

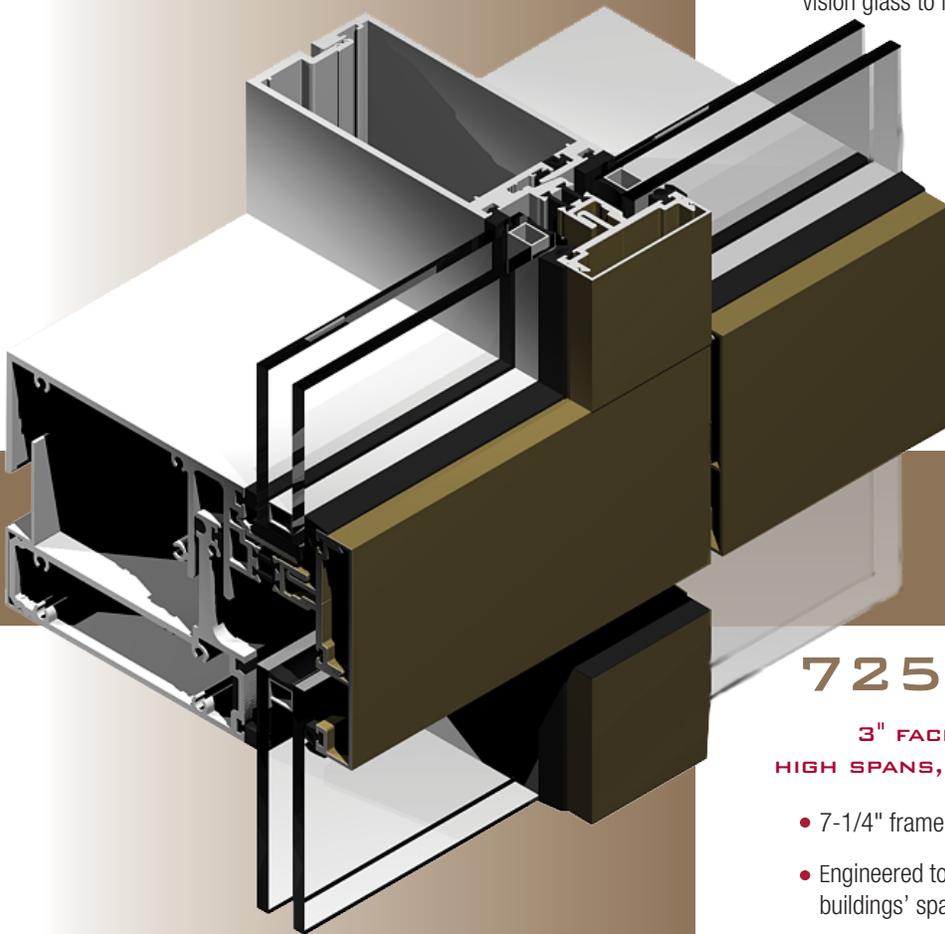


*in*.vision™  
*...unitized wall from Wausau...*



*...unitized wall from Wausau...*

OFFERING A CHOICE IN SYSTEM DEPTH, FACE WIDTH AND THERMAL BARRIER TO CREATE THE RIGHT MATCH FOR YOUR PROJECT FROM THE WAUSAU INVISION™ FAMILY OF UNITIZED CURTAINWALL AND WINDOW WALL PRODUCTS



7250i-HR Unitized  
Curtainwall

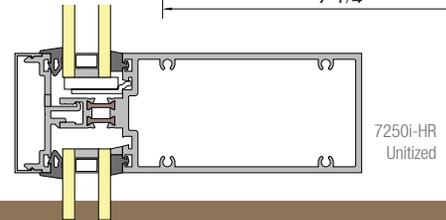
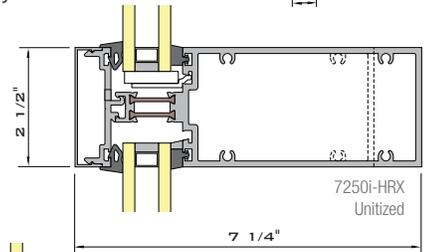
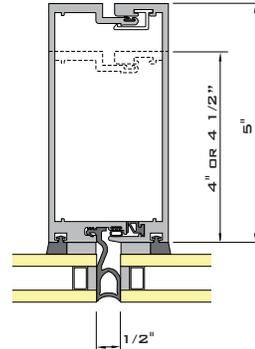
INVISION WALLS ARE NFRC-TESTED AND CMA-LISTED - BACKED BY FULL AAMA 501 TESTING FOR AIR, WATER AND STRUCTURAL INTEGRITY, INCLUDING RACKING, JACKING AND THERMAL CYCLING

# 6250i-HR 7250i-HR

# 6250i-HRX 7250i-HRX

UNITIZED WINDOW WALL AND CURTAINWALL WITH 2-1/2" FACE WIDTH AND POLYAMIDE THERMAL BARRIER FOR SUPERIOR ENERGY EFFICIENCY AND CONDENSATION RESISTANCE

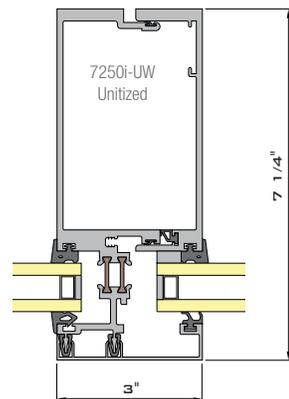
- 6-1/4", 6-1/2" and 7-1/4" frame depth with polyamide thermal barrier
- Transitions seamlessly from curtainwall to window wall
- Pressure-equalized rain screen design
- 15 psf static and dynamic water resistance
- Low U-Factors allow broad expanses of vision glass to meet Model Energy Codes



## 7250-UW 7250i-UW

3" FACE WIDTH UNITIZED WALL DESIGNED FOR HIGH SPANS, SEISMIC MOVEMENT AND ENERGY EFFICIENCY

- 7-1/4" frame depth
- Engineered to meet typical institutional buildings' span and wind load requirements
- Interlocking frame design and 3" face accommodates seismic, live load and thermal movements
- Two-level thermal barrier frames (7250i-UW) or thermally-improved with polyamide clips (7250-UW)
- Pressure-equalized rain screen design



INvision Unitized Curtainwall

Test results may vary.

Allowable Air	Water	NFRC U-Factor	CRF <sub>f</sub>	STC
0.06 cfm/sqft at 6.24 psf	15 psf	0.29 to 0.63 BTU/hr.sqft.*F	73 to 77	32 to 34 OITC 26

# CLEAR STORY™

SUN SHADES AND LIGHT SHELVES

## EXTERIOR SUN SHADES

- Control solar heat gain and harvest natural daylight to meet sustainable design goals
- Increase Projection Factor and decrease solar cut-off angles
- A variety of pre-engineered configurations - Extruded blades, perforated sheet, "catwalk" grids or solid shading
- Modular design and integral alignment features for ease of installation
- Thermally improved mullion attachments
- Laser- or water-jet, precision-cut, factory-attached end caps
- Vertical sun shades available for east and west facades



## INTERIOR LIGHT SHELVES

- Redirect south daylight off ceiling surfaces so light penetrates farther
- Control glare at high solar altitudes
- Diffuse, reflective, upper surfaces maximize light - Lower surfaces match decor
- A variety of pre-engineered configurations - Flush, articulated, aerofoil and contoured
- Light shelves can work in combination with sun shades for maximum daylight harvest
- Shelf depth up to 30" to match transom height
- Optional easy-to-clean removable infill panels
- Not intended as a shelf or step

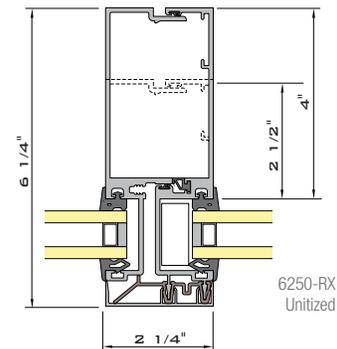
Wausau offers architects, engineers and designers Revit® 3D models and 2D drawings of the most popular window and curtainwall systems through AutoDesk® SEEK.



## 4750-RX 6250-RX

ECONOMICAL FACTORY-GLAZED UNITIZED WINDOW WALL - THERMALLY-IMPROVED - 2-1/4" FACE WIDTH

- 4-3/4" or 6-1/4" frame depth
- Thermally improved
- Captured or vertical structural glazed
- Two-color finish option
- Pressure-equalized rain screen design
- Factory- or field-glazed
- Head, sill and jamb receptors available for ease of installation



Allowable Air	Water	NFRC U-Factor	CRF <sub>f</sub>	STC
0.06 cfm/sqft at 6.24 psf	15 psf	0.39 to 0.64 BTU/hr.sqft.°F	46 to 60	31 to 34 26 to 29 OITC

Test results may vary.

## UNITIZED CURTAINWALL

EASE OF INSTALLATION - FACTORY QUALITY CONTROL

CHOOSING BETWEEN STICK and UNITIZED CURTAINWALL SYSTEMS		
Selection Criteria	Stick Curtainwall	Unitized Curtainwall
Project size	Small	Large
Wall configuration	Complex <small>Many changes in plane, e.g. soffits, corners, etc.</small>	Monolithic <small>Large expanses of flat wall</small>
Joint pattern	Random	Uniform horizontal sill line
Glazing	Field	Factory
Inter-story movements	Very limited	Inter-locking frames take movements
Quality control	Subject to site variables <small>Both environment and equipment</small>	Controlled factory conditions
Modification	Can be cut-to-fit in the field	Pre-engineered
Sealing	Subject to site variables	Minimal field sealing
Field labor cost	High <small>Many parts to track and assemble</small>	Low <small>Often setting 75 sqft or more per unit</small>
Field labor duration	Slow	Fast <small>Up to 50 units per day reported</small>
Access and safety	Exterior access required	Set from the interior <small>Exterior optional</small>

Unitized curtainwall is factory-assembled and factory-glazed, then shipped to the job site in custom-built crates, facilitating unloading, hoisting and distribution on-site.

Each unit, typically one lite wide by one floor tall, comes equipped with picking and alignment provisions for safe, efficient handling from the interior or exterior. Units are always "hung" from the floor above the vision area.

Edge-of-slab and top-of-slab anchor base options work in tandem with cast-in-place Halfen® embeds to speed layout. Jack-bolt anchors (pictured) allow for full three-way adjustment "off the rig," optimizing hoisting and handling.

Only one unit-to-unit splice, a translucent silicone sheet, needs to be field-sealed. Wausau's proven guttering design and membrane interface design expertise help ensure weatherability under extreme conditions, even in high-rise applications.



[www.wausauwindow.com](http://www.wausauwindow.com) to download details, specifications, and product performance information - and -  
[www.nfrc.org](http://www.nfrc.org) to see a comprehensive list of Wausau's NFRC-certified thermal performance data

## OPTIONS AND ACCESSORIES FOR DESIGN, FUNCTIONALITY OR SUSTAINABILITY

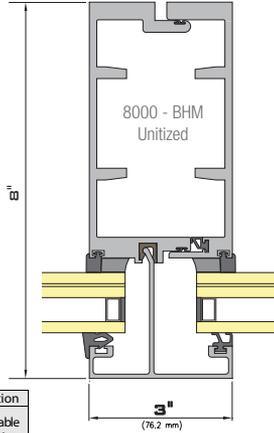
- Factory installation of terra cotta infill available (pictured)
- Zero sightline, projected insert vents are tested to meet ANSI A117.1 ADA accessibility requirements
- SEAL™ interior accessory windows can be added for acoustic performance, between-glass blinds or behavioral care upgrade in hospitals (pictured)
- -HRX designs accommodate triple insulating glass to meet stringent sustainable design goals



# 8000-BHM 8000i-BHM

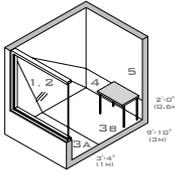
## OPEN ARENA-TESTED BLAST HAZARD-MITIGATING UNITIZED CURTAINWALL AND WINDOW WALL

- 6", 8" and 8-1/4" frame depth with or without polyamide thermal barrier - Dual-color frame finishes
- Various 8000-BHM and 8000i-BHM configurations achieve ASTM F 1642 "Minimal Hazard" or "No Hazard" rating at 6 psi peak, 42 psi-msec impulse
- ISC Performance Conditions 1, 2, 3a or 3b, tested at 10 psi peak, 89 psi-msec impulse



**DoD - UFC** Department of Defense Unified Facilities Criteria UFC 4-010-01 (2012)  
"DoD Minimum Anti-Terrorism Standards for Buildings"

Distance To	Building Category	Standoff Distance Requirements - New Construction			
		Applicable Level of Protection	Conventional Construction Standoff Distance	Minimum Standoff Distance	Applicable Explosive Weight
Controlled perimeters or parking and roadways without a controlled perimeter	Billeting and high occupancy family housing	Low	26 to 420 ft (8 to 128 m)	18 ft (5.5 m)	I
	Primary gathering building	Low	26 to 420 ft (8 to 128 m)	18 ft (5.5 m)	I
	Inhabited building	Very Low	20 to 361 ft (6 to 110 m)	18 ft (5.5 m)	I
Parking and roadways within a controlled perimeter or trash containers	Billeting and high occupancy family housing	Low	13 to 167 ft (4 to 51 m)	12 ft (3.6 m)	II
	Primary gathering building	Low	13 to 167 ft (4 to 51 m)	12 ft (3.6 m)	II
	Inhabited building	Very Low	13 to 167 ft (4 to 51 m)	12 ft (3.6 m)	II

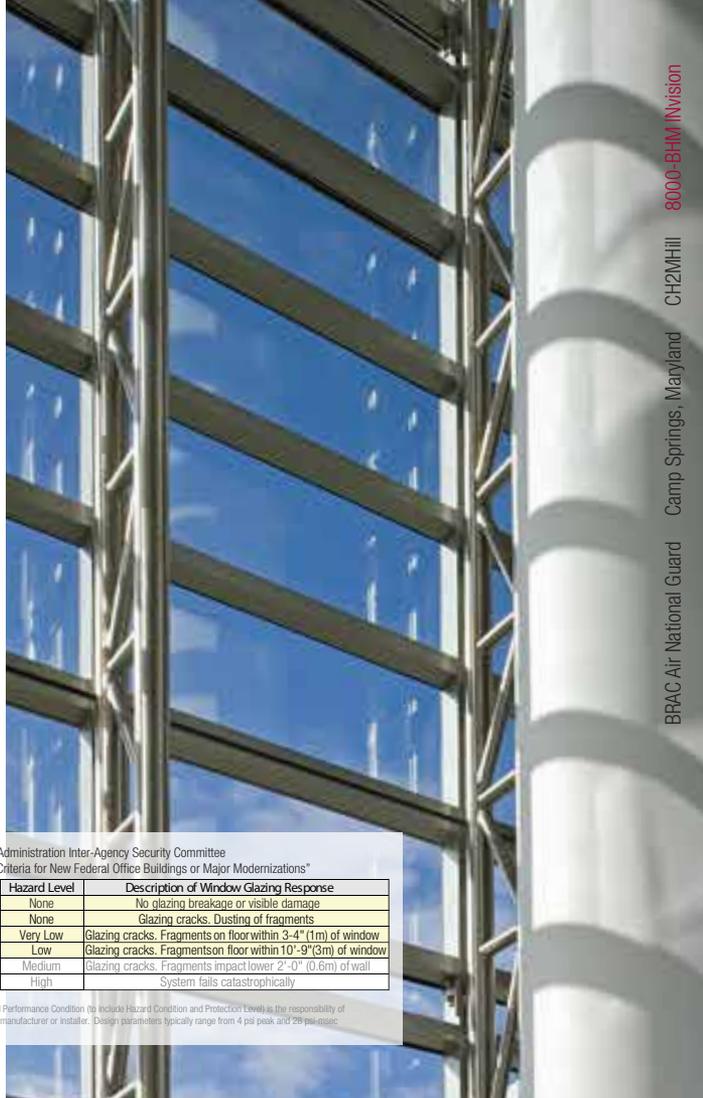


**GSA-ISC** General Services Administration Inter-Agency Security Committee  
"Security Design Criteria for New Federal Office Buildings or Major Modernizations"

Performance Condition	Protection Level	Hazard Level	Description of Window Glazing Response
1	Safe	None	No glazing breakage or visible damage
2	Very High	None	Glazing cracks. Dusting of fragments
3a	High	Very Low	Glazing cracks. Fragments on floor within 3'-4" (1m) of window
3b	High	Low	Glazing cracks. Fragmentation floor within 10'-9" (3m) of window
4	Medium	Medium	Glazing cracks. Fragments impact lower 2'-0" (0.6m) of wall
5	Low	High	System fails catastrophically

IMPORTANT NOTES: Determination of peak pressure, impulse and Performance Condition (to include Hazard Condition and Protection Level) is the responsibility of the Owner's security/blast consultant; not the window/curtainwall manufacturer or installer. Design parameters typically range from 4 psi peak and 28 psi-msec impulse, to 10 psi peak and 89 psi-msec impulse.

IMPORTANT NOTES: Stand-off distance requirements vary widely with wall construction type and whether walls are load bearing. Charge Weight I or II may control window design, depending on corresponding stand-off distances and glazing resistance. UFC Paragraph 1-11 "Design Submittals" requires determination of applicable explosive weight(s), level of protection and stand-off distance(s). This is the responsibility of the AE or security/blast consultant; not the window/curtainwall manufacturer or installer.



# SERIES NUMBERING GUIDE

## INVISION™ UNITIZED WALL SYSTEMS

**7250 i - HRX**

- 4750 4" to <5" frame depth
- 6000 & 6250 6" to <7" frame depth
- 7250 7" to <8" frame depth
- 8000 & 8250 8" to <9" frame depth

All system frame depths listed include standard covers.

During early architectural design, determine necessary system depth and provide adequate clearance from face-of-slab in curtainwall applications.

- RX 2-1/4" face width - Thermally improved only
- HR 2-1/2" face width - 15 mm to 19 mm polyamide barrier
- HRX 2-1/2" face width - 24 mm to 32 mm polyamide barrier
- UW 3" face width

- Polyamide or PVC thermal clips
- i Continuous polyamide thermal barrier



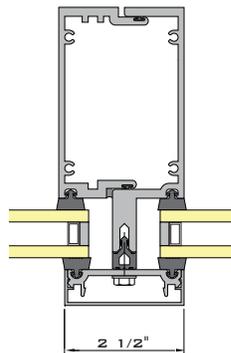
**WAUSAU'S ENERGY MODELING TOOL**

Choosing efficient glazed wall for a commercial building can be difficult, using published U-Factor, Solar Heat Gain Coefficient, Visible Light Transmittance and Condensation Resistance Factor, as relative importance depends on site- and building-specific variables.

Now available as an online support resource at [www.wausauwindow.com](http://www.wausauwindow.com), Wausau's Energy Modeling Tool\* provides comparative **building energy** performance - annual energy use, peak demand, carbon emissions, daylight, glare and condensation - to **optimize product selection**.

\* Developed by the University of Minnesota Center for Sustainable Building Research. Simulations use COMFEN from Lawrence Berkeley National Laboratory's Windows and Daylighting Group.

**PROJECT NOT RIGHT FOR UNITIZED WALL...?**



**WAUSAU SUPERWALL™**

SETTING THE STANDARD FOR MORE THAN 30 YEARS

- Multiple frame depths available - Dual-color frame finishes
- Captured or two-side structural glazed
- Screw-spline construction
- 3/8" thermal separation

Test results may vary.

Allowable Air	Water	NFRC U-Factor	CRF <sub>f</sub>	STC
0.06 cfm/sqft at 6.24 psf	15 psf	0.34 to 0.57 BTU/hr.sqft. °F	67 to 79	31 to 34 25 to 29 OITC

University of Colorado Anschutz Campus Inpatient Tower Aurora, Colorado HDR, Inc. Architects 7250I-UW INvision™ Curtainwall



INvision unitized wall may be finished in a color palette of more than 30,000 choices, including new **copper anodize**.

Liquid or powder paint coatings are applied using VOC-free processes.

The frosty, matte finish of eco-friendly anodize is ideal for Wausau's high recycled content aluminum framing.



**WAUSAU**

WINDOW AND WALL SYSTEMS

7800 INTERNATIONAL DRIVE WAUSAU, WI 54401  
TOLL FREE 1 877 678 2983 FAX 1 715 843 4350  
EMAIL [INFO@WAUSAUWINDOW.COM](mailto:INFO@WAUSAUWINDOW.COM)



"INvision" and "SuperWall" are trademarks of Apogee Wausau Group, Inc. All rights reserved. © 2013 Apogee Wausau Group, Inc.