels will be provided with strain relief bar.
- 4. All cabling will be secured using velcro, tie-wraps and other necessary supporting material.

- 1. SYSTEC101 will install, terminate, test and label all the cables provided above.
- All labeling will be machine printed.
 All the penetrations made for the installation of telecommunication cables will be firestopped using putty and sealant.
- All terminations and testing will be done as per TIA/EIA/BICSI standards.
 We will provide the Owner with closeouts (test results and as-builts) at the end of the project.
- 6. We will demo all the existing cables.

Scope of work by others:

- 1. All 110 VAC, conduit, coring, stub-ups, single device cover, junction boxes, and structural reinforcement.
- 2. Adequate on-site storage will be provided
- 4. Furnishing and installation of network equipment (switches, SFPs, uplink patch cords and servers) and ISP link (firewall, routers and demarc extension)
- 5. Furnishing and installation of HVAC and electrical systems in the IDF/MDF Room
- 6. Furnishing and installation of Empty conduits and stub up conduits.

- 1. Due to extreme price fluctuations, we can only hold the material pricing for 60 days. Any material price hikes after 60 days will be borne by the client.
- 2 All work is to be performed during regular working hours, unless otherwise noted
- 3. If required, stub ups, conduit and coring are to be provided by customer.
- Pricing does not include any surface raceways, wiremold, power poles, UPS and PDUs or any scope of work related to security, networking equipments.
 SYSTEC101 must have proper access to all areas necessary to complete the project in a timely fashion.
- 6. No demo, cutover, ISP link, network equipment and its related accessories (SFPs, aggregators, and uplink patch cords) is included in this proposal.
- 7. Based on Commscope cabling solution.
- 8. Any additional labor or material required beyond the scope of this proposal will be done on a change order, signed by a customer representative.
- 9. Furnishing and installation of cables for the TV system, WAP system, and video surveillance system, exclusively at the facility, along with Transportation.

 10. Pricing does not include any cable tray or its related products.
- 11. Conduits should be made ready prior to cabling installation.12. No copper backbone cabling is included in this proposal.
- 13. Uplinking the entire network using active electronics by others. We will only provide empty network infrastructure, powering the network using network equipment and routers, and connecting them to ISP link is responsible by owner or ISP.
- 14. The conduits, conduit sleeving, conduit rough-in to be provided by the electrical contractor.
- 16. All to be existing fire rated plywood backboards and telecommunications grounding busbars at MDF/IDF rooms end. If necessary, a new changed order will be proposed.

 16. All Equipment rack and wire management to be existing. All other Network Equipment to be owner furnished and owner installed.

Arapahoe Ridge Elementary School

Equipment and Labor						
Part Number	Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
UN874035104/10	Commscope Category 6A U/UTP Cable, plenum, blue jacket (per ft)	62000	\$ 0.67	\$ -	\$ 0.67	\$ 41,354.00
760241141	Commscope Cat 6A unshielded jack (blue)	275	\$ 9.90	\$ _	\$ 9.90	\$ 2,722.91
M12L-262	Commscope 2-port faceplate (white)	275	\$ 2.30	\$ -	\$ 2.30	\$ 632.50
107067928	Commscope blanks (white)	275	\$ 0.52	\$ -	\$ 0.52	\$ 142.31
Part Number	IDF/MDF room Buildout	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
760162818	Commscope 48-port Cat 6A flat patch panel, 2RU (black)	11	\$ 471.50	\$ -	\$ 471.50	\$ 5,186.50
SRB19BLY	Panduit strain relief bar	11	\$ 24.30	\$ -	\$ 24.30	\$ 267.29
UC1AAA2-09F01	Cat 6A patch cord, 1 ft	275	\$ 5.18	\$ -	\$ 5.18	\$ 1,423.13
UC1AAA2-09F010	Cat 6A patch cord, 10 ft	275	\$ 17.25	\$ -	\$ 17.25	\$ 4,743.75
Part Number	Backbone Cabling	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
012E8P-31131-29	Corning 12-strand tight buffered singlemode (OS2) indoor/outdoor plenum rated fiber optic cable (per ft)	650	\$ 1.30	\$ _	\$ 1.30	\$ 844.68
CCH-CP12-A9	Corning 12F (OS2) duplex LC adapter panel	2	\$ 132.25	\$ -	\$ 132.25	\$ 264.50
95-200-99	Corning (OS2) LC Connectors	24	\$ 20.64	\$ _	\$ 20.64	\$ 495.42
CCH-01U	Corning 1U fiber enclosure	2	\$ 312.89	\$ -	\$ 312.89	\$ 625.78
J-LACLAC102DX001M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 1M	4	\$ 23.00	\$ -	\$ 23.00	\$ 92.00
J-LACLAC102DX003M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M	4	\$ 34.50	\$ -	\$ 34.50	\$ 138.00
Part Number	Supporting Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
SSP100	Firestop putty	11	\$ 35.57	\$ -	\$ 35.57	\$ 391.26
SSS100	STI Fire barrier sealant	11	\$ 20.40	\$ -	\$ 20.40	\$ 224.41
ICCMSJHW44	ICC 2" Batwing J-hook	300	\$ 3.60	\$ -	\$ 3.60	\$ 1,079.85
ICCMSJHW55	ICC 4" Batwing J-hook	200	\$ 5.22	\$ -	\$ 5.22	\$ 1,044.20
1700-1PK-BB40	3M Electric tapes	10	\$ 3.43	\$ -	\$ 3.43	\$ 34.27
30987	3/4" Velcro (75ft)	6	\$ 31.51	\$ -	\$ 31.51	\$ 189.06
PLT3I-C	Panduit Tie wraps (100/bag)	6	\$ 31.19	\$ -	\$ 31.19	\$ 187.13
N/A	Labeling kits	1	\$ 575.00	\$ -	\$ 575.00	\$ 575.00
N/A	Miscellaneous cost	1	\$ 3,162.50	\$ -	\$ 3,162.50	\$ 3,162.50
Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
N/A	Labor for completing the stated Scope of Work	514	\$ -	\$ 80.00	\$ 80.00	\$ 41,120.00
N/A	Project Management and Handling Charges	24	\$ -	\$ 80.00	\$ 80.00	\$ 1,920.00

Total: Equipment	65,820.46
Total: Labor	43,040.00

Grand Total	\$ 108,860.46
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Equipment and Labor

Part Number	Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
UN874035104/10	Commscope Category 6A U/UTP Cable, plenum, blue jacket (per ft)	60000	\$ 0.67	\$ -	\$ 0.67	\$ 40,020.00

760241141	Commscope Cat 6A unshielded jack (blue)	263	\$ 9.90	\$ -	\$ 9.90	\$ 2,604.09
M12L-262	Commscope 2-port faceplate (white)	263	\$ 2.30	\$ -	\$ 2.30	\$ 604.90
107067928	Commscope blanks (white)	263	\$ 0.52	\$ -	\$ 0.52	\$ 136.10
Part Number	IDF/MDF room Buildout	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
760162818	Commscope 48-port Cat 6A flat patch panel, 2RU (black)	10	\$ 471.50	\$ -	\$ 471.50	\$ 4,715.00
SRB19BLY	Panduit strain relief bar	10	\$ 24.30	\$ -	\$ 24.30	\$ 243.00
UC1AAA2-09F01	Cat 6A patch cord, 1 ft	263	\$ 5.18	\$ -	\$ 5.18	\$ 1,361.03
UC1AAA2-09F010	Cat 6A patch cord, 10 ft	263	\$ 17.25	\$ -	\$ 17.25	\$ 4,536.75
Part Number	Backbone Cabling	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
012E8P-31131-29	Corning 12-strand tight buffered singlemode (OS2) indoor/outdoor plenum rated fibe	0	\$ 1.30	\$ -	\$ 1.30	\$ -
CCH-CP12-A9	Corning 12F (OS2) duplex LC adapter panel	0	\$ 132.25	\$ -	\$ 132.25	\$ -
95-200-99	Corning (OS2) LC Connectors	0	\$ 20.64	\$ -	\$ 20.64	\$ -
CCH-01U	Corning 1U fiber enclosure	0	\$ 312.89	\$ -	\$ 312.89	\$ -
J-LACLAC102DX001M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 1M	0	\$ 23.00	\$ -	\$ 23.00	\$ -
J-LACLAC102DX003M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M	0	\$ 34.50	\$ -	\$ 34.50	\$ -
Part Number	Supporting Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
SSP100	Firestop putty	11	\$ 35.57	\$ -	\$ 35.57	\$ 391.26
SSS100	STI Fire barrier sealant	11	\$ 20.40	\$ -	\$ 20.40	\$ 224.41
ICCMSJHW44	ICC 2" Batwing J-hook	300	\$ 3.60	\$ -	\$ 3.60	\$ 1,079.85
ICCMSJHW55	ICC 4" Batwing J-hook	200	\$ 5.22	\$ _	\$ 5.22	\$ 1,044.20
1700-1PK-BB40	3M Electric tapes	10	\$ 3.43	\$ -	\$ 3.43	\$ 34.27
30987	3/4" Velcro (75ft)	6	\$ 31.51	\$ -	\$ 31.51	\$ 189.06
PLT3I-C	Panduit Tie wraps (100/bag)	6	\$ 31.19	\$ -	\$ 31.19	\$ 187.13
N/A	Labeling kits	1	\$ 575.00	\$ -	\$ 575.00	\$ 575.00
N/A	Miscellaneous cost	1	\$ 3,162.50	\$ -	\$ 3,162.50	\$ 3,162.50
Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
N/A	Labor for completing the stated Scope of Work	464	\$ -	\$ 80.00	\$ 80.00	\$ 37,120.00
N/A	Project Management and Handling Charges	24	\$.	\$ 80.00	\$ 80.00	\$ 1,920.00

\$ 61,108.55 \$ 39,040.00

Glacier Peak Elementary School

Total: Equipment

aui	pm	ent	and	Labor

Equipment and Labor						
Part Number	Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
UN874035104/10	Commscope Category 6A U/UTP Cable, plenum, blue jacket (per ft)	44000	\$ 0.67	\$ -	\$ 0.67	\$ 29,348.00
760241141	Commscope Cat 6A unshielded jack (blue)	195	\$ 9.90	\$ -	\$ 9.90	\$ 1,930.79
M12L-262	Commscope 2-port faceplate (white)	195	\$ 2.30	\$ _	\$ 2.30	\$ 448.50
107067928	Commscope blanks (white)	195	\$ 0.52	\$ -	\$ 0.52	\$ 100.91
Part Number	IDF/MDF room Buildout	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
760162818	Commscope 48-port Cat 6A flat patch panel, 2RU (black)	9	\$ 471.50	\$ -	\$ 471.50	\$ 4,243.50
SRB19BLY	Panduit strain relief bar	9	\$ 24.30	\$ -	\$ 24.30	\$ 218.70
UC1AAA2-09F01	Cat 6A patch cord, 1 ft	195	\$ 5.18	\$ -	\$ 5.18	\$ 1,009.13
UC1AAA2-09F010	Cat 6A patch cord, 10 ft	195	\$ 17.25	\$ -	\$ 17.25	\$ 3,363.75
Part Number	Backbone Cabling	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
	Corning 12-strand tight buffered singlemode (OS2) indoor/outdoor plenum rated fiber optic cable (per ft)	1100	\$ 1.30	\$ -	\$ 1.30	\$ 1,429.45
CCH-CP12-A9	Corning 12F (OS2) duplex LC adapter panel	4	\$ 132.25	\$ -	\$ 132.25	\$ 529.00
95-200-99	Corning (OS2) LC Connectors	48	\$ 20.64	\$ -	\$ 20.64	\$ 990.84
CCH-01U	Corning 1U fiber enclosure	4	\$ 312.89	\$ -	\$ 312.89	\$ 1,251.57
J-LACLAC102DX001M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 1M	8	\$ 23.00	\$ -	\$ 23.00	\$ 184.00
J-LACLAC102DX003M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M	8	\$ 34.50	\$ _	\$ 34.50	\$ 276.00
Part Number	Supporting Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
SSP100	Firestop putty	8	\$ 35.57	\$ -	\$ 35.57	\$ 284.56
SSS100	STI Fire barrier sealant	8	\$ 20.40	\$ -	\$ 20.40	\$ 163.21
ICCMSJHW44	ICC 2" Batwing J-hook	200	\$ 3.60	\$ -	\$ 3.60	\$ 719.90
ICCMSJHW55	ICC 4" Batwing J-hook	125	\$ 5.22	\$ -	\$ 5.22	\$ 652.63
1700-1PK-BB40	3M Electric tapes	10	\$ 3.43	\$ -	\$ 3.43	\$ 34.27
30987	3/4" Velcro (75ft)	6	\$ 31.51	\$ -	\$ 31.51	\$ 189.06
PLT3I-C	Panduit Tie wraps (100/bag)	6	\$ 31.19	\$ -	\$ 31.19	\$ 187.13
N/A	Labeling kits	1	\$ 402.50	\$ -	\$ 402.50	\$ 402.50
N/A	Miscellaneous cost	1	\$ 2,300.00	\$ -	\$ 2,300.00	\$ 2,300.00
Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
N/A	Labor for completing the stated Scope of Work	376	\$ -	\$ 80.00	\$ 80.00	\$ 30,080.00
N/A	Project Management and Handeling Charges	16	\$ -	\$ 80.00	\$ 80.00	\$ 1,280.00

Prairie Hills Elementary School Equipment and Labor

Equipment and Labor						
Part Number	Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
UN874035104/10	Commscope Category 6A U/UTP Cable, plenum, blue jacket (per ft)	59000	\$ 0.67	\$ -	\$ 0.67	\$ 39,353.00
760241141	Commscope Cat 6A unshielded jack (blue)	262	\$ 9.90	\$ -	\$ 9.90	\$ 2,594.19
M12L-262	Commscope 2-port faceplate (white)	262	\$ 2.30	\$ -	\$ 2.30	\$ 602.60
107067928	Commscope blanks (white)	262	\$ 0.52	\$ -	\$ 0.52	\$ 135.59
Part Number	IDF/MDF room Buildout	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
760162818	Commscope 48-port Cat 6A flat patch panel, 2RU (black)	8	\$ 471.50	\$ -	\$ 471.50	\$ 3,772.00
SRB19BLY	Panduit strain relief bar	8	\$ 24.30	\$ -	\$ 24.30	\$ 194.40
UC1AAA2-09F01	Cat 6A patch cord, 1 ft	262	\$ 5.18	\$ -	\$ 5.18	\$ 1,355.85
UC1AAA2-09F010	Cat 6A patch cord, 10 ft	262	\$ 17.25	\$ -	\$ 17.25	\$ 4,519.50
Part Number	Backbone Cabling	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
012E8P-31131-29	Corning 12-strand tight buffered singlemode (OS2) indoor/outdoor plenum rated fiber optic cable (per ft)	0	\$ 1.30	\$ -	\$ 1.30	\$ -
CCH-CP12-A9	Corning 12F (OS2) duplex LC adapter panel	0	\$ 132.25	\$ -	\$ 132.25	\$ -
95-200-99	Corning (OS2) LC Connectors	0	\$ 20.64	\$ -	\$ 20.64	\$ -
CCH-01U	Corning 1U fiber enclosure	0	\$ 312.89	\$ -	\$ 312.89	\$ -

J-LACLAC102DX001M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 1M	0	\$ 23.00	\$ -	\$ 23.00	\$ -
J-LACLAC102DX003M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M	0	\$ 34.50	\$ -	\$ 34.50	\$ -
Part Number	Supporting Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
SSP100	Firestop putty	11	\$ 35.57	\$ -	\$ 35.57	\$ 391.26
SSS100	STI Fire barrier sealant	11	\$ 20.40	\$ -	\$ 20.40	\$ 224.41
ICCMSJHW44	ICC 2" Batwing J-hook	300	\$ 3.60	\$ -	\$ 3.60	\$ 1,079.85
ICCMSJHW55	ICC 4" Batwing J-hook	200	\$ 5.22	\$ -	\$ 5.22	\$ 1,044.20
1700-1PK-BB40	3M Electric tapes	10	\$ 3.43	\$ -	\$ 3.43	\$ 34.27
30987	3/4" Velcro (75ft)	6	\$ 31.51	\$ -	\$ 31.51	\$ 189.06
PLT3I-C	Panduit Tie wraps (100/bag)	6	\$ 31.19	\$ -	\$ 31.19	\$ 187.13
N/A	Labeling kits	1	\$ 575.00	\$ -	\$ 575.00	\$ 575.00
N/A	Miscellaneous cost	1	\$ 3,162.50	\$ _	\$ 3,162.50	\$ 3,162.50
Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
N/A	Labor for completing the stated Scope of Work	463	\$ -	\$ 80.00	\$ 80.00	\$ 37,040.00
N/A	Project Management and Handling Charges	24	\$ -	\$ 80.00	\$ 80.00	\$ 1,920.00

Total: Equipment \$ 59,414.81

Total: Labor \$ 38,960.00

Skyview Elementary School Equipment and Labor

UNS74035104/10 Commscope Category 6A U/UTP Cable, plenum, blue jacket (per ft) 61000 \$ 0.67 \$ \$ 0.67 \$ 40 750241141 Commscope Cat 6A unshielded jack (blue) 268 \$ 9.90 \$ \$ 9.90 \$ 2	Equipment and Labor						
Table	Part Number	Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
M12L-262	UN874035104/10	Commscope Category 6A U/UTP Cable, plenum, blue jacket (per ft)	61000	\$ 0.67	\$ -	\$ 0.67	\$ 40,687.00
107067928 Commscope blanks (white) Commscope blanks (white) DDF/MDF room Buildout Commscope 48-port Cat 6A flat patch panel, 2RU (black) 7 5 471.50 5 5 471.50 5 3 3 5 5 3 3 5 5 3 3	760241141	Commscope Cat 6A unshielded jack (blue)	268	\$ 9.90	\$ -	\$ 9.90	\$ 2,653.60
Part Number Ouantity Material Price Labor Cost Unit Price Ext. Price	M12L-262	Commscope 2-port faceplate (white)		\$ 2.30	\$ -	\$ 2.30	\$ 616.40
Red Part P	107067928	Commscope blanks (white)	268	\$ 0.52	\$ -	\$ 0.52	\$ 138.69
SRB19BLY Panduit strain relief bar	Part Number	IDF/MDF room Buildout	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
UC1AAA2-09F01	760162818	Commscope 48-port Cat 6A flat patch panel, 2RU (black)	7	\$ 471.50	\$ -	\$ 471.50	\$ 3,300.50
UC1AAA2-09F010 Cat 6A patch cord, 10 ft Backbone Cabling Ouantity Material Price Labor Cost Unit Price Ext. Price Ext. Price CCH-CP12-A9 Corning 12-strand tight buffered singlemode (OS2) indoor/outdoor plenum rated fiber optic cable (per ft) S 1.30 S S S S S S S S S	SRB19BLY	Panduit strain relief bar	7	\$ 24.30	\$ -	\$ 24.30	\$ 170.10
Part Number Backbone Cabling Quantity Material Price Labor Cost Unit Price Ext. Price	UC1AAA2-09F01	Cat 6A patch cord, 1 ft	268	\$ 5.18	\$ -	\$ 5.18	\$ 1,386.90
D12E8P-31131-29 Corning 12-strand tight buffered singlemode (OS2) indoor/outdoor plenum rated fiber optic cable (per ft)	UC1AAA2-09F010	Cat 6A patch cord, 10 ft	268	\$ 17.25	\$ -	\$ 17.25	\$ 4,623.00
Fiber optic cable (per ft)	Part Number	Backbone Cabling	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
95-200-99	012E8P-31131-29		0	\$ 1.30	\$ -	\$ 1.30	\$ -
CCH-01U Coming 1U fiber enclosure 0 \$ 312.89 \$. \$ \$ \$ \$ \$ \$ \$ \$	CCH-CP12-A9	Corning 12F (OS2) duplex LC adapter panel	0	\$ 132.25	\$ -	\$ 132.25	\$ -
FLACLACIO2DX001M LC/APC - LC/APC Singlemode Duplex Patch Cable, 1M 0 \$ 23.00 \$. \$ 23.00 \$	95-200-99	Corning (OS2) LC Connectors	0	\$ 20.64	\$ -	\$ 20.64	\$ -
FLACLACIO2DX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 0 \$ 34.50 \$ \$ 34.50 \$ \$ 34.50 \$ \$ \$ 34.50 \$ \$ \$ 34.50 \$ \$ \$ 34.50 \$ \$ \$ 34.50 \$ \$ \$ 34.50 \$ \$ \$ 34.50 \$ \$ \$ \$ 34.50 \$ \$ \$ \$ \$ \$ \$ \$ \$	CCH-01U	Corning 1U fiber enclosure	0	\$ 312.89	\$ -	\$ 312.89	\$ -
Part Number Supporting Materials Quantity Material Price Labor Cost Unit Price Ext.Price SSP100 Firestop putty 11 \$ 35.57 \$ - \$ 35.57 \$ SSS100 STI Fire barrier sealant 11 \$ 20.40 \$ - \$ 20.40 \$ ICCMSIHW44 ICC 2" Batwing J-hook 300 \$ 3.60 \$ - \$ 3.60 \$ 1 \$ 3.60 \$ - \$ 3.60 \$ 1 \$ 1.00 \$ - \$ 3.60 \$ 1 \$ 3.60 \$ - \$ 3.60 \$ 1 \$ 3.60 \$ - \$ 3.60 \$ - \$ 3.60 \$ - \$ 3.60 \$ - \$ 3.60 \$ - \$ 3.60 \$ - \$ 3.60 \$ - \$ 3.43 \$ - \$	J-LACLAC102DX001M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 1M	0	\$ 23.00	\$ -	\$ 23.00	\$ -
SSP100 Firestop putty 11 \$ 35.57 \$ \$ 35.57 \$ SSS100 STI Fire barrier sealant 11 \$ 20.40 \$ \$ 20.40 \$ ICCMSIHW44 ICC 2" Batwing I-hook 300 \$ 5.22 \$ \$ 3.60 \$ ICCMSIHW55 ICC 4" Batwing I-hook 200 \$ 5.22 \$ \$ 5.22 \$ 1700-IPK-BB40 3M Electric tapes 10 \$ 3.43 \$ \$ \$ 3.43 \$ 30987 3/4" Velcro (75ft) 6 \$ 31.19 \$ \$ \$ 31.51 \$ PLT3I-C Panduit Tie wraps (100/bag) 6 \$ 31.19 \$ \$ \$ 31.19 \$ N/A Labeling kits 1 \$ 5.75.00 \$ \$ \$ 37.50 \$ N/A Miscellaneous cost 1 \$ 3,162.50 \$ \$ 3,162.50 \$ \$ 3,162.50 \$ N/A Labor for completing the stated Scope of Work 472 \$ \$ 80.00 \$ 80.00	J-LACLAC102DX003M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M	0	\$ 34.50	\$ -	\$ 34.50	\$ -
SSS100 STI Fire barrier sealant 11 \$ 20.40 \$. \$ 20.40 \$ ICCMSIHW44 ICC 2" Batwing I-hook 300 \$ 3.60 \$. \$ 3.60 \$ 1 ICCMSIHW55 ICC 4" Batwing I-hook 200 \$ 5.22 \$. \$ 5.22 \$ 1 1700-1PK-B840 3M Electric tapes 10 \$ 3.43 \$. \$ 3.43 \$ 30987 3/4" Velcro (75ft) 6 \$ 31.51 \$. \$ 31.51 \$ Plate I Panduit Tie wraps (100/bag) 6 \$ 31.19 \$. \$ 31.19 \$ N/A Labeling kits 1 \$ 575.00 \$. \$ 575.00 \$ N/A Miscellaneous cost 1 \$ 3,162.50 \$. \$ 3,162.50 \$ 3 N/A Labor for completing the stated Scope of Work 472 \$. \$ 80.00 \$ 80.00 \$ 80.00 \$ 80.00 \$	Part Number	Supporting Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
ICCMSIHW44	SSP100	Firestop putty	11		'		\$ 391.26
CCMS/HW55 ICC 4" Batwing J-hook 200 \$ 5.22 \$. \$ 5.22 \$. 1	SSS100	STI Fire barrier sealant	-		+'		+'
1700-1PK-B840 3M Electric tapes 10 \$ 3.43 \$. \$ 3.43 \$. \$ 3.43 \$. \$ 3.43 \$. \$ 3.43 \$. \$ 3.43 \$. \$ 3.43 \$. \$ 3.53 \$. \$ 3.53 \$. \$ 3.151 \$. \$. \$ 3.151 \$. \$. \$ 3.151 \$. \$. \$. \$. \$. \$. \$. \$. \$. \$.	ICCMSJHW44	ICC 2" Batwing J-hook	300	\$ 3.60	\$ -	\$ 3.60	\$ 1,079.85
30987 3/4" Velcro (75ft) 6 \$ 31.51 \$. \$ 31.51 \$ PLT3I-C Panduit Tie wraps (100/bag) 6 \$ 31.91 \$. \$ 31.91 \$ N/A Labeling kits 1 \$ 575.00 \$. \$ 575.00 \$ N/A Miscellaneous cost 1 \$ 3,162.50 \$. \$ 3,162.50 \$ 3,162.50 \$. 3 Part Number Labor Quantity Material Price Labor Cost Unit Price Ext. Price N/A Labor for completing the stated Scope of Work 472 \$ \$ 80.00 \$ 80.00 \$ 80.00 \$. 37					\$ -		
PIT3I-C Panduit Tie wraps (100/bag) 6 \$ 31.19 \$ \$ \$1.19 \$ N/A Labeling kits 1 \$ 575.00 \$ \$ 575.00 \$ N/A Miscellaneous cost 1 \$ 3,162.50 \$ \$ 3,162.50 \$ Part Number Labor Quantity Material Price Labor Cost Unit Price Ext. Price N/A Labor for completing the stated Scope of Work 472 \$ - \$ 80.00 \$ 80.00 \$ 80.00 \$ 37	1700-1PK-BB40	3M Electric tapes	10	\$ 3.43	\$ -	\$ 3.43	\$ 34.27
N/A Labeling kits 1 \$ 575.00 \$ \$ 575.00 \$ N/A Miscellaneous cost 1 \$ 3,162.50 \$ \$ \$ 3,162.50 \$ \$ \$ 3,162.50 \$ \$ \$ \$ 3,162.50 \$ \$ \$ \$ 3,162.50 \$		3/4" Velcro (75ft)			<u>'</u>		
N/A Miscellaneous cost 1 \$ 3,162.50 \$. \$ 3,162.50 \$ 3 Part Number Labor Quantity Material Price Labor Cost Unit Price Ext.Price N/A Labor for completing the stated Scope of Work 472 \$ \$ 80.00 \$ 80.00 \$ 37	PLT3I-C	Panduit Tie wraps (100/bag)	6	\$ 31.19	\$ -	\$ 31.19	\$ 187.13
Part Number Labor Quantity Material Price Labor Cost Unit Price Ext. Price N/A Labor for completing the stated Scope of Work 472 \$ - \$ 80.00 \$ 80.00 \$ 37		Labeling kits	1	\$ 575.00	\$ -	\$ 575.00	\$ 575.00
N/A Labor for completing the stated Scope of Work 472 \$ - \$ 80.00 \$ 80.00 \$ 37	N/A	Miscellaneous cost	1	\$ 3,162.50	\$ _		\$ 3,162.50
	Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
N/A Project Management and Handeling Charges 24 \$ 80.00 \$ 80.00 \$		Labor for completing the stated Scope of Work					
	N/A	Project Management and Handeling Charges	24	\$ -	\$ 80.00	\$ 80.00	\$ 1,920.00

\$ 60,463.87 Total: Equipment

Total: Labor \$ 39,680.00

Tarver Elementary School Equipment and Labor

	Equipment and Labor						
	Part Number	Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
M212-262 Commscope 2-port faceplate (white)	UN874035104/10	Commscope Category 6A U/UTP Cable, plenum, blue jacket (per ft)	66000	\$ 0.67	\$ -	\$ 0.67	\$ 44,022.00
Description Commiscope blanks (white) Commiscope blanks (white) Commiscope blanks (white) Commiscope day bort cat 6 Aft patch panel, 2RU (black) 7 5 471.50 5 5 471.50 5 3,300.55 5,881.98 7 5 471.50 5 3,300.55 5,881.98 7 5 471.50 5 3,300.55 5,881.98 7 7 5 471.50 5 3,300.55 7 7 5 471.50 5 3,300.55 7 7 5 471.50 5 3,300.55 7 7 5 471.50 5 3,300.55 7 7 5 471.50 5 3,300.55 7 7 7 7 7 7 7 7 7	760241141	Commscope Cat 6A unshielded jack (blue)	286	\$ 9.90	\$ -	\$ 9.90	\$ 2,831.83
Part Number	M12L-262	Commscope 2-port faceplate (white)	286	\$ 2.30	\$ -	\$ 2.30	\$ 657.80
Committee Comm	107067928	Commscope blanks (white)	286	\$ 0.52	\$ -	\$ 0.52	\$ 148.01
Panduit strain relief bar 7 \$ 24,30 \$. \$ 24,30 \$. \$ 170.1	Part Number	IDF/MDF room Buildout	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
C1C1AAA2-09F010 Cat 6A patch cord, 1 ft 286 5 5.18 5 .	760162818	Commscope 48-port Cat 6A flat patch panel, 2RU (black)	7	\$ 471.50	\$ -	\$ 471.50	\$ 3,300.50
DCIAAA2-09F010 Cat 6A patch cord, 10 ft Backbone Cabling Quantity Material Price Labor Cost Unit Price Ext. Price	SRB19BLY	Panduit strain relief bar	7	\$ 24.30	\$ -	\$ 24.30	\$ 170.10
Part Number Backbone Cabling Quantity Material Price Labor Cost Unit Price Ext.Price	UC1AAA2-09F01	Cat 6A patch cord, 1 ft	286	\$ 5.18	\$ -	\$ 5.18	\$ 1,480.05
Coming 12-strand tight buffered singlemode (OS2) indoor/outdoor plenum rated fiber optic cable (per ft)	UC1AAA2-09F010	Cat 6A patch cord, 10 ft	286	\$ 17.25	\$ -	\$ 17.25	\$ 4,933.50
Fiber optic cable (per ft) Fiber optic cable (per ft) Fire Supporting Materials	Part Number	Backbone Cabling	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
25-200-99 Corning (OS2) LC Connectors 0 5 20.64 5 5 20.64 5	012E8P-31131-29		0	\$ 1.30	\$ -	\$ 1.30	\$ -
CCH-01U Coming 1U fiber enclosure 0 \$ 312.89 \$ \$ 312.89 \$ \$ \$ \$ \$ \$ \$ \$	CCH-CP12-A9	Corning 12F (OS2) duplex LC adapter panel	0	\$ 132.25	\$ -	\$ 132.25	\$ -
LCIACIAC 102 DX001M	95-200-99	Corning (OS2) LC Connectors	0	\$ 20.64	\$ -	\$ 20.64	\$ -
LACLACIO2DX003M CC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 0 5 34.50 5 - 5 34.50 5 -	CCH-01U	Corning 1U fiber enclosure	0	\$ 312.89	\$ -	\$ 312.89	\$ -
Part Number Supporting Materials Quantity Material Price Labor Cost Unit Price Ext. Price	J-LACLAC102DX001M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 1M	0	\$ 23.00	\$ -	\$ 23.00	\$ -
SSP100 Firestop putty 11 S 35.57 S	J-LACLAC102DX003M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M	0	\$ 34.50	\$ -	\$ 34.50	\$ -
SSS100 STI Fire barrier sealant 11 \$ 20.40 \$ \$ \$ \$ 24.4 \$ \$ \$ \$	Part Number	Supporting Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
CCMSHW44 ICC 2" Batwing J-hook 300 \$ 3.60 \$. \$. \$. \$. 1,079.8 CCMSHW55 ICC 4" Batwing J-hook 200 \$ 5.22 \$. \$. \$. \$. 1,042.2 \$. \$. \$. 1,042.2 \$.	SSP100	Firestop putty	11	\$ 35.57	\$ -	\$ 35.57	\$ 391.26
CCMSHW55 ICC 4" Batwing J-hook 200 \$ 5.22 \$ 5.22 \$ 1,044.2 L700-1PK-B840 3M Electric tapes 10 \$ 3.43 \$. \$ 3.43 \$ 34.2 30987 3/4" Velcro (75t) 6 \$ 31.51 \$. \$ 31.51 \$ 189.0 2013-I-C Panduit Tie wraps (100/bag) 6 \$ 31.19 \$. \$ 31.19 \$ 187.1 V/A Labeling kits 1 \$ 575.00 \$. \$ 575.00 \$ 575.00 \$ 575.00 V/A Miscellaneous cost 1 \$ 3,277.50 \$. \$ 3,277.50 \$ 3,277.50	SSS100	STI Fire barrier sealant	11	\$ 20.40	\$ -	\$ 20.40	\$ 224.41
1700-1PK-B840 3M Electric tapes 10 \$ 3.43 \$ \$. \$ \$ 3.42 30987 3/4" Velcro (75ft) 6 \$ 31.51 \$. \$ \$ 31.51 \$ \$ 189.0 1701-1C-1 Pandult Tie wraps (100/bag) 6 \$ 31.19 \$ \$ \$ 31.19 \$ 187.1 V/A Labeling kits 1 \$ 575.00 \$ \$ 575.00 \$ 575.0	ICCMSJHW44	ICC 2" Batwing J-hook	300	\$ 3.60	\$ -	\$ 3.60	\$ 1,079.85
80987 3/4"Velcro (75ft) 6 \$ 31.51 \$. \$ 31.51 \$ 189.0 VIT3I-C Panduit Tie wraps (100/bag) 6 \$ 31.19 \$. \$ 31.19 \$ 187.1 V/A Labeling kits 1 \$ 575.00 \$. \$ 575.00 \$ 575.00 \$ 3,277.50 \$. \$ 3,277.50	ICCMSJHW55	ICC 4" Batwing J-hook	200	\$ 5.22	\$ -	\$ 5.22	\$ 1,044.20
Partal-C Panduit Tie wraps (100/bag) 6 \$ 31.19 \$ - \$ 31.19 \$ 187.1 N/A Labeling kits 1 \$ 575.00 \$ - \$ 575.00 \$ 575.00 \$ 575.00 \$ 575.00 \$ 3,277.50 <td>1700-1PK-BB40</td> <td>3M Electric tapes</td> <td>10</td> <td>\$ 3.43</td> <td>\$ -</td> <td>\$ 3.43</td> <td>\$ 34.27</td>	1700-1PK-BB40	3M Electric tapes	10	\$ 3.43	\$ -	\$ 3.43	\$ 34.27
V/A Labeling kits 1 \$ 575.00 \$ - \$ 575.00 \$ 575.00 \$ 575.00 \$ 575.00 \$ 575.00 \$ 575.00 \$ 3,277.50 \$ - \$ 3,277.50	30987	3/4" Velcro (75ft)	6	\$ 31.51	\$ -	\$ 31.51	\$ 189.06
V/A Miscellaneous cost 1 \$ 3,277.50 \$ - \$ 3,277.50 \$ 3,277.50	PLT3I-C	Panduit Tie wraps (100/bag)	6	\$ 31.19	\$ -	\$ 31.19	\$ 187.13
	N/A	Labeling kits	1	\$ 575.00	\$ -	\$ 575.00	\$ 575.00
Part Number Labor Quantity Material Price Labor Cost Unit Price Ext.Price	N/A	Miscellaneous cost	1	\$ 3,277.50	\$ -	\$ 3,277.50	\$ 3,277.50
	Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price

N,	/A	Labor for completing the stated Scope of Work	502	\$ -	\$ 80.00	\$ 80.00	\$ 40,160.00
N,	/A	Project Management and Handeling Charges	24	\$ -	\$ 80.00	\$ 80.00	\$ 1,920.00

\$ 42,080.00

Shadow Ridge Middle School Equipment and Labor

Equipment and Labor						
Part Number	Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
UN874035104/10	Commscope Category 6A U/UTP Cable, plenum, blue jacket (per ft)	157000	\$ 0.67	\$ -	\$ 0.67	\$ 104,719.00
760241141	Commscope Cat 6A unshielded jack (blue)	697	\$ 9.90	\$ -	\$ 9.90	\$ 6,901.35
M12L-262	Commscope 2-port faceplate (white)	697	\$ 2.30	\$ -	\$ 2.30	\$ 1,603.10
107067928	Commscope blanks (white)	697	\$ 0.52	\$ -	\$ 0.52	\$ 360.70
Part Number	IDF/MDF room Buildout	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
760162818	Commscope 48-port Cat 6A flat patch panel, 2RU (black)	27	\$ 471.50	\$ -	\$ 471.50	\$ 12,730.50
SRB19BLY	Panduit strain relief bar	27	\$ 24.30	\$ -	\$ 24.30	\$ 656.09
UC1AAA2-09F01	Cat 6A patch cord, 1 ft	697	\$ 5.18	\$ -	\$ 5.18	\$ 3,606.98
UC1AAA2-09F010	Cat 6A patch cord, 10 ft	697	\$ 17.25	\$ -	\$ 17.25	\$ 12,023.25
Part Number	Backbone Cabling	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
012E8P-31131-29	Corning 12-strand tight buffered singlemode (OS2) indoor/outdoor plenum rated fiber optic cable (per ft)	4000	\$ 1.30	\$ -	\$ 1.30	\$ 5,198.00
CCH-CP12-A9	Corning 12F (OS2) duplex LC adapter panel	14	\$ 132.25	\$ -	\$ 132.25	\$ 1,851.50
95-200-99	Corning (OS2) LC Connectors	168	\$ 20.64	\$ -	\$ 20.64	\$ 3,467.94
CCH-01U	Corning 1U fiber enclosure	14	\$ 312.89	\$ -	\$ 312.89	\$ 4,380.49
J-LACLAC102DX001M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 1M	28	\$ 23.00	\$ -	\$ 23.00	\$ 644.00
J-LACLAC102DX003M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M	28	\$ 34.50	\$ -	\$ 34.50	\$ 966.00
Part Number	Supporting Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
SSP100	Firestop putty	22	\$ 35.57	\$ -	\$ 35.57	\$ 782.53
SSS100	STI Fire barrier sealant	22	\$ 20.40	\$ -	\$ 20.40	\$ 448.82
ICCMSJHW44	ICC 2" Batwing J-hook	600	\$ 3.60	\$ -	\$ 3.60	\$ 2,159.70
ICCMSJHW55	ICC 4" Batwing J-hook	400	\$ 5.22	\$ -	\$ 5.22	\$ 2,088.40
1700-1PK-BB40	3M Electric tapes	20	\$ 3.43	\$ -	\$ 3.43	\$ 68.54
30987	3/4" Velcro (75ft)	12	\$ 31.51	\$ -	\$ 31.51	\$ 378.12
PLT3I-C	Panduit Tie wraps (100/bag)	12	\$ 31.19	\$ -	\$ 31.19	\$ 374.26
N/A	Labeling kits	1	\$ 1,150.00	\$ -	\$ 1,150.00	\$ 1,150.00
N/A	Miscellaneous cost	1	\$ 8,050.00	\$ -	\$ 8,050.00	\$ 8,050.00
Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
N/A	Labor for completing the stated Scope of Work	1216	\$ -	\$ 80.00	\$ 80.00	\$ 97,280.00
N/A	Project Management and Handeling Charges	64	\$ -	\$ 80.00	\$ 80.00	\$ 5,120.00

\$ 174,609.25 Total: Equipment Total: Labor \$ 102,400.00

Silver Hills Middle School Equipment and Labor

Equipment and Labor						
Part Number	Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
UN874035104/10	Commscope Category 6A U/UTP Cable, plenum, blue jacket (per ft)	172000	\$ 0.67	\$ -	\$ 0.67	\$ 114,724.00
760241141	Commscope Cat 6A unshielded jack (blue)	767	\$ 9.90	\$ -	\$ 9.90	\$ 7,594.45
M12L-262	Commscope 2-port faceplate (white)	767	\$ 2.30	\$ _	\$ 2.30	\$ 1,764.10
107067928	Commscope blanks (white)	767	\$ 0.52	\$ -	\$ 0.52	\$ 396.92
Part Number	IDF/MDF room Buildout	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
760162818	Commscope 48-port Cat 6A flat patch panel, 2RU (black)	26	\$ 471.50	\$ -	\$ 471.50	\$ 12,259.00
SRB19BLY	Panduit strain relief bar	26			\$ 24.30	\$ 631.79
UC1AAA2-09F01	Cat 6A patch cord, 1 ft	767	\$ 5.18	\$ -	\$ 5.18	\$ 3,969.23
UC1AAA2-09F010	Cat 6A patch cord, 10 ft	767	\$ 17.25	\$ -	\$ 17.25	\$ 13,230.75
Part Number	Backbone Cabling	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
012E8P-31131-29	Corning 12-strand tight buffered singlemode (OS2) indoor/outdoor plenum rated fiber optic cable (per ft)	1400	\$ 1.30	\$ -	\$ 1.30	\$ 1,819.30
CCH-CP12-A9	Corning 12F (OS2) duplex LC adapter panel	2	\$ 132.25	\$ -	\$ 132.25	\$ 264.50
95-200-99	Corning (OS2) LC Connectors	48	\$ 20.64	\$ -	\$ 20.64	\$ 990.84
CCH-01U	Corning 1U fiber enclosure	2	\$ 312.89	\$ -	\$ 312.89	\$ 625.78
J-LACLAC102DX001M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 1M	8	\$ 23.00	\$ -	\$ 23.00	\$ 184.00
J-LACLAC102DX003M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M	8	\$ 34.50	\$ -	\$ 34.50	\$ 276.00
Part Number	Supporting Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
SSP100	Firestop putty	25	\$ 35.57	\$ -	\$ 35.57	\$ 889.24
SSS100	STI Fire barrier sealant	25	\$ 20.40	\$ -	\$ 20.40	\$ 510.03
ICCMSJHW44	ICC 2" Batwing J-hook	800	\$ 3.60	\$ -	\$ 3.60	\$ 2,879.60
ICCMSJHW55	ICC 4" Batwing J-hook	500	\$ 5.22	\$ -	\$ 5.22	\$ 2,610.50
1700-1PK-BB40	3M Electric tapes	30	\$ 3.43	\$ -	\$ 3.43	\$ 102.81
30987	3/4" Velcro (75ft)	15	\$ 31.51	\$ -	\$ 31.51	\$ 472.65
PLT3I-C	Panduit Tie wraps (100/bag)	15	\$ 31.19	\$ -	\$ 31.19	\$ 467.82
N/A	Labeling kits	1	\$ 1,150.00	\$ -	\$ 1,150.00	\$ 1,150.00
N/A	Miscellaneous cost	1	\$ 9,200.00	\$ -	\$ 9,200.00	\$ 9,200.00
Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
N/A	Labor for completing the stated Scope of Work	1414	\$ -	\$ 80.00	\$ 80.00	\$ 113,120.00
N/A	Project Management and Handeling Charges	80	\$ -	\$ 80.00	\$ 80.00	\$ 6,400.00

\$ 177,013.30

Total: Labor \$ 119,520.00

Equipment and Labor

Part Number	Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
UN874035104/10	Commscope Category 6A U/UTP Cable, plenum, blue jacket (per ft)	220000	\$ 0.67	\$ -	\$ 0.67	\$ 146,740.00
760241141	Commscope Cat 6A unshielded jack (blue)	1011	\$ 9.90	\$ -	\$ 9.90	\$ 10,010.42
M12L-262	Commscope 2-port faceplate (white)	1011	\$ 2.30	\$ -	\$ 2.30	\$ 2,325.30
107067928	Commscope blanks (white)	1011	\$ 0.52	\$ -	\$ 0.52	\$ 523.19
Part Number	IDF/MDF room Buildout	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
760162818	Commscope 48-port Cat 6A flat patch panel, 2RU (black)	43	\$ 471.50	\$ -	\$ 471.50	\$ 20,274.50
SRB19BLY	Panduit strain relief bar	43	\$ 24.30	\$ -	\$ 24.30	\$ 1,044.88
UC1AAA2-09F01	Cat 6A patch cord, 1 ft	1011	\$ 5.18	\$ -	\$ 5.18	\$ 5,231.93
UC1AAA2-09F010	Cat 6A patch cord, 10 ft	1011	\$ 17.25	\$ -	\$ 17.25	\$ 17,439.75
Part Number	Backbone Cabling	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
012E8P-31131-29	Corning 12-strand tight buffered singlemode (OS2) indoor/outdoor plenum rated fiber optic cable (per ft)	4000	\$ 1.30	\$ -	\$ 1.30	\$ 5,198.00
CCH-CP12-A9	Corning 12F (OS2) duplex LC adapter panel	12	\$ 132.25	\$ -	\$ 132.25	\$ 1,587.00
95-200-99	Corning (OS2) LC Connectors	144	\$ 20.64	\$ _	\$ 20.64	\$ 2,972.52
CCH-01U	Corning 1U fiber enclosure	12	\$ 312.89	\$ -	\$ 312.89	\$ 3,754.70
J-LACLAC102DX001M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 1M	24	\$ 23.00	\$ -	\$ 23.00	\$ 552.00
J-LACLAC102DX003M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M	24	\$ 34.50	\$ -	\$ 34.50	\$ 828.00
Part Number	Supporting Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
SSP100	Firestop putty	30	\$ 35.57	\$ -	\$ 35.57	\$ 1,067.09
SSS100	STI Fire barrier sealant	30	\$ 20.40	\$ -	\$ 20.40	\$ 612.03
ICCMSJHW44	ICC 2" Batwing J-hook	1000	\$ 3.60	\$ -	\$ 3.60	\$ 3,599.50
ICCMSJHW55	ICC 4" Batwing J-hook	600	\$ 5.22	\$ -	\$ 5.22	\$ 3,132.60
1700-1PK-BB40	3M Electric tapes	45	\$ 3.43	\$ -	\$ 3.43	\$ 154.22
30987	3/4" Velcro (75ft)	25	\$ 31.51	\$ -	\$ 31.51	\$ 787.75
PLT3I-C	Panduit Tie wraps (100/bag)	30	\$ 31.19	\$ -	\$ 31.19	\$ 935.64
N/A	Labeling kits	1	\$ 1,725.00	\$ -	\$ 1,725.00	\$ 1,725.00
N/A	Miscellaneous cost	1	\$ 11,500.00	\$ -	\$ 11,500.00	\$ 11,500.00
Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
N/A	Labor for completing the stated Scope of Work	1864	\$ -	\$ 80.00		\$ 149,120.00
N/A	Project Management and Handeling Charges	112	\$ _	\$ 80.00	\$ 80.00	\$ 8,960.00

Mountain Range High School

National	0.67 9.90 2.30 0.52 471.50 24.30	90 30	\$	Ext.Price 144,072.00 9,772.78
Top Top	9.90 2.30 0.52 471.50	90 30	\$	9,772.78
M12L-262 Commscope 2-port faceplate (white) 987 \$ 2.30 \$ \$	2.30 0.52 471.50	30	+-	-,
107067928	0.52 471.50	-	\$	
Part Number IDF/MDF room Buildout Quantity Material Price Labor Cost Unit Price T60162818 Commscope 48-port Cat 6A flat patch panel, 2RU (black) 38 5 471.50 5 5 5 5 5 5 5 5 5	471.50	52		2,270.10
Technology Tec			\$	510.77
SRB19BLY Panduit strain relief bar 38 \$ 24.30 \$				Ext.Price
UC1AAA2-09F01	24.20	50	\$	17,917.00
UC1AAA2-09F010 Cat 6A patch cord, 10 ft Backbone Cabling Quantity Material Price Labor Cost Unit Price	24.30	30	\$	923.38
Part Number Backbone Cabiling Quantity Material Price Labor Cost Unit Price	5.18	18	\$	5,107.73
O12E8P-31131-29	17.25	25	\$	17,025.75
Fiber optic cable (per ft)				Ext.Price
CCH-CP12-A9	1.30	30	\$	3,313.73
95-200-99 Corning (OS2) LC Connectors 96 \$ 20.64 \$. \$ CCH-01U Corning 1U fiber enclosure 8 \$ 312.89 \$. \$ I-LACLAC102DX001M LC/APC - LC/APC Singlemode Duplex Patch Cable, 1M 32 \$ 23.00 \$. \$ I-LACLAC102DX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 32 \$ 34.50 \$. \$ Part Number Supporting Materials Quantity Material Price Labor Cost Unit Price SSP100 Firestop putty 30 \$ 35.57 \$. \$ \$ SSS100 STI Fire barrier sealant 30 \$ 20.40 \$. \$ \$ ICCMS/HW44 ICC 2" Batwing J-hook 1000 \$ 3.60 \$. \$ \$ \$ ICCMS/HW55 ICC 4" Batwing J-hook 600 \$ 5.22 \$. \$ \$ 1700-1PK-BB40 3M Electric tapes 45 \$ 3.43 \$. \$ \$	132.25	25	Ś	1.058.00
CCM-01U Coming 1U fiber enclosure 8 \$ 312.89 \$. \$ -LACLACI02DX001M LC/APC - LC/APC Singlemode Duplex Patch Cable, 1M 32 \$ 23.00 \$. \$ -LACLACI02DX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 32 \$ 34.50 \$. \$ -LACLACI02DX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 32 \$ 34.50 \$. \$	20.64			1,981.68
J-LACLACIO2DX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 1M 32 \$ 23.00 \$. \$ \$ -LACLACIO2DX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 32 \$ 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 32 \$ 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 32 \$ 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 32 \$ 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 32 \$ 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 32 \$ 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 32 \$ 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 32 \$ 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 32 \$ 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 34.50 \$ \$ -LACLACIOZDX003M LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M 34.50 \$ \$ -LACLACIOZDX003M LC/APC Singlemode Duplex Patch Cable, 3M 34.50 \$ \$ -LACLACIOZDX003M LC/APC Singlemode Duplex Patch Cable, 3M 34.50 \$ \$ -LACLACIOZDX003M LC/APC Singlemode Duplex Patch Cable, 3M 34.50 \$ \$ -LACLACI	312.89	89	Ś	2,503.14
Part Number Supporting Materials Quantity Material Price Labor Cost Unit Price SSP100 Firestop putty 30 \$ 35.57 \$ \$ - \$ \$ SSS100 STI Fire barrier sealant 30 \$ 20.40 \$ \$ - \$ \$ ICCMSJHW44 ICC 2" Batwing J-hook 1000 \$ 3.60 \$ \$ - \$ \$ ICCMSJHW55 ICC 4" Batwing J-hook 600 \$ 5.22 \$ \$ - \$ \$ 1700-1PK-BB40 3M Electric tapes 45 \$ 3.43 \$ \$ - \$ \$	23.00	_	_	736.00
SSP100 Firestop putty 30 \$ 35.57 \$ \$ SSS100 STI Fire barrier sealant 30 \$ 20.40 \$ \$ ICCMSJHW44 ICC 2" Batwing J-hook 1000 \$ 3.60 \$ \$ ICCMSJHW55 ICC 4" Batwing J-hook 600 \$ 5.22 \$ \$ 1700-1PK-BB40 3M Electric tapes 45 \$ 3.43 \$ \$	34.50	50	\$	1,104.00
SSS100 STI Fire barrier sealant 30 \$ 20.40 \$ \$ ICCMSHW44 ICC 2" Batwing I-hook 1000 \$ 3.60 \$ \$ ICCMSHW55 ICC 4" Batwing I-hook 600 \$ 5.22 \$ \$ 1700-1PK-B840 3M Electric tapes 45 \$ 3.43 \$ \$				Ext.Price
ICCMSJHW44 ICC 2" Batwing J-hook 1000 \$ 3.60 \$ - \$ ICCMSJHW55 ICC 4" Batwing J-hook 600 \$ 5.22 \$ - \$ 1700-1PK-B840 3M Electric tapes 45 \$ 3.43 \$ - \$	35.57	57	\$	1,067.09
ICCMSJHW55 ICC 4" Batwing J-hook 600 \$ 5.22 \$ - \$ 1700-1PK-B840 3M Electric tapes 45 \$ 3.43 \$ - \$	20.40	40	\$	612.03
1700-1PK-BB40 3M Electric tapes 45 \$ 3.43 \$ - \$	3.60	60	\$	3,599.50
	5.22	22	\$	3,132.60
30987 3/4" Velcro (75ft) 25 \$ 31.51 \$ - \$	3.43	43	\$	154.22
	31.51	51	\$	787.75
PLT3I-C Panduit Tie wraps (100/bag) 30 \$ 31.19 \$ - \$	31.19	19	\$	935.64
N/A Labeling kits 1 \$ 1,725.00 \$ - \$	1,725.00	00	\$	1,725.00
N/A Miscellaneous cost 1 \$ 10,350.00 \$ - \$	0,350.00	00	\$	10,350.00
Part Number Labor Quantity Material Price Labor Cost Unit Price				Ext.Price
N/A Labor for completing the stated Scope of Work 1764 \$ 80.00 \$		00	\$	141,120.00
N/A Project Management and Handeling Charges 96 \$ - \$ 80.00 \$	80.00		Ś	7,680.00

Total: Equipment \$ 230,659.87

\$ 379,459.87

Hunters Glen Elementary School

Equipment and Labor						
Part Number	Materials		Material Price	Labor Cost	Unit Price	Ext.Price
UN874035104/10	Commscope Category 6A U/UTP Cable, plenum, blue jacket (per ft)	67000	\$ 0.67	\$ _	\$ 0.67	\$ 44,689.00
760241141	Commscope Cat 6A unshielded jack (blue)	296	\$ 9.90	\$ -	\$ 9.90	\$ 2,930.84
M12L-262	Commscope 2-port faceplate (white)	296	\$ 2.30	\$ -	\$ 2.30	\$ 680.80
107067928	Commscope blanks (white)	pe blanks (white) 296 \$ 0.52 \$ - \$ 0.53		\$ 0.52	\$ 153.18	
Part Number	IDF/MDF room Buildout	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
760162818	Commscope 48-port Cat 6A flat patch panel, 2RU (black)	9	\$ 471.50	\$ -	\$ 471.50	\$ 4,243.50
SRB19BLY	Panduit strain relief bar	9	\$ 24.30	\$ -	\$ 24.30	\$ 218.70
UC1AAA2-09F01	Cat 6A patch cord, 1 ft	296	\$ 5.18	\$ -	\$ 5.18	\$ 1,531.80
UC1AAA2-09F010	Cat 6A patch cord, 10 ft	296	\$ 17.25	\$ -	\$ 17.25	\$ 5,106.00
Part Number	Backbone Cabling	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
012E8P-31131-29	Corning 12-strand tight buffered singlemode (OS2) indoor/outdoor plenum rated fibe	750	\$ 1.30	\$ -	\$ 1.30	\$ 974.63
CCH-CP12-A9	Corning 12F (OS2) duplex LC adapter panel	2	\$ 132.25	5 -	\$ 132.25	\$ 264.50

95-200-99	Corning (OS2) LC Connectors	24	\$ 20.64	\$ -	\$ 20.64	\$ 495.42
CCH-01U	Corning 1U fiber enclosure	2	\$ 312.89	\$ -	\$ 312.89	\$ 625.78
J-LACLAC102DX001M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 1M	4	\$ 23.00	\$ -	\$ 23.00	\$ 92.00
J-LACLAC102DX003M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M	4	\$ 34.50	\$ -	\$ 34.50	\$ 138.00
Part Number	Supporting Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
SSP100	Firestop putty	11	\$ 35.57	\$ -	\$ 35.57	\$ 391.26
SSS100	STI Fire barrier sealant	11	\$ 20.40	\$ -	\$ 20.40	\$ 224.41
ICCMSJHW44	ICC 2" Batwing J-hook	300	\$ 3.60	\$ -	\$ 3.60	\$ 1,079.85
ICCMSJHW55	ICC 4" Batwing J-hook	200	\$ 5.22	\$ -	\$ 5.22	\$ 1,044.20
1700-1PK-BB40	3M Electric tapes	10	\$ 3.43	\$ -	\$ 3.43	\$ 34.27
30987	3/4" Velcro (75ft)	6	\$ 31.51	\$ -	\$ 31.51	\$ 189.06
PLT3I-C	Panduit Tie wraps (100/bag)	6	\$ 31.19	\$ -	\$ 31.19	\$ 187.13
N/A	Labeling kits	1	\$ 575.00	\$ -	\$ 575.00	\$ 575.00
N/A	Miscellaneous cost	1	\$ 3,162.50	\$ _	\$ 3,162.50	\$ 3,162.50
Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
N/A	Labor for completing the stated Scope of Work	552	\$ -	\$ 80.00	\$ 80.00	\$ 44,160.00
N/A	Project Management and Handeling Charges	24	\$ -	\$ 80.00	\$ 80.00	\$ 1,920.00

Century Middle School

Century Middle School	·					
Equipment and Labor						
Part Number	Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
UN874035104/10	Commscope Category 6A U/UTP Cable, plenum, blue jacket (per ft)	140000	\$ 0.67	\$ -	\$ 0.67	\$ 93,380.00
760241141	Commscope Cat 6A unshielded jack (blue)	623	\$ 9.90	\$ -	\$ 9.90	\$ 6,168.63
M12L-262	Commscope 2-port faceplate (white)	623	\$ 2.30	\$ -	\$ 2.30	\$ 1,432.90
107067928	Commscope blanks (white)	623	\$ 0.52	\$ -	\$ 0.52	\$ 322.40
Part Number	IDF/MDF room Buildout	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
760162818	Commscope 48-port Cat 6A flat patch panel, 2RU (black)	23	\$ 471.50	\$ -	\$ 471.50	\$ 10,844.50
SRB19BLY	Panduit strain relief bar	23	\$ 24.30	\$ -	\$ 24.30	\$ 558.89
UC1AAA2-09F01	Cat 6A patch cord, 1 ft	623	\$ 5.18	\$ -	\$ 5.18	\$ 3,224.03
UC1AAA2-09F010	Cat 6A patch cord, 10 ft	623	\$ 17.25	\$ -	\$ 17.25	\$ 10,746.75
Part Number	Backbone Cabling	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
012E8P-31131-29	Corning 12-strand tight buffered singlemode (OS2) indoor/outdoor plenum rated fibe	950	\$ 1.30	\$ -	\$ 1.30	\$ 1,234.53
CCH-CP12-A9	Corning 12F (OS2) duplex LC adapter panel	3	\$ 132.25	\$ -	\$ 132.25	\$ 396.75
95-200-99	Corning (OS2) LC Connectors	36	\$ 20.64	\$ -	\$ 20.64	\$ 743.13
CCH-01U	Corning 1U fiber enclosure	3	\$ 312.89	\$ -	\$ 312.89	\$ 938.68
J-LACLAC102DX001M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 1M	6	\$ 23.00	\$ _	\$ 23.00	\$ 138.00
J-LACLAC102DX003M	LC/APC - LC/APC Singlemode Duplex Patch Cable, 3M	6	\$ 34.50	\$ -	\$ 34.50	\$ 207.00
Part Number	Supporting Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
SSP100	Firestop putty	22	\$ 35.57	\$ -	\$ 35.57	\$ 782.53
SSS100	STI Fire barrier sealant	22	\$ 20.40	\$ -	\$ 20.40	\$ 448.82
ICCMSJHW44	ICC 2" Batwing J-hook	500	\$ 3.60	\$ -	\$ 3.60	\$ 1,799.75
ICCMSJHW55	ICC 4" Batwing J-hook	300	\$ 5.22	\$ -	\$ 5.22	\$ 1,566.30
1700-1PK-BB40	3M Electric tapes	15	\$ 3.43	\$ -	\$ 3.43	\$ 51.41
30987	3/4" Velcro (75ft)	10	\$ 31.51	\$ -	\$ 31.51	\$ 315.10
PLT3I-C	Panduit Tie wraps (100/bag)	10	\$ 31.19	\$ -	\$ 31.19	\$ 311.88
N/A	Labeling kits	1	\$ 1,150.00	\$ -	\$ 1,150.00	\$ 1,150.00
N/A	Miscellaneous cost	1	\$ 7,475.00	\$ -	\$ 7,475.00	\$ 7,475.00
Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
N/A	Labor for completing the stated Scope of Work	1164	\$ -	\$ 80.00	\$ 80.00	\$ 93,120.00
N/A	Project Management and Handeling Charges	96	\$ -	\$ 80.00	\$ 80.00	\$ 7,680.00

Business Name: Systec101
Authorized Representative: Murat Yildirim

Title: Founder
Signature: //www.
Date: 02/21/2025



25-025 - Internal Connections-Structured Cabling

SUBJECT

Structured Cabling - Product Submittal.

PREPARED BY

SYSTEC101 11871 E 33rd Ave Unit B Street Aurora, CO 80010

INDEX

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UN874035104/10

CS44P BLU C6A 4/23 U/UTP

RL 1KFT



CS44P ETL Verified Category 6A U/UTP Cable, plenum, blue jacket, 4 pair count, 1000 ft (305 m) length reel

Product Classification

Regional AvailabilityNorth AmericaPortfolioUniprise®

Product Type Twisted pair cable

General Specifications

Product Number CS44P
ANSI/TIA Category 6A

Cable Component Type Horizontal

 Cable Type
 U/UTP (unshielded)

Conductor Type, singlesSolidConductors, quantity8Jacket ColorBlue

Note Consult ANSI/TIA-568-C.2 Annex G for length de-rating guidance for cable

installation in higher temperature environments

Pairs, quantity 4

Separator Type Bisector

Supported Application1000BASE-T| 1000BASE-TX| 10GBASE-TTransmission StandardsANSI/TIA-568.2-D| ISO/IEC 11801 Class EA

Dimensions

Cable Length 304.8 m | 1000 ft

Diameter Over Insulated Conductor0.889 mm0.035 inDiameter Over Jacket, nominal7.239 mm0.285 in

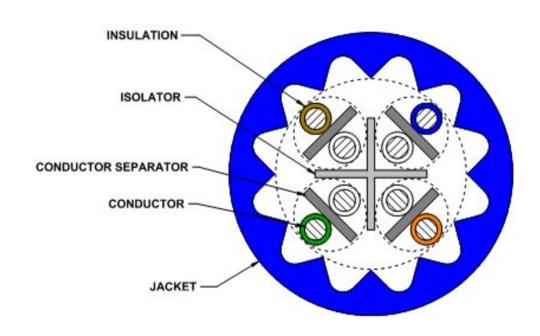
Jacket Thickness 1.295 mm | 0.051 in

Conductor Gauge, singles 23 AWG

Cross Section Drawing

COMMSCOPE°

UN874035104/10 | CS44P BLU C6A 4/23 U/UTP RL 1KFT



Electrical Specifications

dc Resistance Unbalance, maximum 4 %

dc Resistance, maximum 7.61 ohms/100 m | 2.32 ohms/100 ft

Delay Skew, maximum 45 ns

Dielectric Strength, minimum 1500 Vac | 2500 Vdc

LP (Limited Power) Rating 0.6 A

Mutual Capacitance at Frequency 5.6 nF/100 m @ 1 kHz

Nominal Velocity of Propagation (NVP) 66 %

Operating Frequency, maximum 500 MHz

Operating Voltage, maximum 80 V

Propagation Delay, maximum 536 ns/100m @500MHz

Remote Powering Fully complies with the recommendations set forth by IEEE 802.3bt (Type 4) for the

safe delivery of power over LAN cable when installed according to ISO/IEC 14763-2,

CENELEC EN 50174-1, CENELEC EN 50174-2 or TIA TSB-184-A

Safety Voltage Rating 300 V

760241141 | USL10G-BL



SL-Series Modular Jack, RJ45, Cat6A Unshielded, Blue

- Color is more prominently visible across the body of the jack
- Allows for all jack variants to be terminated with the SL termination tool
- Lacing fixture of the SL termination tool is used to establish the cable termination

OBSOLETE

This product was discontinued on: September 30, 2024

Replaced By:

760257197 USL10G-BL

SL-Series Modular Jack, RJ45, Cat6A Unshielded, Blue

Product Classification

Regional AvailabilityNorth AmericaPortfolioUniprise®Product TypeModular jackProduct SeriesUSL Series

General Specifications

ANSI/TIA Category 6A

Cable Type Unshielded

Color Blue

Conductor Type Solid | Stranded

Integrated Dust Cover Type None

Mounting SL Series faceplates and panels

 Outlet Type
 Standard

 Termination Punchdowns, minimum
 5 times

Termination Tool SL Termination tool

Termination Type IDC

Transmission Standards ANSI/TIA-568.2-D | ISO/IEC 11801 Class EA

Wiring T568A | T568B

Dimensions

COMMSCOPE",

760257197 | USL10G-BL



SL-Series Modular Jack, RJ45, Cat6A Unshielded, Blue

- Color is more prominently visible across the body of the jack
- Allows for all jack variants to be terminated with the SL termination tool
- Lacing fixture of the SL termination tool is used to establish the cable termination

Product Classification

Regional Availability North America

Portfolio Uniprise®

Product Type Modular jack
Product Series USL Series

General Specifications

ANSI/TIA Category 6A

Cable Type Unshielded

Color Blue

Conductor Type Solid | Stranded

Integrated Dust Cover Type None

Mounting SL Series faceplates and panels

 Outlet Type
 Standard

 Termination Punchdowns, minimum
 5 times

Termination Tool SL Termination tool

Termination Type IDC

Transmission Standards ANSI/TIA-568.2-D | ISO/IEC 11801 Class EA

Wiring T568A | T568B

Dimensions

Panel Cutout, recommended 14.78 x 20.07 mm (0.58 x 0.79 in)

Panel Thickness, recommended 1.6 mm | 0.063 in

 Height
 16.13 mm | 0.635 in

 Width
 14.48 mm | 0.57 in

Depth 30.48 mm | 1.2 in

Compatible Cable Diameter, maximum 7.24 mm | 0.285 in

COMMSCOPE[®]

108168469 | M12L-262



L Type Flush Mounted Faceplate, 2 port, white

• Available for use with the DYMO® labeling solution

Product Classification

Regional Availability Asia | Australia/New Zealand | EMEA | Latin America | North America

Portfolio CommScope®
Product Type Faceplate kit

Product Series M Series

General Specifications

Application Used with M Series modular information outlet

Color White
Mounting Flush
Total Ports, quantity 2

Dimensions

 Height
 115.824 mm | 4.56 in

 Width
 71.374 mm | 2.81 in

 Depth
 7.366 mm | 0.29 in

Material Specifications

Material Type High-impact, flame retardant, thermoplastic

Environmental Specifications

Flammability Rating UL 94 V-0
Safety Standard UL | cUL

Packaging and Weights

Packaging quantity 1

Weight, net 0.036 kg | 0.08 lb

Page 1 of 2

107067928

M20AP-262



M20 Dust Cover for M-Series Faceplates and Outlets, white

Product Classification

Regional Availability Asia | Australia/New Zealand | EMEA | Latin America | North America

Portfolio CommScope®

Product Type Dust cover

General Specifications

Color White

Material Specifications

Material Type High-impact, flame retardant, thermoplastic

Environmental Specifications

Operating Temperature $-10 \,^{\circ}\text{C}$ to $+60 \,^{\circ}\text{C}$ (+14 $^{\circ}\text{F}$ to +140 $^{\circ}\text{F}$)

Storage Temperature $-40 \,^{\circ}\text{C}$ to $+70 \,^{\circ}\text{C}$ (-40 $^{\circ}\text{F}$ to +158 $^{\circ}\text{F}$)

Flammability Rating UL 94 V-0

Safety Standard UL | cUL

Packaging and Weights

Packaging quantity 100

Regulatory Compliance/Certifications

Agency	Classification
--------	----------------

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

REACH-SVHC Compliant as per SVHC revision on www.commscope.com/ProductCompliance

ROHS Compliant UK-ROHS Compliant



760162818

UNP-6A-DM-2U-48

Unshielded Distribution Module Panel, Cat 6A, 2U, 48 port, Black



Product Classification

Regional AvailabilityNorth AmericaPortfolioUniprise®

Product Type RJ45 patch panel

General Specifications

ANSI/TIA Category 6A

Cable Type Unshielded

Color Black

Conductor Type Solid | Stranded

Modules, quantity 8

Panel StyleStraightRack TypeEIA 19 in

Rack Units2Termination TypeIDCTotal Ports, quantity48

Transmission Standards ANSI/TIA-568.2-D | ISO/IEC 11801 Class EA

Wiring T568A | T568B

Dimensions

Height 88.9 mm | 3.5 in

Width 482.6 mm | 19 in

Depth, with cable management 119.38 mm | 4.7 in

Compatible Diameter Over Dielectric, maximum 1.168 mm | 0.046 in

Compatible Diameter Over Dielectric, minimum 0.762 mm | 0.03 in

Page 1 of 3

760162818 | UNP-6A-DM-2U-48

Compatible Conductor Gauge, solid22 AWG24 AWGCompatible Conductor Gauge, stranded22 AWG24 AWG

Electrical Specifications

Current Rating at Temperature 1.5 A @ 20 °C | 1.5 A @ 68 °F

Dielectric Withstand Voltage, RMS, conductive surface1,500 Vac @ 60 HzDielectric Withstand Voltage, RMS, contact-to-contact1,000 Vac @ 60 Hz

Insulation Resistance, minimum 500 MOhm

Remote PoweringFully complies with the recommendations set forth by IEEE 802.3bt (Type 4) for the safe delivery of power over LAN cable

when installed according to ISO/IEC 14763-2, CENELEC EN

50174-1, CENELEC EN 50174-2 or TIA TSB-184-A

Material Specifications

Contact Plating Material Precious metals

Material Type High-impact, flame retardant, thermoplastic | Powder-

coated steel

Termination Contact Plating Nickel

Mechanical Specifications

Plug Insertion Life, minimum 750 times

Plug Insertion Life, test plug IEC 60603-7 compliant plug

Plug Retention Force, minimum 133 N | 29.9 lbf

Environmental Specifications

Operating Temperature $-10 \,^{\circ}\text{C}$ to $+60 \,^{\circ}\text{C}$ (+14 $^{\circ}\text{F}$ to +140 $^{\circ}\text{F}$)

Storage Temperature $-40 \,^{\circ}\text{C}$ to $+70 \,^{\circ}\text{C}$ ($-40 \,^{\circ}\text{F}$ to $+158 \,^{\circ}\text{F}$)

Relative Humidity Up to 95%, non-condensing

Flammability Rating UL 94 V-0
Safety Standard UL | cUL

Packaging and Weights

Packaging MaterialEco-friendly, single-use plastics-free

Packaging quantity 1

Regulatory Compliance/Certifications

Page 2 of 3





Strain Relief Bar, 2 Inch Depth

SRB19BLY

Strain Relief Bar extends 2.8" off the rack; supports, manages and provides bend radius protection.

Specifications

Product Type	Strain Relief Bar
Material	Steel
Color	Black
Includes	Mounting hardware
Overall Length (In.)	2.81
Overall Length (mm)	71.4
Overall Width (In.)	18.98
Overall Width (mm)	482.1
Overall Depth (In.)	2.81
Overall Depth (mm)	71.4
Overall Height (In.)	0.4
Overall Height (mm)	10.2
For Use With	Racks
Standards Met	RoHS Compliant

Packaging Detail

UPC	07498305964
Std. Pkg. Qty.	1
Std. Pkg. Volume (cf)	0.0213
Std. Ctn. Qty.	10
Std. Ctn. Volume (cf)	0.2132

www.panduit.com

Base Product



Uniprise® Ultra 10® Cat 6A U/UTP Snagless Patch Cord, Non-Plenum

Product Classification

Regional Availability North America

Portfolio Uniprise®

Product Type Twisted pair patch cord

Product Brand Ultra 10®

Product Series UC

Ordering Note Cords < 1 m are valid elements for use in a channel or as an equipment interconnect but

due to their limited length are not guaranteed to meet component compliance

requirements that were developed to assess the quality of longer cords | Cords > 1 m are authorized for use in channels and are an effective standalone method used to

connect active devices

General Specifications

ANSI/TIA Category 6A

Cable Type U/UTP (unshielded)

Conductor Type Solid

Interface, Connector ARJ45 plugInterface Feature, connector AStandardInterface, Connector BRJ45 plugInterface Feature, connector BStandard

Jacket Color Black | Blue | Green | Orange | Purple | Red | Slate | Violet | White | Yellow

Pairs, quantity 4

Transmission Standards IEEE 802.3bt Type 4

Wiring T568B

Dimensions

Cable Assembly Length Range (m) 1 - 30

Cable Assembly Length Range (ft) 1 - 100

Page 1 of 3



Cable Assembly Length Range (cm)15 - 999Cable Assembly Length Range (in)6 - 999

Diameter Over Jacket 7.24 mm | 0.285 in

Compatible Conductor Gauge, solid 24 AWG

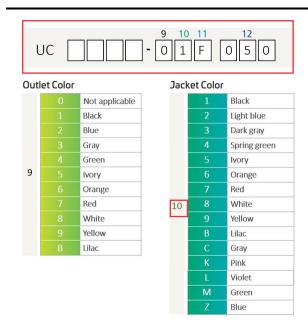
Wiring Diagram

	Connector A	Connector B
Position 1	White/Orange	White/Orange
Position 2	Orange	Orange
Position 3	Lt. Green	Lt. Green
Position 4	Blue	Blue
Position 5	Lt. Blue	Lt. Blue
Position 6	Green	Green
Position 7	Lt. Brown	Lt. Brown
Position 8	Brown	Brown

Electrical Specifications

dc Resistance, maximum0.3 ohmSafety Voltage Rating300 V

Ordering Tree



UOM

11	F	Foot	
	М	Meter	
	N	Inch	

Length



Notes

- · Cords > 1m are authorized for use in channels and are an effective standalone method used to connect active devices
- Cords < 1m are also valid elements for use in a channel or as an equipment interconnect but due to their limited length are not guaranteed to meet component compliance requirements that were developed to assess the quality of longer cords

Material Specifications

Contact Plating Material Precious metals

Copper alloy | Polycarbonate **Material Type**

Mechanical Specifications

Plug Insertion Life, minimum 750 times

Plug Retention Force, minimum 133 N | 29.9 lbf

Environmental Specifications

Operating Temperature -10 °C to +60 °C (+14 °F to +140 °F)

Environmental Space Non-plenum UL 94 V-0 **Flammability Rating Safety Standard** ETL | cETL

Packaging and Weights

Packaging quantity

Regulatory Compliance/Certifications

Classification Agency

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

COMMSCOPE[®]



Uniprise Ultra 10® Category 6A U/UTP Patch Cord, Snagless

Product Classification

Regional Availability North America

Portfolio Uniprise®

Product Type Twisted pair patch cord

Product Brand Ultra 10®

Product Series UC

General Specifications

ANSI/TIA Category 6A

 Cable Type
 U/UTP (unshielded)

Conductor Type Solid

Interface, Connector ARJ45 plugInterface Feature, connector AStandardInterface, Connector BRJ45 plugInterface Feature, connector BStandard

Pairs, quantity 4

Wiring T568B

Dimensions

Cable Assembly Length, minimum (ft) 7
Cable Assembly Length, maximum (ft) 100
Cable Assembly Length, minimum (m) 2
Cable Assembly Length, maximum (m) 30

Wiring Diagram

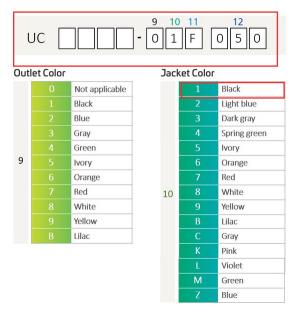
COMMSCOPE",

	Connector A	Connector B
Position 1	White/Orange	White/Orange
Position 2	Orange	Orange
Position 3	Lt. Green	Lt. Green
Position 4	Blue	Blue
Position 5	Lt. Blue	Lt. Blue
Position 6	Green	Green
Position 7	Lt. Brown	Lt. Brown
Position 8	Brown	Brown

Electrical Specifications

dc Resistance, maximum0.3 ohmSafety Voltage Rating300 V

Ordering Tree



| F | Foot | M | Meter | N | Inch |

Length 12 XXX

Notes

- Cords > 1m are authorized for use in channels and are an effective standalone method used to connect active devices
- Cords < 1m are also valid elements for use in a channel or as an equipment interconnect but due to their limited length are not guaranteed to meet component compliance requirements that were developed to assess the quality of longer cords

Material Specifications

Contact Plating Material Precious metals

Material Type Copper alloy | Polycarbonate

Page 2 of 6

Mechanical Specifications

Plug Insertion Life, minimum 750 times

Plug Retention Force, minimum 133 N | 29.9 lbf

Environmental Specifications

Operating Temperature -10 °C to +60 °C (+14 °F to +140 °F)

Environmental SpaceNon-plenumFlammability RatingUL 94 V-0Safety StandardETL | cETL

Packaging and Weights

Packaging quantity 1

Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system



Included Products

CC8469544/BU – Ultra 10® UNC10G Category 6A U/UTP Cable, non-plenum, gray jacket, 4 pair count, bulk UNC10G GRAY 4/24 Bulk length, reel



FREEDM® One Tight-Buffered Cable, Plenum 12 F, Single-mode (OS2)



Part Number:

012E8P-31131-29

Corning FREEDM® One plenum cables are flame-retardant, UVresistant, indoor/outdoor cables designed for aerial and duct applications with no need for a transition splice when entering the building. The tight-buffered construction facilitates easier termination for low-fiber-count applications in the local area network (LAN) and eliminates the need for fan-out kits. The design features TIA-598 color-coded 900 μm buffered fibers for easy identification, consistent stripping and direct termination. The small diameter and bend radius of the cable allow for easy installation in space-constrained areas while the innovative waterblocking technology is ideal for outside plant (OSP) applications. The all-dielectric cable construction requires no grounding or bonding, and the UV-resistant, flame-retardant jacket is rugged, durable and easy to strip. Note: This cable is available in 12 different jacket colors – blue, orange, green, brown, slate, white, red, black, yellow, violet, rose and aqua. The colored jacket allows for easy visual identification of the cables while still providing all of the required environmental protection of an indoor/outdoor cable jacket. Black is the standard jacket color using the part numbers shown here. Contact Customer Care at 1-800-743-2675 to order other color options.

Features and Benefits

Waterblocking technology

OSP (outdoor) applications

Small diameter and bend radius

Easy installation in space-constrained areas

Color-coded fibers

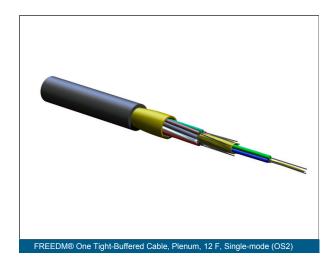
Quick and easy identification

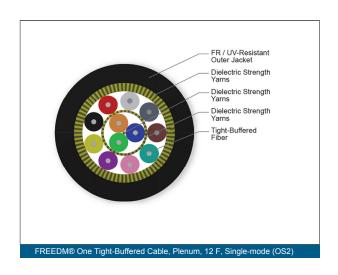
All-dielectric construction

Requires no grounding or bonding

UV-resistant, flame-retardant jacket

Rugged, durable and easy to strip





FREEDM® One Tight-Buffered Cable, Plenum 12 F, Single-mode (OS2)



Specifications

General Specifications	
Cable Type	Tight-Buffered
Environment	Indoor/Outdoor
Product Type	Dielectric
Fiber Category	Single-mode (OS2)
Flame Rating	Plenum (OFNP)
Application	Aerial, Duct, General purpose, Horizontal, Vertical Riser, Plenum
Cable geometry	Round

Standards	
RoHS	Free of hazardous substances according to RoHS 2011/65/EU
Approvals and Listings	National Electrical Code® (NEC®) OFNP, FT-6
Design and Test Criteria	ICEA S-104-696

Environmental Conditions	
Temperature Range, Installation	0°C to 60°C (32 $^{\circ}\text{F}$ to 140 $^{\circ}\text{F}$)
Temperature Range, Operation	-40 °C to 70 °C $$ (-40 °F to 158 °F $$)
Temperature Range, Storage	-40 °C to 70 °C $$ (-40 °F to 158 °F $$)

Cable Design	
Central Element	Dielectric
Fiber Count	12
Outer Jacket Color	Black
Outer Jacket Material	Flame-Retardant, UV-Resistant
Tensile Strength Elements and/or Armoring - Layer 1	Water-swellable strength members
Tight Buffer Color	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua

FREEDM® One Tight-Buffered Cable, Plenum 12 F, Single-mode (OS2)



Cable Design	
Flame Rating	Plenum (OFNP)

Mechanical Specifications	
Max. Tensile Strength, Long-Term	200 N (44.96 lbf)
Max. Tensile Strength, Short-Term	675 N (151.75 lbf)
Min. Bend Radius Installation	94.5 mm (3.72 in)
Min. Bend Radius Operation	63 mm (2.48 in)
Nominal Outer Diameter	6.3 mm (0.25 in)

Optical Characteristics	
Fiber Code	E
Fiber Name	SMF-28e+® fiber
Fiber Type	Single-mode
Performance Option Code	31
Maximum Attenuation	0.4 dB/km / 0.4 dB/km / 0.4 dB/km
Wavelengths	1310 nm / 1383 nm / 1550 nm
Fiber Category	G.652.D

Dimensions	
Cable Weight	36.9 kg/km (24.8 lb/1000 ft)



Corning Optical Communications LLC • 4200 Corning Place • Charlotte, NC • 28216 • United States 800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/opcomm

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Closet Connector Housing (CCH) Panel, LC Adapters

Duplex, UPC, 12 F, Single-mode (OS2)



Corning Cable Systems Closet Connector Housing Panels (CCH-CP) are offered in a variety of fiber counts for use with LANscape® Solutions hardware products for a "one-size-fits-all" approach. Used with factory-installed or field-installable connectors, these panels provide interconnect or cross-connect capability in a housing at main cross-connects, intermediate cross-connects, telecommunication rooms or work areas. Available with a variety of industry-standard adapter types, the CCH-CP provides an efficient way to securely mate two connectors and offers multimode and single-mode applications.

Features and Benefits

Universal design approach

One-size-fits-all LANscape® Solutions housings

Broadest range of fiber count and adapter types

Solutions for all needs

Colored icon labeling

Easy connector identification



Specifications

Enterprise Networks, Data Center LAN/SAN
Panels & Modules
Single-mode (OS2)

Design - Hardware	
Connector Polish	UPC
Fiber Count	12
Number of Adapters per Panel	6

Closet Connector Housing (CCH) Panel, LC Adapters

Duplex, UPC, 12 F, Single-mode (OS2)



Design Adapter	
Adapter Housing Color	Blue
Adapter Housing Material	Composite
Adapter Type	LC duplex
Insert Material	Ceramic

Chemical Characteristics	
RoHS	Free of hazardous substances according to RoHS 2002/95/ EG

Ordering Information

Part Number	CCH-CP12-A9
Product Description	Closet Connector Housing (CCH) Panel, LC adapters, Duplex, UPC, 12 F, Single-mode (OS2)

Shipping Information

Units per Delivery	1/1
Package Contents	CCH Adapter Panel with installation guide



Corning Cable Systems LLC • PO Box 489 • Hickory, NC 28603-0489 USA 800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/cablesystems

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UniCam® High-Performance Connectors, LC

Single-mode (OS2)



Corning Cable Systems UniCam® High-Performance Connectors offer best-in-class optical performance in a fast, easy field-termination solution. These high-precision connectors guarantee exceptional insert loss - 0.1 dB typical/0.5 dB maximum per connector pair for multimode, 0.2 dB typical/0.5 dB maximum per connector pair for single-mode. Installation of an LC, SC, or ST® Compatible Connector can be accomplished in about 45 seconds with the UniCam High-Performance Tool Kit. The lightweight, handheld installation tool and the highperformance cleaver virtually eliminate human variability from installation, ensuring terminations are right, the first time, every time. This kit was designed with consideration for the network installers, from the cleaver, with its integrated fiber scrap bin and dual-clamp precision hold, to the installation tool, with its immediate go/no-go feedback signal. Installation is as easy as strip, clean, cleave, cam and crimp, with exceptional optical performance guaranteed. Every UniCam Connector is guaranteed to meet the published specification at the time of installation or Corning Cable Systems will replace it.



Features and Benefits

Broad operating temperature (-40° to +75°C) Utility and flexibility

Factory-polished end face Consistent optical performance

Fast termination and no consumables Low installation cost

Minimum insertion loss

Optimum optical performance

Standards

Approval and Listings Passed EIA/TIA 568-B.3

Intermateability Connectors are FOCIS compliant with TIA/EIA 604-10A and IEC61754-20

UniCam® High-Performance Connectors, LC

Single-mode (OS2)



Specifications

General Specifications		
Technology	No-Epoxy/No-Polish	
Keyed	No	
Product Type	Field-Installable Connectors	
Corning Logo	Yes	
Packaging	Single Pack	
Fiber Category	Single-mode (OS2)	

Temperature Range	
Operation	-40 °C to 75 °C exceeding EIA/TIA 568-B.3 (-40 °F to 167 °F exceeding EIA/TIA 568-B.3)

Design - Connector A		
Connector Type	LC	
Ferrule	Ceramic	
Housing Material	Composite	
Housing Color	Blue	
Boot Color	Blue	

Mechanical Specifications - Connector A			
Durability	≤ 0.2 dB change by 500 rematings, FOTP-21		
Tensile Strength Jacketed Cable	44 N, change \leq 0.2 dB, FOTP-6 (10 lb, change \leq 0.2 dB, FOTP-6)		
Tensile Strength 900μ Cable	2.2 N, change \leq 0.2 dB, FOTP-6 (0.5 lb, change \leq 0.2 dB, FOTP-6)		
Temperature Cycling	≤ 0.3 dB IL, -40° to +75°C, 21 cycles		
Nominal Fiber Outer Diameter	125 µm		

Closet Connector Housing (CCH)

1 rack unit, holds 2 CCH connector panels



Designed based on thousands of hours of customer feedback, Corning Cable Systems Closet Connector Housings (CCHs) offer more than two dozen innovative features that make installation and troubleshooting of fibre optic connectivity faster, easier and more cost effective.

From fibre and cable routing and strain relief, to port labelling and termination, these housings reduce the risk of error that can disrupt networks.

Closet Connector Housings (CCHs) provide interconnect or cross-connect capabilities between outside plant, riser or distribution cables and opto-electronics. Like other LANscape Solutions hardware, the housings accept CCH connector panels. In addition, the housings accept CCH cassettes and CCH modules.

The units are designed for rack mounting in 19-in (48 cm) racks or optional 23-in (58 cm) equipment racks (1.75-in EIA hole spacing). They are available in rack space options of 1U (two panels, cassettes or modules), 2U (four panels, cassettes or modules), 3U (six panels, cassettes or modules) and 4U (twelve panels, cassettes or modules). The 1U, 2U and 3U options feature a slide -out tray and see-through, removable top covers. The CCH-04U features a clear door, removable front and rear enclosures and a platinum-painted interior for maximum visibility and access.

Every CCH housing is shipped complete with strain relief brackets, routing clips and guides, and mounting brackets for proper installation. Documentation labels are provided and components can be added as needed to construct a fibre distribution frame for any application. All housings include a removable tinted polycarbonate front door. All size housings have field-installable lock kits available for both front and rear doors.

All CCH housings can also be upgraded for pigtail splicing to full fibre capacity and easy, modular fibre management through the use of CCH Splice Cassettes (CCH-CS), or for easy, modular fibre management when using field-installable connectors through the use of CCH Slack Cassettes (CCH-CF).

Features and Benefits

Interconnect and cross-connect capability Ideal for field connectorization

Removable, translucent top covers (1U, 2U, 3U), removable rear cover (4U)

Visibility and ease of access for installation, testing and troubleshooting



Closet Connector Housing (CCH)

1 rack unit, holds 2 CCH connector panels



Features and Benefits

Internal and external strain-relief options

Flexibility for installation and moves, adds and changes (MACs)

Accepts panels, modules and cassettes

Variety of field termination options

Adaptable to use as a modular splice housing

Splices are stored and protected in same footprint

Standards

Approval and Listings	Meets ANSI/TIA/EIA-568A and 606	
RoHS	Free of hazardous substances according to RoHS 2002/95/EG	
101 11 4 1		

UL-Listed

Specifications

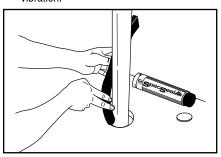
General Specifications		
Application	Enterprise Networks, Data Centre, Carrier Networks	
Mounting Type	Rack 19", Rack 23"	
Product Type	Fibre Optic Hardware	
Environment	Indoor	
Mounting Technology	Flush mount, Protruding, Recessed	
Access Type	Front and rear access slidable	
Lockable	Yes	

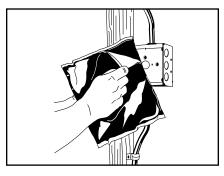


SERIES SSP PUTTY & PUTTY PADS

APPLICATIONS

SpecSeal ® Series SSP Putty and Putty Pads are used to seal through-penetrations as well as construction gaps and blank openings. SpecSeal® Putty Pads are used to seal around electrical boxes to reduce sound transmission (see Technical Update) and increase fire resistance. These pads also provide a metered method of application when sealing through-penetrations and in some applications, are used to provide a cushion to allow movement due to settling, expansion and contraction, or vibration.





PHYSICAL PROPERTIES

PHYSICAL PROPERTIES			
Product Name: Series SSP Putty			
Color:	Red		
Odor:	None		
Density: 1.45 kg/L (12.08 lb/gal)			
Solids: 100%			
Expansion Begins: 230°F (110°C)			
Volume Expansion: > 500% (free expansion)			
In-Service Temp: 120°F (49°C)			
STC Rating: 62			
VOC Content**: 0.00 lbs/gal (0.0g/L)			
Shelf Limit:	No Limit		
**ASTM D 3960 and EPA Federal Reference Method 24.			

PRODUCT DESCRIPTION

SpecSeal® Series SSP Putty is a non-hardening, intumescent compound designed to seal throughpenetrations as well as certain membrane penetrations against the spread of fire, smoke and toxic gasses. SpecSeal® Putty expands up to eight times its original size when exposed to high temperatures or flames

Requiring no tools, SpecSeal® Series SSP Putty is soft and pliable making it easy to install by hand packing into openings. Its aggressive adhesion makes it suitable for use with all common construction materials as well as cable jacketing and pipes. SpecSeal® Putty remains soft and easy to reuse or retrofit.

SpecSeal® Series SSP Putty Pads provide this same level of protection in a release lined pad for easy application to electrical boxes or other penetrants. The pad is conveniently sized to fit a typical 1-1/2" (38 mm) deep 4S box with no cutting or piecing required. Faced on both sides with a convenient poly liner, SpecSeal® Putty Pads are easily applied with no mess or excessive residue.

FEATURES

- Non-Hardening = Easy retrofit!
- Two Stage Intumescence features aggressive expansion.
- Endothermic Fillers absorb heat & release water.
- Highly Adhesive formula Stays put. Allows movement.
- · Soft & Pliable for easy installation.
- No Water-Soluble Expansion Ingredients means better water resistance!
- **Sound Deadening!** Excellent sound attenuation properties. Reduces noise transmission.

PERFORMANCE

SpecSeal® Series SSP Putty is the basis for systems that meet the exacting criteria of ASTM E814 (UL1479). Systems have been tested for all common forms of construction and most common penetrants with ratings up to 3 hours. Sound attenuation properties have also been tested as per ASTM C919 and E90.

Additionally, SpecSeal® Series SSP Putty Pads have been tested to UL263 (ASTM E119, NFPA 251) and are classified for up to 2 hours as a Wall Opening Protective Material for use with both metallic and nonmetallic outlet or switch boxes installed in gypsum wallboard assemblies (steel and wood stud assemblies). Boxes protected with SpecSeal® Putty Pads have been successfully tested with box spacing reduced to less than 16" (406 mm). (Not tested nor approved for boxes installed directly back to back).



UNDERWRITERS LABORATORIES INC.® CLASSIFIED WALL PROTECTION MATERIAL. SEE PRODUCT CATEGORY IN ULFRE RESISTANCE DIRECTORY

CLASSIFIED FILL, VOID, OR CAVITY MATERIALS FOR USE IN THROUGH-PENETRATION FIRESTOP SYSTEMS. SEE UL DIRECTORY OF PRODUCTS CERTIFIED FOR CANADA AND UL FIRE RESISTANCE DIRECTORY



SPECIFICATIONS

The firestopping putty shall be a one-part, two-stage intumescent, non-hardening compound. The putty, when exposed to high heat or flame shall be capable of expanding a minimum of five times. Range of continuing expansion shall be from 230°F to >1,000°F (110°C to >538°C). The putty shall be soft and pliable with aggressive adhesion and shall not contain any water-soluble intumescent ingredients. The putty shall be UL Classified and/or FM Systems Approved and tested to the requirements of ASTM E814 (UL1479).

SPECIFIED DIVISIONS

 DIV. 13 13900 Special Construction Fire Suppression & Supervisory System DIV. 15 15250 Mechanical Insulation – Fire Protection DIV. 16 16050 Basic Electrical Materials & Methods 	DIV.	/	0/840	Inrougn-Penetration Firestopping
	DIV. 1	13	13900	Special Construction Fire Suppression & Supervisory Systems
DIV 16 16050 Rasic Electrical Materials & Methods	DIV. 1	15	15250	Mechanical Insulation – Fire Protection
DIV. 10 10000 Baolo Elocultar Materialo a Motrodo	DIV. 1	16	16050	Basic Electrical Materials & Methods

07040 Thursday Danieland Charles



MAINTENANCE

Installations should be inspected periodically for subsequent damage. Any damage should be repaired using SpecSeal® products per the original approved design.

CLEAN UP

Remove excess material from all contact surfaces immediately. Clean hands or skin using a waterless hand cleaner. When using waterenulsifiable soaps, apply soap and work over areas of skin contact prior to applying water.

TECHNICAL SERVICE

Specified Technologies Inc. provides toll free technical support to assist in product selection and appropriate installation design. UL Systems, Material Safety Data Sheets and other technical information is available at the Technical Library at www.stifirestop.com.

PRECAUTIONARY INFORMATION

Consult Material Safety Data Sheet for additional information on the safe handling and disposal of this material. Wash areas of skin contact with soap and water. Avoid contact with eyes. DO NOT APPLY TO EXPOSED ELECTRICAL CONDUCTORS.

AVAILABILITY

SpecSeal® Series SSP Putty is available from authorized STI distributors nationwide. Consult factory for the names and locations of the nearest sales representatives or distributors.

TABLE A: CAT. NO.	ORDERING INFORMATION DESCRIPTION	CASE QTY.	
SSP100	36 in ³ (0.6 liter) bar	6	
SSP28	24 in ³ (0.4 liter) bar	-	
SSP4S	7.25" x 7.25" x 3/16" (184 x 184 x 5 mm) pad	20	
SSP9S	9.00" x 9.00" x 3/16" (229 x 229 x 5 mm) pad	20	



CITY OF NEW YORK MEA 30-92-M

IMPORTANT NOTICE: All statements, technical information, and recommendations contained herein are based upon testing believed to be reliable, but the accuracy and completeness thereof is not guaranteed.

WARRANTY

Specified Technologies Inc. manufactures its goods in a manner to be free of defects. Should any defect occur in its goods (within one year), Specified Technologies Inc., upon prompt notification, will at its option, exchange or repair the goods or refund the purchase price.

LIMITATIONS AND EXCLUSIONS:

THIS WARRANTY IS IN LIEU OF ALL OTHER REPRESENTATIONS EXPRESSED OR IMPLIED (INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR USE) AND UNDER NO CIRCUMSTANCES SHALL SPECIFIED TECHNOLOGIES INC. BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL PROPERTY DAMAGE OR LOSSES. PRIOR TO USE, THE USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR ITS INTENDED USE, AND THE USER ASSUMES ALL RISKS AND LIABILITY FOR SUBSEQUENT USE.

No statement or recommendation not contained herein shall have any force or effect unless in an agreement signed by officers of seller and manufacturer.

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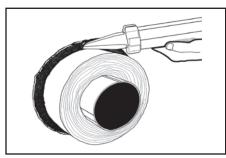


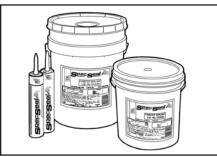
SERIES SSS INTUMESCENT SEALANT

APPLICATIONS

SpecSeal® Series SSS Sealant is used to seal through-penetrations as well as construction gaps and blank openings. SpecSeal Series SSS has been tested for use with metallic penetrants up to 30" (762 mm) trade size. This product is also used with other SpecSeal® Products such as SpecSeal® Firestop Collars and Wrap Strips.

See Table A for a summary application list.





PRODUCT DESCRIPTION

SpecSeal® Series SSS Sealant is a latex based, high solids firestop compound. This material, when properly installed, will effectively seal penetration openings against the spread of fire, smoke, toxic gasses and water.

SpecSeal® Series SSS Sealant features STI's patented and proprietary two-stage intumescent technology. When exposed to high temperatures or fire, this material expands aggressively in a highly directionalized fashion to quickly close off voids left by the burning or melting of combustible materials.

SpecSeal® Series SSS Sealant's unique multi-viscosity formula yields a single grade that has excellent caulking properties as well as high build properties on vertical or overhead surfaces. This single grade may be pumped, caulked (standard cartridge or bulk loaded), knifed or troweled. In addition, SpecSeal Series SSS Sealant does not contain PCB's or asbestos.

SpecSeal® Series SSS Sealant is storage stable (when stored according to the manufacturer's recommendations) and will not separate nor shrink when dried. SpecSeal Series SSS Sealant will adhere to all common construction and penetrant materials and contains no solvents that might adversely effect plastic pipes or cable jackets.

FEATURE	BENEFIT
Water-Based Two-Stage Intumescence Endothermic Fillers High Solids Formula Sandable & Paintable Water-Resistant Safe Red Color Multi Viscosity Grade Excellent Smoke Seal	Easy installation, cleanup, and disposal.

PERFORMANCE

SpecSeal® Series SSS Sealant is the basis for systems that meet the exacting criteria of ASTM E814 (UL1479) as well as the time-temperature requirements of ASTM E119 (UL263). Systems have been tested for all common forms of construction and most common penetrants with ratings up to 4 hours. STI firestop systems are designed to maximize the fire resistance of the seal by not only sealing off the spread of fire and hot gasses but also by minimizing the amount of heat conducted through the assembly. Thus all systems have been designed to provide T Ratings capable of matching the rating of the wall or floor assembly (where possible) when tested without penetrants.



FILL, VOID OR CAVITY MATERIALS FOR USE IN JOINT SYSTEMS AND THROUGH-PENETRATION FIRESTOP SYSTEMS. SEE UL DIRECTORY OF PRODUCTS CERTIFIED FOR CANADA AND UL FIRE RESISTANCE DIRECTORY.



PHYSICAL PROPERTIES

Properties	Series SSS
Color	Red
Odor	Mild Latex
Density	9.4 lb/gal (1.13 kg/L)
Solids Content	80% ± 2%
pH	8.3
In Service Temperature	-10°F (-23°C) - 185°F (85°C)
Storage Temperature	40°F (4°C) - 95°F (35°C)
Flame Spread	0*
Smoke Developed*	10*

Properties	Series SSS
STC Rating (ASTM E90/ASTM C919)	62
VOC Content (EPA Method 24/ASTM D3960)	0.18 lbs/gal (22.0 g/L)
Shelf Life	2 yrs
Expansion Begins	230°F (110°C) 1st Stage 350°F (177°C) 2nd Stage
Expansion Range	230°F to > 1,000°F (110°C to > 538°C)
Volume Expansion	> 500% Free Expansion

^{*} Tested to ASTM E84 (UL723) at 14% surface coverage (modified test for sealants and caulks)



INSTALLATION INSTRUCTIONS

LIMITATIONS: SpecSeal® Series SSS Sealant is water-based and cures through the evaporation of water. Low temperatures as well as high humidity may retard drying. Non-porous or impermeable backing materials, plates, or coatings may retard the drying process. Do not paint or seal in any way that prevents contact with air until sealant has dried through completely. This product has been designed to be safe with plastics and has been used extensively and successfully with a variety of different types of plastic pipes, tubes, and plastic cable insulations. Variations in these materials however, make it impossible to guarantee compatibility. STI strongly recommends that the user consult with the manufacturer of the pipe, tubing, or cable in question regarding any known sensitivities or potential restrictions before applying this product.

MAINTENANCE

Inspection: Installations should be inspected periodically for subsequent damage. Any damage should be repaired using SpecSeal® products per the original approved design.

Retrofit: When adding or removing penetrants, care should be taken to minimize damage to the seal. Reseal using SpecSeal® products per the approved design. NOTE: New penetrants of a different nature than the original design may require a totally new firestop design or extensive modifications to the existing design. Reseal all openings as per the requirements of the modified design.

TECHNICAL SERVICE

Specified Technologies Inc. provides toll free technical support to assist in product selection and appropriate installation design. UL Systems, Material Safety Data Sheets and other technical information is available through the Technical Library at www.stifirestop.com.

PRECAUTIONARY INFORMATION

Consult Material Safety Data Sheet for additional information on the safe handling and disposal of this material. Wash areas of skin contact with soap and water. Avoid contact with eyes. SEALANT IS CONDUCTIVE UNTIL DRY.

AVAILABILITY

SpecSeal® Series SSS Sealant is available from authorized STI distributors. Consult factory or website for the names and locations of the nearest sales representatives or distributors.

CATALOG NUMBER	DESCRIPTION
SSS100	10.1 oz. Tube (300 ml) 18.2 cu.in.
SSS129	29 oz. Tube (858 ml) 52 cu. in.
SSS120	20 oz. Sausage (592 ml) 36 cu. in.
SSS102	2 Gal. Pail (7.6 liters) 462 cu.in.
SSS105	5 Gal. Pail (19.0 liters) 1,155 cu.in.

CITY OF NEW YORK MEA 28-92-M

IMPORTANT NOTICE: All statements, technical information, and recommendations contained herein are based upon testing believed to be reliable, but the accuracy and completeness thereof is not guaranteed.

WARRANTY

Specified Technologies Inc. manufactures its goods in a manner to be free of defects. Should any defect occur in its goods (within one year), Specified Technologies Inc., upon prompt notification, will at its option, exchange or repair the goods or refund the purchase price.

LIMITATIONS AND EXCLUSIONS:

THIS WARRANTY IS IN LIEU OF ALL OTHER REPRESENTATIONS EXPRESSED OR IMPLIED (INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR USE) AND UNDER NO CIRCUMSTANCES SHALL SPECIFIED TECHNOLOGIES INC. BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL PROPERTY DAMAGE OR LOSSES. PRIOR TO USE, THE USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR ITS INTENDED USE, AND THE USER ASSUMES ALL RISKS AND LIABILITY FOR SUBSEQUENT USE.

No statement or recommendation not contained herein shall have any force or effect unless in an agreement signed by officers of seller and manufacturer.

STI Product Data Sheet • Series SSS Intumescent Sealant • FOD-5001 05/2010

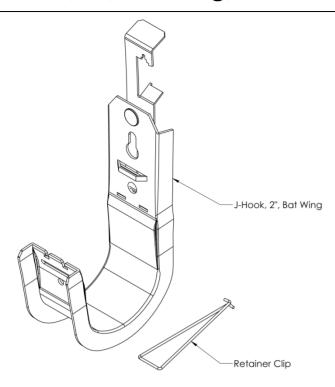
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J-Hook, 2", Bat Wing, 25 PK



Package Include:

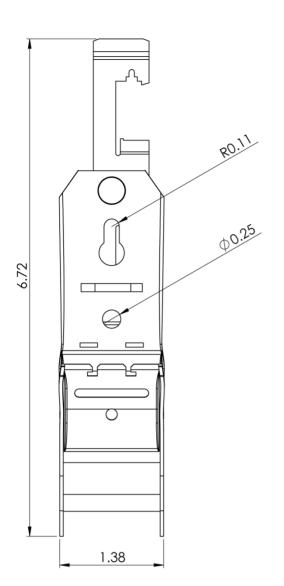
- A. J-Hook, 2", Bat Wing, 25 Pieces
- B. Retainer Clip, 25 Pieces
- C. Installation Instructions, 1 Sheet

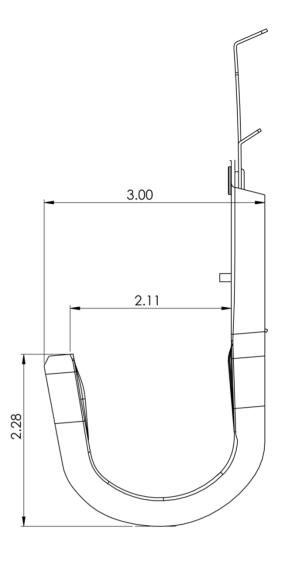
Features and Benefits

- · Made of high quality galvanized steel for strength and durability
- Accommodates CAT 5e, CAT 6, CAT 6A, coax, and fiber optic cables, and conduit
- Rust resistant zinc finish
- · Complies with EIA/TIA requirements for structured cabling systems
- · Cost effect alternative to expensive cable tray or ladder runway rack
- Smooth edges to protect cables and facilitate bend radius
- · Cables can be pulled through quickly and easily
- · Cable anchor points allows users to secure with cable ties
- Stopper tab allow an easier installation onto 12 AWG ceiling wire
- Supports up to 25 lbs. of weight
- Available in bulk 25 pack



Product Specification





Specifications

- Material: 18 gauge galvanized steel
- Finish: Zinc plated J-Hook, and black powder coated batwing

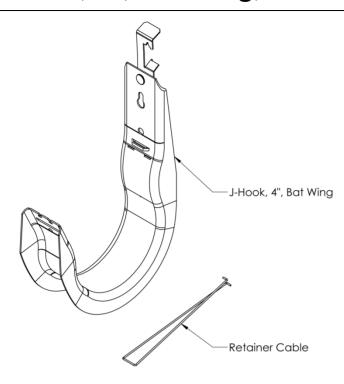
Capacity Reference					
Cable Type CAT 5e CAT 6 CAT 6A					
Qty	~80	~50	~		

Part No: ICCMSJHW44

Rev: A Page 2 of 2 888-ASK-4ICC icc.com csr@icc.com



J-Hook, 4", Bat Wing, 25 PK

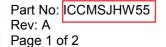


Package Includes

- A. J-Hook, 4", Bat Wing, 25 Pieces
- B. Retainer Clip, 25 Pieces
- C. Installation Instructions, 1 Sheet

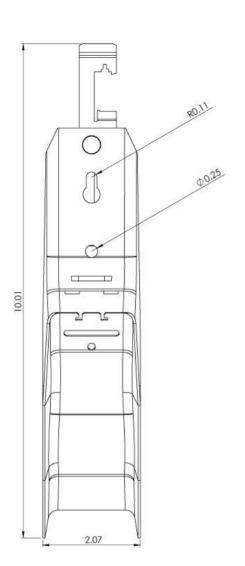
Features and Benefits

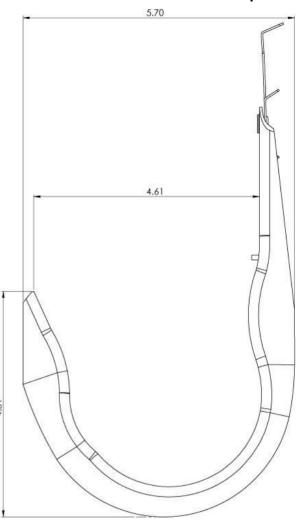
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- · Available in bulk 25 pack





Product Specification





Specifications

- Material: 18 gauge galvanized steel
- Finish: Zinc plated J-Hook, and black powder coated batwing

Capacity Reference							
Cable Type CAT 5e CAT 6 CAT 6A							
Qty	~160	~100	~				

Part No: ICCMSJHW55

Rev: A Page 2 of 2 I 888-ASK-4ICC icc.com csr@icc.com



3MTM TemflexTM Vinyl Electrical Tape

1700

Data Sheet November 2011

Product Description

3M™ Temflex™ Vinyl Electrical Tape 1700 is a good quality, economical general purpose vinyl insulating tape. It has excellent resistance to: abrasion, moisture, alkalies, acid, copper corrosion and varying weather conditions. It is a polyvinyl chloride (PVC) tape that is flame-retardant and conformable. 3M Temflex 1700 Tape provides excellent mechanical protection with minimum bulk. It is a UL Listed and CSA Certified "Insulating Tape."

Agency Approvals & Self Certifications

UL Listed; UL 510 Standard "Insulating Tape" (product category OANZ), File E129200

CSA Certification; Standard C22.2 No. 197-M1983 "PVC Insulating Tape," File LR48769

RoHS 2002/95/EC



RoHS Compliant 2002/95/EC" means that the product or part ("Product") does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under RoHS. This information represents 3M's knowledge and belief, which may be based in whole or in part on information provided by third party suppliers to 3M.

Applications

- Primary electrical insulation for most wire and cable splices rated up to 600 volts
- · Protective jacketing for high voltage cable splices and repairs
- Harnessing of wires and cables
- For indoor or outdoor applications
- For above or below ground application

Installation Techniques

Apply the tape in half-lapped layers with sufficient tension to conform and produce a uniform covering. In most applications, this tension will reduce the tape's width to approximately 5/8 of its original width. On pigtail splices, the tape should be wrapped beyond the end of the wires and then folded back, leaving a protective cushion to resist cut-through. Always wrap the tape "uphill" to create a shingle effect. Apply the tape with no tension on the last wrap to prevent flagging.



3M™Temflex™ Vinyl Electrical Tape 1700

Typical Data/ Physical Properties

Not for specifications. Values are typical, not to be considered minimum or maximum. Properties measured at room temperature 73°F (~23°C) unless otherwise stated.

Physical Properties (Test Method) *ASTM D1000	Typical Value US units (metric)
Thickness*	7 mils (0,18 mm)
Adhesion* To Steel To Backing	22 oz/in (2,4 N/cm) 22 oz/in (2,4 N/cm)
Operating Temperature UL 510 CSA 2.22	80°C (176°F) 80°C (176°F)
Breaking Strength*	17 lbs/in (30 N/cm)
Elongation*	200%
Flammability (UL 510)	Pass

Electrical Properties (Test Method) *ASTM D1000	Typical Value US units (metric)
Dielectric Strength* Standard Condition After Humidity Condition	>1000 V/mil (39.4kV/mm) >90% of Standard
Insulation Resistance*	10 ⁶ Megohms

Shelf Life & Storage

3M Temflex Electrical Tape 1700 has a 5-year shelf life (from date of manufacture) when stored in a humidity controlled storage (10°C /50°F to 27°C /80°F and less than 75% relative humidity).

Availability

Temflex Electrical Tape 1700 is available from your local 3M authorized electrical distributor in the following standard roll size: ¾ in. x 60 ft. Other lengths and widths available by special order.

Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product, which are not contained in 3M's current publications, or any contrary statements contained on your purchase order, shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

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3MTM TemflexTM Vinyl Electrical Tape 1700

Data Sheet November 2011

Product Description

3M™ Temflex™ Vinyl Electrical Tape 1700 is a good quality, economical general purpose vinyl insulating tape. It has excellent resistance to: abrasion, moisture, alkalies, acid, copper corrosion and varying weather conditions. It is a polyvinyl chloride (PVC) tape that is flame-retardant and conformable. 3M Temflex 1700 Tape provides excellent mechanical protection with minimum bulk. It is a UL Listed and CSA Certified "Insulating Tape."

Agency Approvals & Self Certifications

UL Listed; UL 510 Standard "Insulating Tape" (product category OANZ), File E129200

CSA Certification; Standard C22.2 No. 197-M1983 "PVC Insulating Tape," File LR48769

RoHS 2002/95/EC



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Applications

- Primary electrical insulation for most wire and cable splices rated up to 600 volts
- · Protective jacketing for high voltage cable splices and repairs
- Harnessing of wires and cables
- For indoor or outdoor applications
- For above or below ground application

Installation Techniques

Apply the tape in half-lapped layers with sufficient tension to conform and produce a uniform covering. In most applications, this tension will reduce the tape's width to approximately 5/8 of its original width. On pigtail splices, the tape should be wrapped beyond the end of the wires and then folded back, leaving a protective cushion to resist cut-through. Always wrap the tape "uphill" to create a shingle effect. Apply the tape with no tension on the last wrap to prevent flagging.



3M™Temflex™ Vinyl Electrical Tape 1700

Typical Data/ Physical Properties

Not for specifications. Values are typical, not to be considered minimum or maximum. Properties measured at room temperature 73°F (~23°C) unless otherwise stated.

Physical Properties (Test Method) *ASTM D1000	Typical Value US units (metric)
Thickness*	7 mils (0,18 mm)
Adhesion* To Steel To Backing Operating Temperature UL 510 CSA 2.22	22 oz/in (2,4 N/cm) 22 oz/in (2,4 N/cm) 80°C (176°F) 80°C (176°F)
Breaking Strength*	17 lbs/in (30 N/cm)
Elongation*	200%
Flammability (UL 510)	Pass

Electrical Properties (Test Method) *ASTM D1000	Typical Value US units (metric)
Dielectric Strength* Standard Condition After Humidity Condition	>1000 V/mil (39.4kV/mm) >90% of Standard
Insulation Resistance*	10 ⁶ Megohms

Shelf Life & Storage

3M Temflex Electrical Tape 1700 has a 5-year shelf life (from date of manufacture) when stored in a humidity controlled storage (10°C /50°F to 27°C /80°F and less than 75% relative humidity).

Availability

Temflex Electrical Tape 1700 is available from your local 3M authorized electrical distributor in the following standard roll size: ¾ in. x 60 ft. Other lengths and widths available by special order.

Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product, which are not contained in 3M's current publications, or any contrary statements contained on your purchase order, shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

Warranty; Limited Remedy; Limited Liability

This product will be free from defects in material and manufacture at the time of purchase. 3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.

3M and Temflex are trademarks of 3M Company.



Electrical Markets Division

6801 River Place Blvd. Austin, TX 78726-9000 800.245.3573 FAX: 800.245.0329 www.3M.com/electrical

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TAPI

ONE-WRAP® FR Tape For Use In Plenum Air Space

VELCRO® Brand ONE-WRAP® Fire Retardant (FR) tape is the only hook & loop material that complies to national electric code standards for use in plenum air spaces*. This is used for bundling phone lines, ethernet cords and other IT infrastructure within plenum air space.



CLOSURE	INFORMATION	FR
	MATERIAL	Polypropylene (Hook) Polyamide (Backing)
66	CYCLE LIFE	Medium
=	PEEL	0.6 PIW
-	SHEAR	29 PSI

SIZE	TAPE SHAPE
3/4" x 6"	
3/4" x 8"	
3/4" x 12"	

*Plenum Rated—Suitable for use in air handling spaces in accordance with Section 300.22 (C) and (D) of the National Electrical Code.

Common VELCRO® Brand ONE-WRAP® FR Lineal Offerings							
REFERENCE	UPC CODE	LENGTH	WIDTH	COLOR	QTY PER SHIPPING BOX	APPLICATION METHOD	
30986	075967309862		1/2" 3/4"	■ Black (330)			
30994	075967309947	05		Cranberry (502)	24	Dundle umen feeten	
30987	075967309879	25 yards		2/4"	■ Black (330)	24	Bundle, wrap, fasten
30993	075967309930			■ Cranberry (502)			



DUIT® ELECTRICAL SOLUTIONS

A. System Overview

B1. Cable Ties

B2. Cable Accessories

B3.

Stainless **Steel Ties**

> **C1**. Wiring Duct





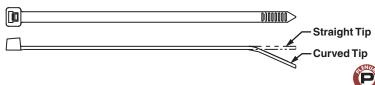


c 🕦 us c Us us c Pan-Ty® Cable Ties − Nylon 6.6

- For indoor use
- · Versatile cable ties can be used in countless applications
- · One-piece construction for consistent performance and reliability
- · Lowest threading force of any one-piece cable tie in the industry
- Curved tip is easy to pick up from flat surfaces and allows faster initial threading to speed installation
- A variety of materials and colors available for specific applications
- UL Listed for use in plenum or air handling spaces per NEC except PLT.6SM and PLT5H/6H/8H/13H







Duct														PATES
C2.		Length		Wie	Width		Thickness	Max. Bundle Dia.		Min. Loop Tensile Str.		Recommended Installation	Std. Pkg.	Std. Ctn.
Surface	Part Number	ln.	mm	ln.	mm	ln.	mm	ln.	mm	Lbs.	N	Tool	Qty.	Qty.
Raceway	Subminiature	Cross S	ection											
	PLT.6SM-C	2.8	71	.070	1.8	.030	.8	.60	15	8	36	GTS, GTSL, PTS	100	1000
C3. Abrasion	Miniature Cross Section – Plenum-Rated													
Protection	PLT.7M-C	3.1	79	.090	2.3	.032	.8	.68	17	18	80		100	1000
	PLT1M-C	3.9	99	.098	2.5	.043	1.1	.87	22	18	80	GTS, GTSL, GS2B,	100	1000
C4.	PLT1.5M-C	5.6	142	.098	2.5	.043	1.1	1.25	32	18	80	PTS, PPTS, STS2	100	1000
Cable	PLT2M-C	8.0	203	.098	2.5	.043	1.1	2.00	51	18	80		100	1000
Management	Intermediate Cross Section – Plenum-Rated													
	PLT1.5I-C	5.6	142	.142	3.6	.045	1.1	1.38	35	40	178		100	1000
D1.	PLT2I-C	8.0	203	.142	3.6	.045	1.1	2.00	51	40	178		100	1000
Terminals	PLT2.5I-C	9.7	246	.145	3.7	.052	1.3	2.50	64	40	178	GTS, GTSL, GS2B, PTS, PPTS, STS2	100	1000
	PLT3I-C	11.4	290	.145	3.7	.052	1.3	3.00	76	40	178	F13, FF13, 3132	100	1000
D2.	PLT4I-C	14.5	368	.145	3.7	.052	1.3	4.00	102	40	178		100	1000
Power	Standard Cross Section – Plenum-Rated													
Connectors	PLT1S-C	4.8	122	.190	4.8	.052	1.3	1.00	25	50	222		100	1000
	PLT1.5S-C	6.2	157	.190	4.8	.052	1.3	1.50	38	50	222	GTS, GTSL, GS2B, GTH, GS4H, PTS, PPTS, PTH,	100	1000
D3. Grounding	PLT2S-C	7.4	188	.190	4.8	.052	1.3	1.88	48	50	222		100	1000
Connectors	PLT2.5S-C	9.8	249	.190	4.8	.052	1.3	2.50	64	50	222		100	1000
	PLT3S-C	11.5	292	.190	4.8	.052	1.3	3.00	76	50	222		100	1000
E1.	PLT4S-C	14.5	368	.190	4.8	.052	1.3	4.00	102	50	222	STS2, STH2	100	1000
Labeling Systems	PLT4.5S-C	15.5	394	.190	4.8	.052	1.3	4.50	114	50	222		100	1000
	PLT5S-C	17.5	445	.190	4.8	.052	1.3	5.00	127	50	222		100	500
	Light-Heavy C	ross Se	ction (S	Straight	Tip) –	Plenum	-Rated							
E2. Labels	PLT2H-L	8.1	206	.300	7.6	.075	1.9	2.00	51	120	534		50	500
Laueis	PLT2.5H-L	9.8	251	.300	7.6	.075	1.9	2.50	64	120	534		50	500
	PLT3H-L	11.4	290	.300	7.6	.075	1.9	3.00	76	120	534		50	500
E3. Pre-Printed	PLT4H-L	14.5	368	.300	7.6	.075	1.9	4.00	102	120	534		50	500
& Write-On	PLT6LH-L	21.9	556	.300	7.6	.075	1.9	6.00	152	120	534	GTH, GS4H, GS4EH, PTH, STH2, ST3EH	50	500
Markers	PLT7LH-L	24.7	627	.300	7.6	.075	1.9	7.00	178	120	534	FIN, 31N2, 313EN	50	500
E4. Permanent Identification	PLT8LH-L	27.6	701	.300	7.6	.075	1.9	8.00	203	120	534		50	500
	PLT9LH-L*	30.5	775	.300	7.6	.075	1.9	9.00	229	120	534		50	500
	PLT10LH-L*	34.3	871	.300	7.6	.075	1.9	10.31	262	120	534		50	1000
E5.	Heavy Cross Section (Straight Tip)													
Lockout/	PLT5H-L*	17.7	450	.350	8.9	.078	2.0	5.00	127	175	778		50	500
Tagout & Safety	PLT6H-L*	20.9	530	.350	8.9	.078	2.0	6.00	152	175	778	GTH, GS4H, GS4EH,	50	500
Solutions F.	PLT8H-L*	30.6	779	.350	8.9	.078	2.0	9.00	229	175	778	PTH, STH2, ST3EH	50	500
	PLT13H-Q*	43.3	1100	.350	8.9	.078	2.0	13.00	330	175	778		25	500

*UL Listed - meets the requirements of UL 181B-C, for securing UL Listed non-metallic air ducts and air connectors.

F. Index



REQUEST FOR PROPOSAL

<u>Internal Connections - Structured Cabling (E-Rate)</u>

ADAMS 12 FIVE STAR SCHOOLS - PURCHASING RFP 25-025 - Addendum 1

Issue Date: Wednesday, January 22, 2025

RFP Number: 25-025

Buyer: Audra Vela, Senior Buyer, (720) 972-4229

Due Date: Friday, February 21, 2025 at 10:00AM MST, Submit offers to Bidnet Direct **only** at:

https://www.bidnetdirect.com/colorado/adams-12-five-star-schools

BID ADDENDUM

This notice will serve as an addendum to the above issued RFP, as notification to incorporate the following pages into the solicitation, making it part of the original documents and solicitation as originally requested.

Below is the District's Response to the Questions Received:

1. Question: Is the district allowing site visits to better understand building layout and potential obstacles?

Response: Site visits will be performed during the design phase after the RFP award.

2. Question: In the MDF/IDF data rooms, can we reuse existing network racks/wire management if possible?

Response: Yes, existing racks and wire managers will be reused.

3. Question: If there are any cable runs to new locations that do not have existing data, would those runs need to be run in conduit/wiremold?

Response: Contractors shall adhere to the District's Division 27 Technical Guidelines attached in Appendix A-1 for conduit/wiremold requirements. Specific requirements for new conduit/wiremold will be determined during the design phase for inclusion in the contract.

4. Question: On the 470, it is spec'ing Commscope, but I don't see it listed anywhere else in the RFP documents. Is the district set on Commscope or would they take bids from comparable manufacturers? ICC for example.

Response: The District's Division 27 Technical Guidelines, attached in Appendix A-1, outline the requirements for manufacturer or equivalent alternatives.

5. Question: The district is asking for 10 schools with an optional 2 as a value add if possible. Is there a preference on which schools need to be prioritized during this project?

Response: With the exception of the following Construction Activity at specific schools, the District does not have a preference for project prioritization:

• Horizon High School

- o Multiple general renovation projects are scheduled to begin in early June 2026
- Cabling work must be completed prior to the start of these renovations
- Eagleview Elementary School
 - O A summer roofing project is scheduled from early June 2025 through mid-August 2025
 - O Cabling work cannot occur during this time
- Century Middle School
 - O A summer roofing project is scheduled from early June 2025 through mid-August 2025
 - O Cabling work cannot occur during this time

Outside of these considerations, Contractors have flexibility in determining the project schedule that works best for their team.

- 6. Question: We assume that this project is fully tax exempt?

 Response: Yes, the District and project are tax exempt.
- 7. Question: Is any after-hours or weekend work anticipated, either for cabling installation or cutover support?

Response: Yes, after-hours and weekend work is anticipated. Cabling crews are expected to work year-round, even while buildings remain open to students and activities. Increased access will be available during summer months and other school breaks. However, buildings will still be open for staff, student programs, and community use during these times. Contractors should plan accordingly for after-hours and weekend work.

- 8. Question: Are there any expected requirements for new surface raceways or conduits? Response: See response to Question 3.
- 9. Question: The Statement of Work references new equipment racks and wire management may be required, but these are not listed in the bid form spreadsheet. Can you provide some guidance on how we should best try to account for these items?

Response: See response to Question 2.

All proposals must also include a signed copy of this addendum.
m proposate mass also melade a signed sopy of time addeniading

For any legal questions regarding the specifics of this RFP, please contact Audra Vela, at 720-972-4229.





CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION LOWER TIER COVERED TRANSACTIONS* REQUIRED FOR ALL AGREEMENTS OVER \$25,000

*Lower Tier Covered Transactions, refers to transactions between District and vendors, as well as, any subcontractors that a vendor would enter into a contract with using these funds.

This certification is required by the regulations implementing Executive Orders 12549 and 12689, Debarment and Suspension, 2 CFR part 3485, including Subpart C Responsibilities of Participants Regarding Transactions (also see federal guidance at 2 CFR part 180).

BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS BELOW.

CERTIFICATION

The prospective lower tier participant certifies, by submission of this Certification, that:

- (1) Neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency;
- (2) It will provide immediate written notice to whom this Certification is submitted if at any time the prospective lower tier participant learns its certification was erroneous when submitted or has become erroneous by reason of changed circumstances;
- (3) It shall not knowingly enter any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated;
- (4) It will include the clause titled Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion—Lower Tier Covered Transactions, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions;
- (5) The certifications herein are a material representation of fact upon which reliance was placed when this transaction was entered into; and
- (6) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this Certification.

Legal Business Name	DUNS Number
Name of Authorized Representative	
	Hill
.1	
Num-	
Original Signature of Authorized Representative	Date

Instructions for Certification

- 1. By signing and submitting this Certification, the prospective lower tier participant is providing the certifications set out herein.
- If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to
 the Federal government, the department or agency with which this transaction originated may pursue all available remedies, including
 suspension and/or debarment.
- 3. Except for transactions authorized under paragraph 3 above, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal government, the department or agency with which this transaction originated may pursue all available remedies, including suspension and/or debarment.
- 4. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used herein, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549 and Executive Order 12689. You may contact the person to which this Certification is submitted for assistance in obtaining a copy of those regulations.
- 5. Aparticipant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the "GSAGovernment-Wide System for Award Management Exclusions" (SAM Exclusions) at www.sam.gov.
- 6. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required herein. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.



American Family Insurance - Business Insurance Underwritten by: Midvale Indemnity Company A Wisconsin Stock Company

CRISTINA JAEGER AGENCY 2020 S COLLEGE AVE UNIT A3 FORT COLLINS, CO 80525 (970) 229-9393

Information as of: 11/09/2024

POLICY DECLARATIONS

This document and your policy contract define our insuring agreement. In return for payment of premium and subject to all the terms of this policy, we agree to provide you insurance as stated in the policy.

Policy Information

Named Insured: SYSTEC101 LLC Policy Number: BPP1032260

Policy Type: Business Owner's Policy (BOP)

E-mail Address: murat.yildirim@systec101.com Policy Period: 11/09/2024 to 11/09/2025

12:01AM Standard Time at

Primary Location

Phone: (970) 646 - 2706

Location Information

Location Number: 1 Building Number: 1

Address: 11871 E 33RD AVE UNIT B

Aurora, CO 80010

Coverage Information (applies to Location Number: 1, Building Number: 1)

Business Personal Property Limit: \$25,306

Deductible (applies per location, per occurrence): \$500

Windstorm or Hail Percentage Deductible (applies per N/A

location, per occurrence):

Limit of Insurance Deductible Other Coverage Accounts Receivable (On Premises / Off Premises) \$10,000/\$5,000 None Valuable Papers and Records (On Premises / Off Premises) \$10,000/\$5,000 None **Outdoor Property** \$2,500 None **Business Income from Dependent Properties** \$5,000 None Damage To Premises - Rented To You \$500.000 None **Business Income & Extra Expense** 12 months actual loss sustained None

Additional Coverage (applies to Location Number: 1)

BID BP 1001 07 17 Page 1 of 4

Other Coverage Limit of Insurance Deductible

Fire Department Service Charge Money & Securities (On Premises / Off Premises) Equipment Breakdown

\$5,000 \$5,000/\$5,000 See policy form None \$500 See policy form

BID BP 1001 07 17 Page 2 of 4

Policy Coverage (limits & deductibles shown are non-stackable across locations)

	Limit of Insurance	Deductible
Liability Coverage		
Business Liability (per-occurrence limit/annual aggregate limit):	\$2,000,000/\$4,000,000	None
Medical Expenses (per person)	\$5,000	None
Property Coverage		
Business Income - Extended Period of Indemnity	60 days	None
Business Income - Payroll Expense	60 days	None
Other Coverages		
Electronic Data	\$10,000	None
Interruption of Computer Operations	\$10,000	None
Forgery or Alteration	\$2,500	\$500

Classification Information

Location	Class Code	Class Description	Exposure Basis	Exposure Amount
1	50925	Office Machines or Appliances - Retail - No Repair	LOI	\$25,306

Policy Premium	\$1,494
----------------	---------

Premium Taxes, Surcharges and Fees (note: included in Policy Premium above)

Hazard Mitigation Fee \$2

Discounts Applied to This Policy

Loss-Free Loyalty

Policy Forms and Endorsements

ACORD 25 0316	CERTIFICATE OF LIABILITY INSURANCE
7.00.12 20 00.0	
BP 00 03 07 13	BUSINESSOWNERS COVERAGE FORM
BP 01 81 03 15	COLORADO CHANGES
BP 04 02 07 13	ADDITIONAL INSURED - MANAGERS OR LESSORS OF PREMISES
BP 04 17 01 10	EMPLOYMENT-RELATED PRACTICES EXCLUSION
BP 04 48 07 13	ADDITIONAL INSURED - DESIGNATED PERSON OR ORGANIZATION
BP 04 83 01 10	REMOVAL OF INSURANCE-TO-VALUE PROVISION
BID BP 1001 07 17	Page 3 of 4

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BP 04 92 07 02	TOTAL POLLUTION EXCLUSION
BP 05 01 07 02 BP 05 15 01 15	CALCULATION OF PREMIUM DISCLOSURE PURSUANT TO TERRORISM RISK INSURANCE ACT
BP 05 17 01 06	EXCLUSION - SILICA OR SILICA-RELATED DUST
BP 05 23 01 15	CAP ON LOSSES FROM CERTIFIED ACTS OF TERRORISM
BP 05 77 01 06	FUNGI OR BACTERIA EXCLUSION (LIABILITY)
BP 14 07 01 10	BUSINESS INCOME AND EXTRA EXPENSE - REVISED PERIOD OF INDEMNITY
BP 14 86 07 13	COMMUNICABLE DISEASE EXCLUSION
BP 15 04 05 14	EXCLUSION - ACCESS OR DISCLOSURE OF CONFIDENTIAL OR PERSONAL
	INFORMATION AND DATA-RELATED LIABILITY - WITH LIMITED BODILY INJURY
	EXCEPTION
BP 15 31 09 19	CANNABIS PROPERTY EXCLUSION WITH HEMP EXCEPTION
BP 15 33 09 19	CANNABIS LIABILITY EXCLUSION WITH HEMP EXCEPTION
BP 77 01 07 16	EQUIPMENT BREAKDOWN COVERAGE
BP 88 10 03 21	PUNITIVE DAMAGES EXCLUSION
BP 88 20 03 21	ASBESTOS EXCLUSION
BP 88 30 05 22	EXCLUSION - BIOMETRIC DATA, IDENTIFIERS OR INFORMATION
BP 88 40 03 21	ADDITIONAL INSURED - BLANKET
BP IN 01 07 13	BUSINESSOWNERS COVERAGE FORM INDEX
IL N 020 09 03	COLORADO FRAUD STATEMENT

In witness whereof, we have caused this policy to be signed by our authorized officers.

Home Office MIDVALE INDEMNITY COMPANY 6000 American Parkway Madison, WI 53783

Tony Desantis , Jr. President

Lauren K. Powell Secretary

L K. R

BID BP 1001 07 17 Page 4 of 4