



**NEOSHO**  
**SCHOOL DISTRICT**

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**RISE Elementary  
Internal Connections, Category 2  
Invitation for Competitive Bid**

**Proposals must be submitted to CRW Vendor portal  
Tuesday, February 14, 2023**

**Inquiries and requests regarding this IFCB should be directed to:**

CRW Consulting  
<https://www.crwconsulting.com/ifcb>  
918.445.0048

# Vendor Data Sheet

<b>Company Name:</b>	
<b>Company Address:</b>	
<b>Tax ID Number:</b>	
<b>Orders Submitted To:</b>	
<b>Payments Submitted To:</b>	
<b>Contact Administrator Information:</b>	<b>Name</b>
	<b>Title</b>
	<b>Address</b>
	<b>Telephone Cell</b>
	<b>Fax</b>
	<b>Email</b>
<b>Anticipated delivery will be _____ DAYS/WEEKS after receiving PO.</b>	

**NEOSHO SCHOOLS**  
**INVITATION FOR COMPETITIVE BID – RISE Elementary School**  
**Internal Data Connections - ERATE Program 2023-2024**

The NEOSHO SCHOOL DISTRICT is seeking proposals from qualified vendors to install, replace and/or upgrade the existing data infrastructure for the RISE Elementary as described in this Invitation for Competitive Bid ("IFCB").

**Scope**

The scope of work consists of all labor to define a complete and functional structured wiring system for RISE Elementary School (RISE). The scope of work includes the installation of cabling, termination, testing, certification and documentation for work area outlets, main equipment room and telecommunication closets. The installation must meet or exceed all current TIA/EIA specifications listed below. This work includes, but is not limited to, installation of copper and fiber optic cable, terminators, face plates, outlets, labeling, documentation, testing and certification for a telecommunications cabling system to support voice, data and video applications. The intent is to provide all pertinent information to allow the vendor to bid a complete installation. All materials will be supplied by the contractor.

**RISE Elementary**

RISE Elementary (formerly the Haas building) was purchased by the district in December 2021. The conversion of this historic building from a warehouse and office space into a K-4 elementary school with an emphasis on STEAM-based curriculum (science, technology, engineering, arts and math) is to be completed by August 2023.

**Summary of Key Dates**

January 12<sup>th</sup> or January 16<sup>th</sup> - 9 am – Mandatory RISE Elementary School site visit (pre-bid conference). Meet at East Annex of RISE building 201 N. Washington, Neosho MO.

Attendance at only one meeting is required.

January 17, 2023 – End of Question period

February 14, 2023 - IFCB's due

March 13, 2023 – Selection of Vendor at Board of Education meeting

March 14, 2023 – Notification to winning bidder

May 25, 2023 – Last Day of School

June 01, 2023 – Estimated Project start date (contractor to coordinate with project GM)

All materials and equipment must be Original Equipment Manufacturer (OEM), no used or refurbished equipment will be acceptable.

All responding companies must be registered certified providers in the State of Missouri with the ability to supply services and installation to NEOSHO SCHOOLS. As per Board policy DJF-1 (AP), responding companies located in the State of Missouri will be given preference. Winning vendor must register with the District Purchasing Department. In addition, the responding company must be in good standing with the SLD and agree to participate in the E-rate Program.

***Bid Conditions:***

- This will be a "Prevailing Wage" job.
- It is required by the district that the contractor is a current BICSI member in good standing and it is also the preference of the district that the contractor has at least one Registered Communications Distribution Designer (RCDD) certification.
- One or more BCSI Certified (Level II) or Certified Network Cable Installer are (CNCI) required on-site during entirety of installation.
- Contractor shall provide at references showing experience on similar size projects listing the name of the project, contact name, telephone number and a brief description of the project, and completion date. The School Representative reserves the right to contact any and all references to determine qualifications for the project.
- Contractor shall provide a project manager for the cable installation who shall act as a single point of contact for all activities regarding the cable project. Contractor's project manager shall be responsible for all aspects of the work, shall have the authority to make immediate decisions regarding changes to the work and shall document progress via various status meetings with the School Representative.
- Contractors are responsible for all errors or omissions in their bids, and any such errors or omissions will not serve to diminish their obligations to the Neosho School District.
- The contractor, performing as an independent contractor hereunder, shall be fully responsible for providing Workers' Compensation or other applicable insurance coverage for itself and its employees and Neosho School District shall have no responsibility of liability for such insurance coverage.
- All responding companies must be registered certified providers in the State of Missouri with the ability to supply services and installation to NEOSHO SCHOOLS. As per Board policy DJF-1 (AP), responding companies located in the State of Missouri will be given preference. All responding companies must register as a vendor with the District Purchasing Department. In addition, the responding company must participate in the e-Verify system.
- The Board reserves the right to reject any or all proposals, request new proposals, consider alternate proposals which meet the general specifications set forth and waive any informality.
- The Board reserves the right to award proposals on such products and/or services it deems will best serve the NEOSHO SCHOOLS's interest from the standpoint of price, quality, and suitability for the intended purpose and any other determining factors. In addition, the District reserves the right to create, and select suppliers from a "short list" in order to enter into negotiations with one or more suppliers, with the intent of awarding a contract. Awards will be made to the most responsive and responsible proposer(s) in the opinion of the Board.

## Requirements

- Installation of approx. 305 Cat6 and Cat6A total data runs (271 Cat6, 34 Cat6A)
- 45 CAT6 are ineligible for e-RATE service; security cameras, access control & paging
- Installation of all cable support systems including cable tray
- Installation and termination of fiber cable from service entrance to MDF (SingleMode) & MDF to IDF (MultiMode)
- Removal of any existing Cat3, Cat 5/5e and coaxial cabling. Take extra precautions to retain HVAC system wiring
- Installation of data cabling (estimated Summer 2022 install) including all additional patch panels, connectors, patch cables and required cabling components into existing IDF.
- The district data cabling color coding standards for modular ends and patch cables are:
  - CCTV & Access Control – Yellow
  - Network clocks – Green
  - Phones – White
  - A/V – Purple
  - Wireless Access Points (Cat6A) – Orange
  - All other data cabling (Cat6) – Blue (district reserves the right to change prior to cable purchase if necessary)
- District data material standards are Hubbell Premise, Leviton (or approved equivalent)

## Suggested materials to furnish for MDF, IDF and Classroom & Office spaces

(contractor will supply complete list of required project materials)

- BERK-TEK LANmark-6, Category 6, Plenum UTP Cable, Blue
- BERK-TEK LANmark-10G2, Category 6A, Plenum UTP Cable, Orange
- ARMORED MC AND BX FIBER CABLE
- RACKMOUNT FIBER TERMINATION ENCLOSURE AND MODULES (RACK)
- FIBER WALL CABINET (NEAR SERVICE ENTRANCE)
- HUBBELL OR LEVITON 48PORT MODULAR RACK MOUNT PATCH PANEL
- HUBBELL OR LEVITON RJ45 CAT 6a, Orange (AP)
- HUBBELL OR LEVITON RJ45, BLUE (DATA)
- SURFACE MOUNT HOUSING, SNG PORT, WHITE
- SURFACE MOUNT HOUSING, 2 PORT, WHITE (INCLUDING CAT6A opening)
- HUBBELL/LEVITON CAT 6A SHIELDED **MINI** PATCH CABLE, 5', ORANGE (RACK & ENDPOINTS)
- HUBBELL/LEVITON CAT 6A SHIELDED **MINI** PATCH CABLE, 7', ORANGE (RACK & ENDPOINTS)
- HUBBELL/LEVITON CAT 6 HIGH-FLEX **MINI** PATCH CABLE, 3', corresponding colors (RACK)
- HUBBELL/LEVITON CAT 6 HIGH-FLEX **MINI** PATCH CABLE, 5', corresponding colors (RACK)
- HUBBELL/LEVITON CAT 6 HIGH-FLEX **MINI** PATCH CABLE, 7', corresponding colors (RACK)
- HUBBELL/LEVITON CAT 6 HIGH-FLEX PATCH CABLE, 5', corresponding colors (ENDPOINTS)
- HUBBELL/LEVITON CAT 6 HIGH-FLEX PATCH CABLE, 7', corresponding colors (ENDPOINTS)
- HUBBELL/LEVITON INSERT (BLANKS), LIGHT ALMOND or IVORY
- HUBBELL/LEVITON WALLPLATE, SNG GANG, 2 PORT, LT ALMOND or IVORY
- HUBBELL/LEVITON WALLPLATE, SNG GANG, 4 PORT, LT ALMOND or IVORY
- STAINLESS STEEL WALLPLATE WITH BLANK FOR WALLMOUNT PHONE INSTALLATION
- PANDUIT HORIZONTAL (1U & 2U) & VERTICAL MGMT
- HOFFMAN 2 POST FLOOR RACK
- GROUNDING BUS BARS & INSULATORS
- VELCRO & ZIP TIES
- CABLOFIL CABLE TRAY MGMT & MOUTING COMPONENTS (COLOR: BLACK)
- CADDY J-HOOKS, SADDLE RINGS, BRACKETS
- ENTRY SLEEVES ABOVE CLASSROOM DOORS (FIRE RATED)
- EZ-PASS FIRESTOP PASSTHROUGH (IF NECESSARY, NO FOAM OR CAULK ALLOWED)

## **BACKBONE CABLE DISTRIBUTION INSTALLATION**

The backbone cables shall be routed and supported in the supplied cable tray or conduit in a way as to not interfere with any other cable inside said cable tray or conduit. Core holes & conduits required are the responsibility of the installing contractor. Fiber cables are to be installed in this same manner along a different path in the supplied cable tray.

All backbone cables shall be installed in the following manner:

- Backbone cables shall be installed separately from horizontal distribution cables.
- Where cables are housed in conduits; the backbone and horizontal cables shall be installed in separate conduits or in separate inner ducts within conduits.
- Where backbone cables and distribution cables are installed in a cable tray, backbone cables shall be installed and bundled separately from the horizontal distribution cables.
- Cables shall be installed in continuous lengths from origin to destination (no splices). Cables must be unbroken runs between wire closets. No cross connects or transition points shall be allowed for any cables or fiber except for termination into patch panels in wire closets.

## **OPEN CABLE SUPPORT AND INSTALLATION PATHWAYS**

- Where cables are indicated to be installed as 'Open Cabling', cable supports shall be installed to allow cabling to be grouped and run along a common path. Cables shall run parallel or at right angles to the building structure, and shall not be looped diagonally across the ceiling space. Cables shall be loosely bundled with cable ties at 30 inches on center. Provide plenum rated Teflon cable ties in spaces used to handle environmental air. Provide Velcro-style cable management at workstation and closet. No cable ties are to be used in the closet, or at the workstation. Do not support cables from ductwork; sprinkler piping, water piping, waste piping or electrical conduit. Provide cable saddles for up to 10 cables and J-Hooks for 11 or more cables (Caddy) if cable tray is not installed. Cable supports shall be permanently anchored to building structure or substrates. Provide attachment hardware and anchors designed for the structure to which attached, and that are suitably sized to carry the weight of the cables to be supported.
- Cable shall be installed above fire-sprinkler systems and shall not lie on lights or within 6" of any power and shall not be attached to the system or any ancillary equipment or hardware. The cable system and support hardware shall be installed so that it does not obscure any valves, fire alarm conduit, boxes, or other control devices.
- Cables shall not be attached to ceiling grid or lighting support wires. Where light supports for drop cable legs are required, the contractor shall install clips to support the cabling.
- Any cable damaged or exceeding recommended installation parameters during installation should be replaced by the contractor prior to final acceptance at no cost to the Owner.
- Cables shall be identified by a self-adhesive label in accordance with the Cable System Labeling section of this specification. The cable label shall be applied to the cable behind the faceplate on a section of cable that can be accessed by removing the cover plate. Faceplates will be labeled with the same identifiers as each cable.
- Maximum size cable bundles shall be 75 cables per J-Hook. Cable tray is to be utilized where specified.
- Maximum spacing for supports for open cable runs shall be 48".

## **Cable System Testing and Documentation**

- Provide a record of installation information to include the following: Cable identifier, Cable point of origin, Cable destination, Cable type, Cable rating, Cable distance/length, Termination hardware and type. All Category 6/6A copper connectivity should be capable of a minimum of Gigabit Ethernet or faster.

### **AS-BUILT DRAWINGS**

- The Installation contractor will be provided with one (1) set of drawings at the start of the project. The set will be designated as the central location to document all as-built information as it occurs throughout the project. Anticipated variations from the build-to drawings may be for such things as cable routing and actual outlet placement. No variations will be allowed to the planned termination positions of horizontal and backbone cables, and grounding conductors unless approved by the Owner.
- The Contractor shall provide the central drawing set to the owner at the conclusion of the project. The marked up drawing set will accurately depict the as-built status of the system including termination locations, cable routing, and all administration labeling for the cable system. In addition, a narrative will be provided that describes any areas of difficulty encountered during the installation that could potentially cause problems to the telecommunications system.

### **TEST DOCUMENTATION**

Test documentation shall be provided electronically within three weeks after the completion of the project. The file shall be clearly marked named "RISE Elem Test Results," and the date of completion (month and year). The test document shall detail the test method used and the specific settings of the equipment during the test.

### **TESTING**

Submit Test Results for all installed cabling verifying compliance with all current UTP Channel test requirements. An electronic copy of the test results must be submitted to Owner. Test results must also be provided to the Owner in printed form. Testing equipment used must be certified, using up-to-date industry standards and less than 6 years old.

Test each pair of each cable for opens, shorts, grounds, and pair reversal. Copper cable shall be tested along the full channel from end of patch cable to end of patch cable. Correct grounded and reversed pairs. Examine open and shorted pairs to determine if problem is caused by improper termination. If termination is proper, tag bad pairs at both ends and note on termination sheets. Results should include: Wire Map, Length, Attenuation, Insertion Loss, Delay, Delay Skew and Return Loss.

### **Cable Size Maximum Bad Pairs**

If horizontal or vertical cable contains bad conductors or shield, remove and replace cable at no additional cost to the owner. If any cable does not perform within specifications because of outer sheath damage, remove and replace cable at no additional cost to owner. If any bad connectors are discovered, replace at no additional cost to the owner. Where any portion of system does not meet the specifications, correct any problems and repeat applicable testing at no additional cost to owner.

### **Cable System Labeling**

The cable labeling system will be designated by room number and cable run. All cables will be labeled according to that process. Racks and patch panels shall be labeled to identify the location within the cable system infrastructure. All labeling information shall be recorded on the as built drawings and all test documents shall reflect the appropriate labeling scheme. All label printing will be machine generated using indelible ink ribbons or cartridges. Self- laminating labels will be used on cable jackets, appropriately sized to the OD of the cable, and placed within view at the termination point on each end. Work Area Outlet (WOA) labels will be machine generated using indelible ink ribbons or cartridges. All cables shall be labeled at both the work area outlet and patch panel. Labels at work area outlets shall be inserted into the faceplate windows.

### **Warranty**

#### **INSTALLATION WARRANTY**

Contractor must meet or exceed the specifications of the standards organizations including ISO/IEC and ANSI/TIA/EIA for the specified category rating of the channel performance installed. The contractor shall warrant the cabling system against defects in workmanship for a period of one year from the date of system acceptance. The warranty shall cover all labor necessary to correct a failed portion of the system and to demonstrate performance within the original installation specifications after repairs are accomplished. This warranty shall be provided at no additional cost to the Owner. Warranty must protect against any defects in workmanship after Owner acceptance. Warranty must include and cover both UTP and Fiber and all connectivity for both Backbone and Horizontal distribution. Under the warranty the contractor will cover any problems that occur related to installation with no cost to the district.

### **Cable System Acceptance**

The Owner's Technical Representative will make periodic inspection of the project in progress. One inspection will be performed at the conclusion of cable pulling, prior to closing of the false ceiling, to inspect the method of cable routing and support, and the fire stopping of penetrations. A second inspection will be performed at completion of cable termination to validate that cables were dressed and terminated in accordance with TIA/EIA specifications for jacket removal and pair untwist, compliance with manufacturer's minimum bend radius, and that cable ends are dressed neatly and orderly.

#### **FINAL INSPECTION**

Upon completion of the project, the Owner's Technical Representative will perform a final inspection of the installed cable system with the Contractor's Project Manager. The final inspection will be performed to validate that all horizontal and backbone cables were installed as defined in the drawing package, and that the installation meets the aesthetic expectations of the Owner.



## TEST VERIFICATION

Upon receipt of the test documentation, the Owner reserves the right to perform spot testing of a representative sample of the cabling system to validate test results provided in the test document.

Owner testing will use the same method employed by the contractor, and minor variations will be allowed to account for differences in test equipment. If significant discrepancies are found the Contractor will be notified for resolution.

## SYSTEM PERFORMANCE

During the four-week period between final inspection and delivery of the test and as-built documentation, the Owner will activate the cabling system. The Owner will validate operation of the cabling system during this period.

## FINAL ACCEPTANCE

Completion of the installation and in-progress and final inspections, receipt of the test and as-built documentation, and successful performance of the system for a two-week period will constitute acceptance of the system.

## **REFERENCES**

Vendor must complete and submit the required references for similar services you have provided to at least five (5) clients in the past three (3) years. Missouri school district references preferred.

### **Reference # 1**

District/Company Name: \_\_\_\_\_

Contact Name/Title: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

### **Reference # 2**

District/Company Name: \_\_\_\_\_

Contact Name/Title: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

### **Reference # 3**

District/Company Name: \_\_\_\_\_

Contact Name/Title: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

### **Reference # 4**

District/Company Name: \_\_\_\_\_

Contact Name/Title: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

### **Reference # 5**

District/Company Name: \_\_\_\_\_

Contact Name/Title: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_



**RISE Elementary  
Internal Connections, Category 2  
Invitation for Competitive Bid**

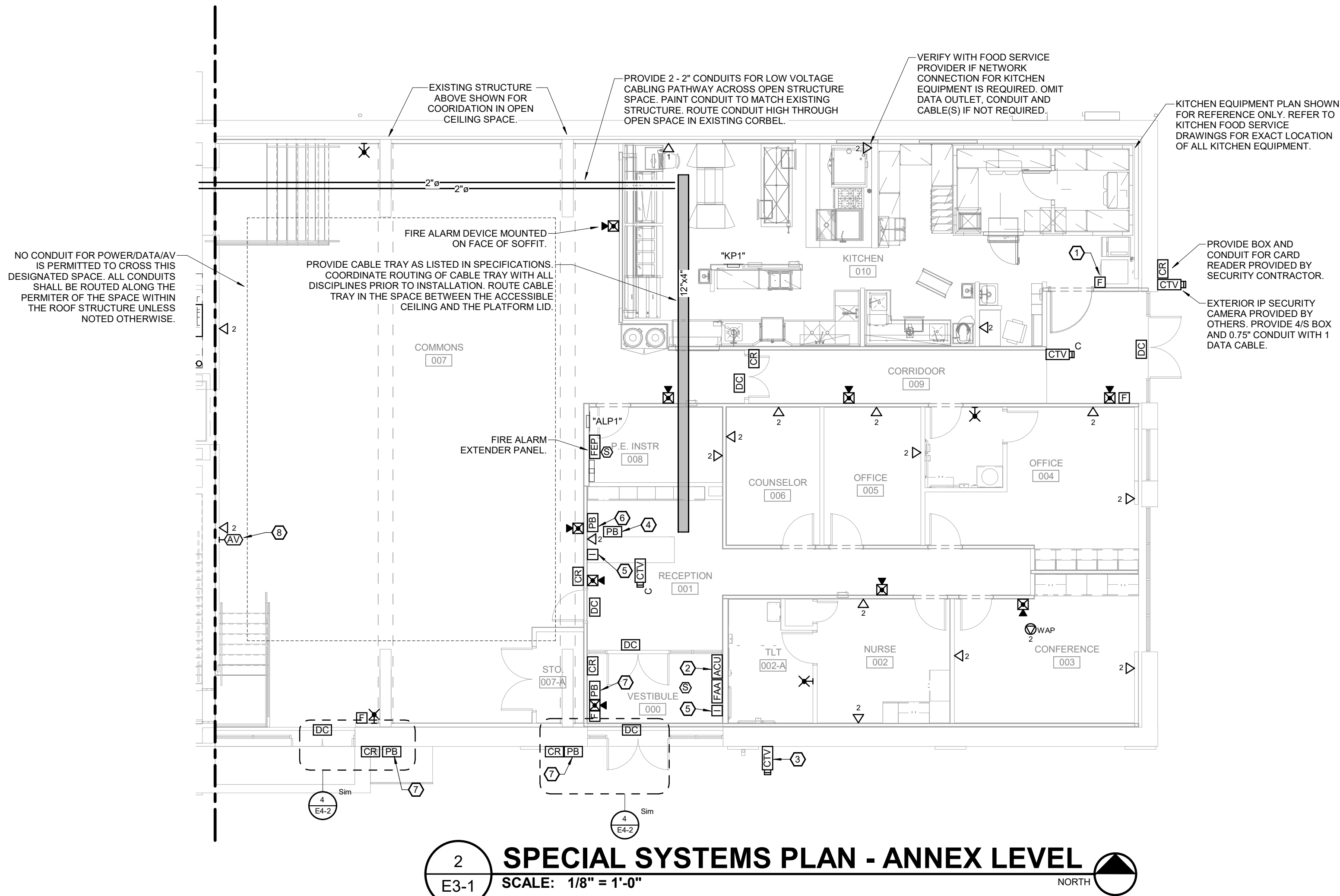
**Vendor Name:** \_\_\_\_\_

	<b>Cost</b>	
<b>Total Materials Cost</b>		
<b>Total Installation Cost</b>		
Optional: Additional Cost for single cable run		
Optional: Any additional fees		
Comments		
<b>Total Project Price:</b>		

Authorized Signature: \_\_\_\_\_

Printed Name & Title: \_\_\_\_\_

Phone Number: \_\_\_\_\_



WATER FLOW AND TAMPER SWITCHES AT FIRE RISER.

WATER FLOW AND TAMPER SWITCHES AT SPRINKLER AIR COMPRESSOR.

ELEVATOR POWER MODULE. REFER TO BASEMENT POWER PLAN FOR MORE INFORMATION.

HEAT DETECTOR TO SHUT DOWN ELEVATOR POWER TO BE MOUNTED WITHIN OF 2' OF SPRINKLER HEAD. PROVIDE MULTIPLE HEAT DETECTORS WHEN THERE ARE MULTIPLE SPRINKLER HEADS. OPERATION OF ANY HEAT DETECTOR IN MACHINE ROOM SHALL SHUT DOWN ELEVATOR. SMOKE DETECTOR SHALL NOT BE ALLOWED TO DISCONNECT ELEVATOR POWER OR ACTIVATE THE SPRINKLERS.

4\"/>

**1**  
E3-1 **SPECIAL SYSTEMS PLAN - BASEMENT LEVEL**  
SCALE: 1/8" = 1'-0" NORTH

**GENERAL NOTES:**

- EACH CLASSROOM SHALL BE PROVIDED WITH 8 DATA CABLES/JACKS EACH AS DESCRIBED:
  - 2 DATA CABLES FOR WIRELESS ACCESS POINT.
  - 2 DATA CABLES/JACKS LOCATED ON CLASSROOM WALLS
  - 1 DATA CABLE/JACK FOR WALL PHONE NEAR CLASSROOM DOOR
  - 1 DATA CABLE FOR VOIP CLOCK
  - 1 DATA CABLE FOR 2-WAY COMMUNICATION CEILING SPEAKER.
  - 1 DATA COILED ABOVE CEILING FOR FUTURE USE.
- IP CLOCKS SHALL BE INCLUDED IN BID. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
- REFER TO SHEET E1 FOR GENERAL NOTES.
- INCLUDE TAMPER SWITCH AT EACH FLOOR LEVEL FOR FIRE SPRINKLER VALVE. VERIFY LOCATION WITH SPRINKLER CONTRACTOR.

**PLAN HEX NOTES:**

- EXHAUST HOOD REMOTE PULL STATION FURNISHED WITH HOOD AND INSTALLED BY CONTRACTOR. CONTRACTOR SHALL PROVIDE 4\"/>
- 2-WAY COMMUNICATION FIRE COMMAND CENTER FOR AREA OF REFUGE.
- PROVIDE SINGLE DATA CABLE TO IP CAMERA. CAMERA BY OWNER/VENDOR. COORDINATE ROUGH-IN WITH OWNER/VENDOR.
- PROVIDE POWER FOR PANIC LOCKDOWN CONTROLS. COORDINATE CONTROLS WITH DOOR HOLD CONTROLS. PANIC BUTTON SET AT DESK. VERIFY LOCATION IN FIELD WITH OWNER. WIRE THROUGH FIRE ALARM PANEL.
- PROVIDE POWER FOR 2-WAY INTERCOM SYSTEM FOR COMMUNICATION BETWEEN RECEPTION DESK AND ENTRY VESTIBULE. INTERCOM SYSTEM THROUGH GRANDSTREAM PHONE SYSTEM. ROUGH-IN BY E.C. EQUIPMENT AND WIRING BY OWNER'S VENDOR.
- PUSH BUTTON TO RELEASE DOOR ACCESS CONTROLS ON INTERIOR VESTIBULE DOORS.
- PROVIDE BOX AND CONDUIT ROUGH-IN FOR PUSH BUTTON OPERATOR FOR HANDICAP DOOR OPERATOR. PROVIDE POWER AND CONTROL WIRING AS REQUIRED FOR PROPER INSTALLATION. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT SUPPLIER.
- PROVIDE 4/S BOX WITH SINGLE GANG MUD RING FOR AV CABLEING. ROUTE CONDUIT FROM WALL BOX TO PROJECTOR. COORDINATE WITH OWNER/VENDOR ON FINAL LOCATION OF PROJECTOR PRIOR TO ROUGH-IN. SURFACE MOUNT CONDUIT TO EXISTING WALL. PAINT CONDUIT TO MATCH EXISTING WALL.



MISSOURI STATE CERTIFICATE OF AUTHORITY NUMBER A-201000419  
637 COLLEGE STREET  
SPRINGFIELD, MO 65806

PH: 417.885.0002  
www.paragonarchitecture.com

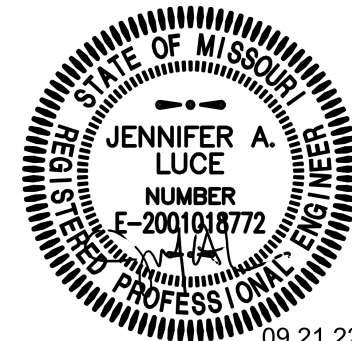


engineering consultants

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Springfield, MO 65804

417.881.0020 | www.rtmec.com

STATE OF MISSOURI  
CERTIFICATE OF AUTHORITY:  
#201465003  
FOR ENGINEERING



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PROJECT REFERENCE BELOW

REVISION SCHEDULE

PROJECT DESCRIPTION:

**STEAM ACADEMY**

201 N WASHINGTON ST., NEOSHO, MO

PROJECT ENGINEER: JAL  
DRAWN BY: JMC  
CHECKED BY: JAL

PROJECT NUMBER:  
21-653


DATE:  
08/24/2022

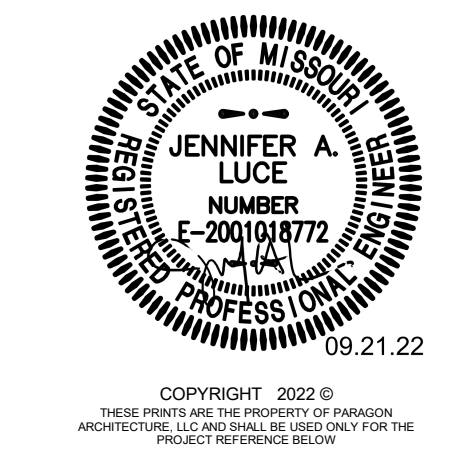
**SPECIAL  
SYSTEMS PLANS**

SHEET NUMBER:

**E3-1**



- 
- MISSOURI STATE CERTIFICATE OF AUTHORITY NUMBER A-2016000015
- 637 COLLEGE STREET  
SPRINGFIELD, MO 65806
- PH: 417.885.0002  
[www.paragonarchitecture.com](http://www.paragonarchitecture.com)



### REVISION SCHEDULE

PROJECT DESCRIPTION:

STEAM ACADEMY

2001 N WASHINGTON ST, NEOSHO, MO

PROJECT ENGINEER: JAL  
DRAWN BY: JMC  
CHECKED BY: JAL

PROJECT NUMBER  
21-653

DATE:  
08/24/2022

## SPECIAL SYSTEMS PLANS

SHEET NUMBER:

**E3-2**

