COMMONWEALTH OF KENTUCKY
DEPARTMENT FOR FACILITIES AND SUPPORT SERVICES
DIVISION OF ENGINEERING AND CONTRACT ADMINISTRATION

INVITATION TO BID NO: RFB-163-21 **DATE:** March 11, 2021
FOR: Fire Door Replacement
Northpoint Training Center
Burgin, Kentucky

ADDENDUM NO. Two (2)

BIDDER SHALL CONFORM TO THE FOLLOWING CHANGES AS SAME SHALL BECOME BINDING UPON THE CONTRACT TO BE ISSUED IN RESPONSE TO THIS INVITATION TO BID.

Item 1: Change official bid opening date to **March 17, 2021**; all other bidding information remains the same.

Item 2: Refer to addendum to be distributed by Lynn Imaging for all additions, deletions, and/or changes to specifications and/or drawings.

END OF ADDENDUM

Invitation to Bid No. RFB-163-21
For: Fire Door Replacement
Northpoint Training Center
Burgin, Kentucky

Kristi Sharp, CPPB, Statewide Procurement Analyst II
Division of Engineering and Contract Administration

Addendum 2

Question: Please clarify paint scope

Answer: Frames and doors should arrive on site primed and ready to paint. The owner has indicated they will paint the doors.

Question: Please clarify scope for door access controls.

Answer: Any existing access control devices (locks, latches, etc.) shall be reinstalled into the new door/frame.

Question: I spoke with one of my door suppliers this morning about the access control disconnect and reconnect. He suggested that we go through the security controls team for this process. Do you know who the prisons security vendor is?

Answer: This work will need to be completed by the contractor. The locks are low voltage and operated by push buttons in the RHU control center.

Question: Has a dumpster location been determined for this project?

Answer: A dumpster will be permitted within 50ft of the RHU building in a secured area. Size of dumpster will be determined by available space.

Question: Door 500 is scheduled as 4' wide. The current door is only 3' wide. A retrofit is not possible due to the defined scope for retaining the lock pocket. The door frame (Type B) is flush with perpendicular wall opposite lock box. It is not possible to move the door frame "left" based upon the current scope and spacial constraints. Does the owner accept replacement of existing door with one that matches size?

Answer: Change door width to match existing – 3’-0”

Question: The scope of work requires the contractor to "reuse glazing". This will be difficult, if not impossible. Door 500 has had recent glazing replacements on the upper panel of unknown glazing type, fastening, and sealant. Remaining doors have many layers of paint, security sealant, as well as failure in the interior layers causing limited or no visibility. From experience, removal of glazing from security doors is extremely time consuming and often results in panel replacement anyway. Will the owner consider increasing the budget for glazing replacement or adding an allowance for glazing that requires replacement?

Answer: Suggest an alternate to replace glazing with same thickness glass-clad polycarbonate

Question: If glazing must be reused, what is the procedure if one or multiple panels fail, regardless of which party is responsible for replacement? There will be lead times to received replacement panels. What are acceptable materials/methods for temporary infill of damaged glazing (metal, wood, polycarbonate, etc)?

Answer: Alternate identified above would cover this.

Question: Looks like all glazings will need to be replaced. Do we have a specification for glass?

Answer: Glazings are noted as re-use for all doors. Recommend providing an alternate bid for replacement. Specification is included with this addendum.

Question: Should the contractor assume that any door removed must also be installed, secured, and functional within the same work day? If so, will extended work hours be granted in order to accomplish this?

Answer: The owner plans to evacuate each wing while work is occurring providing 2 days for each door. If this is prohibitive, Owner is open to discussing extended working hours.

Question: Our working hours are 7-3. Should we expect 4-5 hours of actual work per day due to security check in and out?

Answer: Typical security check in and out ranges from 15-30 minutes but may vary. It is recommended that lunch be brought and eaten on site to avoid additional security check procedures.

SECTION 08 88 53 - SECURITY GLAZING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes glass-clad polycarbonate and insulating security glazing for the following applications:

1. Doors.

1.3 DEFINITIONS

A. Glazing Manufacturers: Firms that produce primary glass, monolithic plastic glazing, or fabricated security glazing, as defined in referenced glazing publications.

1.4 COORDINATION

A. Coordinate glazing channel dimensions to provide necessary bite on security glazing, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances.

1.6 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Delegated-Design Submittal: For security glazing indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

C. Glazing Detail: Submit drawing showing intended installation method, list all tapes, caulks, setting blocks with documentation from Security Glazing manufacturer that all are compatible with the specified glazing material.

1.7 INFORMATIONAL SUBMITTALS

A. Qualification Data: For installers.

B. Product Certificates: For each type of product indicated, from manufacturer.

C. Product Test Reports: For each type of security glazing, for tests performed by a qualified testing agency.

D. Product Test Reports: For each type of glazing sealant, for tests performed by a qualified testing agency.

1. Provide test reports based on testing current sealant formulations within previous 36-month period.

E. Sample Warranties: For special warranties.

1.8 QUALITY ASSURANCE

A. Installer Qualifications: A qualified installer who employs glazing installers for this Project who are certified under the National Glass Association Glazier Certification Program.

B. Security Glazing Testing Agency Qualifications: Subject to compliance with requirements, testing agency is one of the following:

2. H. P. White Laboratory, Inc.
3. Underwriters Laboratories, Inc.
4. Wiss, Janney, Elstner Associates, Inc.

C. Sealant Testing Agency Qualifications: Qualified according to ASTM C 1021 for testing indicated.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Protect security glazing and glazing materials according to manufacturer's written instructions. Prevent damage from condensation, temperature changes, direct exposure to sun, or other causes.

B. Comply with insulating security glazing and with air-gap security glazing manufacturers' written recommendations for venting and sealing units to avoid hermetic seal ruptures due to altitude change.

1.10 FIELD CONDITIONS

A. Environmental Limitations: Do not proceed with glazing when ambient and substrate temperature conditions are outside limits permitted by glazing material manufacturers and when glazing channel substrates are wet from rain, frost, condensation, or other causes.

1. Do not install glazing sealants when ambient and substrate temperature conditions are outside limits permitted by sealant manufacturer or below 40 deg F.

1.11 WARRANTY

A. Manufacturer's Special Warranty for Glass-Clad Polycarbonate: Manufacturer agrees to replace glass-clad polycarbonate that deteriorates within specified warranty period. Deterioration of glass-clad polycarbonate is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning glass-clad polycarbonate contrary to manufacturer's written instructions. Defects include edge separation, delamination materially obstructing vision through glazing, blemishes exceeding those allowed by referenced glass-clad polycarbonate standard, yellowing, and loss of light transmission.

1. Warranty Period: 5 years from date of Substantial Completion.

B. PRODUCTS

1.5 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements provide by one of the following:

1. Global Security Glazing.
2. Insulgard Security Products.
3. Oldcastle Building Envelope.

B. Source Limitations for Security Glazing: Obtain security glazing from single source from single manufacturer using the same types of lites, plies, interlayers, and spacers for each security glazing type indicated.

C. Source Limitations for Glazing Sealants and Gaskets: Obtain from single source from single manufacturer for each product and installation method.

1.6 PERFORMANCE REQUIREMENTS

A. General:

1. Installed security glazing shall withstand normal thermal movement and wind and impact loads (where applicable) without failure, including loss or breakage attributable to the following: defective manufacture, fabrication, or installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing; or other defects in construction.

2. Installed security glazing shall withstand security-related loads and forces without damage to the glazing beyond that allowed by referenced standards.

B. Structural Performance: Glazing shall withstand the following design loads within limits and under conditions indicated.

1. Design Procedure for Glass: ASTM E 1300 and ICC's International Building Code.

C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on glazing framing members and glazing components.

1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

1.7 SECURITY GLAZING, GENERAL

A. Glazing Publications: Comply with published recommendations of security glazing and glazing material manufacturers and organizations below unless more stringent requirements are indicated. Refer to these publications for glazing terms not otherwise defined in this Section or in referenced standards. Retain publications in four subparagraphs below that apply to glazing products specified.

1. GANA Publications: "Laminated Glazing Reference Manual" and "Glazing Manual."
2. AAMA Publications: AAMA GDSG-1, "Glass Design for Sloped Glazing," and AAMA TIR-A7, "Sloped Glazing Guidelines."
3. IGMA Publication for Sloped Glazing: IGMA TB-3001, "Guidelines for Sloped Glazing."
4. IGMA Publication for Insulating Glass: SIGMA TM-3000, "North American Glazing Guidelines for Sealed Insulating Glass Units for Commercial and Residential Use."

B. Plastic Glazing Labeling: Identify plastic sheets with appropriate markings of applicable testing and inspecting agency, indicating compliance with required fire-test-response characteristics.

C. Safety Glazing Labeling: Where safety glazing is indicated, permanently mark glazing with certification label of the Safety Glazing Certification Council. Label shall indicate manufacturer's name, type of glazing, glass thickness, and safety glazing standard with which glazing complies.

D. Ballistics Resistance: Provide glazing materials capable of resisting ballistic impact at levels indicated as determined from testing identical materials according to UL 752.

E. Attack Resistance: Provide glazing materials capable of resisting attack of type and at security-grade levels indicated as determined from testing identical materials according to ASTM F 1915.

F. Human Impact Load Resistance: Provide Category II glazing materials based on complying and testing requirements in 16 CFR 1201.

G. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on glazing framing members and glazing components.

1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

H. Fire-Test-Response Characteristics of Polycarbonate Sheets: As determined by testing polycarbonate sheets identical to those used in security glazing products by a qualified testing agency acceptable to authorities having jurisdiction.

1. Self-ignition temperature of 650 deg F or more when tested according to ASTM D 1929 on plastic sheets in thicknesses indicated for the Work.
2. Smoke-Developed Index of 450 or less when tested according to ASTM E 84, or smoke density of 75 or less when tested according to ASTM D 2843 on plastic sheets in thicknesses indicated for the Work.
3. Burning extent of 1 inch or less when tested according to ASTM D 635 at a nominal thickness of 0.060 inch or thickness indicated for the Work.

1.8 GLASS PRODUCTS

A. Float Glass: ASTM C 1036, Type I, Quality-Q3, Class I (clear) unless otherwise indicated.

B. Heat-Treated Float Glass: ASTM C 1048; Type I; Quality-Q3; Class I (clear) unless otherwise indicated; of kind and condition indicated.

1. Fabrication Process: By horizontal (roller-hearth) process with roll-wave distortion parallel to bottom edge of glass as installed unless otherwise indicated.
2. For heat-strengthened float glass, comply with requirements for Kind HS.
3. For fully tempered float glass, comply with requirements for Kind FT.
4. For uncoated glass, comply with requirements for Condition A.

2.5 LAMINATED GLASS

A. Laminated Glass: ASTM C 1172. Use materials that have a proven record of no tendency to bubble, discolor, or lose physical and mechanical properties after fabrication and installation.

5. Interlayer Thickness: Provide thickness not less than that indicated and as needed to comply with requirements.
2. Interlayer Color: Clear unless otherwise indicated.

2.6 POLYCARBONATE SECURITY GLAZING

A. Polycarbonate Sheet: ASTM C 1349, Appendix X1, Type II, coated, mar-resistant, UV-stabilized polycarbonate with coating on exposed surfaces and Type I, standard, UV-stabilized polycarbonate where no surfaces are exposed.

B. Laminated Polycarbonate: Polycarbonate sheets laminated with clear urethane interlayer that complies with ASTM C 1349, Appendix X2, and has a proven record of no tendency to bubble, discolor, or lose physical and mechanical properties after fabrication and installation. Provide laminated units that comply with requirements of ASTM C 1349 for maximum allowable laminating process blemishes and haze.

C. Glass-Clad Polycarbonate: ASTM C 1349.

2.8 GLAZING SEALANTS

A. General:

1. Compatibility: Provide glazing sealants that are compatible with one another and with other materials they contact, including security glazing, seals of insulating security glazing and air-gap security glazing, and glazing channel substrates, under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
2. Suitability: Comply with sealant and security glazing manufacturers' written instructions for selecting glazing sealants suitable for applications indicated and for conditions existing at time of installation.
3. Colors of Exposed Glazing Sealants: As selected by Architect from manufacturer's full range.

B. Glazing Sealant: Neutral-curing silicone glazing sealant complying with ASTM C 920, Type S, Grade NS, Class 100/50 or as required, Use NT.

1. Products: Subject to compliance with requirements, provide one of the following:

a. Dow Corning Corporation.
b. GE Construction Sealants; Momentive Performance Materials Inc.
c. Pecora Corporation.
d. Sika Corporation.
e. Tremco Incorporated.
f. May National Associates, Inc.

C. Security Sealant: Manufacturer's standard, nonsag, tamper-resistant sealant for joints with low movement complying with ASTM C 920, Grade NS, Class 12.5 or 25, Use NT, and with a Shore A hardness of at least 45 when tested according to ASTM C 661.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. BASF Corporation; Construction Systems.
g. Pecora Corporation.

1.9 GLAZING TAPES

A. Back-Bedding Mastic Glazing Tapes: Preformed, butyl-based, 100 percent solids elastomeric tape; nonstaining and nonmigrating in contact with nonporous surfaces; with or without spacer rod as recommended in writing by tape and security glazing manufacturers for application indicated; and complying with ASTM C 1281 and AAMA 800 for products indicated below:

1. AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.
2. AAMA 807.3 tape, for glazing applications in which tape is not subject to continuous pressure.

B. Expanded Cellular Glazing Tapes: Closed-cell, PVC foam tapes; factory coated with adhesive on both surfaces; and complying with AAMA 800 for the following types:

1. AAMA 810.1, Type 1, for glazing applications in which tape acts as the primary sealant.
2. AAMA 810.1, Type 2, for glazing applications in which tape is used in combination with a full bead of liquid sealant.

1.10 MISCELLANEOUS GLAZING MATERIALS

A. General: Provide products of material, size, and shape complying with referenced glazing standard, requirements of manufacturers of security glazing and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.

B. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.

C. Setting Blocks: Elastomeric material with a Shore, Type A durometer hardness of 85, plus or minus 5.

D. Spacers: Elastomeric blocks or continuous extrusions of hardness required by security glazing manufacturer to maintain security glazing lites in place for installation indicated.

E. Edge Blocks: Elastomeric material of hardness needed to limit security glazing lateral movement (side walking).

1.11 FABRICATION OF SECURITY GLAZING

A. Fabricate security glazing in sizes required to fit openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system performance requirements.

PART 2 - EXECUTION

2.1 EXAMINATION

A. Examine framing for security glazing, with Installer present, for compliance with the following:

1. Manufacturing and installation tolerances, including those for size, squareness, and offsets at corners.
2. Presence and functioning of weep system.
3. Minimum required face or edge clearances.
4. Minimum required bite.
5. Effective sealing between joints of framing members.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

2.2 PREPARATION

A. Clean glazing channels and other framing members receiving security glazing immediately before glazing. Remove coatings not firmly bonded to substrates.

B. Examine glazing units to locate exterior and interior surfaces. Label or mark units as needed so that exterior and interior surfaces are readily identifiable. Do not use materials that will leave visible marks in the completed work.

2.3 GLAZING, GENERAL

A. Comply with combined written instructions of manufacturers of security glazing, sealants, gaskets, and other glazing materials unless more stringent requirements are indicated, including those in referenced glazing publications.

B. Protect edges of security glazing from damage during handling and installation. Remove damaged security glazing from Project site and legally dispose of off Project site. Damaged security glazing includes units with edge or face damage or other imperfections that, when installed, could weaken security glazing and impair performance and appearance.

C. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction testing.

D. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications unless otherwise required by glazing unit manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.

E. Do not exceed edge pressures stipulated by security glazing manufacturers for installing lites.

F. Provide edge blocking where indicated or needed to prevent security glazing from moving sideways in glazing channel, as recommended in writing by security glazing manufacturer and according to requirements in referenced glazing publications.

G. Set security glazing in each series with uniform pattern, draw, bow, and similar characteristics.

H. Set coated security glazing with proper orientation so that coatings and films face exterior or interior as specified.

I. Square cut wedge-shaped gaskets at corners and install gaskets in a manner recommended by gasket manufacturer to prevent corners from pulling away; seal corner joints and butt joints with sealant recommended by gasket manufacturer.

J. For fire-rated material, follow manufacturers UL approved “as tested” installation.

2.4 TAPE GLAZING

A. Position tapes on fixed stops so that, when compressed by security glazing, their exposed edges are flush with or protrude slightly above sightline of stops.

B. Install tapes continuously, but not necessarily in one continuous length. Do not stretch tapes to make them fit opening.

C. Cover vertical framing joints by applying tapes to heads and sills first and then to jambs. Cover horizontal framing joints by applying tapes to jambs and then to heads and sills.

D. Place joints in tapes at corners of opening with adjoining lengths butted together, not lapped. Seal joints in tapes with compatible sealant approved by tape manufacturer.

E. Do not remove release paper from tape until just before each glazing unit is installed.

F. Apply heel bead of elastomeric sealant.

G. Center security glazing in openings on setting blocks and press firmly against tape by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings.

H. Apply cap bead of elastomeric sealant over exposed edge of tape.

2.5 CLEANING AND PROTECTION

A. Immediately after installation remove nonpermanent labels and clean surfaces.

B. Protect security glazing from contact with contaminating substances resulting from construction operations, including weld splatter. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains.

1. If, despite such protection, contaminating substances do come into contact with security glazing, remove substances immediately as recommended in writing by security glazing manufacturer. Remove and replace security glazing that cannot be cleaned without damage.

C. Wash security glazing on both exposed surfaces in each area of Project not more than four days before date scheduled for inspections that establish date of Substantial Completion. Wash security glazing as recommended in writing by security glazing manufacturer.

2.6 SECURITY GLAZING SCHEDULE

A. GCP-1: Clear symmetrical glass-clad polycarbonate.

1. Basis-of-Design Product: Subject to compliance with requirements, provide Global Security Glazing; “Secur-Tem + Poly® SP028” or comparable product by one of the following:

   a. Oldcastle Building Envelope® - ArmorProtect® Glass-Clad Polycarbonate.
   b. Dlubak Specialty Glass Corp.

2. Detention Security Grade: Grade 1, 60-minute physical attack according to ASTM F 1915 cold-temperature impact test, warm-temperature impact test and torch and small blunt impact test.
3. Forced-Entry Resistance: Level IV according to HPW-TP-0500.02.
4. Ballistic Resistance: .9mm, 3 shots in an 8” circle, 158 grain lead, 20 feet, no penetration.
5. Overall Unit Thickness: 1-inches nominal.
6. Outer Ply: 3-mm heat strengthened float glass.
7. Multiple Ply Core: Laminated polycarbonate.
8. Inner Ply: 3-mm heat strengthened float glass.
9. Interlayer Material: Polyurethane.
10. Interlayer Thickness: 0.050-inch.
11. Overall Visible Light Transmittance: 0.67 percent.
12. Bite: 1”.

END OF SECTION 08 88 53