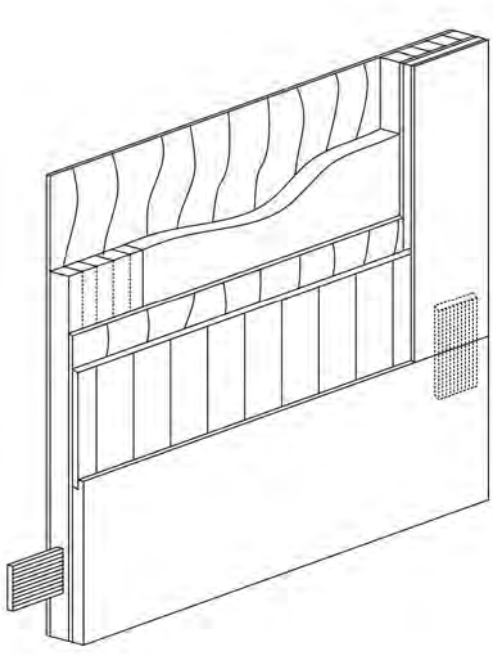
Construction Options

1. Thermal Flush Engineered Construction

Stilewood's Thermal Flush Engineered Construction method is recommended:

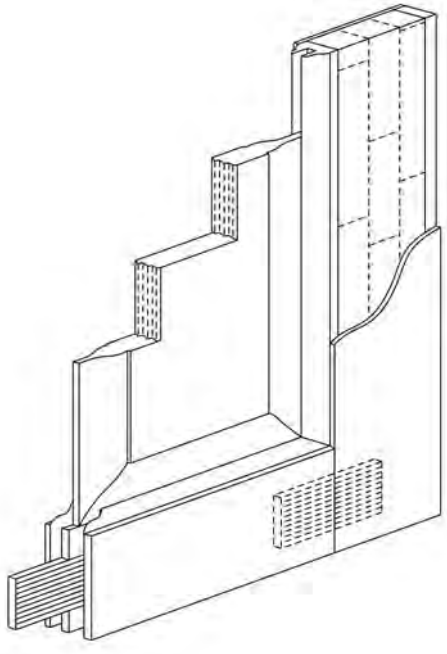
- When an insulated door unit is requested
- In order to accommodate certain design/engineering requirements
- In order to accommodate oversize door units



2. Engineered Stile and Rail Construction

Stilewood's Engineered Stile and Construction method is recommended:

- When the design is required to be viewed from both the inside and the outside of the door system
- When glazing is to be incorporated within the operating door system
- In order to accommodate certain design/engineering requirements



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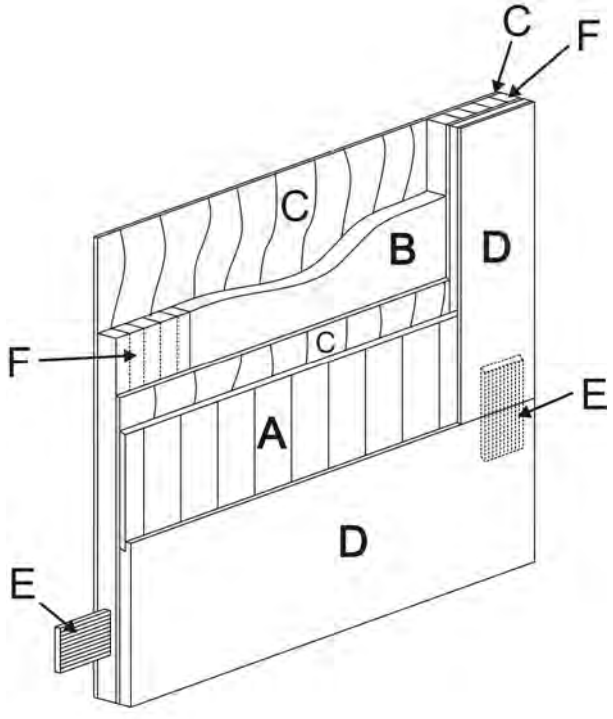
Thermal Flush Engineered Construction

Stilewood's Thermal Flush Engineered Construction method is recommended:

- When an insulated door unit is requested
- In order to accommodate certain design/engineering requirements
- In order to accommodate oversize door units

Following is a diagram and description of Stilewood's exclusive engineering technologies that make up the Thermal Flush Engineered Construction method:



a. Panel Surface Materials

Solid wood panels are milled from special select materials. Stilewood's exclusive panel profiles provide the depth and shadow lines necessary in attaining architectural richness.

Panel surface materials are fully laminated to the engineered membrane (c) and the exterior stiles and rails (d) with Type #1 water resistant adhesive, ensuring a strong and confident frame. This procedure allows us to restrict lumber from excessive movement and is necessary to minimize panel cupping, warping, splitting and shrinking. Particular care and attention is given to the matching of colour and grain when processing panels.

b. Polystyrene Insulation

1" thick Polystyrene insulation is custom fit in between the inner core (f). The Polystyrene insulation used in an inert closed cell product which provides excellent resistance to freezing and thawing, moisture absorption and will never rot nor support mold. The Polystyrene insulation contains ordinary air, not refrigerant gases.

As the R-Value increases, the temperature decreases and the highest thermal effectiveness is attained when low temperatures are present, thus protecting the contents within your garage at all times. In addition, the Polystyrene insulation ensures that the doors are quiet and provide a sound barrier to the rest of the home.

c. Exterior Grade Plywood Membrane

The exterior grade plywood is designed to be an internal membrane, sandwiching the solid lumber internal substrate core (a) coupled with the Polystyrene insulation (b). All components are adhered with Type #1 water resistant adhesive.

By applying the adhesive to both sides of the frame, a balanced structure is created, ensuring that the internal substrate stays flat and level to the plywood membrane.

d. Exterior Stiles and Rails

Solid wood faces are manufactured from special select material and then adhered to the engineered membrane (c). Each piece of solid wood is inspected for fiber character and selectively chosen for use. Particular care and attention is given to the matching of colour and grain when processing stiles and rails. Stiles and rails are then laminated to the engineered membrane (c) with Type #1 water resistant adhesive.

This process provides long lasting resistance to splitting, warping and shrinking. The result is a superior component engineered and manufactured for structural stability and fiber clarity.

e. Fluted Tenon

All garage door frames are built standard with Stilewood's exclusive "Fluted Tenon" technology. This unique technology joins the stiles and rails together with fluted tenons. The tenon is made up of many grooves (called "flutes") on either side, increasing the glue spread area by 200% and assuring the best possible bond. The increased glue spread results in the even distribution of glue within the flutes of the tenon and is proven to eliminate stile and rail separation on the interior core of the door.

As the use of Type #1 adhesive is responsible for bonding the stiles and rails together, the fluted tenons provide many channels (flutes) for the adhesive to rest into, until properly cured. This assures the best possible bond and a tighter and stronger door.

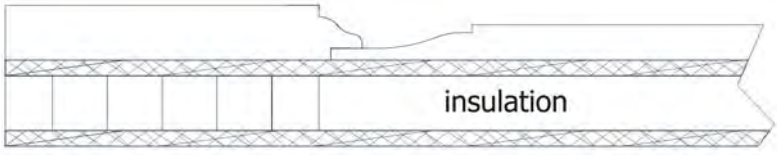
f. Solid Lumber Engineered Core

Internal substrate: stiles, rails and mullions are constructed by developing a solid lumber inner core. We select suitable dried material which is ripped, chopped and re-glued back together. This procedure allows us to de-stress the lumber and selectively alternate the grain patterns. Once re-glued, our substrate is much stronger and more stable than one piece of wood itself.

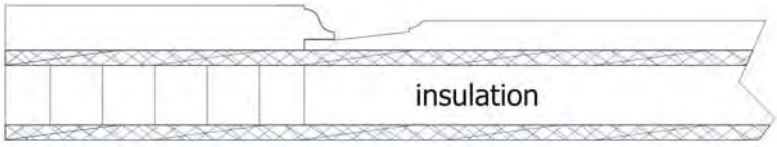
The result is a superior, sound and stable component; the best choice for long lasting resistance to warping, splitting and cupping.

Thermal Flush Engineered Construction

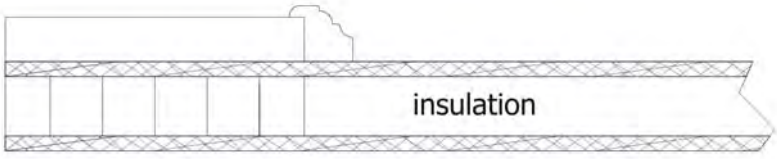
Panel Profile Options



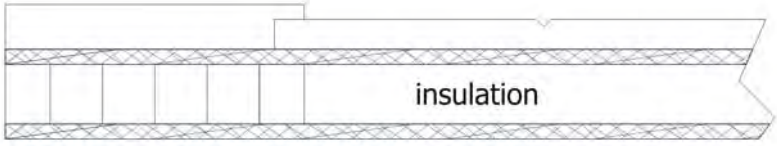
Western profile



Ogee profile



Raised Moulding



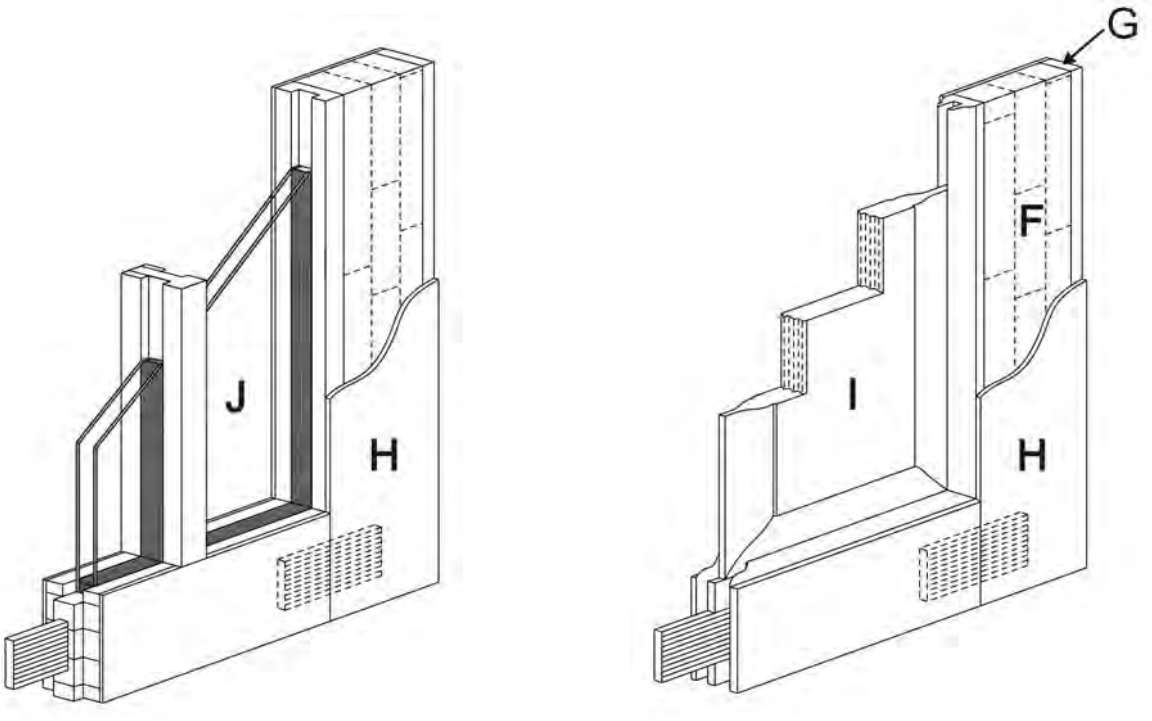
Shaker profile

Engineered Stile and Rail Construction

Stilewood's Engineered Stile and Construction method is recommended:

- When the design is required to be viewed from both the inside and the outside of the door system
- When glazing is to be incorporated within the operating door system
- In order to accommodate certain design/engineering requirements

Following is a diagram and description of Stilewood's exclusive engineering technologies that make up the Engineered Stile and Rail Construction method.



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2 ¼" Engineered Stiles and Rails
Components: stiles, rails and mullions are constructed by developing a solid lumber core consisting of inner jointed and edge glued material.

f. Solid Lumber Engineered Core
Internal substrate: stiles, rails and mullions are constructed by developing a solid lumber inner core. We select suitable dried material which is ripped, chopped and re-glued back together. This procedure allows us to de-stress the lumber and selectively alternate the grain patterns. Once re-glued, our substrate is much stronger and more stable than one piece of wood itself.

g. Solid Edge-Bands
Each solid edge-band that is part of the engineered stiles and rails is graded for fiber texture and clarity. The solid edge-bands are then adhered to the substrate. This process enhances machinability, resulting in crisp machining of the profile bead.

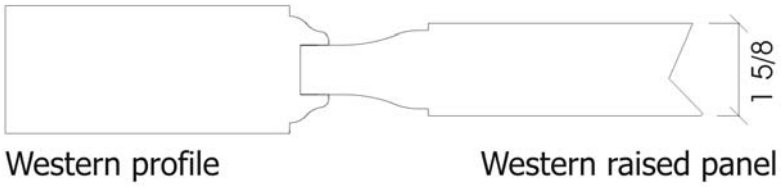
h. Extra Thick Veneers
Extra thick veneers are sliced from special select grain material, and then adhered to the substrate using Type I adhesive. Special care and attention is given to the matching of colour, wood grain and texture, assuring aesthetic appeal and consistency throughout the entire door. Stilewood's choice of fiber quality and clarity is always consistent and the result is a superior component engineered and manufactured for structural stability and fiber clarity.

i. Panels
Solid wood panels are shaped from selected materials. Exclusive use of full thickness panels provides the depth and shadow lines necessary for architectural richness. Matched panel segments are bonded together using a special serrated edge process. This complete "Panel Smart" process is necessary for preventing line failure and for providing long lasting resistance to splitting, warping, panel cupping and shrinkage. Particular care and attention is given to the matching of color and grain when processing panels.

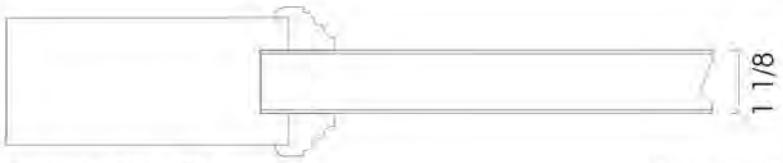
j. 5/8" Sealed Glass Unit
Stilewood uses only tempered, insulated glass units. Each features two pieces of tempered glass that are sealed together with a champagne colour spacer bar in between.

Engineered Stile and Rail Construction

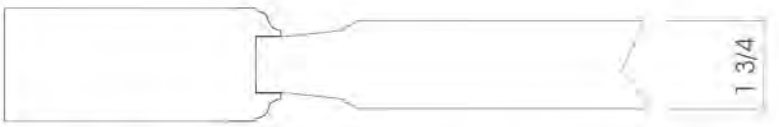
Raised Panel Options



Western profile — Western raised panel



Raised Moulding — Flat panel



Ogee profile — Standard raised panel

Shaker profile — Flat V-Plank panel

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