



321 East Center Ave. Mooresville, NC 28115

ESTABLISHED 1998

REQUEST FOR PROPOSALS

August 11, 2023

Re: **Mountain View Elementary School Window Refurbishment**
2789 NC Highway 221 N, Jefferson NC, 28640

General:

A. This is a request for Proposals. Proposals must be received at Luttman Architecture, 321 East Center Ave., Mooresville, NC, 28115, at the latest by 4:00 p.m. on Wednesday, August 23, 2023, in order to be considered.

B. Summary: The intent of this project is to restore the existing aluminum insulated windows to like-new operating condition, and to replace some of the glazing panels in the operable sash (as located in the drawings) with insulated panels, which are to accommodate the weathertight re-installation (by others) of existing window air conditioning units. These windows are required by the Building Code to allow emergency egress, and since this is an Elementary school, it is critical that windows operate as effortlessly as possible in the event egress by children is necessary.

B. Work is to be completed as soon as possible, but before the summer of 2024 summer school break. Work may be required to be performed after school hours, on weekends, during school holiday breaks, or as required so as to not interfere with normal ongoing educational activities. Coordinate work schedule with school officials as required.

C. See attached Existing Building Plan (Sheet A101) and Elevations (Sheet A201) for locations of Windows and Window Air Conditioning Units. These drawings should be considered as diagrammatic, for orientation and location purposes only. Contractor shall be responsible for all aspects of final installation with regard to number and locations of Windows, numbers and dimensions of Insulated Panels, numbers, dimensions and types of Balance Mechanisms, and suitability thereof for use and compatibility with the existing window units.

D. Existing windows are Traco Model 9100. Note: These were installed circa 1993, around 30 years ago. The current Traco Model 9100 window utilizes a different frame profile than the

existing windows, as well as a different balancing mechanism than was furnished with the existing windows. Note that typically, the more modern mechanisms will not fit the existing windows.

E. Treat existing facilities with care. Do not damage adjacent surfaces, equipment or landscaping.

F. To arrange access to the school to examine the existing windows and conditions, contact Anthony Leek, Maintenance Director for Ashe County Schools, at 336-977-1253.

Attachments:

Sheet A101, Existing Building Plan

Sheet A201, Building Elevations

Specification Section 07420 - Insulated Panels

Scope of Work:

A. Carefully remove existing window air conditioning units from the windows, and store them safely out of the way for re-use and re-installation by others. Do not damage. Verify unit locations are as shown on drawings. Maintain record of current unit locations, and notify Architect if locations are different from those shown in the drawings. Each window air conditioner is to remain in the same space it is currently located in, unless directed otherwise.

B. Note that the windows in the 2005 addition (including one additional double unit which was added at the time, and which is noted at 7/A201) are different from (newer than) the typical windows elsewhere. The louvers of the through-wall mechanical units below some of these windows would conflict with air conditioner support brackets (to be installed by others in the future) if they remain in the same location, so new locations of window air conditioner units are to be as shown in the drawings, which should resolve this conflict. See Item C below re: the locations of insulated panels to be installed in the window units, and note that the window sash dimensions at these windows differ from other typical windows. Also see Item F below for variation in balancing mechanisms for these windows.

C. Provide 1" thick aluminum-faced foam-insulated panels (See Specification Section 07420 - Insulated Panels, attached), with standard bronze finish on the exterior, and white finish on the interior, at all new locations of window air conditioning units. Remove existing glazed panel at these locations, and install Insulated Panel in its place. Locations will match the Air Conditioner locations shown on the Elevations on Sheet A201. Actual installation of air conditioning units is to be accomplished by others.

- D. Clean and lubricate all movable sash with multi-purpose synthetic grease as required to facilitate smooth operation.
- E. Provide and Install Replacement Balance Mechanisms at all windows. Verify and adjust to ensure smooth and proper operation of sash, to require minimum force to open. Balance Mechanisms at Typical windows are subject to verification by Contractor, but are anticipated to be 3/8" 'Insul-tilt' Pre-Tensioned Spiral Balance mechanisms by Caldwell, or approved equal (4 mechanisms per sash). Also Replace Carrier Assemblies.
- F. Note that the windows in the 2005 addition (including one additional double unit which was added at the time, and which is noted at 7/A201) are different from the typical windows, and use a 'block-and-tackle' type balancing mechanism, as opposed to a 'spiral' type mechanism typically used elsewhere. These are subject to verification in the field by the Contractor, but are anticipated to be Caldwell Size 3843, or approved equal (2 mechanisms per sash). Also replace Take-out Clips.
- G. Provide Training for school personnel in the realm of periodic adjustment for the balancing mechanisms and overall window maintenance. Provide (2) sets of any special adjustment tools that may be necessary, to allow school maintenance staff to periodically perform adjustments as needed to keep windows operating smoothly and properly.
- H. Provide extra balance mechanisms to maintenance personnel: Provide (2) extra new block-and-tackle type mechanisms for use in the 2005 addition, and provide (12) extra new spiral type mechanisms of each size furnished for use in typical units.
- I. Provide extra insulated panel material to maintenance personnel adequate for replacement of at least (4) sash panels, and at least (1) of each size installed.
- J. Clean up and remove all debris upon completion of work. Leave premises in clean and undisturbed condition.
- K. Provide 1-year warranty for all products and materials provided.

-RFP by Luttmann Architecture

Seals:



**MOUNTAIN VIEW
ELEMENTARY SCHOOL
WINDOW REFURBISHMENT**
2789 Highway 221 North
Jefferson, NC 28640

Revisions/Updates

**CONSTRUCTION
DOCUMENTS**

Project Number 22447

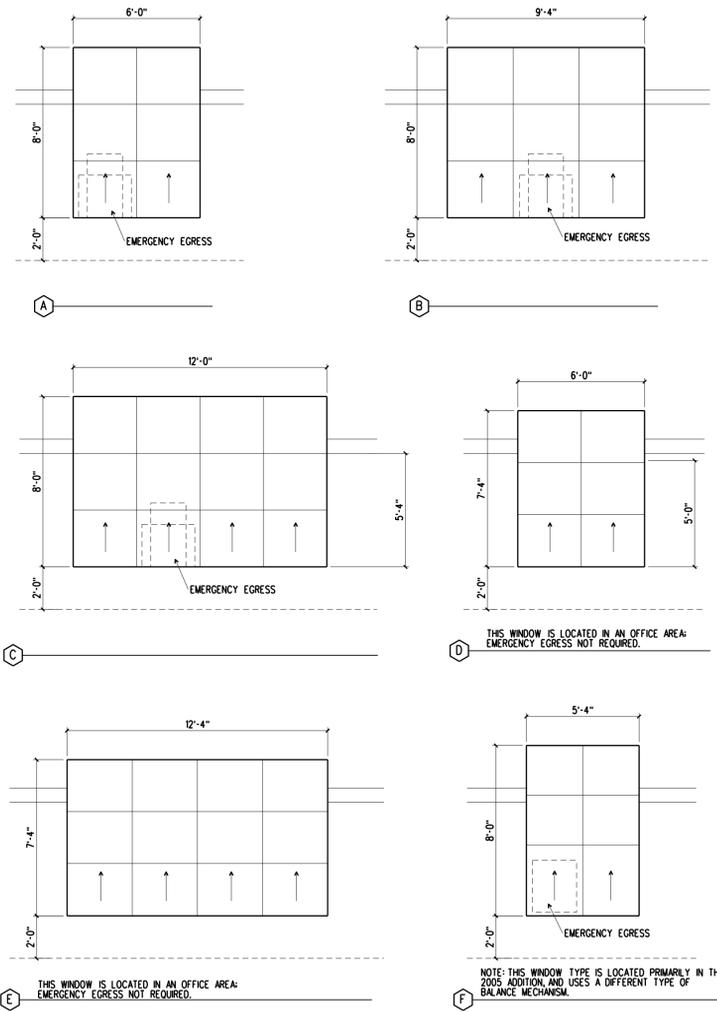
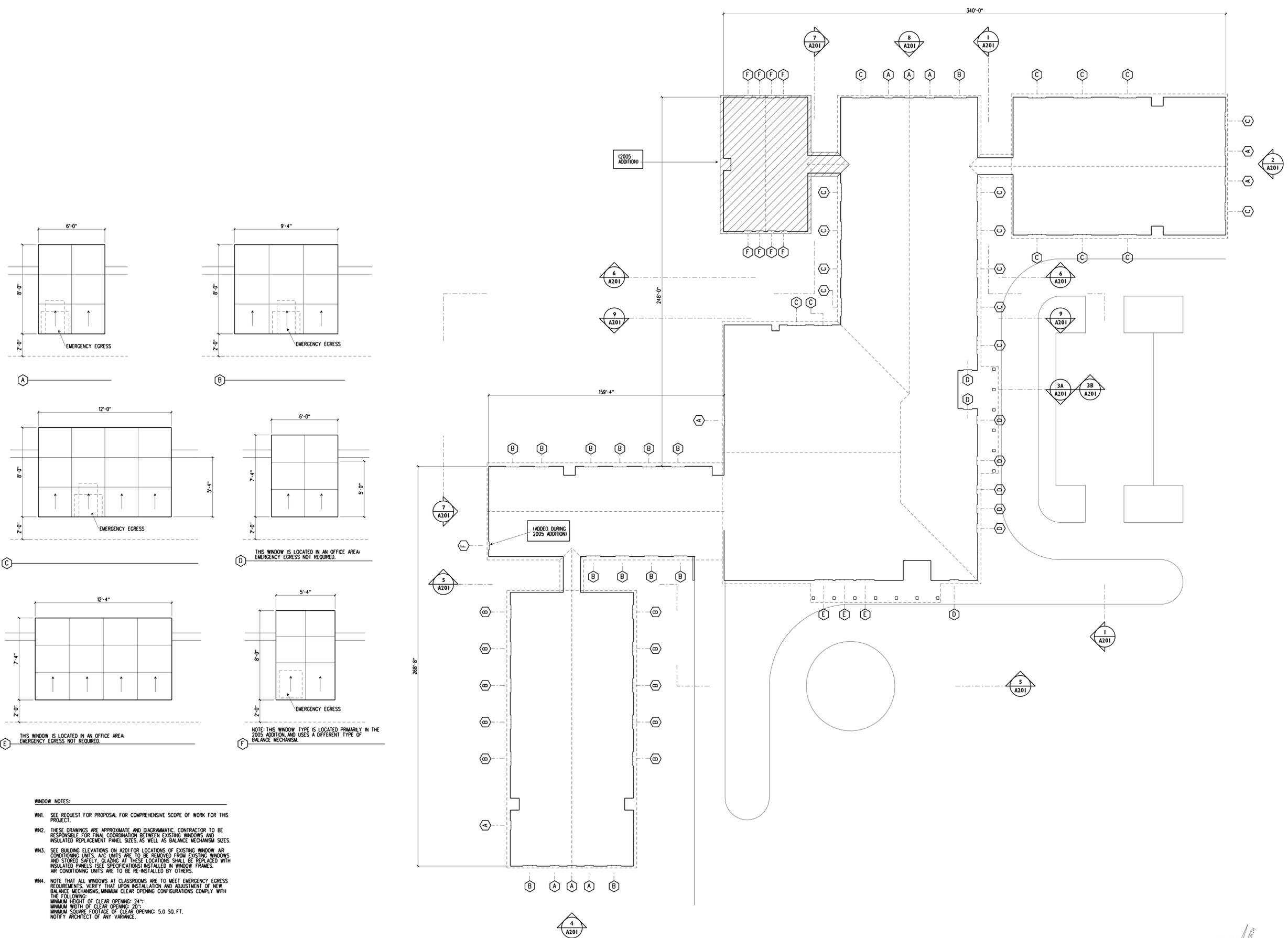
Date: AUGUST 11, 2023

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Drawing Identification:

**BUILDING / WINDOW
LOCATION PLAN**

Sheet: A101



THIS WINDOW IS LOCATED IN AN OFFICE AREA; EMERGENCY EGRESS NOT REQUIRED.

NOTE: THIS WINDOW TYPE IS LOCATED PRIMARILY IN THE 2005 ADDITION AND USES A DIFFERENT TYPE OF BALANCE MECHANISM.

- WINDOW NOTES:**
- WN1. SEE REQUEST FOR PROPOSAL FOR COMPREHENSIVE SCOPE OF WORK FOR THIS PROJECT.
 - WN2. THESE DRAWINGS ARE APPROXIMATE AND DIAGRAMMATIC. CONTRACTOR TO BE RESPONSIBLE FOR FINAL COORDINATION BETWEEN EXISTING WINDOWS AND INSULATED REPLACEMENT PANEL SIZES, AS WELL AS BALANCE MECHANISM SIZES.
 - WN3. SEE BUILDING ELEVATIONS ON A201 FOR LOCATIONS OF EXISTING WINDOW AIR CONDITIONING UNITS. A/C UNITS ARE TO BE REMOVED FROM EXISTING WINDOWS AND STORED SAFELY. GLAZING AT THESE LOCATIONS SHALL BE REPLACED WITH INSULATED PANELS (SEE SPECIFICATIONS) INSTALLED IN WINDOW FRAMES. AIR CONDITIONING UNITS ARE TO BE RE-INSTALLED BY OTHERS.
 - WN4. NOTE THAT ALL WINDOWS AT CLASSROOMS ARE TO MEET EMERGENCY EGRESS REQUIREMENTS. VERIFY THAT UPON INSTALLATION AND ADJUSTMENT OF NEW BALANCE MECHANISMS MINIMUM CLEAR OPENING CONFIGURATIONS COMPLY WITH THE FOLLOWING:
 MINIMUM HEIGHT OF CLEAR OPENING: 24";
 MINIMUM WIDTH OF CLEAR OPENING: 20";
 MINIMUM SQUARE FOOTAGE OF CLEAR OPENING: 5.0 SQ. FT.
 NOTIFY ARCHITECT OF ANY VARIANCE.

2 Window Elevations

1/4" = 1'-0"

1 Building / Window Location Plan

THIS PLAN IS DIAGRAMMATIC IN NATURE, AND IS INTENDED SOLELY FOR THE PURPOSE OF WINDOW UNIT IDENTIFICATION AND LOCATION. SEE RECORD DRAWINGS BY OTHERS FOR MORE COMPLETE BUILDING INFORMATION.

1" = 30'-0"





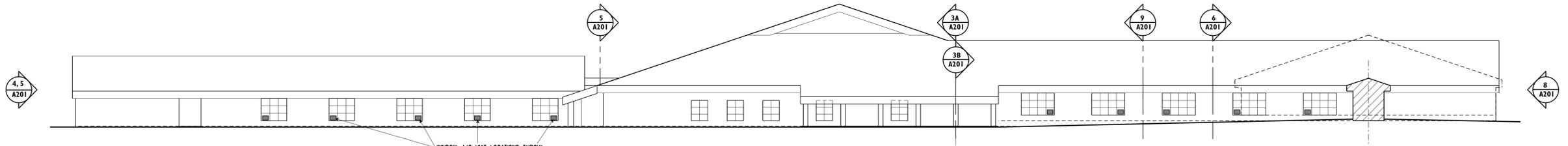
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Revisions/Updates
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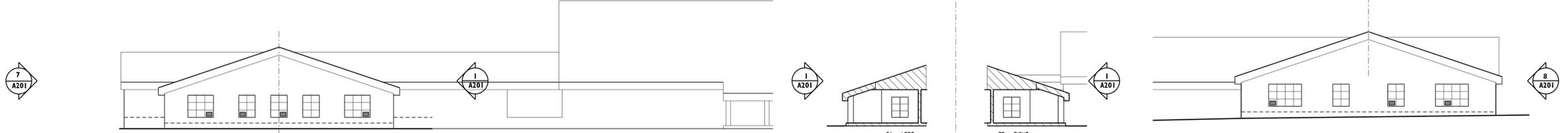
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Drawing Identification:
BUILDING ELEVATIONS
 Sheet: A201



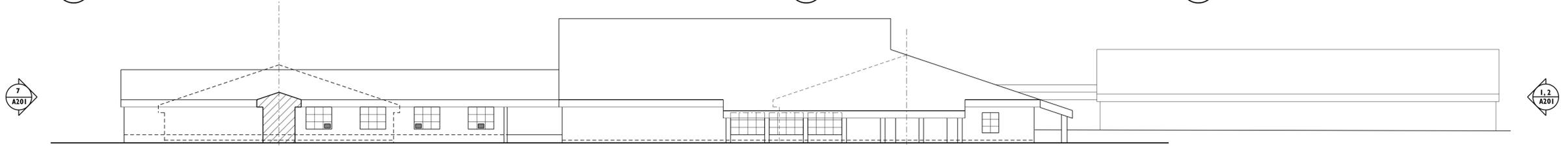
1 Front: East Elevation Looking West 1" = 20'-0"



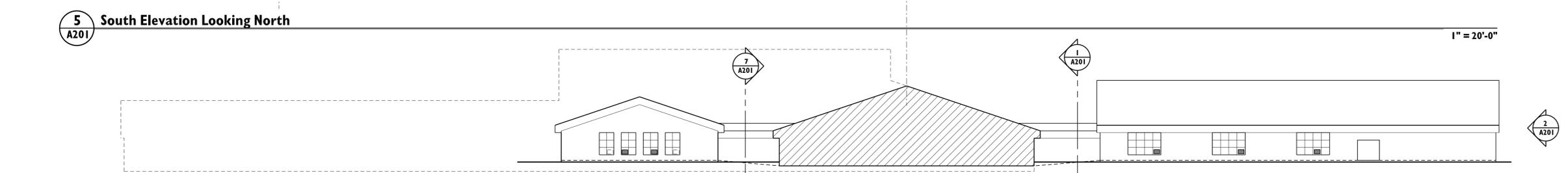
2 Front: North Wing Looking West 1" = 20'-0"



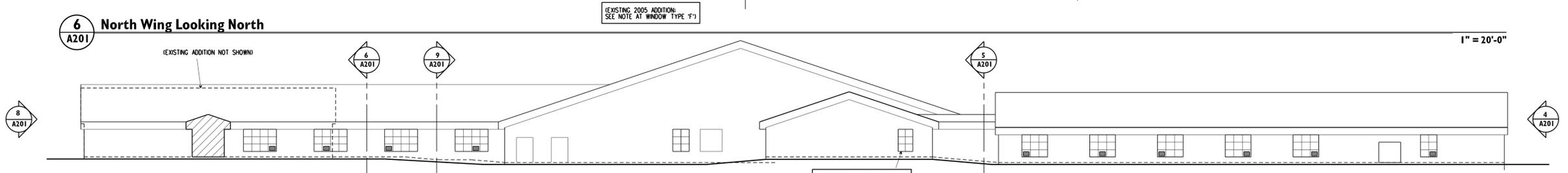
3 Front Entrance 1" = 20'-0"



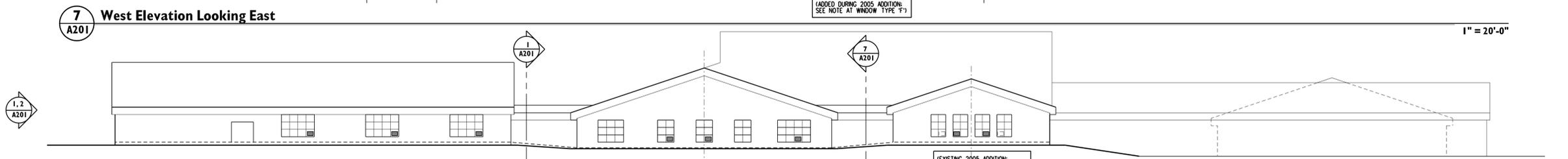
4 South Elevation of West Wing Looking North 1" = 20'-0"



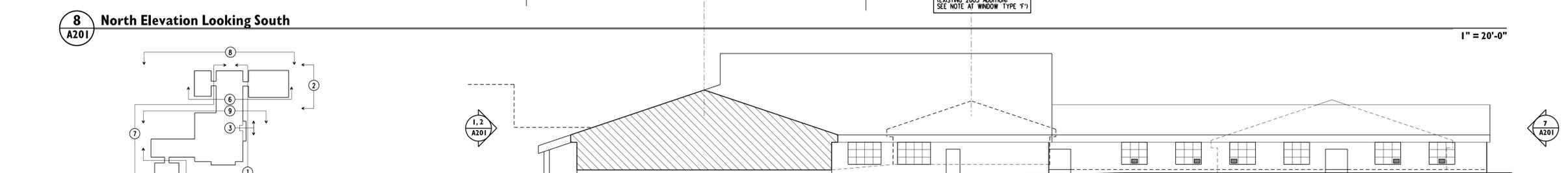
5 South Elevation Looking North 1" = 20'-0"



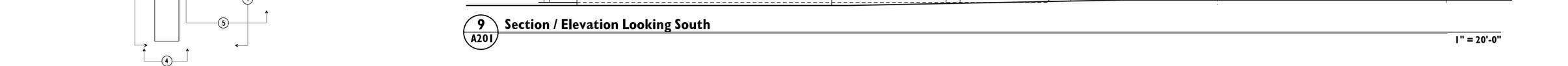
6 North Wing Looking North 1" = 20'-0"



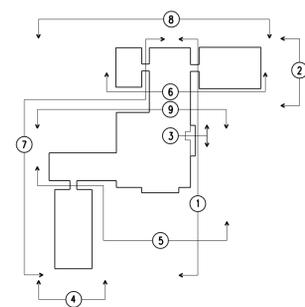
7 West Elevation Looking East 1" = 20'-0"



8 North Elevation Looking South 1" = 20'-0"



9 Section / Elevation Looking South 1" = 20'-0"



WINDOW A/C UNIT LOCATIONS, TYPICAL

EXISTING 2005 ADDITION: SEE NOTE AT WINDOW TYPE 'F'

EXISTING ADDITION NOT SHOWN

ADDED DURING 2005 ADDITION: SEE NOTE AT WINDOW TYPE 'F'

EXISTING 2005 ADDITION: SEE NOTE AT WINDOW TYPE 'F'

SECTION 07420 – INSULATED PANELS

PART 1 - GENERAL

Scope - Panels are to consist of metal skins laminated to stabilizer substrates with an insulating core material, and are to be installed into window units as a glazing substitute where shown in the drawings.

Quality Assurance:

- A. Panel manufacturer shall have a minimum of 25 years experience.
- B. Field measurements shall be taken prior to completion of manufacturing and cutting.
- C. Maximum deviation from vertical and horizontal alignment of installed panels is 1/8" (3mm) in 20' (6m) non-commutative.

References:

- A. Porcelain Enamel Institute (P.E.I.)
 - 1. ASTM-C-282- Spot Acid
 - 2. ASTM-C-283- Boiling Acid
 - 3. ASTM-C-703- Antimonium Chloride Spall Test
 - 4. ASTM-C-346- Gloss Retention
 - 5. ASTM-C-486- Spall Resistance
 - 6. Brunel Hardness - 600-700
- B. Aluminum Association
 - 1. AA-C22-A41: Anodized Clear
 - 2. AA-C22-A42: Integral Color Anodized
- C. American Architectural Manufacturers Association (AAMA)
 - 1. 603.8-92 Pigmented Organic Coatings on Aluminum - (Polyester)
 - 2. 605.2-92 High Performance Organic Coatings on Aluminum - (Kynar)
- D. American Society of Testing Materials (ASTM)
 - 1. E330-84: Structural Performance of Exterior Windows, Curtain Walls and Doors under the influence of wind loads.
 - 2. D1781-76: Climbing Drum Peel Test for Adhesives.
 - 3. D3363-74: Method for Film Hardness by Pencil Test.
 - 4. D2794-90: Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
 - 5. D3359-90: Method for Measuring Adhesion by the tape test.

Substitutions:

- A. The materials and products specified in this section establish a minimum standard of required function, design, appearance quality and warranty to be met by any proposed substitution.
- B. No substitutions will be considered unless a written request for approval has been submitted by the bidder and received by the architect 10 days prior to the bid date.

Submittals:

- A. Submittals shall be in conformance with CSI Division I, Section 1340 - Shop Drawings, Product Data and Samples.
- B. Samples:
 - 1. Panel makeup - 2 samples - 10"x10"
 - 2. Two samples of each color and finish texture - 3"x5"
- C. Submission Drawings - Indicate thickness, dimension and components of parts. Detail glazing methods, framing and tolerances to accommodate thermal movement.
- D. Affidavit certifying materials meet all requirements as specified.
- E. 2 copies of manufacturers' standard literature for specified material.

Delivery, Storage and Handling:

- A. Protect finish and edges in accordance with panel manufacturer's recommendations.
- B. Store materials in accordance with panel manufacturer's recommendations.

PART 2 - PRODUCTS

Panels - Laminated metal-faced panels:

- A. Outer faces: Smooth .032" Aluminum with Anodized finish - Class I and II. Color to be selected from manufacturer's standard color selection: Exterior: Bronze. Interior: White.
- B. Substrates, both sides: 1/8" tempered hardboard stabilizer.
- C. Core: 2.5 lb. density polystyrene.
- D. Total thickness of panel to be 1".

Spare Materials - Provide spare panels to Owner at closeout of project.

- A. For each window type and size, provide at least 2 extra panels.
- B. Provide spare panels undamaged, in protective individual packaging, labeled with size.

PART 3 - EXECUTION

Execution - Panel surfaces shall be free from defects prior to installation.

Installation:

- A. Install panels plumb, level and true.
- B. Glaze panels securely into window units, and in accordance with architectural drawings, approved shop drawings and/or manufacturers instructions to allow for necessary thermal movement and structural support.
- C. Do not install panels that are observed to be defective, including warped, bowed, dented, scratched and delaminating components.
- D. Weatherseal all joints as required using methods and materials as appropriate.
- E. Separate dissimilar metals using gasketed fasteners and blocking to eliminate the possibility of electrolytic reaction.
- F. Installation of Existing Window Air Conditioning Units is to be by Others.
 - 1. Existing Air Conditioning Units are to remain in the same classrooms as they were originally installed.

Adjusting and Cleaning:

- A. Remove masking film as soon as possible after installation. Masking intentionally left in place after panel installation will be the responsibility of the contractor.
- B. Weep holes and drainage channels must be unobstructed and free from dirt and sealant.

END OF SECTION