

<u>Addendum</u>

Cornwall Central School District Cornwall, New York

Reconstruction to Cornwall-On-Hudson Elementary School Cornwall Elementary School Cornwall Central Middle School

Tt Project No. 363579-22001.3 – Phase 3

BID Addendum No. 5 to Drawings and Project Manual

.....

September 30, 2024

.....

To: ALL BIDDERS

This ADDENDUM forms a part of the BIDDING AND CONTRACT DOCUMENTS and modifies the following documents: Original DRAWINGS, dated June 28, 2024; PROJECT MANUAL, dated June 28, 2024; and BID ADDENDUM NO. 1, dated September 9, 2024, BID ADDENDUM NO. 2, dated September 19, 2024, BID ADDENDUM NO. 3, dated September 24, 2024, and BID ADDENDUM NO. 4, dated September 25, 2024. Acknowledge receipt of the ADDENDUM in the space provided on the BID FORMS.

This ADDENDUM consists of (3) pages and the following:

ATTACHMENTS

PRE-BID REQUEST FOR INFORMATION QUESTIONS/ANSWERS

REISSUED PROJECT MANUAL SECTIONS

SECTION 12 24 13 – ROLLER WINDOW SHADES

NEW DRAWINGS (8-1/2 x 11)

AC01B Site Demolition Revisions

- AC02B Site Layout Revisions
- AC03B Site Grading Revisions

REISSUED DRAWINGS (30 x 42)

BA601 Window Types

Cornell Business + Technology Park 10 Brown Road Ithaca, New York 14850 Tel. (607) 277-7100 Fax (607) 277-1410

SED NOS. 44-03-01-06-0-006-015 44-03-01-06-0-002-017 44-03-01-06-0-001-030 44-03-01-06-0-001-031

PROJECT MANUAL MODIFICATIONS

ITEM 5-C-1: Refer to SECTION 01 21 00 – ALLOWANCES

- 1. Paragraph 3.5, <u>ADD</u> the following:
 - "C. Allowance No. WC/AA-5: Contingency Allowance: Include the sum of \$5,000.00 for possible sill replacement."

PROJECT MANUAL MODIFICATIONS - ARCHITECTURAL

ITEM 5-C-2: Refer to SECTION 08 41 13 – ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

- 1. Paragraph 2.11, A., <u>AMEND</u> to read as follows:
 - "A. Sunshade: Comply with Division 12 Section "Roller Window Shades."

ITEM 5-C-3: Refer to SECTION 08 44 13 – GLAZED ALUMINUM CURTAIN WALLS

- 1. Paragraph 1.2, A., 1., b., <u>DELETE</u> in its entirety.
- 2. Paragraph 1.5, A., 1., <u>DELETE</u> in its entirety.
- 3. Paragraph 1.5, B,, 2., <u>DELETE</u> in its entirety.
- 4. Paragraph 1.8, C., <u>DELETE</u> in its entirety.
- 5. Paragraph 2.3, A., 2., <u>DELETE</u> in its entirety.

ITEM 5-C-4: Refer to SECTION 08 71 00 – DOOR HARDWARE

1. Paragraph 3.7, Set #CM-3, <u>AMEND</u> to read as follows:

"Doors: D101/1

2 Continuous ringe 00111D 020	DE
1 Exit Device ELR 2602 CD DS 630.	AM PR
1 Exit Device ELR 2603 CD DS 630.	AM PR
1 Rim Cylinder TO MATCH EXISTING 626	
2 Mortise Cylinder TO MATCH EXISTING 626	
2 Door Pull AP311 24" 630	TR
2 Door Closer (DELETE) QDC119 689	BE
2 Auto Operator (ADD) D4990 X RELAY 689	PR
2 Actuators (ADD) 910	TS PR
1 Bollard (ADD) AS	REQUIRED
1 Card Reader BY	OTHERS BY
2 Power Transfer PT1000 689	AB
1 Power Supply ELR152	PR
2 Door Sweep C627 A	NA
1 Threshold 896 S 628	NA".

ITEM 5-C-5: Refer to SECTION 12 24 13 – ROLLER WINDOW SHADES

1. <u>DELETE</u> section in its entirety and, <u>ADD</u> new section attached to this addendum.

DRAWING MODIFICATIONS - LANDSCAPE

<u>ITEM 5-C-6</u> :	Refer to DRAWING AC100
---------------------	------------------------

- 1. Detail 1, <u>AMEND</u> as shown on Drawing AC01B attached to this addendum.
- ITEM 5-C-7: Refer to DRAWING AC120
- 1. Site Layout Keynote 6, (hexagon), <u>AMEND</u> to read as follows:
 - "6. NOT USED."
- 2. Detail 1, <u>AMEND</u> as shown on Drawing AC02B attached to this addendum.
- ITEM 5-C-8: Refer to DRAWING AC130
- 1. Detail 1, <u>AMEND</u> as shown on Drawing AC03B attached to this addendum.

ITEM 5-C-9: Refer to DRAWING DC120

- 1. Site Layout Keynote 11 (hexagon), <u>AMEND</u> to read as follows:
 - "11. NOT USED."

DRAWING MODIFICATIONS - ARCHITECTURAL

- ITEM 5-C-10: Refer to DRAWING BA601
- 1. <u>DELETE</u> drawing in its entirety and, <u>ADD</u> new drawing attached to this addendum.
- ITEM 5-C-11: Refer to DRAWING DA400
- 1. Detail 9, <u>AMEND</u> second note on the left to read as follows:

"1" THICK OPAQUE SPANDREL ... "

END OF ADDENDUM



SUBMIT FORM BY EMAIL TO INE.Cornwall@tetratech.com

Project No.: 363579-22001.3

Date: 9/11/24

Project Name: "Phase 3" Reconstruction to Cornwall Elementary School, Cornwall Central Middle School, and Cornwall-on-Hudson Elementary School.

Bidder Contact Person: RYAN HOOKER **Bidder Company Name: AFI GLASS & ARCHITECTURAL METAL** Bidder Phone: 845 485 1080 X2 Bidder Email Address: RHOOKER@AFIGLASS.COM

Question Pertains to:

Drawing Number: NONE Plan Area: CURTAIN WALLS Room Number: AUDITORIUM Drawing Detail Number: N/A Specification Section: 084113

<u>Question: (Please be specific)</u> 1. Spec section 084413 Glazed Aluminum Curtain Walls part 1.5.A.1 mentions light shelves. These are not shown anywhere on the drawings. Please confirm this can be disregarded.

2. Spec section 084413 Glazed Aluminum Curtain Walls parts 1.2.A.1.b, 1.5.B.2, 1.8.b.1 & 2.3.A.2 mentions 2-sided structural sealant glazed systems. Drawings only show curtain walls with glass lites fully captured on all 4 sides. Please confirm reference to 2 sided structural sealant glazed curtain walls can be disregarded.

3. Part 2.2.K of spec section 084413 glazed aluminum curtain walls mentions windborne debris impact resistance. Based on the project's geographical location, windborne debris impact resistance should not be required. The glass type called out on the drawings and in spec is also not a windborne debris impact resistant glass type. The aluminum window spec also does not indicate windborne debris impact resistance as a requirement for the windows. Please confirmmention of windborne debris impact resistance in curtain wall spec can be disregarded

Review by Architect/Engineers:	Responded By: <u>TT</u>	Date:	2024.09.25

Will be addressed by Addendum.



SUBMIT FORM BY EMAIL TO INE.Cornwall@tetratech.com

Project No.: 363579-22001.3

Date: 9/11/24

Project Name: "Phase 3" Reconstruction to Cornwall Elementary School, Cornwall Central Middle School, and Cornwall-on-Hudson Elementary School.

idder Contact Person: RYAN HOOKER
idder Company Name: AFI GLASS & ARCHITECTURAL METAL
idder Phone: 845 485 1080 X2
idder Email Address: RHOOKER@AFIGLASS.COM
uestion Pertains to:
rawing Number: MULTIPLE CONTRACT SUMMARY
an Area: vestibule d101
oom Number: vestibule d101
rawing Detail Number: DA400

Specification Section: 011200

Question: (Please be specific)

1. Please confirm that hollow metal doors d101-2 & d101-3 at the interior of vestibule d101 are considered interior doors and are therefore part of the gc contract, not the window contract.

Review by Architect/Engineers:	Responded By:	TPG	Date:	9/25/24

HM doors are a part of teh GC, storefront is by window contractor



SUBMIT FORM BY EMAIL TO INE.Cornwall@tetratech.com

Project No.: 363579-22001.3

Date: 9/11/24

Project Name: "Phase 3" Reconstruction to Cornwall Elementary School, Cornwall Central Middle School, and Cornwall-on-Hudson Elementary School.

Bidder Contact Person: RYAN HOOKER Bidder Company Name: AFI GLASS & ARCHITECTURAL METAL Bidder Phone: 845 485 1080 X2 Bidder Email Address: RHOOKER@AFIGLASS.COM

Question Pertains to:

Drawing Number: none Plan Area: ac units Room Number: multiple Drawing Detail Number: none Specification Section: 011200

Question: (Please be specific)

1. Revised multiple contracts summary issued in addendum #2 adds removal and reinstallation of window a/c units into window contract scope. Please confirm that this is indeed required, based on the time of year that the window contract work starts we would've expected the school maintenance to have already removed the ac units, unless they stay in place all year. If this work is confirmed to be part of the window contract please clarify the following.

- a. Please clarify how many AC units are required to be removed & reinstalled.
 - b. Please also clarify if the ac removal will be when the window the ac unit is installed in is removed from the building or if it will be before the window itself is removed.

i.If ac unit removal is before the removal of the window itself, please clarify what goes in place of the ac unit. Does the school already have panels or plywood to glaze into the windows in these locations or does the window contractor have to include some sort of material?

Review hv	Architect/Engineers	1

Responded By:	TPG	Date:	09/26/24
ICSDUNICU DI.		Date.	

AC units to be removed by window contractor as stated in the SOW. one AC unit per classroom at a minimum. i do not understand the b question. AC will be removed by window contractor when teh window is replaced. the SOW calls for playwood to cover teh openeings if an opening exists after removal of AC. Window contractor is responsible for the reinstallation of AC. design calls for a removalble panel



SUBMIT FORM BY EMAIL TO INE.Cornwall@tetratech.com

Project No.: 363579-22001.3

Date: 9/11/24

Project Name: "Phase 3" Reconstruction to Cornwall Elementary School, Cornwall Central Middle School, and Cornwall-on-Hudson Elementary School.

Bidder Contact Person: RYAN HOOKER Bidder Company Name: AFI GLASS & ARCHITECTURAL METAL Bidder Phone: 845 485 1080 X2 Bidder Email Address: RHOOKER@AFIGLASS.COM

Question Pertains to:

Drawing Number: DA600 Plan Area: door d101-1 Room Number: vestibule d101 Drawing Detail Number: DA600 Specification Section: 087100

Question: (Please be specific)

1. According to the remarks column on the door schedule on DA600, door #d101-1 has a power automatic door operator. However, the door schedules also indicates the hardware set for this door is set #cm-3. Hardware set #cm-3 in spec section 087100 does not include an automatic door operator. It lists two standard stanley model closers. Please advise.

Review by Architect/Engineers:	Responded By: KSZiler	Date: 2024.09.27

Will be addressed via Addendum.



SUBMIT FORM BY EMAIL TO INE.Cornwall@tetratech.com

Project No.: 363579-22001.3

Date: 9/11/24

Project Name: "Phase 3" Reconstruction to Cornwall Elementary School, Cornwall Central Middle School, and Cornwall-on-Hudson Elementary School.

Bidder Contact Person: RYAN HOOKER Bidder Company Name: AFI GLASS & ARCHITECTURAL METAL Bidder Phone: 845 485 1080 X2 Bidder Email Address: RHOOKER@AFIGLASS.COM

Question Pertains to:

Drawing Number: N/A Plan Area: CORNWALL MIDDLE SCHOOL Room Number: N/A Drawing Detail Number: N/A

Specification Section: 084113

Question: (Please be specific)

1. Please confirm sunshades referenced in spec section 084113 aluminum framed entrances & storefronts can be disregarded.

2. Part 2.16 of spec section 084113 aluminum framed entrances & storefronts mentions clear anodized finish and color anodized finish. Please clarify which one is required.

 Review by Architect/Engineers:
 Responded By: <u>Tt</u>
 Date: <u>2024.09.25</u>

1. Will be addressed by addendum.

2. Both



SUBMIT FORM BY EMAIL TO INE.Cornwall@tetratech.com

Project No.: 363579-22001.3

Date: 9/11/24

Project Name: "Phase 3" Reconstruction to Cornwall Elementary School, Cornwall Central Middle School, and Cornwall-on-Hudson Elementary School.

Bidder Contact Person: RYAN HOOKER Bidder Company Name: AFI GLASS & ARCHITECTURAL METAL Bidder Phone: 845 485 1080 X2 Bidder Email Address: RHOOKER@AFIGLASS.COM

Question Pertains to:

Drawing Number: N/A Plan Area: ALL Room Number: N/A Drawing Detail Number: N/A Specification Section: 088000

Question: (Please be specific)

1. Glass type FCE/FCS is '2" thick opaque spandrel glass to match adjacent panels' per detail 9/DA400. Spec section 088000 says glass type FCE/FCS is 1" thick. Please confirm that the 1" thick glass type described in part 2.5.C of spec section 088000 is acceptable, as 2" thick glass will not fit in the storefront glazing pocket. 1" thickness is the maximum infill thickness storefront framing can accept.

2. Sheet BA601 does not indicate a required glass type on the elevation for curtain wall CW1. Per the general window notes on BA601, this frame gets 'insulated glass type FCE' since the elevation does not note otherwise. Glass type FCE listed in spec section 088000 is a non-insulated monolithic glass type. Please clarify if insulated glazing is required for the curtain wall frames CW1.

Review by Architect/Engineers:	Responded By: <u>TT</u>	Date: 2024.09.25

1. Will addressed by addendum.

2. Will be addressed by addendum.



SUBMIT FORM BY EMAIL TO INE.Cornwall@tetratech.com

Project No.: 363579-22001.3

Date: 9/11/24

Project Name: "Phase 3" Reconstruction to Cornwall Elementary School, Cornwall Central Middle School, and Cornwall-on-Hudson Elementary School.

Bidder Contact Person: RYAN HOOKER Bidder Company Name: AFI GLASS & ARCHITECTURAL METAL Bidder Phone: 845 485 1080 X2 Bidder Email Address: RHOOKER@AFIGLASS.COM

Question Pertains to:

Drawing Number: N/A Plan Area: CORNWALL ON HUDSON ELEMENTARY Room Number: N/A Drawing Detail Number: N/A Specification Section: 085113

Question: (Please be specific)

1. During the project walk through / site visit the project team said they planned to do exploratory demolition to open up the intermediate window mullions to see what existing construction consists of. Are you still planning to do this and when can we expect to receive the report or information on your findings?

Review by Architect/Engineers:	Responded By:	Date: <u>9/26/24</u>

The team has completed further investigating regarding the intermediate window mullions and it appears they are wood boxes.



SUBMIT FORM BY EMAIL TO INE.Cornwall@tetratech.com

Project No.: 363579-22001.3

Date: 9/11/24

Project Name: "Phase 3" Reconstruction to Cornwall Elementary School, Cornwall Central Middle School, and Cornwall-on-Hudson Elementary School.

Bidder Contact Person: RYAN HOOKER Bidder Company Name: AFI GLASS & ARCHITECTURAL METAL Bidder Phone: 845 485 1080 X2 Bidder Email Address: RHOOKER@AFIGLASS.COM

Question Pertains to:

Drawing Number: DA400 Plan Area: CORNWALL MIDDLE SCHOOL Room Number: D101 Drawing Detail Number: N/A Specification Section: 084113

Question: (Please be specific)

1. Please clarify RFI responses on page 20 and page 21 of addendum #2. The question on page 20 appears to be referencing the storefront work at Cornwall Middle School, but the responder may have answered this questions thinking they were asking about the windows at Cornwall-on-Hudson Elementary school. It is understood that the window contractor is responsible for all work associated the removal and reinstallation of the windows system at Cornwall-on-Hudson Elementary School, but please confirm that the gc is responsible for all work (masonry, ceiling, carpentry, etc.) associated with the storefront on Cornwall Central Middle School besides the storefront/door system itself, which is the responsibility of the window contract.

Review by Architect/Engineers:

Responded By: TPG	Date:	9/25/24
--------------------------	-------	---------

Th GC is responsible for for all work outside of the storefront replacement in accosiation with the storefront replacement at the Middle school.



SUBMIT FORM BY EMAIL TO INE.Cornwall@tetratech.com

Project No.: 363579-22001.3

Date: 9/11/24

Project Name: "Phase 3" Reconstruction to Cornwall Elementary School, Cornwall Central Middle School, and Cornwall-on-Hudson Elementary School.

Bidder Contact Person: RYAN HOOKER

Bidder Company Name: AFI GLASS & ARCHITECTURAL METAL Bidder Phone: 845 485 1080 X2 Bidder Email Address: RHOOKER@AFIGLASS.COM

Question Pertains to:

Drawing Number: N/A Plan Area: CORNWALL MIDDLE SCHOOL Room Number: N/A Drawing Detail Number: N/A Specification Section: 084113

Question: (Please be specific)

1. Demo note D1 on sheet BA200 says 'Existing sill and stool to remain, provide masonry restoration at sills where necessary, field verification required. Coordinate possible sill replacement with CM & architect.'

- a. Please clarify what 'masonry restoration' entails.
- b. Previous RFI response says to include replacement of 20% of existing sills. Is this 20% of the sill count? It's difficult to include a percentage of sill replacement based on the count since the window widths vary. Would you consider incorporating an allowance to cover possible sill replacement, similar to the approach for the lintels?

Review by Architect/Engineers:	Responded By:	TT	Date: 9/28/24

Will be addressed by addendum.



SUBMIT FORM BY EMAIL TO INE.Cornwall@tetratech.com

Project No.: 363579-22001.3

Date: 9/11/24

Project Name: "Phase 3" Reconstruction to Cornwall Elementary School, Cornwall Central Middle School, and Cornwall-on-Hudson Elementary School.

Question: (Please be specific)

1. Please extend the bid due date by 1 week.

Review by Architect/Engineers: Responded By: TPG/TT Date: 9/25/24

Refer to addendum No. 4



SUBMIT FORM BY EMAIL TO INE.Cornwall@tetratech.com

Project No.: 363579-22001.3

Date:

Project Name: "Phase 3" Reconstruction to Cornwall Elementary School, Cornwall Central Middle School, and Cornwall-on-Hudson Elementary School.

Bidder Contact Person: Shawn Murphy
Bidder Company Name: Forno Enterprises, Inc.
Bidder Phone: 607-865-7860
Bidder Email Address: shawn@teamforno.com

<u>Question Pertains to:</u> Multiple Contract Summary - Solid Surface Fabrications

Drawing Number: Plan Area: Room Number: Drawing Detail Number: Specification Section: 011200 Multiple Contract Summary

Question: (Please be specific)

Page 30 of the Multiple Contract Summary (window Contract) shows specification section 066116 Solid Surface Fabrications(as it pertains to the work of this contract)

We are not able to locate specification 066116 in the bid documents. If specification has been issued please indicate where it is located.

Review by Architect/Engineers:	Responded By: _	TPG	_ Date:	9/25/24

it is refering to the interior sills if they are damaged or have to be modified due to the new windows.



SUBMIT FORM BY EMAIL TO INE.Cornwall@tetratech.com

Project No.: 363579-22001.3

Date:

Project Name: "Phase 3" Reconstruction to Cornwall Elementary School, Cornwall Central Middle School, and Cornwall-on-Hudson Elementary School.

Bidder Contact Person Bidder Company Nam	: Shawn Murphy e: Forno Enterprises, Inc.								
Bidder Phone: 607-86	5-7860								
Bidder Email Address:	Bidder Email Address: snawn@teamforno.com								
Ouestion Pertains to:	Window Lintel Painting - Alt B3								
Drawing Number: BA	J50								
Dian Areas									

Plan Area: Room Number: Drawing Detail Number: Specification Section:

Question: (Please be specific)

Sheet BA050 "Add Alternates" shows "Alt-B3 Window Lintel Paint" next to a hatch pattern, however we are not able to locate the hatching on any of the floor -key plans.

Please clarify/confirm if ALL existing window lintels are part of the Alt-B3 Lintel Painting

Review by Architect/Engineers:	Responded By: _	Tt	Date:	9/26/24

Refer to Addendum No.2



SUBMIT FORM BY EMAIL TO INE.Cornwall@tetratech.com

Project No.: 363579-22001.3

Date: 09/26/2024

Project Name: "Phase 3" Reconstruction to Cornwall Elementary School, Cornwall Central Middle School, and Cornwall-on-Hudson Elementary School.

Bidder Contact Person: Linda Bellino Bidder Company Name: Nicky Diggs Excavation Bidder Phone: 914-232-1878 Bidder Email Address: admin@nickydiggs.com

Question Pertains to:

Drawing Number: Various Plan Area: Room Number: Drawing Detail Number: Specification Section:

------<u>Question:</u>

(Please be specific)

Page 8 response Addendum 3 - Snow removal of the construction area shall be by the site contractor. Does this mean that during the winter months

when the abatement and window contractor are on site, the site contractor has to support them with snow removal? Please be more specific with answer than what was provided.

Review by Architect/Engineers:

Responded By: TPG/TT Date: 9/27/24

Refer to addendum No.3

SECTION 12 24 13 - ROLLER WINDOW SHADES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Manually operated roller shades with single rollers.
 - 2. Roller shade fabrics.

1.3 SUBMITTALS, GENERAL

A. General: Submit all action submittals (except Samples for Verification) and informational submittals required by this Section concurrently.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include styles, material descriptions, construction details, dimensions of individual components and profiles, features, finishes, and operating instructions for roller shades.
- B. Shop Drawings: Show fabrication and installation details for roller shades, including shadeband materials, their orientation to rollers, and their seam and batten locations, all dimensions and clearances for each shade installation.
 - 1. Include typical elevation layout showing separation between shade units and meeting edges at corners with sections and details at head and sill between blind units and corners.
 - 2. Provide verified in field details showing all types of shade installation conditions.
 - 3. Components and conditions not fully dimensioned or detailed in manufacturers product data indicating relationship to adjoining construction.
 - 4. Manufactures specification instructions and details specific to components and conditions not fully dimensioned or detailed in manufactures product data.
 - 5. Provide data for all components required for installation.
- C. Samples for Verification and Initial Color Selection: For each type and color of shadeband material.
 - 1. Include Samples of accessories involving color selection.
 - 2. Actual color samples of manufactures full range no color copies will be accepted.

- 3. Shadeband Material: Not less than 10 inches square. Mark inside face of material if applicable.
- 4. Roller Shade: Full-size operating unit, not less than 16 inches wide by 36 inches long for each type of roller shade indicated.
- 5. Installation Accessories: Full-size unit, not less than 10 inches long.

1.5 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of shadeband material, signed by product manufacturer.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For roller shades to include in maintenance manuals.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver roller shades in factory packages, marked with manufacturer, product name, and location of installation using same designations indicated on Drawings.

1.8 WARRANTY

- A. Manufacturer's Warranty Provide manufacturer's warranty including coverage of at least following components:
 - 1. Corrosion of all metal parts.
 - 2. Sagging, creasing, or breaking of slats.
 - 3. Sagging, creasing or ripping of shadeband material.
 - 4. Smoothly performing mechanism without slippage or jams.
 - 5. Finish of all components matching in color, uniform, and against fading or discoloration.
 - 6. Defects in materials and installation workmanship.

1.9 FIELD CONDITIONS

- A. Environmental Limitations: Do not install roller shades until construction and finish work in spaces, including painting, is complete and dry and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- B. Field Measurements: Where roller shades are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Allow clearances for operating hardware of operable glazed units through entire operating range. Notify Architect of installation conditions that vary from Drawings. Coordinate fabrication schedule with construction progress.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain roller shades from single source from single manufacturer.

2.2 MANUALLY OPERATED SHADES WITH SINGLE ROLLERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Draper Inc.; Manual FlexShade Systems or comparable product by one of the following:
 - 1. Hunter Douglas Contract.
 - 2. MechoShade Systems, Inc.
- B. Chain-and-Clutch Operating Mechanisms: With continuous-loop bead chain and clutch that stops shade movement when bead chain is released; permanently adjusted and lubricated; with chain retainer.
 - 1. Bead Chains: Manufacturer's standard.
 - a. Limit Stops: Provide upper and lower ball stops.
- C. Rollers: Corrosion-resistant steel or extruded-aluminum tubes of diameters and wall thicknesses required to accommodate operating mechanisms and weights and widths of shadebands indicated without deflection. Provide with permanently lubricated drive-end assemblies and idle-end assemblies designed to facilitate removal of shadebands for service.
 - 1. Roller Drive-End Location: Right or left side as require per shade layout.
 - 2. Direction of Shadeband Roll: Regular, from back of roller and or back to front to clear window handles, extrusions etc.
 - 3. Shadeband-to-Roller Attachment: Manufacturer's standard method- no double-side tape will be accepted. Provide adequate brackets on multiple sash windows to hold roller pin ends no more than 1/8 inch apart over centerline of mullion.
- D. Roller-Coupling Assemblies: Coordinated with operating mechanism and designed to join up to three inline rollers into a multiband shade, not to exceed manufactures recommendation that is operated by one roller drive-end assembly.
- E. Shadebands:
 - 1. Shadeband Material: Light-filtering fabric similar to "Sheer-weave Series" fabric by Draper Inc.
- F. Shadeband Bottom (Hem) Bar: Steel or extruded aluminum.
 - 1. Type: Enclosed in sealed pocket of shadeband material.

G. Fabrication:

- 1. Cut shades perfectly square and true and mount on rollers using suitable fasteners. Provide all material used in shade manufacture new, commercially perfect and of first quality. Provide material in one piece.
- 2. Provide one finished length of each single hung shade after hemming 14 inches longer than portion of sash covered by shade. Provide finished shade width to cover adequately, but not more than 1/4 inch of barrel exposed at each end of roller.
 - a. Where necessary, increase diameter of roller from 1-1/4 inches to correspond with size of shade.
 - b. Provide hems of proper width for slat, double turn hems, and sew with straight stitch. Neatly backstitch all hems at the ends.
 - c. Hem at top and bottom of shade.
- 3. Fabrication Tolerances:
 - a. Size shades to fit openings head including but not limited to wall, door, window head etc., to sill including but not limited to window sill, floor sill etc. (allowing for 6 to 10 inches in additional length) and between mullions, unless otherwise indicated on Drawings.
 - b. Provide single sets of shades no greater in width than distance between 2 mullions at openings up to 15 ft. wide.
 - c. Provide minimum clearances for appropriate operation of shades.
- H. Installation Accessories:
 - 1. Front Fascia: Aluminum extrusion that conceals front and underside of roller and operating mechanism and attaches to roller endcaps without exposed fasteners.
 - a. Shape: L-shaped.
 - b. Height: Manufacturer's standard height required to conceal roller and shadeband when shade is fully open.
 - c. Provide full range of manufactures colors.
 - 2. Exposed Headbox: Rectangular, extruded-aluminum enclosure including front fascia, top and back covers, endcaps, and removable bottom closure.
 - a. Height: Manufacturer's standard height required to enclose roller and shadeband when shade is fully open.
 - b. Provide full range of manufactures colors.
 - 3. Endcap Covers: To cover exposed endcaps.
 - 4. Installation Accessories Color and Finish: As selected from manufacturer's full range.

2.3 SHADEBAND MATERIALS

- A. Shadeband Material Flame-Resistance Rating: Comply with NFPA 701. Testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- B. Light-Filtering Fabric (Same Color Both Sides): Woven fabric, stain and fade resistant.
 - 1. Source: Roller-shade manufacturer.
 - 2. Type: Woven polyester and PVC-coated polyester.
 - 3. Weave: Basketweave.
 - 4. Color: As selected by Architect from manufacturer's full range.
 - 5. Basis-of-Design Product: Subject to compliance with requirements, provide the following <u>Draper Inc</u>. product or comparable product:
 - a. Light-Filtering Fabric (Same Color Both Sides) Openness Factor 5 percent: SheerWeave Series PW3500.
 - 1) Thickness: 0.036 inches.
 - 2) Weight: 19.2 oz./sq. yd.
 - 3) Locations: North-facing windows with clear view; east-, west- and south-facing windows with obstructed view.
- C. Rescue Window Labels: Provide and install on window shade in every space of pupil occupancy opaque labels with words "RESCUE WINDOW" Install labels on shades associated with rescue window coordinate with Architect for location.
 - 1. Color: Opaque, bright yellow background with black letters.
 - 2. Size: 2 inches by 1 inches, 3/8" wide lines to form letters.
 - 3. Text: "RESCUE WINDOW", readable from room side of window.

2.4 ROLLER-SHADE FABRICATION

- A. Product Safety Standard: Fabricate roller shades to comply with WCMA A 100.1, including requirements for flexible, chain-loop devices; lead content of components; and warning labels.
- B. Unit Sizes: Fabricate units in sizes to fill window and other openings as follows, measured at 74 deg F:
 - 1. Between (Inside) Jamb Installation: Width equal to jamb-to-jamb dimension of opening in which shade is installed less 1/4 inch per side or 1/2-inch total, plus or minus 1/8 inch. Length equal to head-to-sill dimension of opening in which shade is installed less 1/4 inch, plus or minus 1/8 inch.
 - 2. Outside of Jamb Installation: Width and length as indicated, with terminations between shades of end-to-end installations at centerlines of mullion or other defined vertical separations between openings.

- C. Shadeband Fabrication: Fabricate shadebands without battens or seams to extent possible.
- D. Rescue Window Labels: Provide and install on window shade in every space of pupil occupancy opaque labels with words "RESCUE WINDOW" Install labels on shades associated with rescue window coordinate with Architect for location.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, operational clearances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. Beginning installation constitutes Contractor's acceptance of substrates and conditions.

3.2 ROLLER-SHADE INSTALLATION

- A. Install roller shades level, plumb, and aligned with adjacent units according to manufacturer's written instructions.
 - 1. Opaque Shadebands: Located so shadeband is not closer than 2 inches to interior face of glass. Allow clearances for window operation hardware.
 - 2. Hang shades at window to fit opening properly and operate smoothly and efficiently. Hang each shade perfectly level and with spring tension of roller properly adjusted. Locate tips of adjoining shades no further than 3/8 inch apart when two or more are mounted back to back.
 - 3. Install each shade on brackets securely fastened to head or wall as required. Furnish and install new brackets and other hardware required for proper installation of shades.
- B. Prior to installation of roller-shade units, coordinate installation locations and method of installation with window manufacturer, do not secure roller-shade units to window frame.

3.3 ADJUSTING

A. Adjust and balance roller shades to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range.

3.4 CLEANING AND PROTECTION

A. Clean roller-shade surfaces after installation, according to manufacturer's written instructions.

- B. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, that ensure that roller shades are without damage or deterioration at time of Substantial Completion.
- C. Replace damaged roller shades that cannot be repaired, in a manner approved by Architect, before time of Substantial Completion.

END OF SECTION 12 24 13







	 1	1	2	3	4	1	5	
A								
_							¥	
ю								4'-
Η								5
							ΥF	, w r
							16' - 6"	/IF 3' - 0"
								0" 12' - 0"
C								י ה ג
							2	3' - 0"
							BA752	_
								ו Wa
							16 1/4" = 1'-0"	
Ш								
ш								
0								
-								
-								
_								
ſ								
¥								
Γ								
_								
-								
M								
Z								

