MONTGOMERY COUNTY HISTORIC PRESERVATION COMMISSION
STAFF REPORT

Address:	20 Grafton Street, Chevy Chase	**Meeting Date:**	4/20/2022
Resource:	Contributing Resource **(Chevy Chase Village Historic District)**	**Report Date:**	4/13/2022
		Public Notice:	4/6/2022
Applicant:	Meredith and Scott Raney		
		Tax Credit:	N/A
Review:	HAWP	**Staff:**	Michael Kyne
Permit Number:	987802		

PROPOSAL: New addition, garage alterations, grading, hardscape alterations, and new accessory building

---

STAFF RECOMMENDATION:

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

ARCHITECTURAL DESCRIPTION:

SIGNIFICANCE: Contributing Resource within the Chevy Chase Village Historic District
STYLE: Tudor Revival
DATE: c. 1927-41

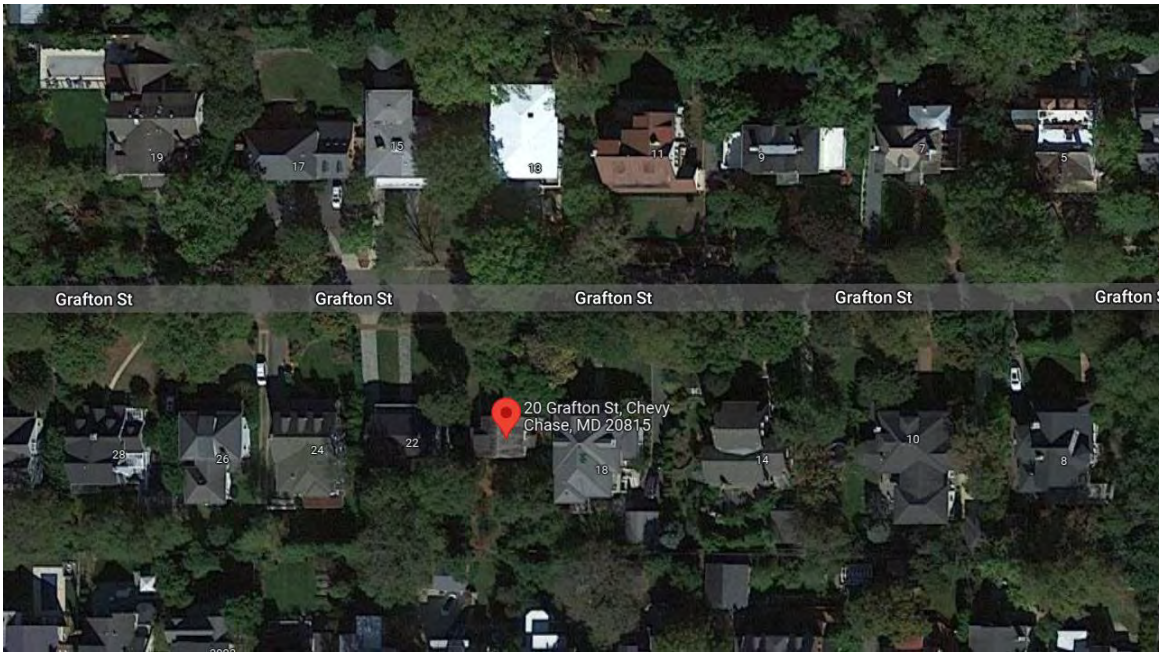


Fig. 1: Subject property.

PROPOSAL:

The applicants propose a new addition, garage alterations, grading, hardscape alterations, and new accessory building 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 the historic preservation review guidelines in the approved and adopted amendment for the *Chevy Chase Village Historic District (Guidelines), Montgomery County Code Chapter 24A (Chapter 24A*), and *the Secretary of the Interior's Standards for Rehabilitation (Standards)*. The pertinent information in these documents is outlined below.

Sec. 24A-8. Same-Criteria for issuance.

(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; [emphasis added] 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 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 state three basic policies that should be adhered to, including:

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.

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.

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* 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.

Driveways should be subject to strict scrutiny only with regard to their impact on landscaping, particularly mature trees. In all other respects, driveways should be subject to lenient scrutiny. Parking pads and other paving in front yards should be discouraged.

Exterior trim (such as moldings on doors and windows) on contributing resources should be subject to moderate scrutiny if it is visible from the public right-of-way, lenient scrutiny if it is not. Exterior trim on outstanding resources should be subject to strict scrutiny if it is visible from the public right-of-way.

Garages and accessory buildings which are detached from the main house should be subject to lenient scrutiny but should be compatible with the main building. If an existing garage or accessory building has any common wall with, or attachment to, the main residence, then any addition to the garage or accessory building should be subject to review in accordance with the Guidelines applicable to "major additions." Any proposed garage or accessory building which is to have a common wall with or attachment to the main residence should also be reviewed in accordance with the Guidelines applicable to "major additions."

Major additions should, where feasible, be placed to the rear of the existing structure so that they are less visible from the public right-of-way. Major additions which substantially alter or obscure the front of the structure should be discouraged but not automatically prohibited. For example, where lot size does not permit placement to the rear, and the proposed addition is compatible with the street scape, it should be subject to moderate scrutiny for contributing resources, but strict scrutiny for outstanding resources.

Porches should be subject to moderate scrutiny if they are visible from the public right-of-way, lenient scrutiny if they are not. Enclosures of existing side and rear porches have occurred throughout the Village with little or no adverse impact on its character, and they should be permitted where compatibly designed. Strict scrutiny should be applied to additions above existing front porches.

Roofing materials should be subject to moderate scrutiny if they are visible from the public right-of-way, lenient scrutiny if they are not. In general, materials differing from the original should be approved for contributing resources. These guidelines recognize that for outstanding resources replacement in kind is always advocated. For example, replacement of slate roofs in kind is usually required. However, the application should be reviewed with consideration given to economic hardship. Furthermore, as technology continues to change and improve, other building materials may become available to provide an appropriate substitute for replacement in kind, and the reviewing agency should be open to consideration of these alternative solutions.

Sheds should be subject to moderate scrutiny if they are visible from the public right-of-way, lenient scrutiny if they are not.

Siding should be subject to moderate scrutiny if it is visible from the public right-of-way, lenient scrutiny if it is not. Artificial siding on areas visible from the public right-of-way should be discouraged where such materials would replace or damage original building materials that are in good condition. Vinyl and aluminum siding should be discouraged.

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

#2: The historic character of a property will be retained and preserved. The removal of distinctive materials or alterations of features, spaces, and spatial relationships that characterize a property will be avoided.

#9: New additions, exterior alterations, or related new construction will not destroy historic materials,

features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the 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. 1927-41 Tudor Revival-style Contributing Resource within the Chevy Chase Village Historic District. The historic house is approximately 2,788 SF, with a maximum height of 30'-10". It is clad in stone, painted stucco, and painted wood lap siding, with a slate roof and a mix of double-hung and casement windows. With the exception of the bay window at the front of the historic house and one small window on the east (left) side, all of the existing windows are non-original, having been previously replaced with Pella SDL windows. There is a foyer at the northeast (front/left) side of the historic house. Although the Sanborn Fire Insurance Map below (*Fig. 2*) indicates that the foyer was enclosed by 1963, the application states that there is physical evidence that it had previously been a covered entry. Cited evidence includes toothed in flooring at the cased opening from the foyer to the living room, as well as remnants of entry door hardware (i.e., strike plate and hinge hardware) in the cased opening. There is a basement-level garage at the west (right) side of the historic house, which is accessed via a sloping driveway from Grafton Street.

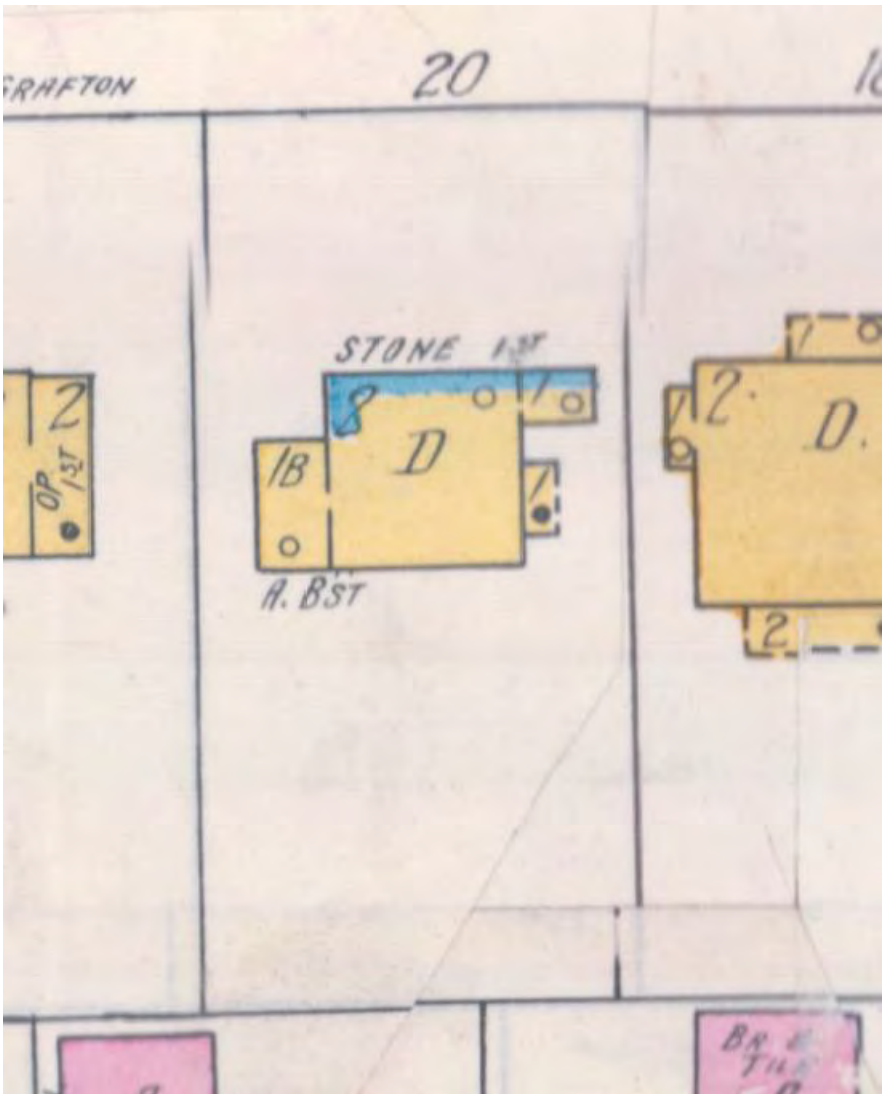


Fig. 2: 1927-63 Sanborn Fire Insurance Map.

The applicants propose the following work items at the subject property:

Additions (Moderate Scrutiny)

- Construction of a two-story addition at the rear of the historic house.
  - Addition to be a total of 2,985 SF (this includes the one-story section noted below).
  - Addition to be located entirely behind the historic house.
  - Addition to be connected to the historic house via a smaller hyphen for differentiation and to push the addition farther to the rear, making it less visible from the public right-of-way.
  - Maximum height of the proposed addition to be approximately 29', with its roofline well below the existing roofline.
  - Further differentiation to be achieved with the use of compatible alternative materials, including fiber cement lap siding, PVC trim, composite slate roofing on the main mass of the addition, and standing seam metal on the one-story sections and hyphen.
- Construction of a one-story addition at the east/left side of the historic house and proposed two-

story rear addition.
    - Addition to be located entirely behind the existing foyer at the northeast (front/left) corner of the historic house, in the approximate location of an existing deck, which will be removed.
    - Addition to be designed to look like an enclosed porch.
- Construction of a 12' x 24' (288 SF) screened porch at the rear of the proposed additions.

Foyer/Covered Entry Conversion (Moderate Scrutiny)

- Conversion of the existing foyer at the northeast (front/left) side of the historic house to a covered entry.
    - The existing door at the front wall of the foyer will be relocated to a new opening at the rear wall of the foyer, leaving the arched entryway at the front of the foyer open.
    - The existing door will be reused in its new location.

Garage Alterations (Moderate Scrutiny)

- Conversion of the basement-level garage at the west (right) side of the historic house into a bedroom, with an egress window and window well installed in place of the garage door.

Driveway Alterations (Lenient Scrutiny)

- Backfilling the existing sloping driveway at the northwest (front/right) side of the property, with a new level driveway with at-grade parking created in its place.

Dormer Modifications (Moderate Scrutiny)

- Modification of the existing dormer on the western (right) roof slope of the historic house for egress purposes, creating a well in the existing roof to lower the sill height.
    - The proposed modification would not alter the mass of the dormer itself, and it would maintain the existing roofline of the historic house.

Window Replacement (Moderate Scrutiny)

- Replacement of all existing non-original windows on the historic house with new aluminum-clad wood SDL windows.
    - The operation and style of each new window to match the existing.
    - The original front/left bay window will not be replaced.
    - The one original window on the east (left) side of the historic house will be removed to accommodate the proposed one-story addition.

Shed Installation (Moderate Scrutiny)

- Installation of a new 10' x 12' shed at the southwest (rear/right) side of the property.

Staff supports the applicants' proposal. The proposed additions are primarily in the preferred location at the rear historic house, where they are less visible from the public right-of-way. As noted in the project description above, the proposed additions will be generally compatible with, yet differentiated from, the historic house, in terms of design and materials. In terms of scale and massing, the ridges of the proposed additions are well below the historic house, and the additions are clearly deferential to the historic house. While the proposed one-story addition is at the east (left) side of the historic house and proposed two-

story rear addition, it is compatibly designed, achieving both differentiation from and deference to the historic house. This addition is also largely obscured by the existing foyer at the northeast (front/left) side of the historic house, when viewed directly from the primary public right-of-way of Grafton Street.

The proposed window replacement will retain the original front/left bay window. While the one original window on the east (left) side of the historic house will be removed to accommodate the proposed one-story addition, this window is located directly behind the existing foyer, and it is not at all visible from the public right-of-way. As noted in the *Guidelines*, "[a]lterations to the portion of a property that are not visible from the public right-of-way should be subject to very lenient review." The existing non-original windows will be replaced with new windows of the same style and operation, resulting in a negligible effect, at best.

The proposed new shed will be at the rear of the subject property, and, although it may be partially visible from the public right-of-way, it will not detract from the subject property or surrounding streetscape.

In reviewing the applicable *Guidelines* (Pages 3 & 4), staff finds that (aside from the proposed driveway alterations, which should be reviewed with Lenient Scrutiny, as the driveway will be backfilled, not excavated, and there will be no impact to mature trees) the proposed work items should be reviewed with Moderate Scrutiny. The *Guidelines* state that 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."

Staff finds that the proposed work items are generally compatible with the historic house's original design, and they will preserve the integrity of the historic house, so that it continues to contribute to the district. The historic house is exemplary of Tudor Revival-style architecture, with an eclectic use of natural materials and textures, asymmetrical façade, arched entry, and large masonry chimney. While the historic house is modestly sized for the Chevy Chase Village Historic District, the proposed additions (which more than double its footprint) have been designed to be clearly deferential to the historic house, with restrained massing and lower roof heights. Staff finds that this design approach, along with the location of the proposed additions entirely behind the existing massing, successfully allows for the expanded footprint without detracting from the historic house.

In accordance with *Standards #2* and *#9*, the applicants' proposal will not remove or alter character-defining features of the historic house or surrounding streetscape. Additionally, per *Standard #10*, the proposed alterations and additions 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 being consistent with the Criteria for Issuance in Chapter 24A-8(b) (1), (2), and (d), having found that the proposal is consistent with the *Secretary of the Interior's Standards for Rehabilitation #2, #9,* and *#10*, and the *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# 987802
DATE ASSIGNED_____

APPLICATION FOR HISTORIC AREA WORK PERMIT

HISTORIC PRESERVATION COMMISSION
301.563.3400

APPLICANT:

Name: Meredith and Scott Raney E-mail: muraney@gmail.com)

Address: 20 Grafton St City: Chevy Chase Zip: 20815

Daytime Phone: 650.291.7204 Tax Account No.: 00454628

AGENT/CONTACT (if applicable):

Name: Luke Olson E-mail: lolson@gtmarchitects.com

Address: 7735 Old Georgetown Rd Ste 700 City: Bethesda Zip: 20814

Daytime Phone: 240-333-2021 Contractor Registration No.: _____

LOCATION OF BUILDING/PREMISE: MIHP # of Historic Property_____

Is the Property Located within an Historic District? X 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: 20 Street: Grafton

Town/City: Chevy Chase Nearest Cross Street: Cedar Parkway

Lot: _____ Block: _____ Subdivision: 0009 Parcel: P925

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:

- ☐ New Construction
- ☑ Addition
- ☑ Demolition
- ☑ Grading/Excavation
- ☑ Deck/Porch
- ☐ Fence
- ☑ Hardscape/Landscape
- ☑ Roof
- ☑ Shed/Garage/Accessory Structure
- ☐ Solar
- ☐ Tree removal/planting
- ☑ Window/Door
- ☐ 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

03/16/2022
Date

HAWP APPLICATION: MAILING ADDRESSES FOR NOTIFING
[Owner, Owner's Agent, Adjacent and Confronting Property Owners]

Owner's mailing address	**Owner's Agent's** mailing address
MEREDITH & SCOTT RANEY 20 GRAFTON STREET CHEVY CHASE, MD 20815	LUKE OLSON GTM ARCHITECTS 7735 OLD GEORGETOWN RD STE 700 BETHESDA, MD 20814
Adjacent and confronting Property Owners mailing addresses	
DAVID COX 15 GRAFTON ST CHEVY CHASE, MD 20815	DIOGO & NORAH COELHO 13 GRAFTON ST CHEVY CHASE, MD 20815
OLIVER & ROXANNE DAVIDSON 3915 OLIVER ST CHEVY CHASE, MD 20815	DAVID NIKODEM & MARY BARRETT 3917 OLIVER ST CHEVY CHASE, MD 20815
ERIC THOMPSON & ARDITH EYMANN 22 GRAFTON ST CHEVY CHASE, MD 20815	WILLIAM & LESLEY ATKINS 18 GRAFTON ST CHEVY CHASE, MD 20815

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

The existing house is a contributing resource in the Chevy Chase Village historic district. It's a 2-story tudor revival home circa 1927-41 clad in stone, ptd. stucco and ptd. lap siding with a slate roof and double hung and casement windows. With the exception of the front bay window and a small window on the left side, all windows in the house have been replaced with Pella SDL windows. There is also evidence that the front foyer used to be a covered porch. The basement foundation does not extend below the foyer space, the flooring appears to be toothed in at the cased opening from the foyer to the living room, and the cased opening jambs have remnant strike plate and hinge hardware from a door with a mortise entry lockset. The current foyer layout is atypical of a tudor revival home, but a covered entry with a side entry door into the living room in this location would be typical. There is an existing driveway to a below grade 1-car garage in the basement with retaining walls to each side of the driveway. A window in the kitchen on the left side has been blanked-off.

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

See project narrative.

The homeowners have purchased this house for their parents to live in with a third family member, and have asked that we prioritize accessibility and the ability to age-in-place when designing an addition to the existing house. This is to include features such as an elevator, passages and doors that will accommodate wheelchair access, a more generous and accommodating stair, curbless showers, a covered entry to accommodate a future zero-step entry to the house, a larger kitchen with wall ovens for easier access, an outdoor living area on the same level as the first floor, a laundry room on the same level as the bedrooms and accessible parking on the lot.

With that in mind we are proposing a two-story addition primarily to the rear of the house with an additional 1-story addition on the left side designed to look like an enclosed porch and a rear screened porch. We've located the main mass of the addition behind the existing house and connected the two with a smaller "hyphen" to clearly differentiate new from old, and utilized different materials to further reinforce the distinction. We've also held the roof line of the addition well below that of the existing house and utilized the hyphen to push the addition further back from the street to make it less visible from the public right of way. We've also utilized smaller 1-story pieces to further break up the mass of the addition and keep it subordinate in massing and scale to the existing house.

There is evidence that the existing foyer used to be an outdoor covered entry, and we would like to restore that feature by pushing the existing entry door to the back wall of the foyer. This sort of recessed covered entry is typical of the Tudor Revival style, it's minimally impactful to the existing resource and involves the restoration of a previously existing feature of the home. This will also allow for a future zero-step entry into the house as a part of a later landscape HAWP application without creating a water infiltration issue.

The current garage is not really useable as the narrow width of both the garage and the high walls of the driveway make it difficult to enter and exit the garage or use the driveway as an off-street parking space given the narrow width and the height of the flanking retaining walls. To rectify this we are proposing to convert the existing garage into a bedroom with an egress window and window well in place of the garage door, and infill the rest of the driveway to provide a level driveway with at-grade parking with a more direct path of access to the main level of the house involving a minimal amount of steps.

We are proposing to make a minor modification to the right side dormer. We'd like to cover the windows there to meet egress requirements for the new bedroom, but will need to carve out a well in the existing roof to lower the sill height to achieve this. This would not impact the mass of the dormer itself, and would maintain the existing roofline of the front elevation.

Except for the front bay window and a window on the left side, the windows in the house are not original/historic, having been replaced by Pella simulated divided light windows. We'd like to replace all of the non-historic windows with new clad-wood insulated glass SDL windows, matching the operation/style and light divisions, and provide matching windows in the addition.

The addition will be clad in ptd. stucco and ptd. fibercement lap siding to be consistent with the existing resource, with low-maintenance painted pvc trim and a composite slate roof with standing seam metal roofs on the 1-story sections as well as the hyphen.

EXISTING FRONT VIEW

PROPOSED FRONT VIEW

20 GRAFTON STREET, CHEVY CHASE VILLAGE HISTORIC DISTRICT

SCOPE OF WORK: 2 STORY ADDITION TO REAR OF EXG. HOUSE W/
1-STORY LEFT SIDE ADDITION & NEW DETACHED GARDEN SHED

COVER

GTM ARCHITECTS
7735 OLD GEORGETOWN ROAD, SUITE 700, BETHESDA, MD 20814 - TEL: (240) 333-2000 - FAX: (240) 333-2001



FRONT VIEWS



REAR VIEWS

GTM

GTM ARCHITECTS

RANEY RESIDENCE

20 GRAFTON STREET, CHEVY CHASE, MD, 20815

7735 OLD GEORGETOWN ROAD, SUITE 700, BETHESDA, MD 20814 - TEL: (240) 333-2000 - FAX: (240) 333-2001

FOOT PRINT STUDY
NOT TO SCALE

RANEY RESIDENCE

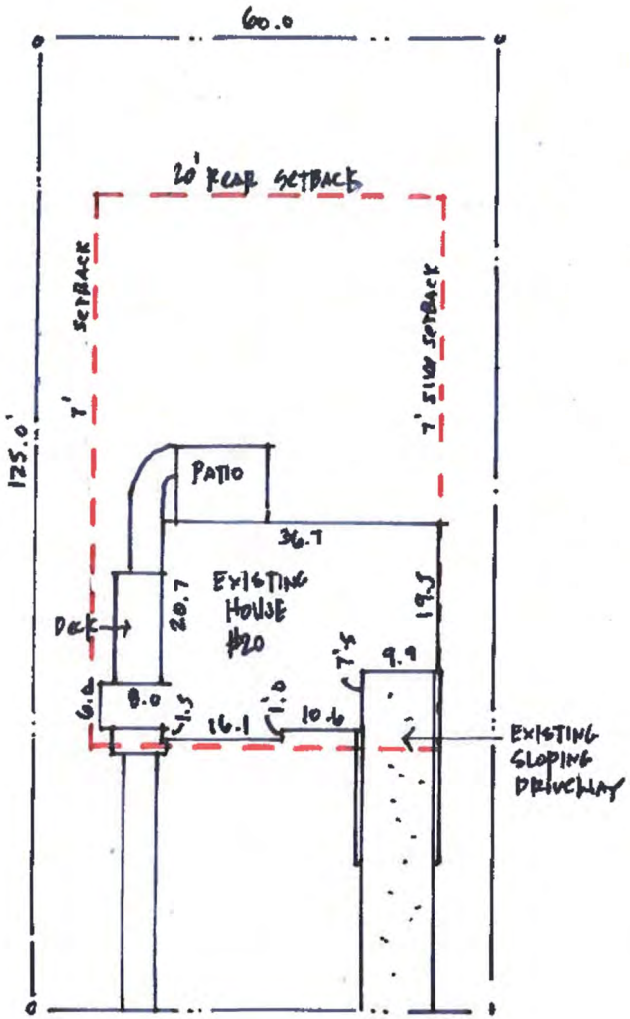
GTM ARCHITECTS

20 GRAFTON STREET, CHEVY CHASE, MD, 20815

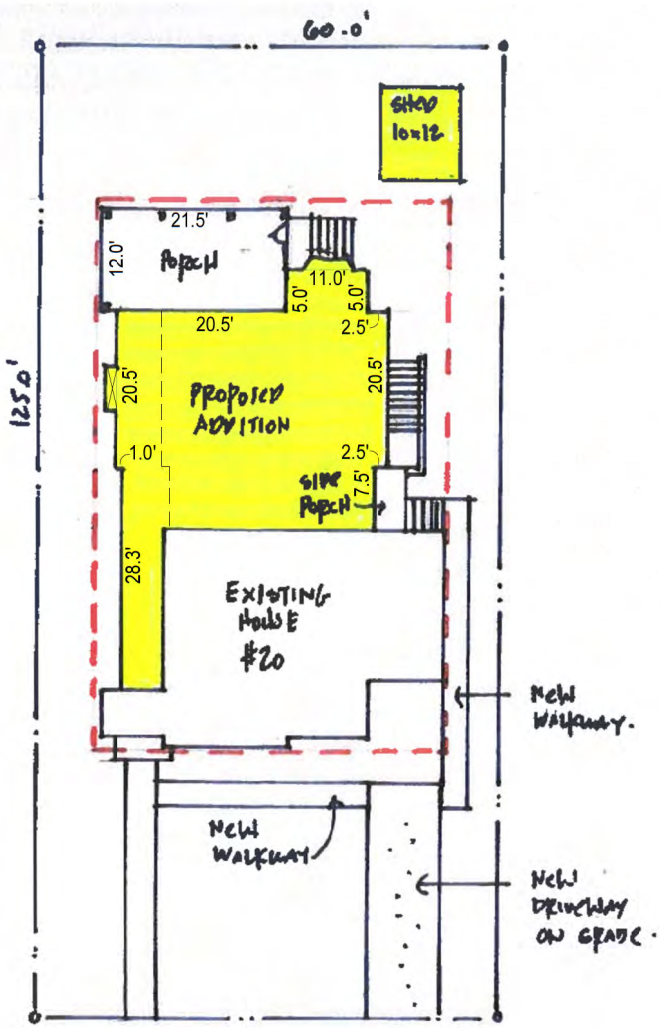
7735 OLD GEORGETOWN ROAD, SUITE 700, BETHESDA, MD 20814 - TEL: (240) 333-2000 - FAX: (240) 333-2001

ZONED: R-60 ZONING DATA

LOT AREA	7,500 S.F. MIN.
LOT COVERAGE	28.5% MAX (2137.5 S.F.) MONTG CO 35% MAX (2,625.0 S.F.) CCV
FRONT YARD SETBACK	35' MIN.
SIDE YARD SETBACK	7' MIN
REAR YARD SETBACK	20.0' MIN.
LOT FRONTAGE	60.0' MIN.
BUILDING HEIGHT	2 ½ STORIES, 35' MAX (TO PEAK) 30' MAX (MEAN OF RF.)



1 EXISTING SITE PLAN
SCALE: 1/16"=1'=0



1 PROPOSED SITE PLAN
SCALE: 1/16"=1'=0

GRAPHIC SCALE

0 10' 20' 40'

LOT COVERAGE: CHEVY CHASE VILLAGE

EXISTING HOUSE :	985 S.F.
PROPOSED ADDITION:	1,120 S.F.
PORCHES:	325 S.F.
STAIRS TO GRADE:	75 S.F.
SHED:	120 S.F.
TOTAL:	2,625 S.F. CCV

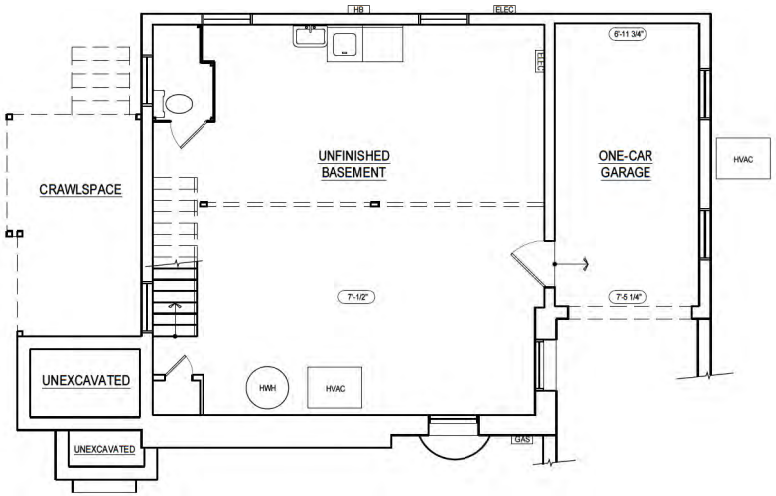
LOT COVERAGE: MONTG. COUNTY

EXISTING HOUSE :	985 S.F.
PROPOSED ADDITION:	1,070 S.F.
TOTAL:	2,055 S.F.

RANEY RESIDENCE

20 GRAFTON STREET, CHEVY CHASE, MD, 20815

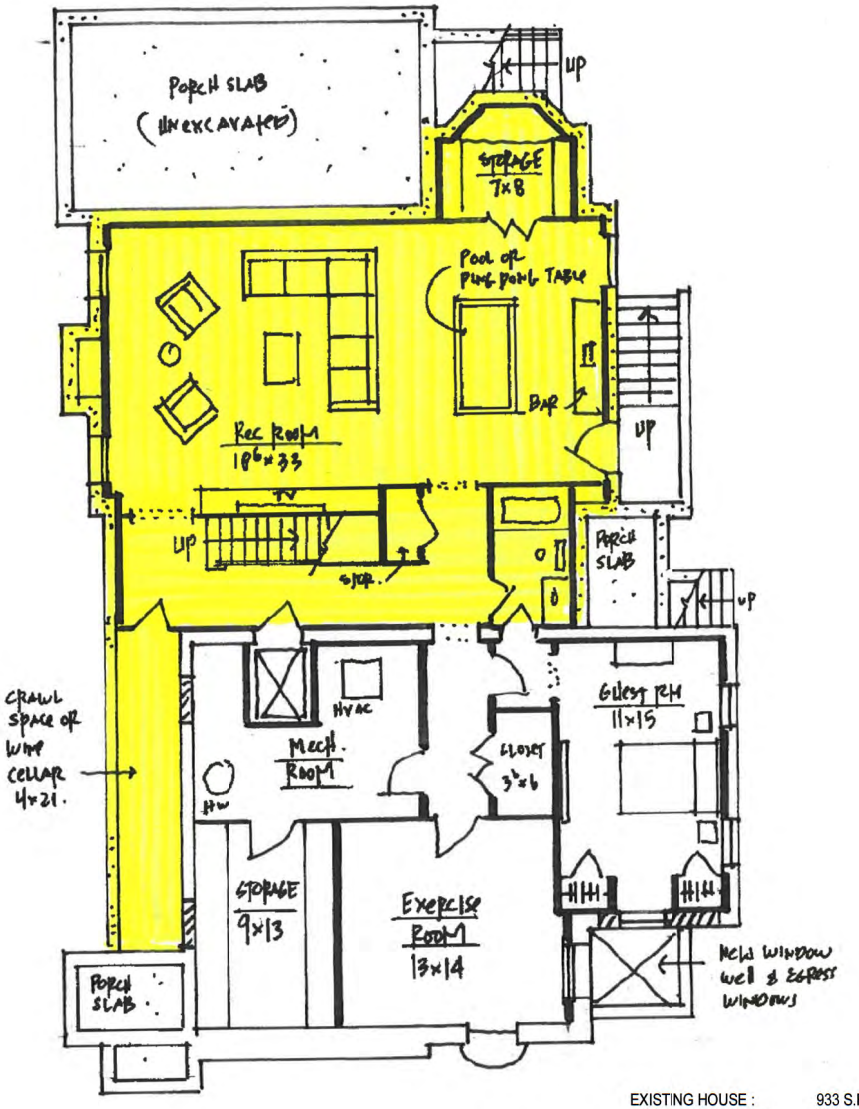
GTM ARCHITECTS
7735 OLD GEORGETOWN ROAD, SUITE 700, BETHESDA, MD 20814 - TEL: (240) 333-2000 - FAX: (240) 333-2001



SCALE 1/8"=1'-0"

0' 4' 8' 16'

EXISTING LOWER LEVEL



PROPOSED LOWER LEVEL

EXISTING HOUSE : 933 S.F.
PROPOSED ADDITION: 1,115 S.F.

TOTAL: 2,048 S.F.

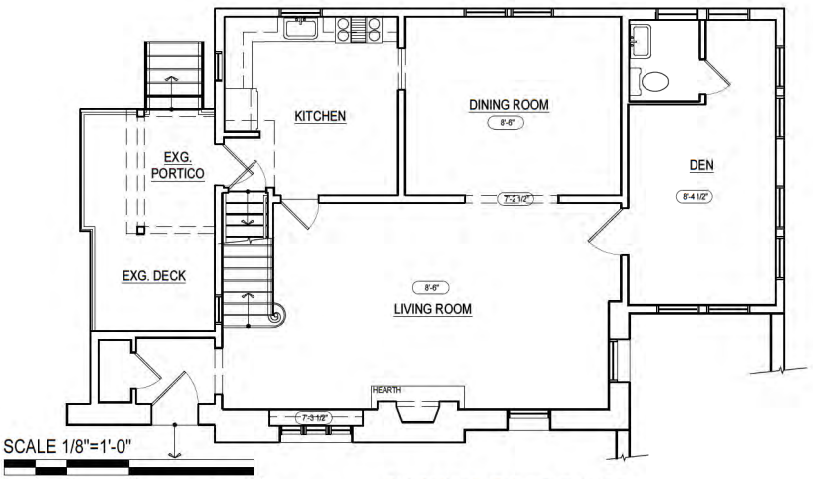
GTM

GTM ARCHITECTS

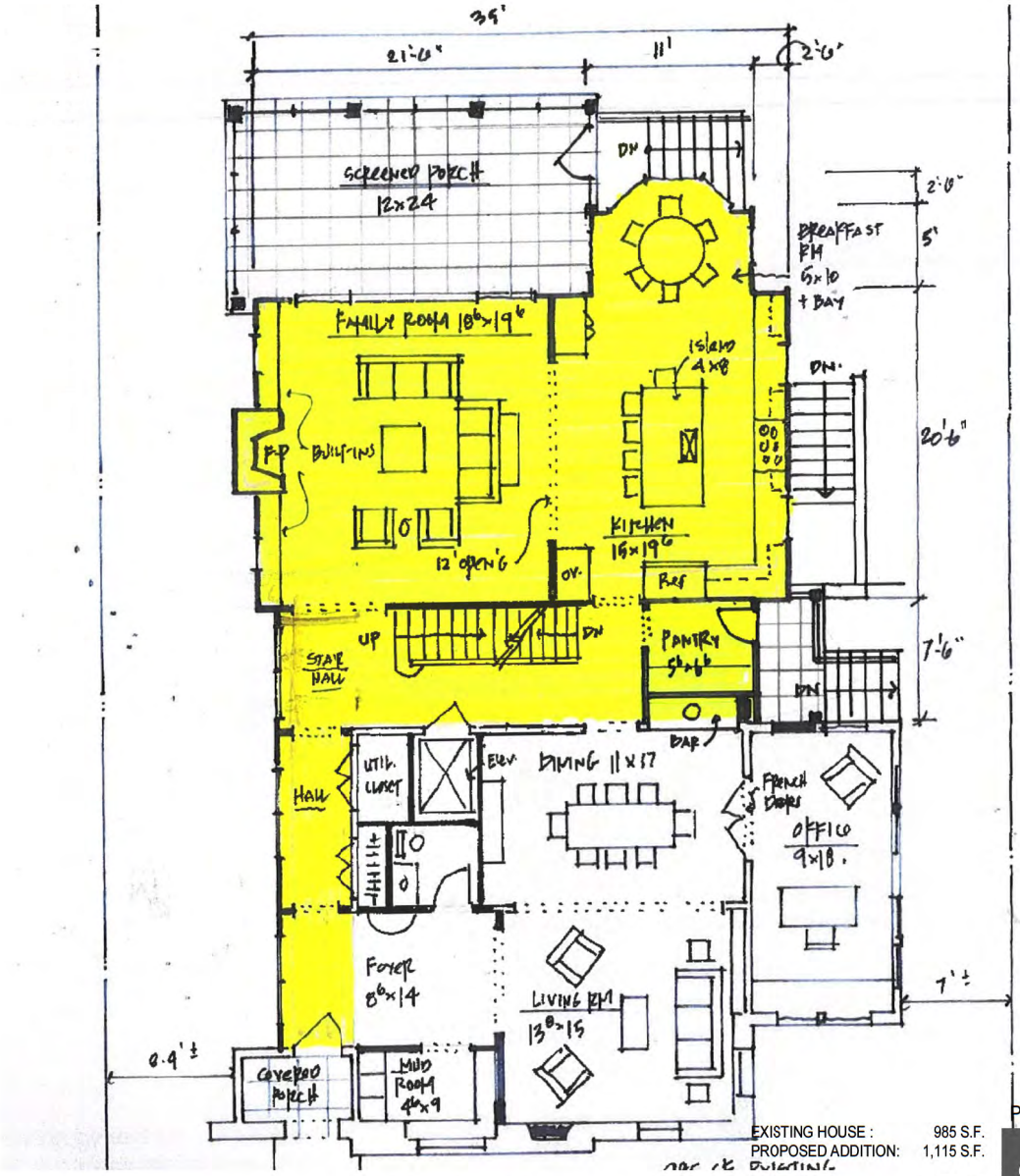
RANEY RESIDENCE

20 GRAFTON STREET, CHEVY CHASE MD, 20815

7735 OLD GEORGETOWN ROAD, SUITE 700, BETHESDA, MD 20814 - TEL: (240) 333-2000 - FAX: (240) 333-2001



EXISTING FIRST FLOOR



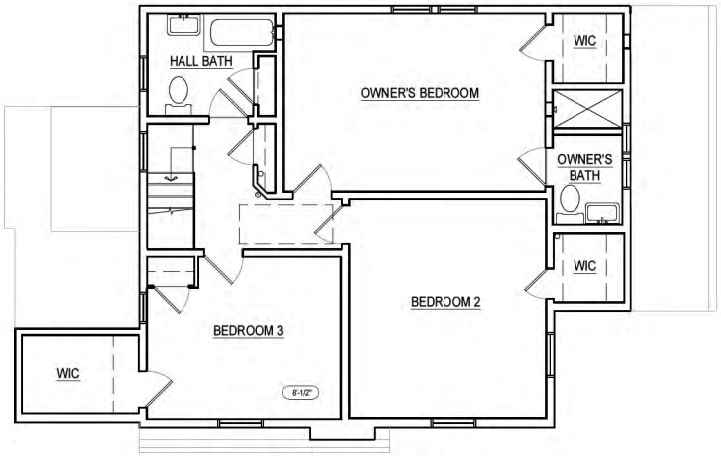
PROPOSED FIRST FLOOR

EXISTING HOUSE :	985 S.F.
PROPOSED ADDITION:	1,115 S.F.
TOTAL:	2,100 S.F.

RANEY RESIDENCE

20 GRAFTON STREET, CHEVY CHASE, MD, 20815

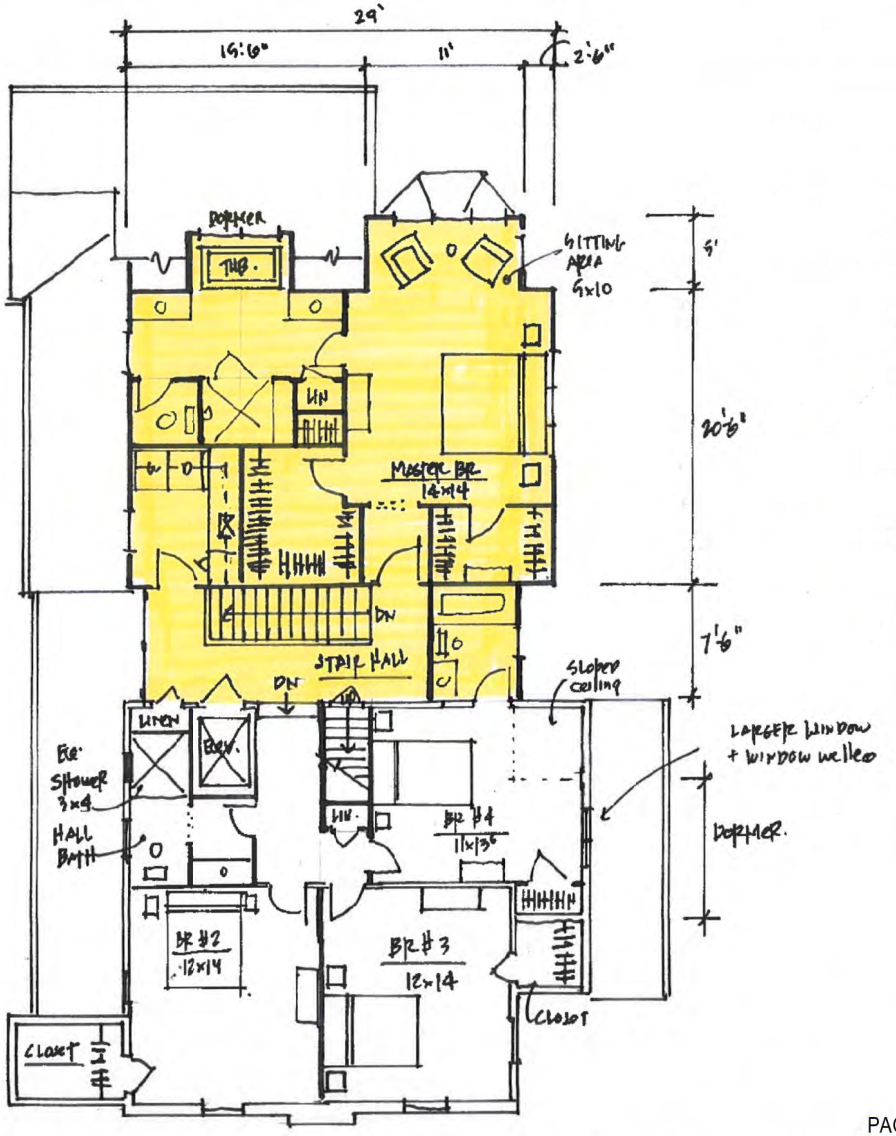
GTM ARCHITECTS
7735 OLD GEORGETOWN ROAD, SUITE 700, BETHESDA, MD 20814 · TEL: (240) 333-2000 · FAX: (240) 333-2001



SCALE 1/8"=1'-0"

0' 4' 8' 16'

EXISTING SECOND FLOOR



PROPOSED SECOND FLOOR OPT 1

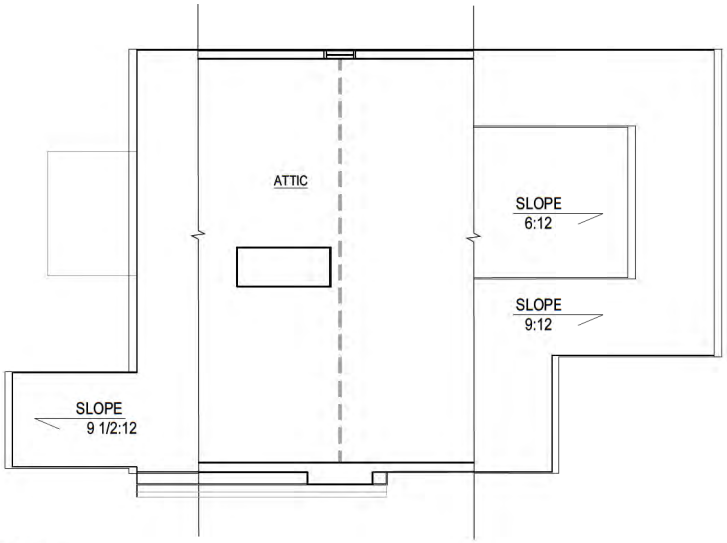
EXISTING HOUSE :	870 S.F.
PROPOSED ADDITION:	755 S.F.
TOTAL:	1,625 S.F.

GTM ARCHITECTS

RANEY RESIDENCE

20 GRAFTON STREET, CHEVY CHASE, MD, 20815

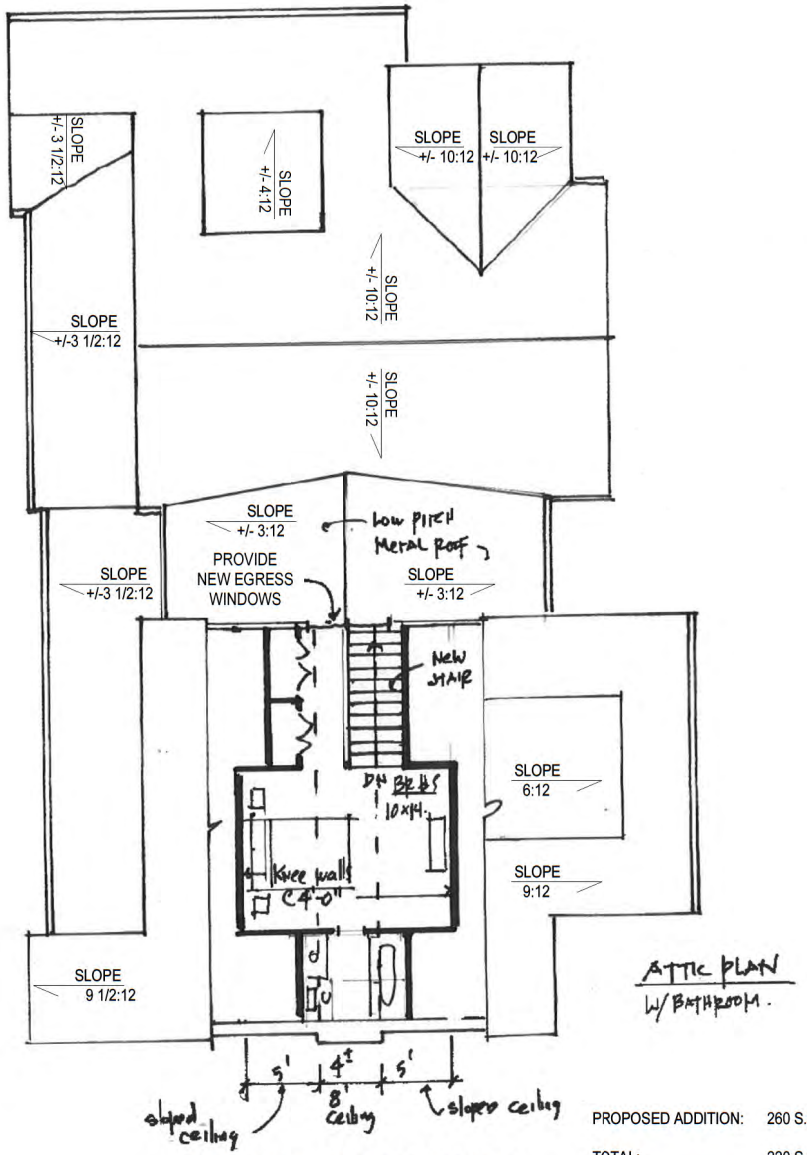
7735 OLD GEORGETOWN ROAD, SUITE 700, BETHESDA, MD 20814 - TEL: (240) 333-2000 - FAX: (240) 333-2001



SCALE 1/8"=1'-0"

0' 4' 8' 16'

EXISTING ATTIC FLOOR



PROPOSED ATTIC FLOOR OPT 1

PROPOSED ADDITION: 260 S.F.

TOTAL: 220 S.F.

GTM

GTM ARCHITECTS

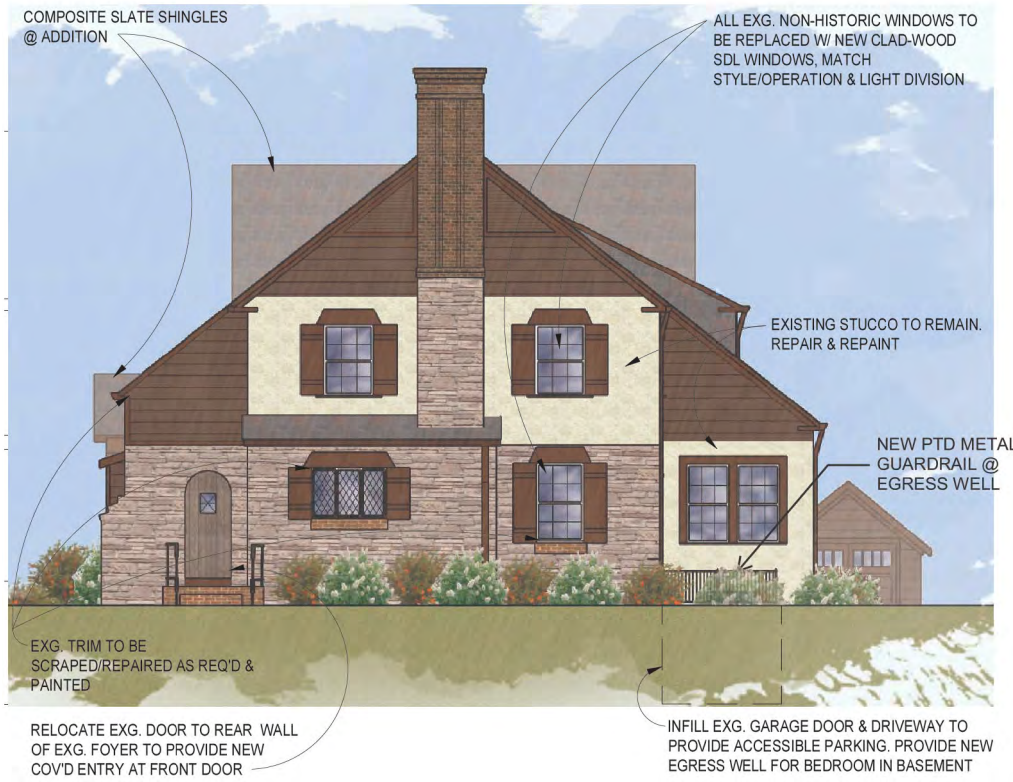
RANEY RESIDENCE

20 GRAFTON STREET, CHEVY CHASE, MD, 20815

7735 OLD GEORGETOWN ROAD, SUITE 700, BETHESDA, MD 20814 - TEL: (240) 333-2000 - FAX: (240) 333-2001

EXISTING FRONT ELEVATION

ANY EXG. TRIM THAT CANNOT BE REPAIRED IS TO BE REPLACED IN-KIND



PROPOSED FRONT ELEVATION

SCALE 1/8"=1'-0"

0' 4' 8' 16'

GTM

GTMARCHITECTS

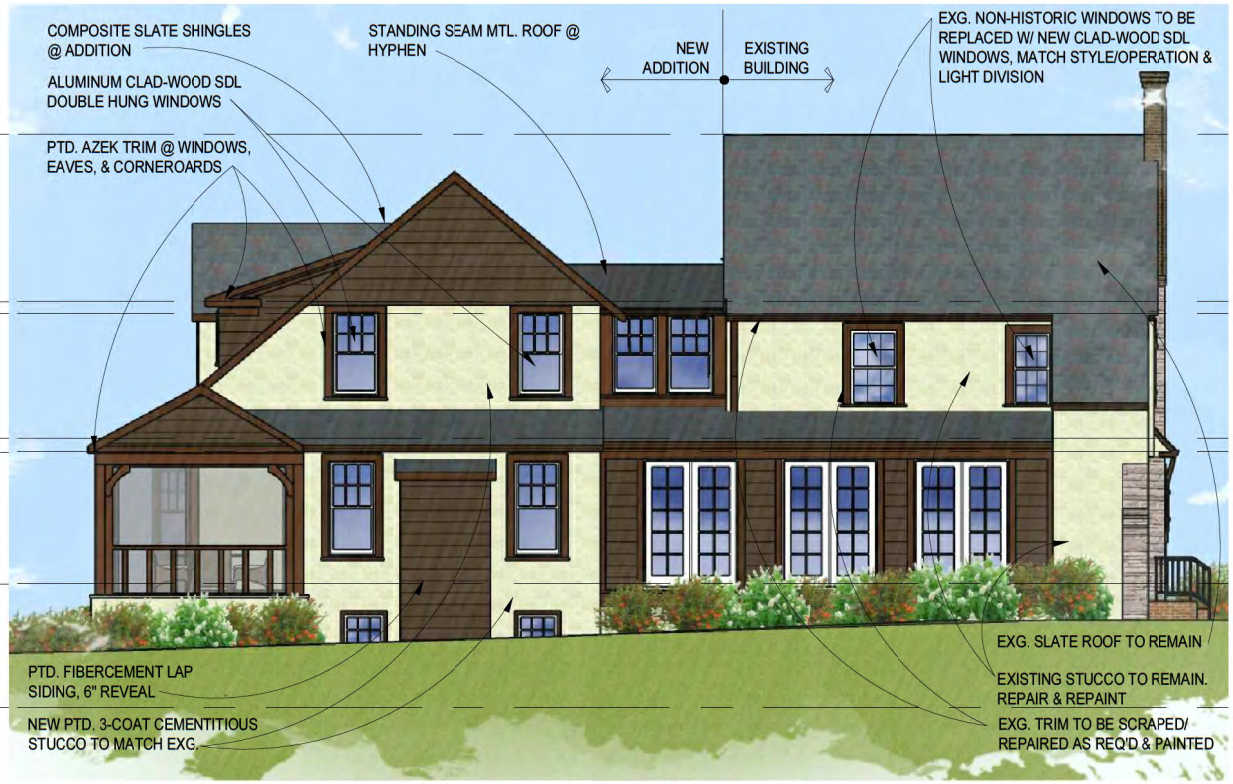
RANEY RESIDENCE

20 GRAFTON STREET, CHEVY CHASE, MD, 20815

7735 OLD GEORGETOWN ROAD, SUITE 700, BETHESDA, MD 20814 - TEL: (240) 333-2000 - FAX: (240) 333-2001

ANY EXG. TRIM THAT CANNOT BE REPAIRED IS TO BE REPLACED IN-KIND

EXISTING LEFT ELEVATION



PROPOSED LEFT ELEVATION

SCALE 1/8"=1'-0"

0' 4' 8' 16'

PAGE 10

GTM

GTMARCHITECTS

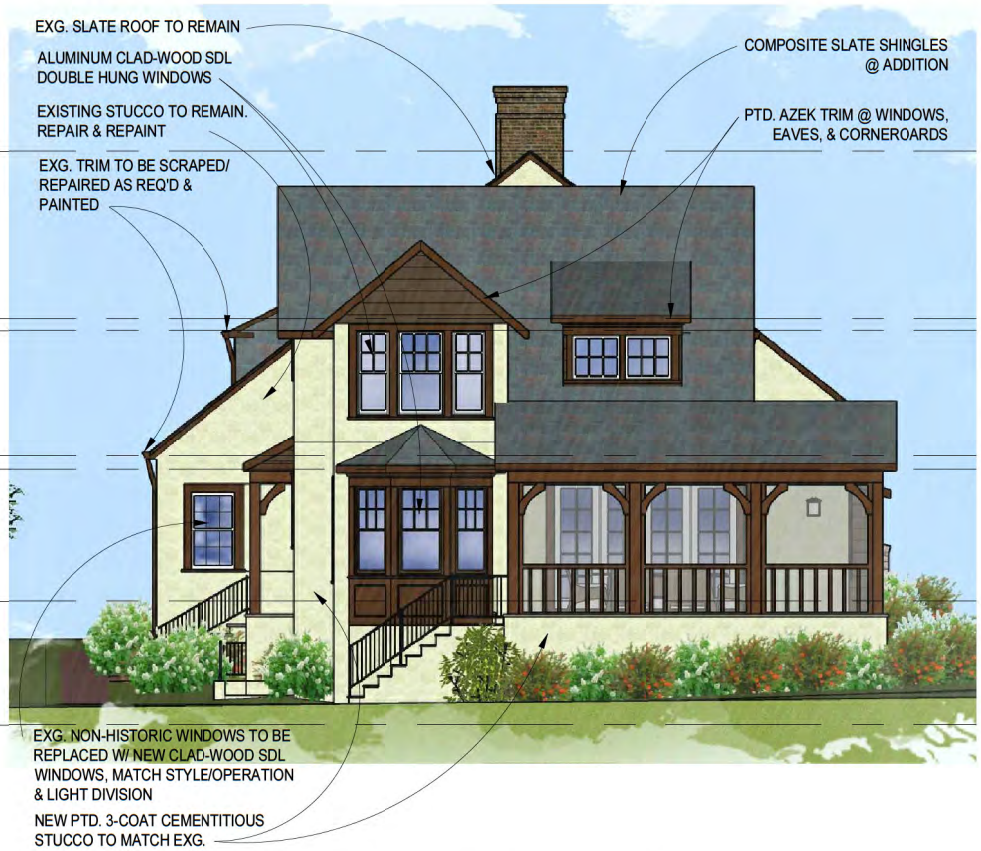
RANEY RESIDENCE

20 GRAFTON STREET, CHEVY CHASE, MD, 20815

7735 OLD GEORGETOWN ROAD, SUITE 700, BETHESDA, MD 20814 - TEL: (240) 333-2000 - FAX: (240) 333-2001

EXISTING REAR ELEVATION

ANY EXG. TRIM THAT CANNOT BE REPAIRED IS TO BE REPLACED IN-KIND



PROPOSED REAR ELEVATION

SCALE 1/8"=1'-0"

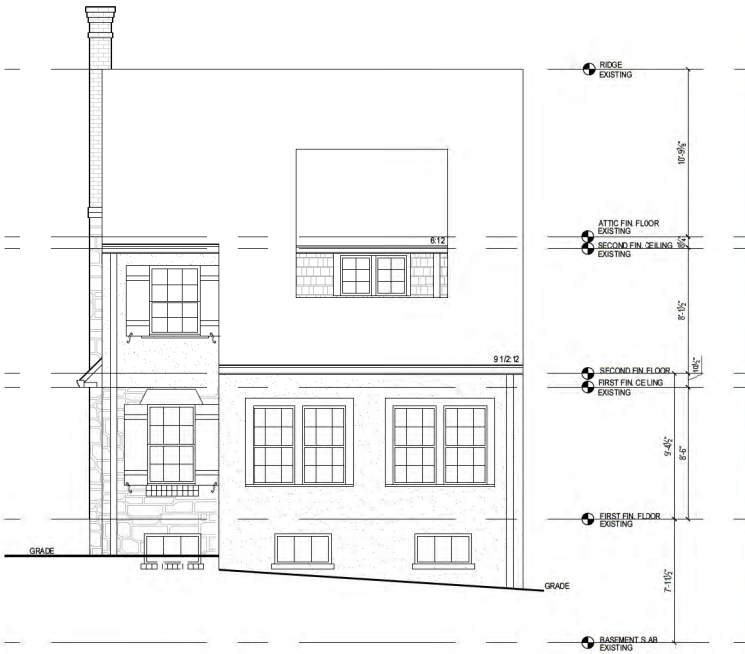
0' 4' 8' 16'

RANEY RESIDENCE

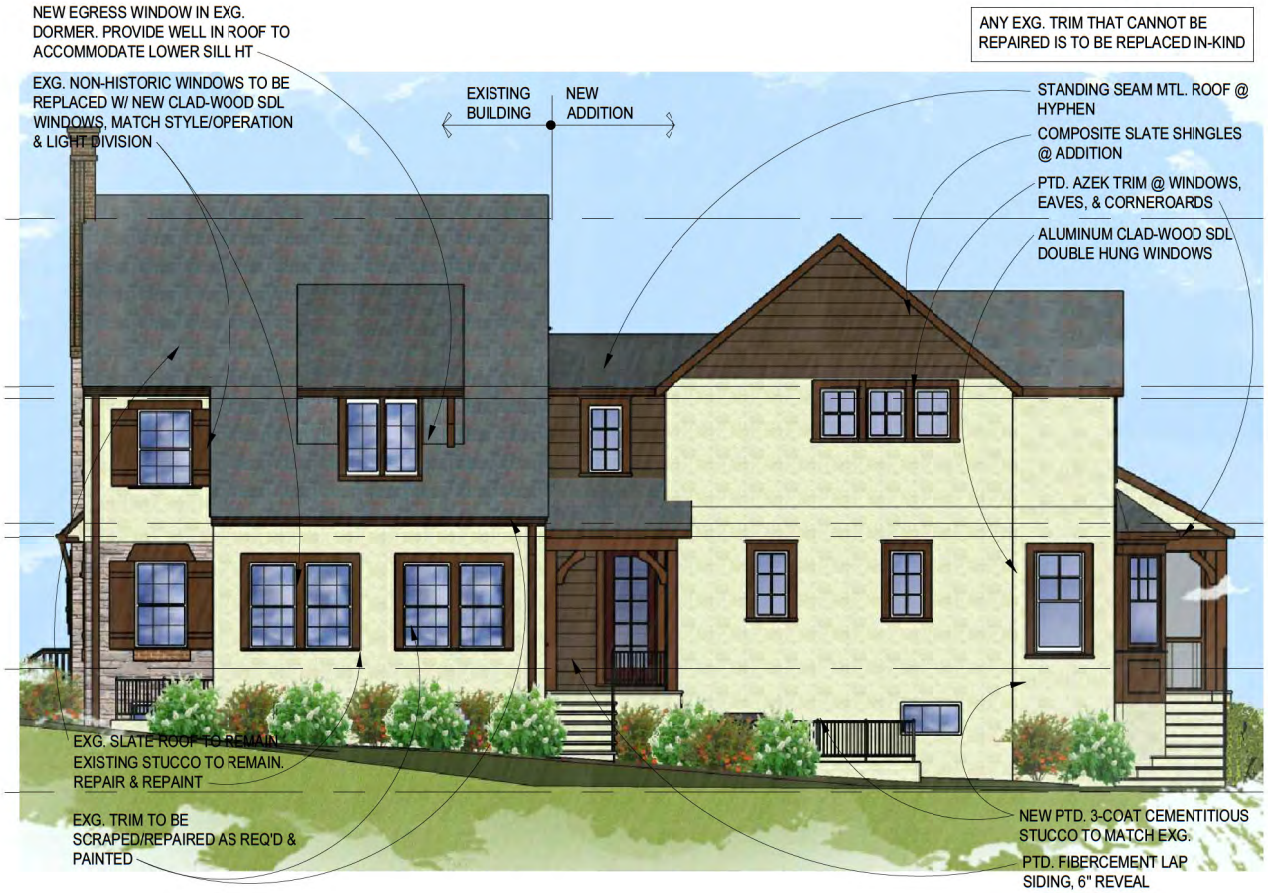
20 GRAFTON STREET, CHEVY CHASE, MD, 20815

GTM ARCHITECTS

7735 OLD GEORGETOWN ROAD, SUITE 700, BETHESDA, MD 20814 - TEL: (240) 333-2000 - FAX: (240) 333-2001



EXISTING RIGHT ELEVATION



PROPOSED RIGHT ELEVATION

SCALE 1/8"=1'-0"

0' 4' 8' 16'

PAGE 12

GTM

GTM ARCHITECTS

RANEY RESIDENCE

20 GRAFTON STREET, CHEVY CHASE, MD, 20815

7735 OLD GEORGETOWN ROAD, SUITE 700, BETHESDA, MD 20814 - TEL: (240) 333-2000 - FAX: (240) 333-2001

EXISTING RIGHT VIEW

PROPOSED RIGHT VIEW

EXISTING REAR LEFT SIDE VIEW

PROPOSED REAR LEFT SIDE VIEW

RANEY RESIDENCE

20 GRAFTON STREET, CHEVY CHASE, MD, 20815

GTM ARCHITECTS

7735 OLD GEORGETOWN ROAD, SUITE 700, BETHESDA, MD 20814 - TEL: (240) 333-2000 - FAX: (240) 333-2001

EXISTING FRONT AERIAL VIEW

PROPOSED FRONT AERIAL VIEW

EXISTING REAR AERIAL VIEW

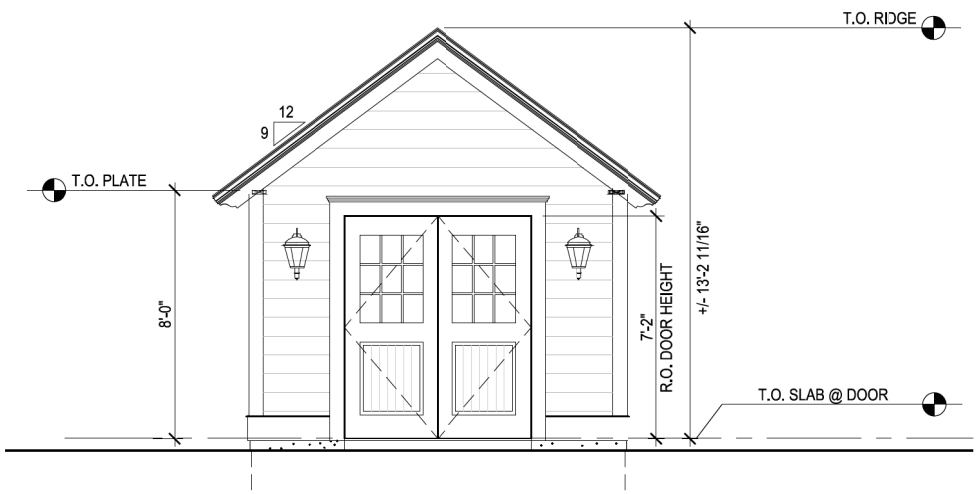
PROPOSED REAR AERIAL VIEW

RANEY RESIDENCE

20 GRAFTON STREET, CHEVY CHASE, MD, 20815

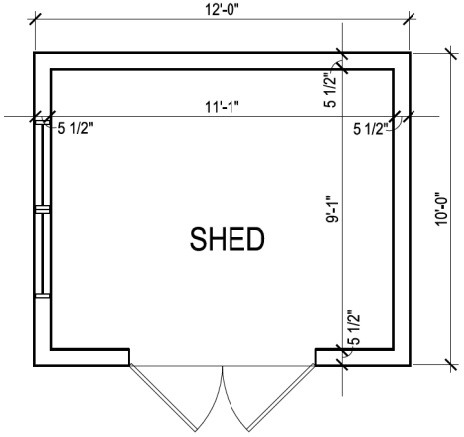
GTM ARCHITECTS

7735 OLD GEORGETOWN ROAD, SUITE 700, BETHESDA, MD 20814 - TEL: (240) 333-2000 - FAX: (240) 333-2001

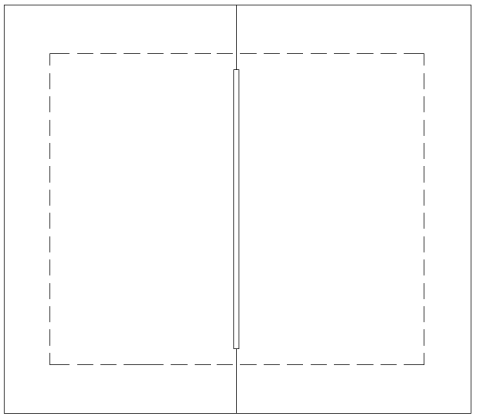


FRONT ELEVATION

LEFT ELEVATION



FLOOR PLAN



ROOF PLAN

SCALE 1/8"=1'-0"

0' 4' 8' 16'

PAGE 15

RANEY RESIDENCE

20 GRAFTON STREET, CHEVY CHASE, MD, 20815

GTM ARCHITECTS

7735 OLD GEORGETOWN ROAD, SUITE 700, BETHESDA, MD 20814 - TEL: (240) 333-2000 - FAX: (240) 333-2001

Product Features

Styles

Traditional, Push Out and Mission® options.

Standard Features

- Natural, clear Douglas Fir interior (no visible finger joints)
- 4 9/16" (116 mm) jamb construction
- LowE insulated glazing with 1/2" (13 mm) airspace
- Roto gear operator and concealed sash locks
- Extruded aluminum cladding in a variety of standard colors, primed wood or clear fir exterior
- Flexible continuous weatherstrip system
- Insect screens
- Metal handle, cover and locks

Hardware

Multiple hardware type and finish choices are available. See the Hardware in section A for more information.

Glazing

LowE Double, LowE Triple, Tranquility® and StormForce™. StormForce is not available on all products.

Simulated Divided Lites (SDL)

Ogee Profile – 3/4" (19 mm), 1 1/8" (30 mm), 2" (51 mm)

Putty Profile – 5/8" (16 mm), 7/8" (22 mm), 1 1/8" (30 mm), 2" (51 mm)

Square Profile (interior only) – 3/4" (19 mm), 7/8" (22 mm), 1 1/8" (30 mm), 2" (51 mm)

Casing

Wood: 2" (51 mm) Brickmould, 3 1/2" (89 mm) Flat, 5 1/2" (139 mm) Flat, Adams and Williamsburg.

Metal Clad: 2" (51 mm) Brickmould, 3 1/2" (89 mm) Flat, 2" clad frame extension, Nose & Cove, Adams, Williamsburg and Contemporary.

Metal Clad Color Spectrum

All Palette colors, including anodized finishes. Available in Cyprium Collection.

Casement

Mission® Casement

Push Out Casement

LEGEND: ● Standard ○ Optional

HARDWARE STYLES	Traditional Casement	Mission® Casement	French Casement	Push Out Casement
Folding Crank Handle	●	●	●	
Push Out Handle				●
Multipoint Lock	●	●	●	○

FINISH OPTIONS: REFER TO SECTION A.

VARIABLES	Traditional Casement	Mission® Casement	French Casement	Push Out Casement
Function:				
Use for Egress	●	●	●	●
Available with Screen	●	●	●	●[1]
Concealed Hardware	●	●	●	
Durability:				
Low Maintenance Metal Clad Exterior	●	●	●	●
Clear Douglas Fir Exterior Finish	○	○	○	○
Clear Mahogany Exterior Finish	○	○	○	○
Primed Exterior Finish	○	○	○	○
Cyprium Collection	○			○
Performance:				
LowE Double	●	●	●	●
LowE Triple	○	○	○	○
StormForce™	○	○		
Appearance:				
SDL	○	○	○	○

Specifications

Standards

Most units have been tested by an independent laboratory for air and water infiltration, structural performance, and thermal performance requirements.

Frame & Sash

Manufactured from Coastal Douglas Fir kiln-dried lumber with frame construction designed for 4 9/16" (116 mm) jamb. All wood exterior components are factory primed unless specified as clear exterior. Minor scratches or abrasions in the wood surface or primer are not considered defects.

Alternate Species

The entire Loewen product line is also available in optional Mahogany.

Preservative Treated

All wood parts are dipped in approved preservative.

Glazing

With countless glazing configurations and LowE coating options, we ensure that you can choose the perfect blend of protection and comfort.

Insulating Glass

Double or triple glass configurations with 1/2" (13 mm) airspace.

LowE Systems

LowE best describes the benefits of the product that incorporates glazing coatings and Argon gas. LowE systems help reduce heating and cooling costs, providing superior energy efficiency.

Simulated Divided Lites (SDL)

Standard SDL complete with airspace grilles, where available. Grille bars are permanently applied to the interior and exterior.

Hardware Option

Operator and sash locks are available in a variety of finishes. See section A.

Metal Cladding

Heavy duty exterior metal cladding comprised of extruded aluminum is available in a variety of Palette colors, including anodized and Cyprium (copper and bronze cladding). Interior of window can be natural wood (unfinished) or primed. Metal clad units are supplied ready-to-install complete with integral metal nailing flange.

Hardware

Standard Casement sash opens out to nearly 90 degrees for ease of cleaning. The roto gear operator will hold the sash at any position in its operating radius. The sash is supported by concealed heavy-duty hinges. All steel components are coated for superior corrosion protection.

Double Weatherstrip

The combination of a continuous, flexible foam weatherstrip and a flexible automotive type bulb weatherstrip ensures maximum energy efficiency and protection against air and water infiltration.

Screen

Screens available in bronze, linen, Tuscany brown, brushed aluminum or black aluminum frame, screened with anti-glare fiberglass cloth. Wood-framed screens and High Transparency mesh available. Optional Retractable Screen and Swinging Screen available. Swinging Screen available on Push Out models only.

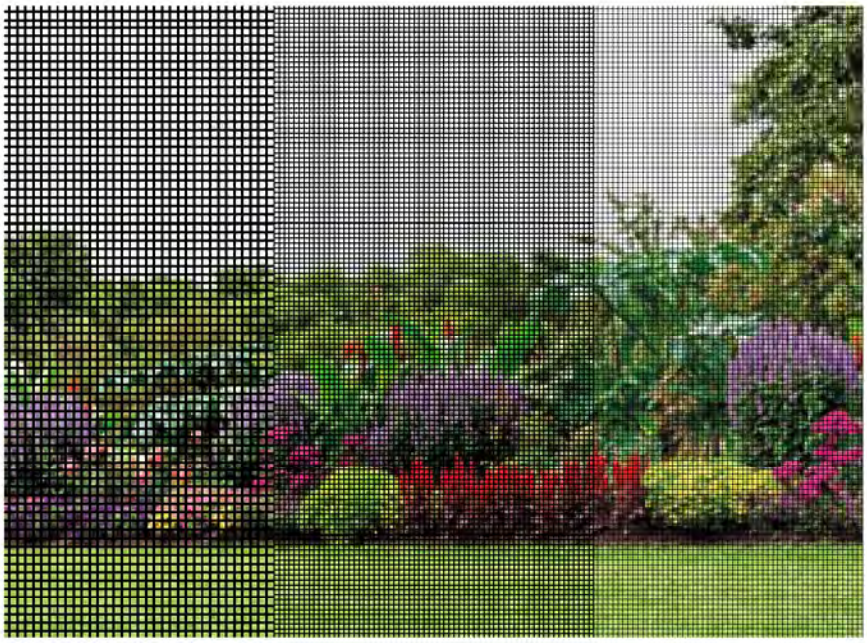
Egress

Consult local building codes for confirmation of size requirements for your area. Special egress hardware is available for Casement windows, which enables some sizes to meet egress codes, eliminating the need to go to the next larger size window. Consult your Authorized Loewen Dealer for more details.

Visit the Loewen Photo Gallery online at www.loewen.com for a large collection of Loewen product and elevation photography. Numerous custom window configuration opportunities exist – please contact your Authorized Loewen Dealer. Specifications and technical information are subject to change without notice. Imperial and metric measurements are converted accurately. However, in some cases, industry standards cause a 1 mm variance. (Example: 3/4" is shown as 19 mm for all glass measurements.) Cad Download: www.loewen.com/architect | Installation Instructions: www.loewen.com

Screens

All exterior-applied screens for Pinnacle double hung, glide-by and patio doors come with screen frames matching the clad color of the unit. Interior-applied screens for Pinnacle casement and awning windows have screen frames available in champagne, white, bronze, black, wood-veneered pine, wood-veneered alder or wood-veneered fir.



Conventional Screen Mesh | BetterVue® (Standard) | UltraVue®

Grilles

All of our wood and cellular PVC (CPVC) Windsor Divided Lite bars are hand-fitted to ensure a perfect fit.

7/8" & 1-1/4" Perimeter Grille

7/8" & 1-1/4" Stick Grille

3/4" & 1" Profiled Inner Grille

13/16" Flat Inner Grille *(Not available on Select)*

7/8" & 1-1/4" Interior Wood Windsor Divided Lite

7/8" & 1-1/4" Exterior Clad Windsor Divided Lite

7/8" & 1-1/4" Exterior CPVC Windsor Divided Lite *(Primed only)*

5/8" & 7/8" Tall Putty Windsor Divided Lite

5/8" & 7/8" Short Putty Windsor Divided Lite

1/4" Ogee

5/8", 7/8", 1-1/4" & 2" Contemporary Windsor Divided Lite

5/8", 7/8", 1-1/4" & 2" Contemporary Windsor Divided Lite

2" Tall Putty Simulated Check Rail

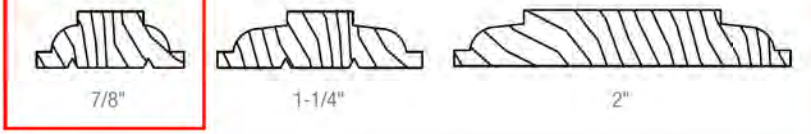
2" Exterior Low Profile Simulated Check Rail

2" CPVC Simulated Check Rail *(Primed only)*

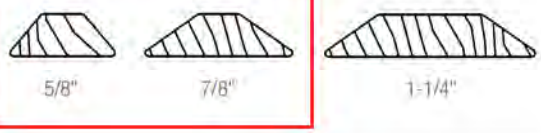
3-3/8" Simulated Mid Rail

Grille Profiles

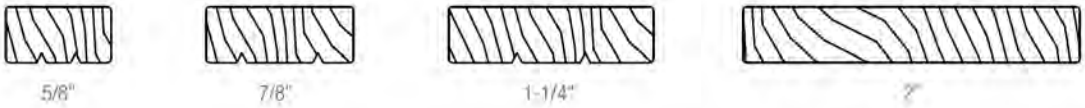
Interior Grilles – Ogee



Interior Grilles – Putty

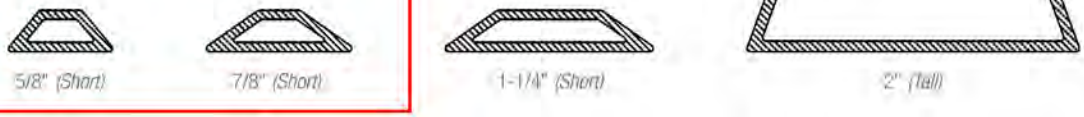


Interior Grilles – Contemporary



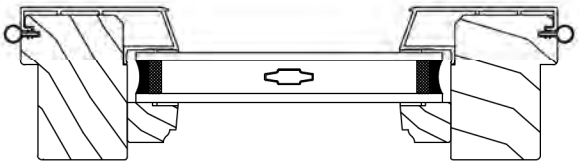
Exterior Grilles – Ogee

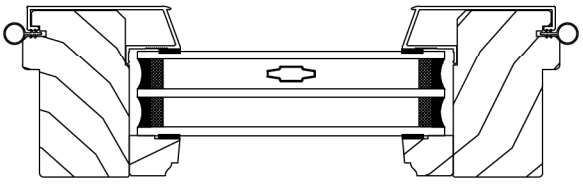
Exterior Grilles – Putty

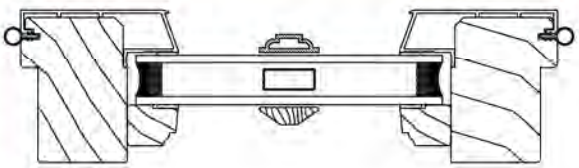


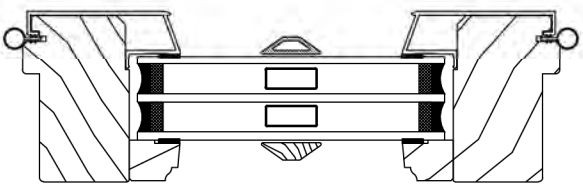
Exterior Grilles – Contemporary

Grille Sections


Standard Select IG with Inner Grille

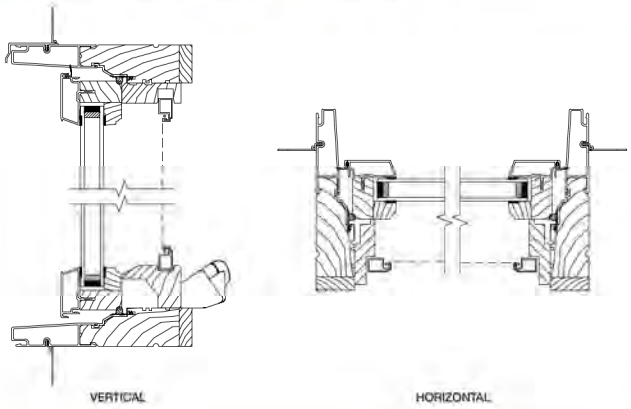

Triple IG with Inner Grille


Standard Select IG with WDL
and Inner Bar

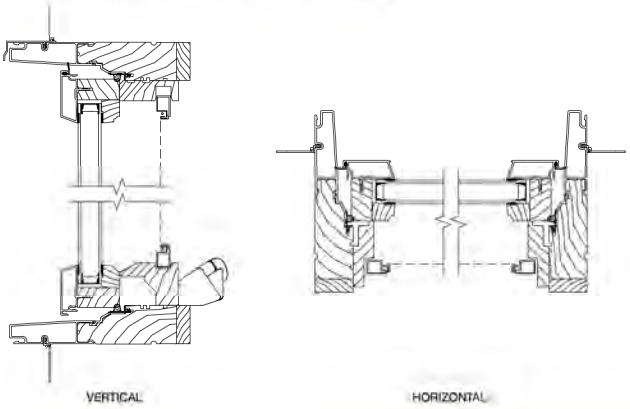

Triple IG with WDL
and Inner Bar

Pinnacle Clad Casement & Awning
Technical Drawings

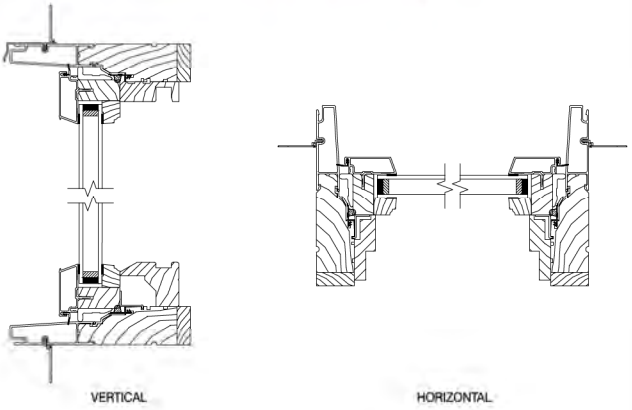
Pinnacle Clad Casement – Operating



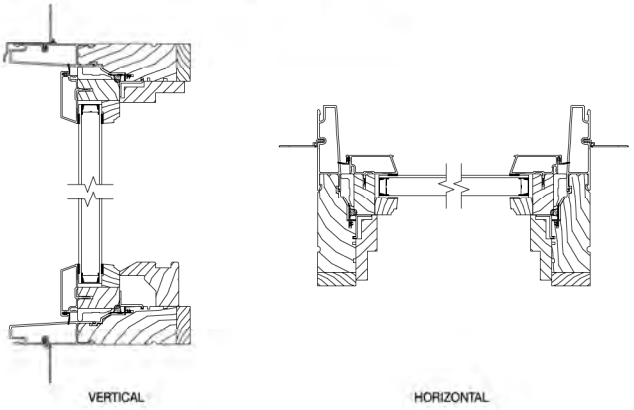
Pinnacle Clad Awning – Operating



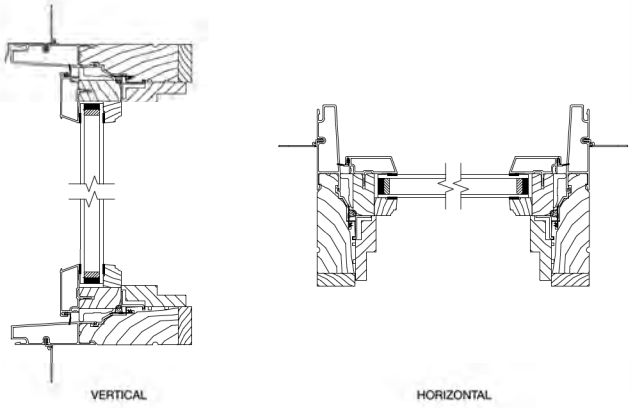
Pinnacle Clad Casement – Stationary



Pinnacle Clad Awning – Stationary



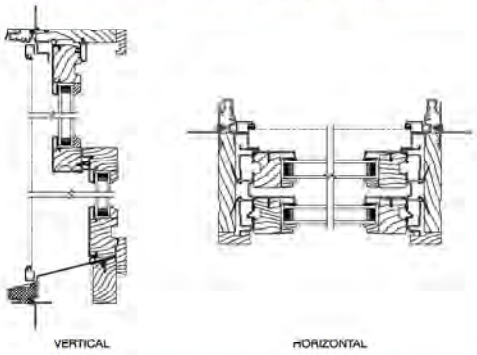
Pinnacle Clad Casement – Transom and Picture



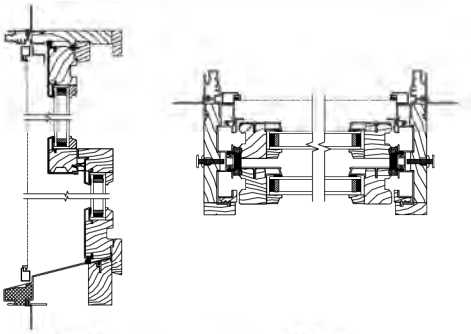
All sizes and specifications subject to change without notice.

Pinnacle Clad/Primed Double Hung & Glide-by
Technical Drawings

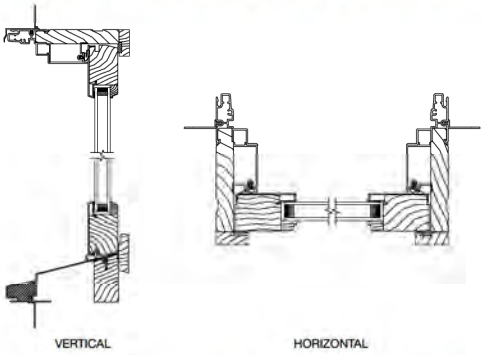
Pinnacle Clad Double Hung – Operating



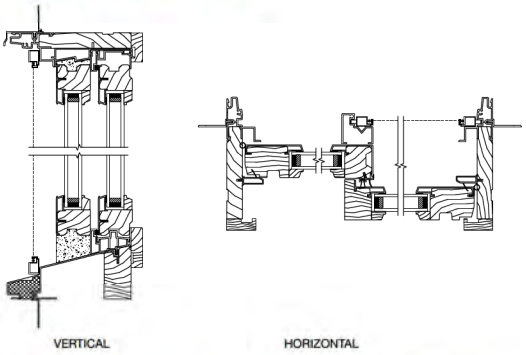
Pinnacle Clad Concealed Jambliner Double Hung - Operating



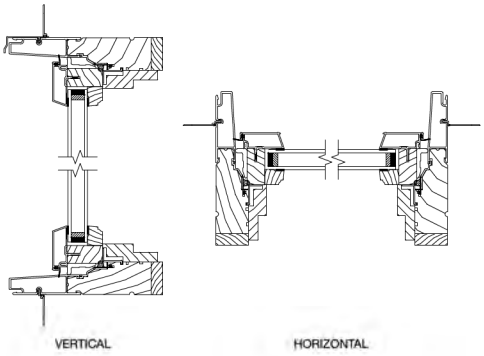
Pinnacle Clad Double Hung – Picture



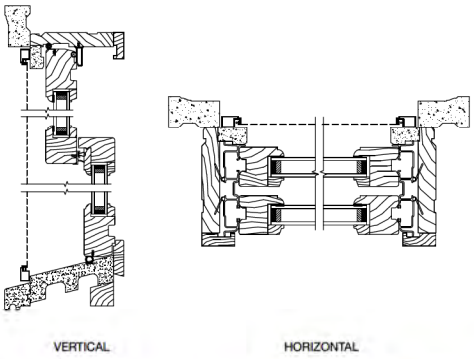
Pinnacle Clad Glide-by



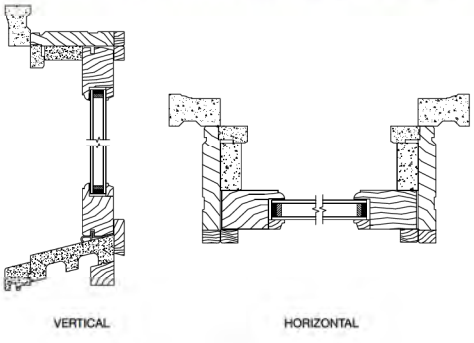
Pinnacle Clad Double Hung – Transom



Pinnacle Primed Double Hung – Operating



Pinnacle Primed Double Hung – Picture



All sizes and specifications subject to change without notice.

HardiePlank® Lap Siding Product Description

HardiePlank® lap siding is factory-primed fiber-cement lap siding available in a variety of styles and textures. Please see your local James Hardie® product dealer for product availability. HardiePlank lap siding comes in 12-ft. lengths. Nominal widths from 5¼ in. to 12 in. create a range of exposures from 4 in. to 10¾ in.

HardiePlank lap siding is also available with ColorPlus® Technology as one of James Hardie's prefinished products. ColorPlus® Technology is a factory applied, oven-baked finish available on a variety of James Hardie siding and trim products. See your local dealer for details and availability of products, colors, and accessories.

The HZ5® product line is right at home in climates with freezing temperatures, seasonal temperature variations, snow and ice. HZ5® boards are the result of our generational evolution of our time-tested products. We've evolved our substrate composition to be specifically designed to perform in conditions found in these climates. To ensure that its beauty matches its durability, we've engineered the surface for higher performance, giving it superior paint adhesion and moisture resistance. In addition, we've added a drip edge to the HardiePlank® HZ5® lap siding product to provide improved water management in conditions specific to HZ5® climates.

Cedarmill©

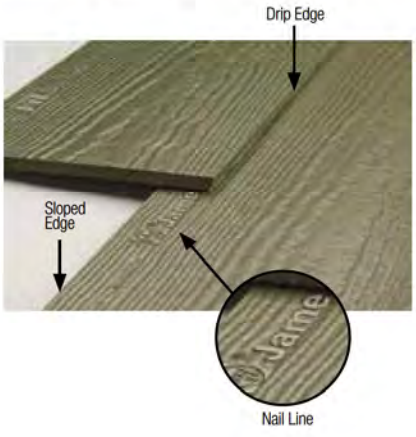
Smooth

Beaded Cedarmill©

Beaded Smooth

Colonial Roughsawn

Colonial Smooth



HardiePlank®

Thickness 5/16 in

Length 12 ft planks

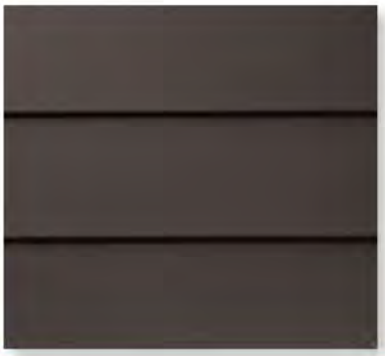
SELECT CEDARMILL® & SMOOTH

Width	5.25 in*	6.25 in	7.25 in	8.25 in
Exposure	4 in	5 in	6 in	7 in
Prime Pcs/Pallet	360	308	252	230
ColorPlus Pcs/Pallet	324	280	252	210
Pcs/Sq	25.0	20.0	16.7	14.3

SELECT CEDARMILL®

Width	5.25 in*	6.25 in	7.25 in	8.25 in
STATEMENT COLLECTION™				✓
DREAM COLLECTION™	✓	✓	✓	✓
PRIME	✓	✓	✓	✓

SMOOTH



Width	5.25 in*	6.25 in	7.25 in	8.25 in
STATEMENT COLLECTION™				✓
DREAM COLLECTION™	✓	✓	✓	✓
PRIME	✓	✓	✓	✓

BEADED CEDARMILL®

BEADED CEDARMILL® & BEADED SMOOTH

Width	8.25 in
Exposure	7 in
ColorPlus Pcs/Pallet	210
Pcs/Sq	14.3
STATEMENT COLLECTION™	
DREAM COLLECTION™	✓
PRIME	

BEADED SMOOTH

*5.25 in widths not available in Virginia District for HZ5® product zones.

AZEK Trim
Designed to last beautifully.™

AZEK TRIM | #1 BRAND OF TRIM

Offering the unequalled combination of Uniformity, Durability, Workability and Beauty, AZEK Trim looks and feels like real wood, yet requires low maintenance to provide lasting curb appeal.

AZEK Trim products are available in many dimensions and sizes, most in both Traditional (smooth) and Frontier (rustic texture). With a building code listing (ESR-1074), AZEK Trim products can be worked similar to wood - even mitered, routed and turned on a lathe. For custom applications, AZEK Trim products can be laminated and heat formed to create curves. AZEK To Mill offers a true 1 1/4" profile that is perfect for fabrication and OEMs.

AZEK TRIM PRODUCTS

By thickness, width, and length

5/8 TRIM Traditional & Frontier		LENGTHS 12'	18'
ACTUAL DIMENSIONS	5/8 x 3 1/2"	•	•
	5/8 x 5 1/2"	•	•
	5/8 x 7 1/4"	•	•
	5/8 x 9 1/4"	•	•
	5/8 x 11 1/4"	•	•
	5/8 x 15 1/4"	•	•

4/4 TRIM Traditional & Frontier		LENGTHS 12'	18'
NOMINAL DIMENSIONS	1 x 2		•
	1 x 4	•	•
	1 x 5	•	•
	1 x 6	•	•
	1 x 8	•	•
	1 x 10	•	•
	1 x 12	•	•
	1 x 16	•	•

READY RAKE®	LENGTH
1 x 3 on 1 x 8	18'

QUICK CORNER®	LENGTH
6 x 6 corner with 13/16 J-Channel	20'


Trim - Traditional


Trim - Frontier


Finish Grade Trim


Universal Skirt Board


5/8" Beadboard

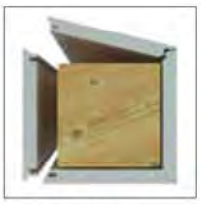

1/2" Beadboard


Integrated Drip Edge


Rabbeted Trim


Cornerboards


Rabbeted Cornerboards


Column Wrap


AZEK To Mill (ATM)


AZEK Sheets

AZEK Adhesive


ReadyRake®


QuickCorner®

AZEK Moulding
Designed to last beautifully.™

AZEK MOULDING | THE LOOK AND FEEL OF AZEK TRIM

High performing wood replacement mouldings available in a variety of profiles. A perfect match to AZEK Trim, AZEK Mouldings are known for longevity and durability. They won't split or rot and can be installed using traditional tools and fasteners.

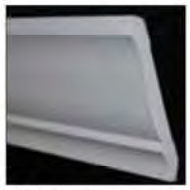
AZEK Mouldings *- Most can be heat formed to create curved moulding details.*

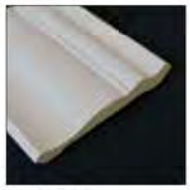
MOULDING PROFILES	SIZES
3" Crown	$^{9}/_{16}$" x $2^{3}/_{4}$" x 16'
4" Crown	$^{9}/_{16}$" x $3^{5}/_{8}$" x 16'
5" Crown	$^{11}/_{16}$" x $4^{5}/_{8}$" x 16'
6" Crown	$^{11}/_{16}$" x $5^{1}/_{4}$" x 16'
8" Crown	1" x $7^{1}/_{2}$" x 16'
Cove Moulding	$^{3}/_{4}$" x $4^{1}/_{4}$" x 16'
Rams Crown	$1^{13}/_{32}$" x $2^{1}/_{16}$" x 16'
Imperial/Rake Crown	$1^{3}/_{8}$" x $2^{3}/_{4}$" x 16'
Bed Moulding	$^{9}/_{16}$" x $1^{3}/_{4}$" x 16'
$3^{1}/_{2}$" Bed Moulding	$^{13}/_{16}$" x $3^{1}/_{2}$" x 16'
Scotia	$^{3}/_{4}$" x $^{3}/_{4}$" x 16'
Quarter Round	$^{3}/_{4}$" x $^{3}/_{4}$" x 16'
Shingle Mould	$^{11}/_{16}$" x $1^{5}/_{8}$" x 16'
Band Moulding	$^{11}/_{16}$" x $1^{5}/_{8}$" x 16'
Wainscot Cap	1" x $2^{1}/_{4}$" x 16'
Base Cap	$^{11}/_{16}$" x $1^{1}/_{8}$" x 16'
Brick Mould	$1^{1}/_{4}$" x 2" x 17' $1^{1}/_{4}$" x 2" x 18' (full units only)
Back Band	$1^{11}/_{32}$" x $1^{3}/_{16}$" x 16'
Rake Moulding	$1^{1}/_{16}$" x 2" x 16'
Adams Casing	$1^{1}/_{16}$" x $3^{1}/_{2}$" x 16'
Colonial Base Cap	$^{3}/_{4}$" x $5^{1}/_{4}$" x 16'
Fluted/Reeded Casing	$^{15}/_{16}$" x $5^{1}/_{4}$" x 16'
Crosshead Pediment	$2^{13}/_{32}$" x $7^{1}/_{8}$" x 18' - w/flange $2^{13}/_{32}$" x $6^{1}/_{8}$" x 18' - w/o flange
1 1/2" Square	$1^{1}/_{2}$" x $1^{1}/_{2}$" x 12'
Drip Cap	$^{11}/_{16}$" x $1^{5}/_{8}$" x 16'
Water Table	$2^{3}/_{4}$" x 2" x 18'
Historic Sill	$1^{3}/_{4}$" x $2^{1}/_{32}$" x 16'
Sub Sill Nose	$1^{17}/_{32}$" x $1^{1}/_{2}$" x $1^{3}/_{8}$" x 16'
Garage Door Thermostop	$^{7}/_{8}$" x 2" x 7', 9', & 16'


3" Crown

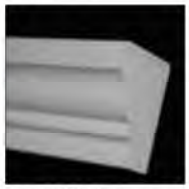

4" Crown

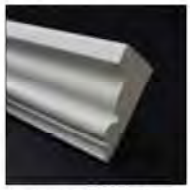

5" Crown


6" Crown


8" Crown


Cove Moulding


Rams Crown


Imperial/Rake Crown


Bed Moulding


3 1/2" Bed Moulding


Scotia


Quarter Round


Shingle Mould


Band Moulding

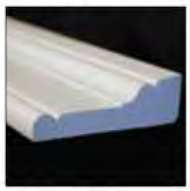

Wainscot Cap


Base Cap


Brick Mould


Back Band


Rake Moulding


Adams Casing


Colonial Base Cap


Fluted Reeded Casing

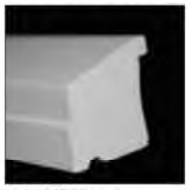

Crosshead Pediment


1 1/2" Square Profile


Drip Cap


Water Table


Historic Sill


Sub Sill Nose


Garage Door Thermostop

EcoStar LLC

Sustainable Roofing



Majestic Slate

Environmentally friendly synthetic slate roofing tiles proudly made in the USA

Pioneers of sustainable roofing since 1993

Majestic Slate

Historically, natural slate is one of the most appealing roofing choices, combining unmatched durability with aesthetic appeal. The cost of natural slate, as well as its weight and difficulty in finding a qualified slate installer, often makes its use prohibitive. EcoStar LLC, the leading manufacturer of premium synthetic steep-slope roofing products, combines classic appeal with modern technology to offer the lightweight and affordable alternative – Majestic Slate™.

Created with recycled rubber and plastics, Majestic Slate offers a sustainable, lighter and easy-to-install roofing product that provides the appearance of natural slate with lower application costs. Available in two widths and designer accents, this slate alternative offers endless possibilities for residential and commercial projects. The architectural detail of a project, whether historic or new construction, is further enhanced by a wide range of available color combinations using the palette of 11 standard color choices and array of custom options.

Curb appeal is everything when it comes to the look of your home, but protection from the elements must be a priority. Majestic Slate offers both.

Majestic Slate Color Palette

Note: Sample pieces, photographs or color samples may not accurately represent the true color level or variations of color blends that will appear on the roof. Before installation, ten tiles or so should be laid out and reviewed for conformity to desired color level. If color levels are unsatisfactory, advise your dealer before proceeding with installation. Colors and specifications subject to change without notice. EcoStar is not liable for color variations or shading. Tiles must be randomly blended for best results. Limited warranties carry terms and conditions. [1]Significant property insurance discounts may be available when upgrading or building a roof to protect against hail, wind or fire damage in regions where severe weather is common. EcoStar tiles meet or exceed industry standards for Impact Resistance and Fire Resistance. Contact your insurance provider for details.

P/N–602689 MAJESTIC SLATE CUT SHEET

Advantages

- Weighs ⅓ to ½ as much as natural slate
- Easy application keeps installation costs down
- Significant property insurance discounts may be available when upgrading or building a roof to protect against hail[1]

Architectural Flexibility

- Designer Series tiles can be blended together to add personal style to your home
- Staggered and offset installations accentuate roof texture and depth
- Available in 11 standard colors
- Enhance the historical look in both residential and commercial buildings

Strength & Durability

- Provides superior durability and protection from extreme weather conditions that include wind, hail and driving rain
- Significant life cycle savings

Warranty Options

- 50-Year Limited Material Warranty available
- 50-Year Gold Star Labor & Material Warranty available
- 90 mph (145 kph) Wind Warranty (standard)

Environmental Sustainability

- Manufactured with post-industrial recycled rubber and plastics

Technical Information

- UL listed Class C fire resistance (UL 790)
- UL Class 4 impact resistance (UL 2218)
- Wind resistance to 110 mph (ASTM D3161)
- Prolonged UV Exposure (ASTM G155)
- UL Evaluation Report to ICC AC07 (R18920-02)
- Texas Dept. of Insurance Evaluation (RC-135)
- May contribute to LEED® points
- Manufactured in strict adherence to ISO 9001:2015 Quality Management

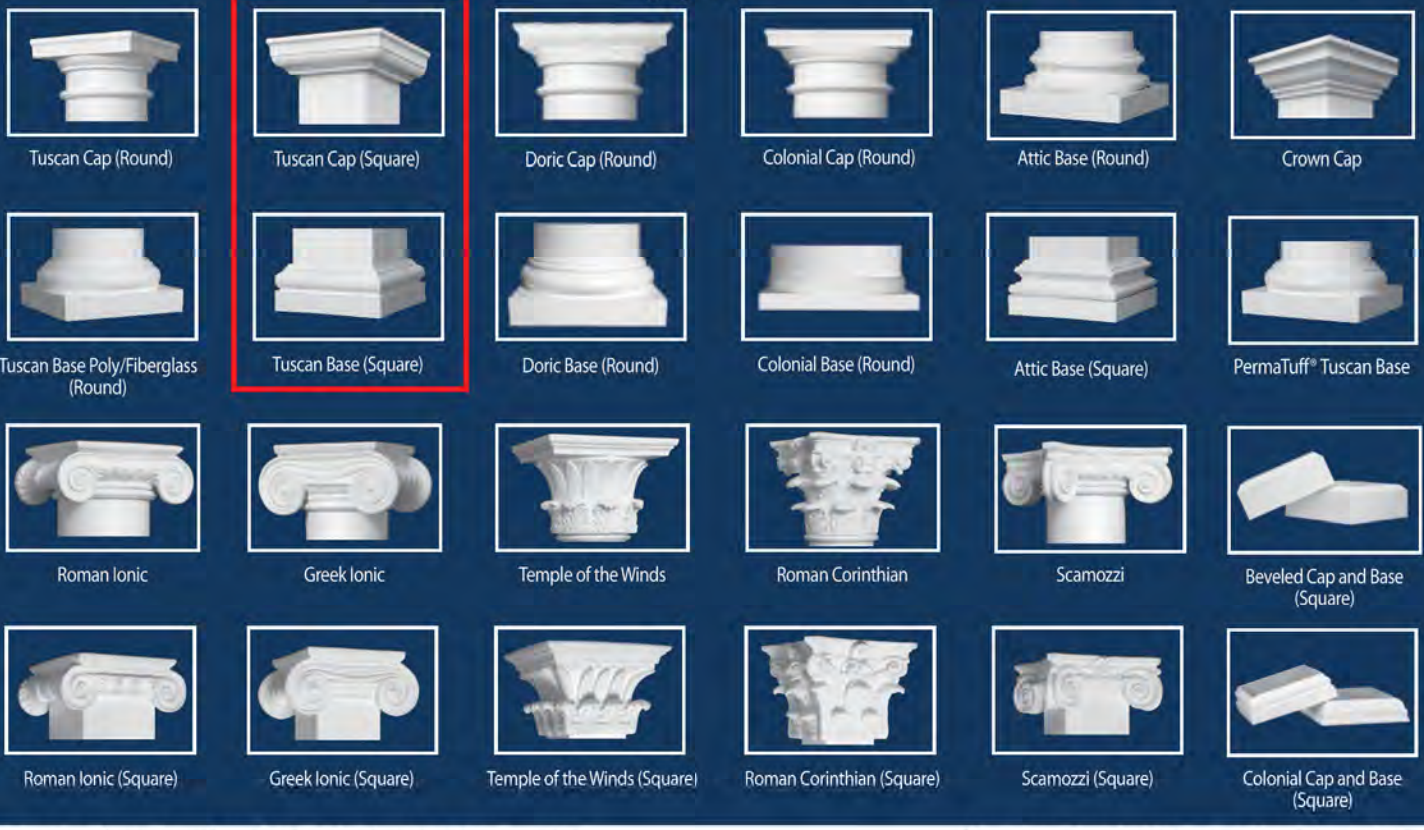
EcoStar LLC

42 Edgewood Drive | Holland, NY 14080
800.211.7170 | www.ecostarllc.com


7020

HB&G PermaCast® Columns are available in round or square. The round columns are fluted or plain, with or without the classic tapering of the upper two-thirds of the column. Square columns are available in a variety of styles as well, including plain or fluted, applied panel, recessed panel, or the Craftsman style column. The PermaCast® capitals and bases are made from durable low maintenance materials; and, like the columns, they maintain architectural authenticity and historical accuracy.

Round Plain (page 14) | Round Fluted (page 14) | Round No-Taper (page 16) | Square Fluted (page 11) | Square Recessed Panel (page 12) | Square Applied Panel (page 11) | Plain Square (page 11) | RoughSawn®* (page 10) | Craftsman (page 13)



Tuscan Cap (Round) | Tuscan Cap (Square) | Doric Cap (Round) | Colonial Cap (Round) | Attic Base (Round) | Crown Cap

Tuscan Base Poly/Fiberglass (Round) | Tuscan Base (Square) | Doric Base (Round) | Colonial Base (Round) | Attic Base (Square) | PermaTuff® Tuscan Base

Roman Ionic | Greek Ionic | Temple of the Winds | Roman Corinthian | Scamozzi | Beveled Cap and Base (Square)

Roman Ionic (Square) | Greek Ionic (Square) | Temple of the Winds (Square) | Roman Corinthian (Square) | Scamozzi (Square) | Colonial Cap and Base (Square)

*Products shown have been finished for demonstration purposes. PermaCast® and RoughSawn® Columns ship unfinished.

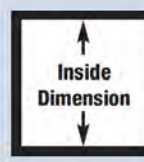
See pages 17 and 18 for cap and base dimensions.

Square PERMACast® Columns

Square Permacast® Inside Dimensions

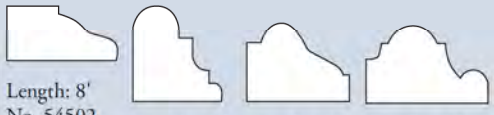
Inside dimensions may vary up to 1/4".
Splitting a column will decrease inside dimension 1/8".

COL. SIZE	INSIDE
6"	5 3/8"*
8"	5 7/8"
10"	9"
12"	11"
14"	13"
16"	15"



*Inside is Round

Panel Moulding for Square Permacast®

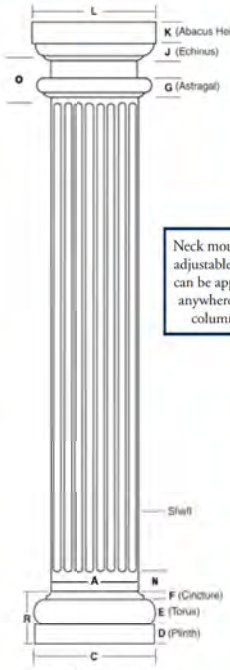


Length: 8'
No. 54502
1/2" x 1"
Length: 10'
No. 54512

Length: 10'
No. 54503
1" x 1"

Length: 10'
No. 54504
3/4" x 1"

Length: 10'
No. 54505
3/4" x 15/16"



PermaCast® Square Column shown fluted with Poly Tuscan Cap and Base.

PermaCast® Square Column shown plain with Poly Tuscan Cap and Base.

Plumb-Fit®

To make installation even easier our 6"-12" round and square poly Tuscan Cap and Base Sets with flashing cap come with the patented (Patent 9689674) Plumb-Fit® installation system included.

Column-Loc®

Column-Loc® creates a continuous connection from floor to beam/header without the expense of splitting and reattaching the column. This labor saving product is easy to install and delivers wind uplift resistance especially important in coastal and high wind areas. Currently available for 8" and 10" round (tapered and no-taper) and square PermaCast® columns. Kits are available with or without threaded rod in lengths up to 12'.*

Square Permacast® Column Dimensions (In Inches)*

Column Size	A	C	D	E	F	G	J	K	L	N	O	R	Lengths Available (ft.)
6"	6"	9 1/8"	1 7/16"	1 5/16"	9/16"	1"	1 1/4"	1 3/8"	9 1/8"	N/A	N/A	3 5/16"	6,8,9,10
8"	8"	11 1/8"	1 7/8"	1 3/4"	5/8"	1"	1 1/4"	1 1/2"	10 15/16"	5"	3 1/8"	4 1/4"	6,8,9,10,12
10"	10"	13 1/16"	2 3/8"	2 5/16"	3/4"	1"	1 1/4"	1 3/4"	12 3/4"	3 3/4"	4 1/8"	5 7/16"	51",6,8,9,10,12 14,16
12"	12"	16 5/8"	2 13/16"	2 3/8"	7/8"	1"	1 7/8"	2 3/16"	16 11/16"	N/A	N/A	6 1/16"	8,9,10,12,14,16,18
14"	14"	19 3/8"	3 5/8"	2 7/8"	1 1/16"	1 1/8"	2 1/16"	2 1/2"	19 1/16"	N/A	N/A	7 9/16"	8,10,12,14
16"	16"	22 1/8"	3 7/8"	3 3/8"	1 3/16"	1 1/8"	2 3/8"	2 3/4"	21 1/2"	N/A	N/A	8 7/16"	8,10,12,14 16,18,20

☐ Fluted Square.

*There may be a variance of up to 1/4" in all dimensions.

• Split columns are not load bearing. • See page 18 for Decorative Capital dimensions.

Versatility of Square Columns

The design and versatility of an HB&G square column has enhanced its popularity with today's architects. The HB&G Square PermaCast® column lineup includes plain, recessed panel, fluted, and Craftsman styles. An unlimited combination of styles can be achieved by various uses of the panel moulding, neck moulding, and caps and bases. Additionally, the square column is not tapered and can be cut to any height without affecting the fit of the caps and bases.

HB&G PermaLite® columns are cost effective, load bearing, versatile, and require very little maintenance. The PermaLite® columns are available in round and square. PermaLite® columns deliver all of the beauty at 1/3 of the weight.

PermaLite® Round No-Taper

PermaLite® Square Plain

PermaLite® Square Recessed (with panel kit)

PermaLite® Square Recessed (with panel divider kit)

PermaLite® Square Recessed (with 2-panel divider kits)

Top View Cut-Away

PermaLite® Plain

PermaLite® Recessed

PermaLite® Round

Square Tuscan Cap

Square Tuscan Base

Round Tuscan Cap

Round Tuscan Base

For Tuscan Cap and Base dimensions refer to page 21.

Installation Kit for Beveled Cap and Base

Installation Kit

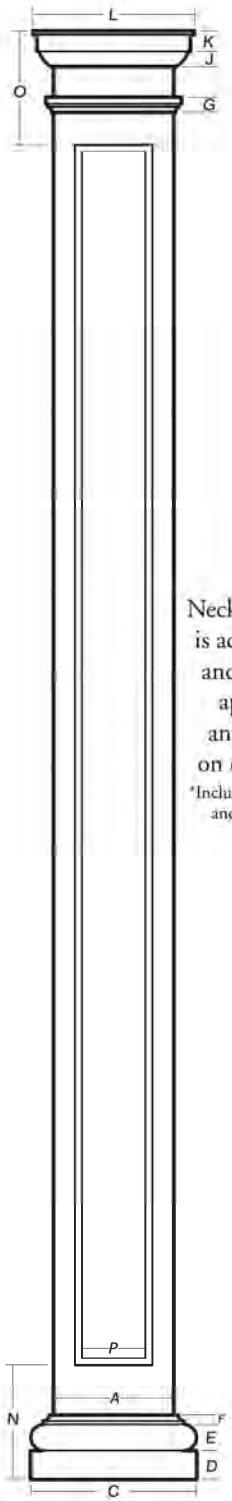
PermaLite® Panel Divider Kits to Convert a Single Panel Column into a 2 or 3-Panel Column

RECESSED – Includes four top panel insert pieces and four bottom panel insert pieces.

PANEL DIVIDER KITS are available.

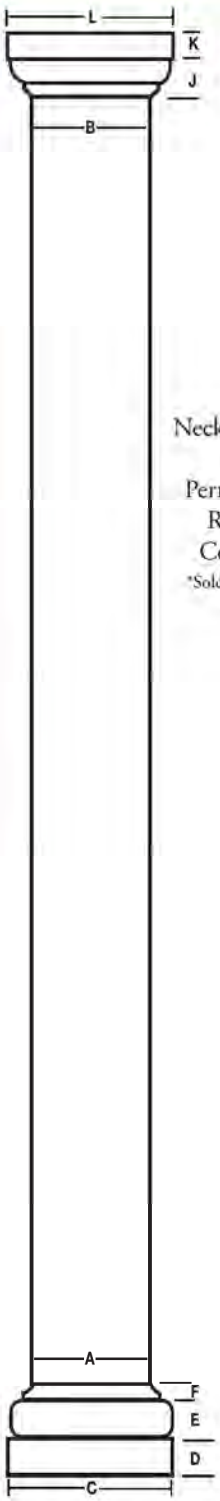
Kit Size	Width	Height
8" Panel Divider Kit (4 Pieces)	4 7/8"	2 1/4"
10" Panel Divider Kit (4 Pieces)	5 5/16"	5 1/8"

1 panel kit to achieve 2-panel column.
2 panel kits to achieve 3-panel column.



Neck Mould* is adjustable and can be applied anywhere on column.
*Included with cap and base set.

PermaLite® Square Column shown with Tuscan Cap and Base



Neck Mould* for PermaLite® Round Column
*Sold separately

PermaLite® Round No-Taper Column shown with Tuscan Cap and Base

See page 21 for dimension chart.

Plain and Recessed Panel Square PermaLite® Column Dimensions (in Inches)

Col. Size	A	C	D	E	F	G	J	K	L	N	O	P	Lengths Avail. (ft.)
6"	5-1/2"	8-1/2"	1-1/2"	1-1/4"	1/2"	1-1/4"	7/8"	1-1/16"	8"	N/A	N/A	N/A	6, 8, 9, 10
8"	7-1/2"	10-3/8"	1-7/8"	1-3/4"	5/8"	1-1/4"	1"	1-3/8"	10-1/8"	8"	8"	3-7/8"	☐6 ☐8 ☐9 ☐10 ☐12
8"*	7-1/2"	10-7/16"	1-7/8"	1-11/16"	5/8"	1-1/4"	1"	1-3/8"	10-1/4"	8"	8"	3-7/8"	☐6 ☐8 ☐9 ☐10 ☐12
10"	9-1/2"	12-15/16"	2-1/2"	2-1/8"	3/4"	1-1/4"	1-5/16"	1-3/4"	12-3/4"	9"	9"	4-3/8"	☐6 ☐8 ☐9 ☐10 ☐12
10"*	9-1/2"	13-1/8"	2-3/8"	2-1/8"	3/4"	1-1/4"	1-1/4"	1-3/4"	12-3/4"	9"	9"	4-3/8"	☐6 ☐8 ☐9 ☐10 ☐12
12"	11-1/2"	15-1/4"	2-3/4"	2-7/16"	13/16"	1-1/4"	1-3/8"	2"	15-7/8"	N/A	N/A	N/A	6, 8, 9, 10, 12

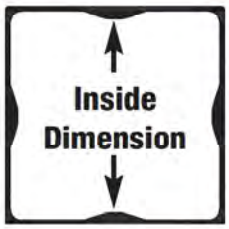
* SIM caps and bases. The remainder are poly caps and bases. ☐ Recessed panel available.

• See drawing on page 22.

NOTES: Recessed Panel top inset – 8"= 8", 10"= 9"; Bottom inset – 8"=8", 10"=9". Neck mould is adjustable and is applied in the field. Recessed Panel available in 8" and 10" sizes only. Factory split PermaLite® columns are not available. HB&G does not recommend splitting PermaLite® columns.

Square PermaLite® Inside Dimension

Col. Width	Inside
6"	4-5/8"
8"	6-5/8"*
10"	8-5/8"*
12"	10-5/8"



*Recessed Panel Inside Dimensions 8"- 5-5/8"; 10"- 7-5/8"

Colonial Square Cap and Base for PermaLite®

Col. Size	C	D	E	F	J	K	L	R
6"	8-1/8"	1-1/4"	1-1/16"	7/16"	5/8"	1"	7-7/16"	2-3/4"
8"	10-1/8"	1-1/4"	1-1/16"	7/16"	1-5/16"	1"	9-7/16"	2-3/4"
10"	12-1/8"	1-1/4"	1-1/16"	7/16"	1-5/16"	11/4"	12-1/8"	2-3/4"
12"	14-1/8"	1-1/4"	1-1/16"	7/16"	1"	13/8"	14-1/8"	2-3/4"

• Neck moulding is 4 pieces included with the cap and base.

• See drawings on page 22.

Round PermaLite® No-Taper Column Dimensions

Col. Size	A	B	C	D	E	F	J	K	L	Lengths
8"	7-5/8"	7-5/8"	10-1/2"	1-7/8"	1-3/4"	3/4"	1-1/4"	1-1/2"	10-5/8"	8',9',10'
10"	9-5/8"	9-5/8"	13-1/8"	2-3/8"	2-1/8"	3/4"	1-1/4"	2"	12-3/4"	8',9',10',12'

Round PermaLite® Dimensions

Inside diameter may vary up to 1/8".

COLUMN SIZE	ID
8"	7-3/8"
10"	9-3/8"

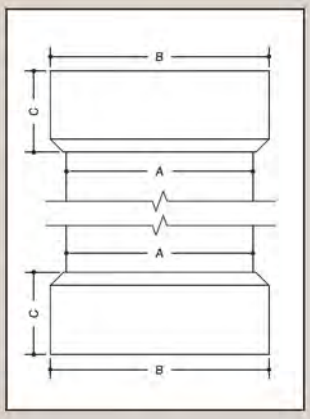
One Piece Neck Mould for 8" and 10" Round No-Taper Column Is Available. Neck Ring Sold Separately.

Beveled Cap & Base Set

Size	A	B	C
6"	5-1/2"	7-5/8"	3-1/2"
8"	7-1/2"	9-5/8"	3-1/2"
10"	9-1/2"	11-5/8"	5-1/2"
12"	11-1/2"	13-5/8"	5-1/2"

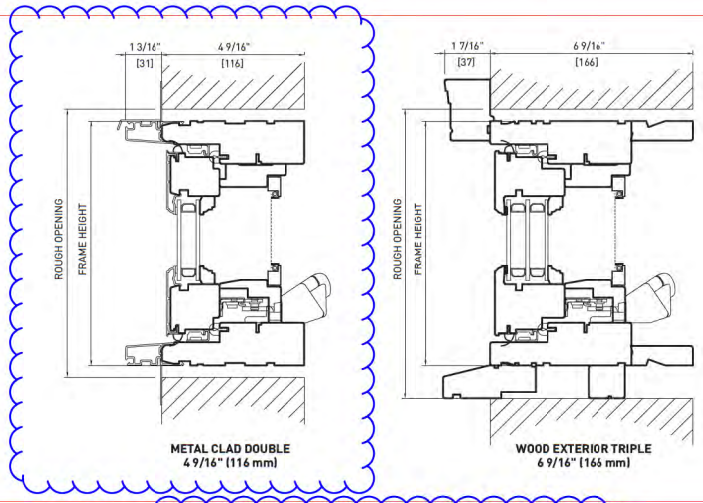
*For Square PermaLite® Columns

See Installation Kit on page 19.

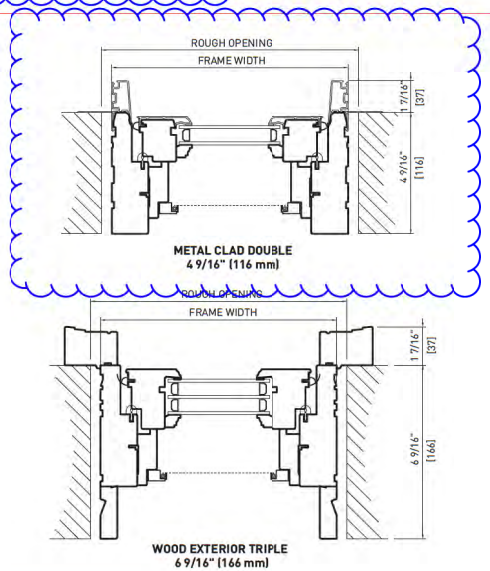


Casement Window
Wall Connection Detail

Head & Sill Detail



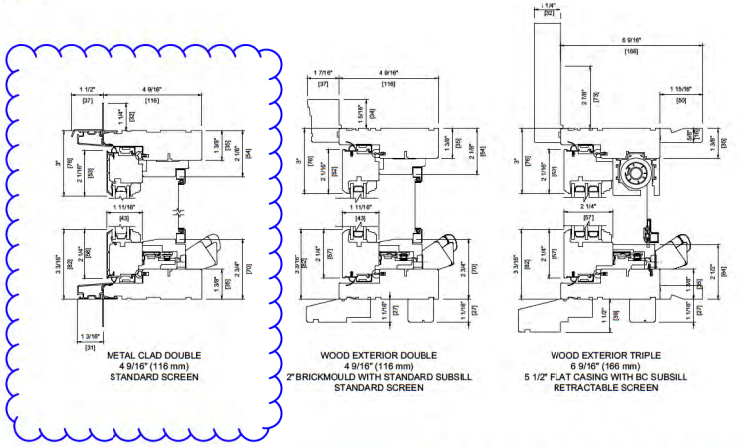
Plan View



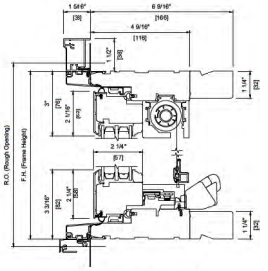
Note: • Other jamb widths available.
• All dimensions to have +/- 1/16" (2mm) tolerance.

Casement Window
Detail

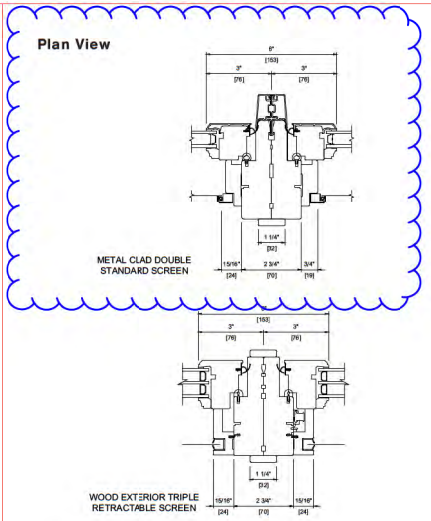
Head & Sill Detail



Head & Sill Detail



Plan View



Note: • Other jamb widths available.
• All dimensions to have +/- 1/16" (2mm) tolerance.

Product Features

Styles

Double Hung, Single Hung, Radius Top and Cottage options.

Standard Features

- Natural, clear Douglas Fir interior (no visible finger joints)
- 4 9/16" (116 mm) jamb construction
- LowE insulated glazing with 1/2" (13 mm) airspace
- Roto gear operator and concealed sash locks
- Extruded aluminum cladding in a variety of standard colors, primed wood or clear fir exterior
- Flexible continuous weatherstrip system
- Insect screens
- Metal handle, cover and locks

Hardware

Multiple hardware type and finish choices are available. See the Hardware in section A for more information.

Glazing

LowE Double, LowE Triple and StormForce™. StormForce is not available on all products.

Simulated Divided Lites (SDL)

Ogee Profile – 3/4" (19 mm), 1 1/8" (30 mm), 2" (51 mm)

Putty Profile – 5/8" (16 mm), 7/8" (22 mm), 1 1/8" (30 mm), 2" (51 mm)

Square Profile (interior only) – 3/4" (19 mm), 7/8" (22 mm), 1 1/8" (30 mm), 2" (51 mm)

Casing

Wood: 2" (51 mm) Brickmould, 3 1/2" (89 mm) Flat, 5 1/2" (139 mm) Flat, Adams and Williamsburg.

Metal Clad: 2" (51 mm) Brickmould, 3 1/2" (89 mm) Flat, 2" clad frame extension, Nose & Cove, Adams, Williamsburg and Contemporary.

Metal Clad Color Spectrum

All Palette colors, including anodized finishes.

Double/Single Hung

LEGEND: ● Standard ○ Optional

HARDWARE STYLES	Double/ Single Hung
Sash Lock	●
Sash/Lift	○

FINISH OPTIONS: REFER TO SECTION A.

VARIABLES	Double/ Single Hung
Function:	
Use for Egress	●
Available with Screen	●
Durability:	
Low Maintenance Metal Clad Exterior	●
Clear Douglas Fir Exterior Finish	○
Clear Mahogany Exterior Finish	○
Primed Exterior Finish	○
Performance:	
LowE Double	●
LowE Triple	○
StormForce™	○
Appearance:	
SDL	○

Specifications

Standards

Most units have been tested by an independent laboratory for air and water infiltration, structural performance, and thermal performance requirements.

Frame & Sash

Manufactured from Coastal Douglas Fir kiln-dried lumber with frame construction designed for 4 9/16" (116 mm) jamb. All wood exterior components are factory primed unless specified as clear exterior. Minor scratches or abrasions in the wood surface or primer are not considered defects.

Alternate Species

The entire Loewen product line is also available in optional Mahogany.

Preservative Treated

All wood parts are dipped in approved preservative.

Glazing

With countless glazing configurations and LowE coating options, we ensure that you can choose the perfect blend of protection and comfort.

Insulating Glass

Double or triple glass configurations with 1/2" (13 mm) airspace.

LowE Systems

LowE best describes the benefits of the product that incorporates glazing coatings and Argon gas. LowE systems help reduce heating and cooling costs, providing superior energy efficiency.

Simulated Divided Lites (SDL)

Standard SDL complete with airspace grilles, where available. Grille bars are permanently applied to the interior and exterior.

Hardware Option

Operator and sash locks are available in a variety of finishes. See section A.

Metal Cladding

Heavy duty exterior metal cladding comprised of extruded aluminum is available in a variety of Palette colors, including anodized and Cyprium (copper and bronze cladding). Interior of window can be natural wood (unfinished) or primed. Metal clad units are supplied ready-to-install complete with integral metal nailing flange.

Hardware

Hardware is standard in bronze, linen, or black. Optional sash lifts are available at an additional charge. Operable sash with single-handle tilt latch enables inward tilting of sash for easy cleaning.

Weatherstrip

Flexible weatherstrip ensures a positive weather seal.

Screen

Standard screens have a bronze, linen or aluminum frame, screened with anti-glare fiberglass cloth. Screen-frame color is matched to exterior finish on metal clad units. High transparency mesh, full screens and half screens available.

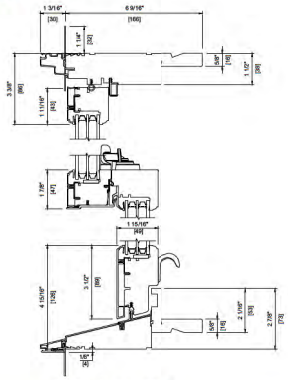
Egress

Standard screens have a bronze, linen or aluminum frame, screened with anti-glare fiberglass cloth. Screen-frame color is matched to exterior finish on metal clad units. High transparency mesh, full screens and half screens available.

Visit the Loewen Photo Gallery online at www.loewen.com for a large collection of Loewen product and elevation photography. Numerous custom window configuration opportunities exist – please contact your Authorized Loewen Dealer. Specifications and technical information are subject to change without notice. Imperial and metric measurements are converted accurately. However, in some cases, industry standards cause a 1 mm variance. (Example: 3/4" is shown as 19 mm for all glass measurements.)
Cad Download: www.loewen.com/architect | Installation Instructions: www.loewen.com

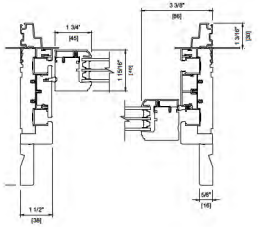
Double/Single Hung – Double Hung Tilting Window Detail

Head & Sill Detail



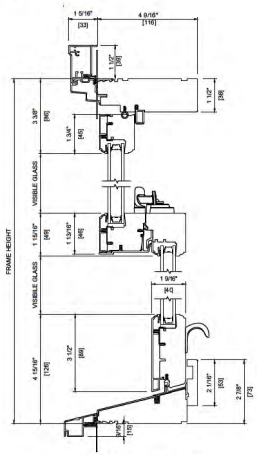
METAL CLAD TRIPLE
6 9/16" (166 mm)
MULTI-LITE SILL NOSE

Plan View



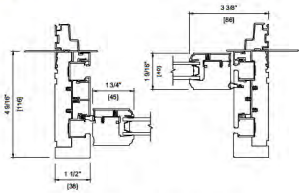
METAL CLAD TRIPLE
6 9/16" (166 mm)

Head & Sill Detail



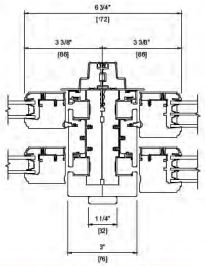
METAL CLAD DOUBLE
4 9/16" (116 mm)
2" BRICKMOJLD
STANDARD SILL NOSE

Plan View



METAL CLAD DOUBLE
6 9/16" (166 mm)

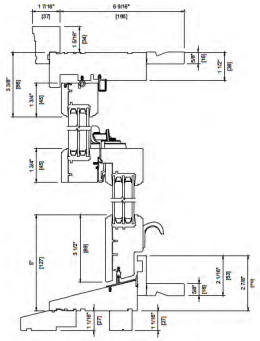
Mull Detail



Note: • Other jamb widths available.
• All dimensions to have +/- 1/16" (2mm) tolerance.

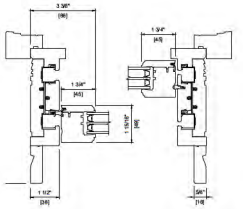
Double/Single Hung – Double Hung Tilting Window Detail

Head & Sill Detail



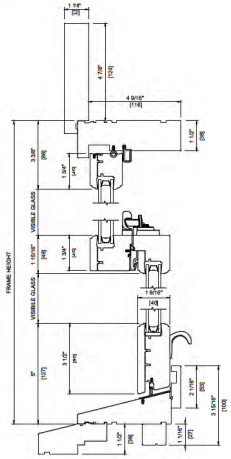
WOOD EXTERIOR TRIPLE
6 9/16" (166 mm)
2" BRICKMOULD STANDARD SUBSILL

Plan View



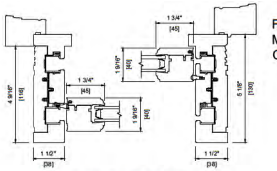
WOOD EXTERIOR TRIPLE
6 9/16" (166 mm)
2" BRICKMOULD

Head & Sill Detail



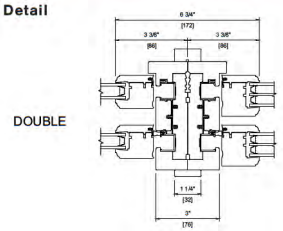
WOOD EXTERIOR DOUBLE
4 9/16" (116 mm)
5 1/2" FLAT CASING BC SUBSILL

Plan View



WOOD EXTERIOR DOUBLE
4 9/16" (116 mm) + 5 1/8" (130 mm)
2" BRICKMOULD

Mull Detail



WOOD EXTERIOR

Note: • Other jamb widths available.
• All dimensions to have +/- 1/16" (2mm) tolerance.

Product Features

Styles
Traditional, French, Cambertop, Quarter Round, Full Radius.

Standard Features

- Natural Douglas Fir interior (no visible finger joints)
- Full Jamb – 6 9/16 (166 mm) construction is an option
- 4 mm Low E insulated tempered glazing
- Multi-point locking hardware, complete with solid brass core handle set, escutcheon and dead bolt
- Extruded aluminum cladding in a variety of standard colors, primed wood or clear fir exterior
- Flexible weatherstrip system

Hardware
Multiple hardware type and finish choices are available.
See hardware finish options in section A for more information.

Glazing
LowE Double, LowE Triple and StormForce™. StormForce™ is not available on all products.

Simulated Divided Lites (SDL)
Ogee Profile — 3/4" (19 mm), 1 1/8" (30 mm), 2" (51 mm)

Putty Profile — 5/8" (16 mm), 7/8" (22 mm), 1 1/8" (30 mm), 2" (51 mm)

Square Profile (interior only) — 3/4" (19 mm), 7/8" (22 mm), 1 1/8" (30 mm), 2" (51 mm)

Casing
Wood: 2" (51 mm) Brickmould, 3 1/2" (89 mm) Flat, 5 1/2" (139 mm) Flat, Adams and Williamsburg.

Metal Clad: 2" (51 mm) Brickmould, 3 1/2" (89 mm) Flat, 2" clad frame extension, Nose & Cove, Adams, Williamsburg and Kerf.

Metal Clad Color Spectrum
All Palette colors, including anodized finishes. Available in Cyprium Collection (see Section N).

Terrace

French Terrace

Half Round Terrace
Available in wood exterior only.

Half Round French Terrace

	Swinging Terrace	Swinging French Terrace
HARDWARE STYLES		
Multi-point Handle	●	●
Verona Handle	●	●
Meran Handle	●	●
Shropshire Handle	O	O
Churchill Handle	O	O
Athinia Handle	O	O
Rodos Operator	O	O

● Standard O Optional

Finish Options: Refer to Section A.

	Swinging Terrace	Swinging French Terrace
VARIABLES		
Function		
Use for Egress	●	●
Multi-point Hardware	●	●
Durability		
Low Maintenance Metal Clad Exterior	●	●
Clear Douglas Fir Exterior Finish	O	O
Clear Mahogany Exterior Finish	O	O
Primed Exterior Finish	O	O
Cyprium Collection	O	O
Performance		
LowE Double	●	●
LowE Triple	O	O
StormForce™	O	O
Appearance		
SDL	O	O
Vertical Grain Fir Panel	●	●

Specifications

Standards
Most individual units have been tested by an independent laboratory for air and water infiltration, structural performance and thermal performance requirements.

Panel & Frame
Manufactured with Coastal Douglas Fir. Bronze anodized aluminum door sill with bronze vinyl extruded thermal break. All exterior wood components are factory primed unless specified as clear exterior. Minor scratches or abrasions are not considered defects.

Alternate Species
The entire Loewen product line is also available in optional Mahogany. Preservative Treated

Preservative Treated
All wood parts are dipped in approved preservative.

Glazing
With countless glazing configurations and glazing coatings options, we ensure that you can choose the perfect blend of protection and comfort.

Insulating Glass
Double or triple glass configurations with 1/2" (13 mm) airspace.

LowE Systems
LowE best describes the benefits of the product that incorporates glazing coatings and Argon gas. LowE systems help reduce heating and cooling costs, providing superior energy efficiency.

Simulated Divided Lites (SDL)
Standard SDL complete with airspace grilles. Grille bars are permanently applied to the interior and exterior.

Metal Cladding
Heavy duty exterior metal cladding comprised of extruded aluminum is available in a variety of Palette colors, including anodized and Cyprium (copper and bronze cladding). Interior of window can be natural wood (unfinished) or primed. Metal clad units are supplied ready-to-install complete with integral metal nailing flange.

Hardware
Multipoint locking hardware — complete with brass handle set and escutcheon — and dead bolt are standard on all Terrace Doors. Optional keyed alike locks are available. Standard concealed bearing hinges in a variety of finishes are available.

Note: French doors with handle activated shoot bolts on inactive panel.

Weatherstripping
High grade weatherstripping runs the full perimeter of the panel/frame interface and provides a tight seal to the exterior elements. Side and head jamb weatherstrip are comprised of a bulb and fin dual seal design.

Door Swings
Traditional Terrace Door: Hinged in the middle so that one panel is fixed, while the other opens/closes. These doors can be configured as a single door, or as a series of fixed, operating, left hinged or right hinged panels.

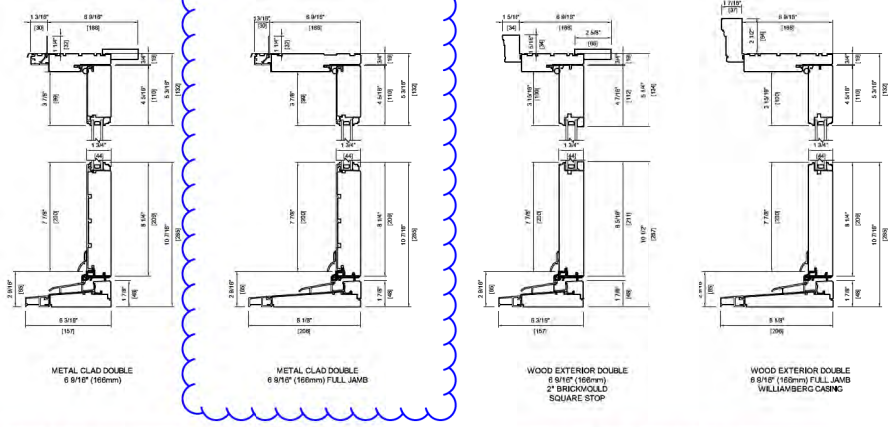
French Terrace Doors: Hinged on the jambs to allow both doors to open/close from the middle.

Note: Outswinging versions of both door styles are available as options.

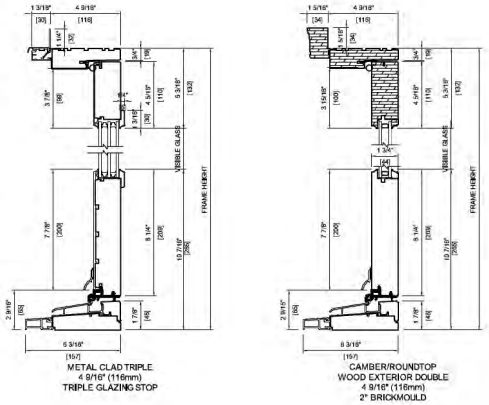
Visit the Loewen Photo Gallery online at www.loewen.com for a large collection of Loewen product and elevation photography. Numerous custom window configuration opportunities exist — please contact your Authorized Loewen Dealer. Specifications and technical information are subject to change without notice. Imperial and metric measurements are converted accurately. However, in some cases, industry standards cause a 1 mm variance. (Example: 3/4" is shown as 19 mm for all glass measurements.) Cad Download: www.loewen.com/architect | Installation Instructions: www.loewen.com

Inswing French Terrace Door Detail

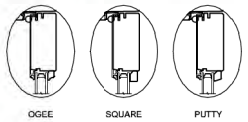
Head & Sill Detail



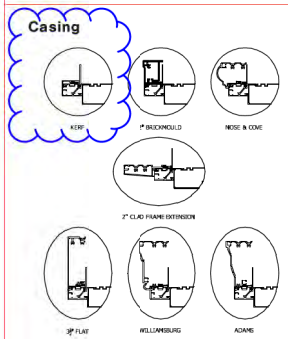
Head & Sill Detail



Glazing Stop Profiles



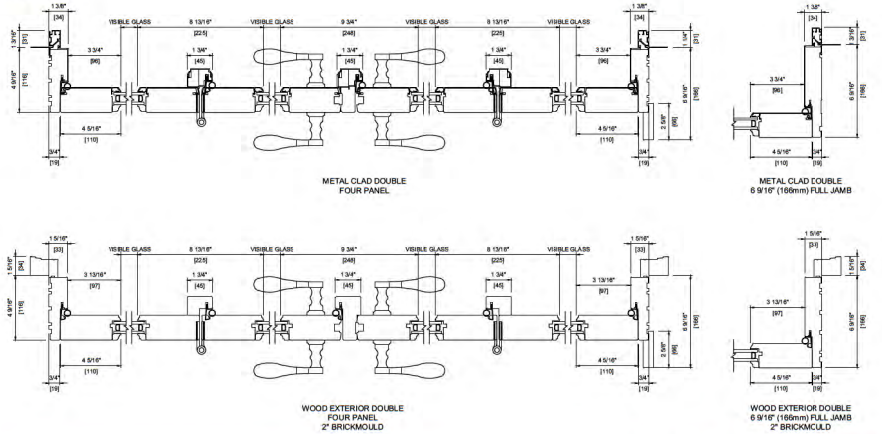
Casing



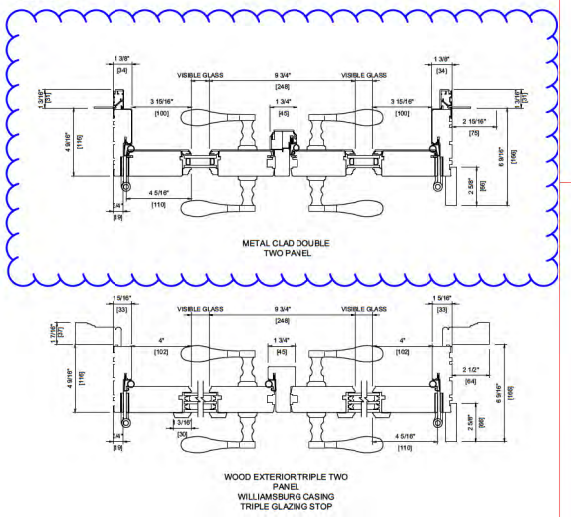
Note: • Other jamb widths available.
• All dimensions to have +/- 1/16" (2mm) tolerance.

Inswing French Terrace Door Detail

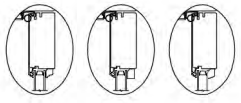
Plan View



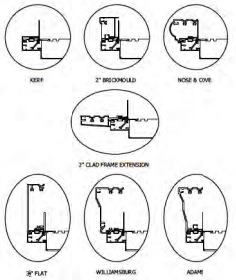
Plan View



Glazing Stop Profiles



Casing



Note: • Other jamb widths available.
• All dimensions to have +/- 1/16" (2mm) tolerance.

Glazing Options

Loewen Sealed Units offer ideal solutions for any environment. With countless glazing configurations and LowE coating options, we ensure that you can choose the perfect blend of protection and comfort - no matter where you live.

LowE Window Systems

LowE is a high-performance glazing system that offers great thermal value in a variety of climate zones. They also protect furnishings by limiting much of the damaging ultraviolet radiation that causes fading and related damage. The charts on page A30 show the comparative performance of each Loewen Window System.

LowE Double

Double glazed, with one or more layers of LowE coating and 1/2" (13mm) airspace filled with Argon gas and stainless steel thermal spacer bar.

- Loewen standard 1/8" (3 mm) double strength glass offers greater strength and clarity over thinner glass, making our products more insulative, more soundproof, more resistant to impact and considerably more resistant to stresses caused by fluctuations in temperature.
- Loewen standard sealed units contain Argon gas and machine applied primary and secondary sealants reducing the chance of seal failure, improving Argon gas retention, and increasing strength.

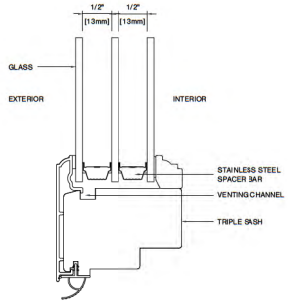
We pioneered True Triple Glazing in the 1970's, which is a testament to our approach on innovation. For premium energy performance, we've made triple glazing available across our entire product line.

True Triple Sealed Units

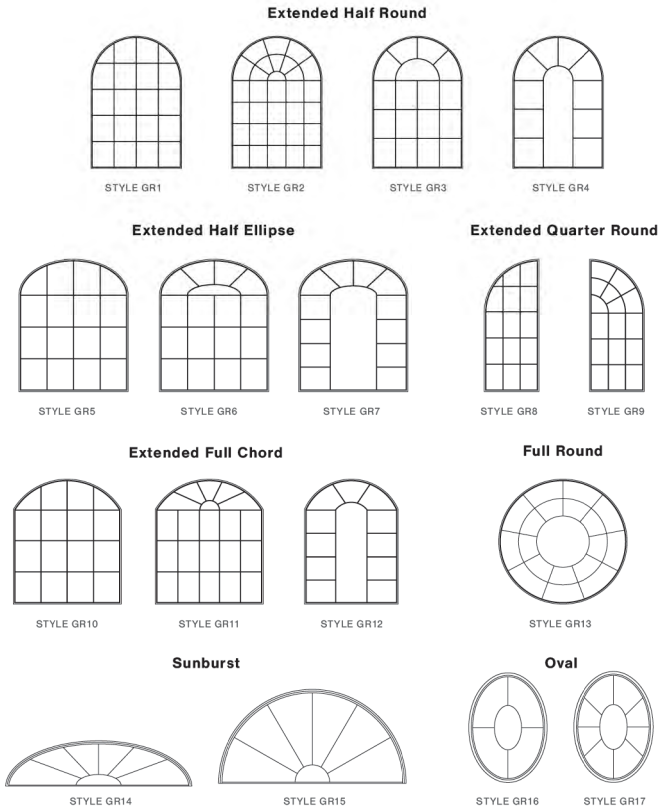
with LowE surface coatings for maximum performance

Triple glazed, with multiple layers of LowE coatings and two 1/2" airspaces filled with Argon gas and stainless steel thermal spacer bars. Our LowE Triple features full 1/2" airspaces to maximize energy efficiency unlike other window systems that use lesser performing narrower airspaces.

- Loewen standard 1/8" (3mm) double strength glass provides greater strength and clarity over thinner glass, making our products more insulative, more soundproof, more resistant to impact and considerably more resistant to stresses caused by fluctuations in temperature
- Loewen standard sealed units contain Argon gas in all airspaces and machine applied primary and secondary sealants, reducing the chance of seal failure, improving Argon gas retention and increasing strength
- Venting channel built into the sash helps dissipate should condensation or moisture occur
- Stainless steel spacer bar is less conductive than aluminum and structurally superior to silicone foam type spacers
- Sash cladding does not touch the glass which reduces the opportunity for thermal conduction



Simulated Divided Lite (SDL)
Standard Patterns



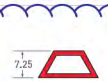
Note: Number of grille bars and spacing is determined by the size of the unit. Grille type may not be available in all units. Custom patterns available for approval.

Awning & Casement Units
Types of Simulated Divided Lite

Application	Available SDL	5/8" [16mm]	3/4" [19mm]	7/8" [22mm]	1-1/8" [30mm]	2" [50mm]
MC Exterior	Ogee		7.25			
Interior	Ogee	9.00				
MC Exterior	Putty	7.25				
NC Exterior / Interior	Putty	8.00				
Interior	Square		8.00			
Interior	Impact Ogee	10.50				
NC Exterior	Ogee		8.00			

Note: MC = Metal Clad, NC = Non Clad

Double/Single Hung Units
Types of Simulated Divided Lite

Application	Available SDL	5/8" [16mm]	3/4" [19mm]	7/8" [22mm]	1-1/8" [30mm]	2" [50mm]
MC Exterior	Ogee					
Interior	Ogee					
MC Exterior	Putty					
NC Exterior / Interior	Putty					
Interior	Square					
Interior	Impact Ogee					
NC Exterior	Ogee					

Note: MC = Metal Clad, NC = Non Clad

Picture Units
Types of Simulated Divided Lite

Application	Available SDL	5/8" [16mm]	3/4" [19mm]	7/8" [22mm]	1-1/8" [30mm]	2" [50mm]
MC Exterior	Ogee					
Interior	Ogee					
MC Exterior	Putty					
NC Exterior / Interior	Putty					
Interior	Square					
Interior	Impact Ogee					
NC Exterior	Ogee					

Note: MC = Metal Clad, NC = Non Clad

Patio Door Unit
Types of Simulated Divided Lite

Application	Available SDL	5/8" [16mm]	3/4" [19mm]	7/8" [22mm]	1-1/8" [30mm]	2" [50mm]
MC Exterior	Ogee		7.25			
Interior	Ogee	9.00				
MC Exterior	Putty	7.25				
NC Exterior / Interior	Putty	8.00				
Interior	Square		8.00			
Interior	Impact Ogee [MP]	10.50				
Interior	Impact Ogee [MP]	9.00				
NC Exterior	Ogee	7.00				

Note: MC = Metal Clad, NC = Non Clad

Terrace/French & Bifold Door Unit
Types of Simulated Divided Lite

Application	Available SDL	5/8" [16mm]	3/4" [19mm]	7/8" [22mm]	1-1/8" [30mm]	2" [50mm]
MC Exterior	Ogee		7.25			
Interior	Ogee	9.00				
MC Exterior	Putty	7.25				
NC Exterior / Interior	Putty	8.00				
Interior	Square		8.00			
Interior	Impact Ogee [MP]	10.50				
Interior	Impact Ogee [MP]	7.00				
NC Exterior	Ogee	9.00				

Note: MC = Metal Clad, NC = Non Clad