

Project Owner:	Shelby Public Schools
Project Name:	New Elementary Technology Systems
Issue Date:	October 24, 2022

ADDENDUM NO. 1

*This Addendum No. 1 of the **Technology Request for Bid** for the above referenced project hereby amends, supplements and/or augments all prior issued document(s) as described herein, and becomes an inseparable part of the Contract Documents, superseding all previous, contrary and/or conflicting information.*

AD1 - 1 Section 28 13 00 is hereby revised, reissued and attached hereto.

END OF ADDENDUM NO. 1

<i>Bid ID: 2752</i>	Communications by Design, Inc.
<i>Addendum No. 1 Issued: November 15, 2022</i>	<i>Proprietary Information – All Rights Reserved</i>

SECTION 28 13 00
BUILDING ACCESS CONTROLS

PART 1 - GENERAL

1.01 DESCRIPTION OF PROJECT

- A. Work described in this specification section specification section pertains to Building Access Control System expansion for Shelby Public Schools (Owner). Work shall include, but not be limited to, head-end equipment, cabling, door control equipment, and all other components and services required for a full and operational system. Owner currently is licensed for an S2 system on the Owner's existing hardware platform.
- B. Contractor shall advise, coordinate, and work cooperatively with Owner representatives and/or owner's designee related to any installation or special security provisions.
- C. The Contractor shall design, engineer, configure, supply, connect, test, document, train Owner representatives and warrant a fully operational and compliant system, complete and with full functionality as specified herein.
- D. Contractor shall coordinate their installation with other contractors, Designer and the Owner as is appropriate.
- E. Contractor shall fully coordinate and cooperate with door hardware vendor supplying the balance of items identified in section 08 71 00 as identified herein. All final connections, component integration, configuration, testing and programming functions to provide for a fully operational and functional system as specified shall remain the responsibility of Contractor selected for work in this section/division.

1.02 WARRANTY

- A. Complete installation shall be free from defect and/or failure for a period of three (3) year. Any replacement, upgrade, or fix, including labor for any non-conforming or non-operational part of the system shall be fixed and/or replaced at no cost to the Owner.
- B. Manufacturer's warranty shall be provided for all components of the system.
 - 1. Any documents and/or submittals required by individual manufacturers for compliance with the standard and/or applicable extended warranty programs shall be provided and submitted for approval by the Contractor.
 - 2. Contractor shall submit all documents, apply for warranty or extended warranty certification, and provide a Certificate of Warranty or Extended

Warranty as may be applicable from the manufacturer prior to project closeout.

- C. On site services provided under the warranty shall be performed by personnel or representatives of Contractor as herein defined and located within physical proximity to provide response levels deemed acceptable to Owner.
- D. Contractor shall provide the following response times for all malfunctioning equipment:
 - 1. Eight (8) hours or less for matters that render twenty percent (20%) or more of the system unable to maintain normal functionality.
 - 2. Two (2) business days for matters not meeting the above criteria.
 - 3. Response time shall be measured from the time Contractor is notified by Owner to the time work is begun to resolve the matter.
- E. Bidder shall provide current annual maintenance contract pricing for recommended maintenance programs for all equipment following the specified and included one (1) year period as a Voluntary Alternate. This information will be considered by Owner and Designer as part of the bid evaluation process.
- F. System Warranty shall commence on date of substantial completion as certified by Designer and provided for herein. Delivery to work site of materials, physical removal from packaging, issuance of Contractor documents including, but not limited to invoices and/or packing slips, or any event or documentation, not specifically provided for herein, shall have no effect on Warranty or System Acceptance by Owner and/or Designer.

1.03 STORAGE OF MATERIALS

- A. All materials shall be secured when not in use by the Contractor.
- B. It shall be the Contractor's responsibility to secure all equipment including material to be installed as part of the contract. No changes shall be made to the contract due to loss or theft of equipment and/or materials not officially accepted by the Owner.
- C. Formal receipt of the materials shall not be completed by the Owner until completion of project closeout. The Contractor shall be responsible for all equipment until time of closeout as provided for herein.

1.04 SUBMITTALS

- A. Submittals shall consist of, but not be limited to, technical cut sheets and detailed information pamphlets on all components of the system to be

installed. All cut sheets and submittals shall be distinctly marked to highlight the actual part number of the item being submitted for approval with Bid Proposals.

- B. Shop drawings and diagrams shall be submitted by Bidder for approval by Designer with Bid Proposals.
 - 1. Shop drawings and diagrams shall show all data relating to structural, electrical, wiring, cross connect, interconnect, equipment arrangement/layout, and any other information deemed significant by the Designer.
 - 2. No work constituting final installation shall be commenced until after approval of shop drawings by Designer.
- C. Contractor shall provide proof of manufacturer support by photocopy of certification and letter of support from major component manufacturers for this specific project with Bid Proposals.
- D. Equipment or material installed for this project that does not have an approved submittal associated with it, will be removed, and replaced with acceptable equipment or material as defined by the Designer. All replacement costs including, but not limited to material and labor, shall be the sole responsibility of the Contractor.
 - 1. The Owner and/or Designer may notify Contractor of any offending situations under this provision allowing Contractor up to forty-eight (48) hours to correct the situation prior to taking other corrective action.
 - 2. The Owner reserves the right to replace unapproved materials and deduct the costs of doing so as defined herein from any amounts that may be due or become due Contractor.
- E. The Contractor shall submit within ten (10) calendar days after the Notice to Proceed, a schedule that reflects the sequence of activities of the contractor's approach to the execution of and completion of the work. The schedule shall be broken into work areas to provide for a clear identification of the planned progress of the work. Included in the schedule will be a list of tasks with list of deliverables and the percentage of work completed. This schedule shall coincide with progress payments applications dates and projected amounts. All durations shown will be in working days. Microsoft Project is the software of choice for this schedule. The timeframe described in the Contractor's Schedule shall represent the Contractor's plan for organizing, directing, managing, controlling, staffing, and executing the work required by the Contract Documents. Owner will rely on such schedules to coordinate and otherwise plan related work of Owner personnel, other separate contractors, or the Owner's routine daily work.

1.05 REFERENCE SPECIFICATIONS

- A. All work, products, and materials shall conform with the following standards as applicable for the intended use:
 - 1. IEEE
 - 2. EIA/TIA Commercial and Administration Standards
 - 3. NEC
 - 4. FCC – All Applicable Rules and Regulations
 - 5. UL
 - 6. MOSHA Safety Standards
- B. Bidder shall be responsible for supply, configuration and installation of components identified in Section 087100 - Door Hardware, Part 5 “Hardware Schedule”.

1.06 CONTRACTOR

- A. The Contractor shall accept complete responsibility for the installation, certification, and support of the system. Contractor shall be an authorized vendor of all major components.
- B. All work shall be performed and supervised by Project Managers, Engineers and/or Technicians who are qualified to install system and perform related tests as recommended by the manufacturer and in accordance with the manufacturer’s best practices and methods.
- C. Project Managers, Engineers and Technicians employed on this project shall be properly and fully trained and qualified by the manufacturer on the installation and testing of the equipment and systems to be installed.
- D. The Contractor shall have a proven track record in security system configuration and installation. This must be shown by the inclusion of references of at least three (3) projects involving the installation of similar systems completed by the Contractor in the prior two (2) years on unaltered forms with the sealed Bid Proposal as provided herein. Bid Proposal Form(s) may be duplicated as required in order to provide adequate space to list required number of reference installations for each division Bidder is responding to.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Manufacturer of major components of the included Building Access Control system shall be known and leading entity in the relevant communications field, and shall have been designing, manufacturing, and installing similar systems for a period of no less than three (5) years.
 - 1. Acceptable Manufacturers:
 - a. S2 (Lenel)
- 2.02 Supply most current version of all products provided.
 - A. Proposed components shall have been field tested and proven in actual use.
 - B. Prior and/or old versions of products, unless specifically approved and documented by Designer and/or Owner shall not be acceptable.
 - C. In cases where a newer version of hardware or software is available at the time of installation, Contractor shall request clarification from Designer on which version is to be used.
- 2.03 Furnish only new, first-class quality materials and equipment.
- 2.04 System shall be comprised of interoperable components including, but not limited to, controller, credential sensors, and management software integrated into a common working system.
- 2.05 System administrator shall be capable of complete system back-up and full system restoration from a previously saved configuration.
- 2.06 System shall be of a distributed processing design with a fully distributed database including, but not limited to time, date, valid codes, access levels and related data so that each Controller makes access control decisions for that location. If communications with central station equipment is lost, all transactions shall be buffered until the restoration of a connection to the central station.
- 2.07 In the event of a power failure, complete system shall automatically re-initialize and “become active” to the last configuration in use with no human intervention.
- 2.08 Contractor shall be responsible for final and working system. Use of existing components and materials provided by others during new construction shall be integral to system configuration and cost-effective installation. Bidders are encouraged to use all compatible and working components in system solution. See schedule(s) and reference files for additional detail.
- 2.09 BUILDING ACCESS CONTROL SYSTEM

- A. Contractor shall supply, install, and configure all necessary licensing, materials and labor for a new S2 Security system to fully integrate new building access devices as specified herein.

2.10 DOOR CONTROLLER

- A. An adequate number of controllers to support the quantity of credential readers shall be provided. Door controller devices shall be provided and installed in a lockable enclosure in IT closet locations as identified in provided drawings.
- B. Acceptable Manufacture(s)
 - 1. S2
 - a. Network Node
- C. Controller(s) shall meet or exceed the following requirements:
 - 1. Support for door contacts, card readers and PIR REX devices as specified.
 - 2. Adequate ports to support all door hardware and devices on provided door schedule.
 - 3. Adequate contact closure relays to support lockdown button capability as specified herein.

2.11 CREDENTIALS

- A. One hundred (100) credentials shall be provided.
- B. Credentials shall be HID 13.56 MHz cards compatible with specified credential readers.

2.12 CREDENTIAL READERS

- A. Credential Readers shall be provided and installed as indicated herein. Credential Reader provided shall meet or exceed the following requirements:
 - 1. HID Corporation
 - a. HID multiCLASS SE RP15 (Mullion Style)
 - b. HID mulitClass SE RP40 (Wall Switch Style).
 - 2. Reader model based on installation location (as shown on drawings) and space provided by other trades.
 - 3. Powered from associated Controller.

4. Response time for passage requests of 800ms.
 5. Sealed weatherproof shell enclosure rated for outdoor operation.
 6. Surface mounted on exterior surface of structure.
 7. LED or other type of visual indicator indicating request status.
 8. Audible status indicator upon user prompt.
 9. Range of four inches (4").
- B. See associated schedule(s) and or Drawings herein for location and quantity.

2.13 CREDEDTIAL PRINTER

- A. Credential Printer shall be provided and installed as indicated herein. Contractor to include all licensing associated with the access control system as it relates to credential printing. Credential Printer provided shall meet or exceed the following requirements:
1. HID Corportation
 - a. HID FARGO HDP5000 ID Card Printer & Encoder
- B. Contractor shall include the following consumable items along with the printer.
1. 082615 Thermal Transfer Overlamine, Clear, 500 count
 2. 089200 Cleaning Kit - Includes 4 Printhead Cleaning Swabs, 10 Cleaning Cards, 10
 3. Cleaning Pads and 3 Alcohol Cleaning Cards
 4. 086004 Cleaning Rollers – 10 Pack
 5. 086131 Extra Cleaning Cards (double sided), 50 count
 6. 082133 Iso-Propyl Alcohol Cleaning Cards - 10 pack
- C. Contractor shall create templates with the Owner's Technology Staff for at least the following departments/roles:
1. Administration
 2. Teaching Staff
 3. Temporary Staff

4. Technology Staff

5. Facilities

6. Contractors

2.14 HIDDEN DOOR RELEASE SWITCHES

- A. Door release switches are to be provided in locations identified on provided drawings as specified herein.
 - 1. Door release switches shall meet or exceed the following requirements:
 - a. ALLEGION 660-PB or ASSA ABLOY equivalent.
- B. Hidden door release switches shall be programmed to provide door release capabilities for doors identified on provided drawings. Contractors shall supply all necessary cabling, labor and accessories to integrate hidden door release switches with Contractor provided door controllers.

2.15 DOOR STATIONS

- A. A Door Station shall be provided, installed, provisioned, licensed and configured at each location indicated herein.
 - 1. Door stations shall be Axis A8105-E or equal.
 - 2. Devices shall be powered by Ethernet PoE as described herein.
 - 3. Sealed weatherproof shell enclosure rated for outdoor operation.
 - 4. Surface mounted on exterior surface of structure.
 - 5. See associated schedule(s) and or Drawings herein for location and quantity.

2.16 LOCKDOWN BUTTONS

- A. Lockdown button(s) shall be provided and installed as indicated herein and shall meet or exceed the following requirements:
 - 1. Buttons shall be located near the front entrance desk(s).
 - 2. New buttons shall be wall mounted and prominently located in an area promoting easy access by staff that may reasonably be required to initiate a lock down.
 - 3. New lockdown buttons shall be SS2242LD-EN STI Yellow Indoor/Outdoor Flush or approved equal.

4. Contractor shall supply all necessary contact closure devices to integrate provided door access system with lockdown button capability.
5. Lockdown buttons shall be programmed to provide all functionality defined by Owner, including, but not limited to the integration via contact closure with PA/program system. Such integration shall include both a lockdown and all clear integration.
6. See associated schedule(s) and or Drawings herein for location and quantity.

2.17 DOOR INTERFACE HARDWARE (INTEGRATED COMPONENTS)

- A. All controllers shall be PoE Mercury door controllers and shall be mounted above the secure side of each entry requiring a controller. Where new door controllers are to be provided, the door interface hardware provided by others shall meet or exceed the following:
 1. 12v PoE+ controller compliant strikes will be provided by others as part of Section 08700 work and shall be integrated into the door controller installation by Contractor.
 2. Where new door controllers are to be provided, each door controlled by the system shall be equipped with PIR REX device provided by others and shall be integrated into the door controller installation by Contractor.
 3. Where new door controllers are to be provided, each door shall be equipped with magnetic DPI sensors by others and shall be integrated into the door controller installation by Contractor.
 4. All door strike, REX and DPI cables shall of a sufficient length to be neatly routed by Contractor supplying material, to a location suitable to reach inside controller enclosure for door(s).
 5. Where power supplies are required, as specified in provided door schedule, Contractor shall be responsible for mounting power supply for connection by electrical contractor.

2.18 INTEGRATION

- A. Provided Credential Readers/Door Controllers shall be integrated with door handicap operators where applicable. Contractor shall supply all labor and accessories to integrate Credential reader with handicap operators for a safe and fully functional system. Contractor shall work collaboratively with handicap operator installers to verify the following functionality:

1. External operator buttons shall only be functional in the event of a successful card read or remote door unlatch. Door operator motor should only be operable in the event of a successful card read.
 2. Internal operator buttons shall be functional at all times, the door should unlock automatically.
 3. Contractor to supply all hardware necessary including accessories and installation to enable this capability
- B. Provided Credential Readers/Door Controllers shall be integrated with mag hold opens provided by others.
1. Mag hold open devices shall be released in the event of a lockdown.
 2. Contractor shall supply all necessary licensing, cabling and installation to tie lockdown buttons with fire panel system to release mag hold open doors.

2.19 COMPONENT INTERCONNECTION

- A. All wiring not installed in conduit shall be plenum type cable and shall be so identified with continuous marking.
- B. Wiring color shall remain the same throughout the system. Colors used for coding shall be as directed by the system manufacturer, Owner and Designer.
- C. Wire shall be copper.
- D. Contractor shall coordinate with all relevant building trades subcontractors as well as Owner's Construction Manager to integrate and interconnect all relevant equipment, components, devices, connections and wires that may be provided by others. Refer to construction documents provided for reference.

2.20 ALLOWANCES

- A. Contractor shall include allowances for equipment and/or other contract service reimbursements as required below in base bid lump sum amount(s). Equipment and/or contract services shall be provided and sourced at Owner's discretion and convenience with full cooperation by Contractor and paid for from successful bidder's contract in the amount(s) provided for herein. Any allowance amount proving to be excessive for the intended equipment and/or contract services shall be credited to the Owner against contract payment requests.
1. Allowance shall be made in the amount of \$3,500.00 for contract services related to supply, installation, and connection of contingency upgrades.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Contractor shall conduct detailed walk-through examination with Designer and Owner verifying equipment and material locations as well as mounting and placement requirements prior to commencement of other installation activities.
- B. Contractor shall ensure all submittals and shop drawings have been provided to, and approval has been obtained from Designer prior to commencement of any final installation activities.

3.02 INSTALLATION

- A. Contractor shall be familiar with the environment where work will be done as specified herein and make every reasonable effort to minimize interference with Owner's or other contractor's activities.
- B. Work Areas shall be cleaned at the end of each day. All debris shall be cleared, removed, and disposed of in an approved container for the site. All equipment and tools shall be removed from common areas and stored in approved, secure storage locations. Any work that may impede the general use of the space and/or other contractor's work and cannot be removed shall be flagged and cordoned off by the Contractor prior to their departure.
- C. All equipment and materials shall be installed in a neat and workmanlike manner. Best practices installation principles shall be used throughout the project.
- D. The Contractor shall furnish, set in place, and install all equipment necessary for a fully compliant and operational system as specified herein. The installation process includes, but is not limited to the following:
 - 1. Inventory receipt of all components and equipment.
 - 2. Storage of all equipment and components until such time those items are installed according to the specifications.
 - 3. Transport equipment to the Owner's installation location(s).
 - 4. Assemble, install, configure, and test all equipment and components, maintaining accurate inventory records and status documents and discarding packaging.
 - 5. Collect all information necessary to accurately program all system devices to the Owner's intended use and need.

Reissued per Addendum #1

- a. It is intended that work performed, and configurations made by contractor shall include, but is not limited to:
 1. All door control functionality and configurations shall be reviewed with the Owner and Designer prior to final configuration work.
 2. A door position switch shall be provided and installed on all new entrances and configured in the system for door position monitoring and alarming. Refer to provided door schedule for work and components that may be provided by others.
 3. Two lockdown buttons in the Main Office shall be configured to activate locks for doors that provide entry into the building.
 4. Coordination with both hardware and scheduling to program momentary deactivation of magnetic hold opens associated with academic wing access doors. This may be associated with normal schedules as well as special situations including, but not limited to building lockdown.
 5. Lock/Unlock schedules configured for doors as desired by owner.
 6. Label all system devices as may be appropriate and required by Owner and Designer.
 7. Complete end user and system administrator training programs as specified herein.
 8. Work shall be performed to meet local codes and industry standards including proper grounding and bonding of installed equipment.
- E. Worksites include the following:
1. New Shelby Elementary School
North State Street
Shelby, MI 49455
- F. It shall be the responsibility of the Contractor to repair or replace any damage done to the structure of finishes in the building by the Contractor. If in the course of work, Contractor damages, marks, or misplaces any surfaces or access plates/panels the Contractor shall repair and/or replace the surface, plate or panel to the original condition.
1. Final determination as to the damage condition and/or repair/replacement fitness of any surface, plate or panel shall be the sole responsibility of the Designer.

2. The building and work area shall be returned to its original condition prior to final sign-off of the project.

G. Following installation and system “turn-up”, but prior to final acceptance of the system, Contractor shall conduct follow-up interviews with Owner identified administrators and staff to review system functionality, suitability and confirm feature and program fitness for Owner applications.

1. Follow-up interviews shall be fully documented by Contractor and submitted to Owner for approval.

3.03 TESTING

A. In an effort to ensure a smooth “turn-up” of the new system Contractor shall submit to a thorough testing process as defined herein prior to cut-over.

B. Prior to requesting testing by Designer, the Contractor shall use adequate means to assure the Work is completed in accordance with the specified requirements, meets the owner’s specific application requirements and is ready for functionality and integrity testing.

C. Testing Procedures

1. Prior to system “turn-up”, Contractor shall submit a written request to Designer indicating they have completed full and final configuration of the system and are ready to have system integrity and functionality tested.
2. Within reasonable time after receipt of request, Designer will provide a test schedule and coordinate testing date(s) with Owner and Contractor.
3. Should Designer determine the Work is not acceptably configured or not of adequate integrity:
 - a. Designer promptly will so notify Contractor, giving reasons therefore and providing sufficient details to allow Contractor to make corrective actions.
 - b. Contractor shall then expeditiously remedy the deficiencies and notify Designer in writing when ready for re-testing.
 - c. Designer will schedule re-test of the Work.
 - d. Excessive re-testing of Work may result in fees being assessed Contractor.
4. Should Designer and Owner concur the Work is configured properly, and system integrity is as required:

- a. Designer will review Contractors detailed “turn-up” plan, and upon finding it acceptable issue a memorandum of Testing Completion to Owner and Contractor after which system “turn-up” can proceed.

3.04 DOCUMENTATION

- A. Contractor shall, throughout the completion of the project, provide Owner a file storage system that shall include all necessary equipment, including if reasonably required, file drawers, folders, dividers, etcetera, to contain all as-built drawings, owner’s manuals of all equipment installed, warranty and maintenance information and other information the Contractor, Designer and/or Owner deem necessary. Documentation shall also be provided in a digital format in file formats and on media as specified by Owner and/or Designer.
- B. Contractor shall be responsible for providing thorough, timely documentation on all hardware, software. Documentation shall include, but not be limited to:
 1. Equipment description.
 2. Equipment make.
 3. Model number.
 4. Software release.
 5. Date installed.
 6. Manufacturer's warranty.
 7. Maintenance contract terms.
 8. Verification of maintenance contract engagement.
 9. Telephone numbers for service and support.
 10. Detailed technical support and service procedure instructions.
 11. All product (hardware and software) manuals and manufacturer supplied documentation, including, but not limited to owner manuals, system administrator manuals and configuration guides. Where number of duplicate copies for particular manual or documentation item could be reasonably considered excessive, Contractor shall request direction from Owner and Designer.
 12. Photocopy of original invoice listing make and model for all components and equipment from individual manufacturer(s), distribution source(s), or

authorized agent(s) to establish manufacturer warranty start date for potential use after end of contract warranty provisions.

13. CAD as built drawings for each building.

14. System Configuration Report.

15. Complete inventory of installed hardware and system software. Hardware inventory shall include, but not be limited to, model numbers, serial number, physical installation location and software/firmware options.

3.05 TRAINING

A. Training shall be conducted at the Owner's discretion and at times and places convenient to Owner personnel. Prior to any training being conducted, Contractor shall provide Owner and Designer with detailed training syllabus and schedule for proposed training event. Compliant syllabus and schedule shall be provided at least ninety-six 96 hours in advance. Owner reserves the right to postpone training if syllabus and/or schedule submitted are deemed inadequate. Training shall not be conducted until such time a syllabus and schedule submitted by Contractor are found to be acceptable to Owner.

B. Contractor shall provide training for the Owner designated system administrator(s). Training shall be a minimum of one (1), one (1) hour session(s) in length, at the convenience of the Owner personnel, and of sufficient duration to satisfactorily complete training on all system administration functions including, but not limited to:

1. Basic trouble shooting of the installed system and components including diagnostic and problem resolution actions.
2. System back-up and restore functions and procedures for all system parameters and configurations.
3. Review of system alerts, logs and monitoring of configuration parameters including, but not limited to, configuration changes and device status.

3.06 SCHEDULE, MEETINGS AND PLANS

A. Schedule

1. Post bid Interviews: Week of December 5, 2022
2. Contractor Chosen: Week of December 19, 2022
3. Work Commences: April 1, 2023
4. Substantial Completion of Project: June 1, 2023

5. Project Close-out: September 1, 2023
- B. Planned sequence of operations shall be established by the Contractor within the guidelines established by the Owner, as required herein and as required to meet schedules.
 - C. All work shall be coordinated with Owner's construction manager on site.
 - D. Project progress meetings shall be held, but not limited to, weekly at a site and time identified as convenient for Owner and as required herein. Meetings will be attended as required herein.

END OF SECTION