



**TECHNICON DESIGN GROUP INC.**  
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 Phone: 419.523.5323  
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**DATE:** April 23, 2019

**PROJECT NUMBER:** 2-2459-19

**PROJECT NAME:** Putnam County Courthouse - Building Renovations

**INTENT:**

This Addendum provides modifications and clarifications To the Bid Documents dated **04/03/2019**. Bidder shall ascertain prior to submitting its Bid Form that it has received all Addenda issued and shall acknowledge receipt of each Addendum on the Bid Form.

In the event of a conflict between the terms and provisions of this Addendum and the terms and provisions of the Bidding Documents, the terms and provisions of this Addendum shall control. In all other respects, the Bidding Documents shall remain unchanged and in full force and effect.

ITEM	ADD DOCUMENT	REFERENCE	DESCRIPTION
<b>GENERAL:</b>			
1	BID FORM REVISED	BID FORM	DELETE Bid Form in its entirety and INSERT Bid Form Revised.
<b>SPECIFICATIONS:</b>			
2	12300		ADD Section 012300 - Alternates
3	45000		ADD Section 045000 - Masonry Restoration and Cleaning
4		55220	2.1 A: DELETE <u>1.</u> in its entirety and INSERT: 1. Railing - Series 500 with Series 500 Handrails.
5	087100 REVISED	087100	DELETE Section 087100 - Door Hardware in its entirety and INSERT Section 087100 - Door Hardware Revised.
<b>MECHANICAL / PLUMBING:</b>			
6			Roth Industries X-pert products shall be considered an approved equal for snow melt tubing.
<b>END OF ADDENDUM 01</b>			

# Bid Form *REVISED* – Stipulated Sum (Single-Prime Contract)

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**PROJECT:**

Building Renovation – Putnam County Courthouse  
Board of Putnam County Commissioners  
245 East Main Street  
Ottawa, Ohio 45875

**BIDDER:**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

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

E-mail: \_\_\_\_\_

**BID DATE:** Tuesday, May 7, 2019  
**TIME:** 2:00 P.M.  
**LOCATION:** Board of Putnam County Commissioners  
245 East Main Street – Suite 101  
Ottawa, Ohio 45875

In compliance with the Project Manual, the undersigned Bidder hereby proposes to furnish all materials and perform all work necessary for **BUILDING RENOVATIONS – PUTNAM COUNTY COURTHOUSE** in strict accordance with Contract Documents as prepared by Architect, Technicon Design Group, Inc. and within the time set forth below, and at the sum of money enumerated below.

By submission of the BID, each Bidder certified, and in the case of a joint Bid, each party thereto certifies as to his/her own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any competitor. Bids will only be considered responsive if the base bid and alternate bid requests are completed accurately and legibly for all requests within in any trade of work.

BIDDER hereby agrees to commence work under this contract upon receipt of the Notice to Proceed and to substantially complete the work within **210** calendar days.

BIDDER acknowledges receipt of the following ADDENDUM(S):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the following prices:

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PUTNAM COUNTY COURTHOUSE  
245 EAST MAIN STREET  
OTTAWA, OHIO 45875**

**BASE BID: TOTAL STIPULATED SUM (SINGLE-PRIME CONTRACT)**

TOTAL BID - LABOR & MATERIALS

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(Written Amount)

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(Numerals)

**UNIT PRICE NO. 1: SPOT-REPOINTING; PER LINEAL FOOT**

TOTAL BID – LABOR & MATERIALS

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(Written Amount / Per Lineal Foot)

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(Numerals / Per Lineal Foot)

**ALTERNATE 01: REVISED TIMELINE** (Bidder agrees to commence work under Contract upon receipt of the Notice to Proceed and to substantially complete the work within **270** calendar days.)

TOTAL BID - LABOR & MATERIALS (ADD / DEDUCT)

Circle Choice

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(Written Amount)

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(Numerals)

***Please submit 2 copies of this Bid Form completed in its ENTIRETY. A Bid Guaranty and Performance Bond is required.***

The successful contractor will be required to enter into an agreement with the owner according to A.I.A. Document A101: Standard Form of Agreement Between Owner and Contractor, 2007 Edition.

SUBMITTED BY:

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Signature

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Title

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Address

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Date

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## SECTION 012300 - ALTERNATES

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes administrative and procedural requirements for alternates.

#### 1.2 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
  - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
  - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

#### 1.3 PROCEDURES

- A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
  - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated revisions to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

- A. ALTERNATE 1: Revised Timeline. (Bidder agrees to commence work under Contract upon receipt of the Notice to Proceed and to substantially complete the work within 270 calendar days.)

END OF SECTION 012300

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## SECTION 045000 - MASONRY RESTORATION AND CLEANING

### PART 1 GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings, photos and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

#### 1.2 DESCRIPTION OF WORK

- A. Extent of masonry restoration work is indicated on drawings and photos.
- B. Masonry restoration work includes the following:
  - 1. Tuckpointing mortar joints where shown.
  - 2. Stone repair where shown.
  - 3. Stone cleaning all surfaces.
  - 4. Stone sealing all surfaces.
  - 5. Caulking of cut stone covered in Section 079000
  - 6. Final cleaning

#### 1.3 QUALITY ASSURANCE

- A. Restoration Specialist: Work must be performed by a firm having not less than 5 years successful experience in comparable masonry restoration projects and employing personnel skilled in the restoration processes and operations indicated.
- B. Repointing: Prepare 2 separate sample areas of approximately 4 feet high by 4 feet wide for each type of repointing required, one for demonstrating methods and quality of workmanship expected in removal of mortar from joints and the other for demonstrating quality of materials and workmanship expected in pointing mortar joints appearance to adjacent existing joints. The intent of the new pointing work is to match cleaned existing mortar. Newly pointed areas shall be consistent with existing adjacent mortar joints for color and texture.

#### 1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's technical data for each product indicated including recommendations for their application and use. Include test reports and certifications substantiating that products comply with requirements.
- B. Samples: Submit, for verification purposes, samples of the following:
  - 1. Each new exposed masonry mortar to be used for replacing existing materials. Include in each set of samples the full range of colors and textures to be expected in completed work.

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2. Each type of chemical cleaning material data.
3. Each type of chemical clear sealer provide manufacturers data.
4. Stone masonry patching materials product data and application instructions

#### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to site in manufacturer's original and unopened containers and packaging, bearing labels as to type and names of products and manufacturers.
- B. Protect masonry restoration materials during storage and construction from wetting by rain, snow or ground water, and from staining or intermixture with earth or other types of materials.
- C. Protect grout, mortar and other materials from deterioration by moisture and temperature. Store in a dry location or in waterproof containers. Keep containers tightly closed and away from open flames. Protect liquid components from freezing. Comply with manufacturer's recommendations for minimum and maximum temperature requirements for storage.

#### 1.6 PROJECT CONDITIONS

- A. Do not repoint mortar joints or repair masonry unless air temperatures are between 40 deg.F (4 deg.C) and 80 deg.F (27 deg.C) and will remain so for at least 48 hours after completion of work.
- B. Prevent grout or mortar used in repointing and repair work from staining face of surrounding masonry and other surfaces. Remove immediately grout and mortar in contact with exposed masonry and other surfaces.
- C. Protect sills, ledges and projections from mortar droppings.

#### 1.7 SEQUENCING/SCHEDULING

- A. Perform masonry restoration work in the following sequence:
  1. Chemically clean cut stone masonry
  2. Rake-out existing mortar from joints indicated to be repointed.
  3. Repoint existing mortar joints of masonry indicated to be restored.
  4. Chemically seal and cut stone.
  5. Caulk stone joints where indicated on drawings and specified under Section 079000

### PART 2 - PRODUCTS

#### 2.1 MASONRY MATERIALS (Contractor to utilize a mortar compatible with the original mortar.)

- A. Testing: General Contractor to have testing company perform mortar test and match mortar type based on existing mortar type and strength.
- B. Mortar materials:

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1. Portland Cement: ASTM C 150, Type I.
2. Cemex/Miami Type N Mortar: ASTM C 207, Type S.
3. Hydrated Lime: ASTM C 207, Type S.
4. Colored Mortar Aggregate (if any indicated): Natural or manufactured sand selected to produce mortar color to match adjacent existing mortar color.
5. For pointing mortar provide sand with rounded edges.
6. Match size, texture and gradation of existing mortar as closely as possible.
7. Colored Mortar Pigment (if any indicated): Natural and synthetic iron oxides and chromium oxides, compounded for use in mortar mixes. Use only pigments with record of satisfactory performance in masonry mortars.
8. Water: Clean, free of oils, acids, alkalis and organic matter.

## 2.2 CLEANING MATERIALS AND EQUIPMENT

- A. Limestone Cleaner: Manufacturer's as indicated below for cleaning for cut and rough cut limestone.
- B. Approved Manufacturers:
  1. Sika Corporation
  2. ProSoCo Inc. (Basis-of-Design))
  3. Thuro
- C. Materials: The specified cleaning application is a three- (3) step process requiring all of the following products. ProSoCo Sure Klean products are used as the Basis-of-Design. Equal products for each application by Sika or Thuro are acceptable for cut stone.
- D. For Cut stone masonry
  1. Product: Subject to compliance with requirements, provide "Sure Klean Limestone Restorer", ProSoCo, Inc.
- E. For spot problem stains where required
  1. First application, Sure Klean 766 Limestone and Masonry Prewash.
  2. Second application, Sure Klean Limestone and Masonry Afterwash.
  3. Third Application, Sure Klean Weather Seal Siloxane PD Natural Stone Treatment.
- F. Water for Cleaning: Clean, potable, free of oils, acids, alkalis, salts, and organic matter.
  1. Warm Water: Heat water to temperature of 140 deg.F-180 deg.F (60 deg.C-82 deg.C).



- G. Brushes: Fiber bristle only.
- H. Spray Equipment: Provide equipment for controlled spray application of water and chemical cleaners, if any, at rates indicated for pressure, measured at spray tip, and for volume.
  - 1. For spray application of chemical cleaners provide low-pressure tank or chemical pump suitable for chemical cleaner indicated, equipped with cone-shaped spray-tip.
  - 2. For spray application of water provide fan-shaped spray-tip which disperses water at angle of not less than 15 degrees.

## 2.3 STONE REPAIR

- A. Stone-to-Stone Adhesive: Two-part polyester resin stone adhesive with a 15-30 minute cure at 70 deg.F (21 deg.C), in formulation (knife or flowing grade) recommended by adhesive manufacturer for type of stone repair indicated, and in color indicated or, if not otherwise indicated, as selected by Architect from tinted or standard colors available from adhesive manufacturer.
  - 1. Product: Subject to compliance with requirements:
  - 1. Edison Custom System 45; 3 Northwest Drive; Plainville, CT 06062;
    - i. (800) 341-6621; [www.edisoncoating.com](http://www.edisoncoating.com)
  - 2. Cathedral Stone; 266 Park Circle Drive; Hanover, MD 21076; (410) 782- 9150; [www.cathedralstone.com](http://www.cathedralstone.com)
  - 3. "Akemi" adhesives distributed by Wood and Stone, Inc., 7567 Gary Road, Manassas, VA 22110.
- B. Mortar-to-Stone Adhesive: High modulus, high strength, moisture insensitive epoxy adhesive with a pot life of 30 minutes at 40 deg.F (4 deg.C).
  - 1. Product: Subject to compliance with requirements, provide "Sikadur Hi-Mod Epoxy, Sikastix 370"; Sika Chemical Corporation.

## 2.4 POINT MORTAR MIXES

- A. General:
  - 1. Measurement and Mixing: Measure cementitious and aggregate material in a dry condition by volume or equivalent weight. Do not measure by shovel, use known measure. Mix materials in a clean mechanical batch mixer.
  - 2. Mixing Pointing Mortar: Thoroughly mix cementitious and aggregate materials together before adding any water. Then mix again adding only enough water to produce a damp, unworkable mix, which will retain its form when, pressed into a ball. Maintain mortar in this dampened condition for 1-to-2 hours. Add remaining water in small portions until mortar of desired consistency is reached. Use mortar within 30 minutes of final mixing; do not retemper or use partially hardened material.
  - 3. Colored Mortar (if any indicated): Produce mortar of color required by use of selected ingredients. Do not adjust proportions without Architect's approval.

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2.5 Pointing Mortar for cut stone: One part white Portland cement, 1 part lime, 6 parts colored mortar aggregate.

A. Cut stone is square ribbon mortar joint to match existing profile.

## 2.6 CHEMICAL SEALERS

A. Chemical penetrating sealer is for brick, cut stone and rough cut stone. Is to be one of the following.

1. ProsoCo Siloxane PD "Natural Stone"
2. Sika Corporation Silane/ Siloxane water repellent
3. Throro Silane/siloxane water repellent

## PART 3 EXECUTION

### 3.1 MASONRY CLEANING

#### A. PREPARATION

1. General: Comply with recommendations of manufacturers of chemical cleaners for protecting building surfaces against damage from exposure to their products.
2. Protect persons, motor vehicles, surrounding surfaces of building whose masonry surfaces are being restored, building site, mask windows and window frames.
3. Prevent chemical cleaning solutions from coming into contact with pedestrians, motor vehicles, landscaping, buildings and other surfaces, which could be injured by such contact.
4. Do not clean masonry during winds of sufficient force to spread cleaning solutions to unprotected surfaces.
5. Dispose of run-off from cleaning operations by legal means and in manner which prevents soil erosion, undermining of paving and foundations, damage to landscaping, and water penetration into building interiors.
6. Erect temporary protection covers over pedestrian walkways and at points of entrance and exit for persons and vehicles, which must remain in operation during course of masonry restoration work.
7. Protect glass and unpainted metal trim from contact with chemical cleaners by covering them with liquid strippable masking agent or polyethylene film and waterproof masking tape. Apply masking agent to comply with manufacturer's recommendations. Do not apply liquid masking agent to painted or porous surfaces.

#### B. Chemical Cleaner Application Methods:

1. General: Apply chemical cleaners to masonry surfaces to comply with chemical manufacturer's recommendations using brush or spray application methods, at Contractor's

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option, unless otherwise indicated. Do not allow chemicals to remain on surface for periods longer than that indicated or recommended by manufacturer.

#### C. CLEANING CUT STONEWORK

1. Pretest a small area to ensure suitability and desired results. If test areas with concentrated material are cleaned effectively additional tests may be run with dilutions of one part cleaner to three parts water. Greater dilution of 1 part cleaner to 4 or more parts water is desired to avoid staining of adjacent masonry if approved by manufacture and results are achieved. Allow to dry thoroughly before inspection by Owner's Representative and Architect.

#### D. CLEANING APPLICATION FOR CUT STONE

Sequence of product application

1. Prewet surface
2. Prewash: After tests have determined desirable mix solution apply 766 Prewash with deep-napped synthetic roller or nylon brush. Do not use natural fiber.
3. Allow Prewash to remain on surface for 30 minutes to one hour.
4. Rinse with pressure washer fitted with fan type spray no smaller than 15 degrees.
5. Immediately after rinsing 766 Prewash apply prepared (to desired dilution) Afterwash to wet surface with roller or brush as specified for Prewash.
6. Allow the Afterwash to remain on the surface for three to five minutes.
7. Pressure rinse from the bottom of the treated area to the top. Thoroughly rinse all chemicals from coping and down exterior walls.
8. Sealer: Allow cleaned surfaces too completely dry.
9. Apply undiluted Weather Seal Siloxane PD with brush or roller sufficient material to thoroughly saturate the surface. Brush out heavy runs, pools or puddles until they completely penetrate.

Note: during the entire applications process the lower masonry areas must be continuously rinsed to avoid rundown staining of adjacent stone masonry.

#### 3.2 STONE REPAIR

- A. Carefully remove loose stone fragments in areas which are indicated for repair. Reuse only pieces of spalled stone which are in sound condition.
- B. Remove soil, loose stone particles, mortar, and other debris and foreign material from surfaces to be bonded of both fragment and building stone from which it was removed by cleaning with stiff brush.
- C. Apply adhesive to comply with adhesive manufacturer's directions. Coat bonding surface of building stone with stone-to-stone adhesive completely filling all voids and covering all surfaces. Fit stone

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fragments onto building stone while adhesive is still tacky and hold fragment securely in place until adhesive has cured.

- D. After adhesive has cured fully, further anchor stone fragments larger than 6"x 6" x 6" in any dimension with 1/4" diameter plain stainless steel rods set into 1/4" diameter holes drilled at a 45 degree downward angle through face of stone. Center and space anchor rods not more than 5" nor less than 3" apart and not less than 2" from any edge. Insert rods not less than 2" into backing stone and 2" into fragment with end countersunk at least 3/4" from exposed face of stone.
- E. Clean any residual adhesive from edges. Wet stone and fill any chipped areas and frill holes with patching mortar. Avoid featheredging. Finish patched areas to match texture of, and be level with adjoining surrounding stone surfaces. Keep patching mortar damp for 72 hours.

### 3.3 STONE PATCHING

- A. Remove loose particles, soil, debris, oil and other contaminants from existing stone units at locations indicated by cleaning with stiff brush.
- B. Brush coat stone surfaces with mortar-to-stone adhesive to comply with manufacturer's directions.
- C. Place patching mortar in layers no thicker than 2". Roughen surface of each layer to provide key for next layer.
- D. Keep each layer damp for 72 hours or until mortar has set.
- E. Unacceptable patches are defined as those with hairline cracks or showing separation from stone at edges. Remove patches and refill to provide patches free of those defects.

### 3.4 REPOINTING EXISTING MASONRY

- A. Joint Raking:
  - 1. Rake out mortar from joints to depths equal to 2-1/2 times their widths but not less than 3/4" nor less than that required to expose sound, unweathered mortar.
  - 2. Remove mortar from masonry surfaces within raked-out joints to provide reveals with square backs and to expose masonry for contact with pointing mortar. Brush, vacuum or flush joints to remove dirt and loose debris.
  - 3. Do not spall edges of masonry units or widen joints. Replace any masonry units, which become damaged.
  - 4. Cut out old mortar by hand with chisel and mallet, unless otherwise indicated.
  - 5. Power operated rotary hand saws and grinders will be permitted but only on specific written approval of Architect based on submission by Contractor of a satisfactory quality control program and demonstrated ability of operators to use tools without damage to masonry. Quality control program shall include provisions for supervising performance and preventing damage due to worker fatigue.
- B. Joint Pointing:

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1. Rinse masonry joint surfaces with water to remove any dust and mortar particles. Time application of rinsing so that, at time of pointing, excess water has evaporated or run off, and joint surfaces are damp but free of standing water.
2. Apply first layer of pointing mortar to areas where existing mortar was removed to depths greater than surrounding areas. Apply in layers not greater than 3/8" until a uniform depth is formed. Compact each layer thoroughly and allow to become thumbprint-hard before applying next layer.
3. After joints have been filled to a uniform depth, place remaining pointing mortar in 3 layers with each of first and second layers filling approximately 2/5 of joint depth and third layer the remaining 1/5. Fully compact each layer and allow to become thumbprint hard before applying next layer. Where existing bricks have rounded edges recess tool final layer slightly back from face of brick. Take care not to spread mortar over edges onto exposed masonry surfaces, or to featheredge mortar.
4. When mortar is thumbprint hard, tool joints to match original appearance of joints, unless otherwise indicated. Remove excess mortar from edge of joint by brushing.
5. Cure mortar by maintaining in a damp condition for not less than 72 hours.
6. Where repointing work precedes cleaning of existing masonry allow mortar to harden not less than 30 days before beginning cleaning work.
7. Owner shall have the right to perform periodic tests to verify depth of repointing. Contractor shall repair with like materials area where mortar has been removed to ascertain depth of repointing.

### 3.5 FINAL CLEANING

- A. After mortar has fully hardened thoroughly clean exposed masonry surfaces of excess mortar and foreign matter using stiff nylon or bristle brushes and clean water, spray applied at low pressure.
- B. Use of metal scrapers or brushes will not be permitted.
- C. Use of acid or alkali cleaning agents will not be permitted.

### 3.6 MASONRY SEALING

- A. Protection: mask windows and window frames as sealer is being applied.
- B. Do not apply sealer in windy when air temperature is above 95 degrees F
- C. Test each surface to be covered. Wet each surface with as a test too determine suitability and results. Wet surfaces without creating drip or rundowns.
- D. Spray apply from bottom up creating 4 to 8 inch rundown below the spray contact point. Brush out heavy runs and drips that do not penetrate.
- E. Treated surfaces are dry too tough in one hour and protect from rain for six hours following application.

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END OF SECTION 045000

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**MASONRY RESTORATION AND CLEANING**

**045000 - 9**

## SECTION 087100 – DOOR HARDWARE *REVISED*

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes commercial door hardware for the following:
  - 1. Swinging doors.
  - 2. Other doors to the extent indicated.
- B. Door hardware includes, but is not necessarily limited to, the following:
  - 1. Mechanical door hardware.
  - 2. Cylinders specified for doors in other sections.
- C. Proposed Substitutions: See Section 016000 “Product Requirements.”
- D. Related Requirements:
  - 1. See Section 084113 “Aluminum-Framed Entrances and Storefronts.”
- E. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
  - 1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
  - 2. ICC/IBC - International Building Code.
  - 3. NFPA 70 - National Electrical Code.
  - 4. NFPA 80 - Fire Doors and Windows.
  - 5. NFPA 101 - Life Safety Code.
  - 6. NFPA 105 - Installation of Smoke Door Assemblies.
  - 7. Ohio Building Code 2015, Local Amendments.
- F. Standards: All hardware specified herein shall comply with the following industry standards:
  - 1. ANSI/BHMA Certified Product Standards - A156 Series
  - 2. UL10C – Positive Pressure Fire Tests of Door Assemblies

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### 1.3 SUBMITTALS

- A. Submittal Procedures: See Section 013300 "Submittal Procedures."
- B. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.
- C. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
  - 1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
  - 2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.
  - 3. Content: Include the following information:
    - a. Type, style, function, size, label, hand, and finish of each door hardware item.
    - b. Manufacturer of each item.
    - c. Fastenings and other pertinent information.
    - d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
    - e. Explanation of abbreviations, symbols, and codes contained in schedule.
    - f. Mounting locations for door hardware.
    - g. Door and frame sizes and materials.
    - h. Warranty information for each product.
  - 4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- D. Keying Schedule: Verify with the owner how the keying shall be done. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner must approve submitted keying schedule prior to the ordering of permanent cylinders/cores.
- E. Informational Submittals:
  - 1. Product Test Reports: Indicating compliance with cycle testing requirements, based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified independent testing agency.



- F. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Submittals.

#### 1.4 QUALITY ASSURANCE

- A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.
- B. Installer Qualifications: A minimum 3 years documented experience installing both standard and electrified door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- C. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.
- D. Source Limitations: Obtain each type and variety of door hardware specified in this section from a single source unless otherwise indicated.
  - 1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third party source will not be accepted.
- E. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.
- F. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.
- C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

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**BUILDING RENOVATIONS  
PUTNAM COUNTY COURTHOUSE  
245 EAST MAIN STREET  
OTTAWA, OHIO 45875**

## 1.6 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.
- B. Door and Frame Preparation: Doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

## 1.7 WARRANTY

- A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:
  - 1. Structural failures including excessive deflection, cracking, or breakage.
  - 2. Faulty operation of the hardware.
  - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
  - 4. Electrical component defects and failures within the systems operation.
- C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.
- D. Special Warranty Periods:
  - 1. Seven years for heavy duty cylindrical (bored) locks and latches.
  - 2. Twenty five years for manual surface door closer bodies.

## 1.8 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

## PART 2 - PRODUCTS

### 2.1 SCHEDULED DOOR HARDWARE

- A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.
- B. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:
  - 1. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.
- C. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

### 2.2 HANGING DEVICES

- A. Hinges: ANSI/BHMA A156.1 certified butt hinges with number of hinge knuckles and other options as specified in the Door Hardware Sets.
  - 1. Quantity: Provide the following hinge quantity, unless otherwise indicated:
    - a. Two Hinges: For doors with heights up to 60 inches.
    - b. Three Hinges: For doors with heights 61 to 90 inches.
    - c. Four Hinges: For doors with heights 91 to 120 inches.
    - d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.
  - 2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:
    - a. Widths up to 3'0": 4-1/2" standard or heavy weight as specified.
    - b. Sizes from 3'1" to 4'0": 5" standard or heavy weight as specified.
  - 3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:
    - a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
    - b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.
  - 4. Hinge Options: Comply with the following:
    - a. Non-removable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the all out-swinging lockable doors.

5. Acceptable Manufacturers:
  - a. Hager Companies (HA).
  - b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).
  - c. Stanley Hardware (ST).
- B. Continuous Geared Hinges: ANSI/BHMA A156.26 Grade 1-600 certified continuous geared hinge. with minimum 0.120-inch thick extruded 6060 T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible and fabricated to template screw locations. Factory trim hinges to suit door height and prepare for electrical cut-outs.
  1. Acceptable Manufacturers:
    - a. Hager Companies (HA).
    - b. McKinney Products; ASSA ABLOY Architectural Door Accessories (MK).
    - c. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).
    - d. Stanley Hardware (ST).

## 2.3 DOOR OPERATING TRIM

- A. Flush Bolts and Surface Bolts: ANSI/BHMA A156.3 and A156.16, Grade 1, certified.
  1. Flush bolts to be furnished with top rod of sufficient length to allow bolt retraction device location approximately six feet from the floor.
  2. Furnish dust proof strikes for bottom bolts.
  3. Surface bolts to be minimum 8" in length and U.L. listed for labeled fire doors and U.L. listed for windstorm components where applicable.
  4. Provide related accessories (mounting brackets, strikes, coordinators, etc.) as required for appropriate installation and operation.
  5. Acceptable Manufacturers:
    - a. Burns Manufacturing (BU).
    - b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
    - c. Trimco (TC).

## 2.4 CYLINDERS AND KEYING

- A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.
- B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated. Match Owner's existing keyed cylinders.
  1. Acceptable Manufacturers:
    - a. Corbin Russwin Hardware (RU).
    - b. Sargent Manufacturing (SA).
    - c. Schlage (SC).

- d. Yale Locks and Hardware (YA).
- C. Cylinders: Original manufacturer cylinders complying with the following:
  - 1. Mortise Type: Threaded cylinders with rings and cams to suit hardware application.
  - 2. Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
  - 3. Bored-Lock Type: Cylinders with tailpieces to suit locks.
  - 4. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
  - 5. Keyway: Manufacturer's Standard.
- D. Keying System: Each type of lock and cylinders to be factory keyed.
  - 1. Define and document keying system instructions and requirements.
  - 2. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner.
  - 3. New System: Key locks to a new key system as directed by the Owner.
- E. Key Registration List (Bitting List):
  - 1. Provide keying transcript list to Owner's representative in the proper format for importing into key control software.
  - 2. Provide transcript list in writing or electronic file as directed by the Owner.

## 2.5 ELECTROMECHANICAL DOOR OPERATORS

- A. General: Provide low energy operators of size recommended by manufacturer for door size, weight, and movement; for condition of exposure; and for compliance with UL 325. Coordinate operator mechanisms with door operation, hinges and activation devices.
  - 1. Fire-Rated Doors: Provide door operators for fire-rated door assemblies that comply with NFPA 80 for fire-rated door components and are listed and labeled by a qualified testing agency.
- B. Standard Certified ANSI/BHMA A156.19.
- C. Performance Requirements:
  - 1. Opening Force if Power Fails: Not more than 15 lbf required to release a latch if provided, not more than 30 lbf required to manually set door in motion, and not more than 15 lbf required to fully open door.
  - 2. Entrapment Protection: Not more than 15 lbf required to prevent stopped door from closing or opening.

- D. Configuration: Surface mounted or in-ground as required. Door operators to control single swinging and pair of swinging doors.
- E. Operation: Power opening and spring closing operation capable of meeting ANSI A117.1 accessibility guideline. Provide time delay for door to remain open for initiating closing cycle as required by ANSI/BHMA A156.19.
- F. Features: Operator units to have full feature adjustments for door opening and closing force and speed, backcheck, motor assist acceleration from 0 to 30 seconds, time delay, vestibule interface delay, obstruction recycle, and hold open time from 0 to 30 seconds.
- G. Provide outputs and relays on board the operator to allow for coordination of exit device latch retraction, electric strikes, magnetic locks, card readers, safety and motion sensors and specified auxiliary contacts.
- H. Brackets and Reinforcements: Manufacturer's standard, fabricated from aluminum with nonferrous shims for aligning system components.
- I. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Besam Automated Entrance Systems (BE) – SW200i Series.
  - 2. Norton Automatics (NO) – 6000 Series.

## 2.6 DOOR CLOSERS

- A. All door closers specified herein shall meet or exceed the following criteria:
  - 1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers including installation and adjusting information on inside of cover.
  - 2. Standards: Closers to comply with UL-10C for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.
  - 3. Cycle Testing: Provide closers which have surpassed 15 million cycles in a test witnessed and verified by UL.
  - 4. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use. Where closers are indicated for doors required to be accessible to the physically handicapped, provide units complying with ANSI ICC/A117.1.
  - 5. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.
  - 6. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics.

7. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates as required for proper installation. Provide through-bolt and security type fasteners as specified in the hardware sets.
- B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.
1. Acceptable Manufacturers:
    - a. LCN Closers (LC) - 4040 Series.
    - b. Sargent Manufacturing (SA) - 351 Series.
    - c. Norton Door Controls (NO) - 7500 Series.
    - d. Yale Locks and Hardware (YA) - 4400 Series.
- C. Door Closers, Surface Mounted (Commercial Duty): ANSI/BHMA 156.4, Grade 1 certified surface mounted, institutional grade door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one piece cast iron or aluminum alloy body construction, with adjustable backcheck, closing sweep, and latch speed control valves. Provide non-handed units standard.
1. Acceptable Manufacturers:
    - a. LCN Closers (LC) – 1450 Series.
    - b. Norton Door Controls (NO) - 8500 Series.
    - c. Sargent Manufacturing (SA) - 1431 Series.
    - d. Yale Locks and Hardware (YA) - 3500 Series.

## 2.7 ARCHITECTURAL TRIM

- A. Door Protective Trim
1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.
  2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1" LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.
  3. Where plates are applied to fire rated doors with the top of the plate more than 16" above the bottom of the door, provide plates complying with NFPA 80. Consult manufacturer's catalog and template book for specific requirements for size and applications.
  4. Protection Plates: ANSI/BHMA A156.6 certified protection plates (kick, armor, or mop), fabricated from the following:
    - a. Stainless Steel: 300 grade, 050-inch thick.

5. Options and fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets. Provide countersunk screw holes.
6. Acceptable Manufacturers:
  - a. Burns Manufacturing (BU).
  - b. Rockwood Products; ASSA ABLOY Architectural Door Accessories (RO).
  - c. Trimco (TC).

## 2.8 ARCHITECTURAL SEALS

- A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.
- B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.
  1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.
- C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.
  1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and NPFA 252, Standard Methods of Fire Tests of Door Assemblies.
- D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated.
- E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.
- F. Acceptable Manufacturers:
  1. National Guard Products (NG).
  2. Pemko Products; ASSA ABLOY Architectural Door Accessories (PE).
  3. Reese Enterprises, Inc. (RE).

## 2.9 FABRICATION

- A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.



## 2.10 FINISHES

- A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.
- B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware
- C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

### 3.2 PREPARATION

- A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.
- B. Wood Doors: Comply with ANSI/DHI A115-W series.

### 3.3 INSTALLATION

- A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.
  - 1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.
- B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:
  - 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."

2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
  3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
  4. Provide blocking in drywall partitions where wall stops or other wall mounted hardware is located.
- C. Retrofitting: Install door hardware to comply with manufacturer's published templates and 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, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
- D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."
- E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

### 3.4 FIELD QUALITY CONTROL

- A. Field Inspection: Supplier will perform a final inspection of installed door hardware and state in report whether work complies with or deviates from requirements, including whether door hardware is properly installed, operating and adjusted.

### 3.5 ADJUSTING

- A. Initial Adjustment: 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.

### 3.6 CLEANING AND PROTECTION

- A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.
- B. Clean adjacent surfaces soiled by door hardware installation.
- C. Clean operating items as necessary to restore proper finish. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

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### 3.7 DEMONSTRATION

- A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

### 3.8 DOOR HARDWARE SETS

- A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.
- B. Manufacturer's Abbreviations:
1. MK - McKinney
  2. PE - Pemko
  3. RO - Rockwood
  4. SA - Sargent
  5. AD - Adams Rite
  6. RF - Rixson
  7. NO - Norton
  8. OT - OTHER

#### **Hardware Sets**

##### **Set: 1**

Exterior Pair Opening 101A 3'09"0 1-3/4" ALF x FRP

Each Opening to Have:

2 Continuous Hinges	By Door Supplier		
1 Exit Device CVR	8410 Exit Only	BSP	SA
1 Exit Device CVR	106-8406	BSP	SA
1 Mortise Cylinder	To Match Existing		
2 Pulls	RM5652	BSP	RO
1 Closer	CPS 7500	693	NO
1 Automatic Door Openers	6060/6070 x drop plate (if needed)		
	x (2) door switches 502	693	NO
1 Concealed Overhead Stop	1-336	BSP	RF
1 Threshold, sweep and seals	By Door Supplier		

##### **Set: 2**

Interior Pair Opening 101B

1 Automatic Door Openers	6060/6070 x drop plate (if needed)		
	x (2) door switches 502	693	NO

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General Contractor to field verify existing conditions prior to Bid and provide required hardware if required for new door operator.

END OF SECTION 087100