

# WESTECK WINDOWS and DOORS

SECTION 08565

WOOD WINDOWS  
CASEMENT  
AWNING  
FIXED

## GENERAL

Supply Wood windows as per approved Shop Drawings.

## PART 1

### 1.1 SECTION INCLUDES

- A. Casement Window Units.
- B. Awning Window Units.
- C. Fixed Window Units.

### 1.2 RELATED SECTIONS

- A. Section 06 10 00 - Rough Carpentry
- B. Section 07 62 00- Sheet metal flashing
- C. Section 14 30 00- Quality assurance
- D. Section 08 81 00- Glass and glazing
- E. Section 07 65 26- Self adhering membranes
- F. Section 07 92 00-Sealants

### 1.3 REFERENCES

- A. CAN/CSA A440-00, WINDOWS –in conjunction with User Selection Guide to CSA standards A440-00 Windows.
- B. AAMA/WDMA/CSA 101/I.S.2/A440-05-Standard specification for windows, doors and unit skylights.
- C. CSA/CAN A440.2.04, Energy Performance of Windows, doors and unit skylights, Thermal Properties.
- D. CSA/CAN A440.2.04, Energy Performance of Windows and Other Fenestration Systems, Solar Heat Gain,
- E. CAN/CSA A440.4-07 Window and door installation
- F. ASTM D 3656 - Standard Specification for Insect Screening and Louver Cloth Woven from Vinyl-Coated Glass Fiber Yarn.

- G. ASTM E 331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
- H. AAMA 701/702-04 - Voluntary Specification for Pile Weatherstripping and Replaceable Fenestration Weatherseals
- I. IGCC/IGMAC and CGSB 12.8-97 - Standard Specifications for Sealed Insulating Glass.
- J. IGCC - Classification of Insulating Glass Units; Insulated Glass Certification Council.
- K. NATIONAL RESOURCES CANADA-NRCAN - Energy Star for Fenestration Products Canada, Office of Energy Efficiency.
- L. BCEE-BC Energy Efficiency Act. British Columbia Ministry of Energy, Mines and Petroleum Resources.
- M. SCC – Standards Council of Canada. Certification body for fenestration product testing laboratories.
- N. WDMA I.S.4-07A - Water-Repellent Preservative Treatment for Millwork.

#### 1.4 SUBMITTALS

- A. Manufacturer's standard details and catalog data demonstrating compliance with referenced standards; include manufacturer's standard installation instructions.
- B. Drawings: Submit British Columbia certified Professional Engineer sealed Shop Drawings indicating window types, sizes, locations, quantities and cross sections. Manufacturer's product drawings showing details of fabrication, hardware, weatherstripping, fasteners, screens, glazing, accessories, and related items.
- C. Submitted shop drawings to be approved in writing by project manager prior to fabrication of products.
- D. Samples: Operating sample of each window type specified illustrating fabrication, hardware, glazing, screen, and finish.
- E. Test Reports: For each window series specified, furnish test reports from SCC accredited independent testing laboratory certifying that product meets requirements specified for air infiltration, water penetration and structural performance per CSA/A440-00 WINDOWS. For thermal performance per CAN/CSA A440.2-09 and for seal integrity of insulating glass units by IGCC/IGMAC and CAN/CGSB 12.8-97.
  1. Confirmation of participation in IGCC certification program for Insulated glass.
  2. Confirmation of compliance to BC Energy Efficiency Act, U value minimum 2.0 (W/(m<sup>2</sup>\*K)).
- F. Closeout Submittals: Warranty documents, Care and Maintenance manual, properly executed. Engineers schedules B1, B2, C-B as required, supplied at project completion. Final walk through sign off by PM.

#### 1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum ten (10) years experience producing solid wood frame windows.
- B. Product test reports from SCC certified third party independent fenestration testing laboratory. Intertek, QAI, CSA.

- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
  - 1. Finish areas designated by Architect.
  - 2. Do not proceed with remaining work until workmanship, color, and mockup are approved by Architect.

#### 1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver windows to project site in undamaged condition; handle windows to prevent damage to components and to finishes. Extra care to unfinished wood surfaces must be taken.
- B. Store windows vertically on level surface, out of contact with ground; protect windows from weather and construction traffic in well-ventilated area.
- C. Do not stack more than five (5) units deep. Do not stack units in direct sunlight.

#### 1.7 WARRANTY

- A. Furnish manufacturer's standard warranty against deficiencies in materials or fabrication. <http://www.westeckwindows.com/resources/>

### PART 2

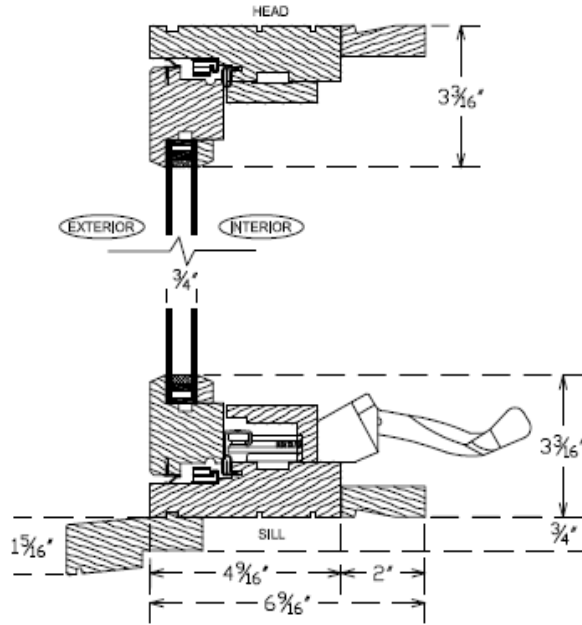
#### PRODUCTS

##### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Westeck Windows Mfg Inc, located at 8104 Evans Road, Chilliwack, BC V2R 5R8  
Tel: 604-792-6700; Toll free Tel: 1-877-606-1166  
Web: [www.westeckwindows.com](http://www.westeckwindows.com)
- B. Or approved alternative.

##### 2.2 CASEMENT WINDOW UNITS

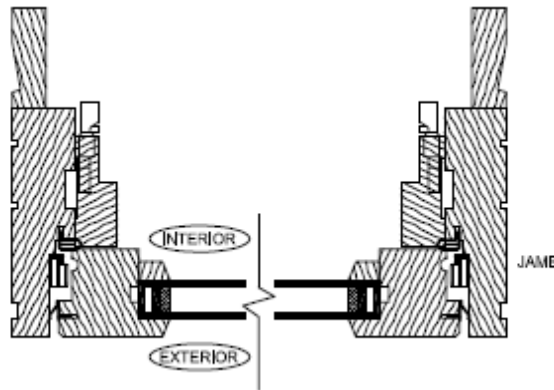
- A. Acceptable Product: Westeck Windows Custom Wood Series casement.



1. Grade: CAN/CSA A440-00 WINDOWS, for 27-inch wide by 62-inch high window unit; certified independent laboratory test results as follows:
  - a. Air infiltration: A3 75 pa.
  - b. Water infiltration: B7 700 pa
  - c. Wind load: C5 2000 pa
  - d. Forced entry: F20
2. Thermal performance in accordance with CAN/CSA.2-09 1.56 U value ( $W/(m^2 \cdot K)$ ). (see glazing details).
3. Solar Heat Gain Coefficient, in accordance with CAN/CSA A440.2-09 24 inch wide by 60 inch high window unit shall not exceed 0.25 (see glazing details)
4. Energy Star Zone B rating 1.56 U value ( $W/(m^2 \cdot K)$ ) or lower. (see glazing details)
5. Glazing: typical sealed insulating glass unit, UNO,  $\frac{3}{4}$ " inch overall thickness, with exterior lite PPG Solarban 60 Low E 3mm annealed glass,  $\frac{1}{2}$ " Edgetech Superspacer and argon gas fill to 90%, interior lite 3mm clear annealed glass; BCEEALabeled for compliance.
6. Sealed Insulating Glass Units: Conform to IGCC/IGMAC CAN/CGSB 12.8-97 Standard for IGMAC certification.
7. Frame: Douglas fir profiles, mechanical fastened at corners,  $4\frac{9}{16}$  inch frame depth (extension optional to required jamb depth), 3.25 inch frame height at sash section.
8. Sash: Douglas fir profiles, sash frames with mechanical fastened corners, full exterior perimeter poly flex weatherstrip, with full interior sash perimeter bulb seal gasket. Interior glazing pocket. Truth operator with Mirage sash locks. Sash restrictors as per applicable building code to 100mm/4"
9. Insect screening: Interior mounted extruded aluminum channel frames, interior mounting pins, complimentary color, with maximum 17 by 17 fiberglass mesh secured with continuous poly spline gasket, removable for mesh replacement. Premium visibility and airflow Phifer Ultravue "Clearview" fiberglass mesh. Optional wood frame screen with hidden magnetic mounting points. Wicket doors unacceptable

## 2.3 AWNING WINDOW UNITS

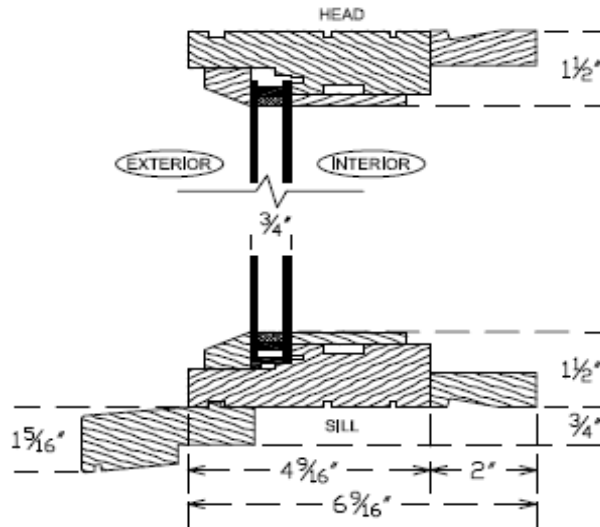
A. Acceptable Product: Westeck Windows Custom Wood Series Awning.



1. Grade: CAN/CSA A440-00 WINDOWS, for 39.375-inch wide by 39.375-inch high window unit; certified independent laboratory test results as follows:
  - a. Air infiltration: A3 75 pa.
  - b. Water infiltration: B7 700 pa
  - c. Wind load: C3 2000 pa
  - d. Forced entry: F20
2. Thermal performance in accordance with CAN/CSA.2-09 1.55 U value (W/(m<sup>2</sup>\*K)). (see glazing details).
3. Solar Heat Gain Coefficient, in accordance with CAN/CSA A440.2-09 60 inch wide by 24 inch high window unit shall not exceed 0.24 (see glazing details)
4. Energy Star Zone B rating 1.55 U value (W(m<sup>2</sup>\*K)) or lower. (see glazing details)
5. Glazing: typical sealed insulating glass unit, UNO, 3/4" inch overall thickness, with exterior lite PPG Solarban 60 Low E 3mm annealed glass, 1/2" Edgetech Superspacer and argon gas fill to 90%, interior lite 3mm clear annealed glass; BCEEAA labeled for compliance.
6. Sealed Insulating Glass Units: Conform to IGCC/IGMAC CAN/CGSB 12.8-97 Standard for IGMAC certification.
7. Frame: Douglas fir profiles, mechanical fastened at corners, 4 9/16 inch frame depth(extension optional to required jamb depth), 3.25 inch frame height at sash section.
8. Sash: Douglas fir profiles, sash frames with mechanical fastened corners, full exterior perimeter poly flex weatherstrip, with full interior sash perimeter bulb seal gasket. Interior glazing pocket. Truth operator with Mirage sash locks. Sash restrictors as per applicable building code to 100mm/4".
9. Insect screening: Interior mounted extruded aluminum channel frames, interior mounting pins, complimentary color, with maximum 17 by 17 fiberglass mesh secured with continuous poly spline gasket, removable for mesh replacement. Premium visibility and airflow Phifer Ultravue "Clearview" fiberglass mesh. Optional wood frame screen with hidden magnetic mounting points. Wicket doors unacceptable.

## 2.4 FIXED WINDOW UNITS

A. Acceptable Product: Westeck Windows Custom Wood window.



1. Grade: CAN/CSA A440-00 WINDOWS, for 79 inch wide by 79 inch high window unit; certified independent laboratory test results as follows:
  - a. Air infiltration: Fixed 75 pa.
  - b. Water infiltration: B7 700 pa
  - c. Wind load: C3 3000 pa
  - d. Forced entry: Fixed
2. Thermal performance in accordance with CAN/CSA.2-09 1.48 U value (W/(m<sup>2</sup>\*K)). (see glazing details).
3. Solar Heat Gain Coefficient, in accordance with CAN/CSA A440.2-09 79 inch wide by 79 inch high window unit shall not exceed 0.33 (see glazing details)
4. Energy Star Zone B rating 1.48 U value (W(m<sup>2</sup>\*K)) or lower. (see glazing details)
5. Glazing: typical sealed insulating glass unit, UNO, 3/4" inch overall thickness, with exterior lite PPG Solarban 60 Low E 5mm annealed glass, 7/16" Edgetech Superspacer and argon gas fill to 90%, interior lite 5mm clear annealed glass; BCEEA labeled for compliance.
6. Sealed Insulating Glass Units: Conform to IGCC/IGMAC CAN/CGSB 12.8-97 Standard for IGMAC certification.
7. Frame: Douglas fir profiles, mechanical fastened at corners, 4 9/16 inch frame depth (extension optional to required jamb depth), 1.5 inch frame height.

## 2.5 FABRICATION

- A. Window Units: Assemble units completely in factory, including operating hardware and glazing.
- B. Fabricate components with minimum clearances (8/10mm) and shim spacing around perimeter of assembly, enabling installation and dynamic movement of perimeter seal.
- C. Interior glazed, closed cell foam tape with silicone back bed.
- D. **All millwork** seams sealed with

## PART 3 PERFORMANCE REQUIREMENTS

- A. Design and size components to withstand dead and live loads caused by positive and negative wind loads in accordance with the British Columbia Building Code 2006
- B. Limit member deflection to limit  $L/175$  with full recovery of glazing materials.
- C. Water leakage: None when measured in accordance with ASTM E331 to B3 rating.
- D. Air infiltration: Limit air infiltration through assembly in accordance with ASTM E283-04 to A3 rating.
- E. Thermal resistance to comply with BCBC 2006 and BCEEAA, maximum U value  $2.0 (W/(m^2 \cdot K))$ .
- F. Comply with requirements of the following documents:
  - a. CAN/CGSB-12.1-M, Tempered or laminated safety glass.
  - b. CAN/CGSB-12.3-M, Flat, clear float glass.
  - c. CAN/CGSB-12.8-M, Insulating glass units.
  - d. CAN/CGSB-12.20-M, Structural design of glass for buildings.
- G. All IGUs to be manufactured by a Insulating Glass Manufacturer Alliance (IGMA/IGMAC) certified member.

## PART 4 EXECUTION

### 4.1 EXAMINATION

- A. Verification of Conditions: Openings are in correct location, and of correct size, in accordance with approved shop drawings and manufacturer's installation instructions.
- B. Verify wall openings and adjoining air and vapour seal materials are ready to receive work of this section.

### 4.2 INSTALLATION

- A. Installer's Examination:
  - 1. Have installer of this section examine conditions under which construction activities of this section are to be performed, then submit written notification if such conditions are unacceptable.
  - 2. Transmit two copies of installer's report to Architect within 24 hours of receipt.
- B. Beginning construction activities of this section before unacceptable conditions have been corrected is prohibited.
- C. Install products specified in this section square, plumb and level, in accordance with approved shop drawings and manufacturer's installation instructions. Reference CAN/CSA A440.4-07 Installation.
- D. Maximum variation from level and plumb,  $1/16''$  every 3' non cumulative,  $1/8''$  every 10', whichever is less.

- E. Beginning construction activities of this section indicates installer's acceptance of conditions

#### 4.3 ADJUSTING

- A. Adjust operating hardware for smooth operation and secure weather tight closure in accordance with manufacturer's installation instructions.

#### 4.4 CLEANING

- A. Remove labels only after final inspection.
- B. Clean interior and exterior surfaces free of labels, mortar, plaster, paint, joint sealers, and other foreign matter to prevent damage to seals and interference with operation of hardware.
- C. Clean glass and frames using only warm water and mild non corrosive cleaners. Contact by corrosive construction cleaners such as ammonia, chlorine, and muriatic acid (brickwash) may void warranty.

#### 4.5 PROTECTION

- A. Protect ventilators and operating parts from dirt and damage caused by subsequent construction activities.
- B. Exposed wood products are to receive finishing as per manufacturers recommendations prior to installation.
- C. Replace units damaged by subsequent construction activities.

END OF SECTION