

**MONTGOMERY COUNTY HISTORIC PRESERVATION COMMISSION**  
**STAFF REPORT**

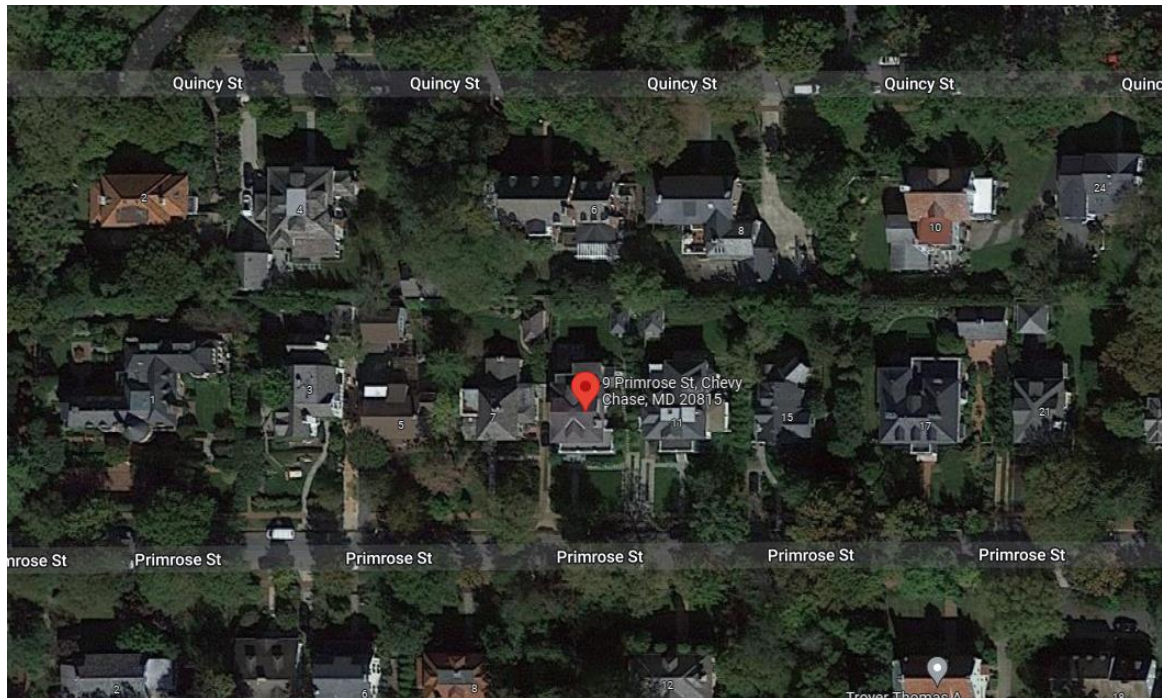
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|--|--|-----------------------|--------------|
| <b>Address:</b>                                      | 9 Primrose Street, Chevy Chase                                   | <b>Meeting Date:</b>  | 8/17/2022    |
| <b>Resource:</b>                                     | Contributing Resource<br>(Chevy Chase Village Historic District) | <b>Report Date:</b>   | 8/10/2022    |
|  |  | <b>Public Notice:</b> | 8/3/2022     |
| <b>Applicant:</b>                                    | Alice Keating<br>(Alexander Smith, Architect)                    | <b>Tax Credit:</b>    | N/A          |
| <b>Review:</b>                                       | HAWP   | <b>Staff:</b>         | Michael Kyne |
| <b>Permit Number:</b> 1001603                        |  |                       |              |
| <b>PROPOSAL:</b> Dormer and fenestration alterations |  |                       |              |

**STAFF RECOMMENDATION:**

Staff recommends that the HPC **approve** the HAWP application.

**ARCHITECTURAL DESCRIPTION:**

**SIGNIFICANCE:** Contributing Resource within the Chevy Chase Village Historic District  
**STYLE:** Craftsman/Foursquare  
**DATE:** c. 1892-1916



*Fig. 1: Subject property, north side of Primrose Street.*

**PROPOSAL:**

The applicant proposes dormer and fenestration alterations at the subject property.

**APPLICABLE GUIDELINES:**

When reviewing alterations and new construction within the Chevy Chase Village Historic District several documents are to be utilized as guidelines to assist the Commission in developing their decision. These documents include *Montgomery County Code Chapter 24A (Chapter 24A)*, the historic preservation review guidelines in the approved and adopted amendment for the *Chevy Chase Village Historic District (Guidelines)*, and *the Secretary of the Interior's Standards for Rehabilitation (Standards)*. The pertinent information in these documents is outlined below.

***Montgomery County Code; Chapter 24A-8***

- (b) The commission shall instruct the director to issue a permit, or issue a permit subject to such conditions as are found to be necessary to insure conformity with the purposes and requirements of this chapter, if it finds that:
  - (1) The proposal will not substantially alter the exterior features of an historic site or historic resource within an historic district; or
  - (2) The proposal is compatible in character and nature with the historical, archeological, architectural or cultural features of the historic site or the historic district in which an historic resource is located and would not be detrimental thereto or to the achievement of the purposes of this chapter; or
  - (3) The proposal would enhance or aid in the protection, preservation and public or private utilization of the historic site or historic resource located within an historic district in a manner compatible with the historical, archeological, architectural or cultural value of the historic site or historic district in which an historic resource is located; or
  - (4) The proposal is necessary in order that unsafe conditions or health hazards be remedied; or
  - (5) The proposal is necessary in order that the owner of the subject property not be deprived of reasonable use of the property or suffer undue hardship; or
  - (6) In balancing the interests of the public in preserving the historic site or historic resource located within an historic district, with the interests of the public from the use and benefit of the alternative proposal, the general public welfare is better served by granting the permit.
- (c) It is not the intent of this chapter to limit new construction, alteration or repairs to any 1 period or architectural style.
- (d) In the case of an application for work on an historic resource located within an historic district, the commission shall be lenient in its judgment of plans for structures of little historical or design significance or for plans involving new construction, unless such plans would seriously impair the historic or architectural value of surrounding historic resources or would impair the character of the historic district. (Ord. No. 9-4, § 1; Ord. No. 11-59.)

### ***Chevy Chase Village Historic District Guidelines***

The *Guidelines* state that the following five basic policies should be adhered to:

1. Preserving the integrity of the proposed Chevy Chase Village Historic District. Any alterations should, at a minimum, perpetuate the ability to perceive the sense of time and place portrayed by the district.
2. Preserving the integrity of the contributing structures in the district. Alterations to contributing structures should be designed in such a way that the altered structure still contributes to the district.
3. Maintaining the variety of architectural styles and the tradition of architectural excellence.
4. Design review emphasis should be restricted to changes that will be visible from the front or side public right-of-way, or that would be visible in the absence of vegetation or landscaping.
5. Alterations to the portion of a property that are not visible from the public right-of-way should be subject to very lenient review. Most changes to rear of the properties should be approved as a matter of course.

The *Guidelines* break down specific projects into three levels of review – Lenient, Moderate and Strict Scrutiny.

“Lenient Scrutiny” means that the emphasis of the review should be on issues of general massing and scale, and compatibility with the surrounding streetscape, and should allow for a very liberal interpretation of preservation rules. Most changes should be permitted unless there are major problems with massing, scale and compatibility.

“Moderate Scrutiny” involves a higher standard of review than “lenient scrutiny.” Besides issues of massing, scale and compatibility, preserving the integrity of the resource is taken into account. Alterations should be designed so that the altered structure still contributes to the district. Use of compatible new materials, rather than the original building materials, should be permitted. Planned changes should be compatible with the structure’s existing design, but should not be required to replicate its architectural style.

“Strict Scrutiny” means that the planned changes should be reviewed to ensure that the integrity of the significant exterior architectural or landscaping features and details is not compromised. However, strict scrutiny should not be “strict in theory but fatal in fact” i.e. it does not mean that there can be no changes but simply that the proposed changes should be reviewed with extra care.

The *Guidelines* that pertain to this project are as follows:

**Doors** should be subject to moderate scrutiny if they are visible from the public right-of-way, lenient scrutiny if they are not. For outstanding resources, they should be subject to strict scrutiny if they are visible from the public right-of-way. Addition of compatible storm doors should be encouraged.

**Dormers** should be subject to moderate scrutiny if they are visible from the public right-of-way, lenient scrutiny if they are not. For outstanding resources they should be subject to strict scrutiny if they are visible from the public right-of-way.

**Windows** (including window replacement) should be subject to moderate scrutiny if they are visible from

the public right-of-way, lenient scrutiny if they are not. For outstanding resources, they should be subject to strict scrutiny. Addition of compatible exterior storm windows should be encouraged, whether visible from the public right-of-way or not. Vinyl and aluminum windows (other than storm windows) should be discouraged. Addition of security bars should be subject to lenient scrutiny, whether visible from the public right-of-way or not.

### ***Secretary of the Interior's Standards for Rehabilitation***

The Secretary of the Interior defines rehabilitation as “the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features, which convey its historical, cultural, or architectural values.” The applicable *Standards* are as follows:

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

### **STAFF DISCUSSION:**

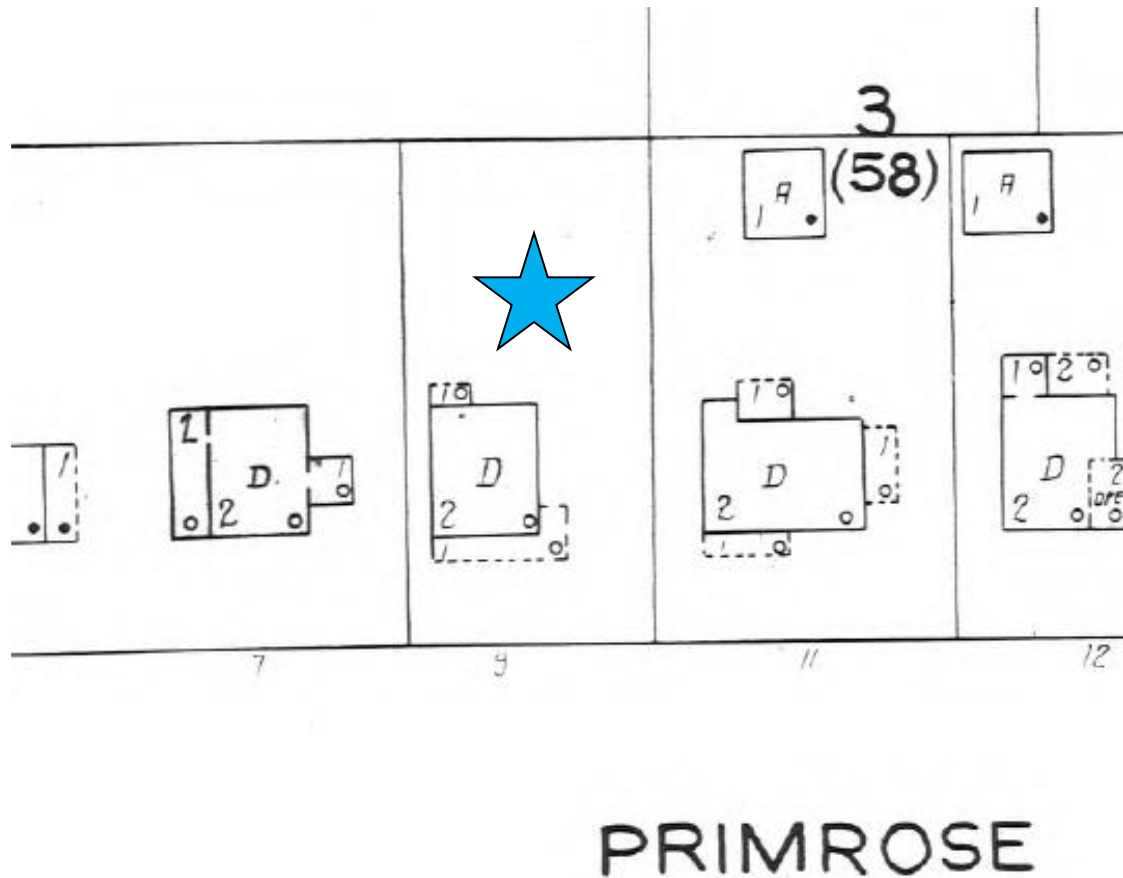
The subject property is a c. 1892-1916 Craftsman/Foursquare-style Contributing Resource within the Chevy Chase Village Historic District. According to the 1927 Sanborn Fire Insurance Map (see Fig. 2), the house originally had a one-story open porch at northwest (rear/left, as viewed from the public right-of-way of Primrose Street) corner. The house's current configuration indicates that the one-story porch was later enclosed, a second-floor addition was constructed above it, and a larger two-story addition was constructed at the northeast (rear/right) corner as well. In 2001, a one-story mudroom addition was constructed with an approved HAWP at the east (right) side of the larger two-story addition.<sup>1</sup>

The house has dormers on all four sides, although the side dormers appear to be non-original. The side dormers are larger than the front and rear dormers, and, while the front and rear dormers are clad with stucco to match the house, the side dormers are clad with wood siding. The fenestration of the side dormers is also inconsistent with the house and front and rear dormers.

<sup>1</sup> Link to 2001 mudroom HAWP documents:

[https://mcatlas.org/files/06\\_HistoricPreservation\\_PhotoArchives/Padlock/HAR60640007/Box058/35-13-01B\\_Chevy%20Chase%20Historic%20District\\_9%20Primrose%20Street\\_03-14-2001.pdf](https://mcatlas.org/files/06_HistoricPreservation_PhotoArchives/Padlock/HAR60640007/Box058/35-13-01B_Chevy%20Chase%20Historic%20District_9%20Primrose%20Street_03-14-2001.pdf)





**Fig. 2: 1927 Sanborn Fire Insurance Map, with the subject property indicated by the blue star.**

The applicants propose dormer and fenestration alterations at the subject property. The wood siding on the side dormers is proposed to be replaced with stucco cladding to match the house, and the side dormer windows are proposed to be replaced with new wood windows with casing, style, and lite pattern that is consistent with the historic house. The non-original arched windows on the west (left) and north (rear) elevations of the existing second-floor addition at the northwest (rear/right) corner of the house are also proposed to be replaced with new wood windows to match the historic house. The door of the 2001 mudroom at the east (right) side of the house is proposed to be replaced in-kind.

The windows on the original north (rear) dormer also proposed to be replaced with new wood windows, with style and lite pattern generally consistent with the existing. The width and sill height of the replacement windows will be the same as the existing, but the head height will be raised to accommodate proposed interior attic-level alterations.

Staff supports the applicants' proposal. The proposed alterations will primarily affect previous additions and/or non-original features. While the original dormer windows on the north (rear) are proposed to be replaced, this alteration will not be visible from the public right-of-way, and the *Guidelines* instruct that it should be reviewed with lenient scrutiny. Per the *Guidelines*:

“Lenient Scrutiny” means that the emphasis of the review should be on issues of general massing and scale, and compatibility with the surrounding streetscape, and should allow for a very liberal interpretation of preservation rules. Most changes should be permitted unless there are major problems with massing, scale and compatibility.

Regarding materials, staff finds the proposal consistent with the subject property and surrounding streetscape. Additionally, the proposed alterations are designed in such a way that the altered structure still contributes to the district, per Policy #2 of the *Guidelines*.

In accordance with *Standards #2 and #9*, the proposal will not remove or alter character-defining materials, features, or spaces of the historic house or surrounding streetscape. Per *Standard #10*, the proposed alterations could be removed in the future without impairing the essential form and integrity of the historic property and its environment.

After full and fair consideration of the applicant's submission staff finds the proposal, as revised, as being consistent with the Criteria for Issuance in Chapter 24A-8(b) (1), (2), and (d), having found the proposal is consistent with the *Secretary of the Interior's Standards for Rehabilitation #2, #9, and #10*, and *Chevy Chase Village Historic District Guidelines* outlined above.

### **STAFF RECOMMENDATION:**

Staff recommends that the Commission **approve** the HAWP application under the Criteria for Issuance in Chapter 24A-8(b) (1), (2), and (d), having found that the proposal is consistent with the *Chevy Chase Village Historic District Guidelines* identified above, and therefore will not substantially alter the exterior features of the historic resource and is compatible in character with the district and the purposes of Chapter 24A;

and with the *Secretary of the Interior's Standards for Rehabilitation #2, #9, and #10*;

and with the general condition that the applicant shall present an electronic set of drawings, if applicable, to Historic Preservation Commission (HPC) staff for review and stamping prior to submission for the Montgomery County Department of Permitting Services (DPS) building permits;

and with the general condition that final project design details, not specifically delineated by the Commission, shall be approved by HPC staff or brought back to the Commission as a revised HAWP application at staff's discretion;

and with the general condition that the applicant shall notify the Historic Preservation Staff if they propose to make **any alterations** to the approved plans. Once the work is completed the applicant will contact the staff person assigned to this application at 301-563-3400 or michael.kyne@montgomeryplanning.org to schedule a follow-up site visit.



FOR STAFF ONLY:  
HAWP# 1001603  
DATE ASSIGNED \_\_\_\_\_

**APPLICATION FOR  
HISTORIC AREA WORK PERMIT**  
HISTORIC PRESERVATION COMMISSION  
301.563.3400

**APPLICANT:**

Name: Alice Keating  
Address: 9 Primrose Street  
Daytime Phone: \_\_\_\_\_

E-mail: keatinga99@gmail.com  
City: Chevy Chase Zip: 20815  
Tax Account No.: \_\_\_\_\_

**AGENT/CONTACT (if applicable):**

Name: Alexander Smith  
Address: 811 Upshur Street NW, Unit 7  
Daytime Phone: (405)613-5181

E-mail: alex@domaarchdesign.com  
City: Washington, DC Zip: 20011  
Contractor Registration No.: \_\_\_\_\_

**LOCATION OF BUILDING/PREMISE:** MIHP # of Historic Property \_\_\_\_\_

Is the Property Located within an Historic District? ☒ Yes/District Name Chevy Chase Village  
\_\_\_\_\_ No/Individual Site Name \_\_\_\_\_

Is there an Historic Preservation/Land Trust/Environmental Easement on the Property? If YES, include a map of the easement, and documentation from the Easement Holder supporting this application.

Are other Planning and/or Hearing Examiner Approvals /Reviews Required as part of this Application? (Conditional Use, Variance, Record Plat, etc.?) If YES, include information on these reviews as supplemental information.

Building Number: 9 Street: Primrose Street  
Town/City: Chevy Chase Nearest Cross Street: Connecticut Avenue  
Lot: P1 Block: 58 Subdivision: 0009 Parcel: 0000

**TYPE OF WORK PROPOSED: See the checklist on Page 4 to verify that all supporting items for proposed work are submitted with this application. Incomplete Applications will not be accepted for review. Check all that apply:**

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> New Construction      | <input type="checkbox"/> Deck/Porch          | <input type="checkbox"/> Shed/Garage/Accessory Structure |
| <input type="checkbox"/> Addition              | <input type="checkbox"/> Fence               | <input type="checkbox"/> Solar                           |
| <input checked="" type="checkbox"/> Demolition | <input type="checkbox"/> Hardscape/Landscape | <input type="checkbox"/> Tree removal/planting           |
| <input type="checkbox"/> Grading/Excavation    | <input checked="" type="checkbox"/> Roof     | <input checked="" type="checkbox"/> Window/Door          |
|  |  | <input type="checkbox"/> Other: _____                    |

I hereby certify that I have the authority to make the foregoing application, that the application is correct and accurate and that the construction will comply with plans reviewed and approved by all necessary agencies and hereby acknowledge and accept this to be a condition for the issuance of this permit.

\_\_\_\_\_  
Signature of owner or authorized agent

\_\_\_\_\_  
Date 07/27/2022

Adjacent and Confronting Properties:

Chevy Chase, MD 20815

7 Primrose Street

11 Primrose Street

12 Primrose Street

6 Quincy Street

**Description of Property:** Please describe the building and surrounding environment. Include information on significant structures, landscape features, or other significant features of the property:

Existing two-story, single family home with cellar and attic and rear paved patio. The existing residence has asphalt shingle roofs, stucco exteriors at main levels, stucco exteriors at front and rear dormers, and painted wood siding exteriors at side dormers, and a painted wood covered porch on a stone foundation at the front. Site has a single story shed in the rear yard with a slate roof and stucco exterior walls and a small flagstone patio at the rear.

**Description of Work Proposed:** Please give an overview of the work to be undertaken:

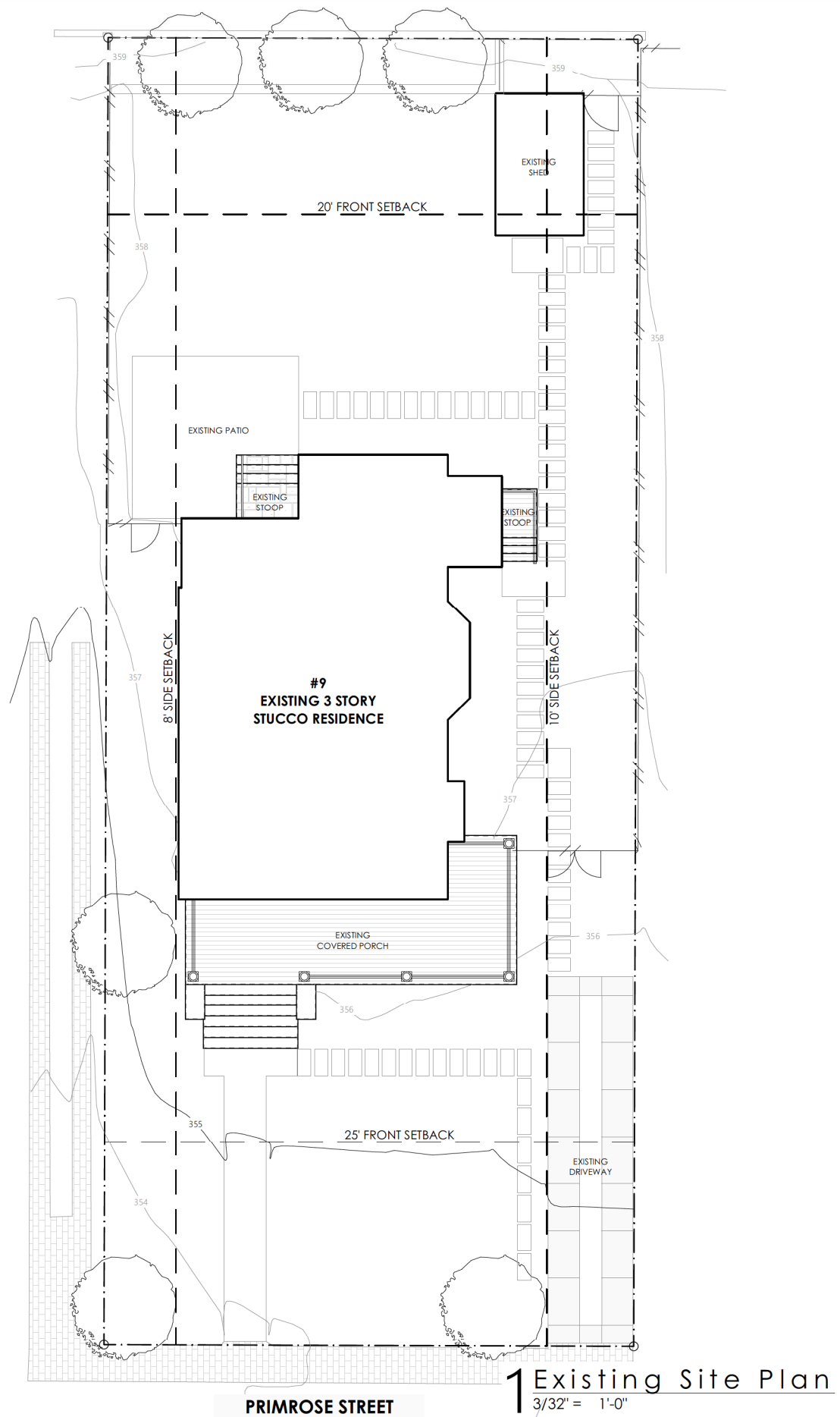
Interior renovation to existing attic space and new windows and exterior cladding to existing side dormers. Renovation to include updates to existing bath; reconfiguring existing space for new bedroom, workspace and closet; exposing existing roof rafters for insulation and to raise ceiling height; removing existing radiators at attic level and installing new forced air system; new closet buildout at Second Floor Primary Suite; new storage build-out at Basement Floor; replace arched top windows at Master Bath with new square top windows to match existing; replace First Floor Mudroom exterior door with new door to match. Mudroom addition does not appear to be original – stone foundation is different material and pattern from main foundation, window and door trim is simple brickmould rather than 1x trim with backband used at all other locations, and the exterior door to be replaced is insulated glass without muntins.

|                                   |                |
|-----------------------------------|----------------|
| Work Item 1: _____                |                |
| Description of Current Condition: | Proposed Work: |
|                                   |                |
| Work Item 2: _____                |                |
| Description of Current Condition: | Proposed Work: |
|                                   |                |
| Work Item 3: _____                |                |
| Description of Current Condition: | Proposed Work: |
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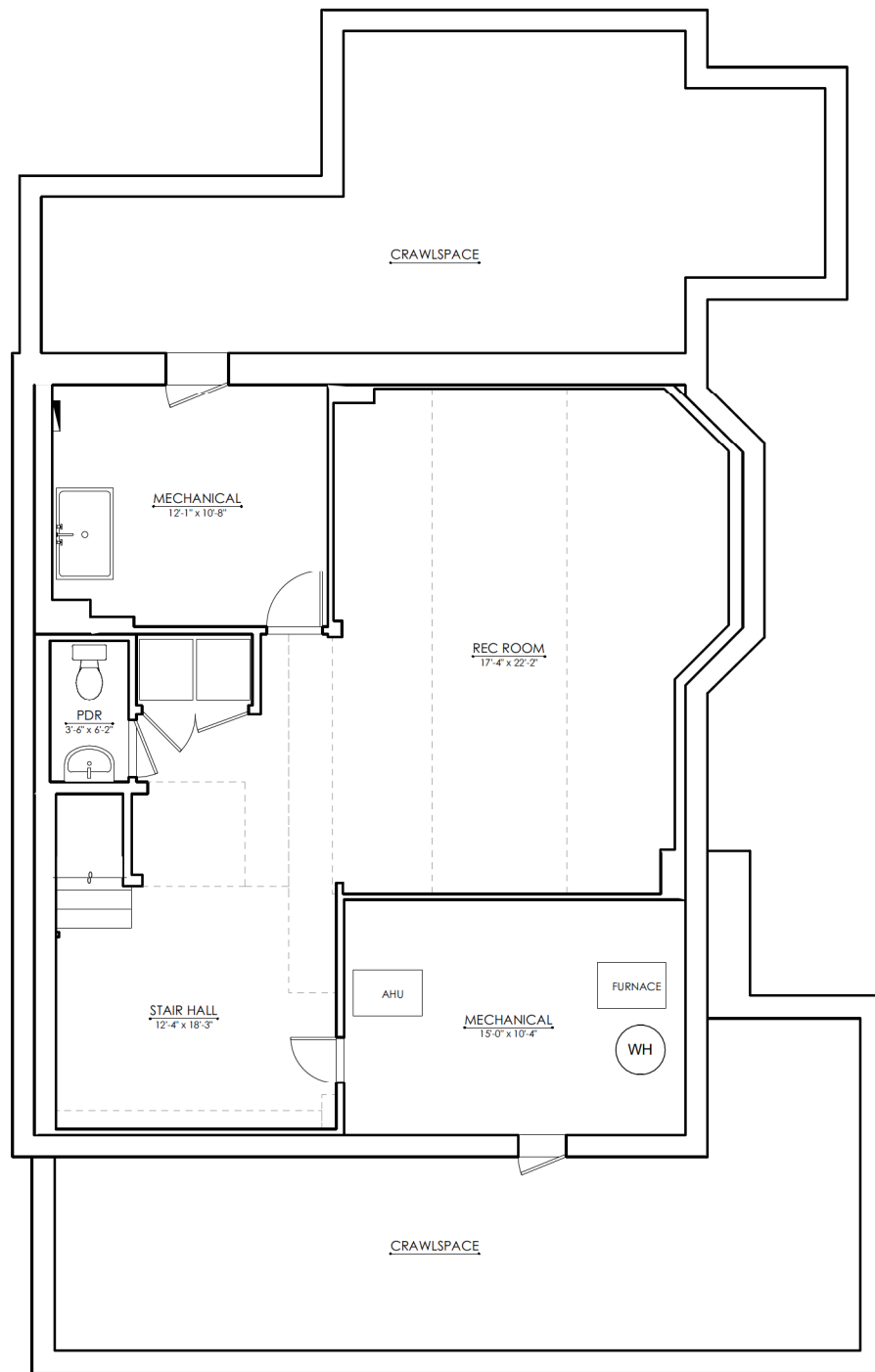


# **HISTORIC AREA WORK PERMIT CHECKLIST OF APPLICATION REQUIREMENTS**

|                                    | Required Attachments   |              |                         |                            |                |                |                             |
|------------------------------------|------------------------|--------------|-------------------------|----------------------------|----------------|----------------|-----------------------------|
| Proposed Work                      | I. Written Description | 2. Site Plan | 3. Plans/<br>Elevations | 4. Material Specifications | 5. Photographs | 6. Tree Survey | 7. Property Owner Addresses |
| New Construction                   | *                      | *            | *                       | *                          | *              | *              | *                           |
| Additions/<br>Alterations          | *                      | *            | *                       | *                          | *              | *              | *                           |
| Demolition                         | *                      | *            | *                       |                            | *              |                | *                           |
| Deck/Porch                         | *                      | *            | *                       | *                          | *              | *              | *                           |
| Fence/Wall                         | *                      | *            | *                       | *                          | *              | *              | *                           |
| Driveway/<br>Parking Area          | *                      | *            |                         | *                          | *              | *              | *                           |
| Grading/Excavation/<br>Landscaping | *                      | *            |                         | *                          | *              | *              | *                           |
| Tree Removal                       | *                      | *            |                         | *                          | *              | *              | *                           |
| Siding/ Roof Changes               | *                      | *            | *                       | *                          | *              |                | *                           |
| Window/<br>Door Changes            | *                      | *            | *                       | *                          | *              |                | *                           |
| Masonry Repair/<br>Repoint         | *                      | *            | *                       | *                          | *              |                | *                           |
| Signs                              | *                      | *            | *                       | *                          | *              |                | *                           |

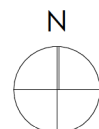


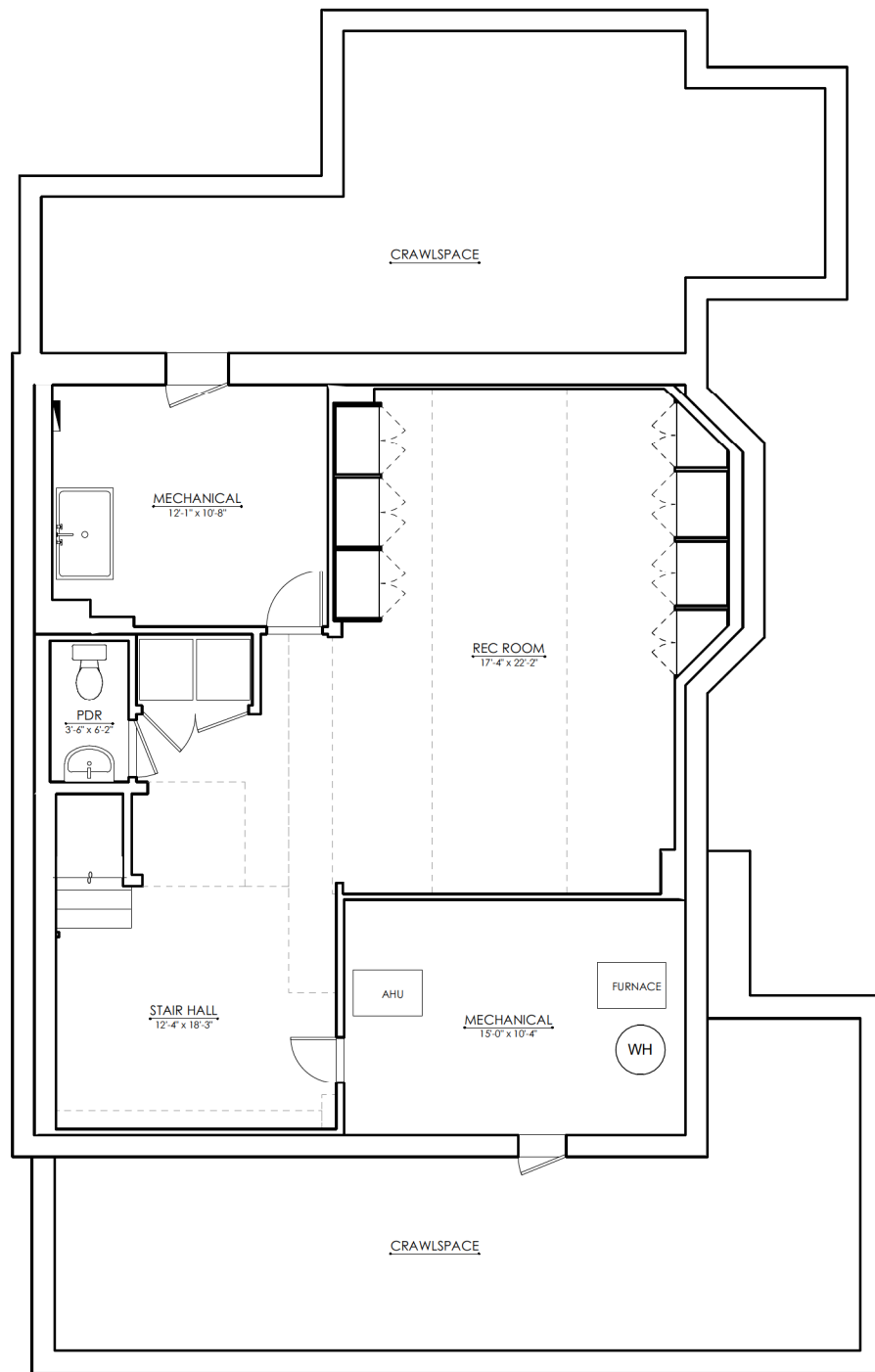
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# 1 Existing Basement Plan

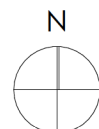
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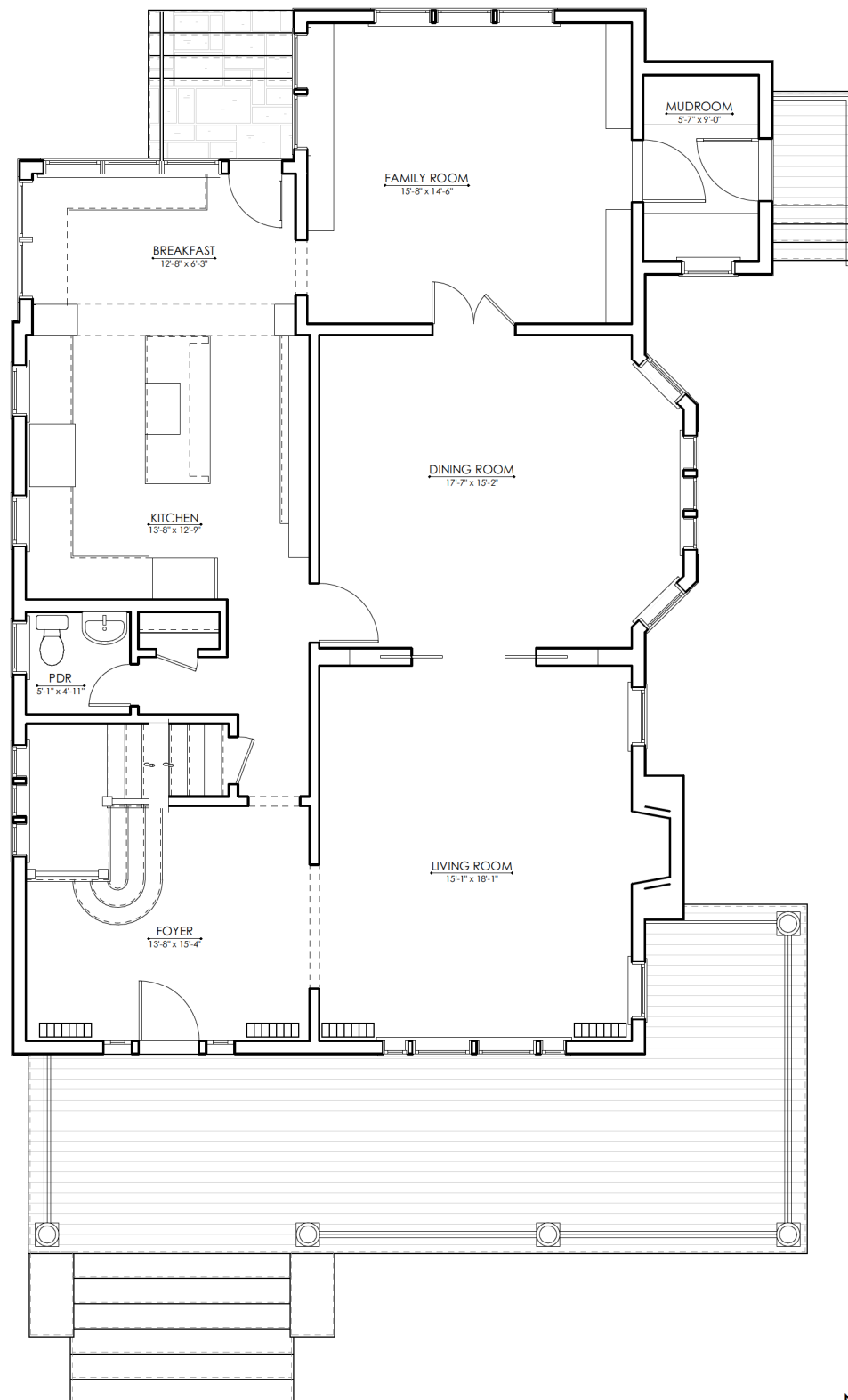




# 1 Basement Plan

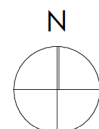
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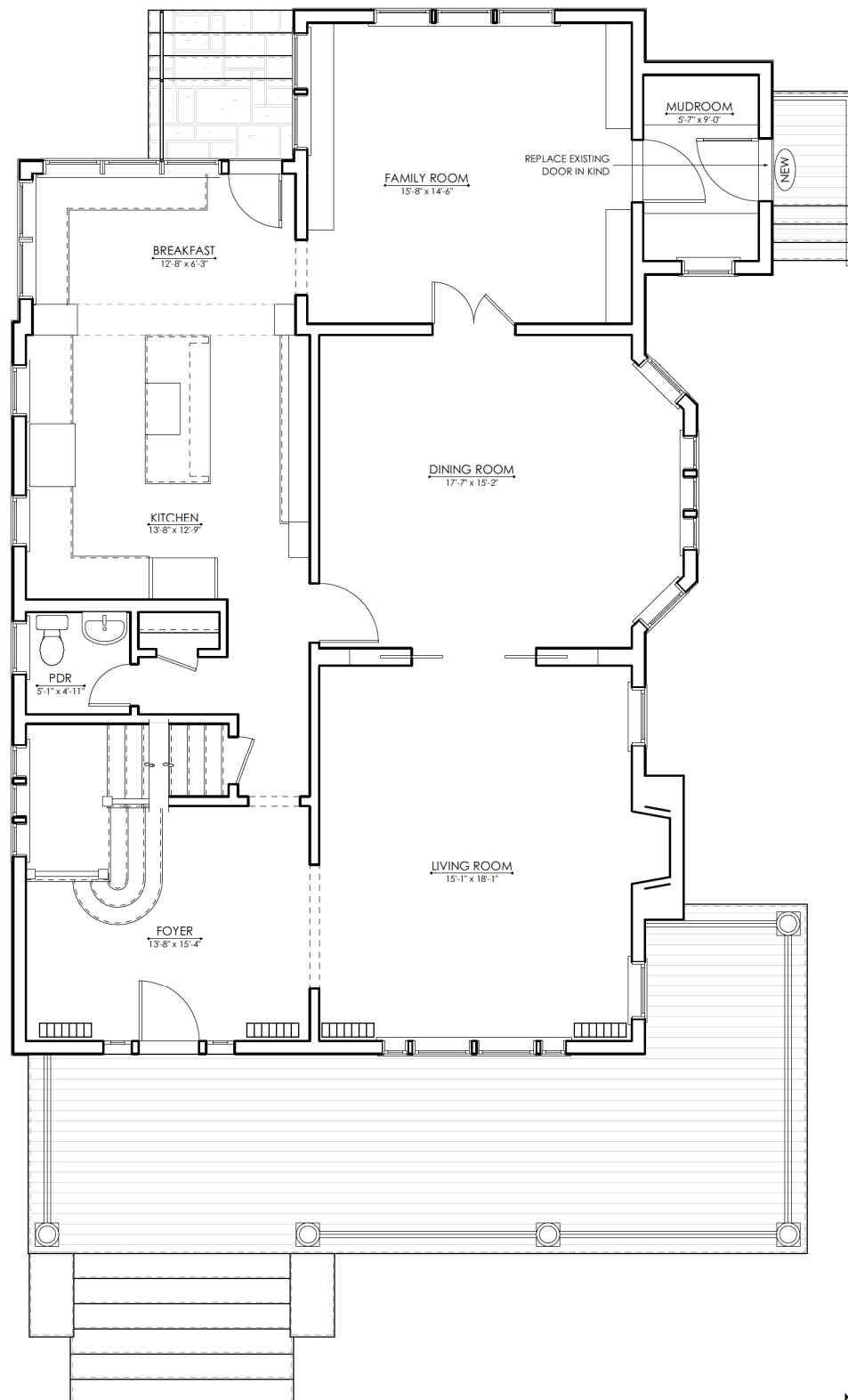




# 1 Existing First Floor Plan

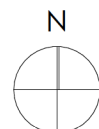
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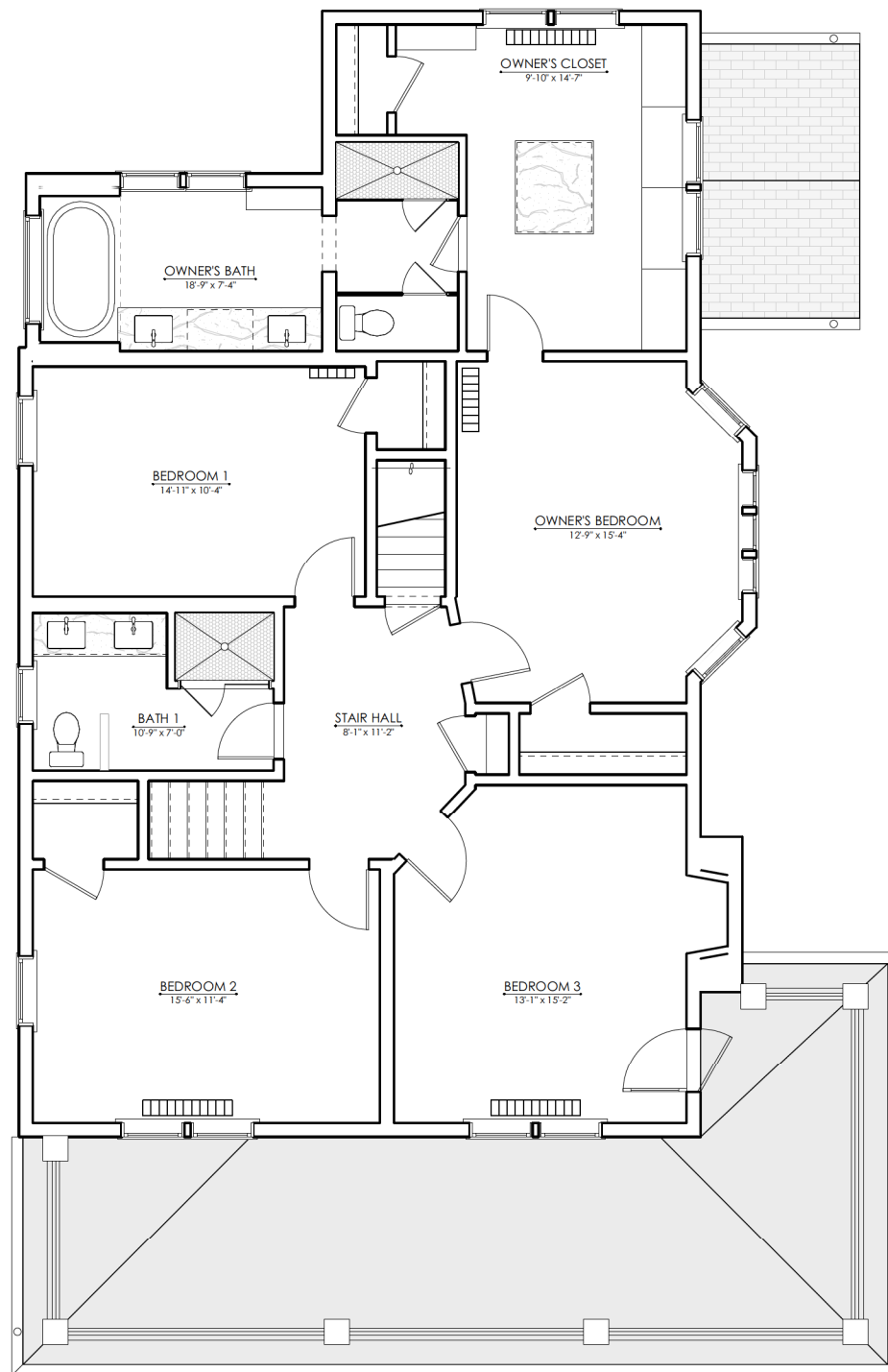


# 1 First Floor Plan

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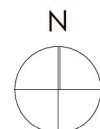


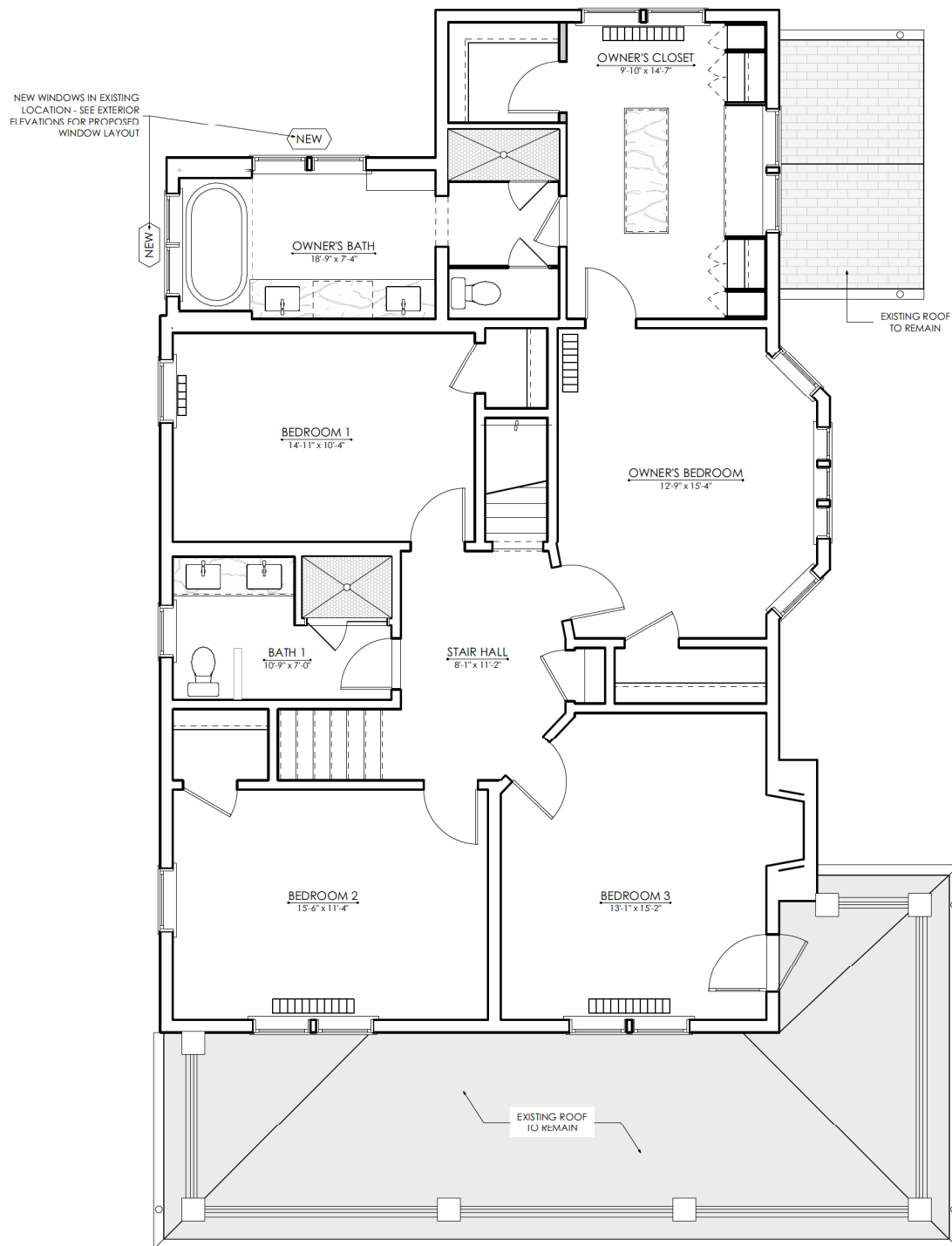




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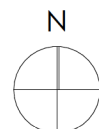
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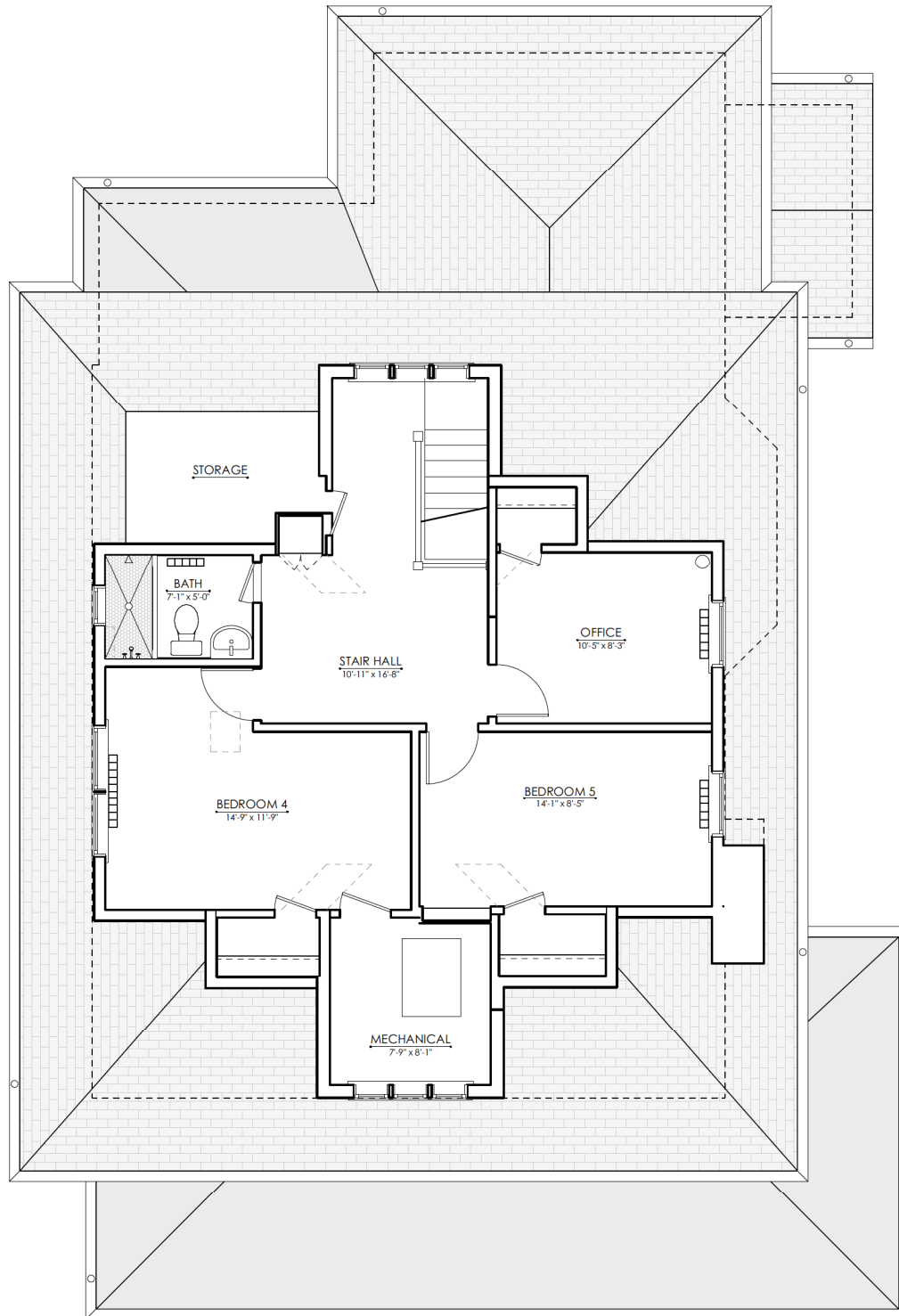




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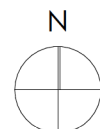
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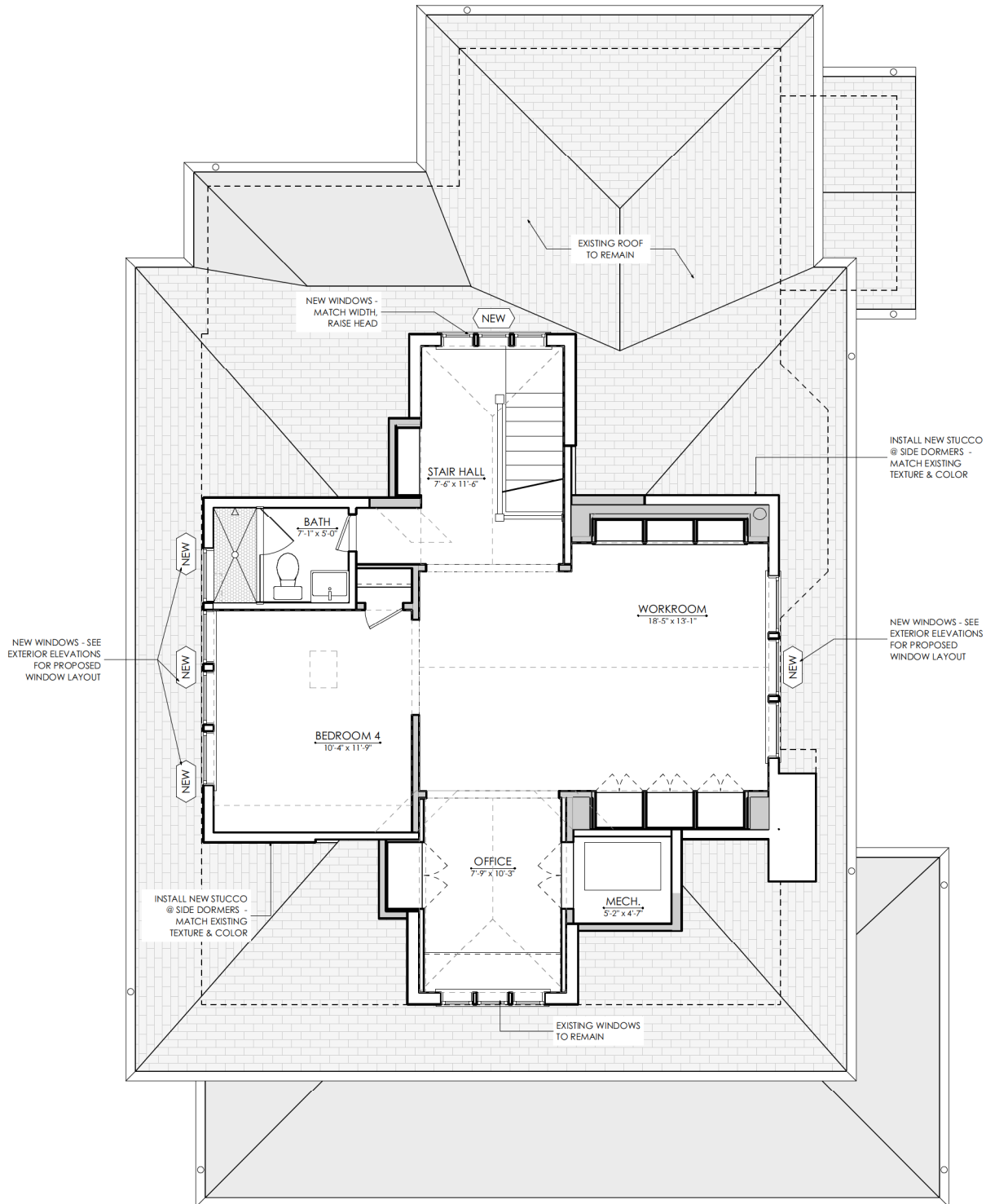




# Existing Attic Plan

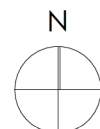
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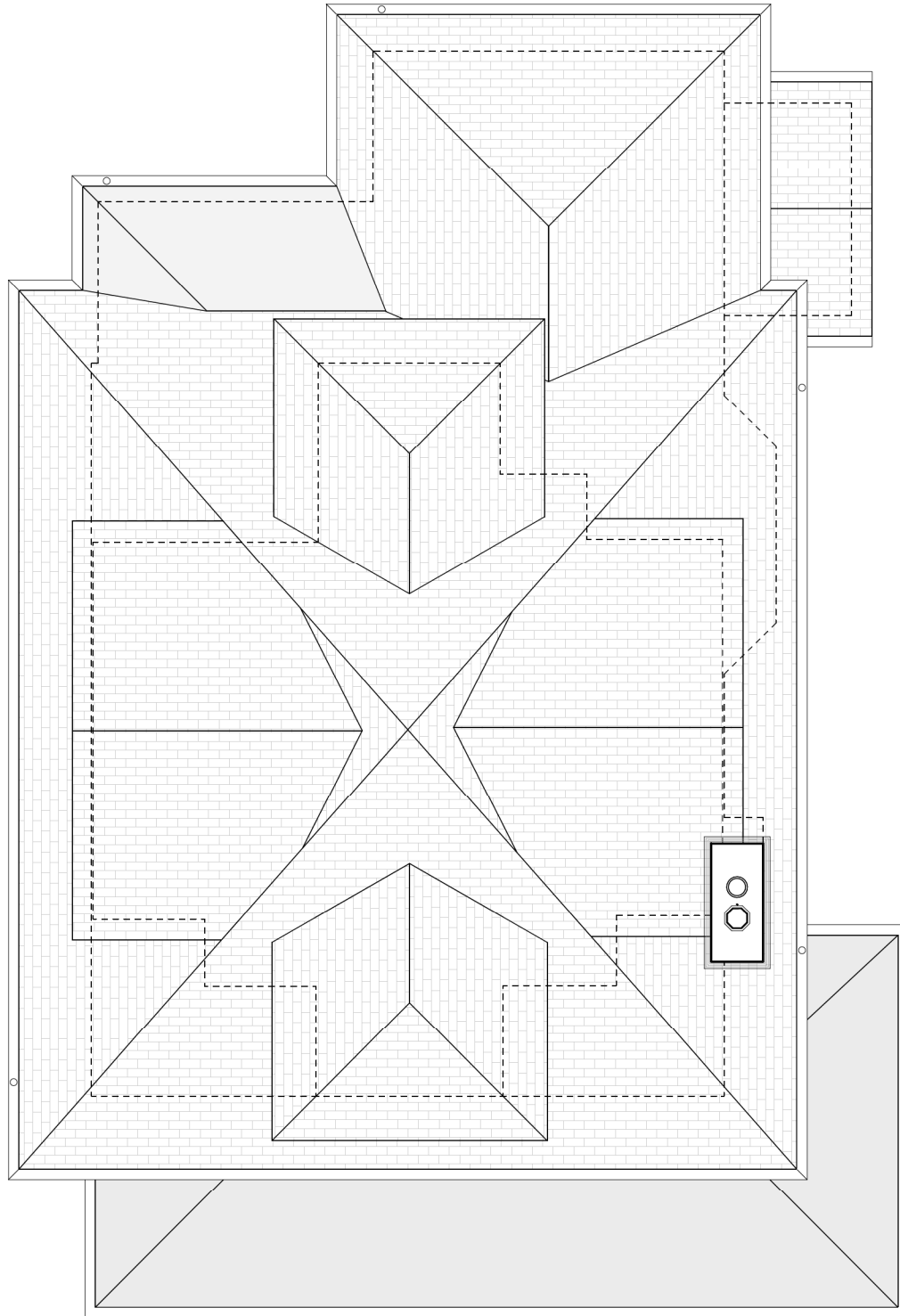




# 1 Attic Plan

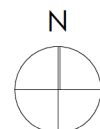
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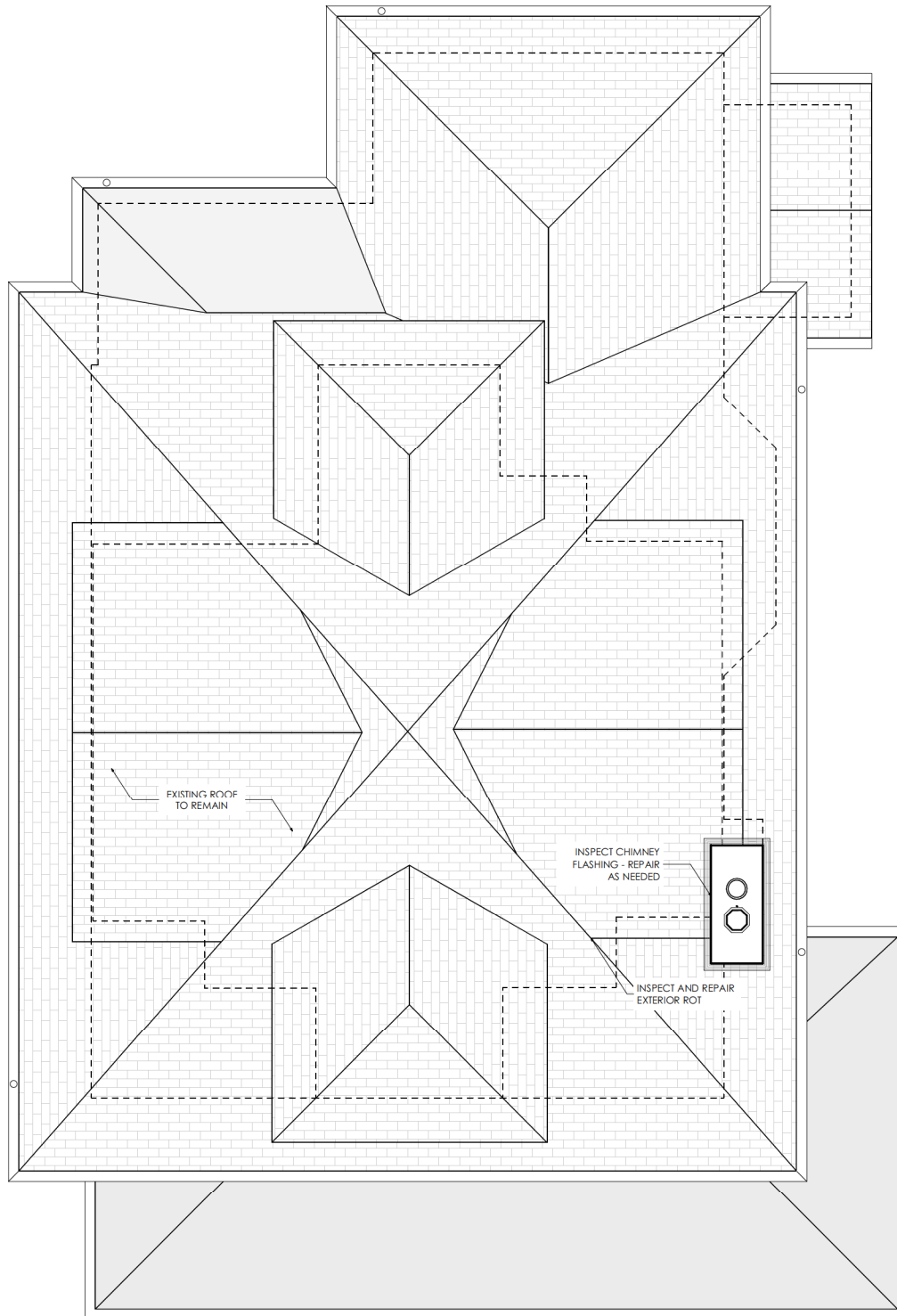




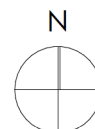
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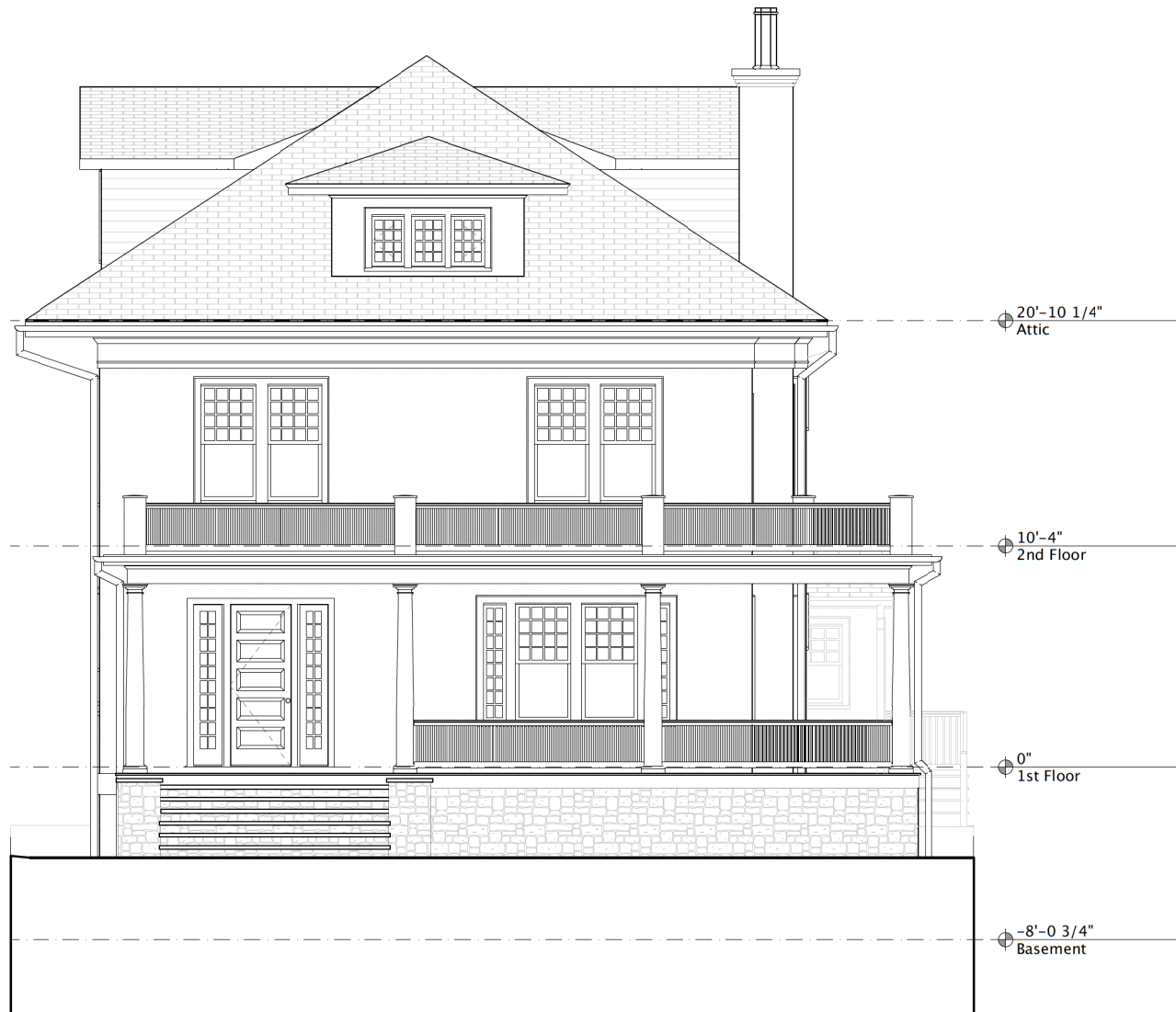


1 Roof  
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1 Front Elevation  
3/16" = 1'-0"

| Date       | Issue Description       |
|------------|-------------------------|
| 06-08-2022 | Chevy Chase Village Set |
| 07-06-2022 | HAWP Set                |
| 07-27-2022 | HAWP Set Resubmission   |
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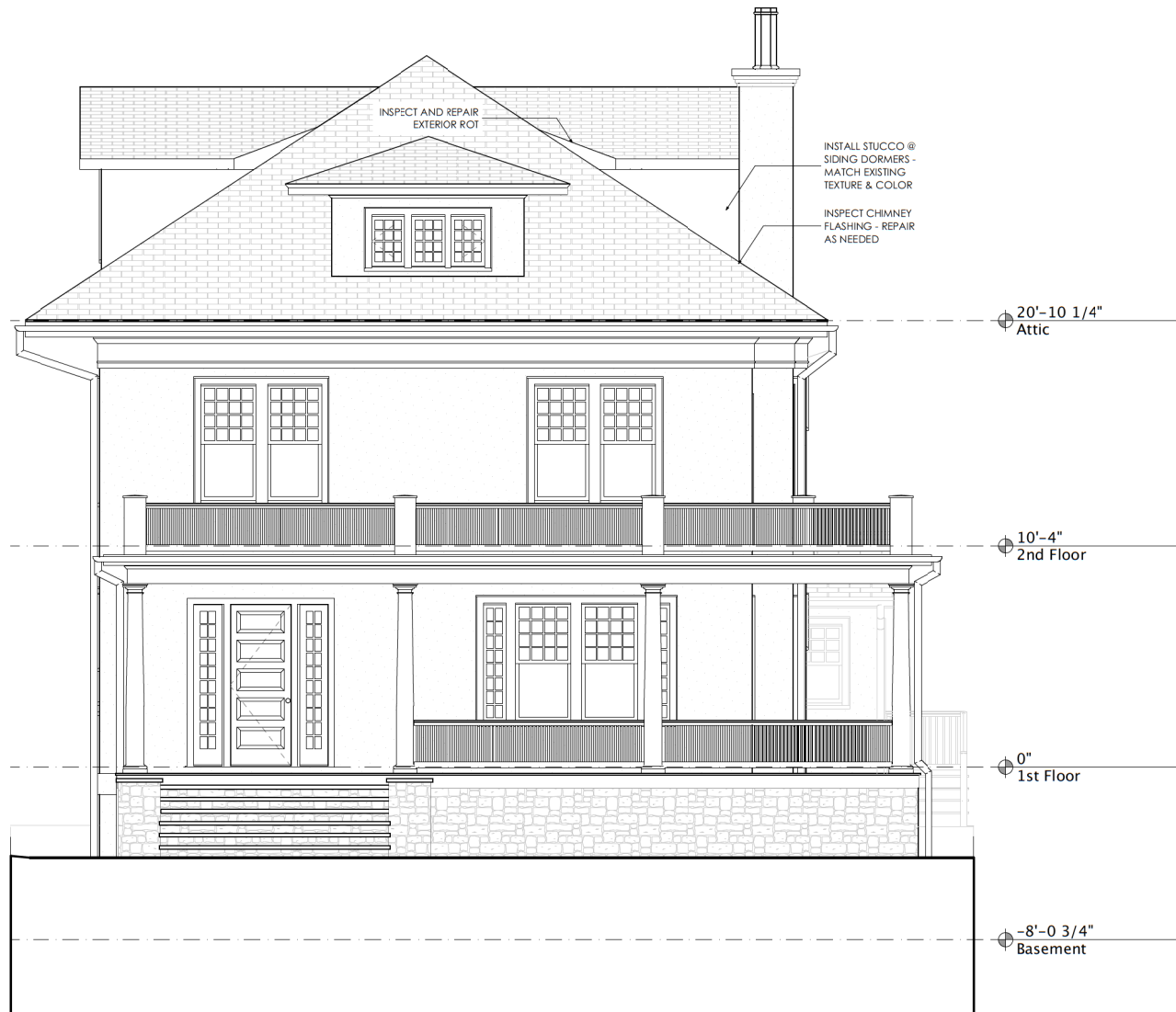
Existing Front Elevation

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1 Front Elevation  
3/16" = 1'-0"

| Date       | Issue Description       |
|------------|-------------------------|
| 06-08-2022 | Chevy Chase Village Set |
| 07-06-2022 | HAWP Set                |
| 07-27-2022 | HAWP Set Resubmission   |
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Sheet Title

Proposed Front Elevation

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1 Left Elevation  
3/16" = 1'-0"

| Date       | Issue Description       |
|------------|-------------------------|
| 06-08-2022 | Chevy Chase Village Set |
| 07-06-2022 | HAWP Set                |
| 07-27-2022 | HAWP Set Resubmission   |
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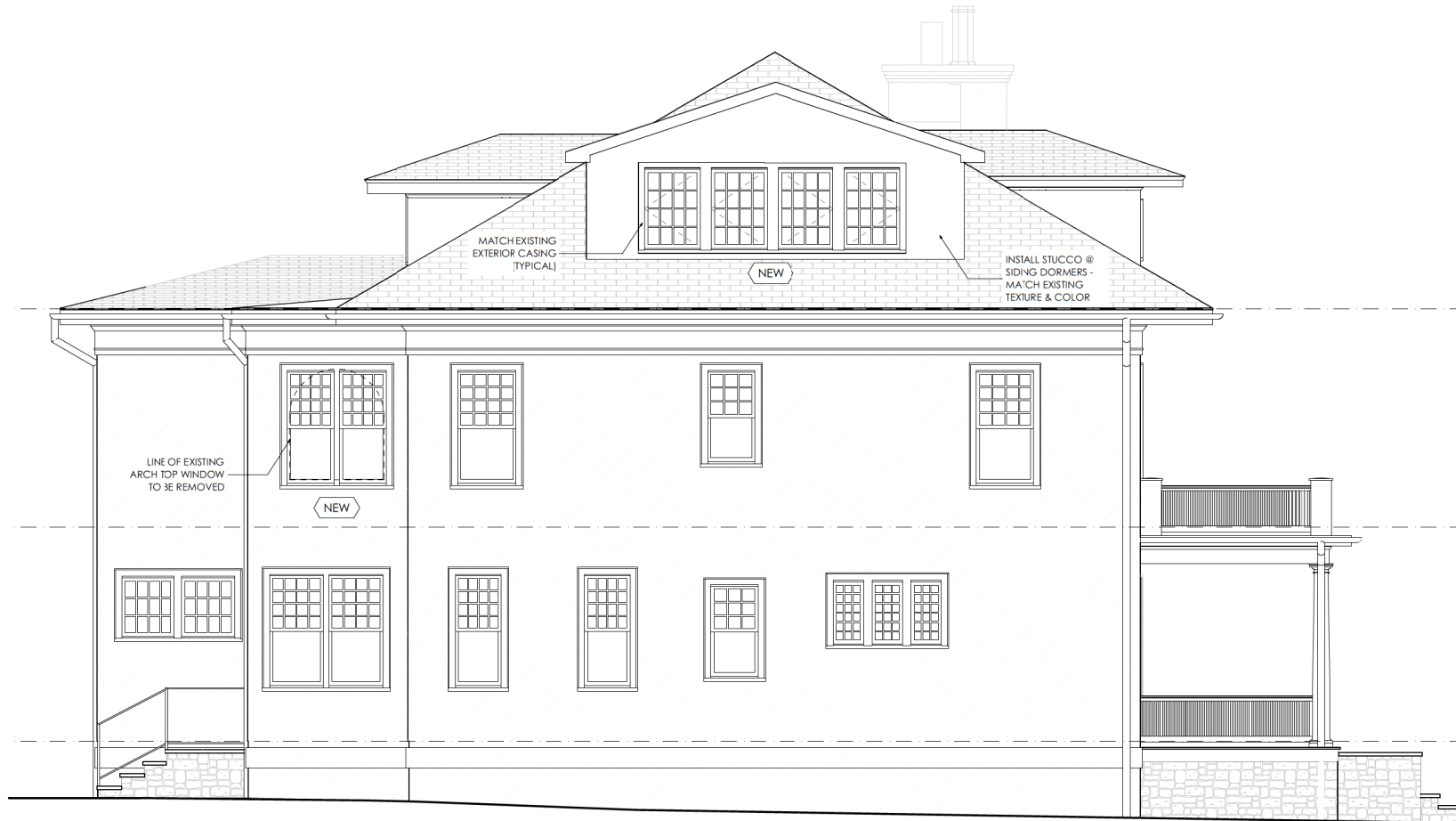
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# 1 Left Elevation

3/16" = 1'-0"

**DOMA**  
ARCHITECTURE + DESIGN

811 Upshur Street NW, Unit 7  
Washington DC 20011  
www.domaarchitects.com  
405.613.3181

Project No. 2112

**Keating  
Residence**  
9 Primrose Street  
Chevy Chase MD 20815

| Date       | Issue Description       |
|------------|-------------------------|
| 06-08-2022 | Chevy Chase Village Set |
| 07-06-2022 | HAWP Set                |
| 07-27-2022 | HAWP Set Resubmission   |

Sheet Title

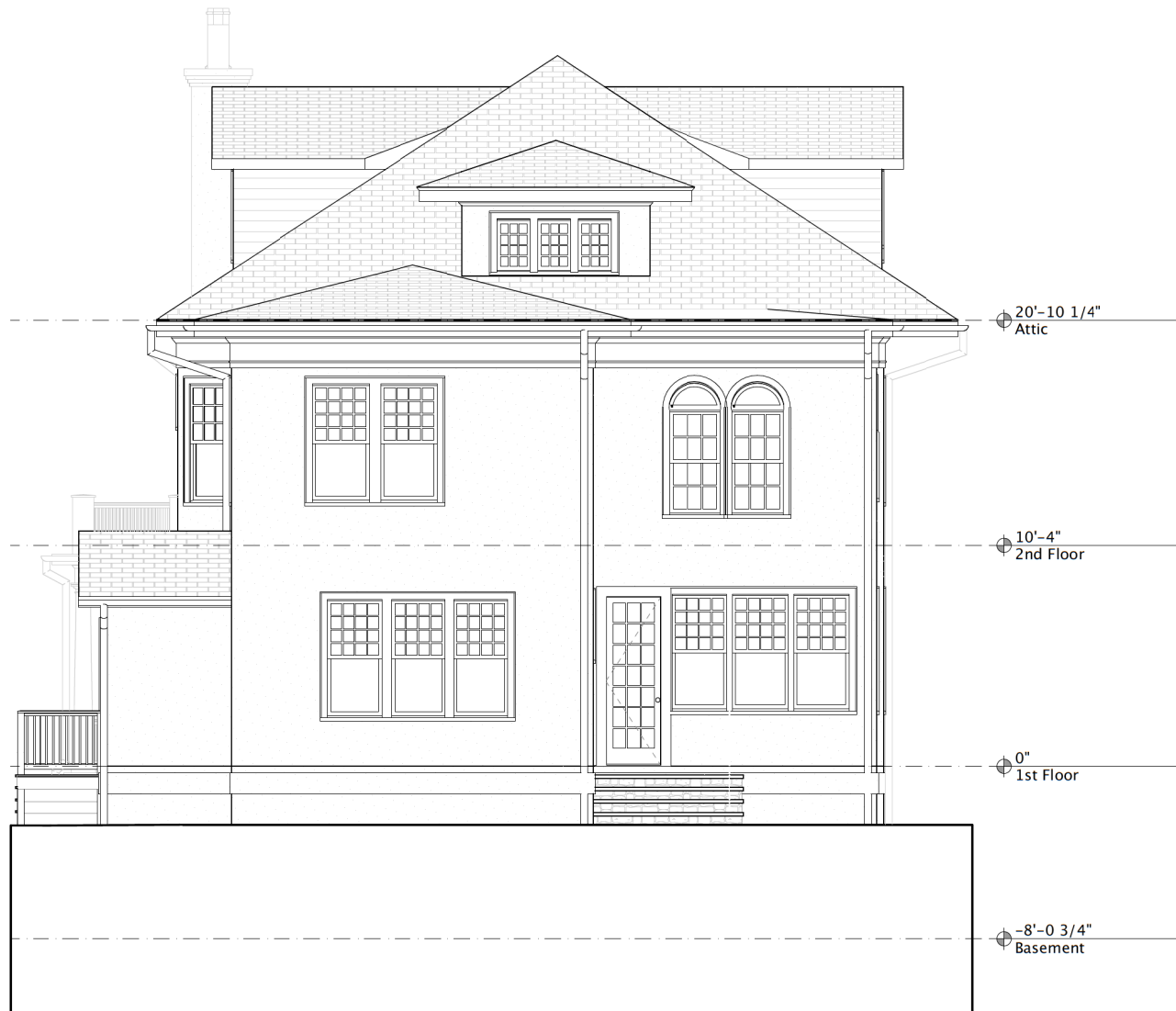
Proposed Left Elevation

Sheet Number

A2-4

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File Name: "C:\Users\DOMA\Dropbox (Personal)\DOMA\PROJECTS\2112 Keating Residence - 9 Primrose Street Chevy Chase MD\02 CAD\02\_SDX\Leading HAWP 2.dwg"



1 Rear Elevation  
3/16" = 1'-0"

| Date       | Issue Description       |
|------------|-------------------------|
| 06-08-2022 | Chevy Chase Village Set |
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| 07-27-2022 | HAWP Set Resubmission   |
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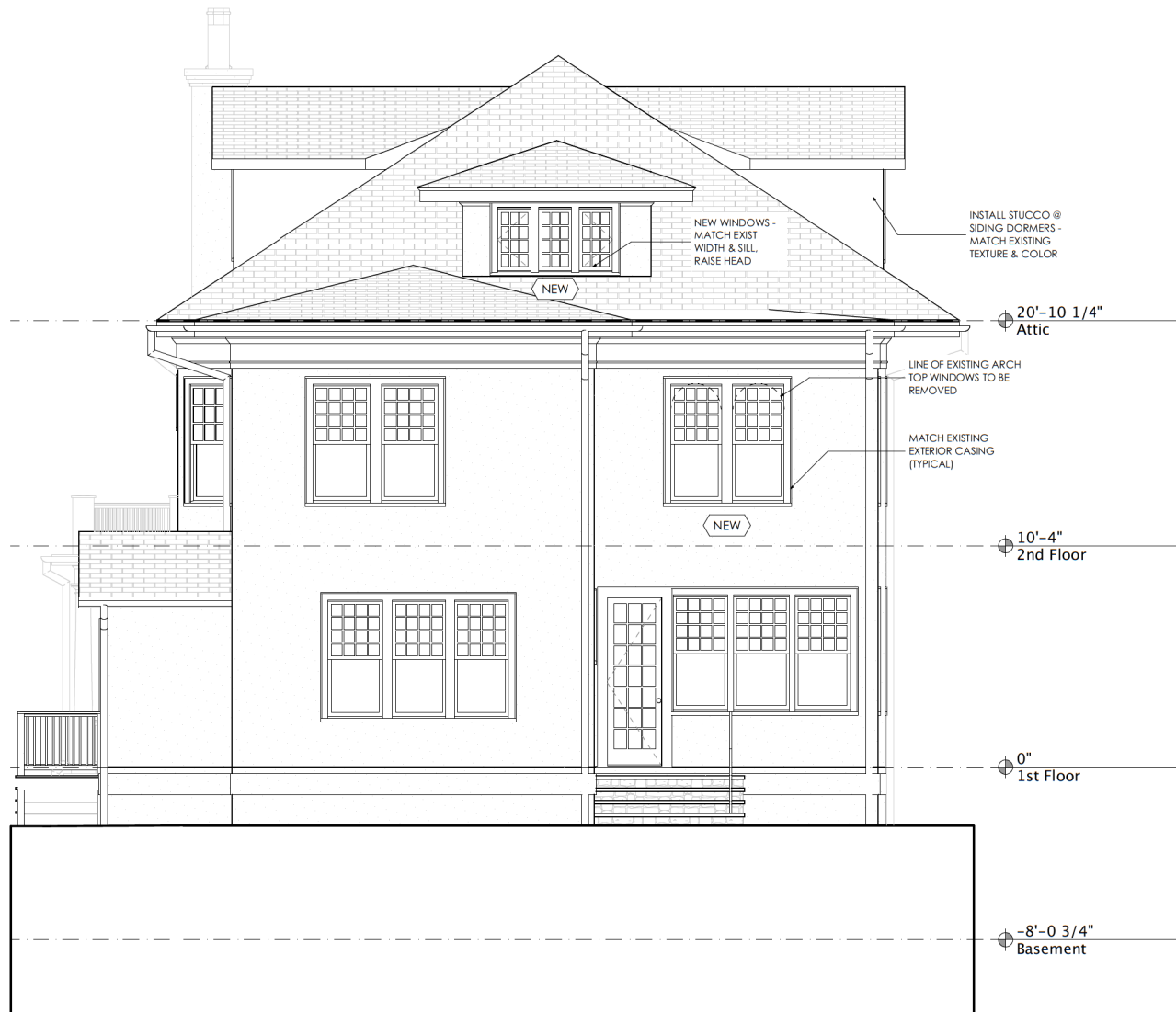
Sheet Title

Existing Rear Elevation

Sheet Number

A2-5

File Name: "C:\Users\DOMA\Dropbox (Personal)\DOMA\A+D\PROJECTS\2112 Keating Residence - 9 Primrose Street Chevy Chase MD\02 CAD\02\_SDX\Leading HAWP 2.dgn



1 Rear Elevation  
3/16" = 1'-0"

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Sheet Title

Proposed Rear Elevation

Sheet Number

A2-6

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# 1 Right Elevation

3/16" = 1'-0"

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Sheet Title

Existing Right Elevation

Sheet Number

A2-7

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# 1 Right Elevation

3/16" = 1'-0"

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Project No. 2112

**Keating  
Residence**  
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Chevy Chase MD 20815

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| 06-08-2022 | Chevy Chase Village Set |
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Sheet Title

Proposed Right Elevation

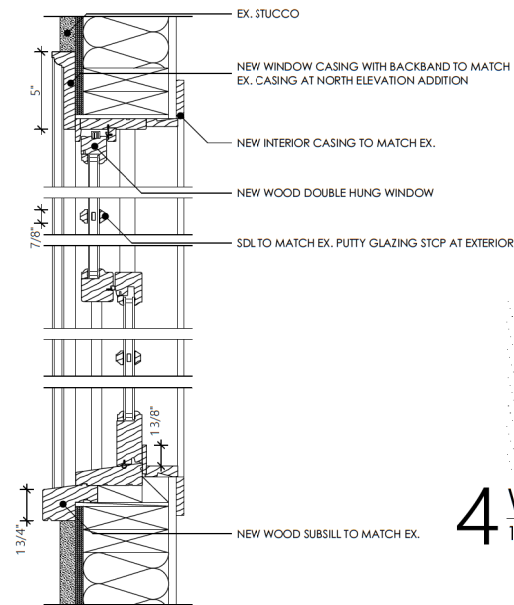
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A2-8

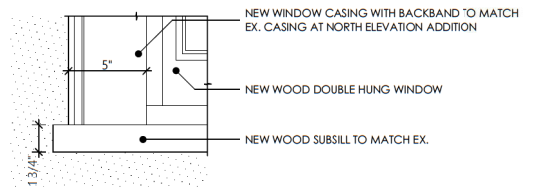
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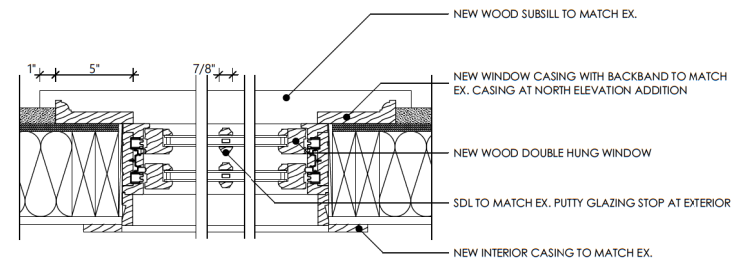
1 Existing Window Detail



2 Window Section  
1 1/2" = 1'-0"



4 Window Elevation  
1 1/2" = 1'-0"



3 Window Plan  
1 1/2" = 1'-0"

A2-9 : Window Details

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1 Front (South) View



3 West Side View



3 East Side View



4 East Side Dormer

| Date       | Issue Description       |
|------------|-------------------------|
| 06-08-2022 | Chevy Chase Village Set |
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Sheet Title

Existing Photos

Sheet Number

A2-10

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1 Rear (North) View



2 Rear Windows to be replaced



3 West Side Dormer



4 West Windows to be replaced

| Date       | Issue Description       |
|------------|-------------------------|
| 06-08-2022 | Chevy Chase Village Set |
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| 07-27-2022 | HAWP Set Resubmission   |
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Sheet Title

Existing Photos

Sheet Number

A2-11

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1 Mudroom Addition View



2 Mudroom Door Leaf



3 Mudroom Foundation



4 Main house foundation

| Date       | Issue Description       |
|------------|-------------------------|
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Sheet Title

Existing Photos

Sheet Number

A2-12

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# EXISTING FRONT DORMER - TO REMAIN





# EXISTING EAST DORMER





EXISTING REAR DORMER





# EXISTING WEST DORMER



# Ultimate Wood Casement Collection

|  |   |
|--|---|
| Unit Features .....  | 1 |
| Insulating Glass Lite Options .....                                      | 3 |
| Optional Interior Square Simulated Divided Lite .....                    | 5 |
| Optional Divided Lite Options - UWCA with UWDH Option .....              | 6 |
| Optional Single Glaze Divided Lite Options - UWCA with UWDH Option ..... | 7 |

## Unit Features

### Ultimate Wood Casement Collection:

Ultimate Wood Casement (UWCA), Ultimate Wood Awning (UWAWN), Ultimate Wood Casement Picture (UWCAP)

Ultimate Wood Casement Bows and Bays (UWCABB)

Ultimate Wood Casement Push Out (UWCAPO), Ultimate Wood Awning Push Out (UWAWNPO)

Ultimate Wood Casement Push Out Picture (UWCAPOP), Wood Ultimate Casement Push Out Bows and Bays (UWCAPOBB)

Ultimate Wood Casement French (UWCAFR), Ultimate Wood Casement Push Out French (UWCAPOFR)

Ultimate Wood Casement Polygon (UWCAPOLY)

Ultimate Wood Awning Push Out Picture (UWAWNPOP)

*Bows and Bays are not available with CE mark from factory. Bows and Bay kits are available for field mulling.*

### Frame:

- Frame thickness: 1 3/16" (30)
- Frame base with pre-drilled installation holes in jambs. Factory applied 2" (51) BMC and 15/16" (24) subsill is standard.
- Full frame unit is 4 9/16" (116) from backside of BMC to interior wood face of frame.
- Replacement frame: units have overall 3 11/32" (85) jambs from BMC to interior face of frame

### Sash:

- Nominal Sash thickness for full frame: 1 3/4" (44) with 3/4" (19) insulating glass. For 1" (25) insulating glass sash thickness is 2" (51).
- Nominal Sash thickness for replacement frame: 1 3/4" (44) with 3/4" (19) insulating glass.
- Stiles and Rails 2 1/16" (52) standard. Optional tall bottom rail 3 9/16" (90) available.
- Standard interior cope sticking shape: Ogee. Optional Ovolo and Square is available depending on glazing option.
- Standard exterior cope sticking shape: Simulated Putty Glaze.

### Hardware: - See Individual Product Chapter

### Weather Strip:

- Frame weather strip is made of a foamed EPDM material with a hollow built in it to reduce compression force. The material is UV resistant, durable, has a low COE, and is flexible enough to be bent around 90 degree corners to allow for fewer seams in it around the frame. It is only available in beige.
- Sash weather strip is made of glass filled polypropylene material and is formulated to be UV resistant, have low COE, and slide easily in and out of frame. Standard color is beige, with optional black or white.

### Insect Screen:

- Standard is a full size roll form aluminum surround, in Satin Taupe, optional Stone White or Bronze. Standard screen mesh is Charcoal Fiberglass. Optional screen mesh is High Transparency, Silver Gray Fiberglass, Charcoal Aluminum, Black Aluminum, Bright Aluminum, or Bright Bronze.
- Optional wood screen available. Standard screen mesh is high transparency. Screen mesh options Charcoal Fiberglass, Silver Gray Fiberglass, Charcoal Aluminum, Black Aluminum, Bright Aluminum, Bright Bronze.

### Wood Interior Swinging Insect Screens: (Push Out Units only)

- Interior and exterior is solid wood.
- Ball and Catch latch system used.
- Screen mesh: Charcoal High Transparency (CH HI-Tran) fiberglass.
- Screen mesh options: Charcoal Fiberglass, Silver Gray Fiberglass, Charcoal Aluminum, Black Aluminum, Bright Aluminum and Bright Bronze.

**Unit Features****Glass and glazing:**

- Glazing seal: silicone glazed
- Standard glass: Insulating Low E2 Argon or air
- Optional glazing available: Low E1 Argon or air, Low E3 Argon or air, Low E2/ERS Argon or air, Low E3/ERS Argon or air, clear, tints, decorative glass, tempered, and obscure
- Insulating glass will be altitude adjusted with capillary tubes for higher elevations
- Argon gas is not available for elevations that require capillary tubes
- See unit features in product sections for Tripane glass options

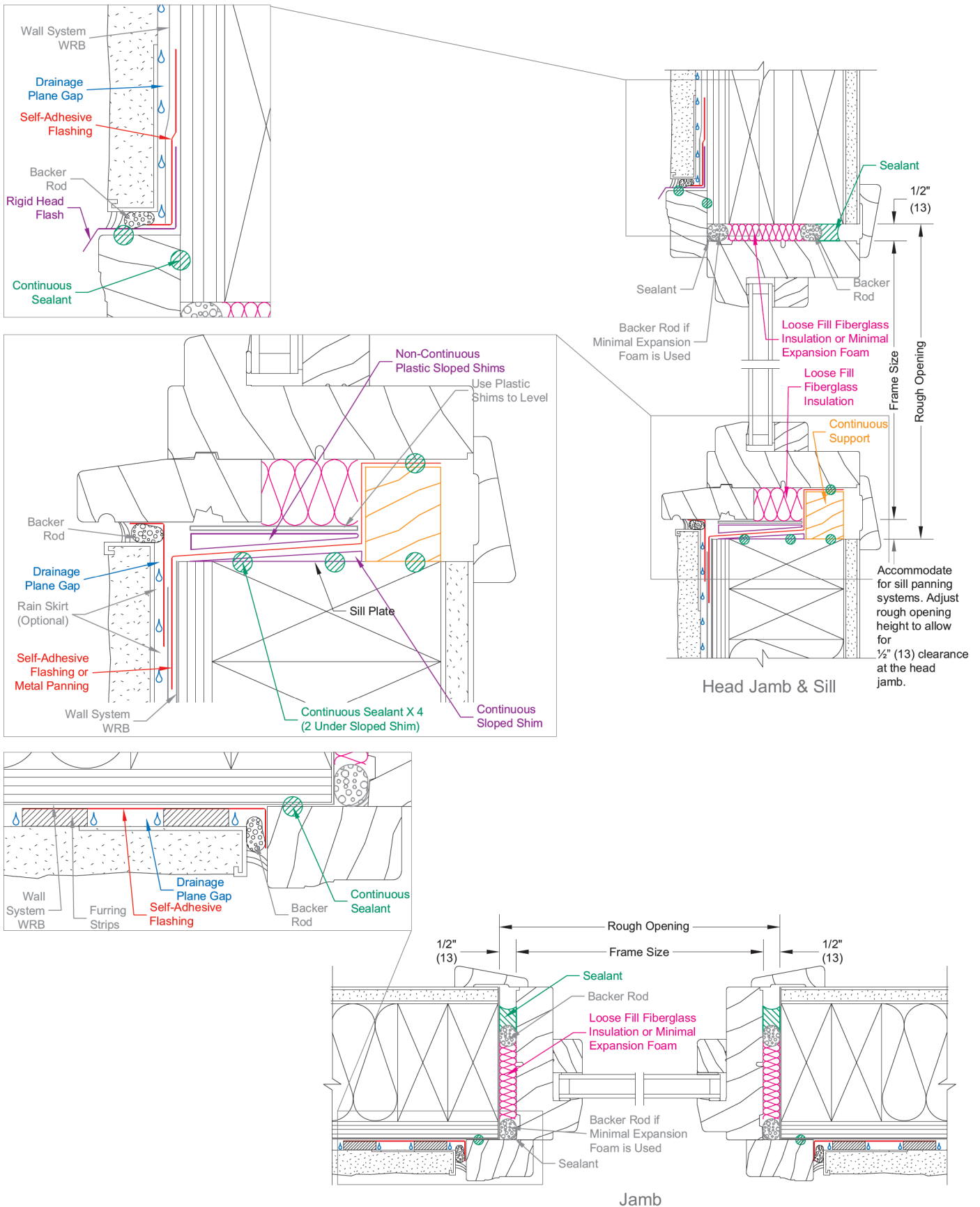
**CE Optional Glazing:**

- Glazing seal: silicone glazed
- Standard glass: Insulating Low E2 Argon or air
- Optional glazing available: Low E1 Argon or air, Low E3 Argon or air, clear, laminated clear & tints, tempered, sandblasted
- Glass panes available in 3, 4, and 6 mm thicknesses
- Laminated panes available in 7.0 and 7.8 mm thicknesses
- Insulating glass will be altitude adjusted with capillary tubes for higher elevations
- Argon gas is not available for elevations that require capillary tubes
- See unit features in product sections for Tripane glass options
- Single glaze and ADL are not available with CE mark

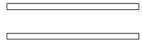


# Ultimate Wood Direct Glaze Polygon - 2x4 Frame with Stucco

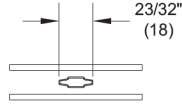
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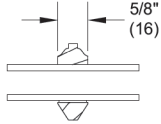
**Insulating Glass Lite Options**



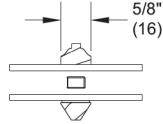
Insulating Glass



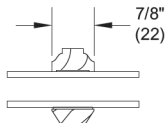
Aluminum 23/32"  
Contour GBG



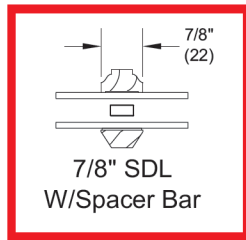
5/8" SDL



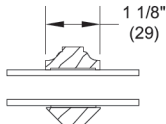
5/8" SDL  
W/Spacer



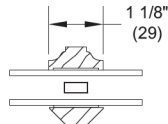
7/8" SDL



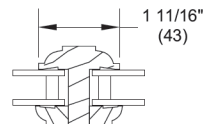
7/8" SDL  
W/Spacer Bar



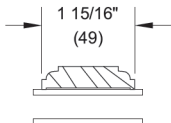
1 1/8" SDL



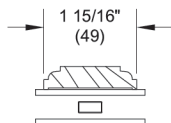
1 1/8" SDL  
W/Spacer Bar



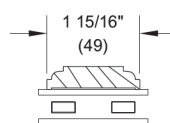
1 11/16" IG ADL



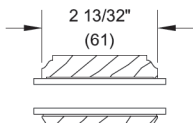
1 15/16" SDL



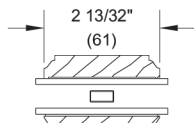
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W/One Spacer Bar



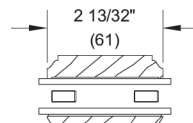
1 15/16" SDL  
W/Two Spacer Bar



2 13/32" SDL



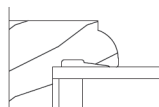
2 13/32" SDL  
W/One Spacer Bar



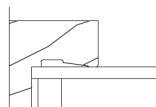
2 13/32" SDL  
W/Two Spacer Bar

NOTE: ADL is not available with CE mark

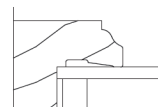
**Ovolo**



**Square**



**Ogee**



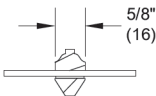
Single Glaze Lite Options



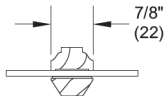
Single Glaze



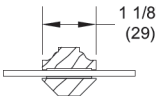
Single Glaze  
W/ Energy Panel



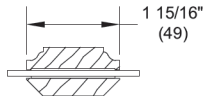
5/8" SDL



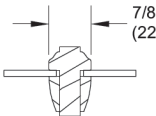
7/8" SDL



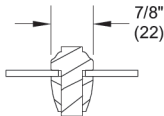
1 1/8" SDL



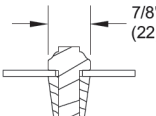
1 15/16" SDL



7/8" SG-ADL



7/8" SG-ADL  
W/ Energy Panel

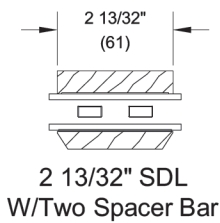
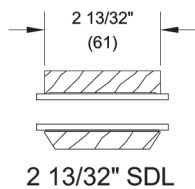
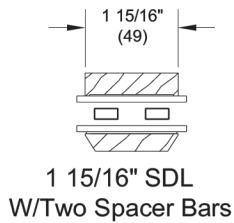
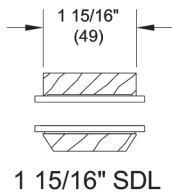
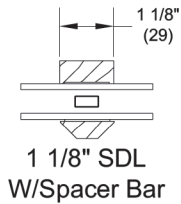
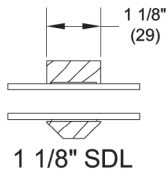
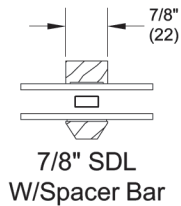
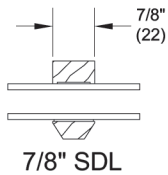
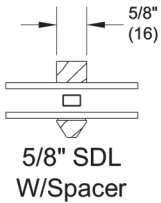
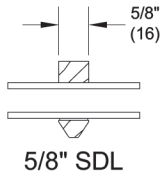


7/8" SG-ADL  
Full Depth Munt

NOTE: ADL and single glaze are not available with CE mark



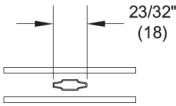
Optional Interior Square Simulated Divided Lite



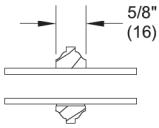
Optional Divided Lite Options - UWCA with UWDH Option



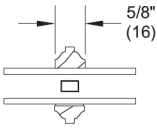
Insulating Glass



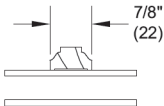
Aluminum 23/32" Contour GBG



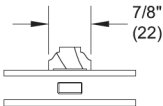
5/8" SDL



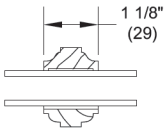
5/8" SDL W/Spacer



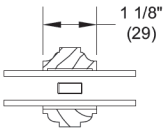
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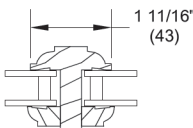
7/8" SDL W/Spacer Bar



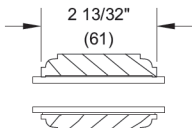
1 1/8" SDL



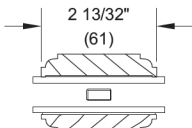
1 1/8" SDL W/Spacer Bar



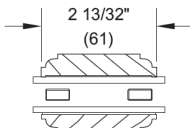
1 11/16" IG ADL



2 13/32" SDL



2 13/32" SDL W/One Spacer Bar



2 13/32" SDL W/Two Spacer Bar

NOTE: ADL is not available with CE mark

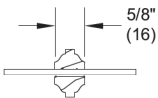
Optional Single Glaze Divided Lite Options - UWCA with UWDH Option



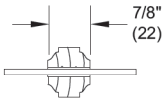
Single Glaze



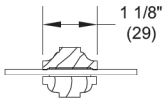
Single Glaze  
W/ Energy Panel



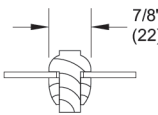
5/8" SDL



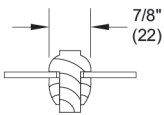
7/8" SDL



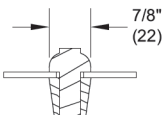
1 1/8" SDL



7/8" SG-ADL



7/8" SG-ADL  
W/ Energy Panel



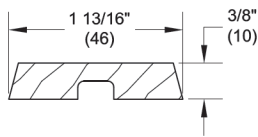
7/8" SG-ADL  
Full Depth Munt

NOTE: Single glaze and ADL are not available with CE mark

## Wood Exterior Mullion Trim and Wood Exterior Casing

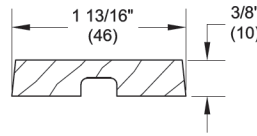
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### Wood Exterior Mullion Trim



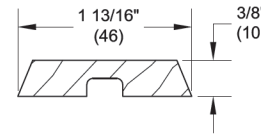
W1185

**W1034 - For Ultimate Gilder**



W1189

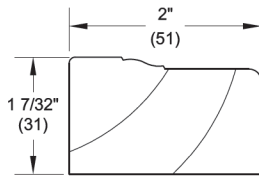
**W1094 - For Ultimate Wood Double Hung Magnum**



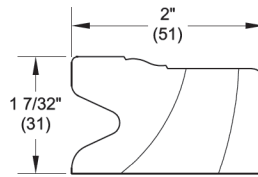
W1187

**W1242 - for 3/8\"**

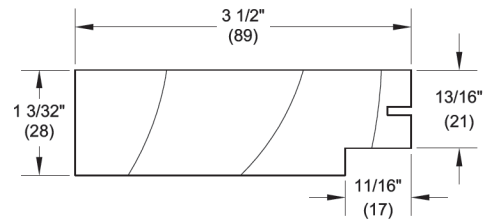
### Exterior Casing



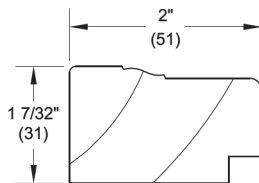
**W1047 - Brick Mould Casing**



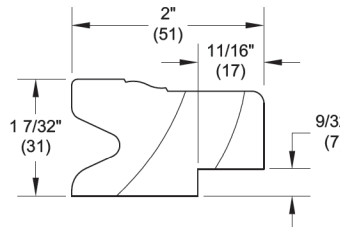
**W1039 - Stucco Brick Mould Casing**



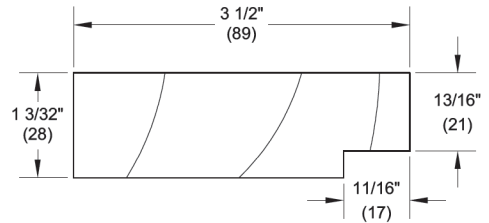
**W1047 - Flat Casing**  
Top casing for Sliding, Swinging and French Doors Includes Screen Kerf



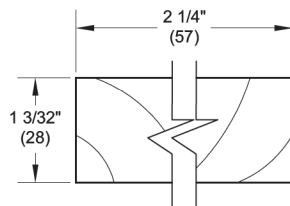
**W6533 - Brick Mould Casing For Ultimate Sliding French Door**



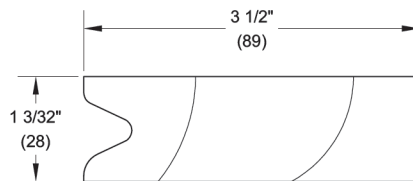
**W1049 - Stucco Brick Mould Casing**  
Side Casing for Ultimate Sliding, Swinging and French Doors



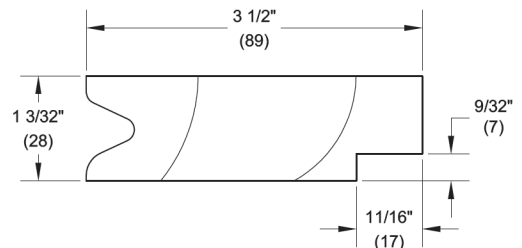
**W1076 - Flat Casing**  
Side Casing for Ultimate Sliding, Swinging and French Doors



**Flat Casing**  
available from 2\"



**W1035 - Stucco Flat Casing**  
3 1/2\"

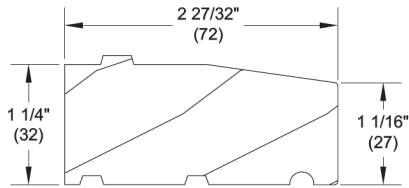


**W1030 - Stucco Flat Casing**  
3 1/2\"

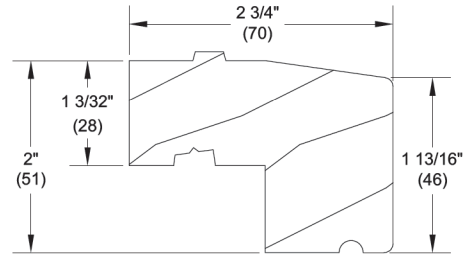
NOTE: 5/4 casing greater than 10\", contact your Marvin representative

## Wood Subsills

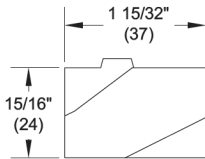
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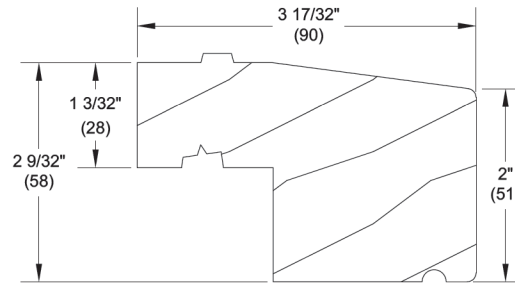
W2122 - Narrow Subsill



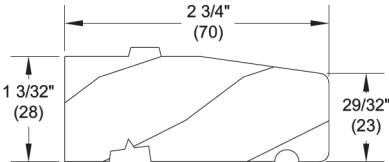
W2165 - 2" Thick Subsill (UWDH)



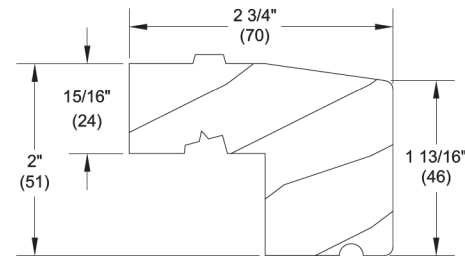
W2124 - Cut Back Subsill



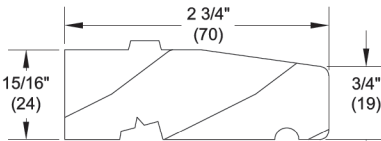
W8063 - 2" Extended Thick Subsill (UWDH)



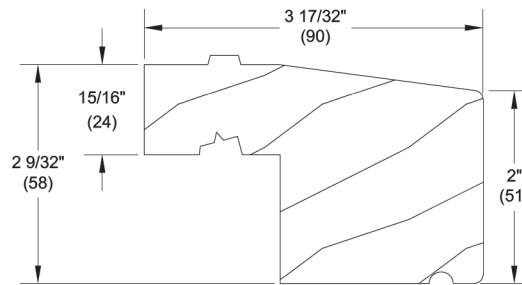
W2134 - Subsill (UWDH)



W10340 - 2" Simulated Thick Subsill (UWCA)



W10333 - Subsill (UWCA)

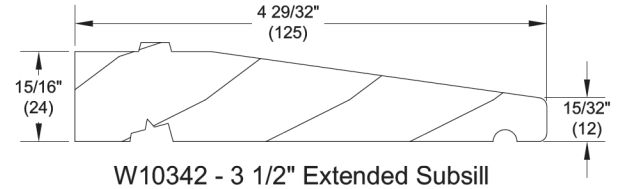
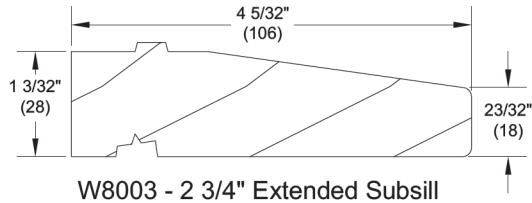
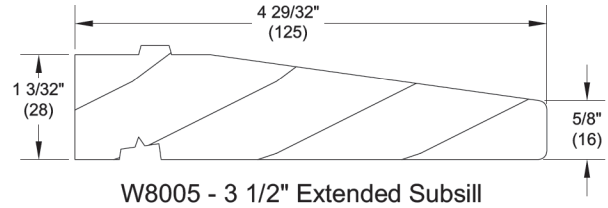
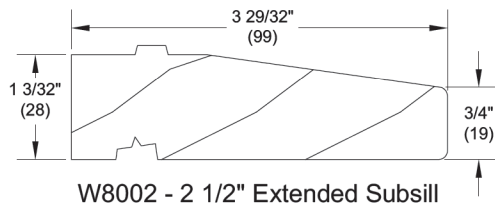


W10341 - 2" Extended Simulated Thick Subsill (UWCA)

NOTE: For product compatibility, see chart on next page.

## Wood Subsills

Not to Scale



NOTE: For product compatibility, see chart below.

| Part # | Description                         | Product Compatibility  |
|--------|-------------------------------------|--|
| W8063  | 2" Simulated Thick Subsill          | UWDH, UWDHP, UWDHT, UWDH RT, UWDHRTTP, UWDHRTTR, UWDHM, UWDHMP, UWDHMT, UWDHMRT, UWDHMRTTP, UWDHMRTTR  |
| W10341 | 2" Extended Simulated Thick Subsill | UWCA, UAWN, UWCAP, UWCAPO, UAWNPPO, UWCAPOP, UWCART, UWDG, UWGL, UWCAPOLY, UWCAFR, UWCAPOFR            |
| W10340 | 2" Simulated Thick Subsill          | UWCA, UAWN, UWCAP, UWCAPO, UAWNPPO, UWCAPOP, UWCART, UWDG, UWGL, UWCAPOLY, UWCAFR, UWCAPOFR            |
| W2165  | 2" Simulated Thick Subsill          | UWDH, UWDHP, UWDHT, UWDH RT, UWDHRTTP, UWDHRTTR, UWDHM, UWDHMP, UWDHMT, UWDHMRT, UWDHMRTTP, UWDHMRTTR  |
| W2122  | Narrow Subsill                      | UWTT   |
| W2124  | Cut Back Subsill                    | UWTT   |
| W2134  | Subsill                             | UWDH, UWDHP, UWDHT, UWDH RT, UWDHRTTP, UWDHRTTR, UWDHM, UWDHMP, UWDHMTR, UWDHMRT, UWDHMRTTP, UWDHMRTTR |
| W10333 | Subsill                             | UWCA, UAWN, UWCAP, UWCAPO, UAWNPPO, UWCAPOP, UWCART, UWDG, UWGL, UWCAPOLY, UWCAFR, UWCAPOFR            |
| W2120  | Extended Subsill                    | UWTT   |
| W8002  | 2 1/2" Extended Subsill             | UWDH, UWDHP, UWDHT, UWDH RT, UWDHRTTP, UWDHRTTR, UWDHM, UWDHMP, UWDHMTR, UWDHMRT, UWDHMRTTP, UWDHMRTTR |
| W8003  | 2 3/4" Extended Subsill             | UWDH, UWDHP, UWDHT, UWDH RT, UWDHRTTP, UWDHRTTR, UWDHM, UWDHMP, UWDHMTR, UWDHMRT, UWDHMRTTP, UWDHMRTTR |
| W8004  | 3" Extended Subsill                 | UWDH, UWDHP, UWDHT, UWDH RT, UWDHRTTP, UWDHRTTR, UWDHM, UWDHMP, UWDHMTR, UWDHMRT, UWDHMRTTP, UWDHMRTTR |
| W8005  | 3 1/2" Extended Subsill             | UWDH, UWDHP, UWDHT, UWDH RT, UWDHRTTP, UWDHRTTR, UWDHM, UWDHMP, UWDHMTR, UWDHMRT, UWDHMRTTP, UWDHMRTTR |
| W10342 | 3 1/2" Extended Subsill             | UWCA, UAWN, UWCAP, UWCAPO, UAWNPPO, UWCAPOP, UWCART, UWDG, UWGL, UWCAPOLY, UWCAFR, UWCAPOFR            |

**Section 08 52 00**  
**Ultimate Wood Casement/Awning IZ3 Collection**

**Part 1 General**

**1.1 Section Includes**

- A. Ultimate Wood Casement/Awning Window: Operators, Stationary and Picture units complete with hardware, glazing, weather strip, insect screen, removable screen, grilles-between-the-glass, simulated divided lite, jamb extension, and standard or specified anchors, trim and attachments.

**1.2 Related Sections**

- A. Section 01 33 23 – Submittal Procedures; Shop Drawings, Product Data and Samples
- B. Section 01 62 00 – Product Options
- C. Section 01 65 00 – Product Delivery
- D. Section 01 66 00 – Storage and Handling Requirements
- E. Section 01 71 00 – Examination and Preparation
- F. Section 01 73 00 - Execution
- G. Section 01 74 00 – Cleaning and Waste Management
- H. Section 01 76 00 – Protecting Installed Construction
- I. Section 06 22 00 – Millwork: Wood trim other than furnished by window manufacturer
- J. Section 07 92 00 – Joint Sealant: Sill sealant and perimeter caulking
- K. Section 09 90 00 – Painting and Coasting: Paint and stain other than factory-applied finish

**1.3 References**

- A. American Society for Testing Materials (ASTM):
  - 1. E283: Standard Test method for Rate of Air Leakage through Exterior Windows, Curtain Walls and Doors
  - 2. E330: Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls and Door by Uniform Static Air Pressure Difference
  - 3. E547: Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls and Doors by Cyclic Static Air Pressure Differential
  - 4. E2190: Specification for Sealed Insulated Glass Units
  - 5. C1036: Standard Specification for Flat Glass

6. E1996: Standard Specification or Performance of Exterior Windows, Curtain Walls, Door and Storm Shutters Impacted by Windborne Debris in Hurricanes
  7. E1886: Standard Test Method for Performance Windows, Curtain Walls, Doors and Storm Shutters Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials
- B. American Architectural Manufacturer's Association/Window and Door Manufacturer's Association (AAMA/WDMA/CSA):
1. AAMA/WDMA/CSA 101/I.S.2/A440-05, Standard/Specification for window, doors and unit skylights
  2. AAMA/WDMA/CSA 101/I.S.2/A440-08, North American Fenestration, Standard/Specification for window, doors and skylights
  3. AAMA/WDMA/CSA 101/I.S.2/A440-11,NAFS 2011 – North American Fenestration, Standard/Specification for windows, doors and skylights
- C. WDMA I.S.4: Industry Standard for Water Repellant Preservative Treatment for Millwork
- D. Window and Door Manufacturer's Association (WDMA): 101/I.S.2 WDMA Hallmark Certification Program
- E. Sealed Insulating Glass Manufacturer's Association/Insulating Glass Certification Council (SIGMA/IGCC)
- F. American Architectural Manufacturer's Association (AAMA): 2605: Voluntary Specification for High Performance Organic Coatings on Architectural Extrusions and Panels
- G. National Fenestration rating Council (NFRC):
1. 101: Procedure for Determining Fenestration Product thermal Properties
  2. 200: Procedure for Determining Solar Heat Grain Coefficients at Normal Incidence

## 1.4 System Description

- A. Design and Performance Requirements:



| IZ3 Minimum and Maximum Frame Size |  |           |       |            |       |           |        |            |        |
|------------------------------------|--|-----------|-------|------------|-------|-----------|--------|------------|--------|
| Unit Type                          |  | Min Width |       | Min Height |       | Max Width |        | Max Height |        |
|                                    |  | in        | mm    | in         | mm    | in        | mm     | in         | mm     |
| UWCA                               | Insulating Glass<br>3/4" (19) or 1" (25) | 14        | (356) | 12 7/16    | (316) | 36        | (914)  | 84 1/16    | (2135) |
| UWCA                               | Insulating Glass<br>3/4" (19) or 1" (25) | 14        | (356) | 12 7/16    | (316) | 30        | (762)  | 96 1/16    | (2440) |
| UWAWN                              | Insulating Glass<br>3/4" (19) or 1" (25) | 16        | (406) | 11 1/2     | (292) | 48        | (1219) | 54 1/16    | (1373) |
| UWCAP                              | Insulating Glass<br>3/4" (19) or 1" (25) | 12        | (305) | 11 1/8     | (283) | 71 1/8    | (1807) | 36 15/16   | (938)  |
|                                    |  |           |       |            |       | 36        | (914)  | 72 1/16    | (1830) |
| UWCAP                              | Insulating Glass<br>1" (25) - Tempered   | 12        | (305) | 11 1/8     | (283) | 78 1/16   | (1983) | 73 9/16    | (1868) |
|                                    |  |           |       |            |       | 104 45/64 | (2659) | 60 15/16   | (1548) |
|                                    |  |           |       |            |       |           |        |            |        |

1. Window units shall be designed to comply with ASTM E1996 Wind Zone 3 Missile Level D Rating +65/-65 psf
2. Air leakage shall not exceed the following when tested at 6.24 psf according to ASTM E283: 0.30 cfm per square foot of frame
3. No water penetration when tested at the following pressure according to ASTM E547: 9.75 psf
4. Assembly shall withstand a positive or negative uniform static air pressure difference of 97.5 psf without damage when tested according to ASTM E330
5. Impact and Cycling per ASTM E1996 and E 1886 with passing results for Missile Level D and Pressure Cycling of +65/-65 psf

## **1.5 Submittals**

- A. Shop Drawings: Submit shop drawings under provision of Section 01 33 23
- B. Product Data: Submit catalog data under provision of Section 01 33 23
- C. Samples:
  1. Submit corner section under provision of section 01 33 23
  2. Include glazing system, quality of construction and specified finish
- D. Quality Control Submittals: Certificates: submit manufacturer's certification indicating compliance with specified performance and design requirement under provision of section 01 33 23

## **1.6 Quality Assurance**

- A. Requirements: consult local code for IBC [International Building Code] and IRC [International Residential Code] adoption year and pertinent revisions for information on:
  1. Egress, emergency escape and rescue requirements
  2. Basement window requirements
  3. Windows fall prevention and/or window opening control device requirements

## **1.7 Delivery**

- A. Comply with provisions of Section 01 65 00
- B. Deliver in original packaging and protect from weather

## 1.8 Storage and Handling

- A. Prime and seal wood surfaces, including to be concealed by wall construction, if more than thirty (30) days will expire between delivery and installation
- B. Store window units in an upright position in a clean and dry storage area above ground to protect from weather under provision of Section 01 66 00

## 1.9 Warranty

Complete and current warranty information is available at [marvin.com/warranty](http://marvin.com/warranty). The following summary is subject to the terms, condition, limitations and exclusions set forth in the Marvin Windows and Door Limited Warranty and Products in Coastal Environments Limited Warranty Supplement:

- A. Clear insulating glass with stainless steel spacers is warranted against seal failure caused by manufacturing defects and resulting in visible obstruction through the glass for twenty (20) years from the original date of purchase. Glass is warranted against stress cracks caused by manufacturing defects from ten (10) years from the original date of purchase.
- B. Factory applied interior finish is warranted to be free from finish defects for a period of five (5) years from the original date of purchase.
- C. Hardware and other non-glass components are warranted to be free from manufacturing defects for ten (10) years from the original date of purchase.

## Part 2 Products

### 2.1 Manufactured Units

- A. Description: Factory-assembled Ultimate Wood Casement/Awning as manufactured by Marvin, Warroad, Minnesota.

### 2.2 Frame Description

- A. Non Finger-Jointed Pine or finger-jointed core with non finger-jointed Pine veneer; non finger-jointed Mahogany or finger-jointed core with non finger-jointed Mahogany veneer; non finger-jointed Vertical Grain Douglas Fir or finger-jointed with non finger-jointed Vertical Grain Douglas Fir veneer
  - 1. Kiln-dried to moisture content no greater than 12 percent at the time of fabrication
  - 2. Water repellant, preservative treated in accordance with ANSI/WDMA I.S.4
- B. Frame thickness: 1 3/16" (30mm)

- C. Frame depth: overall 5 21/32" jamb (144mm). 4 9/16" (116mm) jamb depth from the nailing fin plane to the interior face of the frame for new construction

## 2.3 Sash Description

- A. Interior: Non Finger-Jointed Pine or finger-jointed core with non finger-jointed Pine veneer; non finger-jointed Mahogany or finger-jointed core with non finger-jointed Mahogany veneer; non finger-jointed Vertical Grain Douglas Fir or finger-jointed with non finger-jointed Vertical Grain Douglas Fir veneer
  - 1. Kiln-dried to moisture content no greater than twelve (12) percent at the time of fabrication
  - 2. Water repellant preservative treated with accordance with WDMA I.S.4
- B. Sash thickness: Sash thickness is 1 3/4" (44mm) and 2" (51mm)
- C. Stiles and Rails: 2 1/16" (52mm)
- D. Sash Options: Optional tall bottom rail: 3 9/16" (90mm)
- E. Interior Sash Sticking
  - 1. Standard: Ogee
  - 2. Optional: Square Sticking and Ovolo Profile

## 2.4 Glazing

- A. Select quality complying with ASTM C1036. Insulating glass SIGMA/IGCC certified to performance level CBA when tested in accordance with ASTM E2190
- B. Glazing method: Insulating glass, consisting of inboard lite of laminated glass. Exterior glass is standard annealed glass with optional tempered glass available.
- C. Glazing seal: Silicone bedding at interior and exterior
- D. Glass Type: Clear, Tempered, Obscure, Laminated, Low E2 with or without Argon, Low E3 with or without Argon, Low E1 with or without Argon

## 2.5 Finish

- A. Interior/Exterior: Treated bare wood
  - 1. Prime: Factory-applied enamel primer. Available on Pine product only.
- B. Interior Finish options:
  - 1. Painted Interior Finish. Available on Pine product only.

2. Factory-applied water-borne acrylic enamel clear coat. Applied in two separate coats with light sanding between coats. Available on Pine, Mahogany, and Vertical Grain Douglas Fir.
3. Factory-applied water-borne urethane stain. Stain applied over a wood (stain) conditioner. A water-borne acrylic enamel clear coat applied in two separate coats, with light sanding between coats, applied over the stain. Available on Pine, Mahogany, and Vertical Grain Douglas Fir. Colors available: Wheat, Honey, Hazelnut, Leather, Cabernet, and Espresso.

## 2.6 Hardware

### A. Casement Crank Out operating hardware:

1. Locks: Multi-point sequential concealed locking system in the jamb opposite the hinge side for casement units. Lock handles are removable, non-handed are available in the same finishes as the handles. Standard tie bars, cams and keepers – steel coated with E-Gard™. Keeper features a roller for reduce average lock force and does not easily disengage with the cam even under severe loading. Stainless steel packages are available for coastal application.
2. Handles: Standard operating handle is a folding handle, zinc plated with the standard folding cover being molded plastic. Available colors: standard is Satin Taupe (painted), White (painted), Bronze (painted), Matte Black (painted), Satin Chrome (plated), Satin Nickel (plated), Oil Rubbed Bronze (plated), Brass (plated), Antique (plated)
3. Hinges: One at the sill to bottom rail and one at the head jamb to top rail. Hinges are steel coated with E-Gard™. Hinge track is stainless steel. Units with frame OM of 20" (508mm) and greater use an 18" (457mm) wash/egress hinge or 22" (559mm) wash/egress hinge to allow the sash to slide across the frame opening which causes the sash exterior to rotate towards the user for easy washing. Units under 20" (508mm) use dyad hinges. Using the dyad hinges means that the slide across feature, for easy washing, is no longer a feature.

### B. Awning Crank Out:

1. Hinges: There are two hinges that connect the stiles of the sash to the jambs of the frame. The hinges are steel coated with E-Gard™, and the hinge track is stainless steel.
2. Operating Hardware: Single arm standard, coated with E-Gard™
3. Handles: The standard operating handle is a folding handle, zinc painted with the standard folding cover being molded plastic. Available colors: standard is Satin Taupe (painted), White (painted), Bronze (painted), Matte Black (painted), Satin Chrome (plated), Satin Nickel (plated), Oil Rubbed Bronze (plated), Brass (plated), Antique Brass (plated)
4. Locks: Multi-point, sequential, concealed locking system. Lock handles are removable, non-handed, and are available in the same finishes as handles. Standard tie bar, cams and keeps are steel coated with E-Gard™.

## 2.7 Weather Strip

- A. Weather strip at the frame is a hollow foamed material bent around 90 degree corner to allow for seamless corner joints
  - 1. Color: Beige
- B. Sash weather strip bulb shaped glass filled material
  - 1. Color: White, beige or black

## 2.8 Jamb Extension

- A. Jamb extensions are available for various wall thickness factory-applied up to a 12" (305mm) wide
- B. Finish: Match interior frame finish

## 2.9 Insect Screen

- A. Aluminum frame finish is available in Satin Taupe, Bronze, Stone White, or Ebony
- B. Screen mesh: Charcoal Fiberglass, Charcoal Aluminum White, Black Aluminum Wire, Bright Aluminum Wire, Bright Bronze Wire, High Transparency Mesh (Hi-Tran) Charcoal Fiberglass
- C. Optional Wood Screen Surround with Hi-Tran Fiberglass Screen. Species will match unit species.

## 2.10 Simulated Divided Lites (SDL)

- A. 5/8" (16mm) wide, 7/8" (22mm) wide, 1 1/8" (29mm), 1 15/16" (49mm), 2 13/32" (61mm) wide with or w/out internal spacer bar.
- B. Muntins: Pine, Mahogany, or Vertical Grain Douglas Fir.
- C. Muntins adhere to glass with closed-cell copolymer acrylic foam tape.
- D. Sticking:
  - 1. Standard: Ogee
  - 2. Optional: Square
- E. Pattern: Rectangular, diamond, custom lite cut
- F. Finish: Match panel finish

## 2.11 Grilles-Between-the-Glass (GBG)

- A. Offered on 1" glazing only



- B. 23/32" (18mm) contoured aluminum bar
  - 1. Exterior Colors: Stone White. The use of different types of glazing may alter the exterior GBG color appearance.
  - 2. Interior Colors: Stone White, Bronze, Pebble Gray, Sierra, White, Ebony (only available with Ebony exterior).
- C. Optional flat aluminum spacer bar. Contact your Marvin representative
- D. Pattern: Rectangular, Cottage, Custom lite layout

## **2.12 Accessories and Trim**

- A. Installation Accessories:
  - 1. Factory installed vinyl nailing/drip cap
  - 2. Installation brackets: 6 3/8" (162mm), 9 3/8" (283mm), 15 3/8" (390mm)
  - 3. Masonry brackets: 6" (152mm), 10" (254mm)
- B. Exterior Wood Moulding:
  - 1. Profile: Brick Mould Casing (BMC), Flat Casing, Stucco Brick Mould, Stucco Flat Casing, Special Casing 3 (SPC3), Special Casing 7 (SPC7), Special Casing 21 (SPC21), Special Casing 18 (SPC18), Special Casing 26 (SPC26)
  - 2. Finish: Match exterior frame finish
- C. Cedar Dress:
  - 1. Subsill
  - 2. Brick Mould and Flat Casing
  - 3. Mull Covers
  - 4. Available on Pine frames
  - 5. Bare cedar

## **Part 3 Execution**

### **3.1 Examination**

- A. Verification of Condition: Before installation, verify openings are plumb, square and of proper dimensions as required in Section 01 71 00. Report frame defects or unsuitable conditions to the General contractor before proceeding.
- B. Acceptance of Condition: Beginning on installation confirms acceptance of existing conditions.

### **3.2 Installation**

- A. Comply with Section 01 73 00.
- B. Assemble and install window/door unit(s) according to manufacturer's instruction and reviewed shop drawing.
- C. Install sealant and related backing materials at perimeter of unit or assembly in accordance with Section 07 92 00 Joint Sealants. Do not use expansive foam sealant.
- D. Install accessory items as required.
- E. Use finish nails to apply wood trim and mouldings.

### **3.3 Field Quality Control**

- A. Remove visible labels and adhesive residue according to manufacturer's instruction.
- B. Unless otherwise specified, air leakage resistance tests shall be conducted at a uniform static pressure of 75 Pa (~1.57 psf). The maximum allowable rate of air leakage shall not exceed 2.3 L/sm<sup>2</sup> (~0.45 cfm/ft<sup>2</sup>).
- C. Unless otherwise specified, water penetration resistance testing shall be conducted per AAMA 502 and ASTM E1105 at 2/3 of the fenestration products design pressure (DP) rating using "Procedure B" – cyclic static air pressure difference. Water penetration shall be defined in accordance with the test method(s) applied.

### **3.4 Cleaning**

- A. Remove visible labels and adhesive residue according to manufacturer's instruction.
- B. Leave windows and glass in a clean condition. Final cleaning as required in Section 01 74 00.

### **3.5 Protecting Installed Construction**

- A. Comply with Section 07 76 00.
- B. Protecting windows from damage by chemicals, solvents, paint or other construction operations that may cause damage.

End of Section



# Ultimate Wood Swinging French Doors

|   |    |
|---|----|
| Standard Unit Measurements.....   | 1  |
| Standard Unit Measurements: In-Sash Transoms .....                            | 2  |
| Standard Unit Measurements: Direct Glaze Rectangle / Transom .....            | 3  |
| Standard Door Round Top Rough Opening and Field Mulling Guide .....           | 4  |
| Inswing and Outswing Certified Sizes and Ratings.....                         | 5  |
| Minimum and Maximum Guidelines: Door and In-Sash Transoms.....                | 6  |
| Minimum and Maximum Guidelines: Direct Glaze Rectangle / Transom .....        | 7  |
| Measurement Conversions .....   | 8  |
| Net Clear Openings: Inswing.....  | 9  |
| Net Clear Opening: Outswing.....  | 10 |
| Inswing Section Details: Operating .....                                      | 11 |
| Inswing Section Details: Stationary and Sidelite .....                        | 12 |
| Inswing Section Details: In-Sash Transom.....                                 | 13 |
| Inswing Section Details: Standard Sliding and Standard Swinging Screens ..... | 14 |
| Inswing Section Details: Ultimate Sliding Screen.....                         | 15 |
| Inswing Section Details: Ultimate Swinging Screen .....                       | 16 |
| Inswing Section Details: Combination .....                                    | 17 |
| Inswing Section Details: In-Sash Transom Configurations .....                 | 18 |
| Inswing Section Details: Short Bottom Rail .....                              | 19 |
| Inswing Section Details: Flat Panel Placement.....                            | 20 |
| Inswing Section Details: Raised Panel Placement.....                          | 21 |
| Outswing Section Details: Operating.....                                      | 22 |
| Outswing Section Details: Stationary and Sidelite .....                       | 23 |
| Outswing Section Details: In-Sash Transom.....                                | 24 |
| Outswing Section Details: Operating Panel Configurations .....                | 25 |
| Outswing Section Details: In-Sash Transom Configurations.....                 | 26 |
| Outswing Section Details: Short Bottom Rail .....                             | 27 |
| Outswing Section Details: Flat Panel Placement .....                          | 28 |
| Outswing Section Details: Raised Panel Placement.....                         | 29 |
| Inswing/Outswing Section Details: Direct Glaze Transom .....                  | 30 |
| Inswing/Outswing Section Details: Round Top Direct Glaze.....                 | 31 |



## Standard Unit Measurements

| Standard Inswing and Outswing Unit Measurements |             |                 |        |               |        |            |        |                                    |                                   |                                  |        |            |        |
|---|-------------|-----------------|--------|---------------|--------|------------|--------|------------------------------------|-----------------------------------|----------------------------------|--------|------------|--------|
| Width   |             |                 |        |               |        |            |        |                                    |                                   |                                  |        |            |        |
| Unit Type                                       | Call Number | Masonry Opening |        | Rough Opening |        | Frame Size |        | Panel OM                           |                                   | Daylight Opening                 |        | Glass Size |        |
|   |             | ft - in         | mm     | ft - in       | mm     | ft - in    | mm     | ft-in                              | mm                                | ft - in                          | mm     | in         | mm     |
| Sidelite  | 1-6         | 1-10 31/32      | (583)  | 1-8 27/32     | (529)  | 1-7 27/32  | (504)  | 1-5 15/32                          | (444)                             | 0-11 1/2                         | (292)  | 12 13/16   | (325)  |
| 1 Panel   | 2-6R        | 2-9 3/4         | (857)  | 2-7 5/8       | (803)  | 2-6 5/8    | (778)  | 2-4 1/4                            | (718)                             | 1-6 25/32                        | (477)  | 20 3/32    | (510)  |
|   | 3-0R        | 3-3 3/4         | (1010) | 3-1 5/8       | (956)  | 3-0 5/8    | (930)  | 2-10 1/4                           | (870)                             | 2-0 25/32                        | (629)  | 26 3/32    | (663)  |
|   | 2-0         | 2-4 9/16        | (726)  | 2-2 7/16      | (672)  | 2-1 7/16   | (646)  | 1-11 1/16                          | (586)                             | 1-1 19/32                        | (345)  | 14 29/32   | (379)  |
|   | 2-6         | 2-10 9/16       | (878)  | 2-8 7/16      | (824)  | 2-7 7/16   | (799)  | 2-5 1/16                           | (738)                             | 1-7 19/32                        | (498)  | 20 29/32   | (531)  |
|   | 2-8         | 3-0 9/16        | (929)  | 2-10 7/16     | (875)  | 2-9 7/16   | (849)  | 2-7 1/16                           | (789)                             | 1-9 19/32                        | (548)  | 22 29/32   | (582)  |
|   | 3-0         | 3-4 9/16        | (1030) | 3-2 7/16      | (976)  | 3-1 7/16   | (951)  | 2-11 1/16                          | (891)                             | 2-1 19/32                        | (650)  | 26 29/32   | (683)  |
|   | 3-6         | 3-10 9/16       | (1183) | 3-8 7/16      | (1129) | 3-7 7/16   | (1103) | 3-5 1/16                           | (1043)                            | 2-7 19/32                        | (802)  | 32 29/32   | (836)  |
| 2 Panel   | 5-0R*       | 5-2 1/8         | (1578) | 5-0           | (1524) | 4-11       | (1499) | 2-4 1/4                            | (718)                             | 1-6 25/32                        | (477)  | 20 3/32    | (510)  |
|   | 6-0R*       | 6-2 1/8         | (1883) | 6-0           | (1829) | 5-11       | (1803) | 2-10 1/4                           | (870)                             | 2-0 25/32                        | (629)  | 26 3/32    | (663)  |
|   | 4-0         | 4-3 3/4         | (1314) | 4-1 5/8       | (1260) | 4-0 5/8    | (1235) | 1-11 1/16                          | (586)                             | 1-1 19/32                        | (345)  | 14 29/32   | (379)  |
|   | 5-0         | 5-3 3/4         | (1619) | 5-1 5/8       | (1565) | 5-0 5/8    | (1540) | 2-5 1/16                           | (738)                             | 1-7 19/32                        | (498)  | 20 29/32   | (531)  |
|   | 5-4         | 5-7 3/4         | (1721) | 5-5 5/8       | (1667) | 5-4 5/8    | (1641) | 2-7 1/16                           | (789)                             | 1-9 19/32                        | (548)  | 22 29/32   | (582)  |
|   | 6-0         | 6-3 3/4         | (1924) | 6-1 5/8       | (1870) | 6-0 5/8    | (1845) | 2-11 1/16                          | (891)                             | 2-1 19/32                        | (650)  | 26 29/32   | (683)  |
|   | 7-0         | 7-3 3/4         | (2229) | 7-1 5/8       | (2175) | 7-0 5/8    | (2149) | 3-5 1/16                           | (1043)                            | 2-7 19/32                        | (802)  | 32 29/32   | (836)  |
| 3 Panel   | 9-0R        | 9-0 1/2         | (2756) | 8-10 3/8      | (2702) | 8-9 3/8    | (2677) | 2-10 1/4                           | (870)                             | 2-0 25/32                        | (629)  | 26 3/32    | (663)  |
|   | 6-0         | 6-2 15/16       | (1903) | 6-0 13/16     | (1849) | 5-11 13/16 | (1824) | 1-11 1/16                          | (586)                             | 1-1 19/32                        | (345)  | 14 29/32   | (379)  |
|   | 7-6         | 7-8 15/16       | (2361) | 7-6 13/16     | (2307) | 7-5 13/16  | (2281) | 2-5 1/16                           | (738)                             | 1-7 19/32                        | (498)  | 20 29/32   | (531)  |
|   | 8-0         | 8-2 15/16       | (2513) | 8-0 13/16     | (2459) | 7-11 13/16 | (2434) | 2-7 1/16                           | (789)                             | 1-9 19/32                        | (548)  | 22 29/32   | (582)  |
|   | 9-0         | 9-2 15/16       | (2818) | 9-0 13/16     | (2764) | 8-11 13/16 | (2738) | 2-11 1/16                          | (891)                             | 2-1 19/32                        | (650)  | 26 29/32   | (683)  |
|   | 10-6        | 10-8 15/16      | (3275) | 10-6 13/16    | (3221) | 10-5 13/16 | (3196) | 3-5 1/16                           | (1043)                            | 2-7 19/32                        | (802)  | 32 29/32   | (836)  |
| 4 Panel   | 8-0         | 8-2 1/8         | (2492) | 8-0           | (2438) | 7-11       | (2413) | 1-11 1/16                          | (586)                             | 1-1 19/32                        | (345)  | 14 29/32   | (379)  |
|   | 10-0        | 10-2 1/8        | (3102) | 10-0          | (3048) | 9-11       | (3023) | 2-5 1/16                           | (738)                             | 1-7 19/32                        | (498)  | 20 29/32   | (531)  |
|   | 10-8        | 10-10 1/8       | (3305) | 10-8          | (3251) | 10-7       | (3226) | 2-7 1/16                           | (789)                             | 1-9 19/32                        | (548)  | 22 29/32   | (582)  |
|   | 12-0        | 12-2 1/8        | (3712) | 12-0          | (3658) | 11-11      | (3632) | 2-11 1/16                          | (891)                             | 2-1 19/32                        | (650)  | 26 29/32   | (683)  |
|   | 14-0        | 14-2 1/8        | (4321) | 14-0          | (4267) | 13-11      | (4242) | 3-5 1/16                           | (1043)                            | 2-7 19/32                        | (802)  | 32 29/32   | (836)  |
| 1 Panel with 1 Sidelite                         | 4-6         | 4-10 3/16       | (1478) | 4-8 1/16      | (1424) | 4-7 1/16   | (1399) | 2-11 1/16 (891)<br>1-5 15/32 (444) | 2-1 19/32 (650)<br>0-11 1/2 (292) | 26 29/32 (683)<br>12 13/16 (325) |        |            |        |
| 1 Panel with 2 Sidelite                         | 6-2         | 6-3 3/4         | (1924) | 6-1 5/8       | (1870) | 6-0 5/8    | (1845) | 2-11 1/16 (891)<br>1-5 15/32 (444) | 2-1 19/32 (650)<br>0-11 1/2 (292) | 26 29/32 (683)<br>12 13/16 (325) |        |            |        |
| 2 Panel with 2 Sidelite                         | 8-0R        | 8-1 5/16        | (2472) | 7-11 3/16     | (2418) | 7-10 3/16  | (2392) | 2-4 1/4 (718)<br>1-5 15/32 (444)   | 1-6 25/32 (477)<br>0-11 1/2 (292) | 20 3/32 (510)<br>12 13/16 (325)  |        |            |        |
|   | 9-2         | 9-2 15/16       | (2818) | 9-0 13/16     | (2764) | 8-11 13/16 | (2738) | 2-11 1/16 (891)<br>1-5 15/32 (444) | 2-1 19/32 (650)<br>0-11 1/2 (292) | 26 29/32 (683)<br>12 13/16 (325) |        |            |        |
| Height  |             |                 |        |               |        |            |        |                                    |                                   |                                  |        |            |        |
| Unit Type                                       | Call Number | Masonry Opening |        | Rough Opening |        | Frame Size |        | Panel OM                           |                                   | Daylight Opening                 |        | Glass Size |        |
|   |             | ft - in         | mm     | ft - in       | mm     | ft - in    | mm     | ft-in                              | mm                                | ft - in                          | mm     | in         | mm     |
| All Configurations                              | 6-6R        | 6-9 1/16        | (2059) | 6-8           | (2032) | 6-7 1/2    | (2019) | 6-4 1/2                            | (1943)                            | 5-3 5/8                          | (1616) | 64 15/16   | (1649) |
|   | 6-8         | 6-11 9/16       | (2122) | 6-10 1/2      | (2096) | 6-10       | (2083) | 6-7                                | (2007)                            | 5-6 1/8                          | (1680) | 67 7/16    | (1713) |
|   | 7-0         | 7-3 9/16        | (2224) | 7-2 1/2       | (2197) | 7-2        | (2184) | 6-11                               | (2108)                            | 5-10 1/8                         | (1781) | 71 7/16    | (1815) |
|   | 8-0         | 8-1 1/16        | (2465) | 8-0           | (2438) | 7-11 1/2   | (2426) | 7-8 1/2                            | (2350)                            | 6-7 5/8                          | (2022) | 80 15/16   | (2056) |

NOTE: All retro widths are available with 6-6R heights. The retro units with an asterisk are also available in standard heights.

## Standard Unit Measurements: In-Sash Transoms

| Standard In-Sash Transom Unit Measurements |             |                 |        |               |        |            |        |           |        |                  |        |            |        |
|--|-------------|-----------------|--------|---------------|--------|------------|--------|-----------|--------|------------------|--------|------------|--------|
| Width                                      |             |                 |        |               |        |            |        |           |        |                  |        |            |        |
| Unit Type                                  | Call Number | Masonry Opening |        | Rough Opening |        | Frame Size |        | Sash OM   |        | Daylight Opening |        | Glass Size |        |
|  |             | ft - in         | mm     | ft - in       | mm     | ft - in    | mm     | ft-in     | mm     | ft - in          | mm     | in         | mm     |
| 1 Sash<br>1 Frame                          | 1-6         | 1-10 31/32      | (583)  | 1-8 27/32     | (529)  | 1-7 27/32  | (504)  | 1-5 15/32 | (444)  | 0-11 1/2         | (292)  | 12 13/16   | (325)  |
|  | 2-0         | 2-4 9/16        | (726)  | 2-2 7/16      | (672)  | 2-1 7/16   | (646)  | 1-11 1/16 | (586)  | 1-1 19/32        | (345)  | 14 29/32   | (379)  |
|  | 2-6         | 2-10 9/16       | (878)  | 2-8 7/16      | (824)  | 2-7 7/16   | (799)  | 2-5 1/16  | (738)  | 1-7 19/32        | (498)  | 20 29/32   | (531)  |
|  | 2-8         | 3-0 9/16        | (929)  | 2-10 7/16     | (875)  | 2-9 7/16   | (849)  | 2-7 1/16  | (789)  | 1-9 19/32        | (548)  | 22 29/32   | (582)  |
|  | 3-0         | 3-4 9/16        | (1030) | 3-2 7/16      | (976)  | 3-1 7/16   | (951)  | 2-11 1/16 | (891)  | 2-1 19/32        | (650)  | 26 29/32   | (683)  |
|  | 3-6         | 3-10 9/16       | (1183) | 3-8 7/16      | (1129) | 3-7 7/16   | (1103) | 3-5 1/16  | (1043) | 2-7 19/32        | (802)  | 32 29/32   | (836)  |
|  | 4-0         | 4-3 3/4         | (1314) | 4-1 5/8       | (1260) | 4-0 5/8    | (1235) | 3-10 1/4  | (1175) | 3-0 25/32        | (934)  | 38 3/32    | (968)  |
|  | 5-0         | 5-3 3/4         | (1619) | 5-1 5/8       | (1565) | 5-0 5/8    | (1540) | 4-10 1/4  | (1480) | 4-0 25/32        | (1239) | 50 3/32    | (1272) |
|  | 5-4         | 5-7 3/4         | (1721) | 5-5 5/8       | (1667) | 5-4 5/8    | (1641) | 5-2 1/4   | (1581) | 4-4 25/32        | (1341) | 54 3/32    | (1374) |
|  | 6-0         | 6-3 3/4         | (1924) | 6-1 5/8       | (1870) | 6-0 5/8    | (1845) | 5-10 1/4  | (1784) | 5-0 25/32        | (1544) | 62 3/32    | (1577) |
| 2 Sash<br>1 Frame                          | 7-0         | 7-3 3/4         | (2229) | 7-1 5/8       | (2175) | 7-0 5/8    | (2149) | 6-10 1/4  | (2089) | 6-0 25/32        | (1849) | 74 3/32    | (1882) |
|  | 4-0         | 4-3 3/4         | (1314) | 4-1 5/8       | (1260) | 4-0 5/8    | (1235) | 1-11 1/16 | (586)  | 1-1 19/32        | (345)  | 14 29/32   | (379)  |
|  | 5-0         | 5-3 3/4         | (1619) | 5-1 5/8       | (1565) | 5-0 5/8    | (1540) | 2-5 1/16  | (738)  | 1-7 19/32        | (498)  | 20 29/32   | (531)  |
|  | 5-4         | 5-7 3/4         | (1721) | 5-5 5/8       | (1667) | 5-4 5/8    | (1641) | 2-7 1/16  | (789)  | 1-9 19/32        | (548)  | 22 29/32   | (582)  |
|  | 6-0         | 6-3 3/4         | (1924) | 6-1 5/8       | (1870) | 6-0 5/8    | (1845) | 2-11 1/16 | (891)  | 2-1 19/32        | (650)  | 26 29/32   | (683)  |
|  | 7-0         | 7-3 3/4         | (2229) | 7-1 5/8       | (2175) | 7-0 5/8    | (2149) | 3-5 1/16  | (1043) | 2-7 19/32        | (802)  | 32 29/32   | (836)  |
| 3 Sash<br>1 Frame                          | 6-0         | 6-2 15/16       | (1903) | 6-0 13/16     | (1849) | 5-11 13/16 | (1824) | 1-11 1/16 | (586)  | 1-1 19/32        | (345)  | 14 29/32   | (379)  |
|  | 7-6         | 7-8 15/16       | (2361) | 7-6 13/16     | (2307) | 7-5 13/16  | (2281) | 2-5 1/16  | (738)  | 1-7 19/32        | (498)  | 20 29/32   | (531)  |
|  | 8-0         | 8-2 15/16       | (2513) | 8-0 13/16     | (2459) | 7-11 13/16 | (2434) | 2-7 1/16  | (789)  | 1-9 19/32        | (548)  | 22 29/32   | (582)  |
|  | 9-0         | 9-2 15/16       | (2818) | 9-0 13/16     | (2764) | 8-11 13/16 | (2738) | 2-11 1/16 | (891)  | 2-1 19/32        | (650)  | 26 29/32   | (683)  |
|  | 10-6        | 10-8 15/16      | (3275) | 10-6 13/16    | (3221) | 10-5 13/16 | (3196) | 3-5 1/16  | (1043) | 2-7 19/32        | (802)  | 32 29/32   | (836)  |
| 4 Sash<br>1 Frame                          | 8-0         | 8-2 1/8         | (2492) | 8-0           | (2438) | 7-11       | (2413) | 1-11 1/16 | (586)  | 1-1 19/32        | (345)  | 14 29/32   | (379)  |
|  | 10-0        | 10-2 1/8        | (3102) | 10-0          | (3048) | 9-11       | (3023) | 2-5 1/16  | (738)  | 1-7 19/32        | (498)  | 20 29/32   | (531)  |
|  | 10-8        | 10-10 1/8       | (3305) | 10-8          | (3251) | 10-7       | (3226) | 2-7 1/16  | (789)  | 1-9 19/32        | (548)  | 22 29/32   | (582)  |
|  | 12-0        | 12-2 1/8        | (3712) | 12-0          | (3658) | 11-11      | (3632) | 2-11 1/16 | (891)  | 2-1 19/32        | (650)  | 26 29/32   | (683)  |
|  | 14-0        | 14-2 1/8        | (4321) | 14-0          | (4267) | 13-11      | (4242) | 3-5 1/16  | (1043) | 2-7 19/32        | (802)  | 32 29/32   | (836)  |
| Height                                     |             |                 |        |               |        |            |        |           |        |                  |        |            |        |
| Unit Type                                  | Call Number | Masonry Opening |        | Rough Opening |        | Frame Size |        | Sash OM   |        | Daylight Opening |        | Glass Size |        |
|  |             | ft - in         | mm     | ft - in       | mm     | ft - in    | mm     | ft-in     | mm     | ft - in          | mm     | in         | mm     |
| All Configurations                         | 1-6         | 1-8 1/4         | (514)  | 1-6 1/2       | (470)  | 1-6        | (457)  | 1-3 5/16  | (389)  | 0-9 5/16         | (237)  | 10 5/8     | (270)  |
|  | 2-0         | 2-2 1/4         | (667)  | 2-0 1/2       | (622)  | 2-0        | (610)  | 1-9 5/16  | (541)  | 1-3 5/16         | (389)  | 16 5/8     | (422)  |
|  | 2-6         | 2-8 1/4         | (819)  | 2-6 1/2       | (775)  | 2-6        | (762)  | 2-3 5/16  | (694)  | 1-9 5/16         | (541)  | 22 5/8     | (575)  |

### NOTE:

- Ultimate Swinging French Door Elevations can be found on Marvin.com under TOOLS AND DOCUMENTS.
- Sidelite Transom not available with CE mark.
- **CE Mulling** is available with CE marked mullied assemblies 1W2H with on in-sash or direct glaze over operable door up to 127" (3226) x 100" (2540) maximum size.

## Standard Unit Measurements: Direct Glaze Rectangle / Transom

| Ultimate Wood Swinging French Direct Glaze Transom |             |                 |        |               |        |            |        |                  |        |            |        |
|--|-------------|-----------------|--------|---------------|--------|------------|--------|------------------|--------|------------|--------|
| Width  |             |                 |        |               |        |            |        |                  |        |            |        |
| Unit Type  | Call Number | Masonry Opening |        | Rough Opening |        | Frame Size |        | Daylight Opening |        | Glass Size |        |
|  |             | ft-in           | mm     | ft-in         | mm     | ft-in      | mm     | ft-in            | mm     | in         | mm     |
| 1 Lite Direct Glaze Transom Swinging French Door   | 2-0         | 2-4 9/16        | (726)  | 2-2 7/16      | (672)  | 2-1 7/16   | (646)  | 1-9 1/2          | (546)  | 22 7/8     | (581)  |
|  | 2-6         | 2-10 9/16       | (878)  | 2-8 7/16      | (824)  | 2-7 7/16   | (799)  | 2-3 1/2          | (699)  | 28 7/8     | (733)  |
|  | 2-8         | 3-0 9/16        | (929)  | 2-10 7/16     | (875)  | 2-9 7/16   | (849)  | 2-5 1/2          | (749)  | 30 7/8     | (784)  |
|  | 3-0         | 3-4 9/16        | (1030) | 3-2 7/16      | (976)  | 3-1 7/16   | (951)  | 2-9 1/2          | (851)  | 34 7/8     | (886)  |
|  | 3-6         | 3-10 9/16       | (1183) | 3-8 7/16      | (1129) | 3-7 7/16   | (1103) | 3-3 1/2          | (1003) | 40 7/8     | (1038) |
|  | 5-0         | 5-3 3/4         | (1619) | 5-1 5/8       | (1565) | 5-0 5/8    | (1540) | 4-8 11/16        | (1440) | 58 1/16    | (1475) |
|  | 5-4         | 5-7 3/4         | (1721) | 5-5 5/8       | (1667) | 5-4 5/8    | (1641) | 5-0 11/16        | (1541) | 62 1/16    | (1576) |
|  | 6-0         | 6-3 3/4         | (1924) | 6-1 5/8       | (1870) | 6-0 5/8    | (1845) | 5-8 11/16        | (1745) | 70 1/16    | (1780) |
|  | 7-0         | 7-3 3/4         | (2229) | 7-1 5/8       | (2175) | 7-0 5/8    | (2149) | 6-8 11/16        | (2049) | 82 1/16    | (2084) |
| Height   |             |                 |        |               |        |            |        |                  |        |            |        |
| Unit Type  | Call Number | Masonry Opening |        | Rough Opening |        | Frame Size |        | Daylight Opening |        | Glass Size |        |
|  |             | ft-in           | mm     | ft-in         | mm     | ft-in      | mm     | ft-in            | mm     | in         | mm     |
| All Configurations                                 | 1-0         | 1-2 1/4         | (362)  | 1-0 1/2       | (318)  | 1-0        | (305)  | 0-8 1/16         | (205)  | 9 7/16     | (240)  |
|  | 1-2         | 1-4 1/4         | (413)  | 1-2 1/2       | (368)  | 1-2        | (356)  | 0-10 1/16        | (256)  | 11 7/16    | (291)  |
|  | 1-6         | 1-8 1/4         | (514)  | 1-6 1/2       | (470)  | 1-6        | (457)  | 1-2 1/16         | (357)  | 15 7/16    | (392)  |

### NOTE:

- *Direct Glaze Door Transom Elevations can be found on Marvin.com under TOOLS AND DOCUMENTS*
- **CE Mulling** is available with CE marked muller assemblies 1W2H with on in-sash or direct glaze over operable door up to 127" (3226) x 100" (2540) maximum size.

## Standard Door Round Top Rough Opening and Field Mulling Guide

| Door Round Tops Guide for<br>Field Mulling to Standard Rectangular Units |                |                    |        |   |             |       |
|--|----------------|--------------------|--------|---|-------------|-------|
| Unit Type  | RT Call Number | RT 1 Rough Opening |        |   |             |       |
| 50R66R UWFD  | TR 50R28R      | 5'-0"              | (1524) | x | 2'-6"       | (762) |
| 60R66R UWFD  | TR 60R33R      | 6'-0"              | (1829) | x | 3'-0"       | (914) |
| 5068/70/80 UWFD  | TR 5030        | 5'-1 5/8"          | (1565) | x | 2'-6 13/16" | (783) |
| 6068/70/80 UWFD  | TR 6036        | 6'-1 5/8"          | (1870) | x | 3'-0 13/16" | (935) |

| Door Round Tops Guide for<br>Field Mulling to Standard Rectangular Units |                |                     |        |   |             |       |
|--|----------------|---------------------|--------|---|-------------|-------|
| Unit Type  | RT Call Number | RT 29 Rough Opening |        |   |             |       |
| 50R66R UWFD  | TR 50R14R      | 5'-0"               | (1524) | x | 1'-5 15/16" | (456) |
| 60R66R UWFD  | TR 60R14R      | 6'-0"               | (1829) | x | 1'-5 15/16" | (456) |
| 5068/70/80 UWFD  | TR 5017        | 5'-1 5/8"           | (1565) | x | 1'-5 15/16" | (456) |
| 6068/70/80 UWFD  | TR 6017        | 6'-1 5/8"           | (1870) | x | 1'-5 15/16" | (456) |

## Inswing and Outswing Certified Sizes and Ratings

### Inswing Doors

| Product  | Air Tested to psf | Water Tested to psf | Structural Tested to psf | Certification Rating | Design Pressure (DP) | Overall Width |        | Overall Height |        | # of Panels |
|--|-------------------|---------------------|--------------------------|----------------------|----------------------|---------------|--------|----------------|--------|-------------|
|  |                   |                     |                          |                      |                      | in            | mm     | in             | mm     |             |
| Ultimate Wood Inswing French Door 12080 (OXXO) | 1.57              | 7.75                | 77.5                     | LC-PG40-SHD          | 40                   | 143           | (3632) | 95 1/2         | (2426) | 4           |
| Ultimate Wood Inswing French Door 14080 (OXXO) | 1.57              | 4.5                 | 45                       | LC-PG30-SHD          | 30                   | 167           | (4242) | 95 1/2         | (2426) | 4           |

| IZ3 Product   | Air Tested to psf | Water Tested to psf | Structural Tested to psf | Certification Rating | Design Pressure (DP) | Overall Width |        | Overall Height |        | # of Panels |
|---|-------------------|---------------------|--------------------------|----------------------|----------------------|---------------|--------|----------------|--------|-------------|
|   |                   |                     |                          |                      |                      | in            | mm     | in             | mm     |             |
| Ultimate Wood Inswing French Door IZ3 6080 (XX)         | 1.57              | 8.25                | 82.5                     | LC-PG55-SHD          | +55/-65              | 72 5/8        | (1845) | 95 1/2         | (2426) | 2           |
| Ultimate Wood Inswing French Door Sidelite IZ3 3080 (O) | 1.57              | 8.25                | 82.5                     | LC-PG55-FD           | +55/-65              | 37 7/16       | (951)  | 95 1/2         | (2426) | 1           |
| Ultimate Wood Inswing French Door Transom IZ3 8026 (O)  | 1.57              | 8.25                | 82.5                     | LC-PG55-TR           | +55/-65              | 96 5/8        | (2454) | 30             | (762)  | 1           |

### Outswing Doors

| Product   | Air Tested to psf | Water Tested to psf | Structural Tested to psf | Certification Rating | Design Pressure (DP) | Overall Width |        | Overall Height |        | # of Panels |
|---|-------------------|---------------------|--------------------------|----------------------|----------------------|---------------|--------|----------------|--------|-------------|
|   |                   |                     |                          |                      |                      | in            | mm     | in             | mm     |             |
| Ultimate Wood Outswing French Door 6080 (XX)    | 1.57              | 7.5                 | 75                       | LC-PG50-SHD          | 50                   | 72 5/8        | (1845) | 95 1/2         | (2426) | 2           |
| Ultimate Wood Outswing French Door 14080 (OXXO) | 1.57              | 4.5                 | 45                       | LC-PG30-SHD          | 30                   | 167           | (4242) | 95 1/2         | (2426) | 4           |

| Impact Product   | Air Tested to psf | Water Tested to psf | Structural Tested to psf | Certification Rating | Design Pressure (DP) | Overall Width |        | Overall Height |        | # of Panels |
|--|-------------------|---------------------|--------------------------|----------------------|----------------------|---------------|--------|----------------|--------|-------------|
|  |                   |                     |                          |                      |                      | in            | mm     | in             | mm     |             |
| Ultimate Wood Outswing French Door IZ3 6080 (XX)         | 1.57              | 8.25                | 82.5                     | LC-PG55-SHD          | +55/-65              | 72 5/8        | (1845) | 95 1/2         | (2426) | 2           |
| Ultimate Wood Outswing French Door Sidelite IZ3 3080 (O) | 1.57              | 8.25                | 82.5                     | LC-PG55-FD           | +55/-65              | 37 7/16       | (951)  | 95 1/2         | (2426) | 1           |
| Ultimate Wood Outswing French Door Transom IZ3 6026 (O)  | 1.57              | 8.25                | 82.5                     | LC-PG55-TR           | +55/-65              | 96 5/8        | (2454) | 30             | (762)  | 1           |

NOTE: For CE ratings, refer to CE Performance Chapter.



## Minimum and Maximum Guidelines: Door and In-Sash Transoms

| Operator/Stationary Units Doors |                      |                     |        |            |        |                     |        |            |        |
|---------------------------------|----------------------|---------------------|--------|------------|--------|---------------------|--------|------------|--------|
| Unit Type                       |                      | Frame Size          |        |            |        |                     |        |            |        |
|                                 |                      | Min Width           |        | Min Height |        | Max Width           |        | Max Height |        |
|                                 |                      | in                  | mm     | in         | mm     | in                  | mm     | in         | mm     |
| Sidelite                        |                      | 13 1/32             | (331)  | 23 7/8     | (331)  | 19 27/32            | (606)  | 95 1/2     | (504)  |
| Stationary                      |                      | 16 17/32            | (420)  | 23 7/8     | (606)  | 43 7/16             | (606)  | 95 1/2     | (1103) |
| 1 - Panel Operator              | Mortise Lock         | 16 17/32            | (420)  | 54 15/16   | (1395) | 43 7/16             | (1103) | 86         | (2184) |
|                                 | Multi-Point          |                     |        | 70 5/16    | (1786) |                     |        | 95 1/2     | (2426) |
| 2 - Panel Operator              | Mortise Lock         | 30 13/16            | (783)  | 54 15/16   | (1395) | 84 5/8              | (2149) | 86         | (2184) |
|                                 | Multi-Point          |                     |        | 70 5/16    | (1786) |                     |        | 95 1/2     | (2426) |
| 3 - Panel Operator              | Mortise Lock         | 45 3/32             | (1145) | 54 15/16   | (1395) | 125 13/16           | (3196) | 86         | (2184) |
|                                 | Multi-Point          |                     |        | 70 5/16    | (1786) |                     |        | 95 1/2     | (2426) |
| 4 - Panel Operator              | Mortise Lock         | 59 3/8              | (1508) | 54 15/16   | (1395) | 167                 | (4242) | 86         | (2184) |
|                                 | Multi-Point          |                     |        | 70 5/16    | (1786) |                     |        | 95 1/2     | (2426) |
| Transom Units                   |                      |                     |        |            |        |                     |        |            |        |
| Door Transom                    |                      | Min Frame Size Unit |        |            |        | Max Frame Size Unit |        |            |        |
|                                 |                      | Min Width           |        | Min Height |        | Max Width           |        | Max Height |        |
|                                 |                      | in                  | mm     | in         | mm     | in                  | mm     | in         | mm     |
| SideliteTransom                 | Factory/Field Mulled | 13 1/32             | (331)  | 11 3/8     | (289)  | 84 5/8              | (2149) | 30         | (762)  |
| 1 Sash 1 Frame                  | Stand Alone          |                     |        |            |        |                     |        |            |        |
| Door Transom                    | Factory/Field Mulled | 16 17/32            | (420)  | 11 3/8     | (289)  | 84 5/8              | (2149) | 30         | (762)  |
| 1 Sash 1 Frame                  | Stand Alone          |                     |        |            |        |                     |        |            |        |
| Transom                         | Factory/Field Mulled | 30 13/16            | (783)  | 11 3/8     | (289)  | 84 5/8              | (2149) | 30         | (762)  |
| 2 Sash 1 Frame                  | Stand Alone          |                     |        |            |        |                     |        |            |        |
| Transom                         | Factory/Field Mulled | 45 3/32             | (1145) | 11 3/8     | (289)  | 125 13/16           | (3196) | 30         | (762)  |
| 3 Sash 1 Frame                  | Stand Alone          |                     |        |            |        |                     |        |            |        |
| Transom                         | Factory/Field Mulled | 59 3/8              | (1508) | 11 3/8     | (289)  | 167                 | (4242) | 30         | (762)  |
| 4 Sash 1 Frame                  | Stand Alone          |                     |        |            |        |                     |        |            |        |

| Operator/Stationary - Extended Sizes |             |                     |        |            |        |
|--------------------------------------|-------------|---------------------|--------|------------|--------|
| Unit Type                            |             | Max Frame Size Unit |        |            |        |
|                                      |             | Max Width           |        | Max Height |        |
|                                      |             | in                  | mm     | in         | mm     |
| Sidelite                             |             | 52 3/8              | (1330) | 113 1/2    | (2883) |
| Stationary                           |             | 52 3/8              | (1330) | 113 1/2    | (2883) |
| 1 - Panel Operator                   | Multi-Point | 44 3/8              | (1127) | 113 1/2    | (2883) |
| 2 - Panel Operator                   | Multi-Point | 86 1/2              | (2197) | 113 1/2    | (2883) |
| 3 - Panel Operator                   | Multi-Point | 128 5/8             | (3267) | 113 1/2    | (2883) |
| 4 - Panel Operator                   | Multi-Point | 170 3/4             | (4337) | 113 1/2    | (2883) |

| Extended Size Transom |                      |                     |        |            |        |
|-----------------------|----------------------|---------------------|--------|------------|--------|
| Unit Type             |                      | Max Frame Size Unit |        |            |        |
|                       |                      | Max Width           |        | Max Height |        |
|                       |                      | in                  | mm     | in         | mm     |
| Sidelite Transom      | Factory/Field Mulled | 84 5/8              | (2149) | 50 11/16   | (1287) |
| 1 Sash 1 Frame        | Stand Alone          | 98 3/16             | (2494) | 50 11/16   | (1287) |
| Door Transom          | Factory/Field Mulled | 84 5/8              | (2149) | 50 11/16   | (1287) |
| 1 Sash 1 Frame        | Stand Alone          | 98 3/16             | (2494) | 50 11/16   | (1287) |
| Transom               | Factory/Field Mulled | 86 1/2              | (2197) | 50 11/16   | (1287) |
| 2 Sash 1 Frame        | Stand Alone          | 191                 | (4851) | 50 25/64   | (1280) |
| Transom               | Factory/Field Mulled | 128 5/8             | (3267) | 50 11/16   | (1287) |
| 3 Sash 1 Frame        | Stand Alone          | 191                 | (4851) | 50 11/16   | (1287) |
| Transom               | Factory/Field Mulled | 170 3/4             | (4337) | 50 11/16   | (1287) |
| 4 Sash 1 Frame        | Stand Alone          | 191                 | (4851) | 50 11/16   | (1287) |



## Minimum and Maximum Guidelines: Direct Glaze Rectangle / Transom

| Minimum Guidelines - Ultimate Wood Direct Glaze Rectangles / Transoms |           |       |            |       |
|---|-----------|-------|------------|-------|
| Unit Type   | Min Width |       | Min Height |       |
|   | in        | mm    | in         | mm    |
| Single Glaze  | 6 9/16    | (167) | 7 1/2      | (191) |
| Insulating Glass  | 6 9/16    | (167) | 7 1/2      | (191) |

| Maximum Guidelines - Ultimate Wood Direct Glaze Rectangles / Transoms |                      |        |            |        |
|---|----------------------|--------|------------|--------|
| Unit Type   | Max Width            |        | Max Height |        |
|   | in                   | mm     | in         | mm     |
| Single Glaze  | Certified Frame Size |        |            |        |
|   | 84                   | (2134) | 87         | (2210) |
|   | 97 15/16             | (2488) | 74         | (1880) |
|   | 87                   | (2210) | 84         | (2134) |
|   | 74                   | (1880) | 97 15/16   | (2488) |
|   | Non-Certified Sizes  |        |            |        |
|   | 145 9/16             | (3697) | 53 7/8     | (1368) |
|   | 90 1/2               | (2299) | 86 1/16    | (2186) |
|   | 86 1/16              | (2186) | 90 1/2     | (2299) |
|   | 53 7/8               | (1368) | 145 9/16   | (3697) |
| Insulating Glass  | Certified Size       |        |            |        |
|   | 84                   | (2134) | 97 15/16   | (2488) |
|   | 97 15/16             | (2488) | 84         | (2134) |
|   | Non-Certified Sizes  |        |            |        |
|   | 145 9/16             | (3697) | 63 15/16   | (1624) |
|   | 107 3/4              | (2737) | 86 1/16    | (2186) |
|   | 86 1/16              | (2186) | 107 3/4    | (2737) |
|   | 63 15/16             | (1624) | 145 9/16   | (3697) |

NOTE: Single glaze is not available with CE mark.

## Measurement Conversions

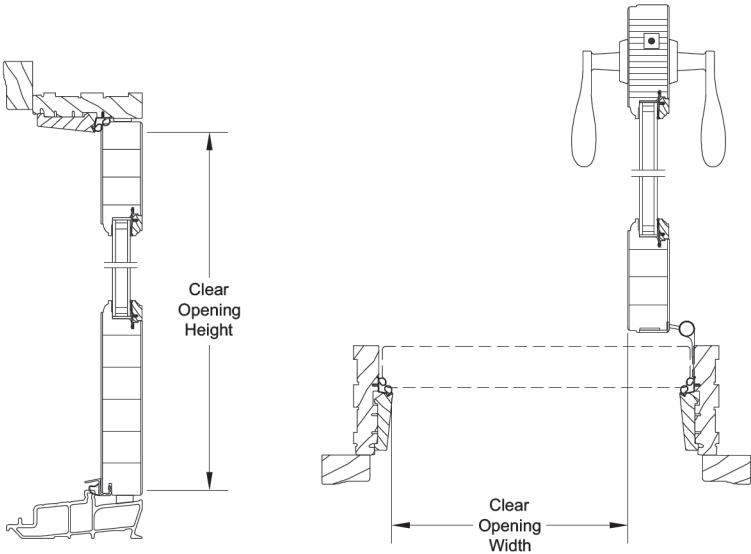
| Unit Measurements     |                          | Width     |       |     | Height   |       |
|-----------------------|--------------------------|-----------|-------|-----|----------|-------|
| From                  | To                       |           |       |     |          |       |
| Frame                 |                          | in        | mm    |     | in       | mm    |
| OM of Frame           | Rough Opening            | + 1       | (25)  |     | + 1/2    | (13)  |
| Masonry Opening w/BMC | Rough Opening            | -2 1/8    | (54)  |     | -1 1/16  | (27)  |
| Operating Panel       |                          | in        | mm    |     | in       | mm    |
| OM of Frame           | OM of Panel (x1)         | -2 3/8    | (60)  |     | -3       | (76)  |
| OM of Frame           | OM of Panel (x2)         | -2 1/2    | (64)  | ÷ 2 | -3       | (76)  |
| OM of Frame           | OM of Panel (x3)         | -2 5/8    | (67)  | ÷ 3 | -3       | (76)  |
| OM of Frame           | OM of Panel (x4)         | -2 3/4    | (70)  | ÷ 4 | -3       | (76)  |
| OM of Frame           | OM of Sidelite           | -2 3/8    | (60)  |     | -3       | (76)  |
| Daylight Opening      | OM of Panel              | + 9 15/32 | (240) |     | + 12 7/8 | (327) |
| Daylight Opening      | OM of Contemporary Panel | + 9 15/32 | (240) |     | + 9 1/2  | (241) |
| Daylight Opening      | OM of Sidelite           | + 5 31/32 | (152) |     | + 12 7/8 | (327) |
| Glass                 |                          | in        | mm    |     | in       | mm    |
| Daylight Opening      | Glass                    | + 1 5/16  | (33)  |     | + 1 5/16 | (33)  |

| Ultimate Wood Inswing / Outswing French Door Transoms - Direct Glaze |               |         |       |  |         |      |
|--|---------------|---------|-------|--|---------|------|
| Unit Measurements  |               | Width   |       |  | Height  |      |
| From   | To            |         |       |  |         |      |
| Frame  |               | in      | mm    |  | in      | mm   |
| OM of Frame  | Rough Opening | + 1     | (25)  |  | + 1/2   | (13) |
| Masonry Opening  | Rough Opening | + 1/2   | (13)  |  | + 1/4   | (06) |
| Masonry Opening w/BMC  | Rough Opening | -2 1/8  | (54)  |  | -1 1/16 | (27) |
| Masonry Opening w/Flat Casing  | Rough Opening | -5 1/2  | (140) |  | -2 3/4  | (70) |
| Glass  |               | in      | mm    |  | in      | mm   |
| Rough Opening  | Glass         | -3 9/16 | (90)  |  | -3 1/16 | (78) |

| Ultimate Wood Inswing / Outswing French Door Transoms - In Sash |                  |           |       |     |           |       |
|---|------------------|-----------|-------|-----|-----------|-------|
| Unit Measurements   |                  | Width     |       |     | Height    |       |
| From  | To               |           |       |     |           |       |
| Frame   |                  | in        | mm    |     | in        | mm    |
| OM of Frame   | Rough Opening    | + 1       | (25)  |     | + 1/2     | (13)  |
| Masonry Opening   | Rough Opening    | + 1/2     | (13)  |     | + 1/4     | (06)  |
| Masonry Opening w/BMC   | Rough Opening    | -2 1/8    | (54)  |     | -1 1/16   | (27)  |
| Masonry Opening w/Flat Casing                                   | Rough Opening    | -5 1/2    | (140) |     | -2 3/4    | (70)  |
| Operating Sash  |                  | in        | mm    |     | in        | mm    |
| Rough Opening   | OM of Panel (x1) | -3 3/8    | (86)  |     | -3 3/16   | (81)  |
| Rough Opening   | OM of Panel (x2) | -3 1/2    | (89)  | ÷ 2 | -3 3/16   | (81)  |
| Rough Opening   | OM of Panel (x3) | -3 5/8    | (92)  | ÷ 3 | -3 3/16   | (81)  |
| Rough Opening   | OM of Panel (x4) | -3 3/4    | (95)  | ÷ 4 | -3 3/16   | (81)  |
| Rough Opening   | OM of Sidelite   | -3 3/8    | (86)  |     | -3 3/16   | (81)  |
| Glass   | Sash OM          | + 8 5/32  | (207) |     | + 4 11/16 | (119) |
| Glass   | OM of Sidelite   | + 4 21/32 | (118) |     | + 4 11/16 | (119) |
| Glass   |                  | in        | mm    |     | in        | mm    |
| Rough Opening   | Glass            | -11 17/32 | (293) |     | -7 7/8    | (200) |

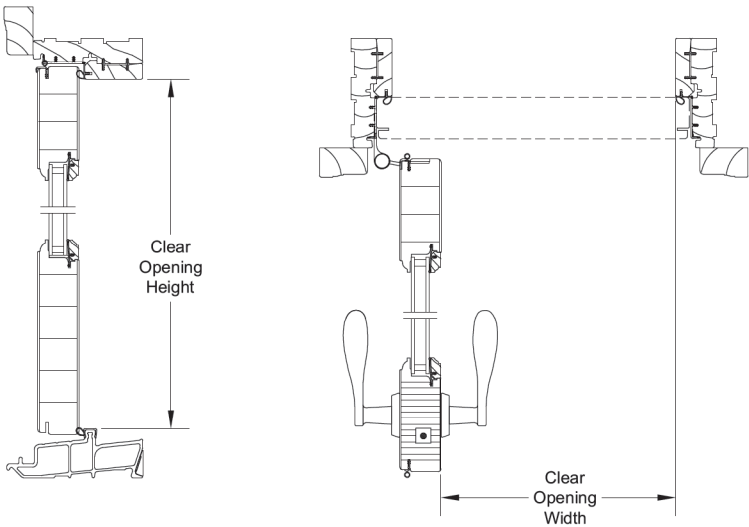
Net Clear Openings: Inswing

| Net Clear Opening<br>Ultimate Wood Inswing French Door |             |                    |        |
|--|-------------|--------------------|--------|
| Width  |             |                    |        |
| Unit Type  | Call Number | Net Clear Openings |        |
|  |             | ft-in              | mm     |
| 1 Panel Operator                                       | 2-6R        | 2-1 17/64          | (642)  |
|  | 3-0R        | 2-7 17/64          | (794)  |
|  | 2-0         | 1-8 1/16           | (510)  |
|  | 2-6         | 2-2 1/16           | (662)  |
|  | 2-8         | 2-4 1/16           | (713)  |
|  | 3-0         | 2-8 5/64           | (815)  |
|  | 3-6         | 3-2 1/16           | (967)  |
| 2 Panel Operator                                       | 5-0R*       | 4-3 9/16           | (1310) |
|  | 6-0R*       | 5-3 9/16           | (1614) |
|  | 4-0         | 3-5 3/16           | (1046) |
|  | 5-0         | 4-5 3/16           | (1351) |
|  | 5-4         | 4-9 3/16           | (1453) |
|  | 6-0         | 5-5 3/16           | (1656) |
|  | 7-0         | 6-5 3/16           | (1961) |
| Height   |             |                    |        |
| Unit Type  | Call Number | Net Clear Openings |        |
|  |             | ft - in            | mm     |
| All Configurations                                     | 6-6R        | 6-3 27/32          | (1927) |
|  | 6-8         | 6-6 11/32          | (1990) |
|  | 7-0         | 6-10 11/32         | (2092) |
|  | 8-0         | 7-7 27/32          | (2333) |

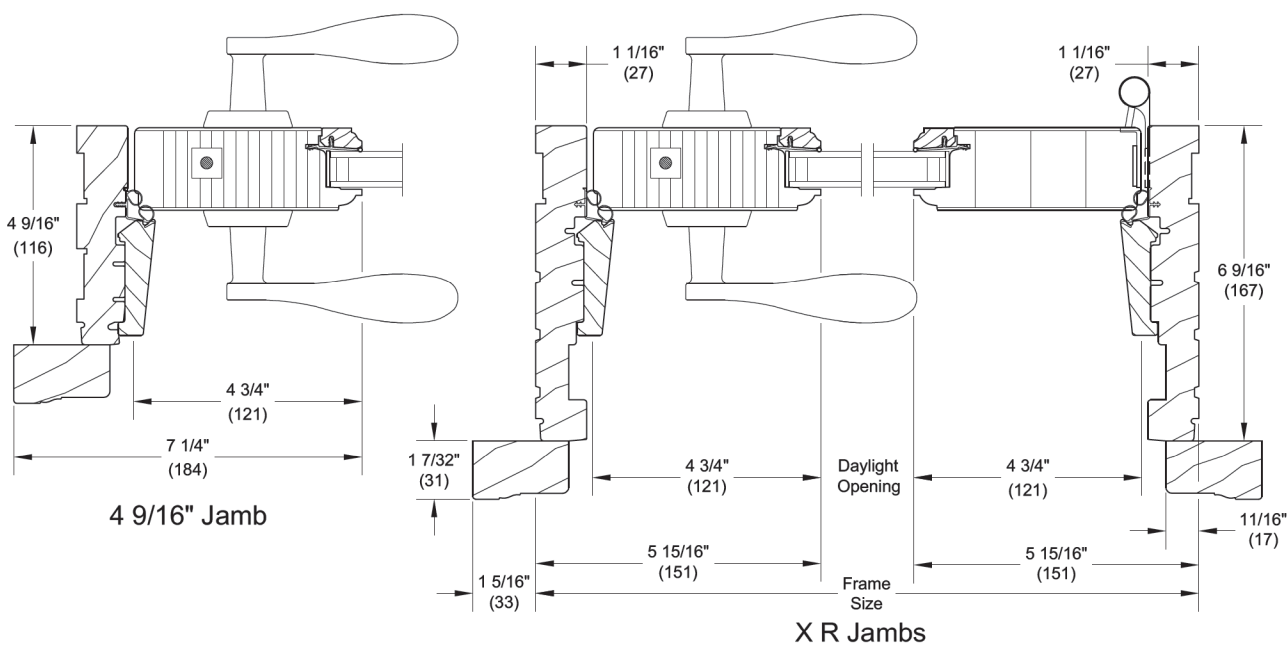
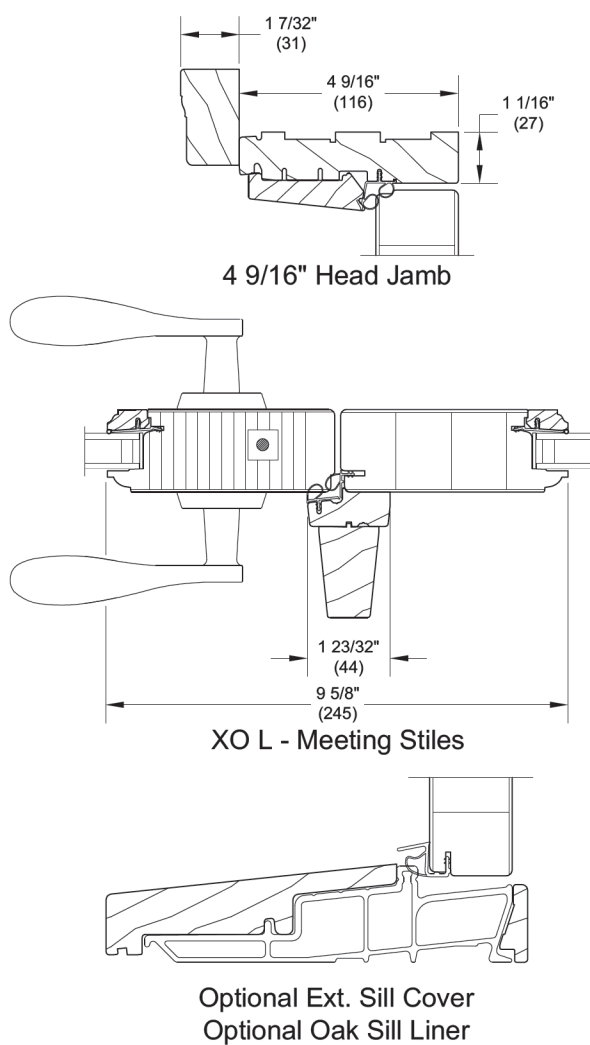


Net Clear Opening: Outswing

| Net Clear Opening<br>Ultimate Wood Outswing French Door |             |                    |        |
|---|-------------|--------------------|--------|
| Width   |             |                    |        |
| Unit Type   | Call Number | Net Clear Openings |        |
|   |             | ft-in              | mm     |
| 1 Panel Operator  | 2-6R        | 2-1 13/64          | (640)  |
|   | 3-0R        | 2-7 13/64          | (793)  |
|   | 2-0         | 1-8 1/64           | (508)  |
|   | 2-6         | 2-2 1/64           | (661)  |
|   | 2-8         | 2-4 1/64           | (712)  |
|   | 3-0         | 2-8 1/64           | (813)  |
|   | 3-6         | 3-2 1/64           | (966)  |
| 2 Panel Operator  | 5-0R*       | 4-2 7/64           | (1273) |
|   | 6-0R*       | 5-2 7/64           | (1578) |
|   | 4-0         | 3-3 47/64          | (1009) |
|   | 5-0         | 4-3 47/64          | (1314) |
|   | 5-4         | 4-7 47/64          | (1416) |
|   | 6-0         | 5-3 47/64          | (1619) |
|   | 7-0         | 6-3 47/64          | (1924) |
| Height  |             |                    |        |
| Unit Type   | Call Number | Net Clear Openings |        |
|   |             | ft - in            | mm     |
| All Configurations                                      | 6-6R        | 6-3 3/4            | (1924) |
|   | 6-8         | 6-6 1/4            | (1987) |
|   | 7-0         | 6-10 1/4           | (2089) |
|   | 8-0         | 7-7 3/4            | (2330) |



Scale: 3" = 1' 0"



**Section 08 14 23**  
**Ultimate Inswing / Outswing French Door IZ3**

**Part 1 General**

**1.1 Section Includes**

- A. Ultimate Inswing / Outswing French Door and frame complete with hardware, glazing, weather strip, insect screen, grilles-between-the-glass, simulated divided lite, jamb extension, raised/flat panel, interior shades, and standard or specified anchors, trim and attachments.

**1.2 Related Sections**

- A. Section 01 33 23 – Submittal Procedures: Shop Drawings, Product Data, and Samples
- B. Section 01 62 00 – Product Options
- C. Section 01 63 00 – Product Substitution Procedures
- D. Section 01 65 00 – Product Delivery
- E. Section 01 66 00 – Product Storage and Handling Requirements
- F. Section 01 71 00 – Examination and Preparation
- G. Section 01 73 00 - Execution
- H. Section 01 74 00 – Cleaning and Waste Management
- I. Section 01 75 00 – Starting and Adjusting
- J. Section 01 76 00 – Protecting Installed Construction
- K. Section 06 22 00 – Millwork: Wood trim other than furnished by door and frame manufacturer
- L. Section 07 92 00 – Joint Sealants: Sill sealant and perimeter caulking
- M. Section 08 71 00 – Door Hardware: Hardware other than furnished by door and frame manufacturer
- N. Section 09 90 00 – Paints and Coatings: Paint and stain other than factory-applied finish

**1.3 References**

- A. American Society for Testing and Materials (ASTM):
  - 1. E283: Standard Test Method for Rate of Air Leakage through Exterior Windows, Curtain Walls, and Doors
  - 2. E330: Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference

3. E547: Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic
  4. E2190: Specification for Sealed Insulated Glass Units
  5. C1036: Standard Specification for Flat Glass
  6. E1996: Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors and Storm Shutters Impacted by Windborne Debris in Hurricanes
  7. E1886: Standard Test Method for Performance of Exterior Windows, Curtain Walls, Door and Storm Shutters Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials
- B. American Architectural Manufacturer's Association / Window and Door Manufacturer's Association (AAMA / WDMA/CSA):
1. AAMA/WDMA/CSA 101/I.S.2/A440-05: Standard/Specification for windows, doors, and unit skylights
  2. AAMA/WDMA/CSA 101/I.S.2/A440-08: North American Fenestration, Standard/Specification for windows, doors, and skylights
- C. WDMA I.S.4: Industry Standard for Water Repellant Preservative Treatment for Millwork
- D. Window and Door Manufacturer's Association (WDMA): 101/I.S.2 WDMA Hallmark Certification Program
- E. Sealed Insulating Glass Manufacturer's Association / Insulating Glass Certification Council (SIGMA/IGCC)
- F. American Architectural Manufacturer's Association (AAMA): 2605: Voluntary Specification for High Performance Organic Coatings on Architectural Extrusions and Panels
- G. National Fenestration Rating Council (NFRC):
1. 101: Procedure for Determining Fenestration Product Thermal Properties
  2. 200: Procedure for Determining Solar Heat Gain Coefficients at Normal Incidence
- H. Window Covering Manufacturer's Association
1. A100.1 Standard for safety of corded window covering products

## 1.4 System Description

- A. Design and Performance Requirements:

| Product  | Air Tested to psf | Water Tested to psf | Structural Tested to psf | Certification Rating | Design Pressure (DP) | Overall Width |        | Overall Height |        | # of Panels |
|--|-------------------|---------------------|--------------------------|----------------------|----------------------|---------------|--------|----------------|--------|-------------|
|  |                   |                     |                          |                      |                      | in            | mm     | in             | mm     |             |
| Ultimate Inswing French Door IZ3 6080 (XX)         | 1.57              | 8.25                | 82.5                     | LC-PG55-SHD          | +55/-65              | 72 5/8        | (1845) | 95 1/2         | (2426) | 2           |
| Ultimate Inswing French Door IZ3 Sidelite 3080 (O) | 1.57              | 8.25                | 82.5                     | LC-PG55-FD           | +55/-65              | 37 7/16       | (951)  | 95 1/2         | (2426) | 1           |
| Ultimate Inswing French Door IZ3 Transom           | 1.57              | 8.25                | 82.5                     | LC-PG55-TR           | +55/-65              | 72 5/8        | (1845) | 30             | (762)  | 1           |

| Product   | Air Tested to psf | Water Tested to psf | Structural Tested to psf | Certification Rating | Design Pressure (DP) | Overall Width |        | Overall Height |        | # of Panels |
|---|-------------------|---------------------|--------------------------|----------------------|----------------------|---------------|--------|----------------|--------|-------------|
|   |                   |                     |                          |                      |                      | in            | mm     | in             | mm     |             |
| Ultimate Outswing French Door IZ3 6080 (XX)         | 1.57              | 8.25                | 82.5                     | LC-PG55-SHD          | +55/-65              | 72 5/8        | (1845) | 95 1/2         | (2426) | 2           |
| Ultimate Outswing French Door IZ3 Sidelite 3080 (O) | 1.57              | 8.25                | 82.5                     | LC-PG55-FD           | +55/-65              | 37 7/16       | (951)  | 95 1/2         | (2426) | 1           |
| Ultimate Outswing French Door IZ3 Transom           | 1.57              | 8.25                | 82.5                     | LC-PG55-TR           | +55/-65              | 72 5/8        | (1845) | 30             | (762)  | 1           |



1. Units shall be designed to comply with WDMA certification
2. Air leakage shall not exceed ( $\leq$ 3) cfm per square feet of overall frame when tested at 1.57 psf according to ASMT E283
3. No water penetration when tested at (OFD: DP55-8.25) psf and (IFD: DP55-8.25) psf according to ASTM E547
4. Units shall be designed to comply with ASTM E330 for structural performance when tested to (OFD: +82.5/-97.5) psf and (IFD: +82.5/-97.5) psf
5. Units shall be designed to comply with ASMT E1996-05 for Wind Zone 3 Missile Level D impact and cycle. (OFD: +DP55/-DP65) psf and (IFD: +DP55/-DP65) psf

### **1.5 Submittals**

- A. Shop Drawings: Submit shop drawings under provision of Section 01 33 23
- B. Product Data: Submit catalog data under provision of Section 01 33 23
- C. Samples:
  1. Submit corner section under provision of section 01 33 23
  2. Include glazing system, quality of construction and specified finish
- D. Quality Control Submittals: Certificates: submit manufacturer's certification indicating compliance with specified performance and design requirement under provision of section 01 33 23

### **1.6 Quality Assurance**

- A. Requirements: consult local code for IBC [International Building Code] and IRC [International Residential Code] adoption year and pertinent revisions

### **1.7 Delivery**

- A. Comply with provisions of Section 01 65 00
- B. Deliver in original packaging and protect from weather

## **1.8 Storage and Handling**

- A. Prime and seal wood surfaces, including to be concealed by wall construction, if more than thirty (30) days will expire between delivery and installation
- B. Store door panels flat on a level surface in a clean and dry storage area above ground to protect from weather under provision of Section 01660
- C. Condition doors to local average humidity before hanging

## **1.9 Warranty**

Complete and current warranty information is available at [marvin.com/warranty](http://marvin.com/warranty). The following summary is subject to the terms, condition, limitations and exclusions set forth in the Marvin Windows and Door Limited Warranty and Products in Coastal Environments Limited Warranty Supplement:

- A. Clear insulating glass with stainless steel spacers is warranted against seal failure caused by manufacturing defects and resulting in visible obstruction through the glass for twenty (20) years from the original date of purchase. Glass is warranted against stress cracks caused by manufacturing defects from ten (10) years from the original date of purchase.
- B. Standard exterior Aluminum Cladding finish is warranted against manufacturing defects resulting in chalk, fade and loss of adhesion (peel) per the American Architectural Manufacturer's Association (AAMA) Specification 2605-11 Section 8.4 and 8.9 for twenty (20) years from the original date of purchase.
- C. Factory-applied interior finish is warranted to be free from finish defects for a period of five (5) years from the original date of purchase.
- D. Hardware and other non-glass components are warranted to be free from manufacturing defects for ten (10) years from the original date of purchase.

## **Part 2 Products**

### **2.1 Manufactured Units**

- A. Description: Factory-assembled Ultimate Inswing/Outswing French Door (and related stationary units) as manufactured by Marvin Windows and Doors, Ripley Tennessee

## 2.2 Frame Description

- A. Interior: Non Finger-Jointed Pine or finger-jointed core with non finger-jointed Pine veneer; optional non finger-jointed Mixed Grain Douglas Fir or finger-jointed core with non finger-jointed Mixed Grain Douglas Fir veneer; optional non finger-jointed White Oak or finger-jointed with non finger-jointed Oak veneer; non finger-jointed Cherry or finger-jointed core with Cherry veneer; non finger-jointed Mahogany or finger-jointed core with non finger-jointed Mahogany veneer; non finger-jointed Vertical Grain Douglas Fir or finger-jointed with non finger-jointed Vertical Grain Douglas Fir veneer
  - 1. Kiln-dried to moisture content no greater than twelve (12) percent at time of fabrication
  - 2. Water repellant, preservative treated in accordance with WDMA I.S.4.
- B. Frame exterior Aluminum Clad with 0.050" (1.3mm) thick extruded aluminum
- C. Frame width: 4 9/16" (116mm); 6 9/16" (167mm)
- D. Frame thickness: 1 1/16" (27mm)
- E. Beige or Bronze fiberglass reinforced plastic (frp) sill 0.115" (3.0mm) thick. Red Oak, Mahogany, or Cherry interior sill liner (Interior doors to have 11/16" (17mm) thick flat Oak sill with solid aluminum track.

## 2.3 Panel Description

- A. Non Finger-Jointed, finger-jointed/ edge glued, or LVL Pine, White Oak, Cherry, Mahogany, Vertical Grain Douglas Fir cores with non finger-jointed Pine, White Oak, Cherry, Mahogany, Vertical Grain Douglas Fir veneers.
  - 1. Kiln-dried to moisture content no greater than twelve (12) percent at time of fabrication
  - 2. Water repellant, preservative treated in accordance with WDMA I.S.4.
- B. Panel exterior Aluminum Clad with 0.050" (1.3mm) thick extruded aluminum
- C. Panel thickness: 1 3/4" (44mm)
- D. Top rail and stile width: 4 3/4" (121mm)
- E. Sidelite stile width: 3" (76mm)
- F. Bottom rail height: 8 1/8" (206mm)
- G. Panel corners glued and fastened with 5/8" x 4" (16mm by 102mm) fluted hardwood dowels

## 2.4 Glazing

- A. Select quality complying with ASTM C 1036. Shall comply with 16 CFR 1201 Safety Standard for Architectural Glazing Materials.
- B. Glazing Method: Laminated annealed interior and tempered exterior

- C. Glass Type: Clear, Bronze, Gray, Reflective Bronze, Tempered, Obscure, Laminated, Low E2 with or without Argon, Low E3 with or without Argon, Low E1 with or without Argon
- D. Glazing Seal: Wood interior glazing stops fastened with 1 ½" or 2" nails, sealed with silicone beads at perimeter

## 2.5 Finish

- A. Exterior: Aluminum Clad. Fluoropolymer modified acrylic top coat applied over primer. Meets AAMA 2605 requirements.
  - 1. Aluminum Clad color options: Bahama Brown, Bronze, Cadet Gray, Cascade Blue, Cashmere, Clay, Coconut Cream, Ebony, Evergreen, Gunmetal, Hampton Sage, Pebble Gray, Sierra White, Stone White, Suede, Wineberry, Bright Silver (pearlescent), Copper (pearlescent), Liberty Bronze (pearlescent)
  - 2. Custom colors: Contact your Marvin representative
- B. Interior Finish Options:
  - 1. Prime: Factory-applied enamel primer. Available on Pine product only. Meets WDMA TM-11 requirements.
  - 2. Painted Interior Finish. Available on Pine product only. Available in White or Designer Black. Meets WDMA TM-14 requirements.
  - 3. Factory-applied water-borne acrylic enamel clear coat. Applied in two separate coats with light sanding between coats. Available on Pine, Mahogany, Vertical Grain Douglas Fir, Mixed Grain Douglas Fir, Cherry, White Oak. Meets WDMA TM-14 requirements.
  - 4. Factory-applied water-borne stain. Stain applied over a wood (stain) conditioner. A water-borne acrylic enamel clear coat applied in two separate coats, with light sanding coats, applied over the stain. Available on Pine, Mahogany, and Vertical Grain Douglas Fir, Mixed Grain Douglas Fir, Cherry, White Oak. Colors available: Wheat, Honey, Hazelnut, Leather, Cabernet, or Espresso. Meets WDMA TM-14 requirements.

## 2.6 Hardware

- A. Adjustable Hinges:
  - 1. 4 ¼" x 3 ¾" with 3/8" radius corners. Adjustment is 3/16" for horizontal and vertical of panels in frame
  - 2. Three adjustable hinges on 6-5 and 6-8 heights; four on 7-0 and 8-0 heights. Standard finish is Satin Taupe with steel substrate
  - 3. Optional powder coat finish: Gold tone, Dark Bronze, Silver Frost, White.
  - 4. Optional metal finish: PVD Brass, Antique brass, Oil Rubbed Bronze PVD, Satin Chrome, PVD Satin Nickel, Polished Chrome.

B. Butt Hinges:

1. 4" x 4: with radius corners
2. Outswing hinge has a non-removable pin
3. Units with rough opening height ,86 ½" (2198mm) have three hinges, units with rough opening greater or equal to 86 ½" (2198mm) up to 110 ½" (2807mm) have four hinges, units with rough opening greater than 110 ½" (2807mm) have five hinges
4. Finish (inswing) Default: Satin Taupe with steel substrate
  - a. Optional finish: Brass Plated, Solid Brass, Antique Brass, Oil rubbed Bronze, Satin Chrome, Satin Nickel, White, Stainless Steel, Polished Chrome, or Satin Nickel PVD
5. Finish (outswing): Solid Brass, Stainless Steel, or Satin Nickel PVD

C. Traditional Handle Set: Active and Inactive

1. Powder Coat finishes: Satin Taupe, White, or Dark Bronze. (Zinc die-cast substrate)
2. Metal finishes: PVD Brass, Antique Brass, Oil Rubbed Bronze, Satin Chrome, Polished Chrome, Oil rubbed Bronze PVD, and PVD Satin Nickel. (Brass substrate)

D. Contemporary Handle Set: Active and Inactive

1. Painted finishes: Satin Taupe or Dark Bronze (Aluminum)

E. Locking System:

1. Active panel: Marvin exclusive concealed multi-point locking system. Stainless steel head and shoot bolts operated from lever set. One inch dead bolt (Keyed alike)
2. Inactive panel: Stainless steel head and shoot bolts operated from lever set.

## 2.7 Lock Status Sensor (Optional)

A. Lock Status Sensor

1. Unit is factory-prepared for an integrated lock status sensor system. Contact sensor mounted inside the boundaries of the operating panel. Refer to **Lock Status Sensor Installation Instructions**.
2. Lock Status Sensor wireless only.
  - a. Only wireless option available. Requires purchase of secondary transmitter for operation. Marvin will prep for this option.
3. For Swinging Doors, the **sensor** will always be integrated into the locking hardware system.
4. The **actuator** (keyed or thumb turn) is integrated into the locking hardware system.

## 2.8 Weather Strip

- A. Inswing: Head jamb and side jambs to have two sets of bulb weather strip maintaining contact with door panels
  - 1. Color: Beige or black
- B. Outswing: Head jamb and side jambs to have single bulb weather strip maintaining contact with door panels
  - 2. Color: Beige or black
- C. Inswing and Outswing: Threshold to have bulb weather strip maintaining contact with bottom of panel
  - 1. Color: Beige or black
- D. Inswing: Vinyl panel drip applied to bottom rail
  - 1. Color: Beige or black
- E. Panel: Active panel sweep, inactive panel sweep, panel weather strip, panel cover weather strip, astragal weather strip, bulb weather strip
  - 1. Color: Beige or black
- F. Inswing: Painted aluminum watershed and weep system at sill
  - 1. Color: Beige or bronze

## 2.9 Jamb Extension

- A. Factory-applied up to 3" (76), for other wall thickness indicated or required (shipped loose)
- B. Finish: Matches interior frame finish

## 2.10 Insect Screen (Inswing Only)

- A. Standard/Ultimate Sliding Screen
  - 1. Extruded aluminum sliding frame, top hung roller assembly with stainless steel ball bearings in nylon wheels, top rollers adjustable up to ¼" (6mm). Frame to have edge mounted wool pile bug strip.
  - 2. Sliding screen for XO, OX, OOX, XOO, OXXO operation
  - 3. Standard Sliding Screen available in Bahama Brown, Bronze, Evergreen, Pebble Gray, or White
  - 4. Ultimate Sliding Screen comes with a roller bar and profile replicates the look of a traditional wood screen. Screen will match exterior aluminum clad color.



5. Standard screen mesh: Charcoal Fiberglass, or Hi-Trans Fiberglass
  6. Ultimate screen mesh: Charcoal Fiberglass, Charcoal Aluminum Wire, Black Aluminum Wire, Bright Aluminum Wire, Bright Bronze Wire
- B. Standard/Ultimate Swinging Screen (Rectangular Inswing Unit Only)
1. Extruded aluminum swinging frame.
  2. Standard swinging screen: Bahama Brown, Bronze, Evergreen, Pebble Gray, or White
  3. Ultimate swinging screen with screen and glass insert:
    - a. Aluminum Clad colors: Bahama Brown, Bronze, Cadet Gray, Cascade Blue, Cashmere, Clay, Coconut Cream, Ebony, Evergreen, Gunmetal, Hampton Sage, Pebble Gray, Sierra White, Stone White, Suede, Wineberry, Bright Silver (pearlescent), Copper (pearlescent), Liberty Bronze (pearlescent)
    - b. Glass insert is tempered and available in clear, green, bronze or gray tint
  4. Screen mesh: Charcoal fiberglass, Bronze, Charcoal Aluminum, Silver Aluminum, Black Aluminum, or High Transparency screen mesh (CH Hi-Tran) fiberglass
  5. For standard swinging screen: black hinges: 2 for doors under 90" and 3 hinges for doors over 90". Ultimate swinging screen has 4 hinges per panel and a factory installed Z-bar.
  6. Handle includes latch with exterior handle and internal locking mechanism. Available in Bronze, Satin Nickel, Brass, or Satin Taupe.

## **2.11 Simulated Divided Lites (SDL)**

- A. 5/8" (16mm) wide, 7/8" (22mm) wide, 1 1/8" (29mm) wide), 1 15/16" (49mm), 2 13/32" (61mm) with or w/out internal spacer bar
  1. Standard: Ogee
  2. Optional: Square
- B. Muntins: Pine, Mixed Grain Douglas Fir, White Oak, Cherry, Mahogany, Vertical Grain Douglas Fir
- C. Muntins adhere to glass with double coated acrylic foam tape
- D. Pattern: Rectangular, Cottage, Custom lite layout
- E. Finish: Match panel finish

## **2.12 Grilles-Between-the-Glass (GBG)**

- A. 23/32" contoured aluminum bar

1. Exterior colors: The exterior GBG color is designed to best match the Marvin Aluminum Clad color when used with Low E glass. The use of different types of glazing may alter the exterior GBG color appearance.
  2. Interior Color: White is the default. Optional colors: Bronze, Pebble Gray, Sierra White.
- B. Optional flat aluminum spacer bar. Contact your Marvin representative.
- C. Pattern: Rectangular, Cottage, Custom lite layout

### **2.13 Raised or Flat Panels**

- A. 0.080" aluminum to the exterior with foam backing and laminated veneer to interior for stamped raised panel. Available bare wood or selected interior finish. Available in all aluminum clad colors for exterior. Aluminum Clad colors meeting AAMA 2605 requirements.
- B. 0.125" aluminum to the exterior with foam backing and laminated veneer to interior for flat panel. Available bare wood or selected interior finish. Available in all aluminum clad colors for exterior. All aluminum clad colors meeting AAMA 205 requirements.
- C. Utilizes 4 3/4" intermediate rail. Visible panel height is 12 1/64" (305mm).

### **2.14 Accessories and Trim**

- A. Installation and Hardware Accessories:
  1. Factory installed Aluminum nailing/drip cap
  2. Installation brackets: 6 3/8" (162mm), 9 3/8" (238mm), 15 3/8" (390mm)
  3. Masonry brackets: 6" (152mm), 10" (254mm)
- B. Aluminum Extrusions:
  1. Profile: Brick Mould casing, Flat casing, Stucco brick mould, Stucco flat casing; Frame expander, Jamb extender, Mullion cover, Mullion expander, as indicated on drawings.
  2. Finish: Match exterior frame finish.

## **Part 3 Execution**

### **3.1 Examination**

- A. Verification of Condition: Before installation, verify openings are plumb, square and of proper dimensions as required in Section 01 71 00. Report frame defects or unsuitable conditions to the General contractor before proceeding.
- B. Acceptance of Condition: Beginning on installation confirms acceptance of existing conditions.



### **3.2 Installation**

- A. Comply with Section 01 73 00.
- B. Assemble and install window/door unit(s) according to manufacturer's instruction and reviewed shop drawing.
- C. Install sealant and related backing materials at perimeter of unit or assembly in accordance with Section 07 92 00 Joint Sealants. Do not use expansive foam sealant.
- D. Install accessory items as required.
- E. Use finish nails to apply wood trim and mouldings.

### **3.3 Field Quality Control**

- A. Remove visible labels and adhesive residue according to manufacturer's instruction.
- B. Unless otherwise specified, air leakage resistance tests shall be conducted at a uniform static pressure of 75 Pa (~1.57 psf). The maximum allowable rate of air leakage shall not exceed 2.3 L/sm<sup>2</sup> (~0.45 cfm/ft<sup>2</sup>).
- C. Unless otherwise specified, water penetration resistance testing shall be conducted per AAMA 502 and ASTM E1105 at 2/3 of the fenestration products design pressure (DP) rating using "Procedure B" – cyclic static air pressure difference. Water penetration shall be defined in accordance with the test method(s) applied.

### **3.4 Cleaning**

- A. Remove visible labels and adhesive residue according to manufacturer's instruction.
- B. Leave windows and glass in a clean condition. Final cleaning as required in Section 01 74 00.

### **3.5 Protecting Installed Construction**

- A. Comply with Section 07 76 00.
- B. Protecting windows from damage by chemicals, solvents, paint or other construction operations that may cause damage.

End of Section



**Municipality Letter for  
Proposed Construction Project**

**Subject Property:** 9 Primrose Street, Chevy Chase, MD 20815  
**Property Owner:** Alice Keating  
**Project Manager/Contractor:** Doma Architectural Design  
**Proposed Work:** Interior alterations; window and door replacements

6/9/22

Mitra Pedoeem, Director  
Department of Permitting Services of Montgomery County  
255 Rockville Pike, 2<sup>nd</sup> floor  
Rockville, MD 20850

Dear Ms. Pedoeem,

This letter is to inform your department that the above homeowner/contractor has notified Chevy Chase Village that he or she plans to apply for both county and municipal permits for the above summarized construction project. Chevy Chase Village will not issue any municipal building permit(s) for this proposed project until Montgomery County has issued all necessary county permits and the applicant has provided Chevy Chase Village with copies of county-approved and stamped plans. We have advised the homeowner/contractor that a permit from Montgomery County does not guarantee a permit from this municipality unless the project complies with all our municipal rules and regulations.

If this homeowner/contractor later applies for an amended county permit, please do not approve that application until you have received a Municipality Letter from us indicating that the homeowner/contractor has notified us of that proposed amendment to the permit.

If you have any questions about this proposed project and the municipal regulation of it by Chevy Chase Village, do not hesitate to have your staff contact my office. The Village Permitting Coordinator can be reached by phone at 301-654-7300 or by e-mail at [ccvpermitting@montgomerycountymd.gov](mailto:ccvpermitting@montgomerycountymd.gov).

Sincerely,

Ellen Sands  
Chevy Chase Village

**CHEVY CHASE VILLAGE**

5906 Connecticut Avenue  
Chevy Chase, Maryland 20815  
Phone (301) 654-7300  
Fax (301) 907-9721  
[ccv@montgomerycountymd.gov](mailto:ccv@montgomerycountymd.gov)  
[www.chevychasevillagemd.gov](http://www.chevychasevillagemd.gov)

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**LEGAL COUNSEL**  
SUELLEN M. FERGUSON

JULY 27 2022

## KEATING RESIDENCE

9 PRIMROSE STREET CHEVY CHASE MD 20815

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### PRELIMINARY SPECIFICATIONS

#### PROJECT SCOPE

Interior renovation to existing attic space and new windows and exterior cladding to existing side dormers. Renovation to include updates to existing bath; reconfiguring existing space for new bedroom, workspace and closet; exposing existing roof rafters for insulation and to raise ceiling height; removing existing radiators at attic level and installing new forced air system; new closet buildout at Second Floor Primary Suite; new storage build-out at Basement Floor; replace arched top windows at Master Bath with new square top windows to match existing; replace First Floor Mudroom exterior door with new door to match. Mudroom addition does not appear to be original – stone foundation is different material and pattern from main foundation, window and door trim is simple brickmould rather than 1x trim with backband used at all other locations, and the exterior door to be replaced is insulated glass without muntins.

#### SPECIFICATIONS

##### UTILITIES + SITE WORK

- Landscaping
  - All planting and final grading by Owner.
- Utilities
  - General Contractor to coordinate and provide connection to existing utilities, to remain.
- Electric
  - Provide and install panels, outlets and switches, per code - dimmers throughout. Provide allowance for heavy-up to existing system if necessary.
  - Decorative fixtures by Owner.
  - Provide lamps and bulbs for all fixtures, per manufacturers' specifications.
  - Home security system, intercom and audio/visual system by Owner.
  - Provide telephone, cable, & CAT6 wiring at locations shown on plans.
  - Provide recessed lights and wall washers as shown, white trim + baffle. Provide allowance
  - Contractor to verify existing electrical panel and advise if replacement is required.
- Plumbing
  - See individual rooms.
  - Provide copper supply pipes for indoors (above ground), and PVC supply pipes for under slab and underground; PVC waste pipes with cast iron stand pipes and cast iron

- elbows at all toilet locations.
- Inspect and verify if existing hose bibs are frost proof. Replace if needed.

- HVAC

- Existing system : (1) zone, hot-water radiators served by boiler at the basement. (2) zone A/C system- basement unit serves first and basement level, attic unit serves second and attic level.
- Remove existing Attic Level radiator system. Provide recommendation for new heating and cooling system to serve the Attic Level. Existing Basement, First and Second Level systems to remain.
- Hard metal duct shall be used; maximum of 4' length of flexible duct permitted.
- Provide electric air filters / unit
- Provide humidifier/ unit.
- All ceiling and wall registers to be by mud in flush grills.

## GENERAL

### Existing Exterior Dormer Walls

Existing Attic framing to remain. Where available, insulate existing exterior wall cavity with Icynene spray foam insulation R-21 thickness or to meet performance method requirements for local jurisdictions. Existing cladding at side dormers to be removed and replaced with painted stucco to match existing.

### Existing Roof

All existing roof material to remain. Existing roof framing to remain, removing existing drywall ceilings. Provide Icynene open cell spray foam insulation to R-49 thickness or to meet performance method requirements for local jurisdictions.

### Existing Chimney

Inspect existing chimney and identify source of water damage. Repair as needed.

### Gutters and Downspouts

Existing to remain.

### Windows and Exterior Doors

New windows & doors to be Marvin painted wood SDL w/ muntin profiles to match existing, insulated glass, white jamb liners and screens with oil rubbed bronze hardware.

### Exterior Trim

Painted wood trim to match existing. Inspect existing dormer's trim for rot and replace as needed.

### Terraces, Stoops, retaining walls

Existing to remain.

### Painting

Low VOC spec. Benjamin Moore throughout. All interior and exterior painted surfaces effected by propose construction to get re-painted.