PRODUCT APPROVAL SPECIFICATION SHEET

Location: 181 SE. LADUKE CT, LAKE CITY **Project Name:** MARK THOMPSON

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and the product approval number(s) on the building components listed below if they will be utilized on the construction project for which you are applying for a building permit on or after April 1, 2004. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. More information about statewide product approval can be obtained at www.floridabuilding.org

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)
A. EXTERIOR DOORS	MASONITE	STEEL PREHUNG SINGLE	4904.1
1. Swinging	MASONITE	STEEL PREHUNG SINGLE	5508.1
2. Sliding			
~~3. Sectional~~	~~WAYNE-DALTON~~	~~SERIES 8000~~	~~8248.1~~
4. Roll up			
5. Automatic			
6. SWINGING	THERMA-TRU	FG GENERAL	15000, 15036
B. WINDOWS			
1. Single hung			
~~2. Horizontal Slider~~	~~SILVERLINE~~	~~VINYL SERIES 8800~~	~~14911~~
3. Casement	YKK AMERICA	VINYL SERIES STYLEVIEW	8114-R1
4. Double Hung			
5. Fixed			
6. Awning			
7. Pass -through			
8. Projected			
9. Mullion			
10. Wind Breaker			
11 Dual Action			
12. Other			
C. PANEL WALL			
1. Siding	JAMES HARDIE	CEMENT LAP SIDING	13192.2
~~2. Soffits~~	~~KAYCAN~~	~~ALUMINUM~~	~~12198.1~~
3. EIFS	NICHIHA	CEMENT LAP SIDING	12098
4. Storefronts	CEMPLANK	CEMENT LAP SIDING	13192.1
5. Curtain walls			
6. Wall louver			
7. Glass block			
8. Membrane			
9. Greenhouse			
10. Other	PLY-GEM	VINYL SIDING	15152.7
D. ROOFING PRODUCTS			
1. Asphalt Shingles	TAMKO	25 YEAR ELITE 3-TAB	1956.2
2. Underlayments			
3. Roofing Fasteners			
~~4. Non-structural Metal Rf~~	~~FABRAL~~	~~GRAND RIB-3~~	~~13732~~
5. Built-Up Roofing			
6. Modified Bitumen			
7. Single Ply Roofing Sys			
8. Roofing Tiles			
9. Roofing Insulation			
10. Waterproofing			
11. Wood shingles /shakes			
12. Roofing Slate			

COLUMBIA COUNTY BUILDING DEPARTMENT
Received for FILE COPY
Code Compliance
PLANS EXAMINER

Category/Subcategory (cont.)	Manufacturer	Product Description	Approval Number(s)
13. Liquid Applied Roof Sys			
14. Cements-Adhesives -- Coatings			
15. Roof Tile Adhesive			
16. Spray Applied Polyurethane Roof			
17. Other	TAMKO	30 YEAR AR	1956.3
E. SHUTTERS			
1. Accordion			
2. Bahama			
3. Storm Panels			
4. Colonial			
5. Roll-up			
6. Equipment			
7. Others			
F. SKYLIGHTS			
1. Skylight			
2. Other			
G. STRUCTURAL COMPONENTS			
1. Wood connector/anchor	SIMPSON ST	STRAPS & CONNECTORS	10655,13872,10456,
2. Truss plates			10849,10866,10446,
3. Engineered lumber			10860,10470,10852,
4. Railing			11473
5. Coolers-freezers			
6. Concrete Admixtures			
7. Material			
8. Insulation Forms			
9. Plastics			
10. Deck-Roof			
~~11. Wall~~	~~LOGIX ICF~~	~~INSULATED CONCRETE FORMS~~	~~2931-R1~~ N/A
12. Sheds			
13. Other			
H. NEW EXTERIOR ENVELOPE PRODUCTS			
1.			-
2.			

The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following information must be available to the inspector on the jobsite; 1) copy of the product approval, 2) the performance characteristics which the product was tested and certified to comply with, 3) copy of the applicable manufacturers installation requirements.

I understand these products may have to be removed if approval cannot be demonstrated during inspection

Contractor or Contractor's Authorized Agent Signature

Print Name

Date

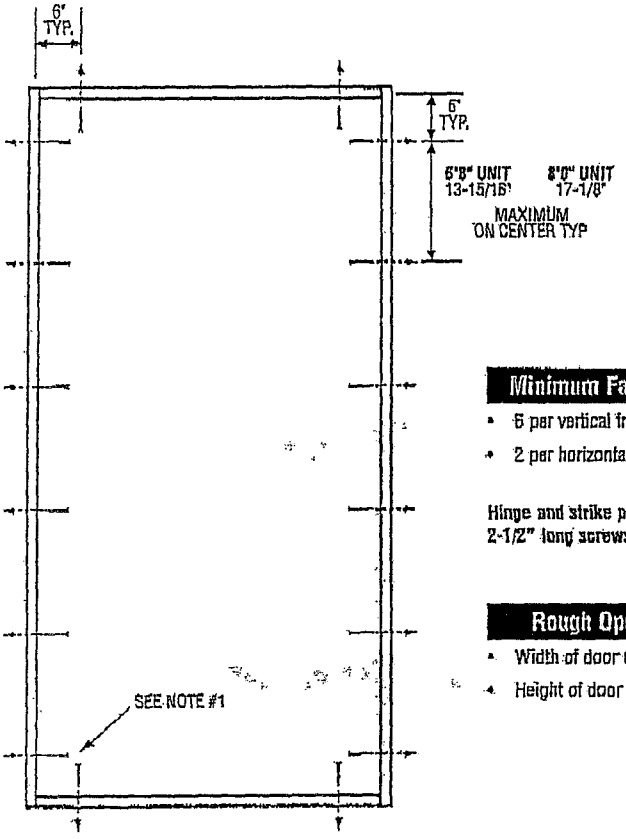
Location

Permit # **(FOR STAFF USE ONLY)**

X
Unit

MID-WL-MA0001-02

SINGLE DOOR



Minimum Fastener Count

- 6 per vertical framing member
- 2 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"

Warnock Hersey Test Data Review Certificate #3026447A; #3026447B; #3026447C and CDP/Test Report Validation Matrix #3026447A-001, 002, 003, 004; #3026447B-001, 002, 003, 004; #3026447C-001, 002, 003, 004 provides additional information - available from the ITS/WH website (www.intertek.com), the Masonite website (www.masonite.com) or the Masonite Technical Center.

Latching Hardware:

- [1] Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 5-1/2" centerline.
- [2] Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 10-1/2" centerline OR that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 5-1/2" centerline with 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts installed on latch side of active door panel – (1) at top and (1) at bottom.
- [3] Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 10-1/2" centerline with 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts installed on latch side of active door panel – (1) at top and (1) at bottom.
- [4] Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed @ 5-1/2" centerline with 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts installed on latch side of active door panel – (1) at top and (1) at bottom.

Hardware requirements not footnoted on CDP documents shall comply with item 1 as shown above.

Notes:

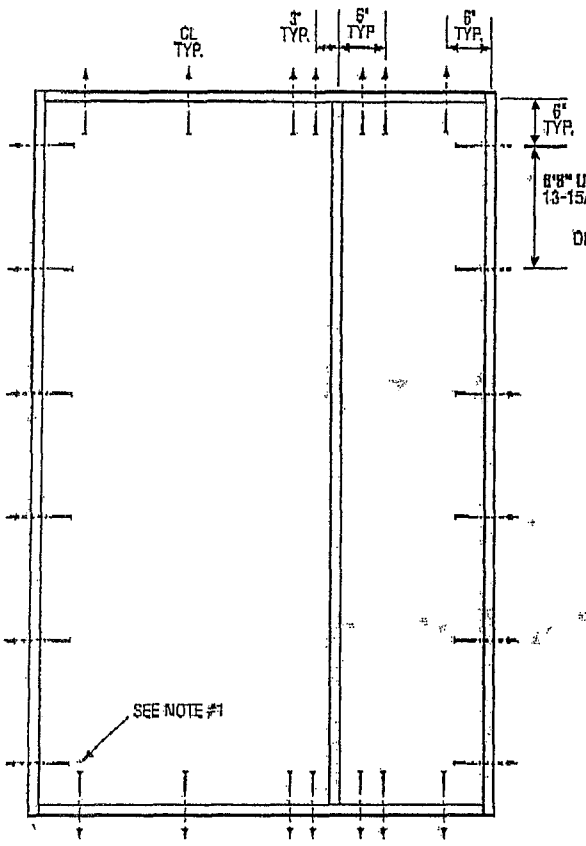
1. Anchor calculations have been carried out with the lowest (least) fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include #8 and #10 wood screws or 3/16" Tapcons. A physical shim must be placed in shim space at each anchor location. Threshold fasteners analyzed for this unit include #8 and #10 wood screws, 3/16" Tapcons, or Liquid Nails Builders Choice 490 (or equal structural adhesive).
2. The wood screw single shear design values come from Table 11.3A of ANSI/AF & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment. The 3/16" Tapcon single shear design values come from the ITW and ELCO Dade County approvals respectively, each with minimum 1-1/4" embedment.
3. Wood bucks by others, must be anchored properly to transfer loads to the structure.

Masonite®

XO or OX
Unit

MID-WL-MA0003-02

SINGLE DOOR WITH 1 SIDELITE



Minimum Fastener Count

- 6 per vertical framing member
- 7 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"

Warnock Hersey

Test Data Review Certificate #3028447A; #3028447B; #3028447C and CDP/Test Report Validation Matrix #3028447A-001, 002, 003, 004; #3028447B-001, 002, 003, 004; #3028447C-001, 002, 003, 004 provides additional information - available from the ITS/WH website (www.etsemko.com), the Masonite website (www.masonite.com) or the Masonite Technical Center.

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Notes:

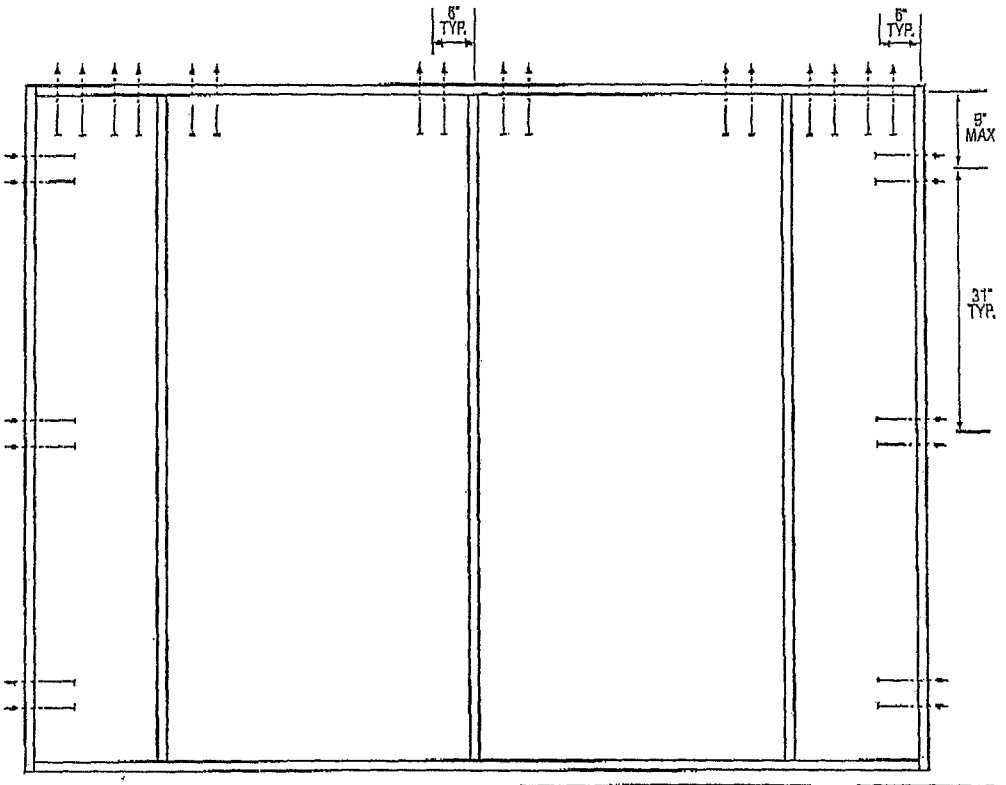
1. Anchor calculations have been carried out with the lowest (least) fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include #8 and #10 wood screws or 3/16" Tapcons. A physical shim must be placed in shim space at each anchor location. Threshold fasteners analyzed for this unit include #8 and #10 wood screws, 3/16" Tapcons, or Liquid Nails Builders Choice 490 (or equal structural adhesive).
2. The wood screw single shear design values come from Table 11.3A of ANSI/AF & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment. The 3/16" Tapcon single shear design values come from the ITW and ELCO Dade County approvals respectively, each with minimum 1-1/4" embedment.
3. Wood bucks by others, must be anchored properly to transfer loads to the structure.

Masonite®

OXXO
Unit

MID-WL-MA0005-02

DOUBLE DOOR WITH 2 SIDELITES



Minimum Fastener Count

- 6 per vertical framing member for heights 7'0" and smaller
- 8 per vertical framing member for heights greater than 7'0"
- 16 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"

Warnock Hersey

Test Data Review Certificate #3026447A; #3026447B; #3026447C and CQP/Test Report Validation Matrix #3026447A-001, 002, 003, 004; #3026447B-001, 002, 003, 004; #3026447C-001, 002, 003, 004 provides additional information - available from the ITS/WH website (www.etsemko.com), the Masonite website (www.masonite.com) or the Masonite Technical Center.

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Hardware requirements not footnoted on COI documents shall comply with item 1 as shown above.

Notes:

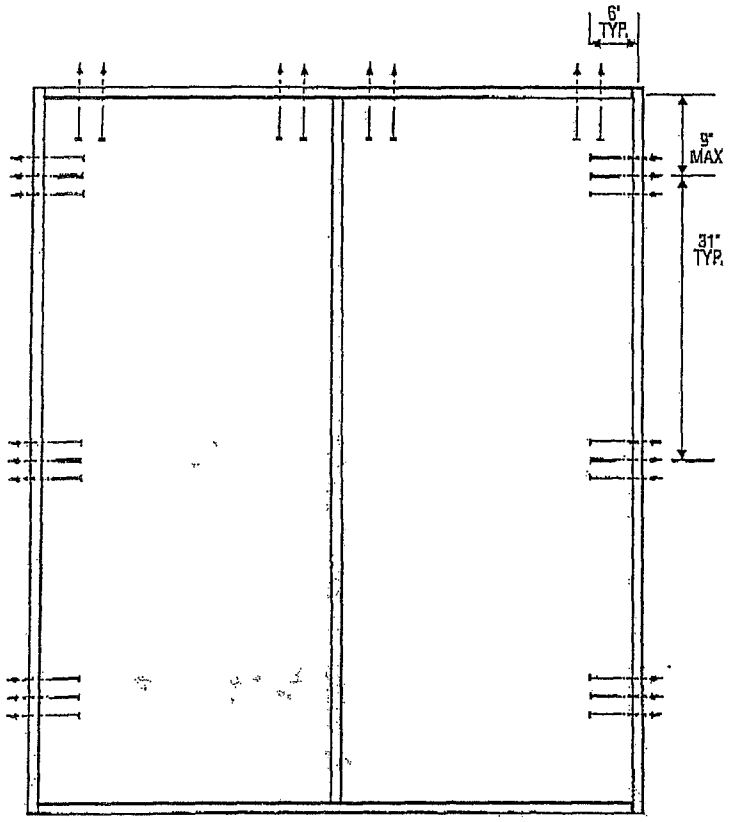
1. Anchor calculations have been carried out with the fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include 10d common nails. A physical shim must be placed in shim space at each anchor location. Threshold fasteners analyzed for this unit include Liquid Nails Builders Choice 490 (or equal structural adhesive).
2. The common nail single shear design values come from ANSI/AF & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment of 1-1/4".
3. Wood bucks by others, must be anchored properly to transfer loads to the structure.

Masonite®

XX
Unit

MID-WL-MA0002-02

DOUBLE DOOR



Minimum Fastener Count

- 6 per vertical framing member for 7'0" heights and smaller
- 8 per vertical framing member for heights greater than 7'0"
- 8 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"

Warnock Hersey

Test Data Review Certificate #3026447A; #3026447B; #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003, 004; #3026447B-001, 002, 003, 004; #3026447C-001, 002, 003, 004 provides additional information - available from the ITS/WH website (www.allsemko.com), the Masonite website (www.masonite.com) or the Masonite Technical Center.

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Hardware requirements not footnoted on COP documents shall comply with item 1 as shown above.

Notes:

1. Anchor calculations have been carried out with the fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include #8 wood screws and 10d common nails. A physical shim must be placed in shim space at each anchor location. Threshold fasteners analyzed for this unit include Liquid Nails Builders Choice 490 (or equal structural adhesive).
2. The wood screw and common nail single shear design values come from ANSI/AF & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment of 1-1/4".
3. Wood bucks by others, must be anchored properly to transfer loads to the structure.

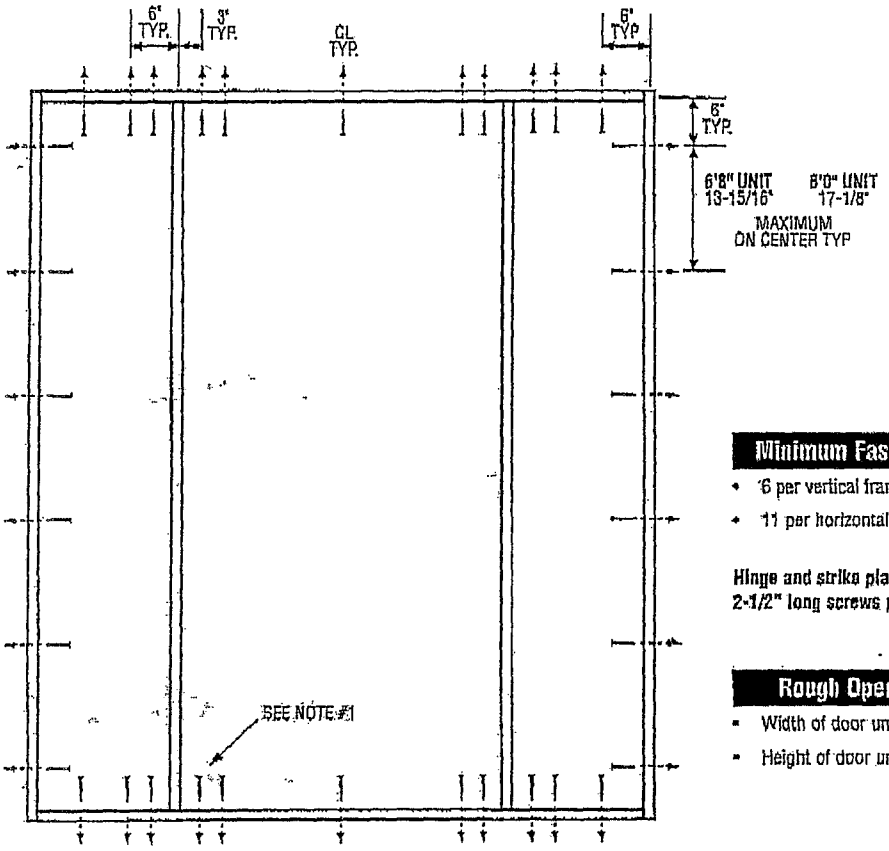
October 27, 2003
Our continuing program of product improvement makes specifications, design and product detail subject to change without notice.

Masonite®

OXO
Unit

MID-WL-MA0004-02

SINGLE DOOR WITH 2 SIDELITES



Minimum Fastener Count

- 6 per vertical framing member
- 11 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"

Warnock Hersey Test Data Review Certificate #3026447A; #3026447B; #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003, 004, #3026447B-001, 002, 003, 004, #3026447C-001, 002, 003, 004 provides additional information - available from the ITS/WH website (www.etsemko.com), the Masonite website (www.masonite.com) or the Masonite Technical Center.

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Hardware requirements not footnoted on COP documents shall comply with Item 1 as shown above.

Notes:

1. Anchor calculations have been carried out with the lowest (least) fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include #8 and #10 wood screws or 3/16" Tapcons. A physical shim must be placed in shim space at each anchor location. Threshold fasteners analyzed for this unit include #8 and #10 wood screws, 3/16" Tapcons, or Liquid Nails Builders Choice 490 (or equal structural adhesive).
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3. Wood bucks by others, must be anchored properly to transfer loads to the structure.

Masonite®

Limited Lifetime Warranty

Vinyl and Aluminum New Construction Products

Basic Warranty

Each MI Windows and Doors, Inc. ("MI") Capitol and BetterBilt branded new construction product will be free from defects in materials or workmanship that substantially impair operation or performance in the building in which they are originally installed for the applicable period below. This warranty includes product repair and replacement component parts at no charge and any skilled labor (provided or arranged by MI) necessary to repair or replace window or door components.

Owner Occupied Single Family Residence:

For owner-occupied single-family residences (including units sharing up to two common walls) the warranty applies to frame, non-glass, finish and sash components for as long as the initial owner owns and occupies the residence for all products other than aluminum single-glazed products (which are covered for 10 years only). Insulated glass is warranted for 20 years only. If the home is sold in the first 5 years after product purchase, this warranty converts to a commercial warranty (see below) and is effective for a period of 5 years after the product purchase date.

Commercial (and all non-owner occupied and multifamily residences):

For commercial buildings, multi-family dwellings, apartments, and other types of buildings, the warranty applies to frame, nonglass and sash components and is effective for ten (10) years following the product purchase date. Insulated glass and other components are warranted for 10 years.

Special Conditions

Replaced or repaired products are covered for the balance of the original warranty period only. This warranty does not include repainting or refinishing labor or materials. Window and door screens are warranted for one (1) year after the manufacturing date only. Loss of functionality of hardware (except as provided below for stainless steel hardware) in highly corrosive environments, which includes any dwelling located within two miles of salt water and any dwelling located in the state of Hawaii or the Caribbean Islands is excluded from warranty coverage. MI reserves the right to refund the purchase price in lieu of repair or replacement as stated herein. Laminated glass (whether insulated or noninsulated) is warranted for a period of five years after date of purchase only. The warranty for any MI StormArmor product is modified by the StormArmor Warranty Rider, a copy of which is furnished with StormArmor products.

How To Request Assistance

If you have a problem with your MI product, contact the dealer/distributor or contractor who sold you the product or contact us directly.

Eastern Region Claims:

Mail Warranty Service
P.O. Box 370
Gratz, PA 17030
Fax: (717) 365-3780
Phone: (800) 949-3818

Western Region Claims*

Mail. Warranty Service
7555 East State Route 69
Prescott Valley, AZ 86314
Fax: (928) 759-0913
Phone. 888-417-1162
*AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY

To respond, we need the following
How to contact you.
The address where the product can be inspected.
A description of the problem and the product (photographs are helpful).

What We Will Do

MI will acknowledge receipt of your claim (generally within three business days), investigate your claim and take appropriate action (generally within 30 days after notification). If the product does not have a defect covered by the warranty, MI may charge an inspection fee for any onsite inspection that is required or that you request. Because manufacturing materials, techniques, and model series can change, replacement part(s) may not be an aesthetic match to the original. If repair is not practicable and replacement is not reasonably available, then MI in its discretion may choose to refund the purchase price of the affected unit. In no event shall MI's liability hereunder exceed the purchase price of the affected products. MI shall have no obligation whatsoever unless you make a request under this warranty, and upon receipt MI shall have the right to perform under this warranty.

Additional Features

This warranty covers only defects in material or workmanship of MI products. Without limitation, MI is not liable for defects, conditions or damage related to

- Normal wear and tear, natural weathering of surfaces and/or hardware finishes (i.e. corrosion).
- MI will replace at no charge (under terms of the warranty) stainless steel hardware that loses functionality in highly corrosive environments within one (1) year after the date of product purchase. Note that stainless steel hardware must be ordered on the original product purchase for the coverage to apply.
- Glass breakage; failure due to misuse or abuse, and damage caused by failure to provide maintenance, by alteration or modification to the window. Alterations and/or modifications include, but are not limited to reinstallation, tints and/or films applied by others, paint finishes applied by others, and installation of security systems.
- Any cause beyond MI's control, such as fire, flood, earthquake, other natural causes, or criminal acts.
- Installation that is not in conformance with MI's recommended installation procedures or good building practices, or damage related to water and/or air infiltration as a result of defects or limitations in building design or construction (without limitation, damage resulting from engineered drainage systems or cladding systems that do not manage and drain incidental water or water forward of the nailing flange), and/or installation that is not in compliance with local building codes.
- An application or condition that exceeds product design standards and/or certified performance specifications (including without limitation any damage or defect resulting from localized application of heat).
- Condensation. Unless due to moisture within the sealed glass units as a result of seal failure, the majority of condensation problems are related to excessive humidity levels in a structure. Condensation on exposed surfaces is not covered by this warranty.
- Any building that has been moved (after completion of construction), put under excessive strain or subjected to settling.
- Failure or absence of perimeter caulking used to seal frames or trim packages against water or air penetration (caulk is not part of the product and is a maintenance responsibility of the building owner).
- Inadequate maintenance, use only mild soap or diluted detergent to restore vinyl color which can be affected by environmental conditions. Glass surface should be cleaned only with approved solutions. MI makes no claims or warranty relative to the percentage of fill of inert gases (Argon, Krypton etc.) in any insulated glass units, or the performance of any low emissivity coating over time.

Special care should be used to remove a sash or glass from a window or door! Follow installation instructions closely!

Important Legal Information

THESE WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER REMEDIES, WARRANTIES, GUARANTIES OR LIABILITIES, EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE (INCLUDING WITHOUT LIMITATION ANY WITH RESPECT TO FITNESS AND MERCHANTABILITY). MI WINDOWS AND DOORS, INC. ("MI") SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, REGARDLESS OF THE NATURE OF THE CLAIM OR WHETHER OR NOT OCCASIONED BY MI's NEGLIGENCE. IN NO EVENT SHALL THE LIABILITY OF MI EXCEED THE PURCHASE PRICE OF THE AFFECTED PRODUCTS. Depending on the state in which you live, these limitations and exclusions may not apply to you. This warranty shall not be extended, altered or varied except by a written instrument signed by MI Windows and Doors, Inc. This warranty is effective for all Capitol and BetterBilt branded new construction products manufactured on or after 7/1/05. Any previous warranties will continue to apply to products manufactured by MI prior to this date. This warranty, together with the MI product specification sheet and installation instructions for the specific product set out the entire liability of MI with regard to the product. The MI product specification sheet and installation instructions contain important information related to the MI products. If these materials have not been provided, they should be obtained from your distributor, by writing to the address above or by visiting www.miwd.com.

Individual products may be subject to a variation in performance.

INSTALLATION INSTRUCTIONS FOR ALUMINUM FIN AND FLANGE WINDOWS

FAILURE TO FOLLOW THESE INSTRUCTIONS, AND BUILDING CODES REQUIREMENTS, MAY EFFECT THE REMEDIES AVAILABLE UNDER YOUR WARRANTY

READ THESE INSTRUCTIONS COMPLETELY BEFORE BEGINNING. Please inspect your MI Windows and Doors, Inc. product thoroughly before beginning installation. Inspect the opening and the product, and do not install if there is any observable damage or other irregularity. The product specification sheet and warranty include important information regarding your product and may include product-specific installation requirements (for example, types of fasteners to be used with impact resistant windows and limitations on the height at which the product may be installed); if you did not obtain copies please contact MI Windows and Doors, Inc. Local building codes may impose additional requirements, and those codes supercede these instructions.

1 IF THE BUILDING HAS A WEATHER RESISTANT BARRIER (WRB) I E. HOUSE WRAP PREPARE THE OPENING ACCORDING TO WRB MANUFACTURER'S INSTRUCTIONS. AT EACH TOP CORNER MAKE A 45° CUT IN THE WRB. FOLD UP THE WRB SO THAT THE TOP NAIL FIN OF THE UNIT CAN BE INSTALLED UNDERNEATH IT (See Figure 1 below) FLASHING OF THE WINDOW OPENING IS RECOMMENDED AND MAY BE REQUIRED BY SOME BUILDING CODES.

2. MAKE SURE THE ROUGH OPENING IS PLUMB, SQUARE AND THE SILL PLATE IS LEVEL. ROUGH OPENINGS SHOULD BE 1/2" LARGER THAN NET WINDOW SIZE IN WIDTH & HEIGHT (SEE FIGURE 2 BELOW)

3. CLOSE & LOCK THE SASH THROUGHOUT INSTALLATION, KEEP THE SIDE JAMBS PLUMB & SQUARE WITH HEAD AND SILL. BE CAREFUL NOT TO "CROWN UP' OR 'BOW DOWN" THE HEAD OR SILL. CONSTANTLY CHECK WIDTH AT THE MEETING RAILS OF SINGLE AND DOUBLE HUNGS TO AVOID A "BOWED OUT" INSTALLATION. WHEN USING FLASHING APPLY THE BOTTOM PIECE BEFORE INSTALLING THE WINDOWS. (SEE FIGURE #1) FLANGE TYPE WINDOWS REQUIRE FLASHING THE ENTIRE OPENING PRIOR TO WINDOW INSTALLATION. FLASHING MUST MEET ASTM D-799, 24 HOUR WATER RESISTANCE TEST

4. **APPLY A CONTINUOUS 3/8" BEAD OF PREMIUM GRADE, COMPATIBLE EXTERIOR SEALANT TO THE INTERIOR (BACKSIDE) OF THE NAIL FIN OR FLANGE NEAR THE OUTSIDE EDGE ON ALL SIDES PRIOR TO SETTING THE WINDOW INTO THE ROUGH OPENING.** (SEE FIGURE 3 BELOW)

5. SET AND CENTER THE WINDOW INTO THE OPENING INSERT 1/4" SHIMS UNDER THE BOTTOM CORNERS **(DO NOT PLACE SHIMS OR BLOCKS UNDER THE SILL EXCEPT AT THE CORNERS).** THESE SHIMS SHOULD BE REMOVED AFTER INSTALLATION IS COMPLETE. (SEE FIGURE 4 BELOW) MULLED WINDOWS, SLIDERS AND UNITS WITH INTERMEDIATE JAMBS REQUIRE A SHIM AT EACH MULLION, INTERMEDIATE JAMB OR MEETING RAIL TO INSURE A LEVEL SILL CONDITION. **IF ADDITIONAL SHIMS ARE REQUIRED TO MAINTAIN A LEVEL SILL, APPLY SHIMS AS NECESSARY.** THESE SHIMS SHOULD REMAIN AFTER INSTALLATION IS COMPLETE

6. PLACE A TEMPORARY FASTENER THROUGH THE NAIL FIN ON EACH TOP CORNER OF FIN UNITS. ON FLANGE WINDOWS INSTALL TEMPORARY FASTENERS INTO THE HOLES PROVIDED IN THE FRAME AT THE TOP OF JAMBS; PLACE SHIMS AT EACH ANCHOR LOCATION AT THE SIDES AND HEAD. FASTENERS NEED TO BE INSTALLED STRAIGHT AND SUFFICIENT LENGTH TO PENETRATE TO FRAMING BY A MINIMUM OF 1 INCH. CHECK THE SILL FOR LEVEL BY RAISING THE SASH SLIGHTLY, THE SPACE SHOULD BE EQUAL, IF NOT ADJUST ACCORDINGLY, RELOCK SASH. CHECK THE JAMBS FOR PLUMB, THEN MEASURE DIAGONALLY ACROSS THE CORNERS, THESE DIMENSIONS MUST BE THE SAME FOR UNIT TO BE SQUARE. NEXT PLACE FASTENERS NEAR THE BOTTOM CORNERS, AGAIN CHECKING WINDOW FOR LEVEL, PLUMB AND SQUARE. CONTINUE PLACING FASTENERS IN THE NAIL FIN, EVERY 16" ON ALL SIDES OF FIN WINDOWS UNTIL SECURE, AVOID DISTORTING THE FIN. FLANGE UNITS REQUIRE FASTENERS IN ALL HOLES PROVIDED IN THE FRAME, SHIMMING AS NEEDED AT EACH FASTENING POINT

7 APPLY SEALANT OVER EXPOSED FASTENER HEADS ON THE NAIL FIN, ALSO SEAL OUTSIDE OF NAIL FIN/FLANGE WHERE IT IS IN CONTACT WITH THE WRB/SHEATHING. **OR IF FLASHING (WINDOW TAPE) IS BEING USED** NOTE: SILL FLASHING SHOULD HAVE BEEN APPLIED PRIOR TO INSTALLING THE WINDOW. APPLY THE SIDE FLASHING ON TOP OF THE NAIL FIN OVERLAPPING THE SILL FLASHING AND EXTENDING UP PAST THE TOP NAIL FIN BY APPROXIMATELY 2" THEN APPLY THE TOP FLASHING ALSO COVER THE NAIL FIN OVERLAPPING THE SIDE PIECES AND EXTENDING PAST THE SIDE FLASHING BY APPROXIMATELY 1" LASTLY FOLD DOWN THE WRB FLAP OVER THE FLASHING, TAPE THE DIAGONAL CUTS ABOVE EACH CORNER. (SEE FIGURE 5 BELOW)

8. PLACE SHIMS AT THE MEETING RAILS/CHECK RAILS AT THE SIDE JAMBS OF FIN UNITS TO PREVENT BOWING, THESE SHIMS SHOULD REMAIN AFTER INSTALLATION. CAUTION SHOULD BE TAKEN AS TO NOT OVER SHIM AND CAUSE DEFLECTION OF THE FRAME AND HINDER SASH OPERATION. CHECK THE WIDTH OF THE WINDOW AT THE TOR, MIDDLE AND BOTTOM. IF NOT THE SAME, SHIM ACCORDINGLY UNLOCK AND OPERATE THE SASH, TILT IT IN AND VISUALLY INSPECT ALL SIGHT LINES.

9. INSULATE BETWEEN THE WINDOW FRAME & ROUGH OPENING WITH FIBERGLASS INSULATION OR EQUAL. THE SPACE MAY BE FILLED WITH MEASURED USE OF LOW EXPANSION FOAM BUT ONLY AFTER DETERMINING THAT FOAM WILL NOT EXERT PRESSURE AGAINST THE FRAME, WHICH CAN IMPAIR OPERATION DISTORTION OF THE FRAME WILL AFFECT THE USER'S RIGHTS UNDER THE WARRANTY.

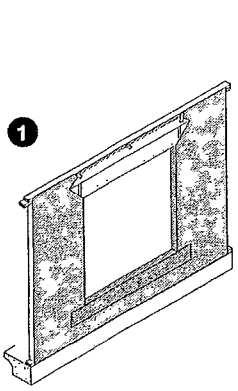
11 ALLOW A 1/4" GAP BETWEEN THE EXTERIOR CLADDING, SIDING,BRICK, STUCCO OR STONE AND THE WINDOW FRAME ON ALL SIDES, EXCEPT VINYL J-CHANNEL. THE GAP (EXPANSION JOINT) SHOULD BE FILLED WITH CORRECT SIZE BACKER ROD, THEN SEALED WITH A HIGH GRADE EXTERIOR SEALANT AND WILL NEED TO BE MAINTAINED.

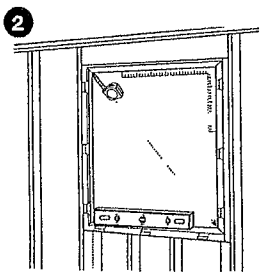
CAUTION:

- USE OF SOLVENTS OR ACIDS WILL DAMAGE COMPONENTS OF THIS PRODUCT AND WILL LIMIT RIGHTS UNDER WARRANTY
- FIN WINDOWS SHOULD BE FASTENED THROUGH THE FIN ONLY-FLANGE WINDOWS SHOULD BE ANCHORED ONLY THROUGH THE PROVIDED HOLES IN THE FRAME. FASTENING IN ANY OTHER PORTION MAY PERMANENTLY DAMAGE UNIT WHICH WILL LIMIT RIGHTS UNDER THE WARRANTY
- IT IS THE RESPONSIBILITY OF THE OWNER, ARCHITECT OR BUILDER TO SELECT CORRECT PRODUCTS TO BE IN COMPLIANCE WITH APPLICABLE LAWS AND BUILDING CODES.
- DO NOT STORE IN THE SUN OR LAY FLAT BEFORE OR DURING INSTALLATION.
- ANY PENETRATIONS (e.g. ALARM SENSORS) MADE THROUGH ANY PORTION OF ANY M I BETTERBILT OR CAPITOL PRODUCT MAY AFFECT RIGHTS UNDER THE MANUFACTURER'S WARRANTY
- SOME LAWS AND BUILDING CODES REQUIRE SAFETY GLASS TO BE USED NEAR DOORS AND/OR FLOORS. UNLESS SPECIFICALLY ORDERED, THE MANUFACTURER'S NEW CONSTRUCTION WINDOWS ARE NOT MADE WITH SAFETY GLASS, AND, IF BROKEN, THE GLASS MAY SHATTER AND CAUSE INJURY

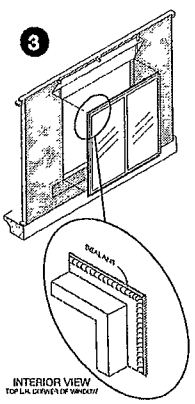
THESE INSTRUCTIONS ARE MINIMUM REQUIREMENTS ONLY CHECK STATE AND LOCAL CODE RESTRICTIONS FOR ADDITIONAL COMPLIANCE ON INSTALLATION AND OR FASTENING. IF UNIT HAS EXTERIOR TRIM (BRICK MOLD/J CHANNEL, ETC.) THE UNIT MUST BE SEALED BEHIND THE NAIL FIN THE TRIM IS PROVIDED FOR AESTHETIC PURPOSES ONLY INSTALLATION INTO MASONRY OR REPLACEMENT OPENINGS MUST BE SEALED TO THE OPENINGS USING AN APPROVED, PROPER METHOD. REFER TO AAMA 2400 AND/OR ASTM E2112 STANDARDS.

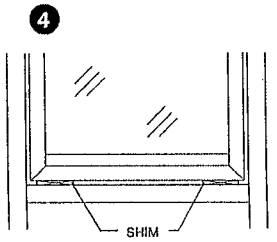
THESE INSTALLATION INSTRUCTIONS ARE PROVIDED FOR INFORMATION ONLY NO REPRESENTATION AND WARRANTY IS MADE THAT THESE INSTRUCTIONS SET FORTH ALL OF THE INFORMATION NECESSARY FOR PROPER INSTALLATION OF THE PRODUCT GIVEN THE VARIETY OF FIELD CONDITIONS, PRIMARY RESPONSIBILITY FOR PRODUCT INSTALLATION RESTS WITH THE INSTALLER. DO NOT PROCEED UNLESS YOU HAVE ADDRESSED THE FACTORS NECESSARY TO ACHIEVE WEATHER-TIGHT INSTALLATION OF A PROPERLY FUNCTIONING PRODUCT MI WINDOWS AND DOORS, INC. ASSUMES NO LIABILITY FOR ANY PERSONAL INJURY OR PROPERTY DAMAGE INCURRED IN INSTALLATION THESE INSTRUCTIONS TOGETHER WITH THE PRODUCT SPECIFICATIONS AND WARRANTY SET FORTH THE ENTIRE LIABILITY OF MI WINDOWS AND DOORS, INC. WITH REGARD TO THE PRODUCT

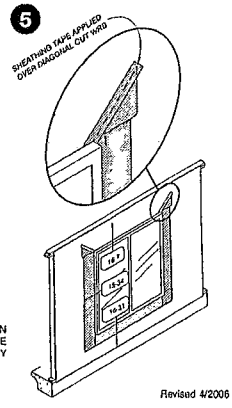




Check for level, plumb and square.







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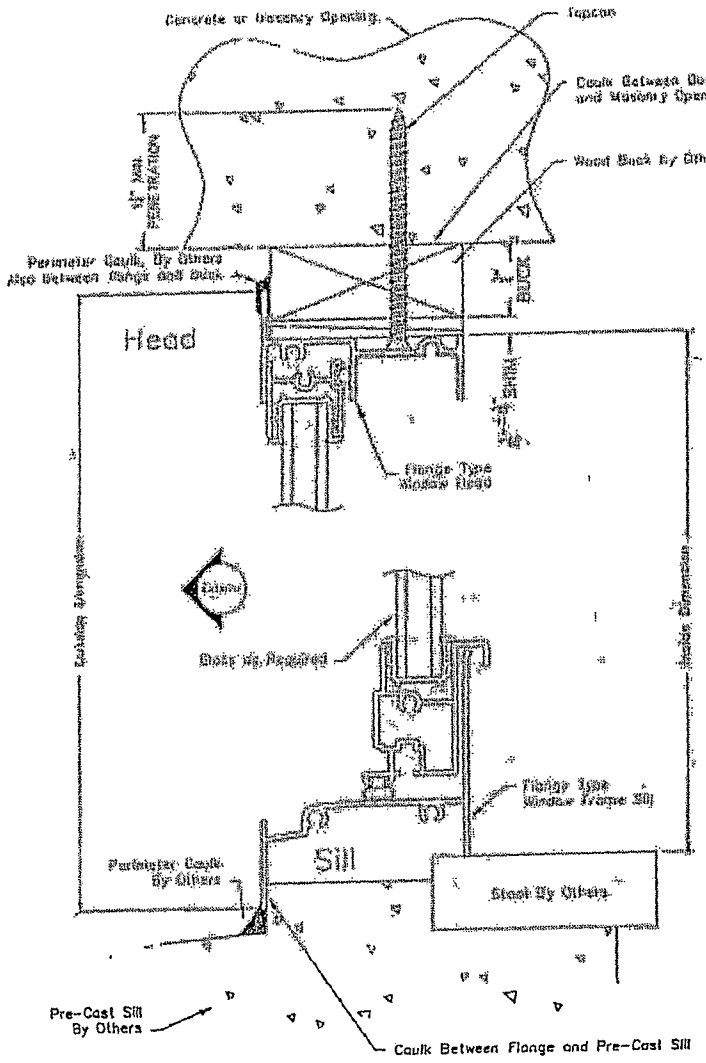
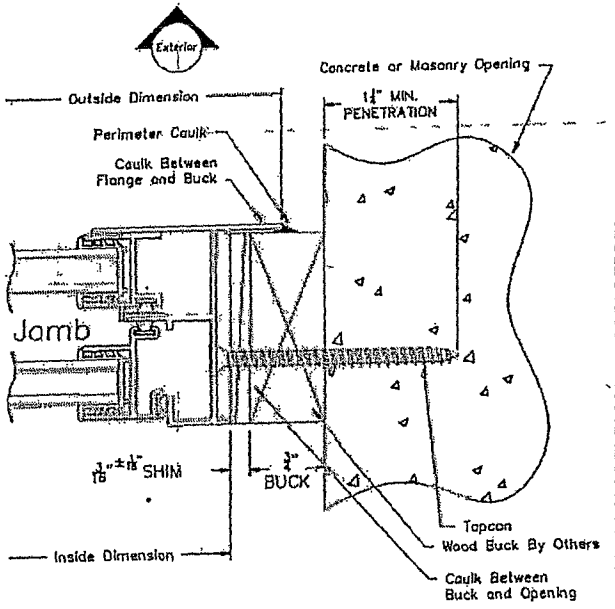
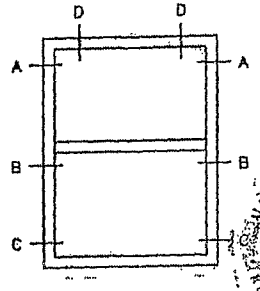


*"TAPCON" TYPE HARDENED MASONRY SCREWS INCLUDE TAPCON, RAWL, & SIMPSON

1. Shim as required at each installation anchor as shown
2. Anchor must be of a length to have 1 1/4" penetration into masonry or concrete
3. Caulk between window flange and buck.
4. Caulk full perimeter of window.
5. If exact window size is not given, use anchor quantity for next larger window in chart.
6. Glass thickness will vary with window size and design load
7. Letter designations on the tapcon location chart indicate where anchors are to be installed using the elevation as a key.
8. All factory applied holes not designated for tapcon anchor should be filled with #8 screws of sufficient length to provide min. 5/8" embedment into wood buck.





TAPCON * LOCATION CHART			
CODE SIZE	WINDOW ID SIZE	FASTENER LOCATIONS **	
		UO TO OP35	OP35.1 TO OP50
12	18 1/8 x 25	C, D	C, D
13	18 1/8 x 37 3/8	C, D	C, D
14	18 1/8 x 49 5/8	C, D	C, D
15	18 1/8 x 62	C, D	C, D
16	18 1/8 x 71 1/4	C, D	C, D
1/2 32	25 1/2 x 25	C, D	C, D
1/2 33	25 1/2 x 37 3/8	C, D	C, D
1/2 34	25 1/2 x 49 5/8	C, D	C, D
1/2 35	25 1/2 x 62	C, D	C, D
1/2 36	25 1/2 x 71 1/4	C, D	B, C, D
22	36 x 25	C, D	C, D
23	36 x 37 3/8	C, D	C, D
24	36 x 49 5/8	C, D	C, D
245	36 x 55 1/4	C, D	B, C, D
25	36 x 62	C, D	B, C, D
26	36 x 71 1/4	B, C, D	B, C, D
32	52 1/8 x 25	C, D	C, D
33	52 1/8 x 37 3/8	C, D	C, D
34	52 1/8 x 49 5/8	C, D	B, C, D
345	52 1/8 x 55 1/4	B, C, D	B, C, D
35	52 1/8 x 62	B, C, D	B, C, D
36	52 1/8 x 71 1/4	B, C, D	A, B, C, D
2050	24 1/4 x 60 1/4	C, D	C, D
3040	36 1/4 x 48 1/4	C, D	C, D
3050	36 1/4 x 60 1/4	C, D	B, C, D
3060	48 1/4 x 60 1/4	B, C, D	B, C, D
4050	52 1/8 x 71 1/4	B, C, D	B, C, D

120 MPH

BetterBilt

TITLE: INSTALLATION INSTRUCTIONS & FASTENER SCHEDULE

740/744 SINGLE HUNG

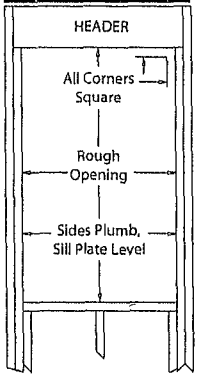
DRAWN BY: S.W.	DATE: 1/15/02
CHECKED:	DATE:
SCALE: NONE	SHEET: 1 OF 1
DWG. NO. INST740	REV. -

Installation Instructions For New Construction
Single Hung, Double Hung, Sliding And Picture Windows

Window Opening

The rough opening must be plum, level, square and 1/2" larger than the window size in width and height, not including the nailing fins (See fig 1) Close and lock the sash to aid in keeping the window square during installation **Note:** Install sill flashing before the window is installed (refer to "Flashing" below) Apply a 3/8" continuous bead of silicone caulking to the interior surface of the nailing fin, covering the holes in the fin, to seal the window's fin to the sheathing or house wrap If the rough opening is larger than the window unit by more than 1/2", also apply the caulk to the sheathing or house wrap making sure the bead is no more than 1/4" from the edge of the rough opening, so that it is covered by the nailing fin when the window is installed

FIGURE 1



Setting Shims

The sill of the window must be supported in a straight and level position, with shims at all locations where the jamb, intermediate jamb, or the stiles of a slider meet the sill (See fig 2A & 2B) Place 1/4" shims on the sill plate of the window opening spaced as described above. Multiple twin or triple windows should have a shim under each mullion, intermediate jamb or the center stiles of sliders (See fig 2A & 2B)

Setting Window

Set window on the shims and adjust side clearance to be equal on both sides Tack one upper corner of the nailing fin to keep the window in place Check the sill with a level and adjust the shims as required to level sill Re-adjust side clearance if necessary Shims must be cut to exact thickness to fit snug and not fall out. Do not force shims into place, possibly pushing the sill upward out of level. Shim both sides of window as needed to assure window is plumb and margins are equal (see fig 2A & 2B) Measure window diagonally, from bottom left corner to top right corner and from bottom right corner to top left corner to insure it is square If the above has been done correctly the width across the top, middle and bottom of the window will measure the same The wool pile clearance between the sash stile and jamb mainframe should be equal The meeting rail and lock rail should align evenly, with parallel sight lines. The window locks should engage smoothly

FIGURE 2B
SLIDER INTERIOR

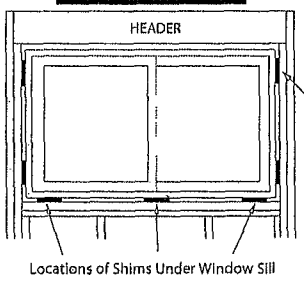
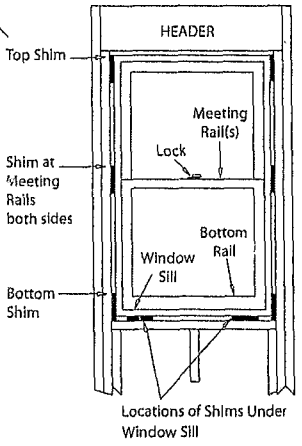


FIGURE 2A
SINGLE / DOUBLE HUNG INTERIOR



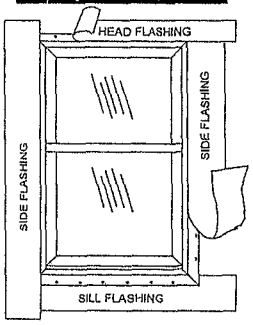
Nailing Window Fins

Use stainless or galvanized steel roofing nails, long enough to penetrate studs a minimum of 1"

Nail the entire perimeter of the nailing fin to the sheathing using every other slotted hole at minimum on single windows Multiple windows twins, & triples should be nailed in every slotted hole

Nail the fin snug but do not "sink" the nails Nailing should be just tight enough to hold window but not stop the movement of the "Frame-Work" underneath during expansion and contraction Make sure the head and sill are NOT crowned up or down, or the jambs bowed in or out

FIG.3, EXTERIOR VIEW

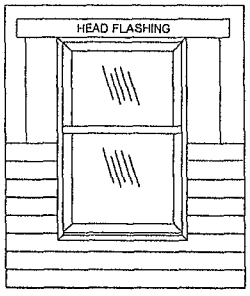


Flashing

Use self adhesive flexible flashing a minimum of 4" wide, approved for use on vinyl, wood & other substances such as house wrap This flashing material must meet a minimum water resistance of 24 hours in accordance with ASTM D779

(See fig 3) Sill flashing should already be applied prior to window installation and extend beyond the sides of the window nailing fin at least 2" Now apply jamb flashing over the jamb-nailing fin, continuing over and beyond the sill flashing, 2" below Apply head flashing similarly extending 2" past either side of the jamb flashing, to complete the window flashing detail

FIG.4, EXTERIOR VIEW



Install batt insulation between the window and rough opening It is very important that these openings are not "over stuffed" and warp the frame Do NOT use expanding foam Doing so will void warranties

If the exterior finish is brick, stone or stucco, make sure to leave a 1/4" gap around the entire window to allow for the expansion of materials.

Cautions

- Remove or cut ventilation holes in plastic shipping wrap if windows are not installed immediately
- Do not lay windows flat or store in the sun The heat will shrink the plastic wrapping and warp the frame
- Do not caulk or plug weep holes
- Protect vinyl sill from traffic and damage
- Do not drill into or through the sill of the window
- Do not lift window by top of frame, only by jambs
- Protect the window during construction and plastering

Please call our hot line 1(800)-234-4228 for any installation help that you might need.

Note: The manufacturer's warranty can be voided if these instructions are not followed. If special applications are needed during the installation, you must contact the manufacturer for approval.