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Project Name: Renovations to: Callaway High School Broadcast Video Lab, Troup High School Broadcast Video Lab, and LaGrange High School Information Technology Lab
Project Number: 01-664-098/ 01-664-099/ 01-664-100
Client: Troup County Schools
City/State: LaGrange, Georgia

Addendum Date: February 22, 2018
Bid Date: March 15, 2018

TO REGISTERED HOLDERS OF BID DOCUMENTS

INFORMATION CONTAINED IN THIS ADDENDUM SUPERSEDES PREVIOUS INFORMATION CONTAINED IN BID DOCUMENTS

MANDATORY PRE-BID MEETING:

The Mandatory Pre-bid meeting will be held at the school board office at 100 North Davis Road, LaGrange Georgia, 30241 on March 1, 2018 @ 2:00 pm. Bids will only be received from companies that attend this meeting.

CHANGES TO THE SPECIFICATIONS:

1. Section 08 71 00 – Door Hardware
 - a. Add attached specification.

ATTACHMENTS:

Specifications: Section 08 71 00

END OF ADDENDUM NO.1

01-664-098/ 01-664-099/ 01-664-100

PART 1 - GENERAL**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes:
1. Mechanical door hardware including the following:
 - a. Hinges/pivots.
 - b. Flush Bolts.
 - c. Exit devices.
 - d. Locksets and cylinders.
 - e. Push plates and pulls.
 - f. Coordinators.
 - g. Closers.
 - h. Kick, mop and protection plates.
 - i. Stops, wall bumpers and overhead controls.
 - j. Silencers.
 - k. Miscellaneous trim and accessories.
 2. Cylinders for door hardware specified in other Sections.
- B. Related Sections:
1. Section 08 11 13 "Hollow Metal Doors and Frames".
 2. Section 08 14 16 "Flush Wood Doors".
 3. Section 08 41 13 "Aluminum-Framed Entrances and Storefronts".
 4. Division 28 Section for fire alarm system.

1.3 ACTION SUBMITTALS

- A. Samples for Initial Selection: Provide manufacturer's standard color samples for all units requiring color selection.
- B. Other Action Submittals:
- C. Door Hardware Schedule: Within two (2) weeks from the date the purchase order is received, submit 7 copies of Hardware Schedule to the Contractor or Construction Manager detailing fabrication and assembly of door hardware, as well as installation procedures and diagrams. Coordinate final door hardware schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
1. Submittal Sequence: Submit door hardware schedule concurrent with submissions of Product Data, Samples, and Shop Drawings if required. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate the fabrication of other work that is critical in Project construction schedule.
 2. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule" and use same door numbers as in the Contract Documents. Double space entries, number and date each page.
 3. Content: Include the following information:
 - a. Identification number, location, handing of each opening, fire rating, door sizes, material of each door and frame, degree of opening and any lite and louver openings.
 - b. Locations of each door hardware set, cross-referenced to Drawings on floor plans and to door and frame schedule.
 - c. Complete designations, including name and manufacturer, type, style, function, size, quantity, function, and finish of hardware product for each door.
 - d. Fastenings and other pertinent information.
 - e. Explanation of abbreviations, symbols, and codes contained in schedule.
 - f. Mounting locations for door hardware.
 - g. List of related door devices specified in other Sections for each door and frame.

1.4 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For each type of door hardware to include in maintenance manuals. Include final hardware and keying schedule.
- B. Hardware and Keys: At Project completion, provide Owner with the following:
1. Tagged keys
 2. Bitting list of keys
 3. Instructions sheets for each item furnished
 4. One set of any non-standard tools for installation of each item.
- C. Contractor's Certification.
- D. Contractor's Final Inspection Report.
- E. Manufacturer's Certifications.

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type of door hardware from a single manufacturer.
- B. Fire-Rated Door Assemblies: Where fire-rated door assemblies are indicated, provide door hardware rated for use in assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C, unless otherwise indicated.
- C. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meet requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
 - 1. Air Leakage Rate: Maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at the tested pressure differential of 0.3-inch wg (75 Pa) of water.
- D. Means of Egress Doors: Latches do not require more than 15 lbf (67 N) to release the latch. Locks do not require use of a key, tool, or special knowledge for operation.
- E. Accessibility Requirements: For door hardware on doors in an accessible route, comply with the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines, ICC/ANSI A117.1 and Georgia Accessibility Guidelines..
 - 1. Provide operating devices that do not require tight grasping, pinching, or twisting of the wrist and that operate with a force of not more than 5 lbf (22.2 N).
 - 2. Comply with the following maximum opening-force requirements:
 - a. Interior, Non-Fire-Rated Hinged Doors: 5 lbf (22.2 N) applied perpendicular to door.
 - b. Sliding or Folding Doors: 5 lbf (22.2 N) applied parallel to door at latch.
 - c. Fire Doors: Minimum opening force allowable by authorities having jurisdiction.
 - 3. Bevel raised thresholds with a slope of not more than 1:2. Provide thresholds not more than 1/2 inch (13 mm) high.
 - 4. Adjust door closer sweep periods so that, from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches (75 mm) from the latch, measured to the leading edge of the door.
- F. Contractor/Construction Manager's Hardware Certification: General Contractor/Construction Manager shall provide written certification that all hardware supplied for the project meets all requirements of the Door Hardware Specification.
- G. Contractor/Construction Manager's Final Inspection Report: Upon Completion of hardware installation, Contractor/Construction Manager shall deliver a written report to the Owner and Architect stating that the Contractor/Construction Manager has inspected all door hardware, that all recommended adjustments have been completed and that all door hardware furnished has been installed as specified and is in optimum working condition.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. General: Hardware supplier shall stockpile all items sufficiently in advance to ensure availability and shall make all necessary deliveries in a timely manner to guarantee hardware installation as scheduled. Drop shipments from the manufacturer to the jobsite will not be allowed.
- B. Deliver all hardware to project site in original unbroken packaging clearly marked or numbered according to the approved Hardware Schedule. Deliver each piece of hardware packaged with all necessary parts and fasteners.
- C. Inventory, tag and check condition of each piece of hardware on receipt and provide secure, dry storage area sufficient in size to allow organizing of hardware for each opening and easy identification when needed for installation.
- D. Ship all hardware items to Project site in biodegradable packaging with minimal plastic and styrofoam content.

1.7 COORDINATION

- A. Installation Templates: Distribute hardware templates and instructions for doors, frames, and other work specified for factory preparation to appropriate manufacturer in a timely manner to avoid delays in construction schedule. Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- B. Contractor/Construction Manager shall coordinate the work of all parties associated with electrified door hardware to ensure the proper integration of electric exit devices, electric strikes, proximity readers, power suppliers, key switches, door contacts and other items with the fire alarm systems, as required for proper operation.
- C. Existing Openings: Where hardware components are scheduled for application to existing construction or where modifications to existing door hardware are required, field verify existing conditions and coordinate installation of door hardware to suit opening conditions and to provide proper door operation.

1.8 WARRANTY

- A. Special Warranty: Provide manufacturer's standard written warranty in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures including excessive deflection, cracking, or breakage.

- b. Faulty operation of doors and door hardware.
- c. Deterioration of metals, metal finishes, and other materials beyond normal weathering and use.
- 2. Warranty Period: One (1) years from date of Substantial Completion, unless otherwise indicated.
 - a. Exit Devices: 3 years from date of Substantial Completion.
 - b. Closers: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

- A. Provide door hardware for each door as scheduled in Part 3 "Door Hardware Schedule" Article to comply with requirements in this Section.
 - 1. Door Hardware Sets: Provide quantity, item, size, finish or color indicated, and named manufacturers' products.
 - 2. Sequence of Operation: Provide electrified door hardware function, sequence of operation, and interface with other building control systems indicated.
- B. Designations: Requirements for design, grade, function, finish, size, and other distinctive qualities of each type of door hardware are indicated in Part 3 "Door Hardware Schedule" Article. Products are identified by using door hardware designations from approved manufacturers. Manufacturer and their product designation are listed for each door hardware type required.
 - 1. Proprietary Products: References to specific proprietary products are used to establish minimum standards of utility and quality. There is no intent to exclude equivalent products. Refer to Section 01 25 00 "Substitution Procedures" for prior approval requirements.

2.2 FASTENERS

- A. General: Provide all necessary screws, bolts and other fasteners of suitable size and type to anchor the hardware in position for a long life under hard use. Utilize fasteners that match material and finish of hardware.
- B. Closers, Overhead Holders and Stops: Door closers, overhead holders and stops shall be through-bolted with sex nuts and bolts.
- C. Exit Devices: Exit devices on labeled wood doors shall be through-bolted as required by door manufacturer.
- D. Thresholds: Fasten thresholds with machine screws and anchors.

2.3 HINGES

- A. Hinges: BHMA A156.1. Provide template-produced hinges for hinges installed on hollow-metal doors and hollow-metal frames.
 - 1. Description: Five-knuckle, heavy-duty, button tip, full mortise, template produced hinges with non-rising loose pins and with sufficient throw to clear all trim.
 - 2. Quantity. Provide three (3) hinges for doors up to ninety inches high and one additional hinge for each additional 30 inches.
 - 3. Size:
 - a. Provide 4-1/2 inch by 4-1/2 inch hinges for doors up to 36 inches in width.
 - b. Provide 5 inch by 4-1/2 inch hinges for doors over 36 inches in width.
 - c. Provide 3-1/2 inch by 3-1/2 inch hinges for 1-3/8 inch thick storage cabinet doors.
 - 4. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a.	<u>Bommer Industries, Inc.</u>	<u>Hager Companies.</u>	<u>McKinney Products Company.</u>
	LB5000	BB1279	TA2714

2.4 CONTINUOUS HINGES

- A. Continuous Hinges: BHMA A156.26, Grade 1-600; minimum 0.120-inch- (3.0-mm-) thick, hinge leaves with minimum overall width of 4 inches (102 mm); fabricated to full height of door and frame and to template screw locations; with components finished after milling and drilling are complete.
- B. Continuous, Gear-Type Hinges: Extruded-aluminum, pinless, geared hinge leaves joined by a continuous extruded-aluminum channel cap; with concealed, self-lubricating thrust bearings.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a.	<u>Bommer Industries, Inc.</u>	<u>McKinney Products Company.</u>	<u>Pemko Manufacturing Co.</u>
	FMHD1	MCK25HD1	CFMHD1

2.5 MECHANICAL LOCKS, LATCHES AND TRIM

- A. Provide wroughtbox strikes and curved lip ASA strikes with proper lip length to protect trim of the frame but not to project more than 1/8 inch beyond frame trim. **Exception:** If existing frames are being re-used, provide strike to match existing.
- B. Lock Trim: All trim to be cast or forged and all cylindrical lock trim to be free-wheeling type. Rigid lock trim is not acceptable for cylinder locks.
- C. Mortise Locks: BHMA A156.13; Operational Grade 1; stamped steel case with steel or brass parts; Series 1000.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Best: 45H Series – 15H Design; 93K Series – 15D Design (Lost-motion trim).
 - b. Dorma: M9000 Series – LRA Design; C800 Series – LRC Design.
 - c. Sargent: 18-8200 Series – LNL Design; 10 Line – LL Design.

2.6 KEYING

- A. Keying System: Factory registered, complying with guidelines in BHMA A156.28, Appendix A. Incorporate decisions made in keying conference.
1. All locks and cylinders shall have temporary construction cores; type as specified.
 2. All permanent small format interchangeable cores shall be provided and installed by the Owner.
 3. Quantity: Provide the following:
 - a. Construction Control Keys: Two (2).
 - b. Construction Master Keys: Six (6).
 - 1) During construction, Contractor/Construction Manager shall be responsible for issuing construction master keys and cores to authorized personnel and the return of same.
 - 2) After construction, Contractor/Construction Manager shall be responsible for returning construction master keys and cores to hardware supplier.

2.7 PUSH PLATES, DOOR PULLS AND KICKPLATES

- A. Operating Trim: BHMA A156.6; stainless steel, unless otherwise indicated.
- B. All kickplates shall be 16 gage (0.050) thick stainless steel, 6 inches high by 2 inches less door width with four beveled edges (B4E) and shall have stainless sheet metal screws.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

<u>Don-Jo Mfg., Inc.</u>	<u>Hager Companies.</u>	<u>Rockwood Mfg. Co.</u>
90	190S	90

2.8 SURFACE CLOSERS

- A. Surface Closers: BHMA A156.4; heavy duty, rack-and-pinion hydraulic type with a high strength cast case. Provide heavy duty SPA type arms at outswing/parallel arm applications. All door closers shall be through-bolted with sex nuts and bolts.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

<u>DORMA.</u>	<u>LCN Closers.</u>	<u>Norton Door Controls.</u>
8916 AF89	4041	7500BF
8916 SPA	4041-EDA	PR7500BF

2.9 MECHANICAL STOPS AND HOLDERS

- A. Wall- and Floor-Mounted Stops: BHMA A156.16; polished aluminum base metal.
- B. Locate door stops to permit maximum door swing without creating a hazard or obstruction.
- C. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
- | | | |
|--------------------------|-------------------------|--------------------------|
| <u>Don-Jo Mfg., Inc.</u> | <u>Hager Companies.</u> | <u>Rockwood Mfg. Co.</u> |
| 1407 | 237W | 409 |

2.10 OVERHEAD STOPS AND HOLDERS

- A. Overhead Stops and Holders: BHMA A156.8.
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
- | | | |
|--------------------------|--------------|-----------------------|
| <u>Don-Jo Mfg., Inc.</u> | <u>DORMA</u> | <u>Glynn-Johnson.</u> |
| 3320 Series | 900 Series | 90 Series |

2.11 FABRICATION

- A. Base Metals: Produce door hardware units of base metal indicated, fabricated by forming method indicated, using manufacturer's standard metal alloy, composition, temper, and hardness. Furnish metals of a quality equal to or greater than that of specified door hardware units and BHMA A156.18.
- B. Fasteners: Provide door hardware manufactured to comply with published templates prepared for machine, wood, and sheet metal screws. Provide screws that comply with commercially recognized industry standards for application intended, except aluminum fasteners are not permitted. Provide Phillips flat-head screws with finished heads to match surface of door hardware, unless otherwise indicated.
1. Fire-Rated Applications:
 - a. Wood or Machine Screws: For the following:
 - 1) Hinges mortised to doors or frames; use threaded-to-the-head wood screws for wood doors and frames.
 - 2) Strike plates to frames.
 - 3) Closers to doors and frames.
 - b. Steel Through Bolts: For the following unless door blocking is provided:
 - 1) Surface hinges to doors.
 - 2) Closers to doors and frames.
 - 3) Surface-mounted exit devices.
 2. Spacers or Sex Bolts: For through bolting of hollow-metal doors.
 3. Fasteners for Wood Doors: Comply with requirements in DHI WDHS.2, "Recommended Fasteners for Wood Doors."
 4. Gasketing Fasteners: Provide noncorrosive fasteners for exterior applications and elsewhere as indicated.

2.12 FINISHES

- A. Provide finishes complying with BHMA A156.18 as indicated in door hardware schedule and as follows:
 - 1. Exterior Hinges: 600 or 630 (628 for geared hinges).
 - 2. Interior Hinges: 626, 630 or 652.
 - 3. Locks, Exit Devices, Door Trim and Stops: 626 or 630.
 - 4. Closers: 689.
 - 5. Overhead Holders/Stops: 689.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.
- B. Wood Doors: Comply with DHI WDHS.5 "Recommended Hardware Reinforcement Locations for Mineral Core Wood Flush Doors."

3.3 INSTALLATION

- A. All door hardware shall be installed by experienced finish carpenters only.
- B. Mounting Heights: Mount door hardware units at heights to comply with the following unless otherwise indicated or required to comply with governing regulations.
 - 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
 - 2. Custom Steel Doors and Frames: HMMA 831.
 - 3. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
- C. Install each door hardware item to strictly comply with manufacturer's written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, perform all cutting and fitting required and remove the hardware before the final coat of finish is installed.
- D. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than the number recommended by manufacturer for application indicated or one hinge for every 30 inches (750 mm) of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.

3.4 ADJUSTING

- A. Initial Adjustment: During installation, adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
- B. Follow-up Adjustment: After all hardware items have been installed and initially adjusted, revisit each opening to recheck hardware adjustment.
 - 1. Door Closers: Adjust closer valve settings for latch, sweep and backcheck per manufacturer's written recommendations. Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction. For exterior high-traffic doors that have wall or post-mounted bumpers listed in the Door Schedule, install closers at 90 degree templating location.

3.5 INSPECTION, CLEANING AND PROTECTION

- A. Contractor/Construction Manager Inspection Report: Upon Completion of hardware installation, Contractor/Construction Manager shall deliver a written report to the Owner and Architect stating that the Contractor/Construction Manager has inspected all door hardware, that all recommended adjustments have been completed and that all door hardware furnished has been installed as specified and is in optimum working condition.
- B. Clean adjacent surfaces soiled by door hardware installation.
- C. Clean operating items as necessary to restore proper function and finish.
- D. Provide final protection and maintain conditions that ensure that door hardware is without damage or deterioration at time of Substantial Completion.

3.6 DOOR HARDWARE SCHEDULE

CALLAWAY HS LAB: (CA)
 LAGRANGE HS LAB: (LG)
 TROUP HS LAB (TR)

HW-1

SGL. DOORS : CA: 107A, TR: 110A

EACH TO HAVE :

3 EA. HINGES	LB5000
1 EA. LOCKSET	C870T
1 EA. PERM. CORE	BY OWNER
1 EA. CLOSER	8916 AF89 x SNB
1 EA. KP	90
1 EA. HD WALL STOP	1411 x TORX
3 EA. SILENCERS	1608

HW-2

SGL. DOORS : CA: 108A, 109A, 110A TR: 109A

EACH TO HAVE :

3 EA. HINGES	LB5000
1 EA. LOCKSET	C870T
1 EA. PERM. CORE	BY OWNER
1 EA. CLOSER	8916 SPA x SNB
1 EA. KP	90
1 EA. HD WALL STOP	1411 x TORX
3 EA. SILENCERS	1608

HW-3

SGL. DOORS : TR: 111A

EACH TO HAVE :

3 EA. HINGES	LB5000
1 EA. LOCKSET	M9072T x INDICATOR INSIDE
2 EA. PERM. CORES	BY OWNER
1 EA. CLOSER	8916 SPA x SNB
1 EA. KP	90
1 EA. HD WALL STOP	1411 x TORX
3 EA. SILENCERS	1608

HW-4

SGL. DOORS : LG: 104A, TR: 102A, 103A, 104A

EACH TO HAVE :

3 EA. HINGES	LB5000
1 EA. LOCKSET	C870T
1 EA. PERM. CORE	BY OWNER
1 EA. OH HOLDER	900H x SNB
3 EA. SILENCERS	1608

END OF SECTION 08 71 00