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DESIGN AND CONSTRUCTION GROUP
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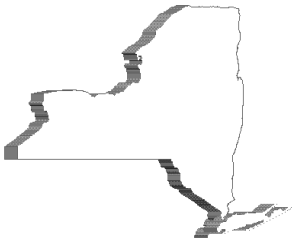

ADDENDUM NO. 3 TO PROJECT NO. 44712
CONSTRUCTION WORK
REHABILITATE STAIRWELLS BUILDING 21
MIDSTATE CORRECTIONAL CENTER
MARCY, NY

February 26, 2015

NOTE: This Addendum forms a part of the Contract Documents. Insert it in the Project Manual. Acknowledge receipt of this Addendum in the space provided on the Bid Form.

Drawings:

1. **Issue** Drawing AD-1:
   a. Drawing AD-1 provides a Door Schedule.
   b. Drawing AD-1 revises detail 7/A-103; Door Type.
2. **Replace** "Woven Rod" with "Wire Mesh" everywhere "Woven Rod" appears.
3. **Replace** "Steel Security Screen Panel" with "Wire Mesh Partition" everywhere "Steel Security Screen Panel" appears.

Specifications:

c. **Remove** reference to Division 12 Furnishings from Specification Section 000110 Table of Contents;
d. **Remove** Specification Sections 111904 Steel Security Screens; 126613 Telescopic Bleachers; 129344 Recreation Equipment; and 129345 Shelters, from Project Manual.
e. **Delete** Specification Section 088853 and **replace** with Specification Section 088853 Security Glazing included with this addendum.
f. **Add 111901** Detention Equipment included with this addendum.
g. **Add 102213** Wire Mesh Partitions included with this addendum.
h. **Replace** 000110 with the one included with this addendum.

END OF ADDENDUM

Margaret F. Larkin
Executive Director

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SECTION 088853

SECURITY GLAZING

PART 1 GENERAL

1.01 REFERENCES

A. American Society for Testing and Materials (ASTM), ASTM International, 100 Barr Harbor Dr., PO Box C700, West Conshohocken, PA, 19428-2959, www.astm.org

B. H. P. White Laboratory, Inc., 3114 Scarboro Rd., Street, MD 21154-1822, www.hpwhite.com.

C. Underwriters Laboratories Inc., 333 Pfingsten Rd., Northbrook, IL 60062-2096, www.ul.com.

D. Glass Association of North America, 2945 SW Wanamaker Dr., Suite A, Topeka, KS 66614-5321, www.glasswebsite.com.

E. American Architectural Manufacturers Association, 1827 Walden Office Square, Suite 550, Schaumburg, IL 60173-4268, www.aamanet.org.

1.02 DEFINITIONS

A. Sheet Materials: The term “Sheet Materials” as used in this Section refers to monolithic polycarbonate sheets, glass clad polycarbonate sheets, and laminated polycarbonate sheets specially fabricated for ballistics and/or forced-entry resistance.

1.03 SUBMITTALS

A. Waiver of Submittals: The “Waiver of Certain Submittals Requirements” in Section 013300 does not apply to this Section.

B. Product Data: Catalog sheets, specifications, glazing details, and installation instructions for each type of sheet materials, and glazing materials specified.

C. Quality Control Submittals:
   1. Test Reports: Test data to substantiate sheet material assemblies compliance with the requirements of this Section.

D. Contract Closeout Submittals:
   1. Maintenance Data: Deliver 2 copies, covering installed products, to the Director’s Representative.

1.05 QUALITY ASSURANCE

A. Testing Laboratory: Independent testing laboratory with the test facilities, experience, and capability to demonstrate the proposed sheet material assemblies compliance with the requirements of this Section to the satisfaction of the Director.

B. Manufacturer's Qualifications:
   1. The manufacturer shall have been actively marketing security glazing materials in the United States for a minimum of 3 years.
   2. The manufacturer shall have the technical expertise and qualified technical representatives to resolve questions or problems that may arise both during and after the Work is completed.

C. Installer's Qualifications: The persons installing the security glazing and their Supervisor shall be personally experienced in security glazing systems and shall have been regularly employed by a Company installing security glazing systems for a minimum of 5 years.

D. Product Identification Labels:
   1. Identify each piece of forced entry resistant sheet material with a one inch high x 3 inches long self-adhesive transparent label, indicating the manufacturer and product name. Place the stencil on the glass, if applicable, readable from the secure side. Locate label in the upper right corner 2 inches from the top and side of the frame.

E. Laminated Glass Imperfections: Imperfections such as bubbles, blow-in, fuse, hair, lint, inside dirt (dirt spot), delamination, discoloration, short interlayer, unlaminated area chip, interlayer scuff, streak, scratches, will be cause for rejection of product. Comply with ASTM C-1349 for Glass Clad Polycarbonates

F. Mismatch of Laminations:
   1. Maximum Allowable Mismatch: 3/16 inches.
   2. Length and Width Tolerances of Symmetrical Glass Clad Polycarbonate Laminates: Comply with ASTM C 1349, Table 2.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store sheet material assemblies with manufacturer's labels intact.

B. Deliver exposed polycarbonate sheets with strippable water resistant protective masking intact. Do not capture protective masking in frame when installing sheet material. Protective masking to remain intact during installation. Where sheet material is in direct sunlight, remove protective masking.

C. Protect sheet material assemblies from damage during handling, storage, and installation.

1.07 PROJECT CONDITIONS

A. Environmental Requirements: Comply with glazing materials manufacturer's printed recommendations regarding environmental conditions under which glazing materials can be installed.

PART 2 PRODUCTS

2.01 COMPANIES

A. SABIC Innovative Plastics, Structured Products Department, One Plastics Ave., Pittsfield, MA 01201-3662, (800) 451-3147, www.geplastics.com.

B. Global Security Glazing, 616 Selfield Rd., Selma, AL 36703-8702, (800) 633-2513, www.security-glazing.com.

C. Standard Bent Glass Corporation, P.O. Box 469, Butler, PA 16003-0469, (800) 634-9252, www.standardbent.com.

D. Oldcastle Glass, 375 East Church Ave., Telford, PA 18969-1003, (800) 750-3497, www.oldcastleglass.com.

E Sheffield Plastics, Inc., 119 Salisbury Rd., Sheffield, MA 01257-9706, (800) 628-5084, www.sheffieldplastics.com.

F. North American Specialty Glass, LLC, 2175 Kumry Rd., PO Box 70, Trumbauersville, PA 18970-0070, (888) 785-5962, www.naspecialtyglass.com.

2.02 MATERIALS

A. Polycarbonate: Extruded polycarbonate, UV stabilized, mar-resistant surface coating, smoke density rating less than 75, ASTM D 2843; extent of burning characteristics less than one inch when tested in accordance with ASTM D 635.

B. Interlayer For Laminating Polycarbonate To Glass: Polyurethane, as recommended by the sheet manufacturer, specifically designed for lamination, with demonstrated long-term ability to maintain physical and visual properties under installed conditions.

C. Interlayer for Laminating Polycarbonate to Polycarbonate: Polyurethane as recommended by the sheet manufacturer, or clear siloxan/polycarbonate copolymer resin, not to exceed 15 mils thick.

D. Interlayer for Laminating Glass To Glass: Polyvinyl butyral interlayer specifically designed for lamination, with demonstrated long-term ability to maintain physical and visual properties under installed conditions.

2.03 FORCED ENTRY RESISTANT SECURITY GLAZING TYPES

A. Type S-9 Sheet:
   1. Laminated Polycarbonate Sheet: Multiple layers of polycarbonate fabricated to produce the required forced entry resistance listed below.

2. Forced Entry Resistance: H.P. White TP-0500.01 Level II minimum Step 12, or ASTM F 1233 Class III minimum Step 15, or ASTM F1915 Grade 2.
3. Overall Nominal Thickness: 1/2 inch.
4. Color: Clear.
5. Products:
    a. Lexgard MPC-500 by Standard Bent Glass.
    b. ArmorProtectMax500 by Oldcastle Glass.
    c. Makrolon Hygard CG500 by Sheffield Plastics.

2.04 GLAZING MATERIALS

A. Setting Blocks: Comply with ASTM C 864, Shore A durometer hardness of 85 +/- 5 percent ASTM Test Method D 2240. Provide compatible setting blocks specifically recommended by the by the sheet material manufacturer for use with sheet materials and glazing materials used.

B. Spacer Shims: Shore A durometer hardness of 50 to 60 ASTM Test Method D 2240. Provide compatible spacer shims of material, size, and shape specifically recommended by the sheet material manufacturer for the materials used.

C. Glazing Tape: Preformed, 100 percent solid, butyl-based elastomeric tape or ribbon (coiled on release paper), non-staining and non-migrating, with continuous built-in shim (pre-shimmed), if recommended in writing by the glazing manufacturer for the application indicated, comply with AAMA 800.

D. Glazing Sealant: Silicone, ASTM C 920, Type S, Grade NS, Class 25, Use G. Verify compatibility of sealant with sheet material other glazing materials, and frame with sealant manufacturer.

E. Sealant Colors: For exposed materials provide color as indicated or, if not indicated, as selected by the Director from the manufacturer's standard colors. For concealed materials, provide any of the manufacturer's standard colors.

F. Cleaners, Primers, and Sealers: Types recommended by glazing material manufacturer, compatible with polycarbonate.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine glazing channels and stops for defects that will prevent satisfactory installation of sheet glazing system. Report unsatisfactory conditions to the Director in writing. Do not proceed with installation until unsatisfactory conditions have been corrected.

B. Inspect each piece of sheet material immediately before installation. Remove from the Site pieces that have observable damage or face imperfections.

3.02 PREPARATION

A. Remove coatings that are not firmly bonded to the substrate.

B. Clean the glazing channel, and other framing members to receive sheet material, immediately before glazing.

C. Immediately prior to installation, peel back factory applied protective masking only to a dimension sufficient for edge engagement. Do not totally remove masking from sheet.

3.03 INSTALLATION

A. Each installation shall withstand normal temperature changes without sheet material delamination, failure of glazing materials to remain watertight and airtight, deterioration of glazing materials and other defects in the work.

B. Install sheet and glazing material in accordance with the recommend standards detailed in the "Glazing Manual" of the Glass Association of North America except as indicated and specified otherwise, and except as specifically recommended otherwise by the manufacturers of the sheet material and glazing materials.

C. Primer: Apply primer to surfaces when recommended by glazing material manufacturer.

D. Setting Blocks:
1. Install a minimum of 2 identical setting blocks sized to provide 0.1 inch long for each square foot of sheet material area but not less than 4 inches long.
2. Height of setting blocks to provide the recommended nominal bite and minimum edge clearance for the security glazing used.
3. Width as required providing proper support of sheet materials but allowing water passage to weep holes.
4. Install at quarter points in heal bead of sealant, do not block weeps.

E. Glazing Tape:
1. Cut glazing tape to proper length prior to application. Install strips in 4 separate sections. Do not run continuously around corners.
2. Install tape continuously against permanent stop 3/16 to 1/4 inch below sightline. Do not permit gaps or joints in tape except at corners. Do not lap adjoining lengths of tape. Miter or butt ends of tape at corners and seal with compatible sealant.

F. Sheet Glazing: Set sheet material on setting blocks and press against tape with sufficient pressure to ensure full contact and adhesion at perimeter. Install removable stop.

G. Spacer Shims: Insert continuous spacer shims between sheet material and applied stop to keep sheet in compression against tape, do not displace glazing tape. Install shims in 4 separate sections. Do not run continuously around corners, or come in contact with sheet material cut edges.

H. Glazing Sealant:
1. Install continuous cap bead on both sides of sheet material.
2. Force sealant into channel to eliminate air pockets and voids and to ensure a complete bond of sealant to sheet material and framing.
3. Tool exposed surfaces of sealant eliminate air pockets and to provide a substantial "wash" away from sheet material.
4. Clean off excess sealant as work progresses using methods that will not damage sheet or glazing material.
5. Cure glazing materials in accordance with manufacturer's instructions and recommendations, to obtain high early bond strength, internal cohesive strength, and surface durability.

3.04 PROTECTION AND CLEANING

A. Remove factory installed protective masking from sheet that is in high humidity or direct sunlight immediately after installation. Prolonged exposure can make removal of masking difficult.

B. Mark glazed openings immediately upon installation of sheet material by attaching crossed streamers to framing. Do not apply markers of any type to surfaces of sheet material.

C. Protect exposed surfaces of polycarbonate from construction operations with temporary covering. Do not apply tape to sheet material.

D. Replace sheet material included in the Work that is broken or otherwise damaged from the time Work is started at the site until the date of physical completion.

E. Maintain sheet material in a reasonably clean condition until the date of physical completion.
1. Clean and trim excess glazing material from the sheet material and stops or frames promptly after installation.

F. When directed, or just before the project is turned over to the State, remove temporary covering, dirt and other foreign material from both surfaces of sheet material installed under this Contract, and clean sheet material on both sides.

END OF SECTION

SECTION 102213

WIRE MESH PARTITIONS

PART 1 GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

A. Detention Equipment: Section 111901.

1.02 REFERENCES

A. Woven Wire Products Association's Standards.

B. Structural Welding Code - Steel, AWS D1.1 by the American Welding Society (AWS Code).

1.03 DEFINITIONS

A. Wire Gage: Washburn & Moen gage.

1.04 SUBMITTALS

A. Shop Drawings: Include plan, elevations, details, and connections to adjoining construction.

B. Product Data: Manufacturer's specifications and installation instructions. Include the following:
1. Wire and Frames.
2. Vertical Posts.
3. Floor sockets.
4. Top Capping Bar.

C. Samples:
1. Wire Mesh Panel: Corner sample 2 x 2 feet, showing material, construction, and finish.

PART 2 PRODUCTS

2.01 MATERIALS

A. Wire: 6 gauge Cold drawn steel wire.

B. Frames: Cold rolled steel channels.

C. Vertical Posts: Cold rolled steel bars, angles, or channels, or cold drawn steel tubing.

D. Floor Sockets: Ductile iron (weldable).

E. Top Capping Bar: Continuous cold rolled steel channel.

H. Shop Primer: Steel primer selected from the following:
   1. TNEMEC 10-99 (Red), 10-99G (Green) or 10-1009 (Gray).
   2. Rust-Oleum 769.
   3. Valspar 13-R-53.
   4. Sherwin-Williams "Kromik".

I. Shop Paint: Partition manufacturer's standard enamel shop paint.
   1. Color: As selected from manufacturer's standard colors.

2.02 FABRICATION

A. Comply with Woven Wire Products Association's Standards and the AWS Code unless otherwise specified or shown.

B. Panels: Tenon and weld frame members at intersections. Wire shall be crimped and woven with ends of wire extended not less than l inch through the frame and clinched back on the frame at least 90 degrees. Center mesh in the frame. Tack weld every third wire to back of the frame.

C. Cut Outs: Fabricate partitions with framed cut outs for penetrations through the wire mesh partitions.

D. Shop Painting: Thoroughly clean wire mesh partitions and apply one coat of shop paint.

PART 3 EXECUTION

3.01 INSTALLATION

A. Install wire mesh partitions in accordance with manufacturer's printed instructions unless otherwise indicated. Fasten to adjoining metal with bolts or tap screws and to adjoining masonry and concrete with expansion bolts.

3.02 ADJUSTING

A. Touch up damaged painted surfaces after installation is completed.

END OF SECTION

CEH

READ PHANTOM NOTES.

SECTION 111901

DETENTION EQUIPMENT

PART 1 GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

A. Security Glazing: Section 088853.

B. Construction Painting: Section 099101

1.02 REFERENCES

A. Welding Standards: Structural Welding Code - Steel, AWS D1.1 or Structural Welding Code - Sheet Steel, AWS D1.3, as applicable, by the American Welding Society (AWS Codes).

B. Materials and Finishes Standard: ANSI/BHMA A156.18-2000, American National Standard for Materials and Finishes.

1.03 DEFINITIONS

A. Technical Advisor(s): Full time employee of the Company that manufactures the detention frames and doors and installs the detention frames, doors, hardware and accessories, who is certified in writing by the Company to be technically qualified in the design, installation, operation, and servicing of the required products.

1.04 SUBMITTALS

A. Waiver of Submittals: The Waiver of Certain Submittal Requirements in Section 013300 does not apply to this Section.

B. Submittal Packages: Submit the entire Quality Assurance Package prior to other submittal packages. After Quality Assurance Package is approved, submit the Detention Equipment Package, Detention Hardware Package, and the Power and Control Wiring Package specified below at the same time.

C. Quality Assurance Package:
   1. Equipment Manufacturer's Qualifications:
      a. Name, business address and telephone numbers of the Equipment Manufacturer.
      b. Names, addresses and telephone numbers of facility contacts of 5 similar projects where manufacturer's detention equipment and hardware has been in operation for a minimum of 3 years.
   2. Equipment Installation Company Qualifications:
      a. Name, business address and telephone numbers of the installation company.

b. Provide a comprehensive history of the Installation Company.
c. Names, addresses and telephone numbers of facility contacts of 5 similar projects company has completed in past 3 years.
d. Current written certification from the detention equipment manufacturer the company installing the Work has successfully completed factory training and is qualified as a Detention Equipment Contractor.

3. Equipment Installer's Qualifications:
   a. Name of person providing full time on-site supervision of the installation and completion of Work of this section.
   b. Names, addresses and telephone numbers of facility contacts of 5 similar projects this person has supervised in the past 3 years.
   c. Current written certification from the detention equipment manufacturer the person providing on-site supervision of the Work has successfully completed training and is qualified in the installation of the accepted detention products.
4. Technical Advisor's Qualifications:
   a. Name, business address and telephone numbers of technical advisor(s).
   b. Written certification from detention equipment and detention hardware manufacturers that advisor is technically qualified in design, installation and servicing of products.

D. Detention Equipment Package:
1. Shop Drawings: Show relationship of detention equipment with other Work.
   a. Complete detailed drawings for each style of door required. Include separate schedule for each. List materials required, and technical data including size, and finish to ensure conformance to specifications. Include details of all major components and show accessories. Include parts list showing manufacturers' names and part numbers for the complete installation.
   b. Include details of lock mountings.
   c. Indicate shop and field welds by standard AWS welding symbols.
   d. For doors to be installed in existing openings, field measure existing openings and other conditions, and indicate existing information on shop drawings.
2. Product Data: Current catalog sheets, specifications and installation instructions for accessories. Identify each item and component.

E. Detention Hardware Package:
1. Hardware Schedule: Use a vertical schedule layout. Horizontal hardware schedules are not acceptable
2. Preface the schedule with the following:
   a. Door Index
   b. List of Manufacturers
   c. List and explanation of finishes
   d. List and explanation of abbreviations.

e. Keying schedule, keying instructions and key code. Include the type lock used for the individual openings.

3. For Each Opening Include the Following:
   a. Material and dimensions of doors, frames and gates.
   b. Location and Handing
   c. Fire Rating.
   d. Detention hardware required to complete the Work of this Section.
4. Create detention hardware groups, each group consisting of similar detention doors and detention hardware. Do not combine labeled and non-labeled openings.
   a. Arrange by Buildings if required, and in groups; each group consisting of similar doors gates and hardware.
   b. Include manufacturers' names, catalog numbers, sizes and finishes.
   c. Product quantities are not checked for accuracy.
5. Under each group heading, list hardware items in detail required for ordering. For each item Include:
   a. Quantity (3 ea)
   b. Type (3 ea Hinges)
   c. Manufacturers' Name (3 ea Hinges Brookfield)
   d. Size and Catalog number (3 ea Hinges Brookfield I-8513)
   e. Accessories and options (3 ea Hinges Brookfield I-8513 x application "C").
   f. Finish (3 ea Hinges Brookfield I-8513 x application "C" x US32D.
   g. Fasteners (3 ea Hinges Brookfield I-8513 x application "C" x US32D x Torx)
6. Product Data: Furnish 2 current Manufacturer's Catalog sheets, specifications, templates, and installation instructions for each item of detention hardware required to complete Work of this Section. Identify and highlight information pertaining specifically the items and components submitted for this project.

F. Contract Closeout Submittals:
   1. Operation and Maintenance Data For Detention Equipment and Detention Hardware: Deliver 3 copies of instructions, maintenance, and parts manuals covering the installed products to the Director's Representative.

1.05 TEMPLATES

A. After receipt of approved submittals, furnish current required templates to the affected trades to enable the fabricators to make proper provision for hardware without delaying job progress.

1.06 QUALITY ASSURANCE

A. Equipment Manufacturer's Qualifications: The manufacturer of detention hardware and detention equipment shall be regularly engaged in the production

of such products, shall have furnished such products for 5 similar projects that have been in operation for a minimum of 3 years, and is subject to the Director's approval.

B. Installation Company Qualifications: The Company installing the Work of this Section shall hold current written certification as an approved Detention Equipment Contractor from the approved Detention Equipment Manufacturer and shall be experienced in detention equipment work, and shall have been engaged in the assembly and installation of detention equipment for a minimum of 3 years.

C. Installer's Qualifications: The person installing and providing full time on-site supervision of the Work of this Section shall be experienced in detention equipment work, shall hold current written certification from the Detention Equipment Manufacturer that they have successfully completed training and is qualified in the installation of the accepted detention products, and shall have been engaged in the assembly and supervision of installation of detention equipment for a minimum of 3 years.

D. Technical Advisor: In addition to being present at the site for the Pre-Installation Conference and the Post Installation Inspection, secure the services of a Technical Advisor for the following:
   1. Render technical assistance to the Installer regarding installation procedures of the detention equipment.
   2. Answer questions which might arise.

E. Pre-Installation Conference: Before the detention equipment is scheduled to be installed, the Director's Representative will call a conference at the site, for the purpose of reviewing the Contract Documents, shop drawings, approved submissions, and the requirements of the Work. The contractor, detention equipment installer, and the technical advisor shall attend. Other participants may be invited at the discretion of the Director.

F. Galvanizing Stamp: Stamp galvanized items with name of the galvanizer, weight of coating, and applicable ASTM number.

G. Uniformity of Detention Equipment Systems: Provide detention equipment systems specified in this Section from the same manufacturer.
   1. Provide Southern Steel detention equipment manufactured by Southern Folger Detention Equipment Company.

1.07 DELIVERY

A. Coordinate delivery of anchors and other accessories to be built into other Work, to avoid delay. Furnish instructions and templates to the affected trades as required for accurate location.

B. The manufacturer of the prison lock keys shall provide advance notification as directed and ship all prison lock keys through the United States Postal Service, direct from manufacturer to the facility, via Registered Mail, Restricted Delivery, Return Receipt Requested.

SPECIFIC INFORMATION REGARDING KEY DELIVERY INCLUDING NAMES, ADDRESSES, AND PHONE NUMBERS WILL BE PROVIDED TO THE SUCESSFUL LOW BIDDER AT THE INITIAL JOB MEETING

PART 2 PRODUCTS

2.01 DETENTION EQUIPMENT COMPANIES

A. American Jail Products, LLC, 4 Van Buren St., Troy, NY 12180, (518) 271-6560, www.americanjailproducts.com.

B. Brookfield Industries, Inc., 99 W. Hillside Ave. Thomaston, CT 06787-1433, (860) 283-6211, www.brookfieldindustries.com.

C. Bronze Craft Corporation, 37 Will St., Nashua, NH 03061-0788, (603) 883-7747, www.bronzecraft.com.

D. Hilti, Inc., P.O. Box 21148, Tulsa, OK 74121, (800) 879-8000, www.us.hilti.com.

E. Ingersoll-Rand Company:
   1. LCN, 121 W. Railroad Avenue P. O. Box 100, Princeton, IL 61356, (877) 671-7011, www.lcnclosers.com.
   2. Glynn-Johnson Door Control Hardware, 2720 Tobey Drive, Indianapolis, IN 46219, (877) 671-7011, www.glynn-johnson.com.
   3. H. B. Ives Hardware Company, 2720 Tobey Drive, Indianapolis, IN 46219, (877) 671-7011, www.ingersoll-rand.com.

F. Maximum Security Products Corporation, 3 Schoolhouse Lane, Waterford, NY 12188, (518) 233-1800, www.maximumsecuritycorp.com.

G. Powers Fasteners, Inc., 2 Powers Lane, Brewster, NY 10509, (914) 235-6300, www.powers.com.

H. Southern Folger Detention Equipment Company, 4634 South Presa St., San Antonio, TX 78223, (210) 533-1231, www.southernfolger.com.

I. Sentry Security Fasteners Inc., 8208 N. University St., Peoria, IL 61615, (309) 693-2800.

J. Stanley Works, 480 Myrtle St., New Britain, CT 06050, (800) 622-4393, www.stanleyworks.com.

K. Tanner Bolt and Nut Corporation, 4302 Glenwood Road, Brooklyn, NY 11210, (718) 43404500.

L. The G-S Company, 7920 Stansbury Road, Baltimore, MD 21222, (410) 284-9549, www.g-sco.com.

M. Trimco Architectural Hardware, 3528 Emery St., Los Angeles, CA 90023, (323) 262-4191, www.info@trimcobbw.com.

2.02 MATERIALS

A. Steel Plate: Open-hearth mild steel produced especially for detention use; ASTM A 36.

B. Steel Tubing: Hot-formed, welded or seamless, structural tubing; ASTM A 501.

C. Miscellaneous Steel Shapes and Bars: ASTM A 36, unless otherwise specified or indicated.

D. Cold-Finished Steel Bars: ASTM A 108, grade as selected by the fabricator.

E. Steel Sheet:
1. Hot-Rolled Steel Sheets and Strip: Commercial quality carbon steel pickled and oiled, complying with ASTM A 569 and ASTM A 568.
2. Cold-Rolled Steel Sheets: Commercial quality carbon steel, complying with ASTM A 366 and ASTM A 568.

F. Anchors:
1. Double Expansion Anchors: Dual expansion machine bolt anchor suitable for hollow concrete masonry. Powers Fasteners, Double Expansion Anchor or approved equal.

G. Fasteners:
1. Bolts and Nuts: ASTM A 307-12, Grade A, ASTM A563-07a.
   a. Concealed Bolts: Standard common bolts with lock washers and nuts.
   b. Exposed Bolts: Torx center pin security head bolts, unless otherwise specified.
   c. Carriage Bolts:
      1) Exposed bolts with lock washers and nuts for mounting of control console to counter top.
      2) Plain Washers: Round, general assembly grade carbon steel.
      3) Lock Washers: Helical spring type carbon steel.
   d. Carbon Steel Fasteners: Zinc plated per ASTM B695 or ASTM F2329.
2. Machine Screws: ANSI/ASME B18.6.3, ASTM F 835-13.
   a. Concealed Machine Screws: Torx center pin security head screws, unless otherwise specified.

b. Exposed Machine Screws: Torx center pin security head screws, unless otherwise noted.
c. Alloy Steel Screws: Zinc plated per ASTM B695 or ASTM F2329.
d. Stainless Steel Screws: Type 304, ASTM F879-12.

H. Paint:
1. Cold Galvanizing Compound: Single component, non-aerosol, compound giving 93 percent pure zinc in dried film, and meeting requirements of DOD-P-21035A (NAVY).
2. Ferrous and Galvanized Shop Primer: Zinc rich primer as manufactured by or recommended by the finish paint manufacturer. Coordinate submittals with Section 099101 1.04 A. certification requirements.

2.03 DETENTION HARDWARE

A. Manufacturers:
1. Detention Hinges: Brookfield, Maximum Security Products, and Stanley.
2. Locking Systems and Detention Hardware: Southern Folger Detention Equipment Company.
3. Knob Pulls, Raised Pulls, Flush Pulls, Accessories: Southern Folger Detention Equipment Company, Maximum Security Products, and Bronze Craft.
4. Security Door Closer: LCN Door Closer Company:
a. Series 4200 sized, through bolted.

B. General Notes:
1. Locks to have bolt keepers with dust box.
2. Locate centerline of mechanical deadbolt and electric latchbolt 3’-2” high from top of finished floor unless noted otherwise.
3. Where manual locks require escutcheons or cylinder shields, cylinder shanks shall extend into escutcheons or cylinder shields.
4. Locks: Use 1-1/4 inches extended bolt for stop side mounting.
5. Fill and grind smooth exposed ends of fasteners at lock mounting plate.
6. Locate centerline of Door Pull 4’-0” from top of finished floor.
7. Surface mount hinges unless specified otherwise.
a. Weld detention hinges as recommended by manufacturer to allow hinges to function at rated capacities without inducing hinge bind.
b. For detention hinges provide a minimum fillet weld size of 1/4 inch, continuous on three sides of each hinge leaf. When

welding detention hinges, attach ground to prevent welding current from being carried through the hinge barrel. Weld interpass temperature of the hinge not to exceed 225 degrees F.
c. Hinge leafs: Full sized, or one leaf is full size and the other one is 1-1/2 inches minimum to centerline of barrel sized to fit frame.
8. Single Wing Escutcheons: Use on electric jamb mounted locks, stair doors, control room doors, and emergency release cabinets.

9. Provide sized overhead stops and closers according to manufacturer's table of sizes unless non-sized or barrier-free closers are specified. Verify with manufacturers, the special templates provided are compatible with the 2-1/4 inch door thickness, 5 inch prison hinge installation, and 3/4 inch stop height. Attach overhead stops and closers to doors with through-bolts.
10. Use proper installation sequence e.g., install overhead stops and coordinators before surface mounted door closers. Template door closers for maximum door swing allowed by wall placement and jamb conditions. Where overhead stop prevents door from swinging to wall, template closer to exceed degree of opening allowed by overhead stop.
11. Galvanize exterior assemblies, and assemblies exposed to wet areas, shower rooms, etc.
12. All thresholds to be set in full bed of Type 3 Sealant.

C. Detention Hardware Groups: Group A:

1. Hinges: 3 ea Stanley BBK852, MSPK855, or Brookfield I-8510 series, zinc plated.
2. Surface Overhead Stop: 1 ea GJ81S-HD x SOC x TMS x US32D.
3. Security Door Closer: 1 ea LCN 4210 x ST3456 x TB(2-1/4")/TMS x SRI x AL.
4. Prison Deadlock: 1 ea Folger Adam No. 86 or Southern Steel 1080A-2, or R.R. Brink No. 7086 x lock mount x galvanized case.
5. Escutcheon: 1 ea Folger Adam No. 1 or Southern Steel 218-2, or R.R. Brink No. DW1 x US32D.
6. Cylinder Shield: 1 ea Folger Adam No. 2CS, Southern Steel 219, or R.R. Brink CS x US32D.
7. Door Pulls: 2 ea Folger Adam No. 2, or Southern Steel 212 C x US26D.
8. Protection Plate: 1 ea 16” x 2” LDW stop side x .050 x B4E x OHUCMS 6” oc x US32D.
9. Astragal: By door manufacturer.

2.06 FABRICATION AND MANUFACTURE

A. General:

1. Fabrication: Fabricate members straight, true, and free from dents, buckle, twist, and rough/sharp edges. Where exposed in finished spaces, fit joints to provide tight metal-to-metal fit. Make connections by welding, or by equally secured and approved method that will rigidly hold the members in position so that their full strength will be utilized; use the approved detention equipment manufacturer’s standard shapes and methods, unless otherwise specified or indicated. All gaps and seams are to be filled flush with Type S-6 Sealant (unless noted otherwise) prior to finish painting. Reinforce, cut, drill and tap members as required to receive hardware, removable glazing stops, and accessories.
2. Welding: Welds shall show uniform section and deep penetration. Grind welds smooth and clean spatter off so that surfaces are easily cleaned. Unless noted otherwise, provide appropriate weld, 2 inches long, 8 inches on center.
3. Surface mount hinges unless noted otherwise.

a. Weld detention hinges as recommended by manufacturer to allow hinges to function at rated capacities without inducing hinge bind.
b. For detention hinges provide a minimum fillet weld size of 1/4 inch, continuous on three sides of each hinge leaf. When welding detention hinges, attach ground to prevent welding current from being carried through the hinge barrel. Weld interpass temperature of the hinge not to exceed 225 degrees F.
c. Hinge leafs: Full sized, or one leaf is full size and the other one is 1-1/2 inches minimum to centerline of barrel sized to fit frame.

3. Rivets and Riveting:
   a. Rivets: 3/8 inch diameter, countersunk flush type, and spaced 4 to 6 inches on center as the nature of the Work requires. Diameter of holes for rivets shall not exceed rivet diameter by more than 1/16 inch. Holes not in true alignment shall be reamed; drifting or gouging will not be permitted.
   b. Riveting: Drive rivets down to completely fill holes. Replace loose rivets and those with imperfect heads, or without firm bearing on metal, with good rivets.
4. Bolting: Use only where indicated or approved, and only where nuts are not accessible to inmates or exposed to public view. Draw nuts up tight and batter threads, unless otherwise indicated.
5. Cutting and Drilling for Others: Cut, drill and tap the Work of this Section as required to receive items provided under Related Contracts.
6. Prepare and reinforce doors to receive surface, mortised, and concealed hardware.
   a. 10 gage plate unless noted otherwise.
   b. 2 x 2 x 3/16x10-1/2 inches steel tube for surface mounted pulls.

B. Galvanizing: Galvanize items specified or indicated to be galvanized.
1. Process: Hot-dip process, after fabrication of items. Comply with the following:
   a. ASTM A 123 for plain and fabricated material, and assembled products.
   b. ASTM A 153 for iron and steel hardware.

C. Shop Painting:
1. Thoroughly clean all surfaces of ferrous metal, removing rust, scale, and other deleterious material.
   a. Galvanized Metal: Rinse in hot alkali or in an acid solution, and then in clear water. When dry, repair final assembly welds and abraded areas with a 2.0 mil thick dry film coating of cold galvanizing compound applied in accordance with compound manufacturer's instructions.
2. Apply one coat of shop paint to all surfaces of ferrous metal, except as otherwise required for moving parts and except for surfaces to be embedded in concrete or masonry or to be field welded after fabrication

in accordance with the paint manufacturer's instructions and at a rate to provide a uniform minimum wet film thickness of 3.0 mils.

a. Hollow Steel Doors: Paint all inner surfaces of doors before insulation and second face panel is installed.

b. Finish paint inside of control cabinets with manufacturer's standard gray enamel system.

D. Swinging Hollow Steel Doors: Flush type, 2-1/4 inches thick. Doors shall have not more than 1/8 inch clearance from frame, unless otherwise indicated. On doors without thresholds, bottom clearance to finish floor is 3/4 inch maximum, maximum of 1/4 inch on doors having head and foot bolts.

1. Framing: Frame doors with 2 x 1 x 3/16 inches steel channels on all four edges, four intermediate 2 x 1 x 3/16 inches steel channels extending horizontally the full width of the door. Doors with a lock box shall have a 2 x 1/2 inches steel bar on lock edge and steel channels on other three edges. Locate two of the intermediate channels about 4 inches above and below the centerline of the door, or at the top and bottom of the lock box if required, and the other two half way between these and the top and bottom of the door. Extend legs of perimeter channels inward and miter at corners. Cope legs to fit intermediate channels. Set channels at top, bottom and lock edge 1/8 inch back from edge of face panels opposite stop side to allow for welding; set channel back at hinge edge to receive leaves of mortised hinges. Fill out spaces above, below, and between hinges with steel bar riveted to the channel. Reinforce for full surface hinge application with 2 x 2 x 3/16 x 6 inch long steel tubes. Weld junctions of all channels.
2. Insulation: Fully fill doors with non-combustible mineral wool fiber materials having a minimum thermal resistance, R-value of 4.1 per inch, unless otherwise indicated.
3. Face Panels: Weld 10 gage, single sheet steel panel on each door face. Weld back of one panel to framing; plug weld the other panel to framing. Make inner welds at least 1/2 inch long on alternate sides of channels and spaced 6 inches oc. Plug welds shall have equivalent strength of inner welds. Weld panel edges to the perimeter frame.
4. Observation Light: Frame opening with 2 x 1 x 3/16 inches steel channels on all four sides. Cut face panels for light and weld panel edges to frame. Unless otherwise indicated, weld to door 1/4 inch continuous bent steel plate "Z" shaped stop to perimeter of opening, drilled and tapped for fasteners, and provide 1-1/2 x 1-1/4 inches continuous steel bar stop (LLV) attached with 5/16 inch diameter high strength tamper resistant machine screws 4 inches on center maximum, 2 inches maximum from end on threat side of door.
5. Prepare and reinforce doors to receive surface, mortised, and concealed hardware.
6. View Window: Steel framed opening, 1/8 inch thick sliding steel plate door, S-9 security glazing and accessories as indicated.
7. Lock Box: Frame pocket with 2 x 1 x 3/16 inches steel channels unless otherwise indicated. Cut one face panel for lock box cover plate. Fabricate cover plate of 1/8 inch thick steel sheet. Cover plate shall be flush with face panel and attached to lock pocket framing with Torx

center pin security head machine screws. Weld filler plates in lock box as required to receive lock.

a. Locate removable cover plate on the side of the door opposite the threat side.

8. Galvanizing: Galvanize entire assembly of exterior doors and doors in wet areas.

I. Structural Steel Door Frames: Fabricate of structural shapes and bars as specified or indicated, square, true, uniform, and fully welded. Ship with temporary spreader at bottom.

1. Stops: 1-1/2 x 3/4 inches steel bar, plug welded to frame on not more than 8 inch centers.
2. Floor Anchors: Steel angle clip welded to back of frame at bottom of each jamb. Prepare clips for anchorage to floor construction indicated.
3. Jamb Anchors: 2 x 1/4 inches steel strap anchors, not less than 8 inches long and terminating with l inch bent end, welded to jambs. Anchors shall be fixed for concrete walls and adjustable type for masonry walls. Anchors, for exterior frames in concrete masonry unit construction, shall extend into cells (cores) as indicated. Space anchors not exceeding 16 inches oc, with no less than 4 anchors per jamb.
4. In-Place Masonry Construction Jamb Anchors: 3/8 inch diameter Type 304 stainless steel button head machine bolts and expansion shields, spaced not exceeding 16 inches oc, with not less than 4 anchors per jamb.
5. Prepare frames to receive and accommodate required hardware and other items. Form slots in frames to serve as hardware strikes, unless otherwise indicated. Weld 12 gage steel box closures on back of frame where slots for hardware occur.
6. Galvanizing: Galvanize entire assembly of exterior door frames and frames in wet areas.

J. **KEYING**

1. Provide two key changes to match existing keying.
2. Provide 7 cut keys for each change.

PART 3 EXECUTION

3.01 DETENTION EQUIPMENT INSTALLATION

A. Install the Work of this Section in its designed position, plumb, level, square, straight, and true, and in accordance with the manufacturer's approved shop drawings.

B. Brace assembled fabrications until permanently secured in place to prevent displacement or distortion of the members.

C. Comply with requirements of FABRICATION AND MANUFACTURE Article. Touch-up abraded areas and areas of field welding as required, with compatible primer and finish paint, or cold galvanizing compound.

1. For exposed galvanized items, touch-ups shall include the full width and

length of the face of steel in the area of abrasion and welds. Brush apply cold galvanizing compound in accordance with ASTM A780 requirements to a 3.0 mil dry film thickness.

D. Use only rotary power drills where masonry or concrete is required to be drilled. Drill holes to exact size required.

E. Perform welding in accordance with the AWS Codes.

F. Surface mount hinges unless noted otherwise.
   a. Weld detention hinges as recommended by manufacturer to allow hinges to function at rated capacities without inducing hinge bind.
   b. For detention hinges provide a minimum fillet weld size of 1/4 inch, continuous on three sides of each hinge leaf. When welding detention hinges, attach ground to prevent welding current from being carried through the hinge barrel. Weld interpass temperature of the hinge not to exceed 225 degrees F.
   c. Hinge leafs: Full sized, or one leaf is full size and the other one is 1-1/2 inches minimum to centerline of barrel sized to fit frame.

G. Side hinged doors and gates shall not be hinge bound, nor sprung, nor travel nor drift more than 5 degrees of arc in either direction when placed in any stationary position of its swing.

H. Neatly install and securely fasten hardware. Keep polished hardware and handles free from scratches and defacement with temporary protective covers.
   1. Installation Sequence: Use proper installation sequence e.g., install overhead stops and coordinators before surface mounted door closers.
   2. Template door closers for maximum door swing allowed by wall placement and jamb conditions. Where overhead stop prevents door from swinging to wall, template closer to exceed degree of opening allowed by overhead stop. Verify with closer/overhead stop manufacturers, the special templates provided are compatible with the 2-1/4 inch door thickness and 5 inch prison hinge installation.
   3. Attach closers and overhead stops to doors with through-bolts.

I. Attach cell numbers to front of track box with Torx center pin security head machine screws or rivets.

3.04 FIELD QUALITY CONTROL

A. Testing Of Detention Equipment:
   1. Preparation: Notify the Director's Representative at least three working days prior to the tests so arrangements can be made to have a Facility Representative witness the tests.
      a. Remove protective covering from view windows, hardware, etc.
   2. Testing: Individually test each door covering all functions and features one at a time.
   3. Test each manual lock for ease of operation.
   5. Supply all equipment necessary for system adjustment and testing.

READ PHANTOM NOTES.

3.05 ADJUSTING

A. Adjust operative units and equipment to work freely and easily, ready for use. Field lubricate operating and locking systems in accordance with the manufacturer's maintenance instructions. Adjust equipment when the temperature is approximately 70 degrees F.

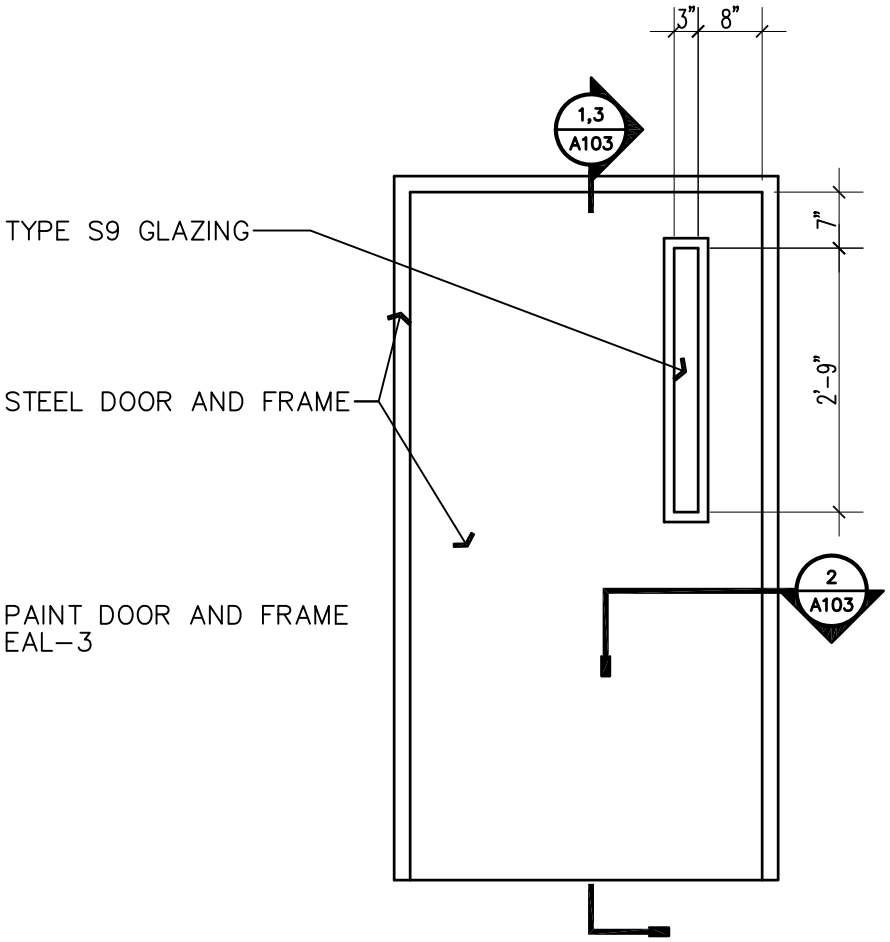
3.06 DETENTION HARDWARE SCHEDULE

A. Refer to Door Schedule.

END OF SECTION

DOOR SCHEDULE

DOOR NUMBER	DOORS SIZE WIDTH	DOORS SIZE HEIGHT	DOORS SIZE THICK.	DOORS TYPE	DOORS MAT.	FRAME MAT.	FRAME JAMB DETAIL	FRAME HEAD DETAIL	DETENTION	KEY SIDE	COVERPLATE SIDE	FIRE RATING	GLASS TYPE	HARDWARE GROUP	REMARKS
SA1	3'-8"±	6'-10"±	2 1/4"	FV	STEEL	STEEL	2/A103	1/A103	●	BS	HS	–	S9	A	
SB1	3'-8"±	6'-10"±	2 1/4"	FV	STEEL	STEEL	2/A103	1/A103	●	BS	HS	–	S9	A	



7 **DOOR TYPE FV**

SCALE: ½"=1'-0" REPLACES 7/A-103

NYS OFFICE OF GENERAL SERVICES
Serving New York

CONTRACT:	CONSTRUCTION
PROJ. NO:	44712-C
DATE:	02/20/2015
DRAWN:	JCR
APPROVED:	JCR

SHEET TITLE:
DOOR SCHEDULE &
DOOR TYPE

PROJECT: MIDSTATE CORRECTIONAL FACILITY
REHABILITATE STAIR WELLS BUILDING 21

DWG NO: AD-1