



ADDENDUM | 05

Mary C. Howse Elementary School
641 Boot Road, West Chester, PA 19380
BHA Job No. 22-114

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Philadelphia, PA 19106
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DATE OF ISSUANCE: December 14, 2023

OWNER: Damon Gonzaga
1181 McDermott Drive
West Chester, PA 19380

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FROM ARCHITECT: Nate Moran, RA
Blackney Hayes Architects

The bidder shall complete the attached Addendum Received Form upon receipt of this Addendum and return the form to Blackney Hayes Architects. The form shall be emailed to nmoran@blackneyhayes.com.

ASSOCIATES

Carmen Bushong, AIA
Tyler Cooney, AIA, LEED AP BD+C
Patrick Gallagher, RA, CSI, CDT
John Townsend, NCIDQ

The following information shall become part of the Contract Documents for the above referenced project.

SUBSTITUTION REQUESTS

Substitution 1: Section No. 083323 – McKeon Model IS3020D-M-OC/Overhead Coiling Door

Response 1: *The proposed substitution ‘Overhead Door Corp. Model 627 AP Insulated Coiling Door’ is acceptable.*

Substitution 2: Section No. 102239 – Modernfold, Inc. Acousti-Seal Legacy 932/Folding Panel Partition

Response 2: *The proposed substitution ‘Kwik-Wall Model 2050 Electric Operable Wall’ is acceptable. Kwik-Wall must provide all modifications, if necessary, including but not limited to steel, electrical, etc.*

Substitution 3: Section No. 116623-2.2-A – Porter Athletic. 570 Series/Draper, Inc. EcoVision Wall Pad System

Response 3: *The proposed substitution ‘Safety Padding Ink’ is not an acceptable manufacturer.*

RESPONSES TO BIDDERS' QUESTIONS

Q1. Please confirm the GC is responsible for the concrete work related to the extending of the existing pad for new distribution section.

A1. E.C. shall be responsible for concrete work related to the extending of the existing pad for the new distribution section as needed.

Q2. If construction trailers are needed, where are they going to be located?

A2. Contractor trailers to be in the designated contractor staging area. Please note that there is limited space for contractor trailers, laydown space, and parking.

Q3. If construction trailers are needed, what size temp service will be required for each temp office trailers?

A3. Refer to temporary construction power sketch SKE-2 for additional information.

Q4. Who is responsible for Temp Electrical use charges?

A4. Charges for temporary power shall be the responsibility of the contractors.

Q5. Which electrical room and panels will be utilized for the temp power for the temp office trailers?

A5. A temporary service from PECO shall be provided. Refer to sketch SKE-02.

Q6. Referencing electrical, Telecom, Fire Alarm, Speakers, clocks and any other devices, is the intent for the new or relocated locations for all devices to be saw cut in the existing block walls or use surface mounted raceway?

A6. Use surface mounted raceway.

Q7. If saw cutting is required for all new or relocated devices, which contractor is responsible for saw cutting and patching?

A7. Devices are to be mounted using surface raceway.

Q8. Please confirm the district is providing all network switches.

A8. District provides all network switches. Refer to detail #1 on drawing E6.02.

Q9. Please confirm the district will be providing all Wireless Access Point Devices?

A9. Yes, district will provide all wireless Access Point Devices.

Q10. Multiple contract summary for EC states to provide temp site lighting. Please confirm if this will be required.

A10. Temporary site lighting shall be provided by the EC for trailers and laydown space.

Q11. If temp site lighting is required, please show locations on drawings where it will be required.

A11. The EC shall provide (2) temporary site lights, (1) on each side of the driveway.

Q12. Please confirm the VFD's are provided by MC.

A12. Yes, VFD's are provided by MC.



Q13. Please confirm MC is responsible for the Chiller and Boiler control panels and ATC panels.

A13. Yes, MC is responsible for the Chiller and Boiler control panels and ATC panels. Refer to H series drawings.

Q14. Referencing all additions, can PVC schedule 40 be run underground for Feeders, and branch circuits?

A14. Yes.

Q15. Where new CMU walls are being installed can conduit be installed in these walls?

A15. Yes, where new CMU walls are being installed can conduit be installed in these walls, except for classroom AV cabling. All classroom AV cabling shall be installed in surface raceway.

Q16. Can all low volt systems, Fire alarm, Telecom, PA and Speakers all be run free air in accessible ceilings?

A16. Cabling shall be properly supported by J-hooks above corridor ceilings for all low voltage devices.

Q17. Can Hubbell be used as a substitute for the tele/data?

A17. Contractor shall submit substitution request form.

Q18. Please confirm the district is providing the card access system and components for spec section 281325. Including testing and commissioning of system.

A18. Refer to addendum 03 SKE-01 revised access diagram for breakdown of owner versus E.C. provided items.

Q19. Where is the remote generator plug to be located on drawings?

A19. As per addendum 03 the remote generator plug is located outside Psych 305 and the final location to be coordinated with the owner in the field.

Q20. Which contractor is providing the doorbell system components?

A20. Doorbell system to be provided and installed by E.C.

Q21. Which contractor is providing the hand dryers?

A21. The GC shall provide the hand dryers, and the EC shall install the hand dryers.

Q22. Which contractor is responsible to sawcut the block for recessed electrical panels?

A22. All new recessed electrical panels will be going into new block walls.

Q23. Drawings and specs state that all mechanical equipment disconnects are furnished by MC and installed by EC, However Detail 11 on drawing E6.02 says typical disconnect switch by E.C. mounted on side of Roof top unit. Please confirm these disconnects are furnished by MC.

A23. All disconnects are furnished by MC. Unless otherwise indicated on the drawings. Refer to note #5 under general power notes.



Q24. Referencing drawing E7.01 there are LMBC-300 network bridges shown on details but not shown on new lighting drawings with the rest of the lighting controls. Please provide quantities on drawings (same as other lighting controls) so everyone is bidding on the same work.

A24. Network bridge device provided for each DM located in corridor. Refer to drawings E2.01A through E2.01E for quantities.

Q25. Which contractor is providing the cameras?

A25. Cameras are existing to be relocated. E.C. is responsible for backbox, conduit, and data cabling for all camera locations.

Q26. Referencing drawings E3.01A-E3.01C, there are receptacles and V/D outlet symbols that have a black square behind them on the wall side. These symbols are not shown on the electrical legend. Please clarify what these symbols represent?

A26. These symbols represent surface raceway.

Q27. For the Distribution system, is the intent to add lugs to the existing bus or splice wires inside the existing section?

A27. It is the intent to utilize the existing bus tap on the existing piece of G.E. switchgear for a new 1200A distribution section.

Q28. Which contractor is responsible for saw cutting and patching for any exterior site work?

A28. The Site Contractor shall be responsible for cutting and patching exterior site work, unless where noted otherwise by other Primes on the drawings or specification sections 011100 and 011200.

Q29. Basis of design product: Modernfold Acousti-Seal Premier 933E cannot be manufactured with invisible hinges? Please confirm if it is acceptable to not provide invisible hinges or if partition system is to be upgraded in order for invisible hinges to be used.

A29. The Basis of Design should be: Modernfold Acousti-Seal Legacy 933E with invisible hinges.

Q30. Specification section 102239 Subsection 2.7 – Accessories notes partition to have Pass Door. Pass Door not shown on drawings or indicated on plans. Should pass door be priced as an option, included in base pricing, or not provided? Additionally, if pass door is intended to be used in this partition, the invisible hinges specified will prevent use of hardware other than standard hand pull and roller latch. Please confirm this is acceptable.

A30. Pass door shall not be required.

Q31. Specification section 102239 Subsection 2.7 – Accessories notes partition to have Pocket Door. Neither partition pocket or pocket doors shown on drawings or plans. Should pass door be priced as an option, included in base pricing, or not provided?

A31. Pass door shall not be required.

Q32. Specification section 102238 Subsection 2.4 Panel Finish facings. Two partition finishes are listed: Carpet and vinyl. Please clarify if both finishes are to be used. If both are to be used please clarify if ½ of each panel faces is to receive both finishes each, or if one side of partition is to receive vinyl and the other carpet?

A32. One side of the partition shall be vinyl (Cafeteria) and the other side shall be carpet (Gymnasium).



The Project Manual and Drawings for the above referenced project are amended as follows:

PROJECT MANUAL

Section 00 1113 – ADVERTISEMENTS FOR BID

The bidding period has been extended; bids shall be due on Thursday, December 28, 2023 at 1:30PM.

Section 08 3323 – OVERHEAD COILING DOORS

2.3-B-1: Add 'Overhead Door Corp. Model 627 AP Insulated Coiling Door' to list of acceptable manufacturers.

Section 10 2239 – FOLDING PANEL PARTITIONS

2.2-A-1-a: Revise 'Acousti-Premier' to 'Acousti-Seal Legacy'

2.2-A-1: Add "Kwik-Wall Model 2050 Electric Operable Wall" to list of acceptable manufacturers.

2.2-I-1: Delete "Final Closure: Side Jamb with overlapping trail panel with "Modernfold Presto Automation Package."

2.6-A-1: Delete 'Modernfold Presto Automation Package with Touch Screen Operator Control Station by Modernfold, Inc.'

2.7: Delete Sections A and B in their entirety.

Section 28 1400 ACCESS CONTROL SYSTEM SOFTWARE AND DATABASE

2.4-B-1 - Delete "Readers capable of OSDP and Wiegand data format". Add "HID 40NKS-00-000000 card reader/

2.4-B-2 – Delete "2. HID Global: All OSDP and Wiegand."

CHANGES TO DRAWINGS

CIVIL:

Drawing C-501

Add fence enclosure detail; refer to '6'-0" & 8'-0" HIGH CHAIN LINK FENCE DETAIL' sketch attached.

ARCHITECTURAL:

Drawing A1.01B – ENLARGED FLOOR PLAN – AREA 'B'

Revise note 'EXISTING TRASH ENCLOSURE FENCE. ADD ALTERNATE: REPLACE TRASH ENCLOSURE FENCE IN KIND, REFER TO CIVIL DRAWINGS' to be 'TRASH ENCLOSURE, REFER TO CIVIL DRAWINGS'.

ELECTRICAL:

Drawing E6.02 – DETAILS AND DIAGRAMS – ELECTRICAL

Add detail #13 TEMPORARY CONSTRUCTION SERVICE POWER RISER DIAGRAM as per attached sketch SKE-02 TEMP CONSTR POWER.



Drawing E7.03 – SCHEDULES - ELECTRICAL

Revise trip rating for circuit 31, 33, 35 in panel K1 to 70A.

ATTACHMENTS:

1. 001113 Advertisement for Bids_Addendum 05_2023 1214
2. 083323 Overhead Coiling Doors_Addendum 05_2023 1214
3. 102239 Folding Panel Partitions_Addendum 05_2023 1214
4. 6'-0" & 8'-0" HIGH CHAIN LINK FENCE DETAIL
5. SKE-02 – TEMP CONSTR POWER



END OF ADDENDUM 05

ISSUED BY THE ARCHITECT:

(Signature)

Nate Moran, RA – Project Architect

(Printed name and title)

DOCUMENT 001113 ADVERTISEMENT - FOR BIDS

NOTICE TO BIDDERS

The West Chester Area School District, Chester County, Pennsylvania, solicits sealed bids for the Mary C. Howse Elementary School in West Chester, PA for the following contracts:

Contract No. GC-1 – General Construction

Contract No. MC-1 – Mechanical

Contract No. PC-1 – Plumbing

Contract No. EC-1 – Electrical

Contract No. SPC-1 – Sprinkler

Contract No. SC-1 – Sitework

Contract No. RC-1 – Roofing

Sealed bids, addressed to Ms Lynnette Scott, Purchasing Agent, must be clearly marked on the outside with bidder's name and name of project bid, and are due at the Spellman Education Building, 782 Springdale Drive, Exton, PA 19341 by 1:30 pm on **December 28, 2023**, at which time they will be publicly opened and read. Faxed bids will not be accepted.

Sealed bids shall be accompanied by a certified check or bid bond in the amount of ten percent (10) of the amount of the bid, made payable to the West Chester Area School District. Checks or bonds will be returned to unsuccessful bidders after the contract has been awarded, or the bids rejected. The successful bidder's check or bond will be returned when his contract has been properly completed. In case the successful bidder fails to enter into contract within ten (10) days after notification of acceptance of bid, said check or bond shall be forfeited to the School District. All bids must be accompanied by Non-Collusion Affidavit, Contractor's Qualification Statement, and Bid Security in accordance with the Bid Documents. Bids must remain in force for sixty (60) days after the date of the bid opening and may be rejected any time prior to the expiration of said date.

The successful bidder will be required to furnish a Performance and Payment Bonds in amounts equal to 100% of the contract price. Surety shall be satisfactory to the School District and shall be included in the contractor's bid amount.

Bid Documents will be available starting November 6, 2023 after 9:00 am at the Facilities and Operations Building, 1181 McDermott Drive, West Chester, PA 19380, telephone (484) 266-1253, and at the Mandatory Pre-Bid Meeting. A \$100.00 non-refundable fee is required for the Bid Documents, made payable to West Chester Area School District. All substitution requests must be submitted to the Owner/Architect at least five (5) days prior to receipt of bids.

A Mandatory Pre-Bid Meeting will be held on November 15, 2023 at 4:00 pm at Mary C. Howse Elementary School, 641 Boot Road, West Chester, PA 19380. All visitors are required to follow the WCSD Health and Safety policy.

Recommendation for Award of Bids will be made to the School Directors at a School Board Meeting. The School Board reserves the right to accept or reject any or all Bids, and to make or not make awards in the best interest of the West Chester Area School District.

Ms. Linda Cherashore
Board Secretary

Mary C. Howse ES Additions and Renovations
West Chester Area School District

Addendum 05 December 14, 2023
BHA Project No. 22-114

END OF DOCUMENT 001113

SECTION 083323 - OVERHEAD COILING DOORS

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. Insulated service doors.

- B. Related Requirements:

- 1. Section 055000 "Metal Fabrications" for miscellaneous steel supports.
- 2. Section 087100 "Door Hardware" for lock cylinders.
- 3. Division 26 for electrical work to provide power to the door motor.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type and size of overhead coiling door and accessory.

- 1. Include construction details, material descriptions, dimensions of individual components, profiles for slats, and finishes.
- 2. Include rated capacities, operating characteristics, electrical characteristics, and furnished accessories.

- B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data.

- 1. Include plans, elevations, sections, and mounting details.
- 2. Include details of equipment assemblies, and indicate dimensions, required clearances, method of field assembly, components, and location and size of each field connection.
- 3. Include points of attachment and their corresponding static and dynamic loads imposed on structure.
- 4. For exterior components, include details of provisions for assembly expansion and contraction and for excluding and draining moisture to the exterior.
- 5. Include diagrams for power, signal, and control wiring.

- C. Samples for Initial Selection: Manufacturer's finish charts showing full range of colors and textures available for units with factory-applied finishes.

- 1. Include similar Samples of accessories involving color selection.

- D. Samples for Verification: For each type of exposed finish on the following components, in manufacturer's standard sizes:
 - 1. Curtain slats.
 - 2. Curtain grilles.
 - 3. Bottom bar with sensor edge.
 - 4. Guides.
 - 5. Brackets.
 - 6. Hood.
 - 7. Locking device(s).
 - 8. Include similar Samples of accessories involving color selection.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Qualification Data: For Manufacturer.
- C. Certifications for Exterior Door Assembly:
 - 1. Provide certification from an accredited testing laboratory of product compliance to an operational design wind load of 95 miles per hour.
 - 2. Provide certification from an accredited testing laboratory of product compliance that the assembly remains fully operational without any permanent deformation after being subjected to the specified operational design wind load.
- D. Sample Warranty from the Installer and Manufacturer, unexecuted, indicating terms and conditions of Warranty.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For overhead coiling doors to include in maintenance manuals, describing the materials, devices, and procedures to be followed in operating and maintaining coiling doors in this Section. Include manufacturer's brochures and parts lists describing the actual materials used in the door assembly.
- B. Executed Warranty from the Installer and Manufacturer.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer for both installation and maintenance of units required for this Project. Installer shall have been in the business of and have experience in installing wide span opening protective door assemblies for a minimum of ten (10) years, and is an approved installer of the coiling door assembly.
- B. Manufacturer Qualifications: Manufacturer shall have been in the business of and have experience in manufacturing wide span opening protective door assemblies as well as providing dependable credible service for a minimum of ten (10) years.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Deliver and store materials in manufacturer's original packaging, labeled to show name, brand and type. Store materials in a protected dry location off the ground in accordance with manufacturer's instructions.

1.8 WARRANTY

- A. Provide a two (2) year written warranty signed by the manufacturer and installer agreeing to repair or replace work which has failed as a result of defects in materials or workmanship. Upon notification within the warranty period, such defects shall be repaired at no cost to the Owner.

PART 2 - PRODUCTS

2.1 MANUFACTURERS, GENERAL

- A. Source Limitations: Obtain overhead coiling doors from single source from single manufacturer.
 - 1. Obtain operators and controls from overhead coiling door manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance, Exterior Doors: Capable of withstanding the design wind loads.
 - 1. Design Wind Load: As indicated on the Lateral Load Design Schedule shown on the Structural Drawings.
 - 2. Testing: According to ASTM E 330.
 - 3. Deflection Limits: Design overhead coiling doors to withstand design wind load without evidencing permanent deformation or disengagement of door components.
 - 4. Operability under Wind Load: Design overhead coiling doors to remain operable under design wind load, acting inward and outward, as indicated on the Lateral Load Design Schedule shown on the Structural Drawings.

2.3 INSULATED SERVICE DOOR ASSEMBLY

- A. Insulated Service Door: Overhead coiling door formed with curtain of interlocking metal slats.
- B. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following
 - 1. McKeon Door Company, ClimateGuard Model IS3020D-M-PC (basis of design).
 - 2. Clopay, Commercial Steel Overhead Doors.
 - 3. Raynor, DuraCoil HP.
 - 4. ***Overhead Door Corp. Model 627 AP Insulated Coiling Door***

5. Substitutions: See Section 016000 "Product Requirements" for procedures in submitting substitutions prior to receipt of Bid and after execution of the Agreement.
- C. Operation Cycles: Door components and operators capable of operating for not less than 20,000 cycles. One operation cycle is complete when a door is opened from the closed position to the fully open position and returned to the closed position.
- D. Air Infiltration: Maximum rate of 1.0 cfm/sq. ft. at 15 and 25 mph when tested according to ASTM E 283.
- E. Curtain R-Value: 9.0 deg F x h x sq. ft./Btu minimum.
- F. Door Curtain Material: Galvanized steel, front and back panels.
- G. Door Curtain Slats: Flat profile slats of 3-inch center-to-center height, 1-7/16 inch thick.
 1. Insulated-Slat Interior Facing: Metal.
 2. Slats shall have endlocks locking each end of all alternate slats to act as a wearing surface and maintain slat alignment.
 3. Front and back panel slats shall have positive interlock.
- H. Bottom Bar: Two angles, each not less than 2 by 2 by 1/8 inch thick; fabricated from hot-dip galvanized steel and finished to match door.
- I. Curtain Jamb Guides: Galvanized steel with exposed finish matching curtain slats.
- J. Hood: Match curtain material and finish.
 1. Shape: Square.
 2. Mounting: Face of wall.
- K. Locking Devices: Equip door with locking device assembly.
 1. Locking Device Assembly: inside and outside with cylinders.
- L. Electric Door Operator:
 1. Usage Classification: Standard duty, up to 25 cycles per hour and up to 90 cycles per day.
 2. Operator Location: Front of hood.
 3. Safety: Listed according to UL 325 by a qualified testing agency for commercial or industrial use.
 4. Motor Exposure: Interior.
 5. Emergency Manual Operation: Crank type.
 6. Obstruction-Detection Device: Automatic electric sensor edge on bottom bar.
 - a. Sensor Edge Bulb Color: As selected by Architect from manufacturer's full range.
 7. Control Station(s): Interior mounted, at location as verified by the Owner.
- M. Curtain Accessories: Equip door with poll hook.
- N. Door Finish:

1. Baked-Enamel or Powder-Coated Finish: Custom color.
2. Interior Curtain-Slat Facing: Custom color.

2.4 MATERIALS, GENERAL

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.5 MATERIALS AND CONSTRUCTION

- A. Insulated Service Door:

1. Fabricate door of interlocking metal slats, designed to withstand wind loading indicated, in a continuous length for width of door without splices. Unless otherwise indicated, provide slats of thickness and mechanical properties recommended by door manufacturer for performance, size, and type of door indicated, and as follows:
 - a. Steel Door Curtain Slats: Zinc-coated (galvanized), cold-rolled structural steel sheet; complying with ASTM A 653/A 653M, with G90 (Z275) zinc coating; nominal sheet thickness (coated) of 20 gauge; and as required.
 - b. Insulation: Fill slats for insulated doors with manufacturer's standard thermal insulation complying with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively, according to ASTM E 84 or UL 723. Enclose insulation completely within slat faces.
2. Curtain Jamb Guides: Manufacturer's standard angles or channels and angles of same material and finish as curtain slats unless otherwise indicated, with sufficient depth and strength to retain curtain, to allow curtain to operate smoothly, and to withstand loading.
 - a. 4" x 4" steel support angle.
 - b. 3" x 4" inner guide angle.
 - c. 4" x 4" outer guide angle.
 - d. Provide neoprene weather seals extending the full height of both guides.
 - e. Slot bolt holes for guide adjustment.
 - f. Provide removable stops on guides to prevent overtravel of curtain.

2.6 HOODS

- A. General: Form sheet metal hood to entirely enclose coiled curtain and operating mechanism at opening head. Contour to fit end brackets to which hood is attached. Roll and reinforce top and bottom edges for stiffness. Form closed ends for surface-mounted hoods and fascia for any portion of between-jamb mounting that projects beyond wall face. Equip hood with intermediate support brackets as required to prevent sagging.
 1. Galvanized Steel: 22 gauge thick, hot-dip galvanized steel sheet with G90 zinc coating, complying with ASTM A 653.
 2. Exterior Door: Provide neoprene air baffle to minimize air infiltration at the head.

2.7 LOCKING DEVICES

- A. Locking Device Assembly: Fabricate with cylinder lock, spring-loaded dead bolt, operating handle, cam plate, and adjustable locking bars to engage through slots in tracks.
 - 1. Lock Cylinders: Cylinders specified in Section 087100 "Door Hardware" and keyed to building keying system.
 - 2. Keys: Two for each cylinder.
- B. Safety Interlock Switch: Equip power-operated doors with safety interlock switch to disengage power supply when door is locked.

2.8 CURTAIN ACCESSORIES

- A. Weatherseals for Exterior Doors: Equip each exterior door with weather-stripping gaskets fitted to entire exterior perimeter of door for a weather-resistant installation unless otherwise indicated.
 - 1. At door head, use 1/8-inch- thick, replaceable, continuous-sheet baffle secured to inside of hood or field- installed on the header.
 - 2. At door jambs, use replaceable, adjustable, continuous, flexible, 1/8-inch-thick seals of flexible vinyl, rubber, or neoprene.
- B. Poll Hooks: Provide pole hooks and poles for doors more than 84 inches high.
- C. Steel Framing, Tracks and Angles: Provide steel tube jamb supports, tracks, and angles as required for the support and operation of the coiling door assemblies. Steel to be finished as indicated below.

2.9 COUNTERBALANCING MECHANISM

- A. General: Counterbalance doors by means of manufacturer's standard mechanism with an adjustable-tension, steel helical torsion spring mounted around a steel shaft and contained in a spring barrel connected to top of curtain with barrel rings. Use grease-sealed bearings or self-lubricating graphite bearings for rotating members.
- B. Counterbalance Barrel: Fabricate spring barrel of manufacturer's standard hot-formed, structural-quality, seamless carbon-steel pipe, of sufficient diameter and wall thickness to support rolled-up curtain without distortion of slats and to limit barrel deflection to not more than 0.03 in./ft. of span under full load.
- C. Counterbalance Spring: One or more oil-tempered, heat-treated steel helical torsion springs. Size springs to counterbalance weight of curtain, with uniform adjustment accessible from outside barrel. Secure ends of springs to barrel and shaft with cast-steel barrel plugs.
- D. Torsion Rod for Counterbalance Shaft: Fabricate of manufacturer's standard cold-rolled steel, sized to hold fixed spring ends and carry torsional load.
- E. Brackets: Manufacturer's standard mounting brackets of hot-rolled 3/16 inch steel plate provided to house ends of counterbalance barrel assembly.

2.10 ELECTRIC DOOR OPERATORS

- A. General: Electric door operator assembly of size and capacity recommended and provided by door manufacturer for door and operation-cycles requirement specified, with electric motor and factory-prewired motor controls, starter, gear-reduction unit, solenoid-operated brake, clutch, control stations, control devices, integral gearing for locking door, and accessories required for proper operation.
 - 1. Comply with NFPA 70.
 - 2. Control equipment complying with NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6, with NFPA 70 Class 2 control circuit, maximum 24-V ac or dc.
- B. Usage Classification: Electric operator and components capable of operating for not less than number of cycles per hour indicated for each door.
- C. Door Operator Location(s): Operator location indicated for each door.
 - 1. Top-of-Hood Mounted: Operator is mounted to the right or left door head plate with the operator on top of the door-hood assembly and connected to the door drive shaft with drive chain and sprockets. Headroom is required for this type of mounting.
- D. Motors: Reversible-type motor with controller (disconnect switch) for motor exposure indicated.
 - 1. Electrical Characteristics:
 - a. Phase: Single phase.
 - b. Volts: 24 V.
 - c. Amps: 10A.
 - 2. Operating Controls, Controllers, Disconnect Switches, Wiring Devices, and Wiring: Manufacturer's standard unless otherwise indicated.
 - 3. Coordinate wiring requirements and electrical characteristics of motors and other electrical devices with building electrical system and each location where installed.
 - 4. Motor Size: 1/2 HP minimum size, or as large enough to start, accelerate, and operate door in either direction from any position, at a speed not less than 8 in./sec. and not more than 12 in./sec., without exceeding nameplate ratings or service factor.
- E. Limit Switches: Equip each motorized door with adjustable switches interlocked with motor controls and set to automatically stop door at fully opened and fully closed positions.
- F. Obstruction Detection Devices: External entrapment protection consisting of indicated automatic safety sensor capable of protecting full width of door opening. For non-fire-rated doors, activation of device immediately stops and reverses downward door travel to the open position.
 - 1. Electric Sensor Edge: Automatic safety sensor edge, located within astragal or weather stripping mounted to bottom bar. Contact with sensor activates device. Connect to control circuit using manufacturer's standard wireless sensor and controller.

- a. Self-Monitoring Type: Four-wire configured device designed to interface with door operator control circuit to detect damage to or disconnection of sensor edge.
- G. Control Station: Three-button control station in fixed location with momentary-contact push-button controls labeled "Open" and "Stop" and sustained- or constant-pressure push-button control labeled "Close."
 1. Interior-Mounted Units: Full-guarded, surface-mounted, heavy-duty type, with general-purpose NEMA ICS 6, Type 1 enclosure.
 2. Coordinate location of the Control Station with the Owner prior to installation.
- H. Emergency Manual Operation: Equip each electrically powered door with capability for emergency manual operation. Design manual mechanism so required force for door operation does not exceed 30 lbf.
- I. Emergency Operation Disconnect Device: Equip operator with hand-operated disconnect mechanism for automatically engaging manual operator and releasing brake for emergency manual operation while disconnecting motor without affecting timing of limit switch. Mount mechanism so it is accessible from floor level. Include interlock device to automatically prevent motor from operating when emergency operator is engaged.
- J. Motor Removal: Design operator so motor may be removed without disturbing limit-switch adjustment and without affecting emergency manual operation.

2.11 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM/NOMMA's "Metal Finishes Manual for Architectural and Metal Products (AMP 500-06)" for recommendations for applying and designating finishes.
- B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.12 STEEL AND GALVANIZED-STEEL FINISHES

- A. Baked-Enamel or Powder-Coat Finish: Manufacturer's standard baked-on finish consisting of prime coat and thermosetting topcoat. Comply with coating manufacturer's written instructions for cleaning, pretreatment, application, and minimum dry film thickness.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates areas and conditions, with Installer present, for compliance with requirements for substrate construction and other conditions affecting performance of the Work.
- B. Examine locations of electrical connections.

- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install overhead coiling doors and operating equipment complete with necessary hardware, anchors, inserts, hangers, and equipment supports; according to manufacturer's written instructions and as specified.
- B. Install overhead coiling doors, hoods, controls, and operators at the mounting locations indicated for each door.
- C. Accessibility: Install overhead coiling doors, switches, and controls along accessible routes in compliance with regulatory requirements for accessibility.
- D. Power-Operated Doors: Install according to UL 325.

3.3 STARTUP SERVICE

- A. Engage a factory-authorized service representative to perform startup service.
 - 1. Perform installation and startup checks according to manufacturer's written instructions.
 - 2. Test and adjust controls and safety devices. Replace damaged and malfunctioning controls and equipment.

3.4 ADJUSTING

- A. Adjust hardware and moving parts to function smoothly so that doors operate easily, free of warp, twist, or distortion.
 - 1. Adjust exterior doors and components to be weather-resistant.
- B. Lubricate bearings and sliding parts as recommended by manufacturer.
- C. Adjust seals to provide tight fit around entire perimeter.

3.5 PROTECTION AND CLEANING

- A. Protect installed Work using adequate and suitable means during and after installation until accepted by Owner.
- B. Remove, repair or replace materials which have been damaged in any way.
- C. Clean surfaces of grime and dirt using acceptable and recommended means and methods.

3.6 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain overhead coiling doors.

END OF SECTION 083323

SECTION 102239 - FOLDING PANEL PARTITIONS

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. Electrically operated, acoustical panel partitions.

- B. Related Requirements:

- 1. Section 055000 "Metal Fabrications" for supports that attach supporting tracks to overhead structural system.
 - 2. Section 092900 "Gypsum Board" for fire-rated assemblies and sound barrier construction above the ceiling at track.
 - 3. Electrical and communications Sections for electrical service and connections for motor operators, controls, and limit switches and for system disconnect switches.

1.3 DEFINITIONS

- A. NIC: Noise Isolation Class.
- B. NRC: Noise Reduction Coefficient.
- C. STC: Sound Transmission Class.

1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For operable panel partitions.
 - 1. Include plans, elevations, sections, attachment details.
 - 2. Indicate stacking and operating clearances. Indicate location and installation requirements for hardware and track, blocking, and direction of travel.

3. Include diagrams for power, signal, and control wiring.
- C. Samples for Initial Selection: For each type of exposed material, finish, covering, or facing.
 1. Include Samples of accessories involving color selection.
- D. Samples for Verification: For each type of exposed material, finish, covering, or facing, prepared on Samples of size indicated below:
 1. Panel Facing Material: Manufacturer's standard-size unit, not less than 3 inches square.
 2. Panel Edge Material: Not less than 3 inches long.
 3. Chair Rail: Manufacturer's standard-size unit, 6 inches long.
 4. Glass: Units 12 inches square.
 5. Hardware: One of each exposed door-operating device.

1.6 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Reflected ceiling plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:
 1. Partition track, track supports and bracing, switches, turning space, and storage layout.
 2. Suspended ceiling components.
 3. Structural members to which suspension systems will be attached.
 4. Size and location of initial access modules for acoustical tile.
 5. Items penetrating finished ceiling including the following:
 - a. Lighting fixtures.
 - b. HVAC ductwork, outlets, and inlets.
 - c. Speakers.
 - d. Sprinklers.
 - e. Smoke detectors.
 - f. Access panels.
- B. Setting Drawings: For embedded items and cutouts required in other work, including support-beam, mounting-hole template.
- C. Qualification Data: For Installer.
- D. Product Test Reports: For each operable panel partition, for tests performed by a qualified testing agency.
- E. Sample Warranty: For manufacturer's special warranty.

1.7 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For operable panel partitions to include in maintenance manuals.
 1. Panel finish facings and finishes for exposed trim and accessories. Include precautions for cleaning materials and methods that could be detrimental to finishes and performance.

2. Seals, hardware, track, track switches, carriers, and other operating components.
3. Electric operator and controls.

1.8 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same production run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 1. Panel Finish-Facing Material: Furnish full width in quantity to cover both sides of two panels when installed.

1.9 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Protectively package and sequence panels in order for installation. Clearly mark packages and panels with numbering system used on Shop Drawings. Do not use permanent markings on panels.

1.11 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of operable panel partitions that fail in materials or workmanship within specified warranty period.
 1. Failures include, but are not limited to, the following:
 - a. Faulty operation of operable panel partitions.
 - b. Deterioration of metals, metal finishes, hardware, and other materials beyond normal use.
 2. Warranty Period: Three (3) years from date of Substantial Completion.
 3. Warranty Period for Suspension System: Ten (10) years from date of Substantial Completion.
 4. Warranty Period for Standard Hinges: Lifetime.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Acoustical Performance: Provide operable panel partitions tested by a qualified testing agency for the following acoustical properties according to test methods indicated:

1. Sound-Transmission Requirements: Operable panel partition assembly tested for laboratory sound-transmission loss performance according to ASTM E90, determined by ASTM E413, and rated for not less than the STC indicated.
 2. Noise-Reduction Requirements: Operable panel partition assembly, identical to partition tested for STC, tested for sound-absorption performance according to ASTM C423, and rated for not less than the NRC indicated.
 3. Noise-Isolation Requirements: Installed operable panel partition assembly, identical to partition tested for STC, tested for NIC according to ASTM E336, determined by ASTM E413, and rated for 10 dB less than STC value indicated.
- B. Fire-Test-Response Characteristics: Provide panels with finishes complying with one of the following as determined by testing identical products by a testing and inspecting agency acceptable to authorities having jurisdiction:
1. Surface-Burning Characteristics: Comply with ASTM E84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - a. Flame-Spread Index: 25 or less.
 - b. Smoke-Developed Index: 450 or less.
 2. Fire Growth Contribution: Complying with acceptance criteria of local code and authorities having jurisdiction when tested according to NFPA 265 Method B Protocol or NFPA 286.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.2 OPERABLE ACOUSTICAL PANELS

- A. Operable Acoustical Panels: Partition system, including panels, seals, finish facing, suspension system, operators, and accessories.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include the following:
 - a. Modernfold, Inc. Acousti-Seal Premier Legacy 933E Partitions.
 - b. **Kwik-Wall Model 2050 Electric Operable Wall**
 - c. Substitutions: See Section 016000 "Product Requirements" for procedures in submitting substitutions prior to receipt of Bid and after execution of the Agreement.
- B. Panel Operation: Electrically operated, continuously hinged panels, top supported with operable floor seals.
- C. Panel Construction: As required to support panel from suspension components and with reinforcement for hardware attachment. Fabricate panels with tight hairline joints and concealed fasteners. Fabricate panels so finished in-place partition is rigid; level; plumb; aligned, with tight joints and uniform appearance; and free of bow, warp, twist, deformation, and surface and finish irregularities.

- D. Dimensions: Fabricate operable acoustical panel partitions to form an assembled system of dimensions indicated and verified by field measurements.
 - 1. Panel Width: Equal widths.
- E. STC: Not less than 50.
- F. Panel Weight: 8 lb/sq. ft. maximum.
- G. Panel Thickness: Nominal dimension of 3 inches.
- H. Panel Materials:
 - 1. Steel Frame: Steel formed sheet, 18 gage minimum, with overlapped and welded corners.
- I. Panel Closure: Manufacturer's standard unless otherwise indicated.
 - 1. ~~Final Closure: Side Jamb with overlapping trail panel with "Modernfold Presto Automation Package".~~
- J. Hardware: Manufacturer's standard as required to operate operable panel partition and accessories; with decorative, protective finish.
 - 1. Hinges: Concealed (invisible).

2.3 SEALS

- A. Description: Seals that produce operable panel partitions complying with performance requirements and the following:
 - 1. Manufacturer's standard seals unless otherwise indicated.
 - 2. Seals made from materials and in profiles that minimize sound leakage.
 - 3. Seals fitting tight at contact surfaces and sealing continuously between adjacent panels and between operable panel partition perimeter and adjacent surfaces, when operable panel partition is extended and closed.
- B. Vertical Interlocking Sound Seals between panels: Roll-formed astragals, with reversible tongue and groove configuration in each panel edge, for universal panel operation. Rigid plastic astragals or astragals in only one panel edge are not acceptable.
- C. Horizontal Top Seals: Continuous contact extruded vinyl bulb shape with pairs of non-contacting vinyl fingers to prevent distortion without the need for mechanically operated parts.
- D. Horizontal Bottom Seals: Resilient, mechanical, retractable, constant-force-contact seal exerting uniform constant pressure on floor when extended, ensuring horizontal and vertical sealing and resisting panel movement.
 - 1. Automatically Operated for Acoustical Panels: Extension and retraction of bottom seal automatically operated by movement of partition, with operating range not less than 2 inches between retracted seal and floor finish.

2.4 PANEL FINISH FACINGS

- A. Description: Finish facings for panels that comply with indicated fire-test-response characteristics and that are factory applied to operable panel partitions with appropriate backing, using mildew-resistant non-staining adhesive as recommended by facing manufacturer's written instructions.
- B. Reinforced heavy-duty vinyl with woven backing weighing not less than 30 ounces per lineal yard.
- C. Acoustical, non-woven needle punch carpet, with fused fibers to prevent unraveling or fray of material.
- D. Panel Trim: Exposed panel trim of one consistent color from manufacturer's standard offering.

2.5 SUSPENSION SYSTEMS

- A. Suspension Tracks: Minimum 7-gage, 0.18-inch roll-formed steel. Track shall be supported by adjustable steel hanger brackets connected to structural support by pairs of 1/2-inch diameter threaded rods. Brackets must support the load bearing surface of the track.
 - 1. Exposed track soffit: Steel, removable for service and maintenance, attached to track bracket without exposed fasteners, and pre-painted off-white.
- B. Carriers: All-steel trolleys with steel-tired ball bearing wheels.
- C. Steel Finish: Manufacturer's standard, factory-applied, corrosion-resistant, protective coating unless otherwise indicated.

2.6 ELECTRIC OPERATORS

- A. Factory-assembled electric operation system of size and capacity recommended and provided by operable panel partition manufacturer for partition specified; with electric motor and factory-prewired motor controls, speed reducer, chain drive, control stations, control devices, and accessories required for operation. Include wiring from control stations to motor. Coordinate operator wiring requirements and electrical characteristics with building electrical system.

~~1. Modernfold Presto Automation Package with Touch Screen Operator Control Station by Modernfold, Inc.~~

- B. Motor unit shall be reversible, continuous duty, and Class A insulated.
 - 1. Motor unit shall have NEMA MG 1 service factor, high starting torque, thermal overload protection, and open/drip proof enclosure.
 - 2. Motor assembly shall have wiring compliant with NFPA 70, 24-volt controls, compliant with UL 508A, and speed of 28 feet/minute.
 - 3. The drive unit motor shall be equipped with outboard limit switches to prevent over-extension.
 - 4. A positive chain drive attached to the lead panel shall pull the partition across the opening. Cable, belt, or other friction type drives will not be accepted.

- C. Motor Electrical Characteristics:
 - 1. Horsepower: 1 HP.
 - 2. Volts: 208/230.
 - 3. Phase: Single phase.
 - 4. 70 FLA.
- D. Control Stations: Two single-key-operated, constant-pressure control stations located remotely from each other on opposite sides and opposite ends of partition run. Wire in series to require simultaneous activation of both key stations to operate partition. Each three-position control station labeled "Open," "Close," and " Stop." Furnish two keys per station.
- E. Obstruction-Detection Devices: Equip each motorized operable panel partition with indicated automatic safety sensor that causes operator to immediately stop and reverse direction.
 - 1. Sensor Edge: Contact-pressure-sensitive safety edge along partition's leading edge.
- F. Limit Switches: Adjustable switches, interlocked with motor controls and set to automatically stop operable panel partition at fully extended and fully stacked positions.
- G. Emergency Release Mechanism: Quick disconnect-release of electric-motor drive system, permitting manual operation in event of operating failure.
- H. Electric Interlock: Equip each motorized operable panel partition with electric interlocks at locations indicated, to prevent operation of operable panel partition under the following conditions:
 - 1. On storage pocket door, to prevent operation if door is not in fully open position.
 - 2. On partitions at location of convergence by another partition, to prevent operation if merging partitions are in place.

~~2.7 ACCESSORIES~~

- ~~A. Pass Doors: Swinging door built into and matching panel materials, construction, acoustical qualities, finish and thickness, complete with frames and operating hardware. Hinges finished to match other exposed hardware.~~
 - ~~1. Accessibility Standard: Fabricate doors to comply with applicable provisions in the USDOJ's "2010 ADA Standards for Accessible Design" and ICC A117.1.~~
 - ~~2. Single Pass Door: 36 by 84 inches.~~
 - ~~3. Pass Door Hardware: Equip pass door with the following:~~
 - ~~a. Door Seals: Mechanically operated floor seal on panels containing pass doors.~~
 - ~~b. Hand pull with push plate.~~
 - ~~c. Lever handles both sides of door.~~
 - ~~d. Fire exit hardware.~~
 - ~~e. Automatic concealed door closer.~~
 - ~~f. Door Viewer: Installed with view in direction of swing.~~
 - ~~g. Exit Sign: Recessed, self illuminated.~~

~~h. Lock: Deadlock to receive cylinder, operable from both sides of door. See Section 087100 "Door Hardware" for lock cylinder and keying requirements.~~

~~B. Storage Pocket Door: Full height at end of partition runs to conceal stacked partition; of same materials, finish, construction, thickness, and acoustical qualities as panels; complete with operating hardware and acoustical seals at soffit, floor, and jambs. Hinges in finish to match other exposed hardware.~~

~~1. Manufacturer's standard method to secure storage pocket door in closed position.~~

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine flooring, floor levelness, structural support, and opening, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of operable panel partitions.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install operable panel partitions and accessories after other finishing operations, including painting, have been completed in area of partition installation.
- B. Install panels in numbered sequence indicated on Shop Drawings.
- C. Broken, cracked, chipped, deformed, or unmatched panels are not acceptable.
- D. Broken, cracked, deformed, or unmatched gasketing or gasketing with gaps at butted ends is not acceptable.
- E. Light-Leakage Test: Illuminate one side of partition installation and observe vertical joints and top and bottom seals for voids. Adjust partitions for alignment and full closure of vertical joints and full closure along top and bottom seals.

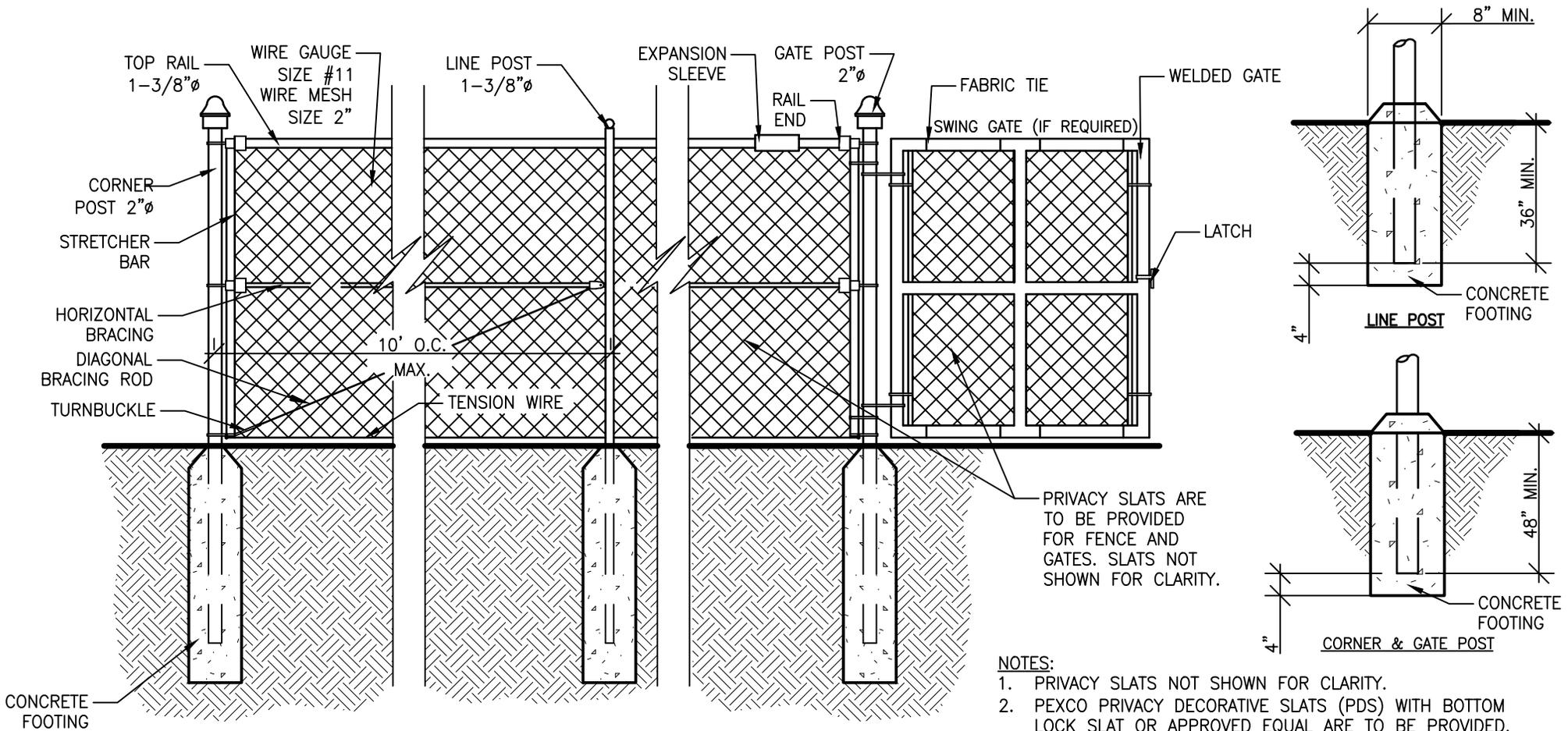
3.3 ADJUSTING

- A. Adjust operable panel partitions, hardware, and other moving parts to function smoothly, and lubricate as recommended by manufacturer.
- B. Adjust pass doors and storage pocket doors to operate smoothly and easily, without binding or warping.
- C. Verify that safety devices are properly functioning.

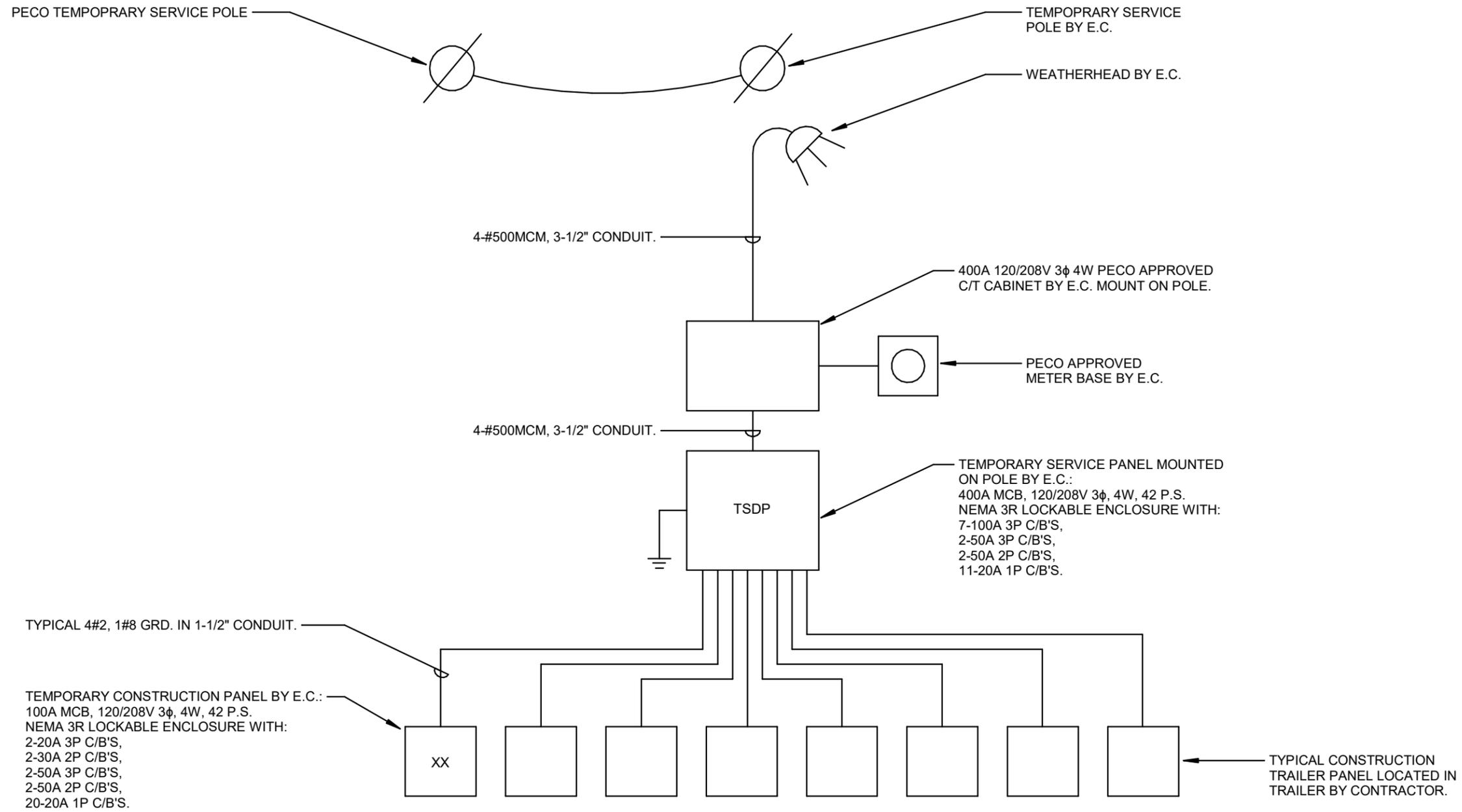
3.4 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain operable panel partitions.

END OF SECTION 102239



6'-0" & 8'-0" HIGH CHAIN LINK FENCE DETAIL



① **TEMPORARY CONSTRUCTION SERVICE POWER RISER DIAGRAM**
NO SCALE

BHA Job Number:	22-114
Scale:	NO SCALE
Drawn By:	DJG
Sheet(s) Affected:	
Date:	12/13/23
Revision:	



ADDENDUM RECEIVED

Date: _____

To: Blackney Hayes Architects

Attention: _____

Project: Mary C. Howse Elementary School

Addendum Number _____

This correspondence acknowledges that we have received the above referenced Addendum.



Accepted by:

Name: _____

Title: _____

Date: _____

Signature: _____