

Louisa County Middle School - (LCMS Addition)

Base Proposal

Date: 10/9/2024

SYSTEC101 will be providing the following:

Please note that based on General Contractor's request, SYSTEC101 will furnish and install structured cabling system to Louisa County Middle School - (LCMS Addition).

Site address : 1009 Davis Highway Mineral, VA 23117.

Please note that "The performing and bonding rate is not included in this proposal. If required, it will be a 2.5% additional charge from the value of the proposal"

Name of the System	Divisions	Price Break down
Structured Cabling System	-	\$ 308,701.92

Grand Total - Base Proposal:	\$ 308,701.92
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Additive alternates	Price Break down
Additive Alternate 1 - Installation of Security Cameras	\$ 3,910.00
Additive Alternate 2 - Installation of TV's, mounts and ScreenBeams	\$ 19,125.00
Additive Alternate 3 - Installation of Vape Sensors	\$ 680.00
Additive Alternate 4 - Installation of Projectors, mounts and ScreenBeams	\$ 15,300.00
Additive Alternate 5 - Installation of Clocks	\$ 4,122.50

Grand Total - Additive Alternate:	\$ 43,137.50
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Structured Cabling System

Scope of Work

Louisa County Middle School - (LCMS Addition):

- 1. SYSTEC101 will furnish and install a total of (847) Cat 6 plenum cables for data outlets & (90) Cat 6A plenum cables for WAP outlets to (589) outlets.**

Classroom:

- We will furnish and install a total of (14) Cat 6 plenum cables for data outlets and (2) Cat 6A plenum cables for WAP outlet from nearest data room to each classrooms as per the RFP totals/typ. classroom enlarged diagram issued by the Louisa, also we will follow the cabling color code mentioned in RFP.
- We will furnish and install a total of (3) empty box-faceplate with blank insert per classroom as per the typ. classrooms enlarged diagram.
- We will furnish and install a total of (2) HDMI keystone per classroom as per count mentioned in the RFP totals.

General Area:

- We will furnish and install a total of (18) Cat 6 plenum cables (yellow) from nearest data room to (18) vape sensor ceiling outlets as per RFP totals.
- We will furnish and install a total of (46) Cat 6 plenum cables (purple) from nearest data room to (46) camera outlets as per RFP totals.
- We will furnish and install a total of (87) Cat 6 plenum cables (blue) from nearest data room to (87) data outlets for (digital signage, workroom, kitchen, cafe, mechanical and resource room) as per RFP totals.

Office/Admin office:

- We will furnish and install a total of (66) Cat 6 plenum cables (blue) from nearest data room to (33) dual data wall outlets as per RFP totals.

Common:

- All empty ports on faceplates will be covered using blanks.
- J-Hooks will be installed as required to support traversal of the cable bundle.
- All cabling will be secured using velcro, tie-wraps and other necessary supporting material.

IDF/MDF room:

Data room 525B - 1st floor Area B:

- We will furnish and install (3) 4" Fire stop sleeve.
- We will furnish and install a total of (21) 24-port unloaded flat patch panel include rear cable management bar with straps, 1RU (black). All Cat 6 cables will be terminated in these newly installed patch panels.
- We will furnish and install a total of (3) 24-port unloaded flat patch panel include rear cable management bar with straps, 1RU (black). All Cat 6A cables will be terminated in these newly installed patch panels.
- We will furnish and install a total of (24) Horizontal Cable Manager (Single-Sided), 1RU (black).
- We will furnish and install a total of (2.5) Chatsworth 12" W ladder rack with necessary mounting accessories for a complete cable runway.

Data room 581B - 2nd floor Area B:

- We will furnish and install (2) 4" Fire stop sleeve.
- We will furnish and install a total of (16) 24-port unloaded flat patch panel include rear cable management bar with straps, 1RU (black). All Cat 6 cables will be terminated in these newly installed patch panels.
- We will furnish and install a total of (2) 24-port unloaded flat patch panel include rear cable management bar with straps, 1RU (black). All Cat 6A cables will be terminated in these newly installed patch panels.
- We will furnish and install a total of (18) Horizontal Cable Manager (Single-Sided), 1RU (black).
- We will furnish and install a total of (2.5) Chatsworth 12" W ladder rack with necessary mounting accessories for a complete cable runway.

Common:

- All patch panels will be provided with strain relief bar.
- All cabling will be secured using velcro, tie-wraps and other necessary supporting material.

Backbone cabling:

1. We will furnish and install a total of (1) 12-strand singlemode (OS2) tight-Buffered, Interlocking armored Cable indoor/outdoor riser rated fiber optic cable runs from the communication box provided by the owner to the Data room 525B - 1st floor Area B and another fiber optic cable from the communication box provided by the owner to the Data room 581B - 2nd floor Area B. The fiber shall terminate on owner provided communication box end in a Wall Mount Fiber Enclosure with LC connectors terminated in 24F (OS2) duplex LC adapter panel and in both data rooms (525B & 581B) end in a 1U rack mount fiber enclosure with LC connectors terminated in 24F (OS2) duplex LC adapter panel. Also, shall provide LC-LC patch cables, 2M on both ends.

Warranty:

1. SYSTEC101 will provide 5-Years warranty for all work and components.

Deliverables:

1. A cut sheet of Jack ID to room number mappings in electronic form.
2. An as-built floor plan with drop locations in electronic form (CAD or PDF).
3. Test results labeled with Jack ID provided as a single report.
4. Test results will include a pass-fail summary followed by detailed test results for each Jack ID.

Common:

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

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.
3. Furnishing and installation of WAP system, access control system, video surveillance system, intrusion detection and intercom system.
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.

Qualifications:

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.
4. Pricing does not include any surface raceways, wiremold, power poles, UPS and PDUs or any scope of work related to security, networking equipments.
5. 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 Superior Essex - Ortronics 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. No copper backbone cabling is included in this proposal.
10. 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.
11. **This proposal includes prevailing wage rate.**
12. **The TV's, projector and its mounts, screenbeam, vape sensors, WAP's and cameras are to be provided by the owner. We are not responsible for it.**
13. **The backing for TV's to be provided by the the owner.**
14. **The equipment and cabling for clocks are to be provided by the owner. We are not responsible for it.**
15. **We will not furnish and install patch cords at both TR end and WAO ends. It should be provided by the Louisa. We are not responsible for it.**
16. **We will not furnish and install HDMI in classrooms. It should be provided by the Louisa. We will only provide the required HDMI keystones for it.**
17. **Pricing does not include any cable tray or its related products. It should be provided and installed by the general contractor (G.C). We are not responsible for it.**
18. **The empty conduits, conduit sleeving, conduit rough-in to be provided by the electrical contractor (E.C). We are not responsible for it..**
19. **We will not provide and install fire rated plywood backboards and telecommunications grounding busbars at MDF/IDF/data rooms end. If necessary, a new changed order will be proposed.**

Structured Cabling System:**Equipment and Labor**

Part Number	Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
66-240-2B	Superior Essex Cat 6 U/UTP 4-pair plenum cable (blue) (Per ft)	110000	\$ 0.59	\$ -	\$ 0.59	\$ 64,416.00
66-240-7B	Superior Essex Cat 6 U/UTP 4-pair plenum cable (purple) (Per ft)	9000	\$ 0.59	\$ -	\$ 0.59	\$ 5,270.40
66-240-6B	Superior Essex Cat 6 U/UTP 4-pair plenum cable (yellow) (Per ft)	3500	\$ 0.59	\$ -	\$ 0.59	\$ 2,049.60
66-240-4B	Superior Essex Cat 6 U/UTP 4-pair plenum cable (white) (Per ft)	35000	\$ 0.59	\$ -	\$ 0.59	\$ 20,496.00
66-240-3B	Superior Essex Cat 6 U/UTP 4-pair plenum cable (gray) (Per ft)	9000	\$ 0.59	\$ -	\$ 0.59	\$ 5,270.40
6A-246-DB	Superior Essex Cat 6A U/UTP 4-pair plenum cable (orange) (Per ft)	18000	\$ 0.77	\$ -	\$ 0.77	\$ 13,824.00
HDJ6-36	Ortronics HDJ Cat 6 jack (blue)	558	\$ 11.92	\$ -	\$ 11.92	\$ 6,649.13
HDJ6-27	Ortronics HDJ Cat 6 jack (purple)	46	\$ 11.92	\$ -	\$ 11.92	\$ 548.14
HDJ6-44	Ortronics HDJ Cat 6 jack (yellow)	18	\$ 11.92	\$ -	\$ 11.92	\$ 214.49
HDJ6-88	Ortronics HDJ Cat 6 jack (white)	180	\$ 11.92	\$ -	\$ 11.92	\$ 2,144.88
HDJ6-78	Ortronics HDJ Cat 6 jack (gray)	45	\$ 11.92	\$ -	\$ 11.92	\$ 536.22
HDJ6A-43	Ortronics HDJ Cat 6A jack (orange)	90	\$ 17.84	\$ -	\$ 17.84	\$ 1,605.96
KSHDMI	Ortronics HDMI keystone (fog white)	90	\$ 10.19	\$ -	\$ 10.19	\$ 916.92
WP1014WHV1	Ortronics In-Wall Cable Access Brush Plate (white)	90	\$ 12.00	\$ -	\$ 12.00	\$ 1,080.00
403SHDJ11	Ortronics HDJ 1-port Stainless Steel Faceplate with Label field	225	\$ 6.90	\$ -	\$ 6.90	\$ 1,552.50
403SHDJ12	Ortronics HDJ 2-port Stainless Steel Faceplate with Label field	213	\$ 6.90	\$ -	\$ 6.90	\$ 1,469.70
403SHDJ13	Ortronics HDJ 3-port Stainless Steel Faceplate with Label field	45	\$ 6.90	\$ -	\$ 6.90	\$ 310.50
404HDJ1-88	Ortronics HDJ 1-port surface mount box with Label field (cloud white)	196	\$ 3.83	\$ -	\$ 3.83	\$ 750.29
404HDJ2-88	Ortronics HDJ 2-port surface mount box with Label field (cloud white)	45	\$ 4.63	\$ -	\$ 4.63	\$ 208.44
HDJBL10-88	Ortronics HDJ blank modules, slide latch (pack of 10) (cloud white)	14	\$ 7.36	\$ -	\$ 7.36	\$ 102.98
Part Number	IDF/MDF room Buildout	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
HDJ6-36	Ortronics HDJ Cat 6 jack (blue)	558	\$ 11.92	\$ -	\$ 11.92	\$ 6,649.13
HDJ6-27	Ortronics HDJ Cat 6 jack (purple)	46	\$ 11.92	\$ -	\$ 11.92	\$ 548.14
HDJ6-44	Ortronics HDJ Cat 6 jack (yellow)	18	\$ 11.92	\$ -	\$ 11.92	\$ 214.49
HDJ6-88	Ortronics HDJ Cat 6 jack (white)	180	\$ 11.92	\$ -	\$ 11.92	\$ 2,144.88
HDJ6-78	Ortronics HDJ Cat 6 jack (gray)	45	\$ 11.92	\$ -	\$ 11.92	\$ 536.22
HDJ6A-43	Ortronics HDJ Cat 6A jack (orange)	90	\$ 17.84	\$ -	\$ 17.84	\$ 1,605.96
PHDHJU24	Ortronics HDJ series 24-port unloaded flat patch panel include rear cable management bar with straps, 1RU (black)	42	\$ 77.40	\$ -	\$ 77.40	\$ 3,250.80

SHMC1RU	Ortronics Horizontal Cable Manager (Single-Sided), 1RU (black)	42	\$ 66.00	\$ -	\$ 66.00	\$ 2,772.00
10506-706	Chatsworth elevation kit for rack	7	\$ 59.15	\$ -	\$ 59.15	\$ 414.04
10595-712	Chatsworth rack to runway mounting plate	7	\$ 52.98	\$ -	\$ 52.98	\$ 370.86
10250-712	Chatsworth 12" W ladder rack	5	\$ 160.86	\$ -	\$ 160.86	\$ 804.30
12100-712	Chatsworth 12" W radius drop	14	\$ 47.10	\$ -	\$ 47.10	\$ 659.40
11421-712	Chatsworth 12" W wall angle kit	7	\$ 36.50	\$ -	\$ 36.50	\$ 255.53
11310-003	Chatsworth 5/8" Threaded Ceiling Kit, (gold)	2	\$ 38.00	\$ -	\$ 38.00	\$ 76.01
11302-701	Chatsworth Junction splice kit	7	\$ 15.84	\$ -	\$ 15.84	\$ 110.88
10608-701	Chatsworth vertical wall bracket	4	\$ 24.28	\$ -	\$ 24.28	\$ 97.10
10642-001	Chatsworth end cap	6	\$ 11.10	\$ -	\$ 11.10	\$ 66.60
Part Number	Backbone Cabling	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
012E8F-31131-A1	Corning FREEDM® One 12-strand singlemode (OS2) tight-Buffered, Interlocking armored Cable indoor/outdoor riser rated fiber optic cable (per ft)	350	\$ 2.26	\$ -	\$ 2.26	\$ 789.60
0FP-LCQ24AC	Ortronics Q-Series 6-LC Quad , 24 fiber, single-mode (OS2) OFP Adapter Panel, (blue)	4	\$ 169.37	\$ -	\$ 169.37	\$ 677.47
205KNT9SA-09	Ortronics (OS2) LC Reusable Connector	48	\$ 20.96	\$ -	\$ 20.96	\$ 1,006.27
OR-FC01U-C	Ortronics 1U rack mount fiber enclosure for up to 3 adapter panel or cassettes	2	\$ 376.75	\$ -	\$ 376.75	\$ 753.50
WQS-04P	Ortronics Q-Series 4 Panel Standard Density Wall Mount Fiber Enclosure (black)	1	\$ 195.90	\$ -	\$ 195.90	\$ 195.90
32534	Ortronics OS2 LC-LC duplex patch cord, 2M	24	\$ 24.00	\$ -	\$ 24.00	\$ 576.00
Part Number	Grounding kit	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
6G-0601-04	#6 AWG green insulated grounding wire	250	\$ 1.02	\$ -	\$ 1.02	\$ 255.00
40162-901	Chatsworth .625" hole spacing two hole compression lug	24	\$ 10.68	\$ -	\$ 10.68	\$ 256.32
40162-903	Chatsworth 1" hole spacing two hole compression lug	12	\$ 13.75	\$ -	\$ 13.75	\$ 165.02
RGRB19B	Panduit rack/cabinet mount grounding busbar kit	7	\$ 66.26	\$ -	\$ 66.26	\$ 463.85
CNBK	Panduit bonding cage nut and bonding screw (kit includes (50) 12-24 bonding cage nut and (50) 12-24 bonding screws) (green)	1	\$ 205.61	\$ -	\$ 205.61	\$ 205.61
Part Number	Supporting Materials	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
FS400	STI 4" Fire stop sleeve	5	\$ 131.95	\$ -	\$ 131.95	\$ 659.76
SSP100	Firestop putty	50	\$ 51.54	\$ -	\$ 51.54	\$ 2,577.00
SSS100	STI Fire barrier sealant	25	\$ 22.79	\$ -	\$ 22.79	\$ 569.70
ICCMSJHW33	ICC 1 5/16" Batwing J-hook	900	\$ 3.02	\$ -	\$ 3.02	\$ 2,721.60
ICCMSJHW44	ICC 2" Batwing J-hook	100	\$ 3.74	\$ -	\$ 3.74	\$ 374.40
1700-1PK-BB40	3M Electric tapes	40	\$ 3.60	\$ -	\$ 3.60	\$ 144.00
30987	3/4" Velcro (75ft)	8	\$ 32.88	\$ -	\$ 32.88	\$ 263.04
PLT3I-C	Panduit Tie wraps (100/bag)	10	\$ 39.00	\$ -	\$ 39.00	\$ 390.00
N/A	Labeling kits	1	\$ 2,350.00	\$ -	\$ 2,350.00	\$ 2,350.00
N/A	Miscellaneous cost	1	\$ 3,150.00	\$ -	\$ 3,150.00	\$ 3,150.00
Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
N/A	Labor for completing the stated Scope of Work	1552	\$ -	\$ 85.00	\$ 85.00	\$ 131,920.00
N/A	Project Management and Handling Charges	97	\$ -	\$ 85.00	\$ 85.00	\$ 8,245.00

Total Equipment Cost

\$168,536.92

Total Labor Cost

\$140,165.00

Tax Exempt for Equipment

0.00% \$ -

Grand Total

\$308,701.92

Additive alternates:

1. Installation of Security Cameras:

Labor

Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
N/A	Installation of Owner provided Security Cameras	46	\$ -	\$ 85.00	\$ 85.00	\$ 3,910.00

Total Labor Cost

\$3,910.00

Grand Total

\$3,910.00

2. Installation of TV's, mounts and ScreenBeams:

Labor

Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
N/A	Installation of Owner provided TV's, mounts and ScreenBeams	225	\$ -	\$ 85.00	\$ 85.00	\$ 19,125.00

Total Labor Cost

\$19,125.00

Grand Total

\$19,125.00

3. Installation of Vape Sensors:

Labor

Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
N/A	Installation of Owner provided Vape Sensors	8	\$ -	\$ 85.00	\$ 85.00	\$ 680.00

Total Labor Cost

\$680.00

Grand Total

\$680.00

4. Installation of Projectors, mounts and ScreenBeams:

Labor

Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
N/A	Installation of Owner provided Projectors, mounts and ScreenBeams	180	\$ -	\$ 85.00	\$ 85.00	\$ 15,300.00

Total Labor Cost	\$ 15,300.00
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Grand Total	\$ 15,300.00
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5. Installation of Clocks:

Labor

Part Number	Labor	Quantity	Material Price	Labor Cost	Unit Price	Ext.Price
N/A	Installation of Owner provided wireless clocks in classrooms	22.5	\$ -	\$ 85.00	\$ 85.00	\$ 1,912.50
N/A	Installation of Owner provided wired clocks	26	\$ -	\$ 85.00	\$ 85.00	\$ 2,210.00

Total Labor Cost	\$ 4,122.50
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Grand Total	\$ 4,122.50
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Purchase Authorization

Date

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