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Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat, SectionFormat,* and *PageFormat,* as described in *The Project Resource Manual—CSI Manual of Practice, Fifth Edition.*

This section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all "Specifier Notes" after editing this section.

Section numbers and titles are from *MasterFormat 2010 Update.*

SECTION 08 53 13

VINYL WINDOWS

Specifier Notes: This section covers Simonton Windows "ProFinish Builder Series" vinyl windows. Consult Simonton Windows for assistance in editing this section for the specific application.

PART 1   GENERAL

1.1   SECTION INCLUDES

A.   Vinyl Windows:

Specifier Notes: List the type of vinyl windows specified in Part 2–Products of this section.

    1.   Single-hung vinyl windows.
    2.   Slider vinyl windows.
    3.   Picture vinyl windows.
    4.   Geometric vinyl windows.
    5.   Geometric-top single-hung vinyl windows.

1.2   RELATED REQUIREMENTS

Specifier Notes: Edit the following list of related sections as necessary. Limit the list to sections with specific information that the reader might expect to find in this section, but is specified elsewhere.

A.   Section 06 10 00 – Rough Carpentry.

B.   Section 06 20 00 – Finish Carpentry.

C.   Section 06 40 13 – Exterior Architectural Woodwork.

D.   Section 07 92 00 – Joint Sealants.

1.3   REFERENCE STANDARDS

Specifier Notes: List standards referenced in this section, complete with designations and titles. Delete standards not included in the edited section.

A.   American Architectural Manufacturers Association (AAMA):
      1.   AAMA 502 – Voluntary Specification for Field Testing of Newly Installed Fenestration Products.

B.   American Architectural Manufacturers Association/Window & Door Manufacturers Association/Canadian Standards Association (AAMA/WDMA/CSA):
      1.   AAMA/WDMA/CSA 101/I.S.2/A440 – North American Fenestration Standard/Specification for Windows, Doors, and Skylights.

C.   National Fenestration Rating Council (NFRC):
      1.   NFRC 100 – Procedure for Determining Fenestration Product U-factors.
      2.   NFRC 200 – Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence.

1.4   PREINSTALLATION MEETINGS

Specifier Notes: Edit preinstallation meetings as necessary. Delete if not required.

A.   Convene preinstallation meeting 2 weeks before start of installation of vinyl windows.

B.   Require attendance of parties directly affecting work of this section, including Contractor, Architect, installer, and manufacturer's representative.

C.   Review materials, preparation, installation, field quality control, adjusting, cleaning, protection, and coordination with other work.

1.5   SUBMITTALS

Specifier Notes: Edit submittal requirements as necessary. Delete submittals not required.

A.   Comply with Section 01 33 00 – Submittal Procedures.

B.   Product Data: Submit manufacturer's product data, including preparation and installation instructions.

C.   Shop Drawings: Submit manufacturer's shop drawings, including elevations, sections, and details, indicating dimensions, tolerances, materials, components, fabrication, glazing, fasteners, hardware, finish, options, and design for each vinyl window type.

D.   Samples: Submit manufacturer's samples of colors and finishes of vinyl windows and hardware, minimum 2 inches by 4 inches.

E.   Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.

F.   Test Reports: Submit manufacturer's test reports from independent testing agency indicating vinyl windows meet or exceed specified performance requirements.

G.   Manufacturer's Project References: Submit manufacturer's list of successfully completed vinyl window projects, including project name and location, name of architect, and type and quantity of vinyl windows furnished.

H.   Installer's Project References: Submit installer's list of successfully completed vinyl window projects, including project name and location, name of architect, and type and quantity of vinyl windows installed.

I.   Operating and Cleaning Instructions: Submit manufacturer's operating and cleaning instructions.

J.   Warranty Documentation: Submit manufacturer's standard warranty.

1.6   QUALITY ASSURANCE

A.   Manufacturer's Qualifications: Manufacturer regularly engaged, for past 10 years, in manufacture of vinyl windows of similar type to that specified.

B.   Installer's Qualifications:
  1.   Installer regularly engaged, for past 10 years, in installation of vinyl windows of similar type to that specified.
  2.   Employ persons trained for installation of vinyl windows.

C.   Mock-ups: Construct mock-ups of vinyl windows for evaluation of preparation techniques and installation workmanship.
1.   Construct mock-ups using same materials for use in the Work.
2.   Construct mock-ups at locations determined by Architect.
3.   Do not proceed until workmanship of mock-ups are approved by Architect.
4.   Approved Mock-ups: Standard for workmanship of vinyl windows.

1.7   DELIVERY, STORAGE, AND HANDLING

A.   Delivery and Acceptance Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

B.   Storage and Handling Requirements:
1.   Store and handle materials in accordance with manufacturer's instructions.
2.   Keep materials in manufacturer's original, unopened containers and packaging until installation.
3.   Store materials in clean, dry area indoors.
4.   Do not store materials directly on floor.
5.   Protect materials and finish during storage, handling, and installation to prevent damage.

1.8   WARRANTY

A.   Warranty Period:
1.   Vinyl: Lifetime.
2.   Glass: 20 years.
3.   Hardware: 20 years.
4.   Screen: 20 years.

PART 2   PRODUCTS

2.1   MANUFACTURER

A.   Simonton Windows, 3948 Townsfair Way, Suite 200, Columbus, Ohio 43219. 800-746-6686. www.simonton.com. archdetails@simonton.com.

2.2   PERFORMANCE REQUIREMENTS

A.   Test vinyl windows in accordance with AAMA/WDMA/CSA 101/I.S.2/A440.
1.   Welded Corner Test: Meet or exceed standard.
2.   Deglazing Test: Meet or exceed standard.
3.   Air Infiltration:
     a.   Based on static pressure of 1.57 psf (25 mph).
     b.   Do not exceed 0.3 scfm per square foot.
4.   Operating Force:
     a.   Average of forces required to open and close unit.

        b.   Maximum Allowable Pound Force:
            1)   Vertical Sliders: 30 lbf.
            2)   Horizontal Sliders: 20 lbf.
5. Minimum Water Resistance: _____ psf, R_____ rating.
6. Minimum Structural Test Pressure: Plus or minus _____ psf, R_____ rating.
7. U-Factor, Total Unit, NFRC 100: _____.
8. R-Value, Total Unit: _____.
9. Visible Transmittance, Total Unit, NFRC 200: _____.
10. UV Block, Center of Glass, UV Transmissions from 300 to 380 nm: _____.
11. Window Certification:
        a.   Test windows to AAMA Gold Label Certification Program for thermal performance and air, water, and structural integrity.
        b.   Provide certification label on each window.

Specifier Notes: Specify required type of vinyl windows. Delete window types not required.

2.3 SINGLE-HUNG VINYL WINDOWS

Specifier Notes: Specify required standard and optional features for the single-hung vinyl windows. Not all combinations of features are available. Consult Simonton Windows for availability of specific combinations of features.

A. Single-Hung Vinyl Windows: "ProFinish Builder Series" windows.

Specifier Notes: Specify vinyl windows in standard or custom sizes. Consult Simonton Windows for availability of custom-size windows.

B. Size: [_____] [Indicated on the Drawings].

C. Frame and Sash Color: [White] [Tan].

D. Glass:

Specifier Notes: A variety of glass options are available. Consult Simonton Windows for more information.

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1. Gas Fill: [Air] [Argon].
2. Glass Strength: [Single strength] [Double strength].
3. Glass Type: [Clear] ["ProSolar" soft coat Low E] [Low E soft coat] [Tempered] [Bronze Tinted] [Grey Tinted] [Obscure].
4. Insulating Glass Unit Thickness: 3/4 inch.
5. Panes of Glass: Dual pane.
6. Spacer System: ["Intercept"] ["Supercept"].
7. Glass Packages: [Energy Star, optimized by region] [Custom].

E. Grid:
1. Color: [White] [Tan] [Brass].

2. Size: [5/8 inch] [1-inch contour].
3. Style: [Colonial] [Diamond] [Perimeter] [Double Perimeter] [Prairie] [Double Prairie] [Victorian] [Specialty, custom].
4. Type: [Flat] [Sculptured] [1-inch contour].

F. Frame:
1. Construction: Welded.
2. Depth: 2-15/16 inches.
3. Exterior Aesthetics: Angled.
4. Installation Accessories: Brickmould, drywall accessory.
5. Screen Track: Integral.
6. Sill: Sloped.

G. Sash:
1. Construction: Welded.
2. Corner Joints: Mitered.
3. Glazing Bead:
   a. Aesthetics: Squared.
   b. Color: Color matched.
   c. Location: Internal/external.
   d. Material: Dual durometer.
4. Handle:
   a. Placement: Bottom.
   b. Style: Contour, extruded, lift rail.
5. Meeting Rails: Overlapping, interlocking.
6. Operation: Tilt in/lift out.
7. Sash Hardware – Air Latch:
   a. Color: [White] [Tan].
   b. Quantity: [1] [2].
   c. Type: "Air Lok".

H. Hardware:
1. Balance System: 1/2-inch stainless steel, constant-force coil spring.
2. Locking System:
   a. Type: Cam lock with adjustable keeper.
   b. Actuator: Recessed.
   c. Aesthetics: Square tiered.
   d. Lever: Straight.
   e. Material: Metal.
   f. Quantity: Dual.
3. Pivot System: Pivot alignment system.
4. Tilt Latches:
   a. Actuator Type: Recessed tab.
   b. Mounting: Flush mount.
5. Exposed Hardware Finish: [Match frame and sash color] [Brass].

I. Screen:
1. Frame: Roll formed.
2. Mesh: Fiberglass.
3. Size: Half.

J.   Capillary tubes.

K.   Installation Items:
      1.   Integral nailing fin.

L.   Jamb Extenders:
      1.   Factory attached to vinyl windows.
      2.   Wood: Finger-jointed, primed, [clear pine] [oak].
      3.   Cellular PVC: "Quick Trim", [white] [tan] ["Clearwood"].

2.4   SLIDER VINYL WINDOWS

A.   Slider Vinyl Windows: "ProFinish Builder Series" windows.

B.   Type: [Single slider] [3-lite slider].

C.   Size: [_____] [Indicated on the Drawings].

D.   Frame and Sash Color: [White] [Tan].

E.   Glass:

1.   Gas Fill: [Air] [Argon].
2.   Glass Strength: [Single strength] [Double strength].
3.   Glass Type: [Clear] ["ProSolar" soft coat Low E] [Low E soft coat] [Tempered] [Bronze Tinted] [Grey Tinted] [Obscure].
4.   Insulating Glass Unit Thickness: 3/4 inch.
5.   Panes of Glass: Dual pane.
6.   Spacer System: ["Intercept"] ["Supercept"].
7.   Glass Packages: [Energy Star, optimized by region] [Custom].

F. Grid:
    1. Color: [White] [Tan] [Brass].
    2. Size: [5/8 inch] [1-inch contour].
    3. Style: [Colonial] [Diamond] [Perimeter] [Double Perimeter] [Prairie] [Double Prairie] [Victorian] [Specialty, custom].
    4. Type: [Flat] [Sculptured] [1-inch contour].

G. Frame:
    1. Construction: Welded.
    2. Depth: 2-15/16 inches.
    3. Exterior Aesthetics: Angled.

H. Sash:
    1. Construction: Welded.
    2. Corner Joints: Mitered.
    3. Glazing Bead:
        a. Aesthetics: Squared.
        b. Color: Color matched.
        c. Location: Internal/external.
        d. Material: Dual durometer.
    4. Handle:
        a. Placement: Meeting stile.
        b. Style: Contour, extruded, pull stile.
    5. Meeting Rails: Overlapping, interlocking.
    6. Operation: Lift out.

I. Hardware:
    1. Locking System:
        a. Type: Cam lock with adjustable keeper.
        b. Actuator: Recessed.
        c. Aesthetics: Square tiered.
        d. Lever: Straight.
        e. Material: Metal.
        f. Quantity: Dual.
    2. Rollers/Gliders:
        a. Material: "Celcon".
        b. Type: Rollers.
    3. Exposed Hardware Finish: [Match frame and sash color] [Brass].

J. Screen:
    1. Frame: [Roll formed] [Extruded aluminum].
    2. Mesh: Fiberglass.
    3. Size: Half.

Specifier Notes: Delete capillary tubes if not required.

K. Capillary tubes.

L. Installation Items:

1. Integral nailing fin.

Specifier Notes: Specify jamb extenders in wood or cellular PVC. Delete jamb extenders if not required.

M. Jamb Extenders:
1. Factory attached to vinyl windows.
2. Wood: Finger-jointed, primed, [clear pine] [oak].
3. Cellular PVC: "Quick Trim", [white] [tan] ["Clearwood"].

2.5   PICTURE VINYL WINDOWS

Specifier Notes: Specify required standard and optional features for the picture vinyl windows. Not all combinations of features are available. Consult Simonton Windows for availability of specific combinations of features.

A. Picture Vinyl Windows: "ProFinish Builder Series" windows.

Specifier Notes: Specify vinyl windows in standard or custom sizes. Consult Simonton Windows for availability of custom-size windows.

B. Size: [_____] [Indicated on the Drawings].

C. Frame and Sash Color: [White] [Tan].

D. Glass:

Specifier Notes: A variety of glass options are available. Consult Simonton Windows for more information.

1. Gas Fill: [Air] [Argon].
2. Glass Strength: [Single strength] [Double strength].
3. Glass Type: [Clear] ["ProSolar" soft coat Low E] [Low E soft coat] [Tempered] [Bronze Tinted] [Grey Tinted] [Obscure].
4. Insulating Glass Unit Thickness: 3/4 inch.
5. Panes of Glass: Dual pane.
6. Spacer System: ["Intercept"] ["Supercept"].
7. Glass Packages: [Energy Star, optimized by region] [Custom].

E. Grid:
1. Color: [White] [Tan] [Brass].
2. Size: [5/8 inch] [1-inch contour].
3. Style: [Colonial] [Diamond] [Perimeter] [Double Perimeter] [Prairie] [Double Prairie] [Cross] [Victorian].
4. Type: [Flat] [Sculptured] [1-inch contour].

F. Frame:

1.　　Construction: Welded.
　　　　2.　　Depth: 2-15/16 inches.
　　　　3.　　Exterior Aesthetics: Angled.

　　G.　　Sash:
　　　　1.　　Glazing Bead:
　　　　　　a.　　Aesthetics: Squared.
　　　　　　b.　　Color: Color matched.
　　　　　　c.　　Location: Internal.
　　　　　　d.　　Material: Dual durometer.

　　H.　　Capillary tubes.

　　I.　　Installation Items:
　　　　1.　　Integral nailing fin.

　　J.　　Jamb Extenders:
　　　　1.　　Factory attached to vinyl windows.
　　　　2.　　Wood: Finger-jointed, primed, [clear pine] [oak].
　　　　3.　　Cellular PVC: "Quick Trim", [white] [tan] ["Clearwood"].

2.6　　GEOMETRIC VINYL WINDOWS

　　A.　　Geometric Vinyl Windows: "ProFinish Builder Series" windows.

　　B.　　Shape: [Half-round] [Quarter-round] [Circle] [Octagon] [Triangle] [Eyebrow] [Oval] [Trapezoid] [Gothic] [Custom design].

　　C.　　Size: [＿＿＿＿＿＿] [Indicated on the Drawings].

　　D.　　Frame and Sash Color: [White] [Tan].

　　E.　　Glass:

1. Gas Fill: [Air] [Argon].
2. Glass Strength: [Single strength] [Double strength].
3. Glass Type: [Clear] ["ProSolar" soft coat Low E] [Low E soft coat] [Tempered] [Bronze Tinted] [Grey Tinted] [Obscure].
4. Insulating Glass Unit Thickness: 3/4 inch.
5. Panes of Glass: Dual pane.
6. Spacer System: "Super Spacer".
7. Glass Packages: [Energy Star, optimized by region] [Custom].

F. Grid:
   1. Color: [White] [Tan] [Brass].
   2. Size: [5/8 inch] [1-inch contour].
   3. Style: [Colonial] [Starburst] [Sunburst] [Double Sunburst] [Sun Starburst] [Double Sun Starburst] [Sun Bar] [Double Sun Bar] [Specialty, custom].
   4. Type: [Flat] [Sculptured] [1-inch contour].

G. Frame:
   1. Construction: Welded.
   2. Depth: 2-15/16 inches.
   3. Exterior Aesthetics: Angled.

H. Sash:
   1. Glazing Bead:
      a. Aesthetics: Squared.
      b. Color: Color matched.
      c. Location: Internal.
      d. Material: Dual durometer.

I. Capillary tubes.

J. Installation Items:
   1. Integral nailing fin.

K. Jamb Extenders:
   1. Factory attached to vinyl windows.
   2. Wood: Finger-jointed, primed, [clear pine] [oak].
   3. Cellular PVC: "Quick Trim", [white] [tan] ["Clearwood"].

L. Casing:

1. Size: 2-1/4 inches.
2. Style: [Ranch] [Colonial].
3. Cellular PVC: "Quick Trim", [white] [tan] ["Clearwood"].

2.7 GEOMETRIC-TOP SINGLE-HUNG VINYL WINDOWS

Specifier Notes: Specify required standard and optional features for the geometric-top single-hung vinyl windows. Not all combinations of features are available. Consult Simonton Windows for availability of specific combinations of features.

A. Geometric-Top Single-Hung Vinyl Windows: "ProFinish Builder Series" windows.

B. Shape: [Half-round, single-hung] [Quarter-round, single-hung, left or right] [Eyebrow, single-hung] [Eyebrow segment, single-hung, left or right] [Trapezoid, single-hung, left or right] [Pentagon, single-hung].

Specifier Notes: Specify vinyl windows in standard or custom sizes. Consult Simonton Windows for availability of custom-size windows.

C. Size: [_____] [Indicated on the Drawings].

D. Frame and Sash Color: [White] [Tan].

E. Glass:

Specifier Notes: A variety of glass options are available. Consult Simonton Windows for more information.

1. Gas Fill: [Air] [Argon].
2. Glass Strength: [Single strength] [Double strength].
3. Glass Type: [Clear] ["ProSolar" soft coat Low E] [Tempered] [Bronze Tinted] [Grey Tinted] [Obscure].
4. Insulating Glass Unit Thickness: 3/4 inch.
5. Panes of Glass: Dual pane.
6. Spacer System: "Super Spacer".
7. Glass Packages: [Energy Star, optimized by region].

F. Grid:
1. Color: [White] [Tan].
2. Size: [5/8 inch] [1-inch contour].
3. Style: [Colonial] [Starburst] [Sunburst] [Sunbar] [Sun Starburst].
4. Type: [Flat] [Sculptured] [1-inch contour].

G. Frame:
1. Construction: Welded.
2. Depth: 2-15/16 inches.
3. Exterior Aesthetics: Angled.

4. Installation Accessories: Drywall accessory.
5. Screen Track: Integral.
6. Sill: Sloped.

H. Sash:
1. Construction: Welded.
2. Corner Joints: Mitered.
3. Glazing Bead:
    a. Aesthetics: Squared.
    b. Color: Color matched.
    c. Location: Internal/external.
    d. Material: Dual durometer.
4. Handle:
    a. Placement: Bottom.
    b. Style: Contour, extruded, lift rail.
5. Meeting Rails: Overlapping, interlocking.
6. Operation: Tilt in/lift out.
7. Sash Hardware – Air Latch:
    a. Color: [White] [Tan].
    b. Quantity: [1] [2].
    c. Type: "Air Lok".

I. Hardware:
1. Balance System: 1/2-inch stainless steel, constant-force coil spring.
2. Locking System:
    a. Type: Cam lock with adjustable keeper.
    b. Actuator: Recessed.
    c. Aesthetics: Square tiered.
    d. Lever: Straight.
    e. Material: Metal.
    f. Quantity: Dual.
3. Pivot System: Pivot alignment system.
4. Tilt Latches:
    a. Actuator Type: Recessed tab.
    b. Mounting: Flush mount.
5. Exposed Hardware Finish: [Match frame and sash color] [Brass].

J. Screen:
1. Frame: Roll formed.
2. Mesh: Fiberglass.
3. Size: Half.

Specifier Notes: Delete capillary tubes if not required.

K. Capillary tubes.

L. Installation Items:
1. Integral nailing fin.

M.   Jamb Extenders:
1.   Factory attached to vinyl windows.
2.   Wood: Finger-jointed, primed, clear pine.
3.   Cellular PVC: "Quick Trim", [white] [tan] ["Clearwood"].

PART 3   EXECUTION

3.1   EXAMINATION

A.   Examine openings, substrates, anchorage, and supports to receive vinyl windows.

B.   Examine abutting wall flashing, vapor retarders, weather barriers, and other components to ensure weathertight window installation.

C.   Verify rough opening dimensions, sill levelness, and operational clearances are acceptable.

D.   Notify Architect of conditions that would adversely affect installation or subsequent use.

E.   Do not begin installation until unacceptable conditions are corrected.

3.2   PREPARATION

A.   Prepare substrates in accordance with manufacturer's instructions.

B.   Clean substrates before window installation.

3.3   INSTALLATION

A.   Install vinyl windows in accordance with manufacturer's instructions at locations indicated on the Drawings.

B.   Install vinyl windows plumb, level, square, true to line, and without distortion.

C.   Anchor vinyl windows securely in place to supports.

D.   Verify vinyl windows are installed in proper relation to wall flashing and other abutting materials.

E.   Install vinyl windows weathertight.

F.   Verify vinyl windows open, close, and lock properly.

3.4   FIELD QUALITY CONTROL

A.   Test vinyl windows after installation to verify amount of air infiltration and water resistance in accordance with AAMA 502.
1.   Demonstrate compliance with the following:
   a.   Allowable Air Leakage Rate: 1.5 times applicable rate for product type and performance class in accordance with AAMA/WDMA/CSA 101/I.S. 2/A440.
   b.   Allowable Water Infiltration: None permitted.
2.   Remove and replace with new windows and retest, if installed windows do not meet these requirements.

3.5   ADJUSTING

A.   Adjust operating components to ensure a tight fit at contact points and weather stripping for smooth operation and weathertight closure.

B.   Replace damaged glass.

C.   Remove and replace with new material, damaged components that cannot be successfully repaired, as determined by Architect.

3.6   CLEANING

A.   Clean vinyl windows promptly after installation in accordance with manufacturer's instructions.

B.   Do not use harsh cleaning materials or methods that could damage windows.

3.7   PROTECTION

A.   Protect installed vinyl windows to ensure that, except for normal weathering on exterior surfaces, windows will be without damage or deterioration at time of Substantial Completion.

END OF SECTION