

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING INSPECTION

PERMIT

Permit Number: 100803

Please Read Application And Notes, if Any, Attached

This is to certify that LEWIS SAUL & ASSOCIATES PC / RGR Flooring & Remodeling /

has permission to Replace windows on second floor

AT 183 MIDDLE ST CBL 032 H016002

PERMIT ISSUED

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and written permission procured before this building or part thereof is lathed or otherwise closed-in. 24 HOUR NOTICE IS REQUIRED.

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS

Fire Dept. _____

Health Dept. _____

Appeal Board _____

Other _____

Department Name

Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 10-0803	Issue Date:	CBL: 032 H016002
-----------------------	-------------	---------------------

Location of Construction: 183 MIDDLE ST	Owner Name: LEWIS SAUL & ASSOCIATES PC	Owner Address: 183 MIDDLE ST STE 200	Phone:
Business Name:	Contractor Name: RGR Flooring & Remodeling /Rodn	Contractor Address: P.O. Box 221 Raymond	Phone: 2076508953
Lessee/Buyer's Name	Phone:	Permit Type: Replacement windows	Zone: B-3

Past Use: Commercial Mixed Use	Proposed Use: Commercial Mixed Use - Replace windows on second floor	Permit Fee: \$190.00	Cost of Work: \$16,500.00	CEO District: I
		FIRE DEPT: <input type="checkbox"/> Approved <input checked="" type="checkbox"/> Denied N/A	INSPECTION: Use Group: B Type: 203 TBC 2003	

Proposed Project Description: Replace windows on second floor	Signature:	Signature:
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)		
Action <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input checked="" type="checkbox"/> Denied		
Signature:	Date:	

Permit Taken By: ldobson	Date Applied For: 07/07/2010	Zoning Approval		
-----------------------------	---------------------------------	------------------------	--	--

- This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
- Building permits do not include plumbing, septic or electrical work.
- Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..

Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date: <i>OK with conditions</i> <i>7/10</i>	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date:	Historic Preservation <i>with</i> <input type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: <i>7/22/10</i> <i>D. Andrews</i>
---	--	--

PERMIT ISSUED

JUL 23 2010

City of Portland

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE



CITY OF PORTLAND, MAINE

Department of Building Inspections

Original Receipt

7.7. 20 10

Received from

Rodney Bayler -

Location of Work

183 Middle St

Cost of Construction \$ _____ Building Fee: _____

Permit Fee \$ _____ Site Fee: _____

Certificate of Occupancy Fee: _____

Total: 190

Building (IL) ___ Plumbing (I5) ___ Electrical (I2) ___ Site Plan (U2) ___

Other _____

CBL: 32-H-16

Check #: CC

Total Collected \$ 190

**No work is to be started until permit issued.
Please keep original receipt for your records.**

Taken by: S. J.

WHITE - Applicant's Copy

YELLOW - Office Copy

PINK - Permit Copy

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 10-0803	Date Applied For: 07/07/2010	CBL: 032 H016002
-----------------------	---------------------------------	---------------------

Location of Construction: 183 MIDDLE ST	Owner Name: LEWIS SAUL & ASSOCIATES PC	Owner Address: 183 MIDDLE ST STE 200	Phone:
Business Name:	Contractor Name: RGR Flooring & Remodeling /Rodn	Contractor Address: P.O. Box 221 Raymond	Phone (207) 650-8953
Lessee/Buyer's Name	Phone:	Permit Type: Replacement windows	

Proposed Use: Commercial Mixed Use - Replace windows on second floor	Proposed Project Description: Replace windows on second floor
---	--

<p>Dept: Historic Status: Approved with Conditions Reviewer: Deborah Andrews Approval Date: 07/13/2010</p> <p>Note: Ok to Issue: ✓</p> <p>1) * Windows to have clear glass--no low-e--to match existing replacement windows.</p> <p>* Replacement windows to feature 2/2 muntin configuration and match all dimensions and profiles of existing windows.</p>
<p>Dept: Zoning Status: Approved with Conditions Reviewer: Marge Schmuckal Approval Date: 07/07/2010</p> <p>Note: Ok to Issue: ✓</p> <p>1) ANY exterior work requires a separate review and approval thru Historic Preservation. This property is located within an Historic District.</p> <p>2) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work</p>
<p>Dept: Building Status: Approved with Conditions Reviewer: Tammy Munson Approval Date: 07/22/2010</p> <p>Note: Ok to Issue: ✓</p> <p>1) This permit authorizes window replacement only. It does not authorize any structural changes.</p>

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the City of Portland Inspection Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months, if the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue with construction.**

 X **Final inspection required at completion of work.**

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OR CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.



General Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>183 Middle Street Portland ME</u>		
Total Square Footage of Proposed Structure/Area	Square Footage of Lot	Number of Stories <u>4</u>
Tax Assessor's Chart, Block & Lot Chart# <u>32-</u> Block# <u>11</u> Lot# <u>16</u>	Applicant *must be owner, Lessee or Buyer* Name <u>Emerald Management</u> Address <u>752 Main Street</u> City, State & Zip <u>Westbrook, ME 04092</u>	Telephone: <u>(207) 854-2606</u>
Lessee/DBA (If Applicable)	Owner (if different from Applicant) Name Address City, State & Zip	Cost Of Work: \$ <u>16,500.-</u> C of O Fee: \$ _____ Total Fee: \$ <u>190</u>
Current legal use (i.e. single family) <u>Office building</u> Number of Residential Units <u>n/a</u> If vacant, what was the previous use? <u>n/a</u> Proposed Specific use: _____ Is property part of a subdivision? _____ If yes, please name _____ Project description: <u>four story office/retail space</u>		
Contractor's name: <u>RGR flooring + Remodeling</u> Address: <u>P.O. Box 221</u> City, State & Zip <u>Raymond ME 04071</u> Telephone: _____ Who should we contact when the permit is ready: <u>Rodney Baxter</u> Telephone: <u>(207) 650-8953</u> Mailing address: <u>P.O. Box 221 Raymond ME 04071</u>		

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

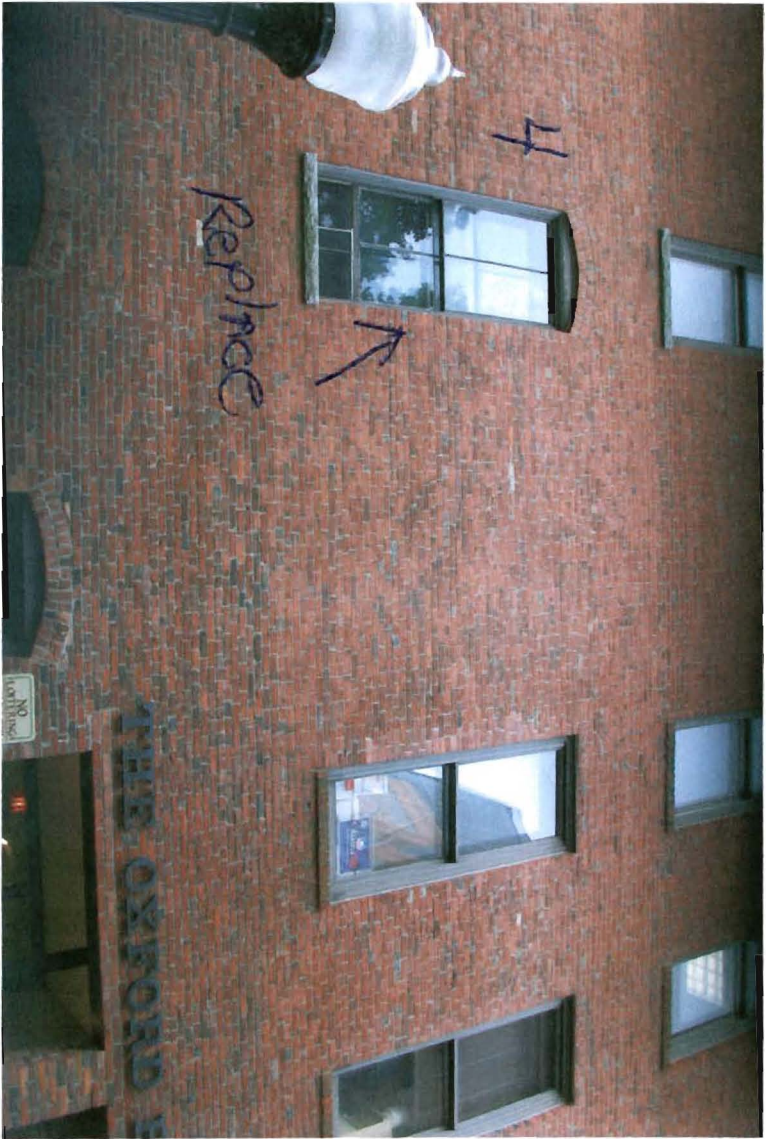
RECEIVED
City of Portland Inspections Dept
7/2/10

Signature: Rodney Baxter Date: 7/2/10

This is not a permit; you may not commence ANY work until the permit is issued







#2





CHAPTER 8

CLAD ULTIMATE DOUBLE HUNG

Product Information

Unit Features	8.2
NFRC Values	8.3
Design Pressures / Minimums and Maximums Values	8.4
Egress, Lite and Vent Values	8.5
Measurement Conversion Values	8.6

Elevations and Sections

Elevations: Double Hung	8.9
Elevations: Picture	8.10
Elevations: Double Hung Cottage and Transom	8.11
Section Details: Double Hung and Single Hung	8.12
Section Details: Transom / Picture	8.13
Section Details: Casings / Combination	8.14
Section Details: Mullions	8.15
Section Details: Divided Lite Options	8.16
Daylight Opening Conversions	8.17
Elevations: Standard Divided Lite Patterns	8.18
Section Details: Construction	8.22

Bow and Bay Assemblies

Section Details: 30 or 45 Degree Bay, Vertical	8.24
Section Details: 30 Degree Bay, Horizontal	8.25
Width Measurements: 30 Degree Bay	8.26
Section Details: 45 Degree Bay, Horizontal	8.27
Width Measurements: 45 Degree Bay	8.28
Section Details: 90 Degree Bay	8.29

NOTE:

Specifications and technical data are subject to change without notice.

Allow 1/16" (2) tolerance on all measurements

Metric measurements are shown in parentheses.

For accessories dimensions and applications see the Accessories section of this manual.

For technical assistance about Marvin products you may call our Architectural Hotline 1-800-346-3363 or visit our website: www.Marvin.com.

CLAD ULTIMATE DOUBLE HUNG

UNIT FEATURES

Frame:

- Interior: Standard is Pine Wood, optional Douglas Fir. Species available are Mahogany, Cedro Macho, Vertical Grain Douglas Fir, Cherry, and White Oak.
- Exterior: Extruded aluminum, .050" (1.3) thick
- Frame thickness: 1 1/16" (17) thick at the head. 1 3/32" (28) thick composite jambs, and 1 7/16" (37) thick at the sill
- Frame width: 4 9/16" (116)

Sash:

- Interior: Standard is Pine Wood, optional Douglas Fir. Species available are Mahogany, Cedro Macho, Vertical Grain Douglas Fir, Cherry, and White Oak.
- Exterior: Extruded aluminum, .050" (1.3) thick
- Composite sash thickness: 1 9/16" (40)
- Transom and Picture unit sash thickness: 1 7/8" (48)
- Operating sash are removable for cleaning

Interior and exterior finish:

- Interior finish: treated bare wood or white primed (pine only)
- Exterior finish: Two coat finish system using Kynar® or Hylar® resins, meets or exceeds AAMA 2605 requirements.
- Standard Color: Stone White, Bahama Brown, Bronze, Pebble Gray, Evergreen. Select Color: Sierra White, Coconut Cream, French Vanilla, Cashmere, Desert Beige, Cumulus Gray, Cadet Gray, Ebony, Arctic White, Cascade Blue, Cobalt Blue, Hampton Sage, Sherwood Green and Wineberry. Contact your Marvin representative for details on custom colors.

Operating Hardware:

- Sash lock and keeper: Surface mounted, open style crescent cam lock with sash release lever. Color: Satin Taupe. Optional: White, Brass, Satin Chrome, Polished Chrome, Antique Brass, Bronze, Oil Rubbed Bronze, Satin Nickel
- Sash lift is optional. Color: Satin Taupe. Optional: White, Brass, Satin Chrome, Antique Brass, Bronze, Oil Rubbed Bronze, Satin Nickel
- Sash tilt lever: Satin Taupe lever for sash removal. Optional: White, Brass, Satin Chrome, Antique Brass, Bronze, Oil Rubbed Bronze, Satin Nickel.
- Balance system: Block and tackle balance system

Weather Stripping:

- Operating units: Continuous leaf weather strip at head jamb; dual bulb at check rail, weather strip and bottom rail. Color: Beige
- Picture units: Continuous weather strip at perimeter; leaf and bulb weather strip at jamb, bulb weather strip at head and sill

Jamb Extensions:

- Jamb extensions available for various wall thickness factory applied, finish to match interior

Insect Screens:

- Aluminum screen: Full screen standard, half screen optional. Standard Color: Stone White, Bahama Brown, Bronze, Pebble Gray, Evergreen. Select Color: Sierra White, Coconut Cream, French Vanilla, Cashmere, Desert Beige, Cumulus Gray, Cadet Gray, Ebony, Arctic White, Cascade Blue, Cobalt Blue, Hampton Sage, Sherwood Green and Wineberry. Contact your Marvin representative for details on custom colors.
- Screen mesh: charcoal fiberglass, optional screen mesh: charcoal aluminum wire, black aluminum wire, bright aluminum wire, bright bronze wire
- Optional Charcoal High Transparency screen mesh (CH Hi-Tran) fiberglass.

Combination Storm Sash and Screen:

- Frame: Extruded aluminum frame, .045" (1.1) thick. Color: Stone White, Bahama Brown, Bronze, Pebble Gray or Evergreen
- Storm panel: Select quality glass in and extruded aluminum frame. Color: Stone White, Bahama Brown, Bronze, Pebble Gray and Evergreen
- Insect screen: Screen mesh: charcoal aluminum wire, optional screen material: charcoal fiberglass mesh, black aluminum wire, bright aluminum wire, bright bronze wire. Optional Charcoal High Transparency screen mesh (CH Hi-Tran) fiberglass.
- Weather strip: Pile weather strip between operating panels and at stiles of main frame
- Hardware: Spring loaded latches to secure storm panel

Removable Interior Grilles:

- Bar: Pine, 3/4" (19) or 1 1/8" (29) wide bars
- Pattern: Rectangular, custom lite layouts available, contact your Marvin representative

Interior / Exterior Simulated Divided Lite (SDL):

- Interior bar: 7/8" (22) or 1 1/8" (29) wide bars. Pine wood or Douglas fir standard, optional white oak, cherry, mahogany, cedro macho or vertical grain Douglas fir. Finish to match interior
- Extruded aluminum clad, 7/8" (22) or 1 1/8" (29) wide bars, finish to match exterior
- Pattern: Rectangular, custom lite layouts available, contact your Marvin representative
- Installation method: Factory applied with acrylic foam tape

Grilles-between-the-glass (GBG):

- 1 1/16" (17mm) white contoured aluminum bar. Optional flat aluminum spacer bar, contact your Marvin representative

Glass and Glazing:

- Glazing method: Insulated
- Glazing seal: Silicon glazed
- Glazing type: Clear, LoE³-366™ with Argon or Low E II with argon, laminated, solar tints, tempered, obscure, bronze tint, Gray tint, and Reflective Bronze
- Glazing will be altitude adjusted for higher elevations, argon gas not included

Accessories:

- Installation brackets: 6 3/8" (162), 9 3/8" (238), or 15 3/8" (391)
- Masonry brackets: 6" (152) or 10" (254)
- Nailing fin: Head jamb fin/drip cap, side jamb and sill fin. Head nailing fin with drip cap not designed to replace proper flashing
- Marvin SillGuard™
- Aluminum extrusions: Brick mould casing, Flat casing, various special casings, Mullion cover, Frame expander, Mullion expander, Jamb extender

Note:

Values shown in parenthesis represent metric equivalents

For product specifications please refer to the CSI Product Specifications, contact your Marvin representative

2010-03-16

CLAD ULTIMATE DOUBLE HUNG

NFRC VALUES

NFRC Unit Values				
Glazing Type	U-Factor	Solar Heat Gain Coefficient	Visible Light Transmittance	2010 Energy Star
Double Hung / Single Hung				
Size Tested	47 x 59	47 x 59	47 x 59	
Insulating glass	0.47	0.56	0.58	-
Insulating glass - SDL	0.47	0.50	0.52	-
Insulating glass - SDL with spacer bars	0.47	0.50	0.52	-
Insulating Low E II glass	0.35	0.30	0.51	NC, SC,
Insulating Low E II glass - SDL	0.35	0.27	0.45	SC, S
Insulating Low E II glass - SDL with spacer bars	0.35	0.24	0.40	SC, S
Insulating Low E II glass - Argon	0.31	0.30	0.51	NC, SC
Insulating Low E II glass - Argon, SDL	0.31	0.27	0.45	NC, SC, S
Insulating Low E II glass - Argon, SDL with spacer bars	0.32	0.24	0.40	NC, SC, S
Transom 3/4" IG				
Size Tested	47 x 59	47 x 59	47 x 59	
Insulating glass	0.46	0.60	0.63	-
Insulating glass - SDL	0.46	0.54	0.56	-
Insulating glass - SDL with spacer bars	0.47	0.54	0.56	-
Insulating Low E II glass	0.33	0.32	0.55	-
Insulating Low E II glass - SDL	0.33	0.29	0.49	SC
Insulating Low E II glass - SDL with spacer bars	0.34	0.29	0.49	SC
Insulating Low E II glass - Argon	0.29	0.32	0.55	N, NC
Insulating Low E II glass - Argon, SDL	0.29	0.29	0.49	N, NC, SC
Insulating Low E II glass - Argon, SDL with spacer bars	0.30	0.26	0.43	N, NC, SC, S
Picture 1" IG				
Size Tested	48 x 48	48 x 48	48 x 48	
Insulating glass	0.45	0.56	0.60	-
Insulating glass - SDL	0.45	0.50	0.54	-
Insulating glass - SDL with spacer bars	0.45	0.50	0.54	-
Insulating Low E II glass	0.32	0.31	0.53	NC
Insulating Low E II glass - SDL	0.32	0.28	0.47	NC, SC
Insulating Low E II glass - SDL with spacer bars	0.33	0.25	0.41	SC, S
Insulating Low E II glass - Argon	0.29	0.30	0.53	N, NC, SC
Insulating Low E II glass - Argon, SDL	0.29	0.27	0.47	N, NC, SC, S
Insulating Low E II glass - Argon, SDL with spacer bars	0.30	0.24	0.41	N, NC, SC, S

NOTE:

Product Values are determined using the National Fenestration Rating Council (NFRC) Procedures for determining fenestration product values
U-Value: (Btu/hr-sq ft-F) Lower the U-Value, the greater the resistance to heat flow and better its insulating value.
R-Value: (1/U-Value) Higher the R-Value, the greater the resistance to heat flow and better its insulating value
Visible Light Transmittance (VLT): Percentage of visible light transmitted through the unit.
Solar Heat Gain Coefficient (SHGC): The lower a window's SHGC, the less solar heat it transmits, and the greater its shading ability
 Capillary tubes are required for IG units at high elevations. Argon will not be furnished in units with capillary tubes.
 Contact the Architectural Department Hotline at (800-346-3363) for additional NFRC Unit Values.

36" x 101"
Window
No low
PR HISTORIC

CLAD ULTIMATE DOUBLE HUNG

DESIGN PRESSURE VALUES AND MEASUREMENT VALUES

Design Pressure Values - Double Hung									
Call #	16	20	24	26	28	30	32	36	40
	Width								
12	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40
14	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40
16	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40
18	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40
20	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40
22	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40
24	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40
26	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40
28	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 30	DP 30	DP 30
30	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 30	DP 30	DP 30
32	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 30	DP 30	DP 30
34	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 30	DP 30	DP 30
36	DP 40	DP 40	DP 40	DP 40	DP 40	DP 40	DP 30	DP 30	DP 30

Design Pressure Values - Picture					
Call #	40	48	52	60	68
	Width				
38	DP 40	DP 40	DP 40	DP 40	DP 40
42	DP 40	DP 40	DP 40	DP 40	DP 40
46	DP 40	DP 40	DP 40	DP 40	DP 40
50	DP 40	DP 40	DP 40	DP 40	DP 40
54	DP 40	DP 40	DP 40	DP 40	DP 40
58	DP 40	DP 40	DP 40	DP 40	DP 40
62	DP 40	DP 40	DP 40	DP 40	DP 30
66	DP 40	DP 40	DP 40	DP 40	DP 30
70	DP 40	DP 40	DP 40	DP 40	DP 30
74	DP 40	DP 40	DP 40	DP 30	DP 30
78	DP 40	DP 40	DP 40	DP 30	DP 30

NOTE:
Design Pressure values represent Pounds Per Square Foot (PSF). Values indicated represent standard units only. Refer to the Product Performance and Information section for additional information on Design Pressures.

Minimum and Maximum Measurements					
Glazing Type	Minimum RO Width	Minimum RO Height	Maximum RO Width	Maximum RO Height	Maximum Glass Square Feet
Double Hung					
Insulating Glass	14 3/8" (365)	24 7/8" (632)	46 3/8" (1178)	80 7/8" (2054)	10.0 Sq. Feet (0.9290 Sq. Meters)
Transom					
Insulating Glass	14 3/8" (365)	14 11/32" (364)	121" (3073)	60" (1524)	25.0 Sq. Feet (2.3225 Sq. Meters)
Picture					
Insulating Glass	14 3/8" (365)	15 17/32" (394)	121" (3073)	120 1/2" (3061)	49.0 Sq. Feet (4.55 Sq. Meters)

NOTE:
These minimum and maximum measurements are guidelines for configuring custom sized units, all measurements are specific to glass type. For assistance please contact our technical support hotline at 800-346-3363 or your Marvin representative.

CLAD ULTIMATE DOUBLE HUNG

EGRESS, LITE AND VENT INFORMATION

Egress, Lite and Vent Measurements - Double Hung													
Call #	Total Square Feet	Clear Opening Width	Clear Opening Height	Floor to Sill Height	Vent Opening	Lite (Both Sash)	Call #	Total Square Feet	Clear Opening Width	Clear Opening Height	Floor to Sill Height	Vent Opening	Lite (Both Sash)
Egress Openings							Egress Openings						
1612	1.30	18.07	10.34	52.38	1.30	2.27	3012	2.30	32.07	10.34	52.38	2.30	4.40
1614	1.55	18.07	12.34	48.38	1.55	2.68	3014	2.75	32.07	12.34	48.38	2.75	5.20
1616	1.80	18.07	14.34	44.38	1.80	3.10	3016	3.19	32.07	14.34	44.38	3.19	6.00
1618	2.05	18.07	16.34	40.38	2.05	3.51	3018	3.64	32.07	16.34	40.38	3.64	6.81
1620	2.30	18.07	18.34	36.38	2.30	3.93	3020	4.08	32.07	18.34	36.38	4.08	7.61
1622	2.55	18.07	20.34	32.38	2.55	4.34	3022	4.53	32.07	20.34	32.38	4.53	8.41
1624	2.80	18.07	22.34	28.38	2.80	4.76	3024	4.97	32.07	22.34	28.38	4.97	9.22
1626	3.05	18.07	24.34	24.38	3.05	5.17	3026	5.42	32.07	24.34	24.38	5.42	10.02
1628	3.30	18.07	26.34	20.38	3.30	5.59	3028*	5.86	32.07	26.34	20.38	5.86	10.83
1630	3.56	18.07	28.34	16.38	3.56	6.00	3030*	6.31	32.07	28.34	16.38	6.31	11.63
1632	3.81	18.07	30.34	12.38	3.81	6.42	3032*	6.76	32.07	30.34	12.38	6.76	12.43
1634	4.06	18.07	32.34	8.38	4.06	6.83	3034*	7.20	32.07	32.34	8.38	7.20	13.24
1636	4.31	18.07	34.34	4.38	4.31	7.25	3036*	7.65	32.07	34.34	4.38	7.65	14.04
2012	1.58	22.07	10.34	52.38	1.58	2.88	3212	2.45	34.07	10.34	52.38	2.45	4.70
2014	1.89	22.07	12.34	48.38	1.89	3.40	3214	2.92	34.07	12.34	48.38	2.92	5.56
2016	2.20	22.07	14.34	44.38	2.20	3.93	3216	3.39	34.07	14.34	44.38	3.39	6.42
2018	2.50	22.07	16.34	40.38	2.50	4.45	3218	3.86	34.07	16.34	40.38	3.86	7.28
2020	2.81	22.07	18.34	36.38	2.81	4.98	3220	4.34	34.07	18.34	36.38	4.34	8.14
2022	3.12	22.07	20.34	32.38	3.12	5.51	3222	4.81	34.07	20.34	32.38	4.81	9.00
2024	3.42	22.07	22.34	28.38	3.42	6.03	3224	5.28	34.07	22.34	28.38	5.28	9.86
2026	3.73	22.07	24.34	24.38	3.73	6.56	3226*	5.76	34.07	24.34	24.38	5.76	10.72
2028	4.04	22.07	26.34	20.38	4.04	7.09	3228*	6.23	34.07	26.34	20.38	6.23	11.57
2030	4.34	22.07	28.34	16.38	4.34	7.61	3230*	6.70	34.07	28.34	16.38	6.70	12.43
2032	4.65	22.07	30.34	12.38	4.65	8.14	3232*	7.18	34.07	30.34	12.38	7.18	13.29
2034	4.96	22.07	32.34	8.38	4.96	8.66	3234*	7.65	34.07	32.34	8.38	7.65	14.15
2036	5.26	22.07	34.34	4.38	5.26	9.19	3236*	8.12	34.07	34.34	4.38	8.12	15.01
2412	1.87	26.07	10.34	52.38	1.87	3.48	3612	2.73	38.07	10.34	52.38	2.73	5.31
2414	2.23	26.07	12.34	48.38	2.23	4.12	3614	3.26	38.07	12.34	48.38	3.26	6.28
2416	2.59	26.07	14.34	44.38	2.59	4.76	3616	3.79	38.07	14.34	44.38	3.79	7.25
2418	2.96	26.07	16.34	40.38	2.96	5.40	3618	4.32	38.07	16.34	40.38	4.32	8.22
2420	3.32	26.07	18.34	36.38	3.32	6.03	3620	4.85	38.07	18.34	36.38	4.85	9.19
2422	3.68	26.07	20.34	32.38	3.68	6.67	3622	5.38	38.07	20.34	32.38	5.38	10.16
2424	4.04	26.07	22.34	28.38	4.04	7.31	3624	5.90	38.07	22.34	28.38	5.90	11.13
2426	4.41	26.07	24.34	24.38	4.41	7.94	3626*	6.43	38.07	24.34	24.38	6.43	12.10
2428	4.77	26.07	26.34	20.38	4.77	8.58	3628*	6.96	38.07	26.34	20.38	6.96	13.07
2430	5.13	26.07	28.34	16.38	5.13	9.22	3630*	7.49	38.07	28.34	16.38	7.49	14.04
2432	5.49	26.07	30.34	12.38	5.49	9.86	3632*	8.02	38.07	30.34	12.38	8.02	15.01
2434*	5.85	26.07	32.34	8.38	5.85	10.49	3634*	8.55	38.07	32.34	8.38	8.55	15.98
2436*	6.22	26.07	34.34	4.38	6.22	11.13	3636*	9.08	38.07	34.34	4.38	9.08	16.95
2612	2.01	28.07	10.34	52.38	2.01	3.79	4012	3.02	42.07	10.34	52.38	3.02	5.91
2614	2.40	28.07	12.34	48.38	2.40	4.48	4014	3.60	42.07	12.34	48.38	3.60	7.00
2616	2.79	28.07	14.34	44.38	2.79	5.17	4016	4.19	42.07	14.34	44.38	4.19	8.08
2618	3.18	28.07	16.34	40.38	3.18	5.87	4018	4.77	42.07	16.34	40.38	4.77	9.16
2620	3.57	28.07	18.34	36.38	3.57	6.56	4020	5.36	42.07	18.34	36.38	5.36	10.24
2622	3.96	28.07	20.34	32.38	3.96	7.25	4022	5.94	42.07	20.34	32.38	5.94	11.32
2624	4.35	28.07	22.34	28.38	4.35	7.94	4024	6.52	42.07	22.34	28.38	6.52	12.40
2626	4.74	28.07	24.34	24.38	4.74	8.64	4026*	7.11	42.07	24.34	24.38	7.11	13.49
2628	5.13	28.07	26.34	20.38	5.13	9.33	4028*	7.69	42.07	26.34	20.38	7.69	14.57
2630	5.52	28.07	28.34	16.38	5.52	10.02	4030*	8.28	42.07	28.34	16.38	8.28	15.65
2632*	5.91	28.07	30.34	12.38	5.91	10.72	4032*	8.86	42.07	30.34	12.38	8.86	16.73
2634*	6.30	28.07	32.34	8.38	6.30	11.41	4034*	9.45	42.07	32.34	8.38	9.45	17.81
2636*	6.69	28.07	34.34	4.38	6.69	12.10	4036*	10.03	42.07	34.34	4.38	10.03	18.89
2812	2.16	30.07	10.34	52.38	2.16	4.09							
2814	2.58	30.07	12.34	48.38	2.58	4.84							
2816	2.99	30.07	14.34	44.38	2.99	5.59							
2818	3.41	30.07	16.34	40.38	3.41	6.34							
2820	3.83	30.07	18.34	36.38	3.83	7.09							
2822	4.25	30.07	20.34	32.38	4.25	7.83							
2824	4.66	30.07	22.34	28.38	4.66	8.58							
2826	5.08	30.07	24.34	24.38	5.08	9.33							
2828	5.50	30.07	26.34	20.38	5.50	10.08							
2830*	5.92	30.07	28.34	16.38	5.92	10.83							
2832*	6.33	30.07	30.34	12.38	6.33	11.57							
2834*	6.75	30.07	32.34	8.38	6.75	12.32							
2836*	7.17	30.07	34.34	4.38	7.17	13.07							

NOTE:

* These windows meet national egress codes for fire evacuation. Local codes may differ.

Floor to sill height is based on 6" - 10 1/4" from finished floor to rough opening header. Egress widths represent standard operating hardware.

International Building Code - 2000
Section 1009 Emergency Escape and Rescue

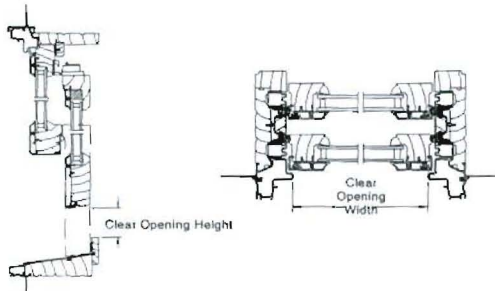
1009.2 Minimum size: Emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (0.53 m²). Exception: The minimum net clear opening for emergency escape and rescue openings on the ground level at grade is 5.0 square feet (0.46 m²).

1009.2.1 Minimum dimensions: The minimum net clear opening height dimension shall be 24 inches (610 mm). The net clear opening width dimension shall be 20 inches (508 mm). The net clear opening dimensions shall be the result of normal operation of the opening.

1009.3 Maximum height from the floor: Emergency escape and rescue opening shall have the bottom of the clear opening not greater than 44 inches (1118 mm) measured from the floor.

1009.4 Operational constraints: Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools. Bars, grilles, grates, or similar devices are permitted to be placed over emergency escape and rescue openings provided the minimum net clear opening size complies with Section 1009.2 and such devices shall be releasable or removable from the inside without the use of a key, tool, or force greater than that which is required for normal operation of the escape and rescue opening.

Code restrictions may vary depending on your local building codes.



CLAD ULTIMATE DOUBLE HUNG

MEASUREMENT CONVERSIONS

Measurement Conversions - Double Hung												
Size Referenced	Daylight Opening (DLO)	Glass Size (GS)	Frame Size	Rough Opening	Masonry Opening (Without Casing)	Masonry Opening (With Brick Mould Casing)	Masonry Opening (With Flat Casing)					
Daylight Opening (DLO)	Dimension Needed											
	Width	+ 1 1/16" (27)	Width	+ 6 7/16" (164)	Width	+ 7 7/16" (189)	Width	+ 6 15/16" (176)	Width	+ 9 9/16" (243)	Width	+ 12 15/16" (329)
Glass Size (GS)	Height	+ 1 1/16" (27)	Height	DLO x 2 + 10 1/2" (267)	Height	DLO x 2 + 11" (279)	Height	DLO x 2 + 10 3/4" (273)	Height	DLO x 2 + 12 11/16" (322)	Height	DLO x 2 + 14 3/8" (365)
	Width	- 1 1/16" (27)	Width	+ 5 3/8" (137)	Width	+ 6 3/8" (162)	Width	+ 5 7/8" (149)	Width	+ 8 1/2" (216)	Width	+ 11 7/8" (302)
Frame Size	Height	- 1 1/16" (27)	Height	GS x 2 + 8 3/8" (213)	Height	GS x 2 + 8 7/8" (225)	Height	GS x 2 + 8 5/8" (219)	Height	GS x 2 + 10 9/16" (268)	Height	GS x 2 + 12 1/4" (311)
	Width	- 6 7/16" (164)	Width	- 5 3/8" (137)	Width	+ 1" (25)	Width	+ 1/2" (13)	Width	+ 3 1/8" (79)	Width	+ 6 1/2" (165)
Rough Opening	Height	- 10 1/2" + 2 (267)	Height	- 8 3/8" + 2 (213)	Height	+ 1/2" (13)	Height	+ 1/4" (6)	Height	+ 2 3/16" (56)	Height	+ 3 7/8" (98)
	Width	- 7 7/16" (189)	Width	- 6 3/8" (162)	Width	- 1" (25)	Width	- 1/2" (13)	Width	+ 2 1/8" (54)	Width	+ 5 1/2" (140)
Masonry Opening (Without Casing)	Height	- 11" + 2 (279)	Height	- 8 7/8" + 2 (225)	Height	- 1/2" (13)	Height	- 1/4" (6)	Height	+ 1 11/16" (43)	Height	+ 3 3/8" (86)
	Width	- 6 15/16" (176)	Width	- 5 7/8" (149)	Width	- 1/2" (13)	Width	+ 1/2" (13)	Width	+ 2 5/8" (67)	Width	+ 6" (152)
Masonry Opening (With Brick Mould Casing)	Height	- 10 3/4" + 2 (273)	Height	- 8 5/8" + 2 (219)	Height	- 1/4" (6)	Height	+ 1/4" (6)	Height	+ 1 15/16" (49)	Height	+ 3 5/8" (92)
	Width	- 9 9/16" (243)	Width	- 8 1/2" (216)	Width	- 3 1/8" (79)	Width	- 2 1/8" (54)	Width	- 2 5/8" (67)	Width	+ 3 3/8" (86)
Masonry Opening (With Flat Casing)	Height	- 12 11/16" + 2 (322)	Height	- 10 9/16" + 2 (268)	Height	- 2 3/16" (56)	Height	- 1 11/16" (43)	Height	- 1 15/16" (49)	Height	+ 1 11/16" (43)
	Width	- 12 15/16" (329)	Width	- 11 7/8" (302)	Width	- 6 1/2" (165)	Width	- 5 1/2" (140)	Width	- 6" (152)	Width	- 3 3/8" (86)
	Height	- 14 3/8" + 2 (365)	Height	- 12 1/4" + 2 (311)	Height	- 3 7/8" (98)	Height	- 3 3/8" (86)	Height	- 3 5/8" (92)	Height	- 1 11/16" (43)

NOTE:
Conversions represent units without dividers. Contact Marvin's for additional conversions.

Egress Conversions

Glass Size Width + 2 1/16", Glass Size Height - 1 5/8"
Rough Opening Width - 4 5/16", Rough Opening Height + 2 - 6 3/32"

CLAD ULTIMATE DOUBLE HUNG

MEASUREMENT CONVERSIONS

Measurement Conversions - Transom												
Size Referenced	Daylight Opening	Glass Size		Frame Size		Rough Opening		Masonry Opening (Without Casing)		Masonry Opening (With Brick Mould Casing)		
Dimension Needed												
Daylight Opening	Width		+ 1 1/16" (27)	Width		+ 6 7/16" (164)	Width		+ 7 7/16" (189)	Width		+ 12 15/16" (329)
	Height		+ 1 1/16" (27)	Height		+ 6 3/4" (171)	Height		+ 7 1/4" (184)	Height		+ 10 5/8" (270)
Glass Size	Width		- 1 1/16" (27)	Width		+ 5 3/8" (137)	Width		+ 6 3/8" (162)	Width		+ 11 7/8" (302)
	Height		- 1 1/16" (27)	Height		+ 5 11/16" (144)	Height		+ 6 3/16" (157)	Height		+ 9 9/16" (243)
Frame Size	Width		- 6 7/16" (164)	Width		- 5 3/8" (137)	Width		+ 1" (25)	Width		+ 3 1/8" (79)
	Height		- 6 3/4" (171)	Height		- 5 11/16" (144)	Height		+ 1/2" (13)	Height		+ 3 7/8" (98)
Rough Opening	Width		- 7 7/16" (189)	Width		- 6 3/8" (162)	Width		- 1" (25)	Width		+ 5 1/2" (140)
	Height		- 7 1/4" (184)	Height		- 6 3/16" (157)	Height		- 1/2" (13)	Height		+ 3 3/8" (86)
Masonry Opening (Without Casing)	Width		- 6 15/16" (176)	Width		- 5 7/8" (149)	Width		- 1/2" (13)	Width		+ 6" (152)
	Height		- 7" (178)	Height		- 5 5/16" (135)	Height		- 1/4" (6)	Height		+ 3 5/8" (92)
Masonry Opening (With Brick Mould Casing)	Width		- 9 9/16" (243)	Width		- 8 1/2" (216)	Width		- 3 1/8" (79)	Width		+ 3 3/8" (86)
	Height		- 8 15/16" (227)	Height		- 7 7/8" (200)	Height		- 2 3/16" (56)	Height		+ 1 11/16" (43)
Masonry Opening (With Flat Casing)	Width		- 12 15/16" (329)	Width		- 11 7/8" (302)	Width		- 6 1/2" (165)	Width		- 6" (152)
	Height		- 10 5/8" (270)	Height		- 9 9/16" (243)	Height		- 3 7/8" (98)	Height		- 3 5/8" (92)

NOTE:
Conversions represent units without dividers. Contact your Marvin representative for additional conversions.

CLAD ULTIMATE DOUBLE HUNG

MEASUREMENT CONVERSIONS

Measurement Conversions - Picture																		
Size Referenced	Daylight Opening	Glass Size	Frame Size	Rough Opening	Masonry Opening (Without Casing)	Masonry Opening (With Brick Mould Casing)	Masonry Opening (With Flat Casing)											
Dimension Needed																		
Daylight Opening	Width		+ 1 1/16" (27)	Width		+ 6 7/16" (164)	Width		+ 7 7/16" (189)	Width		+ 6 15/16" (176)	Width		+ 9 9/16" (243)	Width		+ 12 15/16" (329)
	Height		+ 1 1/16" (27)	Height		+ 8 3/32" (206)	Height		+ 8 19/32" (218)	Height		+ 8 11/32" (212)	Height		+ 10 9/32" (261)	Height		+ 11 31/32" (304)
Glass Size	Width		- 1 1/16" (27)	Width		+ 5 3/8" (137)	Width		+ 6 3/8" (162)	Width		+ 5 7/8" (149)	Width		+ 8 1/2" (216)	Width		+ 11 7/8" (302)
	Height		- 1 1/16" (27)	Height		+ 7 1/32" (179)	Height		+ 7 17/32" (191)	Height		+ 7 9/32" (185)	Height		+ 9 7/32" (234)	Height		+ 10 29/32" (277)
Frame Size	Width		- 6 7/16" (164)	Width		- 5 3/8" (137)	Width		+ 1" (25)	Width		+ 1/2" (13)	Width		+ 3 1/8" (79)	Width		+ 6 1/2" (165)
	Height		- 8 3/32" (206)	Height		- 7 1/32" (179)	Height		+ 1/2" (13)	Height		+ 1/4" (6)	Height		+ 2 3/16" (56)	Height		+ 3 7/8" (98)
Rough Opening	Width		- 7 7/16" (189)	Width		- 6 3/8" (162)	Width		- 1" (25)	Width		- 1/2" (13)	Width		+ 2 1/8" (54)	Width		+ 5 1/2" (140)
	Height		- 8 19/32" (218)	Height		- 7 17/32" (191)	Height		- 1/2" (13)	Height		- 1/4" (6)	Height		+ 1 11/16" (43)	Height		+ 3 3/8" (86)
Masonry Opening (Without Casing)	Width		- 6 15/16" (176)	Width		- 5 7/8" (149)	Width		- 1/2" (13)	Width		+ 1/2" (13)	Width		+ 2 5/8" (67)	Width		+ 6" (152)
	Height		- 8 11/32" (212)	Height		- 7 9/32" (185)	Height		- 1/4" (6)	Height		+ 1/4" (6)	Height		+ 1 15/16" (49)	Height		+ 3 5/8" (92)
Masonry Opening (With Brick Mould Casing)	Width		- 9 9/16" (243)	Width		- 8 1/2" (216)	Width		- 3 1/8" (79)	Width		- 2 1/8" (54)	Width		- 2 5/8" (67)	Width		+ 3 3/8" (86)
	Height		- 10 9/32" (261)	Height		- 9 7/32" (234)	Height		- 2 3/16" (56)	Height		- 1 11/16" (43)	Height		- 1 15/16" (49)	Height		+ 1 11/16" (43)
Masonry Opening (With Flat Casing)	Width		- 12 15/16" (329)	Width		- 11 7/8" (302)	Width		- 6 1/2" (165)	Width		- 5 1/2" (140)	Width		- 6" (152)	Width		- 3 3/8" (86)
	Height		- 11 31/32" (304)	Height		- 10 29/32" (277)	Height		- 3 7/8" (98)	Height		- 3 3/8" (86)	Height		- 3 5/8" (92)	Height		- 1 11/16" (43)

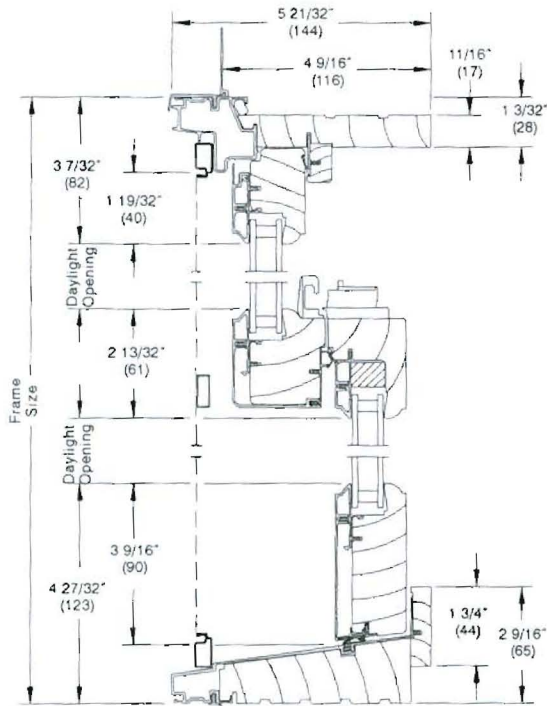
NOTE:
Conversions represent units without dividers. Contact Marvin's for additional conversions.

CLAD ULTIMATE DOUBLE HUNG

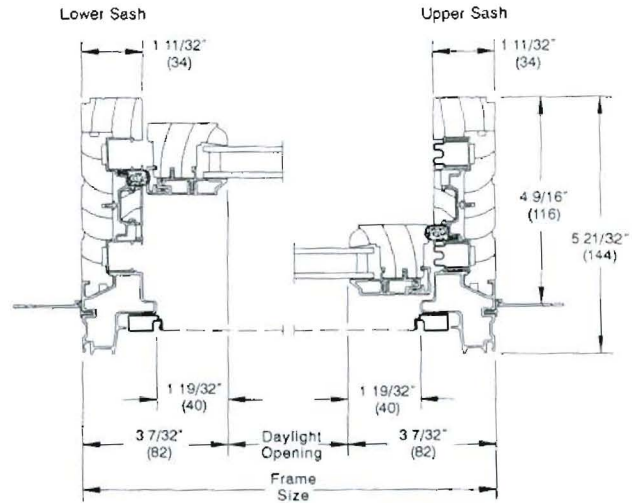
SECTION DETAILS: OPERATING ONLY

SCALE: 3" = 1' 0" (76 = 305)

Double Hung

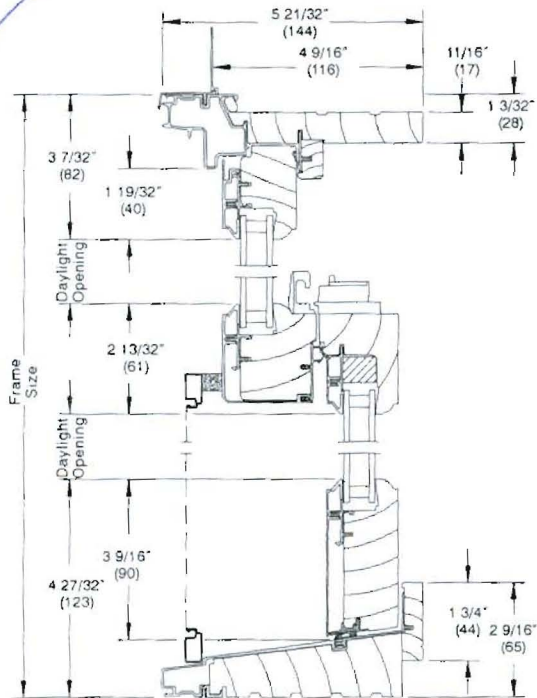


Head Jamb and Sill

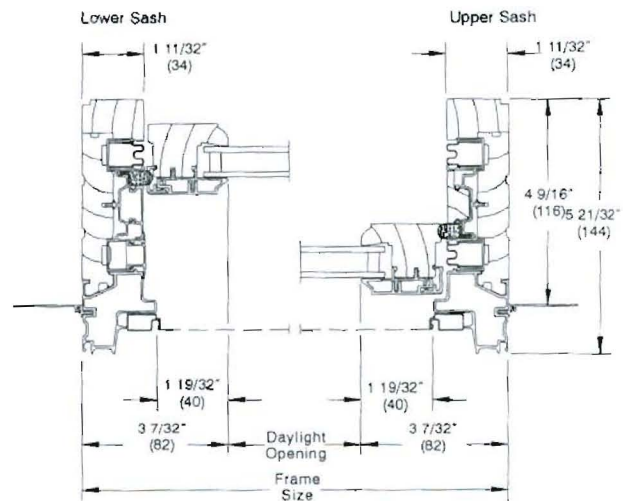


Double Hung Jamb
Lower and upper sash

Single Hung



Head Jamb and Sill



Single Hung Jamb
Lower and upper sash

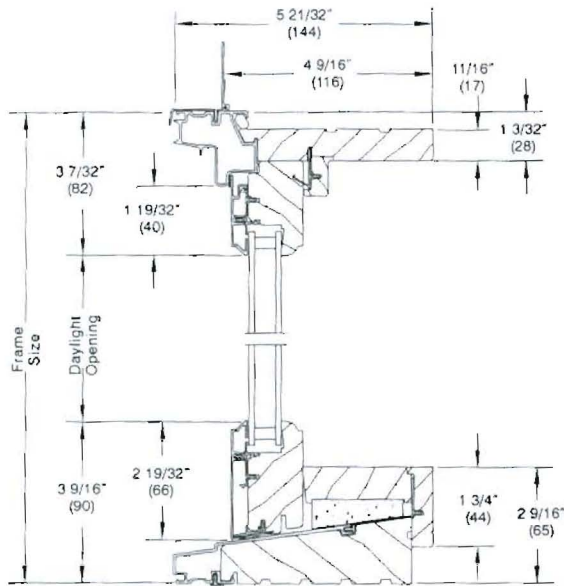
NOTE:
Optional half screen shown

CLAD ULTIMATE DOUBLE HUNG

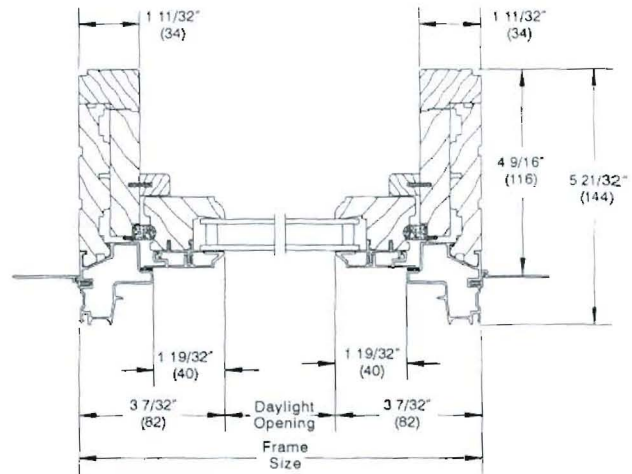
SECTION DETAILS: TRANSOM / PICTURE

SCALE: 3" = 1' 0" (76 = 305)

Transom

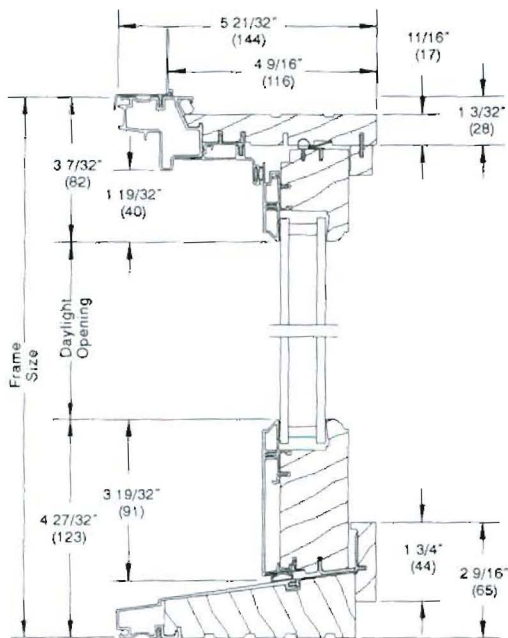


Head Jamb and Sill

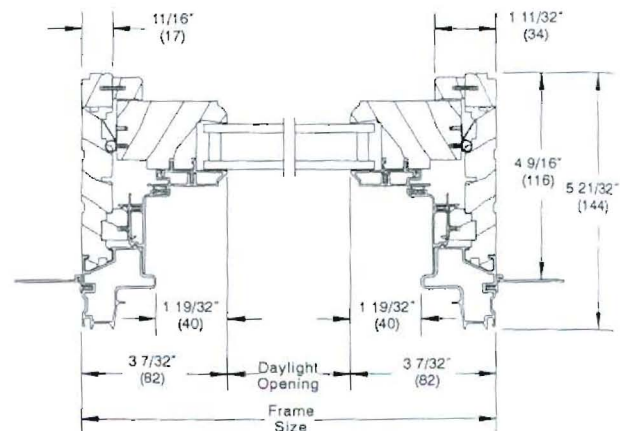


Jamb

2" Picture



Head Jamb and Sill



Jamb

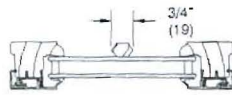
CLAD ULTIMATE DOUBLE HUNG

DIVIDED LITE OPTIONS
NOT TO SCALE

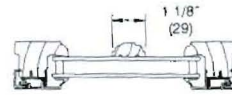
Operator Insulating Glass



Insulating Glass



3/4" Grille



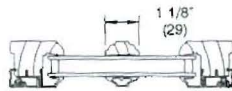
1 1/8" Grille



7/8" SDL
without Spacer Bar



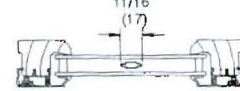
7/8" SDL
with Spacer Bar



1 1/8" SDL
without Spacer Bar



1 1/8" SDL
with Spacer Bar

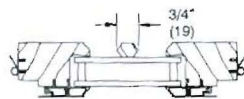


Aluminum
Grille between Glass

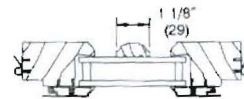
Picture 2" Sash and Transom



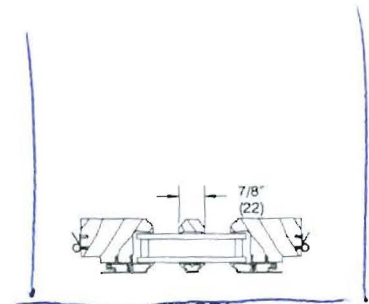
Insulating Glass



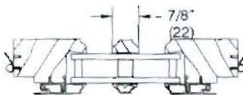
3/4" Grille



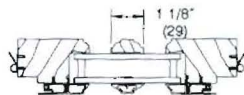
1 1/8" Grille



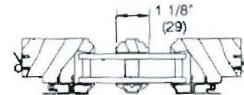
7/8" SDL
without Spacer Bar



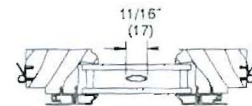
7/8" SDL
with Spacer Bar



1 1/8" SDL
without Spacer Bar



1 1/8" SDL
with Spacer Bar



Aluminum
Grille between Glass

NOTE:

Grille = Removable interior divider
SDL = Simulated divided lite

RGB Flooring & Remodeling

PO Box 221
Raymond, ME 04071

Estimate

Date	Estimate #
6/10/2010	76

Name / Address
Emerald Management Westbrook, ME Oxford Building

			Project
Description	Qty	Rate	Total
Replace six windows, materials and labor at 2750.00 each This includes removal and reinstallation of new window, second floor, Oxford Building Payment schedule: 1/3 down to order windows; 1/3 when windows arrive; 1/3 upon completion	6	2,750.00	16,500.00
Total			\$16,500.00