

Parklex USA, Inc.
200 River Park North Drive
Woodstock, GA 30188
Phone: 678-401-7403
Fax: 678-402-1459
E-mail: usa@parklex.com
Website: http://www.parklex.com

January 2019

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*.

The 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 when editing this section.

Brackets indicate options in text to be filled in or deleted by the author; they should NOT be visible in final document.

Section numbers and titles are from *MasterFormat* 2016 Edition.

SECTION 07 42 43.11

WOOD VENEER LAMINATE WALL PANELS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Wood veneer laminate panels.

Select appropriate sub-framing system(s)

- B. Metal furring [and sub-framing]
- OR -
B. Wood furring.
C. Accessories

1.02 RELATED REQUIREMENTS

Edit the following list of related sections as required for the project. List other sections with work directly related to this Section.

- A. Section 05 40 00 – Cold-Formed Metal Framing
B. Section 06 10 00 – Rough Carpentry: Wall sheathing[and furring]
B. Section 07 25 00 – Air and Vapor Retarders
C. Section 07 42 43.13 – Wood Veneer Laminate Wall Slats (Siding) & Louvers
D. Section 07 62 00 – Sheet Metal Flashing and Trim.
E. Section 07 92 00 – Joint Sealants.

F. Section [_____ - _____]

1.03 REFERENCE STANDARDS

This article does not require strict compliance with standards, but is merely a listing of those used within this Section.

- A. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials; 2015a
- B. AWPA U1 – Use Category System: User specification for Treated Wood; 2012
- C. EN 438-7 – High-Pressure Decorative Laminates (HPL); 2005
- D. ICC-ES – ESR-3462, Parklex Façade F Wall Panel Cladding System; 2017

1.04 ADMINISTRATIVE REQUIREMENTS

Verify to correct Division 01 Section reference.

- A. See Section 01 30 00 – Administrative Requirements for pre-installation meeting requirements.
- B. Pre-Installation Conference: Convene conference 1 week before starting work to establish procedures to maintain optimum working conditions and to coordinate work with related and adjacent work.

1.05 SUBMITTALS

- A. See Section 01 30 00 – Administrative Requirements for submittal procedures.
- OR -
- A. See Section 01 33 00 – Submittal Procedures for additional requirements.
- B. Product Data: Submit manufacturer's product data, including sub-framing system and accessories.
- C. Shop Drawings: Show sub-framing spacing and member type, panel layout, fastener spacing, flashing locations, corner and transition details[, _____].
- D. Samples: Submit three [____], [8.5 by 11] [3 by 7] [__ by __] inch ([215 by 280] [76 by 178] [__ by __] mm samples of each finish/color of wall panels.
- E. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- F. Installation Instructions: Manufacturer's written instructions including surface preparation and installation procedures.

1.06 QUALITY ASSURANCE

- A. Fire resistant panel or slat products, Façade F, shall be stamped with manufacturer's name, address, product name, thickness, color, batch number and evaluation report number (ESR-3462).

1.07 MOCK-UP

- A. See Section 01 40 00 – Quality Requirements for additional requirements.
- B. Construct system mock-up panel sized [] feet long by [] feet high; include [sub-framing] [water-resistant membrane] [air barrier] [insulation] [vapor barrier] [back-up wall assembly] []; include [outside corner] [inside corner] [door] [window] opening, transition to adjacent materials.
- C. Locate [where directed] [as shown on Drawings] [].
- D. Mock-up [may] [may not] remain as part of the Work.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Transportation:
 - 1. Transport panels horizontally and strapped down to avoid sliding across one another.
 - 2. Protect edges and corners.
 - 3. Maintain in original protective packaging until use.
- B. Storage:
 - 1. Store panels horizontally with supports no more than 31-1/2 (80 mm) inches apart.
 - 2. Store panels in clean dry location protected from rain and sun within manufacturer's recommended temperature and humidity range.
- C. Handling:
 - 1. Wear protective gloves when handling.
 - 2. Follow manufacturer's recommendation for dust collection and removal.

1.09 WARRANTY

- A. See Section 01 78 00 – Closeout Submittals for additional warranty requirements.

10-year warranty applies to panels installed within 10 degrees of vertical plane. See Parklex's literature for additional information on reduced warranty period.

- B. Provide manufacturer's standard 10-year warranty covering structural stability, color and finish retention.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Parklex USA, Inc.; 212 River Park North Drive, Woodstock, GA 30188; telephone: 678-401-7403; website: <http://www.parklex.com>
- B. Substitutions: Not allowed [See Section 01 60 00 – Product Requirements].

Use this article to describe a system or assembly made up of multiple product arrangements which are described below. Include in this article only descriptions of characteristics that apply to the system as a whole.

This part of the specification should describe the products beginning with the largest system or assembly covered by the Section, followed by increasingly smaller components, ending with the basic or raw materials.

2.02 APPLICATIONS

- A. System[; Type – 1] [; Type – []]:
1. Description: [Exposed fastened system] [Hidden fixing bracket system] [_____] [See Drawings for wall assembly and panel detailing]
 2. Panel Type: [Parklex Façade S (standard)] [Parklex Façade F (fireproof)]
 3. Fastening System: [Screws] [Rivets]
 4. Finish: [_____]

2.03 MATERIALS

- A. Panels: High Pressure Compact Laminate, composing of wood veneer and paper fibers treated with thermosetting resins, designed for flush assembly.
1. Size: 48 by 96 inches (1220 by 2440 mm)
 2. Thickness: [6 mm] [8 mm] [10 mm] [12 mm] [14 mm] [18 mm] [20 mm] [22 mm].
 3. Edge: Square

See Parklex literature for limitations of panel thickness and bending radii. Clarification to Technical Guide: Allowable radii shown are in feet not inches.

If needed set up a table to identify different panel types and radii.

4. Long Grain Bending Radius: [As shown on Drawings] [_____] feet ([_____] m)
 5. Pre-Curved Panel Radius: [13] [19-5/8] [39-3/8] [78-3/4] [157-1/2] inches ([0.33] [0.5] [1.0] [2.0] [4.0] m)
- B. Soffit Panels: High Pressure Compact Laminate, composing of wood veneer and paper fibers treated with thermosetting resins, designed for flush assembly.
1. Slat Type: [Parklex Façade S (standard)] [Parklex Façade F (fireproof)]
 2. Size: 48 by 96 inches (1220 by 2440 mm)
 3. Thickness: [8 mm] [10 mm] [12 mm].
 4. Edge: Square
 5. Mounting Method: [Exposed] [Hidden fixing with bracket hanging system].
 6. Finish: [_____]
- C. Properties; EN438-7, and ICC ESR-3462:
1. Dimensional Stability: 0.3 percent cumulative dimensional change
 2. Maximum Height of Impact with No Visible Signs of Cracking: $\geq 1,800$ mm
 3. Tensile Strength (Long Grain): ≥ 60 MPa
 4. Flexural Strength:
 - a. Long Grain: ≥ 80 MPa
 - b. Cross Grain: ≥ 80 MPa
 5. Thermal Resistance:

- a. Façade S: 0.266 k
- b. Façade F: 0.220 k
6. UV Resistance:
 - a. Contrast, Gray Scale Rating: ≥ 3
 - b. Aspect Rating: ≥ 4
7. Artificial Weathering Resistance:
 - a. Contrast, Gray Scale Rating: ≥ 3
 - b. Appearance Rating: ≥ 4
8. Water Vapor Permeability:
 - a. Wet Cup Method: 100 μ
 - b. Dry Cup Method: 250 μ
9. Density: ≥ 1.35 g/cm³
10. Water Absorption:
 - a. Façade S: ≤ 5 percent
 - b. Façade F: ≤ 8 percent
11. Fire Resistance ≥ 6 mm thickness:
 - a. Façade S: C-s2, d0
 - b. Façade F: B-s2, d0; ICC-ESR, ASTM E84: Class A, NFPA 285 (Exposed fastener system)

Modify to fit specific wall/soffit assembly types

2.04 ACCESSORIES

A. Sub-framing System:

1. Wood Furring: Pressure treated 2-by southern yellow pine, Southern Pine Inspection Bureau, No. [2] [] grade or better; width and depth as shown on Drawings.
 - a. Treatment to conform to AWPA U1, Use Category UC3B.

Use stainless steel or aluminum in highly corrosive or marine environments

2. Metal Furring: [16] [] gage ([1.59] [] mm) [galvanized] [stainless] steel; Depth [7/8] [1-1/2] inch ([22] [38] mm) hat channel
3. Metal Furring: [16] [] gage ([1.59] [] mm) [galvanized] [stainless] steel; Depth [1] [1-1/2] [2] inch ([25] [38] [58] mm) Zee channel

Hidden bracket system can only be used on 8, 10 or 12 mm thick panels.

4. Hidden Bracket System: Extruded aluminum rails, fixing brackets, and fasteners as supplied by Parklex.

Hidden adhesive bracket system can only be used on panels that are 8, 10 or 12 mm thick, and recommended system may change without notice. Consult Parklex for current system details and limitations.

5. Hidden Adhesive Furring System: Metal furring with double-sided adhesive tape or applied adhesive as supplied by Parklex.

B. Exposed Fasteners:

1. Counter sinking fasteners are not allowed for attachment of panels
 2. Wood Screws: TWD-S-D12 with Torx head
 3. Metal Screws: SX3-L12 with Irius head
 4. Aluminum Rivets: AP16 or SSO-D15 based on Parklex's recommendation
- C. Concealed Fasteners: As recommended by Parklex for attachment system.

Recommended to include the following when wood furring or sub-framing is used

- D. PVC joints or closed-cell polyethylene foam.

Plugs can only be used on panels that are 10 or 12 mm thick

- E. Plugs: Matching veneer lumber unless otherwise indicated, 3/16 inch (14.3 mm) diameter.
1. Use Parklex supplied drill bits for pre-drilling.
- F. Sealant: Silicone type as specified under Section 07 92 00 – Joint Sealants.
- G. Ventilation: Molded plastic or woven polyethylene designed for provide air flow behind panels but restrict insect entering air space.
1. Product: Cor-A-Vent SV-5 by Cor-A-Vent or equal.

2.05 FINISHES

- A. Exterior Panel Finishes: [Onix] [Copper] [Antra] [Quartz] [Silver] [Gold] [Bronze] [Ambar] [Rubi] [_____]
- B. Interior Panel Finishes: [Onix] [Copper] [Antra] [Quartz] [Silver] [Gold] [Bronze] [Graphite] [Ambar] [Rubi] [Museum Ash] [Olivier Ash] [Cherry] [Natural Oak] [American Oak] [Reconstituted Oak] [Reconstituted Golden Oak] [Country Oak] [Smoked Grey Oak] [Rustic Oak] [Sand Oak] [Natural Beech] [Carmel Bamboo] [Walnut] [Natural Zebrano] [Golden Ayous] [Natural Ayous] [Sapelli] [Eucalyptus] [Teak] [Maple] [Wenge] [_____]

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine substrate and framing members for alignment
- B. Notify Architect of conditions that would adversely affect installation.
- C. Do not begin surface preparation or installation until unacceptable conditions are corrected.
- D. Ensure that weather barrier is properly installed and undamaged.

3.02 PREPARATION

- A. Securely install wall furring system plumb and square, and correctly spaced to accommodate panel or slat system.

3.03 INSTALLATION

- A. Install panels in strict compliance with manufacturer's written instructions.
 - 1. Comply with ICC-ESR-3462 where Class A fire resistance is required.
- B. Use recommended cutting tools, equipment, and procedures.
- C. Provide a minimum of 1/4 inch (6 mm) expansion at panel edges.
 - 1. Do not seal joints.
- D. Follow shop drawings for sub-framing support, and fastener location and spacing.
- E. Provide 3/4 inch (19 mm) clear air gap behind panels[and install vent strips at top and bottom of wall as detailed].

Use when wood furring or sub-framing is used.

- F. Install PVC or polyethylene foam over exposed wood surfaces supporting panels.

Retain selected installation method(s) below.

3.04 EXPOSED FASTENER SYSTEMS

- A. Ensure that mounting points are larger than fastener shank diameter as noted below, except for fixed, center-most fastener from which expansion and contraction occurs.
 - 1. Screws: 1/8 inch (3.2 mm)
 - 2. Rivets: 1/7 inch (3.6 mm)
- B. Center fasteners within floating mounting points.
- C. Fastener heads to be parallel with panel surface.
- D. Components description: The exposed fastening system panels must be connected to the substructure vertical J-channels and Hat-channels using SX3 No.14-11, stainless steel (Austenitic stainless steel A2 n°1.4567, AISI 304) self-drilling screws

The substructure includes 0.115" channel, including J- channel with a nominal width of 2.94" and depth of 1 inch and a Hat channels with nominal width of 4.25" and depth of 1". Extrusions- Made of 6063-t5 or t6 alloy aluminum. The J and Hat channels could be fixed over L profiles if deeper chamber is required. This substructure should be black coated.

Use if plugs are desired. Plugs can only be used on 10 or 12 mm thick panels.

- D. Carefully set plugs with sealant.

Hidden bracket system can only be used on 8, 10 or 12 mm thick panels.

3.05 HIDDEN BRACKET FIXING SYSTEM

- A. Ensure that sub-framing (furring) is not spaced greater than 49 inches (1246 mm) apart, and is set plumb and level.
- B. Install carrier rails to vertical sub-framing members spaced at 23-5/8 inches (600 mm) maximum per manufacturer's instructions; and according to approved shop drawing.

- C. Install fixing brackets to panels in accordance with manufacturer instructions, shop drawings and selected fastener method.
- D. Set panels to established end gap width, as show on [Drawings] [approved shop drawings].
- E. Adjust horizontal alignment between panels, and set fixing screw.
- F. Do not exceed recommended cantilever of horizontal carrier rails, 4-3/4 inch (126 mm) maximum, without reinforcing.
- G. Component description: The aluminium hangers must be fastened to the backs of concealed fastening system panels using two TB-A2 TX30 (stainless steel A2, AISI 304) fasteners per hanger.
The aluminium hanging rails and the aluminium hangers are extrusions made of 6063H T5, that should be black coated.
These hanging rails can be fixed over J and Hat channels with the properties stated above.

Adhesive mounting can only be used on 8, 10, or 12 mm thick panels.

3.07 ADHESIVE FIXING SYSTEM

- A. Install hidden adhesive furring securely, plumb and level to sub-framing and as recommended by manufacturer.
- B. Maximum Adhesive Furring Spacing:
 - 1.

<u>Panel Thickness:</u>	<u>Max. Horizontal Spacing:</u>
8 mm	15-3/4 inches (400 mm)
10 and 12 mm	23-5/8 inches (600 mm)
- C. Install manufacturer's recommended setting clamps at 8 to 12 inches (200 to 305 mm) on center and for no less than minimum required time.

3.07 SOFFIT AND DROPPED CEILINGS

- A. Install ceiling of soffit panels using [exposed fastener] [exposed fastener with plugs] [hidden bracket fixing] system described above.
- B. Maximum Furring Spacing:
 - 1.

<u>Panel Thickness:</u>	<u>Max. Horizontal Spacing:</u>
8* or 10 mm	23-5/8 inches (600 mm)
12 mm	31-1/2 inches (800 mm)

* 8 mm not permissible for exposed fasteners with plugs

3.08 INSTALLATION OF CURVED PANELS

- A. Install curved panels using exposed fastening system (screws or rivets).

Clarification to Technical Guide: Allowable radii shown are in feet not inches

- B. Adjust distance between vertical profiles and fixing points per manufacturer's instructions, or as shown on shop drawings.

3.09 CLEANING

- A. Clean stains and excess adhesive from panels following manufacturer's instructions.
 - 1. Do NOT use abrasive cleaning cloths or sponges, or harsh solvents such as acetone, ethyl acetate or MEK (Methyl Ethyl Keytone) on any surface to clean panels.

Exterior use panels have protective film that MUST be removed.

- B. Completely remove protective film from panels immediately after installation

3.10 PROTECTION

- A. Protect panels from damage by placing thick cardboard corners at building corners, and lining passageways and walls adjacent to material handling routes with protective pads or sheet goods.

Because Parklex is made with real wood veneer each panel or slat will be unique in grain and color; batch matching is not possible.

- B. If a panels or slats are damaged during construction or correction period, contact Parklex for instructions to send portion of damaged material to Parklex for replacement closely matching existing.

END OF SECTION