



Richard Y. Johnson & Son, Inc.

General Contractors & Construction Managers

Serving Delaware Since 1946

www.ryjson.com

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DTCC No. C9004020002

Delaware Technical Community College

Betze Learning Commons

Bid Pac A – Contracts 1 thru 17

July 23, 2026

Addendum No. 4

Attention all Prospective Bidders:

The following clarifications, changes and /or additions shall by this reference be incorporated into the contract documents as though dully set forth therein.

Addendum No. 4 consists of:

RYJ Written directive (6 pages)

BSA Narrative (3 pages)

Gipe Associates Narrative (2 pages)

DTCC Betze Learning Commons Scope Review Schedule (1 page)

Section 004126 Bid Form (For Contract 6 Carpentry & General Works Only (11 pages)

Specification Section 084326 – All Glass Storefronts (4 pages)

Specification Section 087100 – Door Hardware (16 pages)

Specification Section 096400 – Wood Flooring (5 pages)

Civil Drawings (3 Drawings)

Structural Drawings (2 Drawings)

Architectural Drawings (6 Drawings)

MEP Drawings (7 Drawings)

Non – Technical Specifications

Section 000110– Table of Contents

Page 000110-3 – **Delete.** “084326 – Glazed Aluminum Curtain Wall”

Page 000110-3 – **Add.** “084413 – Glazed Aluminum Curtain Wall”

Section 001116 – Advertisement for Bid

No Change - Bids are Due July 28, 2026 at 2:00pm and are to be read aloud at DTCC Owens Campus located at 21179 College Drive Georgetown, DE 19947 in the Theatre, in the Arts and Sciences Building.

Section 004126 – Bid Form

See attached Bid Form for Contract 6 Carpentry & General Works (Added Allowance 16 on Sheet 004126-4)

***Note:** All contracts except Contract 6 is to use bid forms in Addendum 1, Contract 6 is to use bid form in Addendum 4

Section 011100– Summary of Work

Bid Pac A – Contract 6 Carpentry & General Works

Page 011100-22 – **Paragraph DDD; Add Paragraph DDD.** “Include the lump sum of the following amount **\$50,000** in the contract for Section 101416 Plaques and Section 101419 Dimensional Letters material and labor.”

Bid Pac A – Contract 9 Aluminum Storefront/Windows/Glass and Glazing

Page 011100-28 – **Paragraph A; Add to Paragraph A.** “084413 Glazed Aluminum Curtain Wall”

Bid Pac A – Contract 12 Floor Coverings

Page 011100-34 – **Paragraph A; Add to Paragraph A.** “096400 – Wood Flooring”

Section 012100 Allowances

Page 012100 - 4 – **Add Item 16:** “Contract 6 Carpentry & General Work; Include the lump sum of the following amount **\$50,000** in the contract for Section 101416 Plaques and Section 101419 Dimensional Letters material and labor.”

Bidders Questions + Clarification

***Note: Refer to previous addendums for any questions not listed below. Questions answered in previous addendums are not shown below.**

RFI No.	Description
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RFI 13

Question 4:

Plan A005 under 2 ½” indicates 3 5/8” metal stud and wall types D35, 36 are duplicated under 3 5/8” wall type. What is wall type ?? under 2 ½”? Wall type D44 is missing.

Answer:

Drawing revised in addendum 3.

RFI 16

Question 8: (Revised)

Does the BAS contractor need to include any scope for the lighting control system other than Installing communication wiring to the central lighting controller and integrating through BACnet?

Answer:

Once again, we do not want to limit competition so who provides what will be dependent on what equipment the contractors are going to utilize for the project. This is a coordination item between the electrical subcontractor, lighting control system supplier, and the atc subcontractor.

RFI 22

Question 1:

Please provide more information in reference to the gate on the screen walls.

Answer:

To be clarified in Addendum No. 04

RFI 23

Question 4:

Do they have a specific lock in mind to support the “district standard keyways”? Or would they provide the tumbler?

Answer:

See revised 08 71 00 Door Hardware Specification - Sargent 8205 LN J 26D is standard district hardware. Key cores to be OFCI.

RFI 27

Question 1:

Item S. Provide all wood and metal storage shelving in closets and other areas. P-lam and melamine shelving provided by Contract No. 14 Casework.

a. Nothing shown on drawings. (Storage Room A109?)

Answer:

Storage shelving N.I.C.

RFI 29

Question 1:

Calls for Hush Series Frameless Glass Wall System by Metro Wall

This is specified as an acoustical set up. I’m not aware of another manufacturer with an equal product in order to get the STC rating specified. Metro Wall will only quote and install to a general contractor directly. They refused to quote to us. Please provide another manufacture as Basis of design or remove this work from our SOW.

Answer:

Specification to be revised in Addendum NO. 04 to provide additional manufacturers. Provide by Contract 9 Aluminum Storefront/Windows/Glass and Glazing

RFI 30

Question 1:

Do all exposed ceilings get painted? C101 Storage, C103 Fire Riser, C104 Main Mechanical, C106 Primary Elec, etc. as examples.

Answer:

Mechanical and storage rooms do not receive paint on the exposed ceiling elements.

RFI 31

Question 1:

I notice that my question regarding the inclusion in scope of wood flooring and benches in the Floor Covering package was not addressed in Addendum #3. There are no wood floors or benches on the project that I can see; please advise.

Answer:

Specification and drawings to be updated to clarify in greater detail where wood flooring is in scope. Specification section 09 64 00 Wood Flooring applies anywhere that note **WD-01** occurs (both horizontal and vertical surfaces). See Learning stair plans and details for more information. Disregard bench reference. Provided by Contract 12 Floor Covering Work.

RFI 32

Question 1:

Contract 9 SOW item O. “Demolition of existing glass and glazing”

Wouldn’t that be on the demo guy per item R of demolition SOW? Demo all windows, storefront, curtainwall and doors?

Answer:

Contract 9 Item O only applies to glass only in existing units that remain. Contract 1 Demolition provides demo of all window, storefront, curtain wall and door units complete.

Question 2:

A-630 has a big red not about double laminated glass at Group Study.

I see nothing shown as Group Study. I do see laminated glazing stated at automatic door #B100 on the door schedule. Is that the only frame to get laminated glass

Answer:

Sheet A-630 to be reissued with revisions indicating laminated glazing locations in Addendum No. 04.

RFI 33

Question 1:

Sheet S102.1 calls for 22 ga decking with ¾" sheathing over top at the mechanical chases.

Detail3/A350 shows Cementous board over decking. Please confirm which one is needed.

Answer: Provide 3/4" Structo-Crete concrete floor sheathing or approved equal. Structural drawing to be revised in Addendum No.3; Since there is a fair amount of this who is responsible, Carpentry or Drywall?

Answer:

Contract 10 Drywall/Metal Stud to provide Structo-Crete concrete floor sheathing.

RFI 34

Question 1:

Has anyone picked up on the fact that according to the specification (Section 101416 (plaques), 101419 (dimensional letters)) signage is supposed to be an allowance item. There isn't a specification for room signage. When you go to the allowances (section 012100), there isn't an allowance for any type of signage indicated. Please advise.

Answer:

See revisions to summary of work and bid form attached for added allowance.

RFI 35

Question 1:

RFI 1. What Contract owns the demo of the existing sloped glazing material in the areas of the new metal roofing, Key Note RD01 on Drawing A103 Demolition on Roof Plan. These areas receive new metal decking over CFMF framing. Please clarify if this is by the Demo Contract or Roofing Contract?

Answer:

Contract 1 Demolition to provide demolition of the glazing material.

Substitution Requests

SUB No.	Description
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SUB 01	
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	Substitution
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	Section 142460 – Elevators - Kaiser Elevator
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	Answer:
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	Substitution Rejected – use specified materials
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SUB 02

Substitution

Section 084229 – Automatic Sliding Doors – Record 5100 Series

Answer:

Approved as Noted; Substitution reviewed as noted given that the proposed product(s) meet the following requirements:

- All requirements outlined in 08 42 29 Automatic Sliding Doors are met.
- System is easily compatible with standard aluminum framed storefront systems.
- Installation coordination required by sliding entrance installer and aluminum storefront installer.
- Automatic Sliding Door systems proposed provide full breakaway door panels for emergency egress.
- Prior to installation confirm with Architect that full breakaway width meets egress requirements.

SUB 03

Substitution

Section 055800 – Decorative Column Covers – Pittcon Industries Series KS

Answer:

Approved as Noted; Substitution acceptable given the product meets as requirements in specification 05 58 00 and finishes as selected by architect are at no additional cost.

SUB 04

Substitution

Section 098411 – Wall Mounted Acoustic Panels – J2 PET Engraved Panels

Answer:

Substitution Rejected – use specified materials

SUB 05

Substitution 1:

Please consider adding VTS to the list of pre-approved manufacturers for the Ducted ECM Fan Coil/Blower Coil Units specified under specification section 230600-27-2.18 Ducted ECM Fan Coil/Blower Coil Units - Paragraph A. Please see the attached Substitution Form and Submittal with C.D.E. specification comparison.

Answer 1:

For all substitutions, the Contractor shall verify that the submitted equipment will fit within the space allocated for the same and maintain all manufacturer's service and maintenance clearance requirements.

Substitution 2:

Please consider adding SIGMA to the list of pre-approved manufacturers for the Floor Mounted Finned Tube Radiation specified under specification section 230600-22-2.14 Floor Mounted Finned Tube Radiation - Paragraph A. Please see the attached Substitution Form and Submittal with C.D.E. specification comparison.

Answer 2:

Approval for bidding on this project is contingent upon meeting all contract document requirements for the products that are being substituted. Where we indicated fused disconnects the manufacturer shall provide fused disconnects.

Substitution 3:

Please consider adding SIGMA to the list of pre-approved manufacturers for the Horizontal Hot Water Unit Heaters specified under specification section 230600-23-2.15 Horizontal Hot Water Unit Heaters - Paragraph A. Please see the attached Substitution Form and Submittal with C.D.E. specification comparison.

Answer 3:

VTs shall not be considered an approved equal for the ducted fan coil units because the same will not fit in the allocated space.

Substitution 4:

Please consider adding SIGMA to the list of pre-approved manufacturers for the Vertical Cabinet Unit Heaters specified under specification section 230600-23-2.16 Vertical Cabinet Unit Heaters - Paragraph A. Please see the attached Substitution Form and Submittal with C.D.E. specification comparison.

Answer 4:

Sigma shall be considered an approved equal for the floor mounted finned tube radiation, horizontal hot water unit heaters, and vertical cabinet unit heaters contingent upon compliance with the contract documents.

SUB 06

Substitution

Section 075323 – EPDM Membrane Roofing – Johns Manville EPDM NR 60 mil

Answer:

Substitution Rejected – use specified materials

SUB 07

Substitution

Section 084326 – All Glass Storefronts – Avanti Systems

Answer:

Substitution approved contingent on the following:

- System meets full requirements outlined in specification 08 43 26 All Glass Storefronts
- System meets STC 50 requirement.
- Submit manufacturer information confirm STC conformance.

End of Addendum No. 4



Planning

Architecture

Interior design

Graphic Design

Project Management

ADDENDUM to CONTRACT DOCUMENTS

Date: 07/23/2026

To: All Bidders

From: BSAA

Copies: All Bidders
Others

Project Name: Stephen J. Betze LC Renovation

Project Number: 25.006

Subject: **ADDENDUM 4**

NOTICE:

Attention is called to the following item(s), effective as of the date above, which shall be added to, deleted from, or changed in the contract documents dated **06/30/2026** and any previously issued addenda, thereby incorporating these items into the contract documents.

Attach this Addendum to the project manual for this project. Work or materials not specifically mentioned herein are to be as described in the main body of the specifications and as shown on the drawings. Bidders shall acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the bidder to disqualification.

The following clarification, changes and/or additions shall by this reference be incorporated into the contract documents as though fully set forth therein.

**Buck Simpers Architect
+ Associates, Inc.**

954 Justison Street
Wilmington, DE 19801

302.658.9300
fax 658.1125

www.simpers.com

A. GENERAL

Item No.		Item
A-1		
A-2		...

B. BIDDER QUESTIONS & CLARIFICATIONS – REFER TO ATTACHED Q&A LOG

C. MODIFICATIONS TO DRAWINGS

Item No.		Description:
C-1		SHEET A111, A131, A143, A402, A601,A630 - Sheet to be reissued in their entirety with revisions.
C-2		-
C-3		-
C-4		
C-5		-
C-6		-

D. MODIFICATIONS TO SPECIFICATIONS

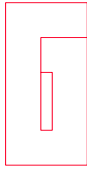
Item No.		Description:
D-1		08 71 00 – Door Hardware: Reissued specification with revised hardware set information.
D-2		08 43 26– All Glass Storefronts: Reissued specification with revisions to approved manufacturers & finish.
D-3		09 64 00 Wood Flooring – Reissued specification with added flooring designation WD-01.
D-4		
D-5		

E. ATTACHMENTS

Items	Date
Architectural Drawings	Adden. Date

Civil Drawing Sheets CC-01, CC-04, CC05 Reissued with Revision	Adden. Date
MEP Drawings See MEP Narrative	Adden. Date
Structural Drawings Sheets S003, S102.1 Reissued with Revision	Adden. Date

END OF ADDENDUM 3



Gipe Associates, Inc.

CONSULTING ENGINEERS

W.O. #: 25053

ADDENDUM NO. 4 (July 23rd, 2026)

RE: Stephen J. Betze Library & Learning Commons
GAI # 25053

FROM: Gipe Associates, Inc.
8719 Brooks Drive,
Easton, MD 21601

TO: Prospective Bidders

This addendum forms a part of the contract documents and modifies the original bidding documents dated June 30th, 2026 as noted below. Acknowledge receipt of this Addendum on the Bid Form. Failure to do so may subject bidder to disqualification.

This Addendum consists of one (1) page, one (1) drawings and one (1) revised specification section.

CHANGES TO DRAWINGS:

1. **REPLACE DRAWING SHEET M501 – HVAC –SCHEDULES WITH THE ENCLOSED**
 - Revised EAT(db) from 55°F to 65°F in the Hydronic Finned Tube Radiation / Panel Radiator Schedule.
2. **REPLACE DRAWING SHEET E001 – FIRST FLOOR PLAN – POWER AND SPECIAL SYSTEMS – NEW WORK WITH THE ENCLOSED**
 - Add provisions for card readers at MDF, IDF, and Faculty Commons.
 - Add receptacle to Receiving A110
3. **REPLACE DRAWING SHEET E001 – LEGEND AND ABBREVIATIONS ELECTRICAL WITH THE ENCLOSED**
 - Add symbol for beam-type smoke detector transmitters and receivers
4. **REPLACE DRAWING SHEET EP102 – SECOND FLOOR PLAN – POWER AND SPECIAL SYSTEMS – NEW WORK WITH THE ENCLOSED**
 - Add provisions for card reader at IDF.
5. **REPLACE DRAWING SHEET EF101 – FIRST FLOOR PLAN –FIRE ALARM – NEW WORK WITH THE ENCLOSED**
 - Add smoke detectors as shown.
6. **REPLACE DRAWING SHEET EF102 – SECOND FLOOR PLAN – FIRE ALARM – NEW WORK WITH THE ENCLOSED**
 - Add smoke detectors as shown.
7. **REPLACE DRAWING SHEET E402 – SCHEDULES -ELECTRICAL WITH THE ENCLOSED**
 - Add wiring to C1N-55 to serve added outlet.

CHANGES TO THE PROJECT MANUAL:

1. **REVISE** Specification Section 260943 “Network Lighting Devices” to add “Leviton GreenMAX” as Vendor (d) under 1.6-C-2:
2. **ADD** Paragraph for Projected Beam-Type Smoke Detectors as 284621-2.5-D as follows:

D. Projected Beam-Type Smoke Detectors

1. Listing Criteria: Investigated, labeled, and marked by qualified electrical testing laboratory in accordance with guide information and standards specified for the following UL product categories:
 - a. Detectors Designed for Smoke Particles: UL CCN UROX, including UL 268 and NFPA 72.
2. Standard Features:
 - a. Product Reference Standards: Ch. 17 of NFPA 72.
 - b. Detector Address: Accessible from FACU and able to identify detector's location within system and its sensitivity setting.
 - c. Operator at FACU, having designated access level, must be able to manually access the following for each detector: primary status, device type, present average value, present sensitivity selected, and sensor range.

PAGE AD-(Addendum 4) - (Page2)

END OF ADDENDUM

1. Enclosure: Drawing sheet M501, E001 EP101, EP102, EF101, EF102, E402.

DTCC Betze Learning Commons Scope Review Meeting Schedule

Location: Zoom (Link to be sent to apparent low bidders)

Apparent Low bidders are required to attend

All times are for **Monday, August 3, 2026**

Contract	Time
Contract 1 Demolition	9:00 am – 9:15 am
Contract 2 Site Work	9:15 am – 9:30 am
Contract 3 Concrete Work	9:30 am – 9:45 am
Contract 4 Masonry Work	9:45 am – 10:00 am
Contract 5 Steel Work	10:00 am – 10:15 am
Contract 6 Carpentry & General Work	10:15 am – 10:30 am
Contract 7 Roofing Work	10:30 am – 10:45 am
Contract 8 Furnish Hollow Metal/Doors /Hardware	10:45 am – 11:00 am
Contract 9 Aluminum Storefront/Windows /Glass & Glazing	11:00 am – 11:15 am
Contract 10 Drywall/Metal Stud	11:15 am – 11:30 am
Contract 11 Acoustical Work	11:30 am – 11:45 am
Contract 12 Floor Covering Work	11:45 am – 12:00 pm
Contract 13 Caulking/Painting	1:30 pm – 1:45 pm
Contract 14 Casework	1:45 pm – 2:00 pm
Contract 15 Mechanical	2:00 pm – 2:15 pm
Contract 16 Sprinkler System	2:15 pm – 2:30 pm
Contract 17 Electrical	2:30 pm – 2:45 pm

BID FORM

ALTERNATES

Alternate prices conform to applicable project specification section. Refer to specifications for a complete description of the following Alternates. An “ADD” or “DEDUCT” amount is indicated by the crossed out part that does not apply. Contract numbers are a recommendation; it is the contractor’s responsibility to determine if an alternate cost affects their pricing

Alternate No. One – Outdoor Gathering Space (Patio) (Contracts A-2, A-3, A-4 & A-5)

1. Base Bid: Sod turf replacement at disturbed area with 1’-0” mow strip at building edge.
2. Alternate: New Specialty stamped concrete with brick knee wall & mounted ornamental site fencing. New sidewalk connector to existing sidewalk.

Add/Delete: _____
(\$ _____)

Alternate No. Two – Interior Library/Learning Commons, Lounge and Circulation Corridor Floor Finishes – 50% Carpet / 50% Terrazzo at first floor & Second Floor. (Contract A-12)

1. Base Bid: As noted on floor plans (Terrazo)
2. Alternate: As noted on floor plans. (LVT)

Add/Delete: _____
(\$ _____)

Alternate No. Three – Terrazzo Flooring in Main Connector Corridor. (Contract A-12)

1. Base Bid: As noted on plans – Provide Terrazzo in C100 where noted on plans.
2. Alternate: Provide LVT in C100 where noted on plans.

Add/Delete: _____
(\$ _____)

Alternate No. Four – ATC System by Siemens. (Contract A-15)

1. Base Bid: Provide ATC Controls by any listed ATC vendor.
2. Alternate: Provide additional costs, if any, for ATC system by Siemens as specified in specification section 230900 “Instrumentation and Controls of HVAC and Plumbing Systems.” If Siemens is the low cost ATC subcontractor, then the alternate value on the big form shall be listed as \$0.

Add/Delete: _____
(\$ _____)

Alternate No. Five – Glass Backed Markerboards (Contract A-6)

1. Base Bid: No markerboards to be provided.
2. Alternate: Provide Glass Backed Markerboards (4’-0” W x 2’-0”) at locations noted on floor plans

Add/Delete: _____
(\$ _____)

BID FORM

ALTERNATES (CON'T)

Alternate No. Six – Hybrid Thermoplastic Membrane Roofing (Contract A-7)

1. Base Bid: Provide EPDM membrane roofing as noted on plans.
2. Alternate: Provide Hybrid Thermoplastic membrane Roofing per 075200, in lieu of EPDM membrane roofing.

Add/Delete: _____
(\$ _____)

ALLOWANCES

Contract No. 1 Demolition

1 - Include the lump sum of the following amount **\$20,000** in the contract for unforeseen conditions that may arise during construction to be used at the discretion of the Construction Manager. See Section 012100 Allowances.

Contract No. 2 Sitework

2 - Include the lump sum of the following amount **\$10,000** in the contract for exterior temporary fence. See Section 012100 Allowances.

Contract No. 5 Steel Work

3 - Include the lump sum of the following amount **\$20,000** in the contract for unforeseen conditions that may arise during construction to be used at the discretion of the Construction Manager. See Section 012100 Allowances.

Contract No. 6 Carpentry & General Works

4 - Include the lump sum of the following amount **\$20,000** in the contract for unforeseen conditions that may arise during construction to be used at the discretion of the Construction Manager. See Section 012100 Allowances.

Contract No. 6 Carpentry & General Works

5 - Include the lump sum of the following amount **\$20,000** in the contract for temporary closures during construction for the exterior wall construction. See Section 012100 Allowances.

Contract No. 7 Roofing Work

6 - Include the lump sum of the following amount **\$20,000** in the contract for unforeseen conditions that may arise during construction to be used at the discretion of the Construction Manager. See Section 012100 Allowances.

Contract No. 9 Aluminum Storefront/Windows/Glass & Glazing

7 - Include the lump sum of the following amount **\$20,000** in the contract for unforeseen conditions that may arise during construction to be used at the discretion of the Construction Manager. See Section 012100 Allowances.

Contract No. 10 Drywall/Metal Studs

8 - Include the lump sum of the following amount **\$20,000** in the contract for unforeseen conditions that may arise during construction to be used at the discretion of the Construction Manager. See Section 012100 Allowances.

Contract No. 12 Floor Covering Work

9 - Include the lump sum of the following amount **\$20,000** in the contract for unforeseen conditions that may arise during construction to be used at the discretion of the Construction Manager. See Section 012100 Allowances.

Contract No. 15 Mechanical

10 - Include the lump sum of the following amount **\$20,000** in the contract for unforeseen conditions that may arise during construction to be used at the discretion of the Construction Manager. See Section 012100 Allowances.

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Delaware Technical and Community College
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21179 College Drive Georgetown Delaware 19947
Project No. 25.006

BID FORM

Contract No. 15 Mechanical

11 – Include the lump sum of the following amount **\$50,000** in the contract for the temp heat fuel cost. Cost of work to be determined by fuel company receipts with the amount of fuel and cost per gallon. All equipment and labor for temp heat is part of the contract. This allowance is for fuel cost only. See Section 012100 Allowances.

Contract No. 16 Sprinkler System

12 – Include the lump sum of the following amount **\$20,000** in the contract for unforeseen conditions that may arise during construction to be used at the discretion of the Construction Manager. See Section 012100 Allowances.

Contract No. 17 Electrical

13 – Include the lump sum of the following amount **\$20,000** in the contract for unforeseen conditions that may arise during construction to be used at the discretion of the Construction Manager. See Section 012100 Allowances.

Contract No. 17 Electrical

14 – Include the lump sum of the following amount **\$25,000** in the contract for short circuit analysis gear revisions. See Section 012100 Allowances.

Contract No. 17 Electrical

15 – Include the lump sum of the following amount **\$25,000** in the contract for selective demolition of the existing building See Section 012100 Allowances.

Contract No. 6 Carpentry & General Works

16 – Include the lump sum of the following amount **\$50,000** in the contract for Section 101416 Plaques and Section 101419 Dimensional Letters material and labor.”

UNIT PRICES

NOT USED

Betze Learning Commons
Delaware Technical and Community College
DTCC No. C9004020002
21179 College Drive Georgetown Delaware 19947
Project No. 25.006

BID FORM

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for thirty (30) days from the date of opening of bids (60 days for School Districts and Department of Education), and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid.

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _____ calendar days of the Notice to Proceed.

The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

(State of Corporation)

Business Address: _____

Witness: _____ **By:** _____
(SEAL) (Authorized Signature)

(Title)
Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Bid Security
(Others as Required by Project Manuals)

Betze Learning Commons
Delaware Technical and Community College
DTCC No. C9004020002
21179 College Drive Georgetown Delaware 19947
Project No. 25.006

BID FORM

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

<u>Subcontractor Category</u>	<u>Subcontractor</u>	<u>Address (City & State)</u>	<u>Subcontractors tax-payer ID # or Delaware Business license #</u>
1.	_____	_____	_____
A.	_____	_____	_____
B.	_____	_____	_____
C.	_____	_____	_____
2. Elevator	_____	_____	_____
A.	_____	_____	_____
B.	_____	_____	_____
C.	_____	_____	_____

Betze Learning Commons
Delaware Technical and Community College
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21179 College Drive Georgetown Delaware 19947
Project No. 25.006

BID FORM

3.			
A.			
B.			
C.			
4.			
A.			
B.			
C.			
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A.			
B.			
C.			

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Project No. 25.006

BID FORM

NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date to Delaware Technical and Community College.

All the terms and conditions of Project No. 19.021, Contract #: DTCC22C900406SSC-A have been thoroughly examined and are understood.

NAME OF BIDDER:

**AUTHORIZED REPRESENTATIVE
(TYPED):**

**AUTHORIZED REPRESENTATIVE
(SIGNATURE):**

TITLE:

ADDRESS OF BIDDER:

E-MAIL:

PHONE NUMBER:

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

Betze Learning Commons
Delaware Technical and Community College
DTCC No. C9004020002
21179 College Drive Georgetown Delaware 19947
Project No. 25.006

BID FORM

**AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM**

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

Betze Learning Commons
Delaware Technical and Community College
DTCC No. C9004020002
21179 College Drive Georgetown Delaware 19947
Project No. 25.006

BID FORM

AFFIDAVIT OF CONTRACTOR QUALIFICATIONS

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____ day of _____ 20_____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

**AFFIDAVIT OF
CRAFT TRAINING COMPLIANCE**

We, the contractor, hereby certify that we and all applicable subcontractors will abide by the contractor and subcontractor craft training requirements outlined below for the duration of the contract. Craft training must be provided by a contractor and/or subcontractor for each craft on a project for which there are Delaware Department of Labor approved and registered training programs. A list of crafts for which there are approved and registered training programs is maintained by the Delaware Department of Labor and can be found at <https://laborfiles.delaware.gov/main/det/apprenticeship/DE%20Craft%20Training%20Occupation%20List%20Effective%20March%201%202022.pdf>. If you have questions regarding craft training programs, please submit them in writing to the Delaware Department of Labor at: apprenticeship@delaware.gov. The Craft Training Compliance Affidavit must be submitted prior to contract execution.

In accordance with Title 29, Chapter 69, Section 6962(c)(13) of the Delaware Code, contractors and subcontractors must provide craft training for journeyman and apprentice levels if **all** of the following apply:

- A. A project meets the prevailing wage requirement under Title 29, Chapter 69, Section 6960 of the Delaware Code.
- B. The contractor employs 10 or more total employees.
- C. The project is not a federal highway project

Failure to provide required craft training on the project may subject the successful contractor and/or subcontractor(s) to penalties as outlined in Title 29, Chapter 69, Section 6962(c)(13) of the Delaware Code.

Craft(s) _____

Contractor Name: _____

Contractor Address: _____

**Contractor Program
Registration Number(s)** _____

On this line also indicate whether DE, Other State (identify) or US Registration Number

Or

☐ **Craft Training requirements are not applicable because:** _____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____ day of _____, 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED TO BE CONSIDERED.

SECTION 08 43 26 – ALL GLASS STOREFRONTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Frameless glazed interior wall and door assemblies.

1.02 RELATED REQUIREMENTS

- A. Section 08 7100 - Door Hardware.

1.03 REFERENCE STANDARDS

- A. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum; 2012.
- B. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2013.
- C. ASTM B221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes [Metric]; 2013.
- D. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2014.
- E. ASTM C1036 - Standard Specification for Flat Glass; 2011e1.
- F. ASTM C1048 - Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass; 2012.
- G. WDMA I.S.1-A - Architectural Wood Flush Doors; Window and Door Manufacturers Association; 2011.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Pre-installation Meeting: Convene at project site seven calendar days prior to scheduled beginning of construction activities of this section to review section requirements.
 - 1. Require attendance by representatives of installer, other entities directly affecting, or affected by, construction activities of this section.
 - 2. Notify Architect four calendar days in advance of scheduled meeting date.

1.05 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's descriptive literature for each component in partition assembly.
- C. Shop Drawings: Drawings showing layout, dimensions, identification of components, and interface with adjacent construction.
 - 1. Include field measurements of openings.
 - 2. Include Elevations Showing:
 - a. Locations and identification of manufacturer-supplied door hardware and fittings.
 - b. Locations and sizes of cut-outs and drilled holes for other door hardware.
 - 3. Include Details Showing:
 - a. Requirements for support and bracing of overhead track.
 - b. Installation details.
 - c. Appearance of manufacturer-supplied door hardware and fittings.
- D. Selection Samples: Two sets, representing manufacturer's full range of available metal materials and finishes.

- E. Verification Samples: Two samples, minimum size 2 by 3 inches (50 by 75 mm), representing actual material and finish of exposed metal.
- F. Design Data: Design calculations, bearing seal and signature of structural engineer licensed to practice in the State in which the Project is located, showing loads at points of attachment to the building structure.
- G. Certificates: Contractor to certify that installer of partition assemblies meets specified qualifications.
- H. Operation and Maintenance Data: For manufacturer-supplied operating hardware.
- I. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.
- J. Specimen Warranty.
- K. Manufacturer's Installation Instructions: Include complete preparation, installation, and cleaning requirements.

1.06 QUALITY ASSURANCE

- A. Fabricator Qualifications: Minimum three years of experience designing, assembling, and installing partition assemblies similar to those specified in this section.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until installation.

1.08 WARRANTY

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective Work within a one year period after date of Substantial Completion.
- C. Provide five year manufacturer warranty against excessive degradation of metal finishes. Include provision for replacement of units with excessive fading, chalking, or flaking.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

- A. Subject to compliance requirements, provide the following basis of design product or approved equal:
 - 1. MetroWall Inc; HUSH Series Frameless Glass Wall System: <https://metro-wall.com/>.

2.02 FRAMELESS GLAZED INTERIOR WALL AND DOOR ASSEMBLIES

- A. Frameless Glazed Interior Wall Assembly: Factory fabricated assemblies consisting of full-width and height glass panels fastened with U-channel fittings on top and bottom edge of glass wall.
 - 1. Configuration: As indicated on drawings.
 - 2. U-Channel Fittings: Extruded aluminum, Clear Anodized, dry glazed, and with matching end caps.
 - a. Top channel is 1-1/2 inch (38 mm) high by 1 inch (25.4 mm) deep.
 - b. Bottom channel is 1 inch (25.4 mm) high by 1 inch (25.4 mm) deep.
 - 3. Glass Thickness: 1/2 inch (12.7 mm), tempered.
 - 4. Designed to withstand normal operation without damage, racking, sagging, or deflection.
 - 5. Coordinate wall and door assembly preparation and provide hardware as necessary for fully operable installation.

6. Finished metal surfaces protected with strippable film.
 7. Factory assembled to greatest extent practical; may be disassembled to accommodate shipping constraints.
 8. STC Rating: Min. 50 STC
- B. Pivoting Glass Doors: Dry glazed patch fittings.
1. Door Configuration: As indicated on drawings.
 2. Height: 2 inch (51 mm).
 3. Length: 6-7/16 inch (164 mm).
 4. Cladding Finish: Clear Anodized
 5. Glass Thickness: 1/2 inch (12.7 mm), tempered.
 6. Door Hardware: Refer to 08 71 00 Door Hardware.
 7. Provide accessories as required for complete installation.
 8. Door Patches: Catalog No. PH20AA (Top), PH10CA (Bottom)
 9. STC Rating: Min. 50 STC

2.03 FITTINGS AND HARDWARE

- A. Operable Panel Hardware: Coordinate with additional requirements as specified in Section 08 7100.

2.04 MATERIALS

- A. Glass & Privacy Film: Refer to 08 80 00 Glazing.
- B. Aluminum Components: Conforming to ASTM B221 (ASTM B221M), Alloy 6063, T5 Temper.
- C. Sealant: One-part silicone sealant, conforming to ASTM C920, clear.

2.05 FINISHES

- A. Finish to be selected by architect from manufacturers full range of finish options.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that field measurements are as indicated.
- B. Verify that track supports are properly braced, level within 1/4 inch (6 mm) of required position and parallel to the floor surface.
- C. Verify floor flatness of 1/8 inch in 10 feet (3 mm in 3 m), non-cumulative.
- D. Do not begin installation until supports and adjacent substrates have been properly prepared.
- E. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.02 PREPARATION

- A. Clean substrates thoroughly prior to installation.
- B. Prepare substrates using the methods recommended by the manufacturer for achieving acceptable result for the substrate under the project conditions.

3.03 INSTALLATION

- A. Install in accordance with glazed interior wall and door assembly manufacturer's instructions.

- B. Fit and align glazed interior wall and door assembly level and plumb.

3.04 ADJUSTING

- A. Adjust glazed interior wall and door assembly to operate smoothly from sliding or pivoting positions.
- B. Adjust swing door hardware for smooth operation.

3.05 CLEANING

- A. Clean installed work to like-new condition.
- B. See Section 01 7419 - Construction Waste Management and Disposal, for additional requirements.

3.06 CLOSEOUT ACTIVITIES

- A. See Section 01 7800 - Closeout Submittals, for closeout submittals.
- B. Demonstrate operation of glazed interior wall and door assembly and identify potential operational problems.

3.07 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before date of Substantial Completion.

END OF SECTION

SECTION 08 71 00 DOOR HARDWARE

PART 1 - GENERAL

1.1 SUMMARY:

- A. Section Includes: Finish Hardware for door openings, except as otherwise specified herein.
 - 1. Door hardware for steel (hollow metal) doors.
 - 2. Door hardware for aluminum doors.
 - 3. Door hardware for wood doors.
 - 4. Door hardware for other doors indicated.
 - 5. Keyed cylinders as indicated.
- B. Related Sections:
 - 1. Division 6: Rough Carpentry.
 - 2. Division 8: Aluminum Doors and Frames
 - 3. Division 8: Hollow Metal Doors and Frames.
 - 4. Division 8: Wood Doors.
 - 5. Division 26 Electrical
 - 6. Division 28: Electronic Security
- C. References: Comply with applicable requirements of the following standards. Where these standards conflict with other specific requirements, the most restrictive shall govern.
 - 1. Builders Hardware Manufacturing Association (BHMA)
 - 2. NFPA 101 Life Safety Code
 - 3. NFPA 80 -Fire Doors and Windows
 - 4. ANSI-A156.xx- Various Performance Standards for Finish Hardware
 - 5. UL10C – Positive Pressure Fire Test of Door Assemblies
 - 6. ANSI-A117.1 – Accessible and Usable Buildings and Facilities
 - 7. DHI /ANSI A115.IG – Installation Guide for Doors and Hardware
- D. Intent of Hardware Groups
 - 1. Where items of hardware aren't definitely or correctly specified, are required for completion of the Work, a written statement of such omission, error, or other discrepancy to be submitted to Architect, prior to date specified for receipt of bids for clarification by addendum; or, furnish such items in the type and quality established by this specification, and appropriate to the service intended.

1.2 SUBSTITUTIONS:

- A. Comply with Division 1.
- B. Approval of products is at the discretion of the architect and their consultant

1.3 SUBMITTALS:

- A. Comply with Division 1.

- B. Special Submittal Requirements: Combine submittals of this Section with Sections listed below to ensure the "design intent" of the system/assembly is understood and can be reviewed together.
- C. Product Data: Manufacturer's specifications and technical data including the following:
1. Detailed specification of construction and fabrication.
 2. Manufacturer's installation instructions.
 3. Wiring diagrams for each electric product specified. Coordinate voltage with electrical before submitting.
 4. Submit 6 copies of catalog cuts with hardware schedule.
 5. Provide 9001-Quality Management and 14001-Environmental Management for products listed in Materials Section 2.2
- D. Shop Drawings - Hardware Schedule: Submit 6 complete reproducible copy of detailed hardware schedule in a vertical format.
1. List groups and suffixes in proper sequence.
 2. Completely describe door and list architectural door number.
 3. Manufacturer, product name, and catalog number.
 4. Function, type, and style.
 5. Size and finish of each item.
 6. Mounting heights.
 7. Explanation of abbreviations and symbols used within schedule.
 8. Detailed wiring diagrams, specially developed for each opening, indicating all electric hardware, security equipment and access control equipment, and door and frame rough-ins required for specific opening.
- E. Templates: Submit templates and "reviewed Hardware Schedule" to door and frame supplier and others as applicable to enable proper and accurate sizing and locations of cutouts and reinforcing.
1. Templates, wiring diagrams and "reviewed Hardware Schedule" of electrical terms to electrical for coordination and verification of voltages and locations.
- F. Samples: (If requested by the Architect)
1. 1 sample of Lever and Rose/Escutcheon design, (pair).
 2. 3 samples of metal finishes
- G. Contract Closeout Submittals: Comply with Division 1 including specific requirements indicated.
1. Operating and maintenance manuals: Submit 3 sets containing the following.
 - a. Complete information in care, maintenance, and adjustment, and data on repair and replacement parts, and information on preservation of finishes.
 - b. Catalog pages for each product.
 - c. Name, address, and phone number of local representatives for each manufacturer.
 - d. Parts list for each product.

2. Copy of final hardware schedule, edited to reflect, "As installed".
3. Copy of final keying schedule
4. As installed "Wiring Diagrams" and "Point to Point" for each piece of hardware connected to power, both low voltage and 110 volts.
5. One set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

1.4 QUALITY ASSURANCE

A. Comply with Division 1.

1. Statement of qualification for distributor and installers.
2. Statement of compliance with regulatory requirements and single source responsibility.
3. Distributor's Qualifications: Firm with 3 years experience in the distribution of commercial hardware.
 - a. Distributor to employ full time Architectural Hardware Consultants (AHC) for the purpose of scheduling and coordinating hardware and establishing keying schedule.
 - b. Hardware Schedule shall be prepared and signed by an AHC.
4. Installer's Qualifications: Firm with 3 years experienced in installation of similar hardware to that required for this Project, including specific requirements indicated.
5. Regulatory Label Requirements: Provide testing agency label or stamp on hardware for labeled openings.
 - a. Provide UL listed hardware for labeled and 20-minute openings in conformance with requirements for class of opening scheduled.
 - b. Underwriters Laboratories requirements have precedence over this specification where conflict exists.
6. Single Source Responsibility: Except where specified in hardware schedule, furnish products of only one manufacturer for each type of hardware.

B. Review Project for extent of finish hardware required to complete the Work. Where there is a conflict between these Specifications and the existing hardware, notify the Architect in writing and furnish hardware in compliance with the Specification unless otherwise directed in writing by the Architect.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Packing and Shipping: Comply with Division 1.

1. Deliver products in original unopened packaging with legible manufacturer's identification.
2. Package hardware to prevent damage during transit and storage.
3. Mark hardware to correspond with "reviewed hardware schedule".
4. Deliver hardware to door and frame manufacturer upon request.

B. Storage and Protection: Comply with manufacturer's recommendations.

1.6 PROJECT CONDITIONS:

- A. Coordinate hardware with other work. Furnish hardware items of proper design for use on doors and frames of the thickness, profile, swing, security and similar requirements indicated, as necessary for the proper installation and function, regardless of omissions or conflicts in the information on the Contract Documents.
- B. Review Shop Drawings for doors and entrances to confirm that adequate provisions will be made for the proper installation of hardware.

1.7 WARRANTY:

- A. Refer to Conditions of the Contract
- B. Manufacturer's Warranty:
 - 1. Closers: Ten years
 - 2. Exit Devices: Three Years
 - 3. Locksets & Cylinders: Three years
 - 4. All other Hardware: Two years.

1.8 OWNER'S INSTRUCTION:

- A. Instruct Owner's personnel in operation and maintenance of hardware units.

1.9 MAINTENANCE:

- A. Extra Service Materials: Deliver to Owner extra materials from same production run as products installed. Package products with protective covering and identify with descriptive labels. Comply with Division 1 Closeout Submittals Section.
 - 1. Special Tools: Provide special wrenches and tools applicable to each different or special hardware component.
 - 2. Maintenance Tools: Provide maintenance tools and accessories supplied by hardware component manufacturer.
 - 3. Delivery, Storage and Protection: Comply with Owner's requirements for delivery, storage and protection of extra service materials.
- B. Maintenance Service: Submit for Owner's consideration maintenance service agreement for electronic products installed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS:

- A. The following manufacturers listed are basis of design and are listed in the Hardware Schedule. Approval of products and models are at the discretion of the architect and their consultant.

Item:
Hinges

Manufacturer:
Best

Bommer, Hager, McKinney

Continuous Hinges	Best	Select, ABH
Locksets	Sargent	8200 Series
Cylinders & Cores	Best	None
Exit Devices	Precision	Von Duprin, Detex
Closers	Dorma 8600	LCN 4040, Norton 7500
Push/Pull Plates	Trimco	Burns, Rockwood
Push/Pull Bars	Trimco	Burns, Rockwood
Protection Plates	Trimco	Burns, Rockwood
Overhead Stops	Dorma	ABH, Glynn Johnson, Rixson
Door Stops	Trimco	Trimco, Rockwood
Flush Bolts	Trimco	ABH, Rockwood
Coordinator & Brackets	Trimco	ABH, Rockwood
Threshold & Gasketing	National Guard	Reese, Pemko

2.2 MATERIALS:

A. Hinges: Shall be Five Knuckle Ball Bearing hinges

1. Template screw hole locations
2. Bearings are to be fully hardened.
3. Bearing shell is to be consistent shape with barrel.
4. Minimum of 2 permanently lubricated non-detachable bearings on standard weight hinge and 4 permanently lubricated bearing on heavy weight hinges.
5. Equip with easily seated, non-rising pins.
6. Non Removable Pin screws shall be slotted stainless steel screws.
7. Hinges shall be full polished, front, back and barrel.
8. Hinge pin is to be fully plated.
9. Bearing assembly is to be installed after plating.
10. Sufficient size to allow 180-degree swing of door
11. Furnish five knuckles with flush ball bearings
12. Provide hinge type as listed in schedule.
13. Furnish 3 hinges per leaf to 7 foot 6 inch height. Add one for each additional 30 inches in height or fraction thereof.
14. Furnish heavy weight hinges with 5" height for doors 3'-6" and over
15. Tested and approved by BHMA for all applicable ANSI Standards for type, size, function and finish
16. UL10C listed for Fire rated doors.
17. Basis of Design:
 - a. Best FBB and 168 series. Substitutions as approved by architect.
 - b. Best CEFBB series electrified hinges. Substitutions as approved by architect.

B. Geared Continuous Hinges:

1. Tested and approved by BHMA for ANSI A156.26-1996 Grade 1
2. Anti-spinning through fastener
3. UL10C listed for 3 hour Fire rating
4. Non-handed
5. Lifetime warranty
6. Provide Fire Pins for 3-hour fire ratings
7. Enough size to permit door to swing 180 degrees

8. Basis of Design:
 - a. Stanley 661HD and 662HD series. Substitutions as approved by architect.

C. Mortise Type Locks and Latches:

1. Tested and approved by BHMA for ANSI A156.13, Series 1000, Operational Grade 1, Extra-Heavy Duty, Security Grade 2 and be UL10C.
2. Furnish UL or recognized independent laboratory certified mechanical operational testing to 4 million cycles minimum.
3. Provide 9001-Quality Management and 14001-Environmental Management.
4. Fit ANSI A115.1 door preparation
5. Functions and design as indicated in the hardware groups
6. 3/4-inch (19mm) throw, anti-friction latchbolt made of self-lubricating stainless steel
7. Deadbolt functions shall have 1 inch (25mm) throw bolt made of hardened stainless steel
8. Latchbolt and Deadbolt are to extend into the case a minimum of 3/8 inch (9.5mm) when fully extended
9. Auxiliary deadlatch to be made of one-piece stainless steel, permanently lubricated
10. Provide enough curved strike lip to protect door trim.
11. Properly size lock strikes for pairs of doors, short lip.
12. Lever handles must be of forged or cast brass, bronze or stainless steel construction and conform to ANSI A117.1. Levers that contain a hollow cavity are not acceptable
13. Lock shall have self-aligning, thru-bolted trim
14. Levers to operate a roller bearing spindle hub mechanism
15. Mortise cylinders of lock shall have a concealed internal setscrew for securing the cylinder to the lockset. The internal setscrew will be accessible only by removing the core, with the control key, from the cylinder body.
16. Spindle to be designed to prevent forced entry from attacking of lever
17. Provide locksets with 7-pin removable and interchangeable core cylinders
18. Each lever to have independent spring mechanism controlling it
19. Core face must be the same finish as the lockset.
20. Basis of Design:
 - a. Sargent 8205 LN J 26D, 626 Trim (Satin Chromium Plated over nickel). Substitutions as approved by architect.

D. Mortise Deadbolt:

1. Tested and approved by ANSI A156.5, Operational Grade 1.
2. Provide 9001-Quality Management and 14001-Environmental Management.
3. Locksets and cores to be of the same manufacturer to maintain complete lockset warranty
4. 2-3/4 inch (70mm) backset
5. 1 inch throw stainless steel deadbolt.
6. Provide locksets with 7-pin I/C core.
 - a. Basis of Design: Sargent 8205 LN J 26D, 626 Trim (Satin Chromium Plated over nickel). Substitutions as approved by architect.
- 7.
8. Tested and approved by BHMA for ANSI 156.3, Grade 1
9. Provide 9001-Quality Management and 14001-Environmental Management.
10. Provide a deadlocking latchbolt
11. Non-fire rated exit devices shall have cylinder dogging.

12. Exposed components shall be of architectural metals and finishes.
13. Lever design shall match lockset lever design
14. Provide strikes as required by application.
15. Fire exit devices to be listed for UL10C
16. UL listed for Accident Hazard
17. Shall consist of a cross bar or push pad, the actuating portion of which extends across, shall not be less than one half the width of the door leaf.
18. Provide vandal resistant or breakaway trim
19. Aluminum vertical rod assemblies are acceptable only when provide with the manufacturers optional top and bottom stainless steel rod guard protectors
20. Basis of Design:
 - a. Precision 2000 series. Substitutions as approved by architect.
 - b. Precision MLR (Motorized Latch Retraction) series. Substitutions as approved by architect.

E. Cylinders:

1. Provide the necessary interchangeable core cylinder housings, collars, rings & springs as recommended by the manufacturer for proper installation.
2. Provide the proper cylinder cams or tail piece as required to operate all locksets and other keyed hardware items listed in the hardware sets.
3. Coordinate and provide as required for related sections.
4. Best small format interchangeable core system.

F. Door Closers:

1. Tested and approved by BHMA for ANSI 156.4, Grade 1
2. UL10C certified
3. Provide 9001-Quality Management and 14001-Environmental Management.
4. Closer shall have extra-duty arms and knuckles
5. Conform to ANSI 117.1
6. Maximum 2-7/16 inch case projection with non-ferrous cover
7. Separate adjusting valves for closing and latching speed, and backcheck
8. Provide adapter plates, shim spacers and blade stop spacers as required by frame and door conditions
9. Full rack and pinion type closer with 1½" minimum bore.
10. Mount closers on non-public side of door, unless otherwise noted in specification
11. Closers shall be non-handed, non-sized and multi-sized.
12. Basis of Design:
 - a. Dorma 8900 series with full cover. Substitutions as approved by architect.

G. Door Stops: Provide a dome floor or wall stop for every opening as listed in the hardware sets.

1. Wall stop and floor stop shall be wrought bronze, brass or stainless steel.
2. Provide fastener suitable for wall construction.
3. Coordinate reinforcement of walls where wall stop is specified.
4. Provide dome stops where wall stops are not practical. Provide spacers or carpet riser for floor conditions encountered

H. Over Head Stops: Provide a surface mounted concealed overhead when a floor or wall stop cannot be used or when listed in the hardware set.

1. Concealed overhead stops shall be heavy duty bronze or stainless steel.
 2. Surface overhead stops shall be heavy duty bronze or stainless steel.
- I. Push Plates: Provide with four beveled edges ANSI J301, .050 thickness, size as indicated in hardware set. Furnish oval-head countersunk screws to match finish.
- J. Pulls with plates: Provide with four beveled edges ANSI J301, .050 thickness Plates with ANSI J401 Pull as listed in hardware set. Provide proper fasteners for door construction.
- K. Push Pull Bars: Provide ANSI J504, .1" Dia. Pull and push bar model and series as listed in hardware set. Provide proper fasteners for door construction.
- L. Kickplates: Provide with four beveled edges ANSI J102, .050 thickness, 10 inches high by width less 2 inches on single doors and 1 inch on pairs of doors. Furnish oval-head countersunk screws to match finish.
- M. Mop plates: Provide with four beveled edges ANSI J103, .050 thickness 4 inches high by width less 1 inch on single doors and 1 inch on pairs of doors. Furnish oval-head countersunk screws to match finish.
1. Provide cutouts for hardware as listed in the hardware sets.
 2. Provide Warnock Hersey labeled plates for 3 hour metal fire doors where allowed by local authority.
- N. Door Bolts: Flush bolts for wood or metal doors.
1. Provide a set of Automatic bolts, Certified ANSI/BHMA 156.3 Type 25 for hollow metal label doors.
 2. Provide a set of Automatic bolts, Certified ANSI/BHMA 156.3 Type 27 at wood label doors.
 3. Manual flush bolts, Certified ANSI/BHMA 156.16 at openings where allowed local authority.
 4. Provide Dust Proof Strike, Certified ANSI/BHMA 156.16 at doors with flush bolts without thresholds.
- O. Coordinator and Brackets: Provide a surface mounted coordinator when automatic bolts are used in the hardware set.
1. Coordinator, Certified ANSI/BHMA A1156.3 Type 21A for full width of the opening.
 2. Provide mounting brackets for soffit applied hardware.
 3. Provide hardware preparation (cutouts) for latches as necessary.
- P. Power Supply: Provide power supply for (ELR) Electric Latch Retraction exit devices and Motorized Latch Retraction (MLR) as recommended by manufacturer.
1. Motherboard will accept up to four plug-in Control Modules. Provide the appropriate necessary control module to operate the number of ELR or MLR exit devices used at each opening. The Control Module shall include a Time delay Feature, variable (0-4 minutes) latch retraction period in response to a momentary input.
 2. UL Listed for class II output.
 3. Include circuit breakers for protection of motherboard

4. Control module shall include Fire alarm terminal and Auxiliary contacts for remote signaling.
 5. Optional card for Battery Backup power tap module to operate a Card reader or when ELR or MLR devices require battery backup (Lead Acid Batteries are not included and is to be furnished by others)
 6. Provide power supplies by the same manufacturer as the exit device.
- Q. Power Transfer: Power transfer device shall be a steel housing and flexible tube. Secure and inconspicuous channel is to bring power from the frame to the door.
1. Basis of Design:
 - a. ABH PT1000 series.
 2. Tube shall accept up to 5/16" wire bundle and accommodate a door swing of 120 Deg.
 3. Wires as required by others
- R. Seals: All seals shall be finished to match adjacent frame color. Seals shall be furnished as listed in schedule. Material shall be UL listed for labeled openings.
- S. Weatherstripping: Provide at head and jambs only those units where resilient or flexible seal strip is easily replaceable. Where bar-type weatherstrip is used with parallel arm mounted closers install weatherstrip first.
1. Weatherstrip shall be resilient seal of Neoprene.
 2. UL10C Positive Pressure rated seal set when required.
- T. Door Bottoms/Sweeps: Surface mounted or concealed door bottom where listed in the hardware sets.
1. Door seal shall be resilient seal of Neoprene.
 2. UL10C Positive Pressure rated seal set when required.
- U. Thresholds: Thresholds shall be aluminum beveled type with maximum height of 1/2" for conformance with ADA requirements. Furnish as specified and per details. Provide fasteners and screws suitable for floor conditions. Thresholds to have an anti-slip surface (SIA).
- V. Provide one wall mounted Telkee, Lund or MMF series key cabinet complete with hooks, index and tags to accommodate 50% expansion. Coordinate mounting location with architect.
- W. Key Control Software: Provide one, Keystone® 600N key management control software. Shall include general features
1. Password restricted logins.
 2. List all keys and items currently due back (or due back by any day designated)
 3. Lists all cores and their location, building and doors, and cross-references people to cores, doors, and building they access.
 4. Comprehensive list of reports available as an on-screen menu.
 5. Built-in easy to use backup program.
 6. Program always displays date of last backup.
 7. Dynamic searching capabilities for all records.
 8. On-screen indicator shows when historical info. Is present for a record.
 9. On-screen indicator appears when notes are present on a record.
 10. Able to operate in an NTFS network environment with TCPIP protocol

11. Multiple users can access program at the same time.
12. Software shall include a "Best" Automated Pin Segment Calculator and a Manual Pin Segment Calculator for authorized "Best" building lock shop facilities.
13. Software program is to be compatible with Windows NT, 2000 or XP with TCPIP protocol.

- X. Silencers: Furnish silencers on all interior frames, 3 for single doors, 2 for pairs. Omit where any type of seals occurs.

2.3 FINISH:

- A. Designations used in Schedule of Finish Hardware - 3.5, and elsewhere to indicate hardware finishes are those listed in ANSI/BHMA A156.18 including coordination with traditional U.S. finishes shown by certain manufacturers for their products
- B. Powder coat door closers to match other hardware, unless otherwise noted.
- C. Aluminum items shall be finished to match predominant adjacent material. Seals to coordinate with frame color.

2.4 KEYS AND KEYING:

- A. Provide keyed brass construction cores and keys during the construction period. Construction control and operating keys and core shall not be part of the Owner's permanent keying system or furnished in the same keyway (or key section) as the Owner's permanent keying system. Permanent cores and keys (prepared according to the accepted keying schedule) will be furnished to the Owner.
- B. Cylinders, removable and interchangeable core system: Best Cormax 7-pin system. Furnish temporary cores for construction period with permanent cores furnished and installed at the completion of construction.
- C. Permanent keys and cores: Stamped with the applicable key mark for identification. These visual key control marks or codes will not include the actual key cuts. Permanent keys will also be stamped "Do Not Duplicate."
- D. Transmit Grand Masterkeys, Masterkeys and other Security keys to Owner by Registered Mail, return receipt requested.
- E. Furnish keys in the following quantities:
 1. 1 each Grand Masterkeys
 2. 4 each Masterkeys
 3. 2 each Change keys each keyed core
 4. 15 each Construction masterkeys
 5. 1 each Control keys
- F. The Owner, or the Owner's agent, will install permanent cores and return the construction cores to the Hardware Supplier. Construction cores and keys remain the property of the Hardware Supplier.

- G. Keying Schedule: Arrange for a keying meeting, with Architect Owner and hardware supplier, and other involved parties to ensure locksets and locking hardware, are functionally correct and keying complies with project requirements. Furnish 3 typed copies of keying schedule to Architect.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verification of conditions: Examine doors, frames, related items and conditions under which Work is to be performed and identify conditions detrimental to proper and or timely completion.
 - 1. Do not proceed until unsatisfactory conditions have been corrected.

3.2 HARDWARE LOCATIONS:

- A. Mount hardware units at heights indicated in the following publications except as specifically indicated or required to comply with the governing regulations.
 - 1. Recommended Locations for Builder's Hardware for Standard Steel Doors and Frames, by the Door and Hardware Institute (DHI).
 - 2. Recommended locations for Architectural Hardware for flush wood doors (DHI).
 - 3. WDMA Industry Standard I.S.-1A-04, Industry Standard for Architectural wood flush doors.

3.3 INSTALLATION:

- A. Install each hardware item per manufacturer's instructions and recommendations. Do not install surface mounted items until finishes have been completed on the substrate. Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
- B. Conform to local governing agency security ordinance.
- C. Install Conforming to ICC/ANSI A117.1 Accessible and Useable Building and Facilities.
 - 1. Adjust door closer sweep periods so that from the open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches from the latch, measured to the landing side of the door.
- D. Installed hardware using the manufacturers fasteners provided. Drill and tap all screw holes located in metallic materials. Do not use "Riv-Nuts" or similar products.

3.4 FIELD QUALITY CONTROL AND FINAL ADJUSTMENT

- A. Contractor/Installers, Field Services: After installation is complete, contractor shall inspect the completed door openings on site to verify installation of hardware is complete and properly adjusted, in accordance with both the Contract Documents and final shop drawings.
1. Check and adjust closers to ensure proper operation.
 2. Check latchset, lockset, and exit devices are properly installed and adjusted to ensure proper operation.
 - a. Verify levers are free from binding.
 - b. Ensure latchbolts and dead bolts are engaged into strike and hardware is functioning.
 3. Report findings, in writing, to architect indicating that all hardware is installed and functioning properly. Include recommendations outlining corrective actions for improperly functioning hardware if required.

3.5 SCHEDULE OF FINISH HARDWARE:

Hardware Group: 01 Exterior (ALD x ALF)				
Exterior Aluminum Framed Entrances				
pair to have:				
Qty	Product	Model	Fin	Man
2ea	Continuous Hinges	661HD	689	BES
1ea	Key Removeable Mullion	SL-60	AL	SPL
1ea	Mullion Cylinder	Mortise Type	626	BES
1ea	Core	LFIC	626	SAR
1ea	Mullion Storage	MK-60	AL	SPL
1ea	Panic Device	3RO2103CD	626W	PRE
1ea	Trim Cylinder	Rim Type	626	BES
2ea	Dogging Cylinder	Mortise Type	626	PRE
3ea	Cores	LFIC	626	SAR
1ea	Panic Device	3RO2101CD	626W	PRE
2ea	Door Pulls	1191M5J	630	TRM
2ea	Door Closers /w Stop	8916FC SDS BSHD/DP89	689	DOR
1ea	Threshold	896N SIA ssms/ea	689	NGP
1ea	Mullion Seal	5100N	BLK	NGP
2ea	Door Sweeps	201NA	689	NGP
1ea	Rain Drip	16A	689	NGP
Note: Weather Seals by Aluminum Door Manufacturer				

Hardware Group: 02 Exterior (HMD x HMF)
Double Exterior Hollow Metal Framed Entrances

BETZE LEARNING COMMONS
DELAWARE TECHNICAL & COMMUNITY COLLEGE

BSA+A PROJECT No. 25.006
DTCC No. C9004020002
JUNE 2026

pair to have:				
Qty	Product	Model	Fin	Man
2ea	Continuous Hinges	662HD	689	BES
1ea	Key Removeable Mullion	KR822 x MC822	PTD	PRE
1ea	Mullion Cylinder	Rim Type	626	BES
1ea	Core	LFIC	626	SAR
1ea	Mullion Storage Kit	KMC822SK	PTD	PRE
1ea	Panic Device	3RO2103CD	626W	PRE
1ea	Trim Cylinder	Rim Type	626	BES
1ea	Core	LFIC	626	SAR
1ea	Panic Device	3RO2101CD	626W	PRE
2ea	Dogging Cylinders	Mortise Type	626	BES
3	Cores	LFIC	626	SAR
2ea	Door Pulls	1191M5J	630	TRM
2ea	Door Closers /w Stop	8916FC SDS	689	DOR
2ea	Kick Plates	K0050 10" x 2" LDW .050 B4E	630	TRM
1ea	Threshold	896N SIA ssms/ea	689	NGP
1ea	Mullion Seal	5100N	BLK	NGP
2ea	Door Sweeps	201NA	689	NGP
1set	Weather Seals	5050 Perimeter	BLK	NGP
1ea	Rain Drip	16A	689	NGP

Hardware Group: 02A Exterior (HMD x HMF)				
Double Exterior Hollow Metal Framed Entrances				
pair to have:				
Qty	Product	Model	Fin	Man
1ea	Continuous Hinges	662HD	689	BES
1ea	Key Removeable Mullion	KR822 x MC822	PTD	PRE
1ea	Mullion Cylinder	Rim Type	626	BES
1ea	Core	LFIC	626	SAR
1ea	Mullion Storage Kit	KMC822SK	PTD	PRE
1ea	Panic Device	3RO2103CD	626W	PRE
1ea	Trim Cylinder	Rim Type	626	BES
1ea	Core	LFIC	626	SAR
1ea	Panic Device	3RO2101CD	626W	PRE
1ea	Dogging Cylinders	Mortise Type	626	BES
3ea	Cores	LFIC	626	SAR
1ea	Door Pulls	1191M5J	630	TRM
1ea	Door Closers /w Stop	8916FC SDS	689	DOR
1ea	Kick Plates	K0050 10" x 2" LDW .050 B4E	630	TRM
1ea	Threshold	896N SIA ssms/ea	689	NGP
1ea	Mullion Seal	5100N	BLK	NGP
1ea	Door Sweeps	201NA	689	NGP
1set	Weather Seals	5050 Perimeter	BLK	NGP
1ea	Rain Drip	16A	689	NGP

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BSA+A PROJECT No. 25.006
DTCC No. C9004020002
JUNE 2026

Hardware Group: 03				
each to have:				
Qty	Product	Model	Fin	Man
3ea	Hinges	FBB168 4½" x 4½"	652	BES
1ea	Panic Device	3ROF2114 x 4914B	630	PRE
1ea	Door Pulls	1191M5J	630	TRM
1ea	Door Closer w/ Stop	8916FC SDS	689	DOR
1ea	Kick Plate	K0050 10" x 2" LDW .050 B4E	630	TRM
1set	Gasketing	5050 Perimeter	BLK	NGP

Hardware Group: 04				
LGS/SGS/Quiet Study				
each to have:				
Qty	Product	Model	Fin	Man
3ea	By All Glass Storefront MFR	By All Glass Storefront MFR		
1ea	By All Glass Storefront MFR	By All Glass Storefront MFR		
1ea	By All Glass Storefront MFR	I/C		
1ea	By All Glass Storefront MFR	By All Glass Storefront MFR		
1ea	By All Glass Storefront MFR	By All Glass Storefront MFR		
1ea	By All Glass Storefront MFR	By All Glass Storefront MFR		
1set	By All Glass Storefront MFR	By All Glass Storefront MFR		

Hardware Group: 05				
Custodial & Storages Rooms				
Qty	Product	Model	Fin	Man
3ea	Hinges	FBB168 4½" x 4½"	652	BES
1ea	Storeroom Lockset	8205 LN J 26D	630	SAR
1ea	Core	LFIC	626	SAR
1ea	Door Closer	8916FC AF86	689	DOR
1ea	Kick Plate	K0050 10" x 2" LDW .050 B4E	630	TRM
1ea	Wall Stop	1270CXSV	630	TRM
1set	Gasketing	5050 (Door# B102)	BLK	NGP
3ea	Silencers	1229A	GRY	TRM

Hardware Group: 06				
IDF/MDF rooms				
each to have:				
Qty	Product	Model	Fin	Man
3ea	Hinges	FBB168 4½" x 4½"	652	BES
1ea	Panic Device	3ROF2114 x 4914B	630	PRE
1ea	Trim Cylinder	Rim Type	626	BES
1ea	Core	LFIC	626	SAR
1ea	Low Voltage Power Supply	RPSMLR2BB	PTD	PRE
1ea	Door Closer w/ Stop	8916FC DS	689	DOR
1ea	Kick Plate	K0050 10" x 2" LDW .050 B4E	630	TRM
1set	Gasketing	5050	BLK	NGP
1ea	Wiring Diagrams	Point to Point		
1ea	Card Reader	By Security Contractor		

BETZE LEARNING COMMONS
DELAWARE TECHNICAL & COMMUNITY COLLEGE

BSA+A PROJECT No. 25.006
DTCC No. C9004020002
JUNE 2026

Operational Description: Entry via Card Reader or via mechanical key. Egress always via touch bar of panic device.

Hardware Group: 06A Exterior (HMD x HMF)				
Double Exterior Hollow Metal Framed Entrances w/Card Access Control				
pair to have:				
Qty	Product	Model	Fin	Man
1ea	Continuous Hinges	662HD	689	BES
1ea	Key Removeable Mullion	KR822 x MC822	PTD	PRE
1ea	Mullion Cylinder	Rim Type	626	BES
1ea	Core	LFIC	626	SAR
1ea	Mullion Storage Kit	KMC822SK	PTD	PRE
1ea	Panic Device	3RO2103CD	626W	PRE
1ea	Trim Cylinder	Rim Type	626	BES
1ea	Core	LFIC	626	SAR
1ea	Panic Device	3RO2101CD	626W	PRE
1ea	Dogging Cylinders	Mortise Type	626	BES
3ea	Cores	LFIC	626	SAR
1ea	Door Pulls	1191M5J	630	TRM
1ea	Door Closers /w Stop	8916FC SDS	689	DOR
1ea	Kick Plates	K0050 10" x 2" LDW .050 B4E	630	TRM
1ea	Threshold	896N SIA ssms/ea	689	NGP
1ea	Mullion Seal	5100N	BLK	NGP
1ea	Door Sweeps	201NA	689	NGP
1set	Weather Seals	5050 Perimeter	BLK	NGP
1ea	Rain Drip	16A	689	NGP
1ea	Wiring Diagrams	Point to Point		
1 ea	Card Reader	By Security Contractor		
1ea	Low Voltage Power Supply	RPSMLR2BB	630	TRM

Operational Description: Entry via Card Reader or via mechanical key. Egress always via touch bar of panic device.

Hardware Group: 08				
Office & Administration Rooms				
each to have:				
Qty	Product	Model	Fin	Man
3ea	Hinges	FBB179 4½" x 4½"	652	BES
1ea	Office Lockset	8205 LN J 26D	630	SAR
1ea	Kick Plate	K0050 4" x 2" LDW .050 B4E	630	TRM
1ea	Wall Stop	1270CXSV	630	TRM
1set	Gasketing	2525	BLK	NGP

Hardware Group: 13				
Multi-User Restrooms				
each to have:				
Qty	Product	Model	Fin	Man
3ea.	Hinges	CB168 4 ½" x 4 ½"	630	BES
1ea.	Deadlock	48H7R	626	BES
1ea.	Core	LFIC	626	SAR
1set.	Door Push/Pull Set	1035-1 4x16	710CU	TRM
1ea.	Door Closer	8916FC IS	689	DRM
1ea.	Kick Plate	K0050 8" x 2" LDW	630	TRM
1ea.	Mop Plate	KM050 4" x 2" LDW	630	TRM
Set	Gasketing	5020C	GRY	NGP

SECTION 096400 - WOOD FLOORING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Factory-finished wood flooring.
 2. Wood floor underlayment.

PREINSTALLATION MEETINGS

- B. Preinstallation Conference: Conduct conference at **Project site**
1. Review methods and procedures related to resilient athletic flooring installation including, but not limited to, the following:
 - a. Review delivery, storage, and handling procedures.
 - b. Review ambient conditions and ventilation procedures.
 - c. Review subfloor preparation procedures.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for wood flooring.
 2. Include manufacturer's written installation instructions for each type of substrate.
- B. Shop Drawings: For each type of floor assembly and accessory. Include plans, sections, and attachment details. Include expansion provisions and trim details.
- C. Samples: For each exposed product and for each color and texture specified, approximately **4 inches (300 mm) long** and of same thickness and material indicated for the Work and showing the full range of normal color and texture variations expected.
- D. Samples for Initial Selection: Manufacturer's color charts showing the full range of colors and finishes available for wood flooring.
1. Include Samples of accessories involving color and finish selection.
- E. Samples for Verification: For each type of wood flooring and accessory, with stain color and finish required, approximately **12 inches (300 mm) long** and of same thickness and material indicated for the Work and showing the full range of normal color and texture variations expected.

1.3 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For wood flooring and finish systems.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Extra Stock Material: Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Wood Flooring: Equal to **5** percent of amount installed for each type, color, and finish of wood flooring indicated.

1.5 MOCKUPS

- A. Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.
 - 1. Mockup as apart of construction is acceptable.
 - 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Owner specifically approves such deviations by Change Order.
 - 3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver wood flooring materials in unopened cartons or bundles.
- B. Protect wood flooring from exposure to moisture. Do not deliver wood flooring until after concrete, masonry, plaster, ceramic tile, and similar wet-work is complete and dry.
- C. Store wood flooring materials in a dry, warm, ventilated, weathertight location.

1.7 FIELD CONDITIONS

- A. Conditioning period begins not less than seven days before wood flooring installation, is continuous through installation, and continues not less than seven days after wood flooring installation.
 - 1. Environmental Conditioning: Maintain ambient temperature between **65 and 75 deg F (18 and 24 deg C)** and relative humidity planned for building occupants in spaces to receive wood flooring during the conditioning period.
 - 2. Wood Flooring Conditioning: Move wood flooring into spaces where it will be installed, no later than the beginning of the conditioning period.
 - a. Do not install flooring until it adjusts to relative humidity of, and is at same temperature as, space where it is to be installed.

- b. Open sealed packages to allow wood flooring to acclimatize immediately on moving flooring into spaces in which it will be installed.
- B. After conditioning period, maintain relative humidity and ambient temperature planned for building occupants.
- C. Install factory-finished wood flooring after other finishing operations, including painting, have been completed.

PART 2 - PRODUCTS

2.1 FACTORY-FINISHED WOOD FLOORING

WD-01 LEARNING STAIRS/BENCHES/WALL FINISHES AS NOTED

- A. Solid-Wood Flooring, Factory Finished: Kiln dried to 6 to 9 percent maximum moisture content; tongue and groove and end matched; with backs channeled.
 - 1. **Basis** of Design Product: Subject to compliance with requirements, provide Resawn Timber Co; Virtuoso European White Oak system or a comparable product in accordance with the following performance requirements.
 - a. Species: European **White oak**
 - b. Grade: A.
 - c. Cut: Quarter/rift sawn.
 - d. Thickness: **3/4 inch (19 mm)**.
 - e. Face Width: **5-1/8 inches (130 mm)**.
 - f. Lengths: Random-length strips complying with applicable grading rules.
 - g. Edge Style: Microbeveled edges & ends>.
 - h. Finish: UV urethane.
 - 1) Color: Matte

2.2 ACCESSORY MATERIALS

- A. Subfloor & Substrate: **As specified in Section 061000 "Rough Carpentry" and Section 061600 "Sheathing."**
- B. Wood Underlayment: **As specified in Section 061600 "Sheathing."**
- C. Asphalt-Saturated Felt: ASTM D4869/D4869M, Type II.
- D. Wood Flooring Adhesive: Mastic recommended by flooring and adhesive manufacturers for application indicated.
- E. Trowelable Leveling and Patching Compound: Latex-modified, hydraulic-cement-based formulation approved by wood flooring manufacturer.

- F. Fasteners: As recommended by manufacturer, but not less than that recommended in NWFA's **"Wood Flooring Installation Guidelines."**
- G. Thresholds and Saddles: To match wood flooring. Tapered on each side.
- H. Reducer Strips: To match wood flooring; **2 inches (51 mm)** wide, tapered, and in thickness required to match height of flooring.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for maximum moisture content, installation tolerances, and other conditions affecting performance of wood flooring.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. Concrete Slabs: Verify that concrete substrates are dry and moisture-vapor emissions are within acceptable levels in accordance with manufacturer's written installation instructions.
 - 1. Moisture Testing: Perform tests so that each test area does not exceed **1000 sq. ft. (304.8 sq. m)** and perform no fewer than three tests in each installation area and with test areas evenly spaced in installation areas.
 - a. Relative Humidity Test: Using in situ probes, ASTM F2170. Proceed with installation only after substrates have a maximum **75** percent relative humidity level measurement.
 - b. Perform additional moisture tests recommended by manufacturer. Proceed with installation only after substrates pass testing.

3.2 PREPARATION

- A. Concrete Slabs:
 - 1. Grind high spots and fill low spots to produce a maximum **1/8-inch (3-mm)** deviation in any direction when checked with a **10 ft. (3 m)** straight edge.
 - 2. Use trowelable leveling and patching compounds, in accordance with manufacturer's written installation instructions, to fill cracks, holes, and depressions in substrates.
 - 3. Remove coatings, including curing compounds, and other substances on substrates that are incompatible with installation adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
- B. Broom or vacuum clean substrates to be covered immediately before product installation. After cleaning, examine substrates for moisture, alkaline salts, carbonation, or dust. Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 INSTALLATION OF WOOD FLOORING

- A. Comply with flooring manufacturer's written installation instructions, but not less than applicable recommendations in NWFA's **"Wood Flooring Installation Guidelines."**
- B. Wood Underlayment: **[Install in accordance with requirements in Section 061600 "Sheathing."]** <Insert requirements.>
- C. Provide expansion space at walls and other obstructions and terminations of flooring **of not less than 1/4 inch (19 mm)**
- D. Vapor Retarder: Comply with the following for vapor retarder installation:
 - 1. Wood Flooring Nailed to Wood Subfloor: Install flooring over a layer of asphalt-saturated felt.
 - 2. Wood Flooring Nailed to Sleepers over Concrete: Install flooring over a layer of polyethylene sheet with edges overlapped over sleepers and turned up behind baseboards.
 - 3. Wood Flooring Installed Directly on Concrete: Install a layer of polyethylene sheet in accordance with flooring manufacturer's written installation instructions.
- E. Solid-Wood Flooring: Blind nail or staple flooring to substrate.
 - 1. Plank Flooring: For flooring of face width more than 3 inches (76 mm):
 - a. Hardwood: Install countersunk screws at each end of each piece in addition to blind nailing. Cover screw heads with wood plugs glued flush with flooring.

3.4 PROTECTION

- A. Protect installed wood flooring during remainder of construction period with covering of heavy kraft paper or other suitable material. Do not use plastic sheet or film that might cause condensation.
 - 1. Do not move heavy and sharp objects directly over kraft-paper-covered wood flooring. Protect flooring with plywood or hardboard panels to prevent damage from storing or moving objects over flooring.

END OF SECTION 096400