

SECTION 009113.1.2 – ADDENDUM NO. TWO (2)

Project: **Collins P. Lee Memorial Library**

Project No: **25114**

Date: **04/20/2026**

Client: **Baldwin County, Georgia**

Contract for: General Contracting

This Addendum forms a part of the Procurement and Contracting Documents and Construction Drawings (Hereafter referred to as "Bid Documents") and modifies the original Bid Documents for the above referenced project. All attachments and pages are made part of this Addendum.

CHANGES TO THE CONTRACT DOCUMENTS

Note: The Contractor is responsible for disseminating all information within this Addendum and the associated Documents to his Sub-Contractors, Suppliers, Vendors, Manufactures and/or any entity that affects the Contractor's Bid.

Every effort has been made to identify with revision clouds (for updated drawings) and underline (for new or updated specifications) or strike-thru (for removed specifications) with yellow highlights all changes, updates and modifications as documented within this Addendum. However, if any specification and/or drawing has been changed, updated and/or modified and not identified as aforementioned, the Contractor remains responsible for incorporating this work into their Bid.

In an effort to ensure each prospective Bidder is using the current specification section, the entire specification section has been provided. It is recommended that the Contractor replace the below referenced drawings and specifications in their entirety from the original Bid Documents.

1.1 CHANGES TO THE PROJECT MANUAL

- A. **SECTION 00 9113.1.2 – ADDENDUM NO. TWO (2)**
Add the new section.
Refer to the attached new section labeled “**Addendum No. Two (2)**”.
- B. **SECTION 00 9113.3 – PLAN HOLDERS**
Replace with the modified section.
Refer to the attached new section labeled “**Addendum No. Two (2)**”.
- C. **SECTION 00 9113.4 – PRE-BID SIGN IN SHEET**
Replace with the modified section.
Refer to the attached new section labeled “**Addendum No. Two (2)**”.
- D. **SECTION 07 5423 – THERMOPLASTIC POLYOLEFIN (TPO) ROOFING**
Replace with the modified section.
Refer to the attached new section labeled “**Addendum No. Two (2)**”.
- E. **SECTION 08 4333 – FOLDING GLASS STOREFRONTS**
Replace with the modified section.
Refer to the attached new section labeled “**Addendum No. Two (2)**”.
- F. **SECTION 08 8400 – TRANSLUCENT RESIN PANEL SYSTEM**
Replace with the modified section.
Refer to the attached new section labeled “**Addendum No. Two (2)**”.

2.1 CHANGES TO THE DRAWINGS

NO CHANGES TO THE DRAWINGS.

3.1 CLARIFICATIONS AND DESIGN INTENT:

- A. Approved substitution requests:
 - 1. 07 5423 – THERMOPLASTIC POLYOLEFIN (TPO) ROOFING: Mule-Hide Products, 80 mil TPO roof system.
 - 2. 08 4333 – FOLDING GLASS STOREFRONTS: SUNFLEX SF 55, by SUNFLEX Wall Systems LP.
 - 3. 08 8400 – TRANSLUCENT RESIN PANEL SYSTEM: Duo-Gard Industries, Sleekline Monolithic Polycarbonate Canopy System.

4.1 QUESTIONS (REQUESTS FOR INFORMATION) SUBMITTED:

1. Q: Has there been any asbestos testing?

A: The ceiling was tested, and there was no asbestos detected. All other testing is the responsibility of the Contractor.

2. Q: Will non-custom furniture be accepted?

A: *Furniture provided is to be as specified on sheet I420.*

3. Q: Is the GC responsible for moving existing equipment and furniture?

A: The County will move all existing equipment and furniture.

4. Q: Is the GC responsible for storing the mural?

A: The County will store the mural in their new adjacent storage building.

5. Q: Will the plumbing be done by the same contractor as the adjacent work?

A: No, that is a separate contractor.

6. Q: Can subcontractors visit the site during bidding?

A: Yes, anytime during normal business hours. Check in with Carlos Tobar.

7. Q: Will new canopy need to be water tight?

A: Yes.

8. Q: Is AWI certification going to be required for millwork per the specs?

A: No.

9. Q: Will the library have their own vendor install security equipment/ other LV/AV and only have the GC install infrastructure?

A: Acom handles the security system for the Baldwin County libraries, and Randy Blair from Integrated Computer Surveillance manages the camera system. The library system would like the contractor to provide the cabling and wiring for both the security system & the camera system, and the library's vendors will then install the hardware.

10. Q: Will liquidated damages be enforced?

A: The federal spending deadline for this project is 12/31/2031, and the state spending deadline is 6/30/2028. Liquidated damages will not be considered unless construction has not been completed by the state spending deadline of 6/30/2028.

END OF SECTION 009113.1.2

SECTION 00 9113.3 – PLAN HOLDERS

Project: **Collins P. Lee Memorial Library**

Project No: **25114**

Date: **04/20/2026**

Client: **Baldwin County, Georgia**

Contract for: General Contracting

Subject: Bid Documents for the East Hall Library Project

Please find the link below to access the drawings and specifications for the upcoming bid on the East Hall Library Project:

<https://www.dropbox.com/scl/fo/mt6qvr27mjws1p087cch/APLqXUhB9kj47t9ZmbtT9fM?rlkey=edy8qjl14pmdbj9jz7euidm2&dl=0>

These documents include all relevant drawings, technical specifications, and instructions necessary for preparing your proposal. Please refer back to this link prior to bid for any Addenda that may be published. **All bidders shall have a representative registered with the Architect.**

Should you have any questions or require additional information, feel free to reach out to me directly.

Thank you for your interest in this project. We look forward to your submission.

1. Company: **Albion Registered**
www.albiongc.com
8601 Dunwoody Place GA 30075
Bldg. 300, Ste. 330
Sandy Springs, GA 30350
O. (678) 325-5900
M. (470) 718-3662

Contact: **Bob Kovacs**
Email: bkovacs@albiongc.com

2. Company: **CWI ATL Registered**
www.cwiatl.com
2524 Lithonia Ind. Blvd. Ste. D
Lithonia, GA 30058
O. (678) 526-8189
Contact: Trenton O. King
Email: trent@cwiatl.com

3. Company: **Diversified Construction of Georgia Registered**
www.dcofgeorgia.com
2104 Vista Dale Ct
Tucker, GA 30084
(678) 705-4373
Contact: Richard Murrah
Email: bids@dcofgeorgia.com

4. Company: **Garland Construction Inc Registered**
1040 Garland Dr.
Bogart, GA 30622-3201
O. (770) 725-9000
F. (770) 725-8900
Contact: Milton Garland
Email: milton@garlandconstruction.com

5. Company: **Grahl Construction LLC Registered**
www.grahlconstruction.com
594 Oconee St., Ste 112
Athens, GA 30605
O. (706) 850-4848
M. (470) 246-2154
Contact: Jessica Roberts
Email: jroberts@grahlconstruction.com

6. Company: **Highlander Design + Build: General Contractor Registered**
www.h-d-b.com
52 Old Livery St.
Clayton, GA 30525
Contact: Micah McCracken
Email: micah@h-d-b.com
Office: (706) 782-2200

7. Company: **Hogan Construction Group LLC Registered**
www.hoganconstructiongroup.com
5075 Avalon Ridge Parkway
Peachtree Corners, GA 30071
O. (770) 242-8588
Contact: Soizic Michaud, M. (678) 770-5283
Email: SMichaud@hoganconstructiongroup.com
8. Company: **McKnight Construction Company Registered**
www.mcknightconstructionco.com
635 NW Frontage Rd.
Augusta, GA 30907
M. (912) 803-0965
Contact: Slade Helmly
Email: slade@mcknightconstructionco.com
9. Company: **Multiplex, LLC Registered**
www.multiplexllc.com
3505 Kroger Blvd., Suite 210
Duluth, GA 30096
(404) 895-2856
Contact: Erick Garcia
Email: erick@multiplexllc.com
10. Company: **Pencor Construction Registered**
www.pencorconstruction.com
12150 Morris Rd
Alpharetta, GA 30005
(855) 282-5274
Contact: Jared Penny
Email: jaredp@pencorconstruction.com
Contact: Amar Rajashekar, (470) 461-6903
Email: arajashekar@pencorconstruction.com
11. Company: **Ward-Humphrey General Contractors Registered**
www.Ward-Humphrey.com
531 Roselane Street, Suite 710
Marietta, GA 30060
O. (770) 240-1889
M. (470) 755-7731
Contact: Oliver Potter
Email: opotter@Ward-Humphrey.com

12. Company: **Altamaha Building Systems, Inc. Registered**
12546 GA-144
Surrency, GA 31563
(912) 366-8486
Contact: Robert Tillman
Michael Sharpe
Email: absirobert@gmail.com
absi.michaelsharpe@gmail.com
13. Company: **Beam Team Construction Registered**
www.thebeamteam.com
1350 Bluegrass Lakes Parkway
Alpharetta, GA 30004
(404) 787-4425
Contact: Jody Dyess
Email: jodydyess@thebeamteam.com
14. Company: **Renfro Construction Registered**
www.renfroconstruction.com
4611 Ivey Drive #400
Macon, GA 31206
(478) 471-9110
Contact: Jimmy Melton
Email: jmelton@renfroconstruction.com
15. Company: **Buzzell Plumbing, Heating and Air, Inc. Registered**
www.mybuzzell.com
4811 Russell Parkway
Warner Robins, GA 31088
(478) 923-5642
Contact: Steve Bevan
Email: steve@mybuzzell.com
16. Company: **Dodge Construction Network Registered**
www.construction.com
2860 S. State Highway 161, Suite 160 #501
Grand Prairie, TX 75052
(844) 326-3826 ext. 7282
Contact: Spencer Mantalaba
Email: Spencer.Mantalaba@construction.com
Contact: **Brenda Cusack**
Email: brenda.cusack@construction.com

17. Company: **Four Points Construction, Inc. Registered**
www.4ptsbuilds.com
37 Calumet Parkway, Bldg. H, Suite 202
Newnan, GA 30263
(770) 683-4003
Contact: Paul Snellings
Email: psnellings@4ptsbuilds.com
18. Company: **Dublin Construction Company Registered**
www.dcc1945.com
305 S. Washington Street
Dublin, GA 31021
(478) 272-0721
Contact: Robby Foskey
Email: rfoskey@dcc1945.com
19. Company: **Dyer Construction, Inc. Registered**
www.dyer-construction.com
2351 River Ridge Road
Milledgeville, GA 31061
(478) 453-7111
Contact: Matt Bentley
Email: mbentley@dyer-construction.com
20. Company: **Rycon Construction, Inc. Registered**
www.ryconinc.com
2325 Lakeview Parkway, Suite 400
Alpharetta, GA 30009
(770) 771-0830
Contact: Paul Thomann
Email: pthomann@ryconinc.com
21. Company: **PlanHub 2.0 Registered**
www.planhub.com
1665 Palm Beach Lakes Boulevard, Suite 300
West Palm Beach, FL 33401
(561) 934-9815
Contact: Emillie Westerman
Email: ewesterman@planhub.com

22. Company: **Prime Contractors Inc. Registered**
www.primecontractorsinc.net
3406 Florence Circle
Powder Springs, GA 30127
(770) 949-1930
Contact: David Moon
Email: dmoon@primecontractorsinc.net
23. Company: **Headley Construction Registered**
www.headleyconstruction.com
44 East Washington Street
Newnan, GA 30263
(770) 253-8027
Contact: Shelby Breeding
Email: SBreeding@headleyconstruction.com
24. Company: **Construct Connect Registered**
www.constructconnect.com
3825 Edwards Road, Suite 800
Cincinnati, OH 45209
(323) 602-5079
Contact: Aira Legislador
Email: Aira.Legislador@constructionconnect.com
Contact: Tin Allarcos
Email: Tin.Allarcos@constructionconnect.com
(513) 458-8598
25. Company: **J.M. Midlo Construction Registered**
www.jmmidloconstruction.com
2309 Porter Carswell Road
Waynesboro, GA
706-871-8089
Contact: Marc Midlo
Email: jmmidlo@gmail.com
26. Company: **McWright LLC Registered**
www.mcwrightconstruction.com
1303 Corder Road
Warner Robins, GA 31088
478-697-1559
Contact: Michael McMillian
Email: Michael@mcwrightconstruction.com

27. Company: **Banner Services Group, LLC Registered**
191 Jeanette Street
Canton, GA 30114
404-392-9821
Contact: Steve Chapman
Email: schapman@bannerservicesgroup.com
28. Company: **Cooper Tacia Registered**
www.coopertacia.com
50 Hurt Plaza SE #750
Atlanta, GA 30303
470-344-0262
Contact: Rohit Reddy Chimmula
Email: Rohit@coopertacia.com
29. Company: **Squared Away Construction Registered**
www.squaredawayconst.com
214 Southern Avenue
Monticello, GA 31064
706-476-3612
Contact: Delisa Day
Email: delisa@squaredawayconst.com
30. Company: **Caliber 1 Construction Registered**
www.caliber1construction.com
1 Community Square Boulevard, Suite 200
Villa Rica, GA 30180
770-456-9660
Contact: Shawn Groebner
Email: sgroebner@caliber1construction.com
31. Company: **Pro Construction of GA, LLC Registered**
www.proconstructionofga.com
7420 Cochran Street
Macon, GA 31216
478-254-7022
Contact: Ashley Sinyard
Email: ashley@proconstructionofga.com

32. Company: **Sunbelt Builders Registered**
www.sunbeltbuilders.com
10641 Highway 36
Covington, GA 30014
770-786-3031
Contact: **Mrs. Garnett Long**
Email: glong@sunbeltbuilders.com

33. Company: **Eastern Builders Registered**
www.eastern-builders.com
5825 Medlock Bridge Parkway, Suite 100
Johns Creek, GA 30022
206-465-1505
Contact: **Latrice Land**
Email: lland@eastern-builders.com
Contact: **Nate Tillman**
Email: ntillman@eastern-builders.com

END OF SECTION 009113.3

SECTION 009113.4 - PRE-BID SIGN IN SHEET

Project: **Collins P. Lee Memorial Library**

Date: **April 15, 2026 11:00 a.m. local time**

	Representative Name	Company Name	Phone Number	E-Mail Address
1.	<u>BOB MURDAUGH</u>	<u>SUNBELT BUILDERS</u>	<u>770-786-3031</u>	<u>ESTIMATING@SUNBELTBUILDERS.COM</u>
2.	<u>GREG MALCOM</u>	<u>GARLAND CONTRACTORS</u>	<u>770-725-9000</u>	<u>greg@garlandconstruction.com</u>
3.	<u>MORGAN MITCHELL</u>	<u>HOGAN CONSTRUCTION</u>	<u>256 390 0899</u>	<u>MMITCHELL@HOGANCONSTRUCTIONGROUP.COM</u>
4.	<u>David Stearns</u>	<u>Grahl Construction</u>	<u>706-372-3608</u>	<u>dstearns@grahlconstruction.com</u>
5.	<u>Stephen Dickinson</u>	<u>PENCOR</u>	<u>706-296-2446</u>	<u>Stephen d @ PencorConstruction.com</u>
6.	<u>Brandon Beaver</u>	<u>Rycon Construction</u>	<u>704-701-3115</u>	<u>bbeaver@ryconinc.com</u>
7.	<u>Doug Jackson</u>	<u>Roberts Roofing</u>	<u>478-363-9141</u>	<u>dougdbsa@gmail.com</u>

SECTION 009113.4 - PRE-BID SIGN IN SHEET

Project: **Collins P. Lee Memorial Library**

Date: **April 15, 2026 11:00 a.m. local time**

	Representative Name	Company Name	Phone Number	E-Mail Address
8.	<u>Heath Roberts</u>	<u>Roberts Roofing</u>	<u>478 414 6024</u>	<u>robertsroofing31061@gmail.com</u>
9.	<u>DUSTIN BROWN</u>	<u>DIVERSIFIED CONSTRUCTION OF GEORGIA</u>	<u>(770) 382-1381</u>	<u>BIOS@DLOFGGEORGIA.COM</u>
10.	<u>Taylor Dunn</u>	<u>Prime Contractors Inc.</u>	<u>770-685-5756</u>	<u>Tdunn@primecontractorsinc.net</u>
11.	<u>Michael Sharpe</u>	<u>Altamaha Building</u>	<u>912-366-8486</u>	<u>AbSi.Michael Sharpe@gmail.com</u> altamaha
12.	<u>Charles Pearce</u>	<u>Covenant Plmbs</u>	<u>704-618-5632</u>	<u>Jackmoe4321@gmail</u>
13.	<u>Doug Conforti</u>	<u>Southern Env. service inc</u>	<u>770 933 0003</u>	<u>doug.conforti@sesi.net</u>
14.	<u>Paul Snellings</u>	<u>Four Points Const,</u>	<u>770-683-4003</u>	<u>psnellings@4ptsbuilds.com</u>

SECTION 009113.4 - PRE-BID SIGN IN SHEET

Project: **Collins P. Lee Memorial Library**

Date: **April 15, 2026 11:00 a.m. local time**

	Representative Name	Company Name	Phone Number	E-Mail Address
15.	RAY GESUALDO	AJAX ROOFING	770-337-7233	ray@ajaxroofing.org
16.	Blake Yough	Ga Environmental Group	478-954-1385	Blake@gaenvironmentalgroup.com
17.	Christian Rodriguez	Ajax Roofing	678-541-1685	Christian@ ^{ajaxroofing.org}
18.	Marc Doster	Pro Construction	478-954-6075	mdoster@proconstructionofga.com
19.				
20.				
21.				

SECTION 075423 – THERMOPLASTIC POLYOLEFIN (TPO) ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Adhered thermoplastic polyolefin (TPO) roofing system.
2. Roof insulation.
3. Field-fabricated roof expansion joints.

B. Related Requirements:

1. Section 061053 "Miscellaneous Rough Carpentry" for wood nailers, curbs, and blocking; and for wood-based, structural-use roof deck panels.
2. Section 061600 "Sheathing" for wood-based, structural-use roof deck panels.
3. Section 072100 "Thermal Insulation" for insulation beneath the roof deck.
4. Section 076200 "Sheet Metal Flashing and Trim" for metal roof flashings and counterflashings.
5. Section 079200 "Joint Sealants" for joint sealants, joint fillers, and joint preparation.

1.3 DEFINITIONS

- A. Roofing Terminology: Definitions in ASTM D 1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.

1.4 PREINSTALLATION MEETINGS

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

1. Meet with Owner, Architect, Owner's insurer if applicable, testing and inspecting agency representative, roofing Installer, roofing system manufacturer's representative, deck Installer, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.

3. Review and finalize construction schedule, and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
4. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
5. Review structural loading limitations of roof deck during and after roofing.
6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that affects roofing system.
7. Review governing regulations and requirements for insurance and certificates if applicable.
8. Review temporary protection requirements for roofing system during and after installation.
9. Review roof observation and repair procedures after roofing installation.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- C. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other work, including:
 1. Base flashings and membrane terminations.
 2. Tapered insulation, including slopes.
 3. Roof plan showing orientation of steel roof deck and orientation of roofing, fastening spacings, and patterns for mechanically fastened roofing.
 4. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
- D. Samples for Verification: For the following products:
 1. Sheet roofing, of color required.
 2. Walkway pads or rolls, of color required.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Product Test Reports: For components of roofing system, tests performed by manufacturer and witnessed by a qualified testing agency.
- C. Research/Evaluation Reports: For components of roofing system, from ICC-ES.
- D. Field quality-control reports.

E. Sample Warranties: For manufacturer's special warranties.

1.7 CLOSEOUT SUBMITTALS

A. Maintenance Data: For roofing system to include in maintenance manuals.

1.8 QUALITY ASSURANCE

A. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.

B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.

1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.

C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.

D. Handle and store roofing materials, and place equipment in a manner to avoid permanent deflection of deck.

1.10 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.11 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.

1. Special warranty includes roofing, base flashings, roof insulation, fasteners, cover boards, roofing accessories, and other components of roofing system.

2. Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Carlisle SynTec Incorporated.
 2. Johns Manville; a Berkshire Hathaway company.
 3. GAF Everguard.
 4. Approved equal prior to bid:
 - A. **Mule-Hide Products, 80 mil TPO roof system.**
- B. Source Limitations: Obtain components including roof insulation and fasteners for roofing system from same manufacturer as membrane roofing or manufacturer approved by membrane roofing manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Roofing and base flashings shall remain watertight.
1. Accelerated Weathering: Roofing system shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
 2. Impact Resistance: Roofing system shall resist impact damage when tested according to ASTM D 3746 or ASTM D 4272.
- B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.
- C. Exterior Fire-Test Exposure: ASTM E 108 or UL 790, Class A; for application and roof slopes indicated; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- D. Fire-Resistance Ratings: Comply with fire-resistance-rated assembly designs indicated. Identify products with appropriate markings of applicable testing agency.

2.3 TPO ROOFING

- A. Fabric-Reinforced TPO Sheet: ASTM D 6878, internally fabric- or scrim-reinforced, uniform, flexible TPO sheet.

1. Thickness: **80 mils, nominal.**
2. Exposed Face Color: White.

2.4 FIELD-FABRICATED ROOF EXPANSION JOINTS

- A. Field-Fabricated Roof Expansion Joints: Provide compressible tube expansion joint covered with TPO cover piece per roofing membrane manufacturer's recommended details.

2.5 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with roofing.
 1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
- B. Sheet Flashing: Manufacturer's standard unreinforced TPO sheet flashing, 55 mils thick, minimum, of same color as TPO sheet.
- C. Bonding Adhesive: Manufacturer's standard.
- D. Metal Termination Bars: Manufacturer's standard, predrilled stainless-steel or aluminum bars, approximately 1 by 1/8 inch thick; with anchors.
- E. Metal Battens: Manufacturer's standard, aluminum-zinc-alloy-coated or zinc-coated steel sheet, approximately 1 inch wide by 0.05 inch thick, prepunched.
- F. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion resistance provisions in FM Global 4470, designed for fastening roofing to substrate, and acceptable to roofing system manufacturer.
- G. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, lap sealants, termination reglets, and other accessories.

2.6 ROOF INSULATION

- A. General: Preformed roof insulation boards manufactured or approved by TPO roofing manufacturer, selected from manufacturer's standard sizes suitable for application, of thicknesses indicated.
- B. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, Class 1, Grade 2, felt or glass-fiber mat facer on both major surfaces.
 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Atlas Roofing Corporation.
 - b. Carlisle SynTec Incorporated.

- c. Dyplast Products.
 - d. Firestone Building Products.
 - e. GAF Materials Corporation.
 - f. Hunter Panels.
 - g. Insulfoam LLC; a Carlisle company.
 - h. Johns Manville; a Berkshire Hathaway company.
 - i. Rmax, Inc.
- C. Tapered Insulation: Provide factory-tapered insulation boards fabricated to slope of 1/4 inch per 12 inches unless otherwise indicated.
- D. Provide preformed saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.
- 2.7 INSULATION ACCESSORIES
- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with roofing.
- B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion resistance provisions in FM Global 4470, designed for fastening roof insulation and cover boards to substrate, and acceptable to roofing system manufacturer.
- C. Insulation Adhesive: Insulation manufacturer's recommended adhesive formulated to attach roof insulation to substrate or to another insulation layer as follows:
- 1. Bead-applied, low-rise, one-component or multicomponent urethane adhesive.
- D. Cover Board: ASTM C 1177/C 1177M, glass-mat, water-resistant gypsum substrate, 1/2 inch thick.
- 1. Basis-of-Design: Subject to compliance with requirements, provide product indicated below by Georgia Pacific Building Products, or a comparable product as approved by the Architect:
 - a. Product: DensDeck.
- 2.8 ASPHALT MATERIALS
- A. Asphalt Primer: ASTM D 41/D 41M.
- 2.9 WALKWAYS
- A. Flexible Walkways: Factory-formed, nonporous, heavy-duty, slip-resisting, surface-textured walkway pads or rolls, approximately 3/16 inch thick and acceptable to roofing system manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work:
 - 1. Verify that roof openings and penetrations are in place, curbs are set and braced, and roof-drain bodies are securely clamped in place.
 - 2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.

3.3 ROOFING INSTALLATION, GENERAL

- A. Install roofing system according to roofing system manufacturer's written instructions.
- B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.

3.4 INSULATION INSTALLATION

- A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.
- C. Install tapered insulation under area of roofing to conform to slopes indicated.
- D. Install insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 2.7 inches or greater, install two or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches in each direction.
- E. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.

- F. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch with insulation.
 - 1. Cut and fit insulation within 1/4 inch of nailers, projections, and penetrations.
- G. Mechanically Fastened and Adhered Insulation: Install each layer of insulation to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.
 - 1. Fasten first layer of insulation to resist uplift pressure at corners, perimeter, and field of roof.
 - 2. Set each subsequent layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.
- H. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches in each direction. Loosely butt cover boards together and fasten to roof deck.
 - 1. Fasten cover boards to resist uplift pressure at corners, perimeter, and field of roof.

3.5 ADHERED ROOFING INSTALLATION

- A. Adhere roofing over area to receive roofing according to roofing system manufacturer's written instructions. Unroll roofing and allow to relax before retaining.
- B. Start installation of roofing in presence of roofing system manufacturer's technical personnel.
- C. Accurately align roofing, and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- D. Bonding Adhesive: Apply to substrate and underside of roofing at rate required by manufacturer, and allow to partially dry before installing roofing. Do not apply to splice area of roofing.
- E. In addition to adhering, mechanically fasten roofing securely at terminations, penetrations, and perimeter of roofing.
- F. Apply roofing with side laps shingled with slope of roof deck where possible.
- G. Seams: Clean seam areas, overlap roofing, and hot-air weld side and end laps of roofing and sheet flashings according to manufacturer's written instructions, to ensure a watertight seam installation.
 - 1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of sheet.
 - 2. Verify field strength of seams a minimum of twice daily, and repair seam sample areas.

3. Repair tears, voids, and lapped seams in roofing that do not comply with requirements.
- H. Spread sealant bed over deck-drain flange at roof drains, and securely seal roofing in place with clamping ring.
- 3.6 FIELD-FABRICATED ROOF EXPANSION JOINT INSTALLATION
 - A. Install field-fabricated roof expansion joints and adhere to substrates according to membrane roofing system manufacturer's written instructions.
 - B. Mechanically attach roofing membrane on both sides of the field-fabricated roof expansion joint using manufacturer's recommended fastening system.
 - C. Cover compressible tube expansion joint with TPO roofing membrane cover piece and adhere to roofing membrane per manufacturer's recommendations.
 - D. Ensure there is sufficient excess roofing membrane to accommodate building movement.
- 3.7 BASE FLASHING INSTALLATION
 - A. Install sheet flashings and preformed flashing accessories, and adhere to substrates according to roofing system manufacturer's written instructions.
 - B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate, and allow to partially dry. Do not apply to seam area of flashing.
 - C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
 - D. Clean seam areas, overlap, and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.
 - E. Terminate and seal top of sheet flashings and mechanically anchor to substrate through termination bars.
- 3.8 WALKWAY INSTALLATION
 - A. Flexible Walkways: Install walkway products in locations indicated. Heat weld to substrate or adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.
- 3.9 FIELD QUALITY CONTROL
 - A. Testing Agency: Owner will engage a qualified testing agency to inspect substrate conditions, surface preparation, membrane application, flashings, protection, and drainage components, and to furnish reports to Architect.
 1. Electric Field Vector Mapping (EFVM): Testing agency shall survey entire roof area for potential leaks using electric field vector mapping (EFVM).

- B. Flood Testing: Flood test each roofing area for leaks, according to recommendations in ASTM D 5957, after completing roofing and flashing but before overlying construction is placed. Install temporary containment assemblies, plug or dam drains, and flood with potable water.
 - 1. Flood to an average depth of 2-1/2 inches with a minimum depth of 1 inch and not exceeding a depth of 4 inches. Maintain 2 inches of clearance from top of base flashing.
 - 2. Flood each area for 48 hours.
 - 3. After flood testing, repair leaks, repeat flood tests, and make further repairs until roofing and flashing installations are watertight.
 - C. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.
 - D. Repair or remove and replace components of roofing system where inspections indicate that they do not comply with specified requirements.
 - E. Additional testing and inspecting, at Contractor's expense, will be performed to determine if replaced or additional work complies with specified requirements.
- 3.10 PROTECTING AND CLEANING
- A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.
 - B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
 - C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 075423

SECTION 084333 – FOLDING GLASS STOREFRONTS

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes furnishing and installing a floor track supported, sliding-folding, thermally broken, aluminum-framed glass panel system that includes:
 - 1. Aluminum frame
 - 2. Threshold
 - 3. Panels
 - 4. Sliding-folding and locking hardware
 - 5. Weather stripping
 - 6. Glass and glazing
 - 7. Insect screen (optional)
 - 8. Accessories as required for a complete working installation.
- B. Related Documents and Sections: Contractor to examine Contract Documents for requirements that directly affect or are affected by Work of this Section. A list of those Documents and Sections include, but is not limited to, the following:
 - 1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 General Requirements, Specification Sections, apply to this Section.
 - 2. Section 06 1053, Miscellaneous Rough Carpentry
 - 3. Section 07 2726, Fluid Applied Membrane Air Barrier, Vapor Permeable
 - 4. Section 07 6200, Sheet Metal Flashing and Trim
 - 5. Section 07 9200, Joint Sealants

1.02 REFERENCES

- A. Reference Standards in accordance with Division 01 and current editions from the following:
 - 1. AAMA. American Architectural Manufacturers Association; www.aamanet.org
 - a. AAMA 502, Voluntary Specification for Field Testing of Newly Installed Fenestration Products
 - b. AAMA 520, Voluntary Specification for Rating the Severe Wind-Driven Rain Resistance of Windows, Doors and Unit Skylights
 - c. AAMA 611, Voluntary Specification for Anodized Architectural Aluminum
 - d. AAMA 920, Operation / Cycling Performance
 - e. AAMA 1304, Voluntary Specification for Forced Entry Resistance of Side-Hinged Door Systems
 - f. AAMA 2604, Voluntary Specifications, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and

Panels

- g. AAMA 2605, Voluntary Specifications, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels
 - h. AAMA/WDMA/CSA 101/I.S.2/A440, NAFS, North American Fenestration Standard - Specification for Windows, Doors and Skylights
2. ANSI. American National Standards Institute; www.ansi.org
- a. ANSI Z97.1, Safety Performance Specifications and Methods of Test for Safety Glazing Material Used in Buildings
3. ASTM. ASTM International; www.astm.org
- a. ASTM C1036, Standard Specification for Flat Glass
 - b. ASTM C1048, Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass
 - c. ASTM E283, Test Method for Rate of Air Leakage through Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
 - d. ASTM E330, Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
 - e. ASTM E331 Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference
 - f. ASTM E413, Classification for Rating Sound Insulation
 - g. ASTM E547, Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential.
 - h. ASTM E1332, Standard Classification for Rating Outdoor-Indoor Sound Attenuation
 - i. ASTM E2268, Standard Test Method for Water Penetration of Exterior Windows, Skylights, and Doors by Rapid Pulsed Air Pressure Difference
 - j. ASTM F842, Standard Test Methods for Measuring the Forced Entry Resistance of Sliding Door Assemblies
4. CPSC. Consumer Product Safety Commission; www.cpsc.gov
- a. CPSC 16CFR-1201, Safety Standard for Architectural Glazing Materials
5. CSA Group (Canadian Standards Association); www.csagroup.org/global/en/home
- a. CSA A440S1 - The Canadian supplement to North American (NAFS) standards
6. DIN. "Deutsches Institut für Normung" (German institute for standardization); www.en-standard.eu/din-standards
- a. DIN 52210-3, Testing of acoustics in buildings - Airborne and impact sound insulation - Laboratory measurements of sound insulation of building elements and field measurements between rooms
 - b. DIN 52210-4, Tests in Building Acoustics - Airborne and Impact Sound
 - c. DIN EN 1191, Windows and doors - Resistance to repeated opening and closing - Test method; German version EN 1191:2000
 - d. DIN EN ISO 12400, Windows and pedestrian doors - Mechanical durability - Requirements and classification
7. Energy Star, U.S. Environmental Protection Agency (EPA) Program;

- www.energystar.gov
8. FL. Florida Building Commission - Product Approval;
https://floridabuilding.org/pr/pr_app_srch.aspx
 9. NFRC. National Fenestration Rating Council; www.nfrc.org
 - a. NFRC 100, Procedure for Determining Fenestration Product U-factors
 - b. NFRC 200, Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence
 - c. NFRC 400, Procedure for Determining Fenestration Product Air Leakage
 - d. NFRC 500, Procedure for Determining Fenestration Product Condensation Resistance Rating Values
- 1.03 ADMINISTRATIVE REQUIREMENTS
- A. Coordination: Coordinate Folding Glass Storefront system and framing R.O.
 - B. Pre-installation Meetings: See Section 01 30 00.
- 1.04 SUBMITTALS
- A. For Contractor submittal procedures see Section 01 30 00.
 - B. Product Data: Submit manufacturer's printed product literature for each Folding Glass Storefront system to be incorporated into the Work. Show performance test results and details of construction relative to materials, dimensions of individual components, profiles and colors.
 - C. Product Drawings: Indicate Folding Glass Storefront system component sizes, dimensions and framing R.O., configuration, swing panels, direction of swing, stacking layout, typical head jamb, side jambs and sill details, type of glazing material, handle height and field measurements.
 - D. Installation, Operation and Maintenance Data: Submit Owner's Manual from manufacturer. Identify with project name, location and completion date, and type and size of unit installed.
- 1.05 QUALITY ASSURANCE
- A. Manufacturer Qualifications: Manufacturer capable of providing complete, precision built, engineered, pre-fitted units with a minimum twenty-five (25) years' experience in the sale of folding-sliding door systems for large openings in the North American market.
 - B. Installer Qualifications: Installer experienced in the installation of manufacturer's products or other similar products for large openings. Installer to provide reference list of at least three (3) projects of similar scale and complexity successfully completed in the last three (3) years.
 1. Installer to be trained and certified by manufacturer.
 - C. Single Source Responsibility: Furnish Folding Glass Storefront system materials from one manufacturer for entire Project.
- 1.06 DELIVERY, STORAGE, AND HANDLING
- A. Comply with manufacturer's instructions and recommendations, Section 01 60 00 requirements, and as follows:
 1. Deliver materials to job site in sealed, unopened cartons or crates.
 - a. Upon receipt, inspect the shipment to ensure it is complete, in good condition and meets project requirements.

2. Store material under cover in a clean and dry location, protecting units against weather and defacement or damage from construction activities, especially to the edges of panels.

1.07 FIELD CONDITIONS

- A. Field Measurements: Contractor to field verify dimensions of rough openings (R.O.) [And threshold depressions to receive sill.] Mark field measurements on product drawing submittal.

1.08 WARRANTY

- A. Manufacturer Warranty: Provide Folding Glass Storefront system manufacturer's standard limited warranty as per manufacturer's published warranty document in force at time of purchase, subject to change, against defects in materials and workmanship.
 1. Warranty Period beginning with the earliest of 120 days from Date of Delivery or Date of Substantial Completion:
 - a. Rollers and Glass Seal Failure: Ten (10) years
 - b. All Other Components Except Screens: Ten (10) years
 - 1). Exception: Five (5) years if NOT installed by manufacturer's certified trained installer.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Basis-of-Design Product by Manufacturer: NanaWall NW Acoustical 645 by NANA WALL SYSTEMS, INC. (www.nanawall.com)
- B. Design Criteria:
 1. As indicated by the Drawings.
- C. Approved equal prior to bid:
 1. **SUNFLEX SF 55 by SUNFLEX Wall Systems LP.**

2.02 FABRICATION

- A. Folding Glass Wall: Extruded aluminum frame and panel profiles, corner connectors and hinges, sliding and folding hardware, locking hardware and handles, glass and glazing and weather stripping.
 1. Each unit factory pre-assembled and shipped with complete system components and installation instructions.
 2. Exposed work to be carefully matched to produce continuity of line and design with all joints.
 3. No raw edges visible at joints.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examination and Acceptance of Conditions per Section 01 70 00 and as follows:
 1. Carefully examine rough openings with Installer present, for compliance with requirements affecting Work performance.

- a. Examine surfaces of openings and verify dimensions; verify rough openings are level, plumb, and square with no unevenness, bowing, or bumps on the floor; and other conditions as required by the manufacturer for readiness to receive Work.
 - b. Verify structural integrity of the header for deflection with live and dead loads limited to the lesser of L/720 of the span or 1/4 inch (6 mm). Provide structural support for lateral loads, and both wind load and eccentric load when the panels are stacked open.
2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. General: Install Folding Glass Storefront system in accordance with the Drawings, approved submittals, manufacturer's recommendations and installation instructions, and as follows:
1. Properly flash, waterproof and seal around opening perimeter.
 2. Securely attach anchorage devices to rigidly fit frame in place, level, straight, plumb and square. Install frame in proper elevation, plane and location, and in proper alignment with other work.
 3. When lower track is designed to drain, provide connections to allow for drainage.
 4. Install panels, handles, lockset, screens and other accessories in accordance with manufacturer's recommendations and instructions.

3.03 FIELD QUALITY CONTROL

- A. Field Tests and Inspections per Section 01 40 00 of the following:
1. Verify the Folding Glass Storefront system operates and functions properly. Adjust hardware for proper operation.
- B. Non-Conforming Work: Repair or replace non-conforming work as directed by the Architect; see General and Supplementary Conditions, and Division 01, General Requirements.

3.04 CLEANING AND PROTECTION

- A. Keep units closed and protect Folding Glass Storefront installation against damage from construction activities.
- B. Remove protective coatings and use manufacturer recommended methods to clean exposed surfaces.

END OF SECTION 083323

SECTION 088400 – TRANSLUCENT RESIN PANEL SYSTEM

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Polycarbonate plastic glazing.
 - 2. Enhanced UV-resistant polycarbonate plastic glazing.
 - 3. Laminated polycarbonate plastic glazing.

1.2 REFERENCES

- A. ANSI Z 97.1 - American National Standard for Glazing Materials Used in Buildings -- Safety Performance Specifications and Methods of Test.
- B. ASTM D 256 - Standard Test Method for Determining the Pendulum Impact Resistance of Notched Specimens of Plastics.
- C. ASTM D 638 - Standard Test Method for Tensile Properties of Plastics.
- D. ASTM D 790 - Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
- E. ASTM D 1929 - Standard Test Method for Ignition Properties of Plastics.
- F. ASTM D 635 – Standard Test Method for Rate of Building and/or Extent and Time of Burning of Plastics in a Horizontal Position.
- G. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials
- H. CAN/ULC 102.2 – Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies.

1.3 SUBMITTALS

- A. General: Submit the following in accordance with conditions of contract and Division 1 specification section 01 33 00 "Submittal Procedures".
- B. Product Data: Submit manufacturer's product data; including product description, fabrication information, and compliance with specified performance requirements.
- C. Submit product test reports from a qualified independent 3rd party testing agency indicating each type and class of panel system complies with the project performance requirements, based on comprehensive testing of current products. Previously completed test reports will be acceptable if for current manufacturer and indicative of products used on this project.

1. Test reports required are:
 - a. Rate of Burning (ASTM D 635)
 - b. Self-Ignition Temperature (ASTM D 1929)
 - c. Flame Spread and Smoke Developed (ASTM E 84)
 - d. Impact Strength (ASTM D 3763)
 - e. Safety Glazing and Impact Strength (ANSI Z97.1-2004)

D. Samples for Initial Selection:

1. Submit minimum 2-inch by 2-inch samples. Indicate full color.

E. Samples for Verification:

1. Submit minimum 4-inch by 4-inch sample for each type and color of solid plastic fabrication.

F. Mockups:

1. Build mockups to verify selections made under sample Submittals and to demonstrate aesthetic effects.
2. Build mockup of [each type of] Plastic Fabrication.
3. Approved mockups may become part of the completed work if undistributed at time of Substantial Completion.

G. Maintenance Data: Submit manufacturer's care and maintenance data, including care, repair and cleaning instructions. Include in Project closeout documents.

1.4 QUALITY ASSURANCE

A. Manufacturer's Qualifications

1. Materials and systems shall be manufactured by a company continuously and regularly employed in the manufacture of specified materials for a period of at least five (5) consecutive years and which can show evidence of those materials being satisfactory used on at least six (6) projects of similar size, scope and location.
2. Manufacturer must have documented training and qualification program for fabrication and installation of plastic fabrications.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver Plastic Fabrications, systems and specified items in manufacturer's standard protective masking.
- B. Store materials in a flat orientation in a dry place that is not exposed to exterior elements.
- C. Handle materials to prevent damage to finished surfaces.
- D. Before installing Plastic Fabrications, permit them to reach room temperature.

- E. Do not deliver Plastic Fabrications, systems, components and accessories to Project site until areas are ready for installation.

1.6 WARRANTY

- A. Manufacturer's Special Warranty on Plastic Fabrications: Manufacturer's standard form agreeing to repair or replace units that fail in material or workmanship within the specified warranty period.
- B. Warranty Period: 5 years from ship date.
- C. The warranty shall not deprive the owner of other rights or remedies the Owner may have under provisions of the Contract Documents, and is in addition to and runs concurrent with other warranties made by the Contractor under the requirements of the Contract Documents.

Part 2 – PRODUCTS

2.1 MANUFACTURER

- A. Manufacturer: 3form, Inc., Salt Lake City, Utah, USA / telephone 801-649-2500

- B. Acceptable alternate manufacturers:**

- 1. Duo-Gard Industries: Sleekline Monolithic Polycarbonate Canopy System.**

2.2 MATERIALS

- A. Koda XT produced from polycarbonate sheet
 - 2. Engineered polycarbonate resin
 - 3. Sheet Size: Maximum 4'x10'
 - 4. Thickness: Minimum ¼"
 - 5. Basis of Design Product: The design of Plastic Fabrications is based on Koda XT as provided by 3form, Inc. Products from other manufacturers must be approved by the Architect and Designer prior to bidding in accordance with the Instructions to Bidders and Section 10 60 00 "Product Requirements".

- B. Sheet Minimum Performance Attributes:

Rate of Burning (ASTM D 635). Material must attain CC1 Rating for a nominal thickness of 1.5 mm (0.060 in.) and greater.

- 1. Self-Ignition Temperature (ASTM D 1929). Material must have a Self-Ignition Temperature greater than 650°F.
- 2. Flame Spread and Smoke developed testing (ASTM E 84). Material must be able to meet a level of Class B (Flame spread less than 75 and smoke less than 450) at thickness of ½".
- 3. Impact Strength. Minimum impact strength test as measured by ASTM D 3763 of 20 ft. lbs. (for durability, shipping, installation, and use).
- 4. Safety Glazing. Material must attain a Class A impact rating in accordance with ANSI Z97.1-2004.

C. Interlayer Materials:

1. C3 Color: Play with 50,000 options in the core color palette. Combine colors up to three layers deep to control the hue, intensity and translucency, creating an exciting range of exact color specifications.
2. HighRes: Translucent high resolution imagery.

2.3 FABRICATION

General: Fabricate Plastic Fabrications to designs, sizes and thicknesses indicated and to comply with indicated standards. Sizes, profiles and other characteristics are indicated on the drawings.

- I. Comply with manufacturer's written recommendations for fabrication.
- J. Machining: Acceptable means of machining are listed below. Ensure that material is not chipped or warped by machining operations.
 1. Sawing: Select equipment and blades suitable for type of cut required.
 2. Drilling: Drills specifically designed for use with plastic products.
 3. Milling: Climb cut where possible.
 4. Routing
 5. Tapping
- K. Forming: Form products to shapes indicated using the appropriate method listed below. Comply with manufacturer's written instructions.
 1. Cold Bending
 2. Hot Bending
- L. Laminating: Laminate to substrates indicated using adhesives and techniques recommended by manufacturer.

2.4 ACCESSORIES

- A. Gaskets shall be as per manufacturer's standards to meet performance criteria.
- B. Fasteners shall be per manufacturer's standards to meet performance requirements.

2.5 MISCELLANEOUS MATERIALS

- A. General: Provide products of material, size, and shape required for application indicated, and with a proven record of compatibility with surfaces contacted in installation.
- B. Cleaner: Type recommended by manufacturer.
- C. Fasteners: Use screws designed specifically for plastics.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions where installation of Plastic Fabrications will occur, with Installer present, for compliance with manufacturer's requirements. Verify that substrates and conditions are satisfactory for installation and comply with requirements specified.

3.2 INSTALLATION

- A. General: Comply with manufacturer's written instructions for the installation of Plastic Fabrications.
- B. Manufacturer's shop to fabricate items to the greatest degree possible.
- C. Utilize all fasteners recommended by manufacturer for type of installation indicated. Material that is chipped, warped, hazed or discolored as a result of installation or fabrication methods will be rejected.
- D. Install components plumb, level and rigid, scribed to adjacent finishes, in accordance with approved shop drawings and product data.

We recommend that installation is completed by a 3form Certified Installer. Contact 3form for more information or to get a quote.

3.3 CLEANING AND PROTECTION

- M. Protect surfaces from damage until date of substantial completion. Repair work or replace damaged work, which cannot be repaired to Architect's satisfaction period.

END OF SECTION 088400