

This Specifications Sheet utilizes the Construction Specifications Institute (CSI) MasterFormat™. The 1995 edition numbers are listed first; *numbers in italics are from the 2004 edition*. Options and dimensions are indicated by brackets []. Specifier Notes precede specification text; edit for project requirements or delete in final copy. Metric conversion is calculated by multiplying: Number of Inches x 25.4 = Millimeters, rounded off. Manufactured by Kolbe & Kolbe Millwork Co., Inc., Wausau, Wisconsin.

SECTION 08560 or 08 53 13.07 WINDQUEST SERIES STUDIO (TRANSOM) (PICTURE) (RADIUS) (GEOMETRIC) WINDOWS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Provide high performance vinyl windows members extruded from rigid vinyl formulated for outdoor use. Fixed units complete with glazing, [grilles-in-the-airspace] and standard or specified anchorages, trim, attachments, and accessories.

1.02 RELATED SECTIONS

SPECIFIER NOTE: Revise sections below to suit project requirements and to include desired options.
Consult state and local building codes for specific requirements.

The MasterFormat 1995 edition numbers are listed first; *numbers in italics are from the 2004 edition*.

- Section 01330 or 01 33 00 – Submittal Procedures.
- Section 01620 or 01 62 00 – Product Options.
- Section 01630 or 01 25 00 – Product Substitution Procedures.
(2004 title: *Substitution Procedures*.)
- Section 01650 or 01 65 00 – Product Delivery Requirements.
- Section 01660 or 01 66 00 – Product Storage and Handling Requirements.
- Section 01730 or 01 73 00 – Execution.
- Section 01740 or 01 74 00 – Cleaning.
(2004 title: *Cleaning and Waste Management*.)
- Section 01760 or 01 76 00 – Protecting Installed Construction.
- Section 06100 or 06 10 00 – Rough Carpentry.
- Section 06200 or 06 20 00 – Finish Carpentry.
- Section 07210 or 07 21 00 – Building Insulation.
(2004 title: *Thermal Insulation*.)
- Section 07900 or 07 92 00 – Joint Sealants.
- Section 08800 or 08 80 00 – Glazing.
- Section 09900 or 09 90 00 – Paints and Coatings.
(2004 title: *Painting and Coating*.)

1.03 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 1. ASTM E283-04' - Standard Test Method for Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors.

2. ASTM E330-02' - Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
 3. ASTM E547-00' - Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Cyclic Static Air Pressure Differential.
 4. ASTM E1425-07' or AAMA 1801 - Certification of Acoustical Performance.
 5. ASTM F588-07' or AAMA 1302.5 - Standard for Forced-Entry Resistance.
 6. ASTM E 1996-06' "Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors and Storm Shutters Impacted by Windborne Debris in Hurricanes".
 7. ASTM E 1886-05' "Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors and Storm Shutters Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials".
 8. ASTM E2190-08' "Standard Specification for Insulating Glass Unit Performance and Evaluation."
- B. American Architectural Manufacturers Association/Window and Door Manufacturers Association (AAMA/WDMA), American National Standards Institute/Window and Door Manufacturers Association (ANSI/WDMA), Canadian Standards Association (CSA).
1. AAMA/WDMA/CSA 101/I.S.2/A440-05', 101/I.S.2/A440-08' Standard / Specification for Windows, Doors and Skylights
 2. WDMA I.S. 4-07'A Water Repellant Preservative Treatment for Millwork
 3. AAMA 613-98 - Voluntary performance requirements and test procedures for Organic Coatings on plastic profiles.
- C. National Fenestration Rating Council (NFRC)
1. NFRC 100-2004' & 2010' - Determining Fenestration U-Factor.
 2. NFRC 100-2004' & 2010' - Test Procedure for Thermal Transmittance of Fenestration.
 3. NFRC 200-2004' & 2010' Determining Fenestration SHGC & Tv
 4. ASTM E1423-06' - Determining Thermal Transmittance of Fenestration Systems.
 5. NFRC 500-2010' Determining Fenestration Product Condensation Resistance
- D. WDMA Hallmark Program
1. WDMA Hallmark Program Procedural Guide C.S.-1.
- E. Consumer Product Safety Commission (CPSC)
1. CPSC 16 CFR 1201 - Safety Glazing Standards.
 2. ANSI Z-97.1 - Safety Glazing Standards for Tempered Glass.

1.04 SYSTEM DESCRIPTION

See the Technical Information section at the beginning of this manual for the Air, Water, Structural Test Reports and Energy Rating Reports. For updated reports, please visit our website (www.kolbe-kolbe.com).

- A. Minimum Design and Performance Requirements
1. The required design pressure(s) for windows and doors is _____ psf.
 2. Air, water, structural, and forced entry resistance shall be at levels which meet the specified design pressure as per ANSI/AAMA/NWDA 101/I.S. 2-97, 101/I.S.2/NAFS-02, or 101/I.S.2/A440-05.
 3. [Impact Performance Rating shall be Missile level 'D', Wind Zone 4 and shall be at levels which meet the specified design pressure per ASTM E 1886 & ASTM E 1996.] [Non-impact certified units].
 4. Unique, non-listed unit's performance, when not tested, may be addressed by a manufacturer's Statement of Qualification.
 5. Mullion design shall be adequate for required design pressure.
- B. Energy Ratings

All units tested are onelite, residential, argon filled, with K&K ID No. as listed on the NFRC Label adhered to each unit. Values are certified per NFRC and units are labeled per state requirements.

1. Unique units may have U & SHGC determined by NFRC procedures and listed on a manufacturer's Statement of Qualification.

1.05 SUBMITTALS

- A. Shop Drawings: Submit shop drawings in accordance with Section 01330 Submittal Procedures or Section 01 33 23 – *Shop Drawings, Product Data, and Samples*.
- B. Product Data: Submit catalog data in accordance with Section 01330 Submittal Procedures or Section 01 33 23 – *Shop Drawings, Product Data, and Samples*.
- C. Samples:
Submit corner section in accordance with Section 01330 Submittal Procedures or Section 01 33 23 – *Shop Drawings, Product Data, and Samples*.
Include glazing system, quality of construction, specified finish, and color.
- D. Installation Instructions.
- E. Quality Control Submittals:
Certificates: Submit performance test results reported by independent laboratory or manufacturer's Statement of Qualification indicating compliance with specified performance and design requirements.

1.06 QUALITY ASSURANCE

- A. WDMA Hallmark Program. Be sure to check the Air-Water-Structural Test Reports Manual on our website (www.kolbe-kolbe.com) for the current listing.
- B. IGMAC-Insulating Glass Manufacturer's Association Canada.
- C. Kolbe & Kolbe Quality Assurance.
- D. [If required: Mock Up: Provide sample installation for field testing unit performance requirements for approval - Contractor to perform tests in accordance with AAMA 502-02 using Method A and/or Method B.]

1.07 DELIVERY, STORAGE AND HANDLING

- A. Proceed in accordance with Section 01650 – Product Delivery Requirements, Section 01660 – Product Storage and Handling Requirements, and Installation Instructions.
- B. Deliver in original packaging, store in an upright position off the ground in a clean, dry area. Protect from weather and construction activities.
- C. Prime or seal wood surfaces, including surfaces to be concealed by wall construction if more than 30 days will expire between delivery and installation.

1.08 WARRANTY

- A. Glass: See Kolbe & Kolbe Glass Warranty for details and exclusions.
- B. Pre-finishing: See Kolbe & Kolbe Finish Warranty for details and exclusions.
- C. Product Defects: See Kolbe & Kolbe Product Warranty for details and exclusions.
- D. International: See Kolbe & Kolbe International Warranty for details and exclusions.
- A. These warranties are available on our website at <http://www.kolbe-kolbe.com>

PART II: PRODUCTS

2.01 MANUFACTURER UNITS

- A. Windquest™ Series Studio (Transom) (Picture) (Radius) (Geometric) Vinyl Windows as manufactured by Kolbe & Kolbe Millwork Co., Inc. – Vinyl Division.

2.02 VINYL WINDOW MATERIALS

- A. Frame:
1. Frame members shall be manufactured from multi-chambered extruded unplasticized polyvinylchloride (uPVC). Frame corners shall be fusion welded and cleaned.
 2. Frame shall have an overall jamb depth of 3-1/4" x 3".
 3. Frame to have exterior and interior accessory groove.
- B. Surface Finish:
1. Exterior Coating: [Standard is integral vinyl in [white] [beige] [Optional high performance, heat-reflective polyurethane meets AAMA 613-98 specifications.] Color: Manufacturers [Standard] [Special] [Custom]. colors as selected from manufacturers color spectrum.

The following are optional materials and accessories. Edit for project requirements.

- C. Jamb Extensions: Wood jamb extensions up to 7 9/16 inches (192mm) for wall thickness indicated or required. Jamb extensions shall be field installed (shipped loose).
1. Finish: [Pine – unfinished] [Pine-prefinished] [Oak – unfinished] [Oak-prefinished] [White].
- D. Grilles-in-the-Airspace: Installed inside the hermetically sealed glass unit.
1. Material: [aluminum flat bars, 5/8 inch (16mm) wide] [aluminum profiled bars, 3/4 inch (19mm) wide.] [Brass pencil bars, 5/16 inch (8mm)]. Color matched. [White] [Beige].
 2. Pattern: [Rectangular] [Marginal (Prairie Style)] [Custom].
- E. Performance Divided Lites (PDL): PDL system utilizes a permanently adhered PVC grille bar to the exterior and the interior of the insulating glass unit.
1. Material: Muntin is constructed of 5/32 inch (4mm) thick PVC on exterior & interior [7/8 inch (22mm) wide] [1-1/8 inch (29mm) wide] [1-3/4 inch (44mm) wide] [2-1/4 inch (57mm) wide].
 2. Pattern: [rectangular] [custom lite cuts subject to approval of Kolbe & Kolbe Millwork Co., Inc.].
 3. Spacer bar between the glass. Finish: Standard [Champagne]. Optional [Aluminum mill-finish] [Bronze finish].
 4. Exterior surface finish: To match frame and sash exterior.

2.03 GLAZING

- A. General: Provide insulating glass manufactured by the window manufacturer in compliance with IGCC Class CBA, tested in accordance with ASTM E2190. Units provided with a dual seal consisting of polyisobutylene as the primary seal and polyurethane as the secondary seal.
- B. Glazing:
1. 1" dual sealed laminated insulating glass – Lami 37. See Website www.kolbe-kolbe.com for Impact performance ratings.
 2. PVC glazing bead is dry glazed and interior glazed. Silicone is used at the corners.

C. Glass Options:

1. [onelite IG is 1 inch (28mm) with LoE²-270 argon filled sealed in acrylic tape against sash interior.] [LoE² 240 –Glare Control] [LoE³ 366]. [onelite IG is 1 inch (28mm) with laminated LoE²-270 argon filled sealed in acrylic tape against sash interior.]
2. Tempered glass.
3. Protective film.
4. Other options: Standard to the industry. [With] [Without] argon gas. (Argon gas may not be included in units to be installed in or shipping through high altitude areas.)

2.04 ACCESSORIES AND TRIM

<i>Edit for project requirements.</i>

A. Installation Accessories:

1. Galvanized steel installation clips are required on all units. See manufacturer's installation instructions.
2. Mull connectors.

PART 3 EXECUTION**3.01 EXAMINATION**

- A. Verification of conditions: Before installation, verify that openings are plumb and square and of proper dimension. Report frame defects or unsuitable conditions to the General Contractor before proceeding.
- B. Acceptance: Beginning of installation means acceptance of existing conditions.

3.02 INSTALLATION

- A. Install windows according to manufacturer's installation instructions, reviewed shop drawings and in accordance with Section 01730 – Execution or Section 01 73 19 – *Installation*.
Note: Certain codes require the use of pressure-treated lumber to line rough openings. Corrosion-resistant materials, such as stainless steel or hot-dip galvanized steel, must be used for fasteners and anchors having direct contact with pressure-treated lumber.
- B. Install sealant and related flashing materials at perimeter of assembly in accordance with Section 07900 Joint Sealers or 07 92 00 – *Joint Sealants*.
- C. Install accessory items as required.

3.03 ADJUSTING AND CLEANING

- A. Adjust operable sash to work freely with hardware functioning properly. Re-adjust at completion of the project if directed.
- B. Remove visible labels.
- C. Leave windows in a job clean condition. Final cleaning of glass will be done in accordance with Section 01740 – Cleaning or Section 01 74 00 - *Cleaning and Waste Management*.

3.04 PROTECTION

- A. Cover windows, in accordance with Section 01760 *or* 01 76 00 – Protecting Installed Construction, during spray painting or other construction operations (such as muretic acid washing after completion of masonry) that might cause damage.

END OF SECTION