



**City of Boston Historical Landmarks Commission**  
**APPLICATION FOR CERTIFICATE OF DESIGN APPROVAL**  
**BUILDING ENVELOPE RESTORATION**  
**1597 WASHINGTON STREET, BOSTON, MA 02118**

**Prepared on Behalf of:**

**Mr. Kevin Rich, Trustee**  
**1597 Washington Street Condominium Trust**  
**1597 Washington Street**  
**Boston, MA 02118**



**Prepared By:**

**Building Enclosure Science, LLC**  
**859 North Main Street, Providence, RI**  
**200 Portland Street, Boston, MA**

**Date:**

**August 10, 2020**

1597 Washington Street  
Building Envelope Restoration  
Application for Certificate of Design Approval  
Boston Landmarks Commission  
08-10-2020

# SUMMARY OF PROPOSED WORK



## 1597 Washington Street Building Envelope Restoration, Boston, MA

### APPLICATION FOR CERTIFICATE OF DESIGN APPROVAL

#### III. DESCRIPTION OF PROPOSED WORK – CONT.

##### **1) EIFS Cladding Replacement with New Insulated Metal Panels:**

A) Remove and dispose of all existing EIFS and exterior sheathing in areas shown on the drawings.

B) Install new sheathing, self-adhered weather barrier, insulation, and composite metal panel system. Integrate and sequence as needed with surrounding work and components such as windows, base of wall flashings, etc.

\* New metal panels to match existing EIFS in color and assembly thickness (ALPOLIC Composite Metal Panels by Mitsubishi Plastics Composites America, Inc. – see Product Data Sheets in Appendix D)

##### **2) Fenestration Replacement:**

A) Window replacement in kind: Remove existing window assemblies (including frames, glazing, and all accessories) on the South elevation on the sixth floor and on the partial north elevation on the fifth and sixth floors work areas as shown on the drawings. Provide new aluminum window system with all accessories such as fasteners, clips, etc. Install flashings and integrate perimeter conditions with the surrounding wall or terrace waterproofing to create an air- and water-tight window system.

B) East and West Juliet elevation curtain wall reglazing: the existing curtain wall frame is to remain in place. Within the curtain wall, remove and dispose of the existing individual window frames and glazing installed within the curtain wall and replace them with new aluminum windows glazed into the curtain wall frame.

C) Terrace doors replacement in kind: Remove and replace existing terrace doors, perimeter framing and fixed glazing. New terrace doors to be glazed into new curtain wall framing in kind as existing.

\* New windows to match existing in size, color, material and glazing/frame configuration (see Product Data Sheets in Appendix D)

##### **3) Brick Masonry Cladding Restoration:**

A) Remove and dispose of all existing brick masonry veneer cladding, brick ties, and exterior sheathing in areas shown on the drawings.

B) Install new sheathing, self-adhered weather barrier, insulation, and new brick masonry veneer to match the existing brick. Integrate and sequence as needed with surrounding work and components such as windows, base of wall flashings, scuppers, etc.

\* New brick and mortar to match existing in size, color and texture.



#### 4) Scuppers and Gutters:

A) South elevation (Washington Street) - sixth floor terraces: provide two new scuppers (one existing primary, one new overflow) on the south elevation at each sixth floor terrace. Existing scupper locations can be re-used but will require modification to place the new scuppers at the correct elevation. Overflow scupper to extend beyond the plane of brick veneer and drain freely. Primary scupper to drain into pitched gutter. Gutter to connect to short downleader at brick piers that will direct water away from windows below.

B) North elevation (rear alley) - sixth floor terraces: remove and infill existing scuppers. Install two new scuppers (one primary, one overflow) on side of balcony and drain primary scupper to fifth floor terrace below via drain box and down leader.

C) North elevation - fifth floor terraces: provide two new scuppers (one primary, one overflow) on the north elevation at each fifth floor terrace. Existing scupper locations can be re-used but will require modification to place the new scuppers at the correct elevations. Overflow scupper to extend beyond the plane of brick veneer and drain freely. Primary scupper to drain into pitched gutter. Gutter to connect to downleader that will drain to the parking garage ramp below.

D) Juliet balconies: re-use existing scupper outlets through structure at the Juliet balconies. New metal sleeves and integration with the balcony waterproofing will be required. Install new internal roof drains.

# APPENDIX A

## Reference Photos





TYPICAL EXISTING WINDOWS and TERRACE DOORS  
Washington Street View



TYPICAL EXISTING WINDOWS and TERRACE DOOR  
6th Floor Terrace - Rear Alley View



**Building Enclosure Science**<sub>LLC</sub>  
INVESTIGATION » REHABILITATION » COMMISSIONING

APPENDIX A

Application for Certificate of Design Approval  
Boston Landmarks Commission

**1597 WASHINGTON STREET**  
**BUILDING ENVELOPE RESTORATION**  
BOSTON, MA





TYPICAL EXISTING DOUBLE HUNG WINDOWS  
Interior View



**Building Enclosure Science**  
INVESTIGATION » REHABILITATION » COMMISSIONING

APPENDIX A

Application for Certificate of Design Approval  
Boston Landmarks Commission

**1597 WASHINGTON STREET**  
**BUILDING ENVELOPE RESTORATION**  
BOSTON, MA





TYPICAL EXISTING TERRACE CURTAIN WALL  
and DOORS  
Interior View



**1597 WASHINGTON STREET**  
**BUILDING ENVELOPE RESTORATION**  
BOSTON, MA



**Building Enclosure Science**  
INVESTIGATION » REHABILITATION » COMMISSIONING

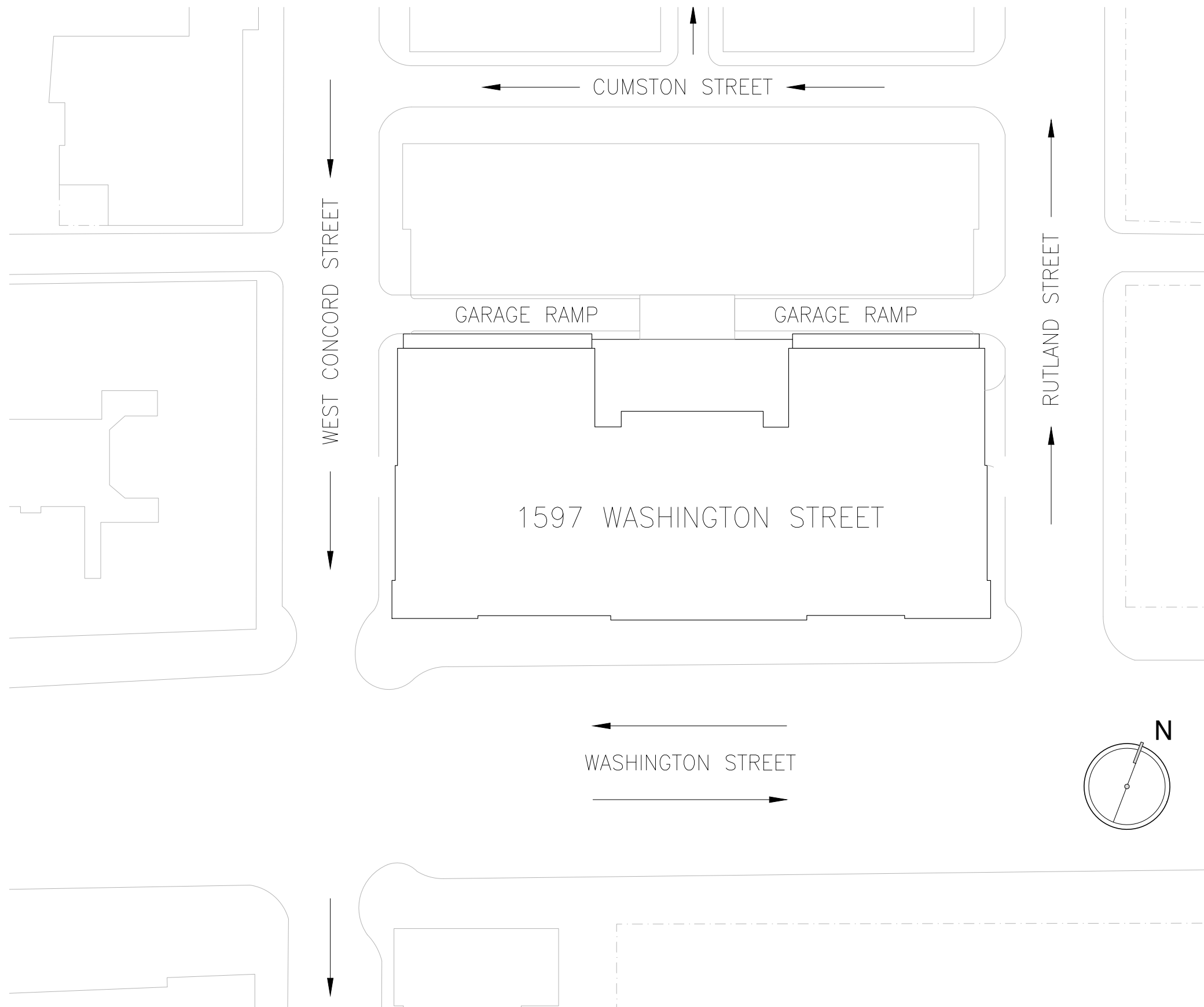
APPENDIX A

Application for Certificate of Design Approval  
Boston Landmarks Commission



# APPENDIX B

## Reference Drawings



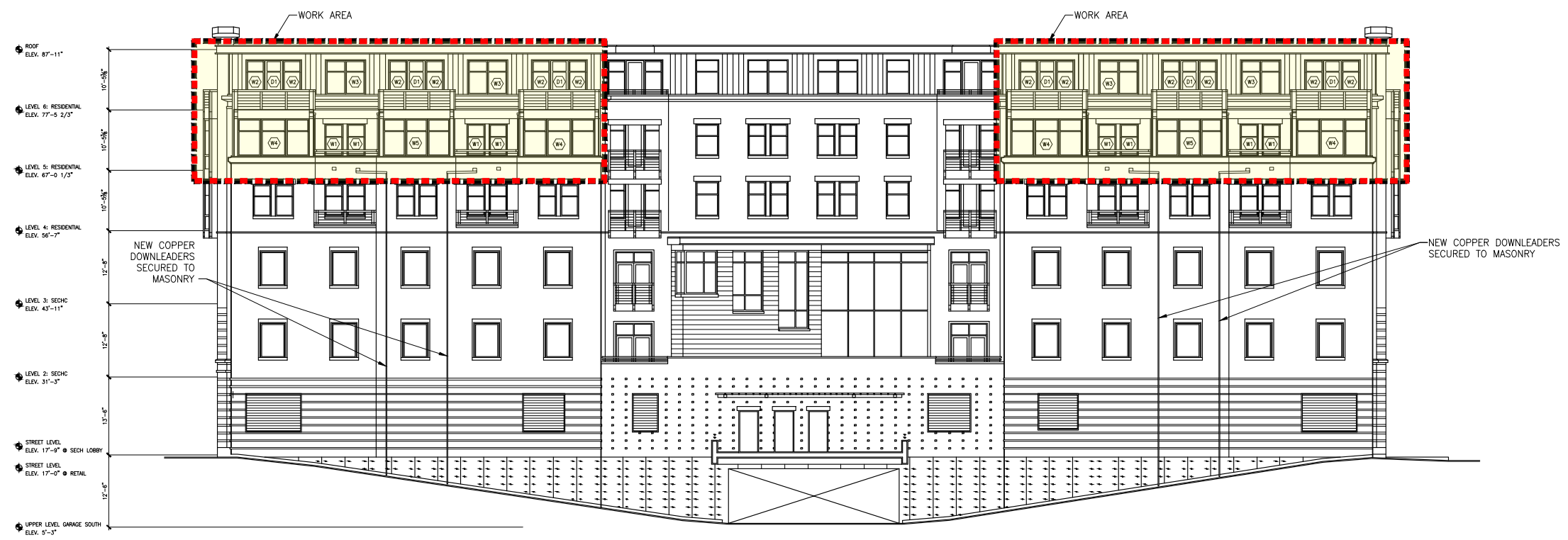
**APPENDIX B**

Application for Certificate of Design Approval  
 Boston Landmarks Commission



1 SOUTH ELEVATION (WASHINGTON STREET VIEW)  
NOT TO SCALE

- NOTE:**
1. ALL EXISTING ALUMINUM WINDOWS, TERRACE DOORS AND CURTAIN WALLS OF THE MARKED WORK AREA TO BE REPLACED IN KIND WITH NEW.
  2. ALL BRICK MASONRY REMOVED FOR WATERPROOFING SCOPE TO BE RESTORED OR REPLACED IN KIND WITH NEW.
  3. ALL EXISTING EIFS SYSTEM TO BE REPLACED WITH NEW INSULATED METAL PANEL SYSTEM.



2 NORTH ELEVATION (REAR ALLEY VIEW)  
NOT TO SCALE

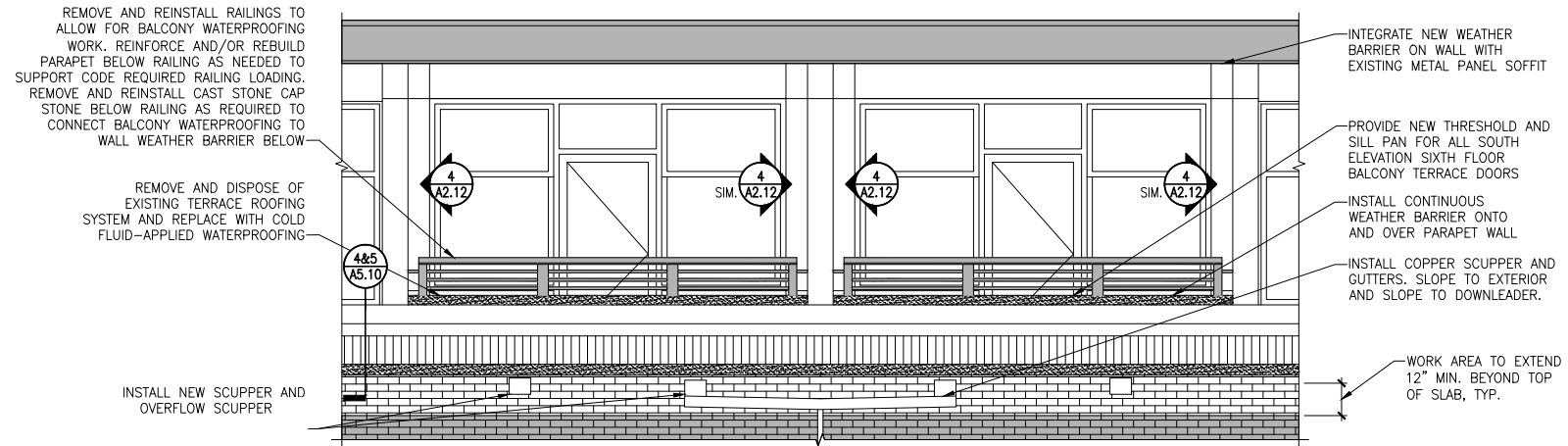




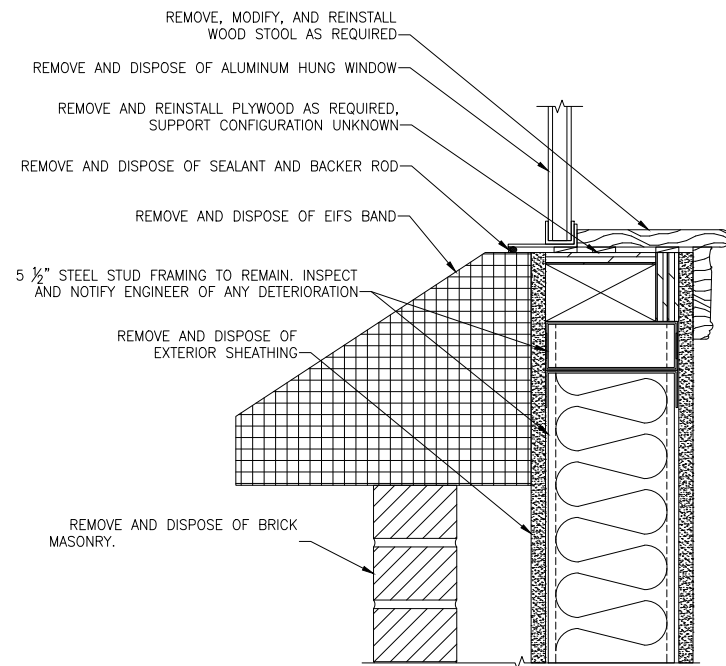
1 EAST ELEVATION (RUTLAND STREET VIEW)  
NOT TO SCALE



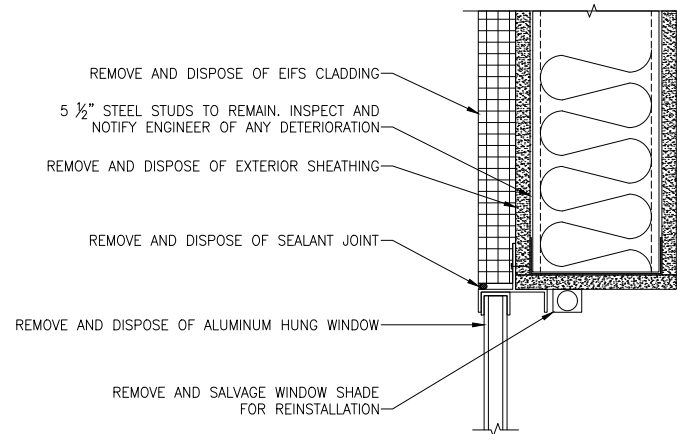
2 WEST ELEVATION (W. CONCORD STREET VIEW)  
NOT TO SCALE



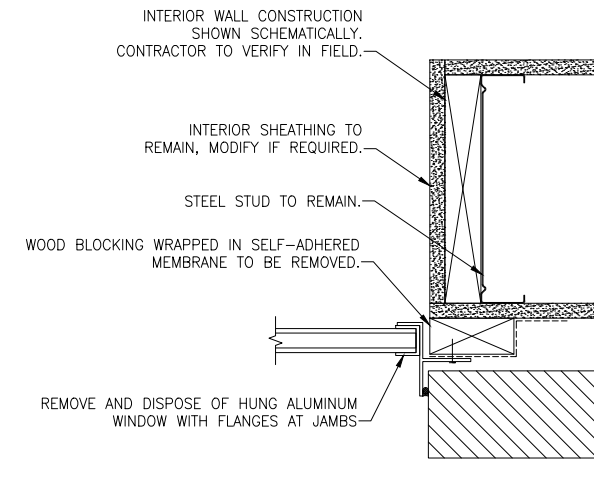
3 ENLARGED SOUTH TERRACE ELEVATION – WEST (WASHINGTON STREET VIEW)  
NOT TO SCALE



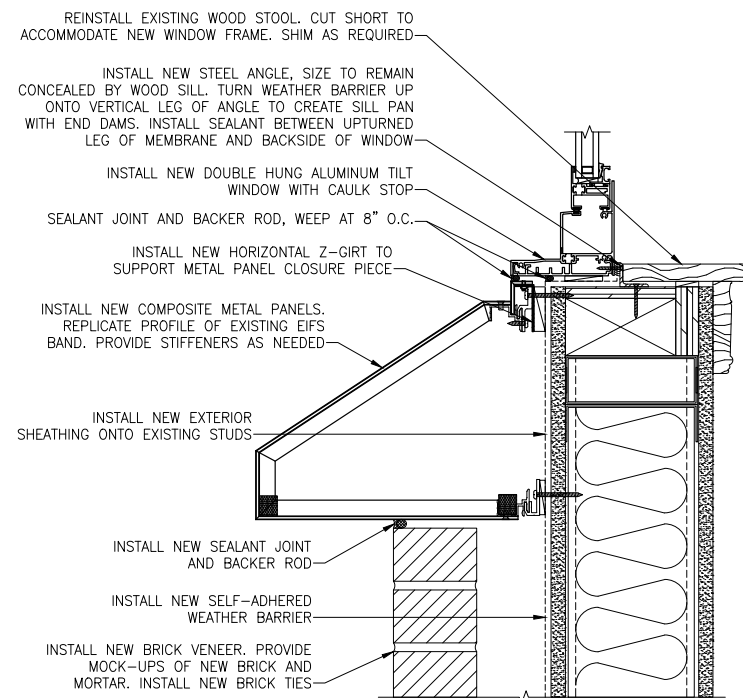
1 EXISTING WINDOW SILL AT EIFS  
NOT TO SCALE



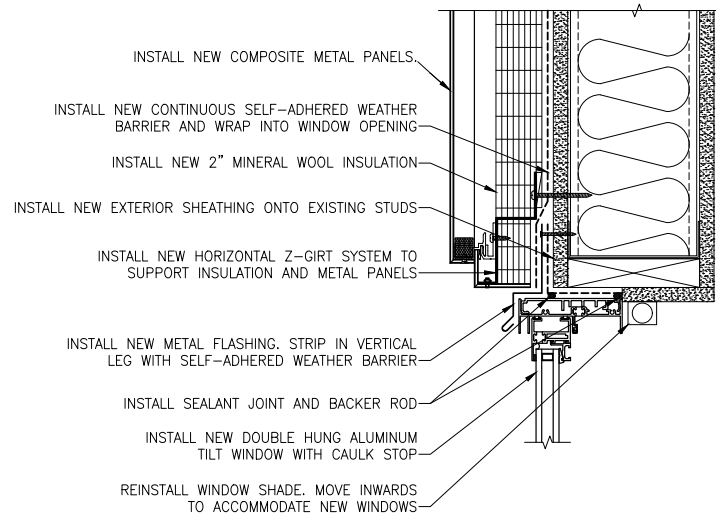
3 EXISTING WINDOW HEAD AT EIFS  
NOT TO SCALE



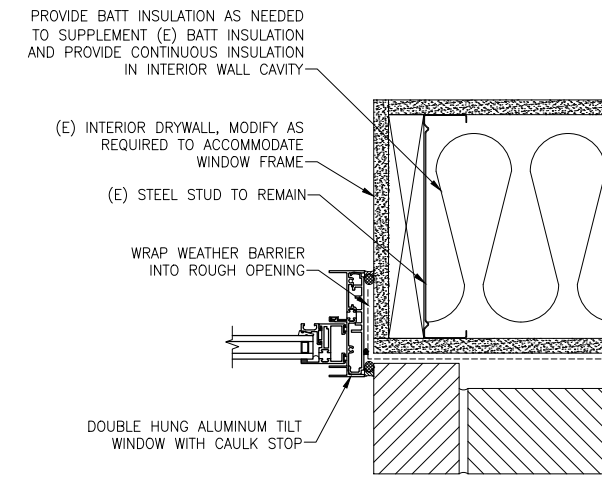
5 EXISTING WINDOW JAMB AT BRICK  
NOT TO SCALE



2 NEW WINDOW SILL AT COMPOSITE METAL PANELS  
NOT TO SCALE



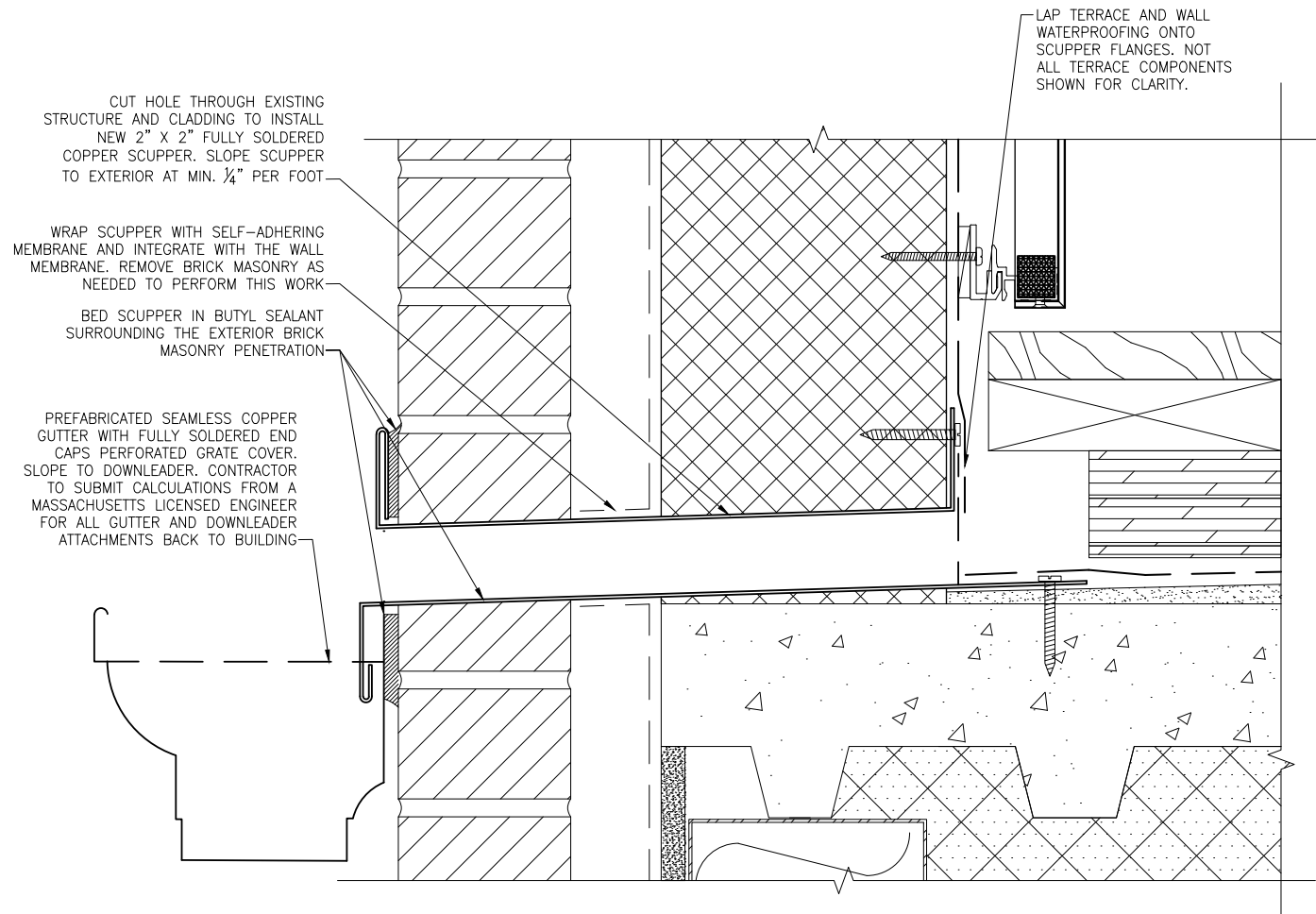
4 NEW WINDOW HEAD AT COMPOSITE METAL PANELS  
NOT TO SCALE



6 NEW WINDOW JAMB AT BRICK  
NOT TO SCALE



**APPENDIX B**



CUT HOLE THROUGH EXISTING STRUCTURE AND CLADDING TO INSTALL NEW 2" X 2" FULLY SOLDERED COPPER SCUPPER. SLOPE SCUPPER TO EXTERIOR AT MIN. 1/4" PER FOOT

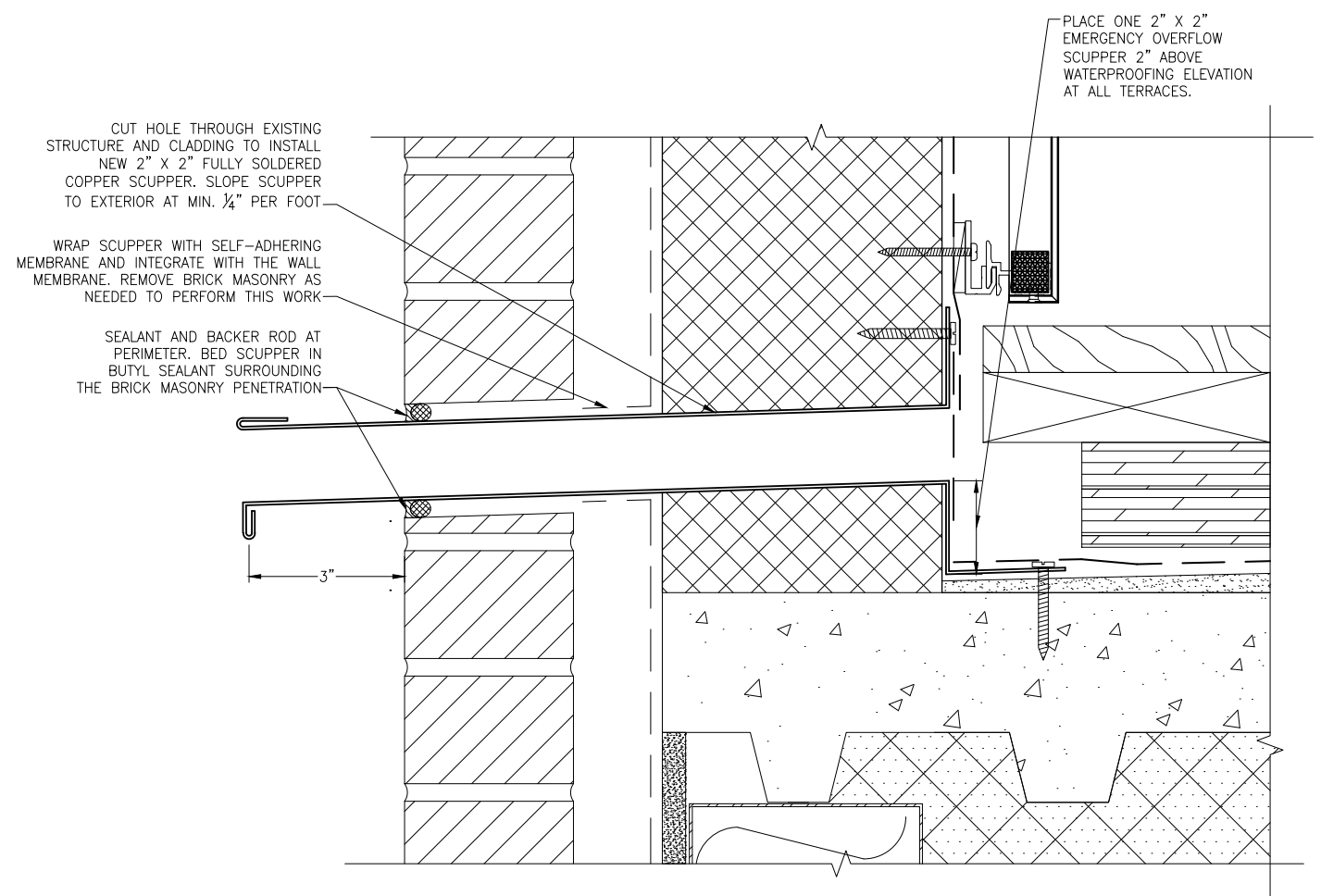
WRAP SCUPPER WITH SELF-ADHERING MEMBRANE AND INTEGRATE WITH THE WALL MEMBRANE. REMOVE BRICK MASONRY AS NEEDED TO PERFORM THIS WORK

BED SCUPPER IN BUTYL SEALANT SURROUNDING THE EXTERIOR BRICK MASONRY PENETRATION

PREFABRICATED SEAMLESS COPPER GUTTER WITH FULLY SOLDERED END CAPS PERFORATED GRATE COVER. SLOPE TO DOWNLEADER. CONTRACTOR TO SUBMIT CALCULATIONS FROM A MASSACHUSETTS LICENSED ENGINEER FOR ALL GUTTER AND DOWNLEADER ATTACHMENTS BACK TO BUILDING

LAP TERRACE AND WALL WATERPROOFING ONTO SCUPPER FLANGES. NOT ALL TERRACE COMPONENTS SHOWN FOR CLARITY.

1 NEW SCUPPER WITH GUTTER DETAIL



CUT HOLE THROUGH EXISTING STRUCTURE AND CLADDING TO INSTALL NEW 2" X 2" FULLY SOLDERED COPPER SCUPPER. SLOPE SCUPPER TO EXTERIOR AT MIN. 1/4" PER FOOT

WRAP SCUPPER WITH SELF-ADHERING MEMBRANE AND INTEGRATE WITH THE WALL MEMBRANE. REMOVE BRICK MASONRY AS NEEDED TO PERFORM THIS WORK

SEALANT AND BACKER ROD AT PERIMETER. BED SCUPPER IN BUTYL SEALANT SURROUNDING THE BRICK MASONRY PENETRATION

PLACE ONE 2" X 2" EMERGENCY OVERFLOW SCUPPER 2" ABOVE WATERPROOFING ELEVATION AT ALL TERRACES.

2 NEW SECONDARY/OVERFLOW SCUPPER DETAIL



**EXISTING AND PROPOSED WINDOW AND DOOR SCHEDULE  
(WASHINGTON STREET)**

WINDOW SCHEDULE (WINDOWS INCLUDED IN SCOPE) – SOUTH ELEVATION			
WINDOW TYPE	QUANTITY	DIMENSIONS ± 6", VERIFY IN FIELD	WINDOW DESCRIPTION – FRAMING CONDITION
W2	10	3'X6.5'	DOUBLE HUNG WINDOW WITH INTEGRAL FLANGE – NEW CURTAIN WALL FRAMING
W5	11	11'X6'	THREE GANGED DOUBLE HUNG WINDOWS – PUNCHED OPENING

DOOR SCHEDULE (DOORS INCLUDED IN SCOPE) – SOUTH ELEVATION			
DOOR TYPE	QUANTITY	DIMENSIONS ± 6", VERIFY IN FIELD	DOOR DESCRIPTION – FRAMING CONDITION
D1	5	3.5'X7.5'	TERRACE DOOR – NEW CURTAIN WALL FRAMING

**EXISTING AND PROPOSED WINDOW AND DOOR SCHEDULE  
(REAR ALLEY)**

WINDOW SCHEDULE (WINDOWS INCLUDED IN SCOPE) – NORTH AND RETURN ELEVATIONS			
WINDOW TYPE	QUANTITY	DIMENSIONS ± 6", VERIFY IN FIELD	WINDOW DESCRIPTION – FRAMING CONDITION
W1	8	3'X5.5'	DOUBLE HUNG WINDOW – PUNCHED OPENING
W2	12	3'X6.5'	DOUBLE HUNG WINDOW WITH INTEGRAL FLANGE – NEW CURTAIN WALL FRAMING
W3	4	6.5'X6'	TWO GANGED DOUBLE HUNG WINDOWS – PUNCHED OPENING
W4	4	12.5'X6.5'	THREE GANGED DOUBLE HUNG WINDOWS – PUNCHED OPENING
W5	2	11'X6'	THREE GANGED DOUBLE HUNG WINDOWS – PUNCHED OPENING
W6	2	5'X6.5'	DOUBLE HUNG WINDOW – PUNCHED OPENING

DOOR SCHEDULE (DOORS INCLUDED IN SCOPE) – NORTH AND INSET ELEVATIONS			
DOOR TYPE	QUANTITY	DIMENSIONS ± 6", VERIFY IN FIELD	DOOR DESCRIPTION – FRAMING CONDITION
D1	6	3.5'X7.5'	TERRACE DOOR – NEW CURTAIN WALL FRAMING
D2	6	3'X6.5'	TERRACE DOOR (INSET) – NEW CURTAIN WALL FRAMING

**EXISTING AND PROPOSED WINDOW SCHEDULE  
(WEST CONCORD STREET)**

WINDOW SCHEDULE (WINDOWS INCLUDED IN SCOPE) – WEST ELEVATION			
WINDOW TYPE	QUANTITY	DIMENSIONS ± 6", VERIFY IN FIELD	WINDOW DESCRIPTION – FRAMING CONDITION
W5	1	11'X6'	THREE GANGED DOUBLE HUNG WINDOWS – PUNCHED OPENING
W7	4	3.5'X6'	DOUBLE HUNG WINDOW WITH INTEGRAL FLANGE – EXISTING CURTAIN WALL FRAMING
W8	1	5'X6.5'	DOUBLE HUNG WINDOW – PUNCHED OPENING

**EXISTING AND PROPOSED WINDOW SCHEDULE  
(RUTLAND STREET)**

WINDOW SCHEDULE (WINDOWS INCLUDED IN SCOPE) – EAST ELEVATION			
WINDOW TYPE	QUANTITY	DIMENSIONS ± 6", VERIFY IN FIELD	WINDOW DESCRIPTION – FRAMING CONDITION
W5	1	11'X6'	THREE GANGED DOUBLE HUNG WINDOWS – PUNCHED OPENING
W7	4	3.5'X6'	DOUBLE HUNG WINDOW WITH INTEGRAL FLANGE – EXISTING CURTAIN WALL FRAMING
W8	1	5'X6.5'	DOUBLE HUNG WINDOW – PUNCHED OPENING

# APPENDIX C

## Design Renderings



EXISTING EIFS  
FACADE AT 6TH  
FLOOR ONLY



EXISTING EIFS FACADE

Washington St. View

NEW WINDOWS  
REPLACED IN  
KIND AT 6TH  
FLOOR ONLY

NEW METAL  
PANEL  
FACADE

NEW GUTTER



PROPOSED METAL PANEL FACADE

Washington St. View



**Building Enclosure Science** LLC  
INVESTIGATION » REHABILITATION » COMMISSIONING

APPENDIX C

Application for Certificate of Design Approval  
Boston Landmarks Commission

**1597 WASHINGTON STREET**  
**BUILDING ENVELOPE RESTORATION**

BOSTON, MA





**EXISTING EIFS FACADE**

Washington St. View



**PROPOSED METAL PANEL FACADE**

Washington St. View

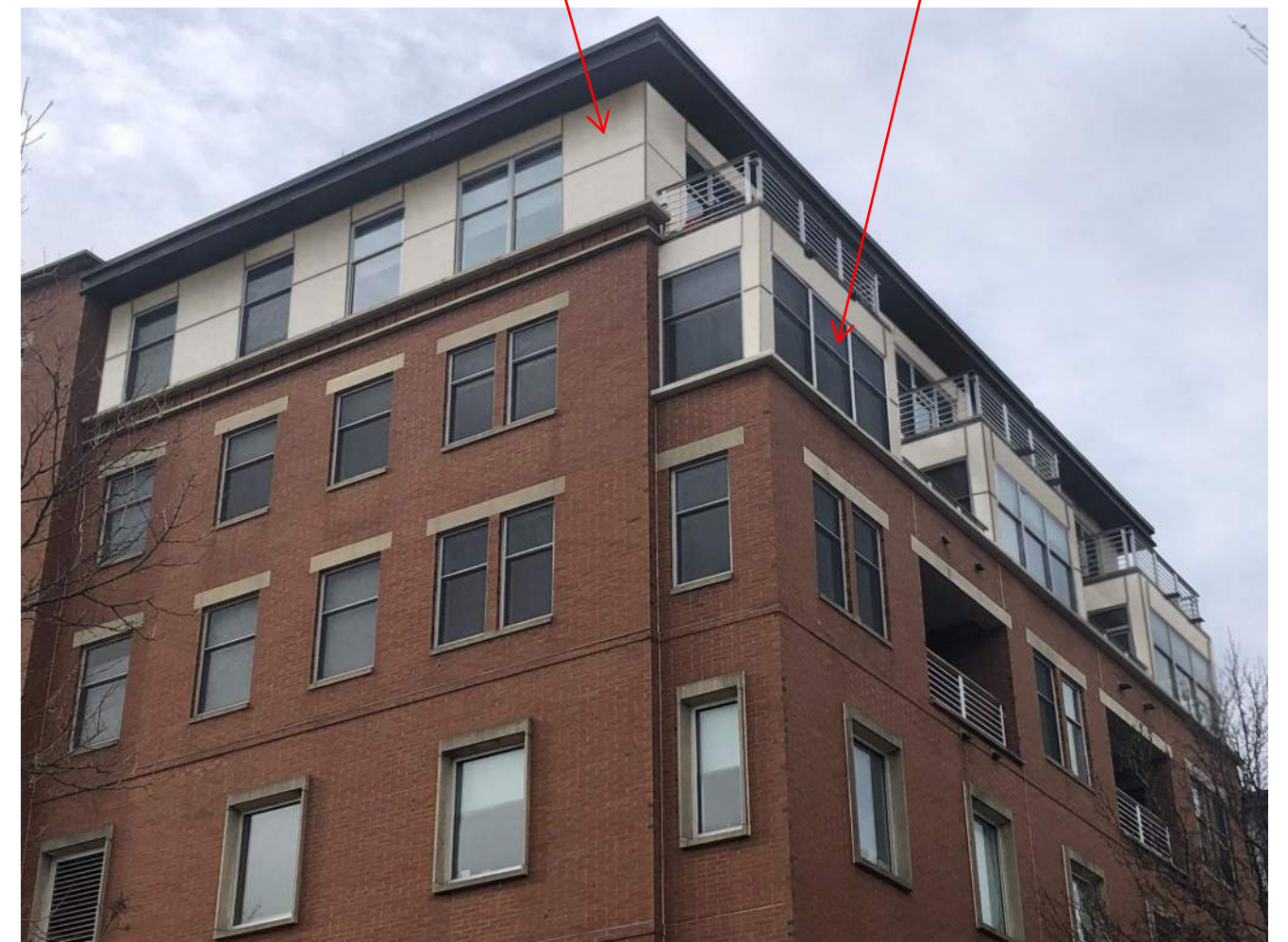






**EXISTING EIFS FACADE**

Rutland St. View



**PROPOSED METAL PANEL FACADE**

Rutland St. View



**Building Enclosure Science**<sub>LLC</sub>  
INVESTIGATION » REHABILITATION » COMMISSIONING

**APPENDIX C**

Application for Certificate of Design Approval  
Boston Landmarks Commission

**1597 WASHINGTON STREET**  
**BUILDING ENVELOPE RESTORATION**  
BOSTON, MA





**EXISTING EIFS FACADE**

Rutland St. View



**PROPOSED METAL PANEL FACADE**

Rutland St. View



**Building Enclosure Science** LLC  
INVESTIGATION » REHABILITATION » COMMISSIONING

**APPENDIX C**

Application for Certificate of Design Approval  
Boston Landmarks Commission

**1597 WASHINGTON STREET**  
**BUILDING ENVELOPE RESTORATION**  
BOSTON, MA





EXISTING EIFS FACADE

W. Concord St. View



NEW GANGED  
DOUBLE HUNG  
WINDOWS

NEW METAL  
PANEL  
FACADE

PROPOSED METAL PANEL FACADE

W. Concord St. View



**Building Enclosure Science**<sub>LLC</sub>  
INVESTIGATION » REHABILITATION » COMMISSIONING

APPENDIX C

Application for Certificate of Design Approval  
Boston Landmarks Commission

**1597 WASHINGTON STREET**  
**BUILDING ENVELOPE RESTORATION**  
BOSTON, MA

# APPENDIX D

## Product Data Sheets

# 1. Metal Panels

## Product Data Sheets

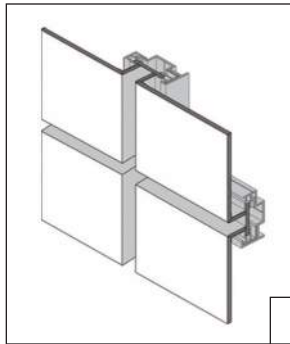
# ALPOLIC®

METAL COMPOSITE MATERIALS

MITSUBISHI CHEMICAL COMPOSITES AMERICA, INC.

## architectural – solid

ALPOLIC® architectural Solid color aluminum composite materials are manufactured with a polyethylene core and a 2-coat fluoropolymer paint finish. Distinctive classics of the industry, they are stocked for immediate shipment.



### CONSTRUCTION INFORMATION

PROJECT: Ashland Community College

LOCATION: Grayson, KY

ARCHITECT: Clotfelter-Samokar

PRODUCT: ALPOLIC® Mist White & KDX



### GENERAL INFORMATION

Picture your next project in attractive, clean colors and designs that only our lightweight aluminum composite material (ACM) panels can achieve. They are stocked in two widths – 50 and 62 inches; and two lengths – 146 and 196 inches. These 4mm-thick panels are manufactured to architectural standards with a traditional polyethylene core.



*BONE WHITE*  
4-4BNT-G30

*MIST WHITE*  
4-4MST-G30

*OYSTER*  
4-4CRT-G30

*ALUMINUM GREY*  
4-4AGT-G30

*TOP BLACK*  
4-4TOB-G15



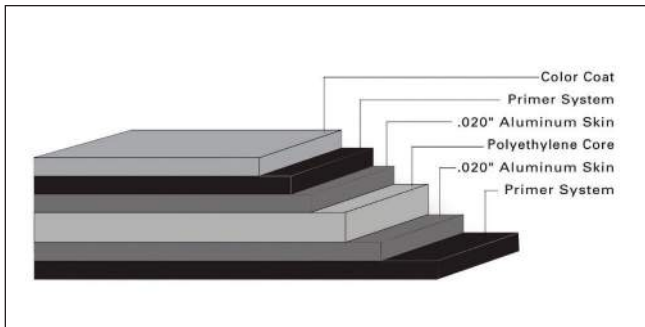
# ALPOLIC®

# solid

INTERIOR AND EXTERIOR SURFACING  
INTERIOR AND EXTERIOR SIGNAGE

## SURFACE TREATMENT

ALPOLIC® architectural Solid color panels are stocked with a FEVE LUMIFLON™ or a PVDF Kynar finish, both are fluoropolymer paint systems that feature excellent durability and weathering for architectural needs. Available stock architectural Solid colors include Bone White, Mist White, Oyster, Aluminum Grey, BGY Grey, and TOB Black.



## STANDARD PANEL SIZE

Standard widths are 50" (1270mm) and 62" (1575mm) and lengths of 146" (3708mm) and 196" (4978mm). Panels are stocked in 4mm thickness. Standard crate is 50 pieces. Custom lengths and thickness available. Please contact ALPOLIC® Customer Service for current available stock and additional information.

## FINISH TOLERANCE

Color: DE 1.0 max from standard  
Gloss: Nominal +/- 10 units

## PRODUCT TOLERANCE

Width: ± 0.08" (2mm)  
Length: ± 0.16" (4mm)  
Thickness: 4mm ± 0.008" (0.2mm)  
6mm ± 0.012" (0.3mm)  
Bow: maximum 0.5% of length  
and/or width  
Squareness: maximum 0.2" (5mm)  
Peel Strength: >22 in lb/in (ASTM D1781)

ALPOLIC® material is trimmed and squared with cut edges to offer the best panel edge conditions in the industry.

## FIRE PERFORMANCE

Standard ALPOLIC® architectural Solid finish panels with a polyethylene core have been tested by independent testing laboratories using nationally recognized tests.

This material meets all requirements of the International Building Code for combustible construction:

IBC Listed  
UL Listed

Please visit [www.alpolic-northamerica.com](http://www.alpolic-northamerica.com) or call technical support for complete report listings and additional information.

## WARRANTY

Standard panel warranty: 10 Year  
Finish warranty: 30 Year\*

Call ALPOLIC® Customer Service for exclusions and warranty details. \*30 year warranty only applies to standard architectural colors.

## PRODUCT NOTES

- Panels should be stored flat in a dry, indoor environment.
- Fabricate panels at temperatures above 55°F.
- Protective film should be removed from panels soon after installation.
- Please refer to ALPOLIC® Painted ACM Fabrication Manual for routing and fabrication recommendations.
- Crating fees apply to orders for less than standard piece crate.

FOR TECHNICAL INFORMATION, PLEASE  
CALL 1.800.422.7270

### U.S. HEADQUARTERS

MITSUBISHI CHEMICAL COMPOSITES AMERICA, INC.

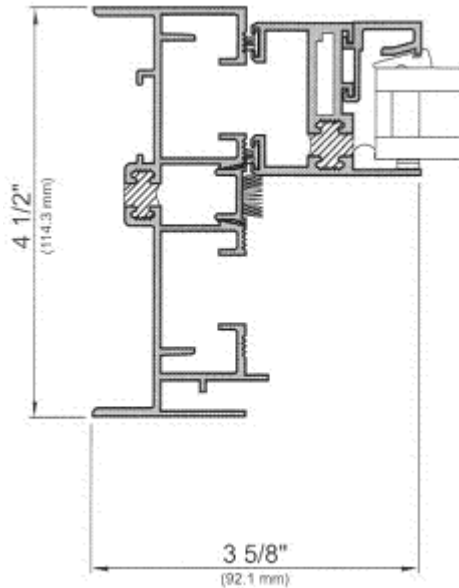
401 Volvo Parkway, Chesapeake, VA 23320

Telephone: 800-422-7270, Facsimile: 757-436-1896

[www.alpolic-americas.com](http://www.alpolic-americas.com) e-mail: [info@alpolic.com](mailto:info@alpolic.com)

## 2. Architectural Windows

### Product Data Sheets



## Features

- ✓ 4½" frame depth with polyurethane thermal barrier
- ✓ Up to AAMA AW70 Performance Class
- ✓ Flush screen frame
- ✓ Sturdy corner-blocked and crimped sash construction
- ✓ Extruded aluminum or slide-in steel anchors
- ✓ Meeting rail latches
- ✓ Accepts 1" insulating glass; bead glazed
- ✓ Beveled sash option
- ✓ Block and tackle or Ultralift® balances
- ✓ Dual glazed option with hinged or lift-out access panels
- ✓ 5/8" between-glass Venetian blinds available
- ✓ Head, sill and jamb receptors available
- ✓ Broad selection of renovation panning
- ✓ Offered through Advantage by Wausau
- ✓ High recycled content aluminum framing

## Performance

<b>Allowable Air</b>
0.30 cfm/sqft at 6.24 psf
<b>Water</b>
12 psf
<b>NFRC U-Factor</b>
0.46 to 0.63 BTU/hr.sqft.°F (est.)
<b>CRF<sub>i</sub></b>
53 (est.)
<b>STC</b>
33 to 38 (est.)



DISCLAIMER: Wausau Window and Wall Systems takes no responsibility for product selection or application, including, but not limited to, compliance with building codes, safety codes, laws, merchantability or fitness for a particular purpose; and further disclaims all liability for the use, in whole or in part, of this Technical Guide in preparation of project specifications and/or other documents. Technical Guides are subject to change at any time, without notice, and at Wausau's sole discretion. ©2014 Apogee Wausau Group, Inc.