

BLENDING DESIGN & SUSTAINABILITY USING MDF DOORS

Presented by:



By Parker A. Grant, PhD.

WHY MDF? WHAT IS MDF?

When designing commercial and residential buildings, doors are often the neglected middle children—those that come after the architect's scope and before the interior designer's scope. Doors aren't normally custom designed because they are seen as too expensive. Enter MDF (Medium Density Fiberboard) as an affordable, durable, and desirable alternative for custom-built doors. MDF is an engineered wood product, manufactured with refined wood fiber, resins, and waxes to produce a solid, hard, and machinable product. MDF doors open up a new world of opportunities

for beautiful door designs. In this era of increasing emphasis on environmentally friendly products, you can now blend design and sustainability by using MDF doors.

This beautiful isotropic product has no grain, so it has no tendency to split, and is more resistant to warping, splitting or cracking, which is not typically the case with traditional woods such as Poplar or Pine. MDF machines well, and takes paint beautifully, allowing for a consistent smooth finish. This double refined wood fiber product contains a minimum of 86% recycled content, making it an exceptionally "green" product.

LEARNING OBJECTIVES

Upon completion of this course the student will be able to:

1. Identify the key components, primary construction methods, and benefits of a Medium Density Fiberboard (MDF) door.
2. Distinguish the various design options for MDF doors and how they apply in the market.
3. Describe the environmental, sustainability, and safety components of MDF doors.
4. Identify future trends that will impact the door industry.

CONTINUING EDUCATION

AIA CREDIT: 1 LU
AIA COURSE NUMBER: ARSEP2016.1

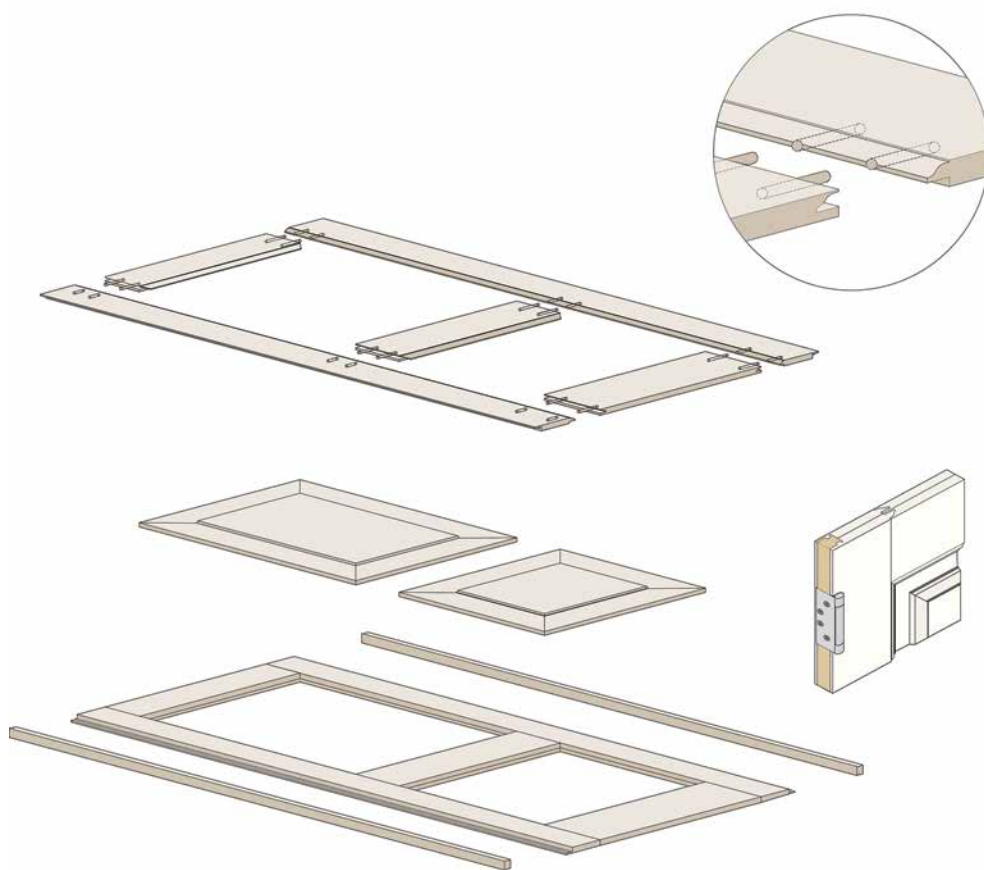


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MDF DOOR MANUFACTURING PROCESS—CONSTRUCTION OVERVIEW

So as to have the most flexibility in the design process of doors, as well as the ability to create the most architecturally correct doors, it is helpful to have an understanding of the three basic methods of construction of MDF doors. Let's review those methods, which are:

- Traditional Stile and Rail Doors
- Routed Doors
- Continuous Lamination Method of Stile and Rail Doors



In the continuous lamination method the stiles and rails of each half are joined using a cope and stick method, and a wood edge channel is grooved into the face of each half door to accept the wood edge.

Traditional Stile and Rail Doors

MDF doors may be manufactured using the traditional stile and rail method, whereby the stiles and rails are coped and stuck, and then clamped together around the panels to create the door. This allows for an architecturally correct door, but may at times compromise the amount of options, or add cost to customized options.

Routed Doors

Using this method, a slab of 1-3/4" or 1-3/8" thick MDF is cut to the size of the door, for example a 3'0" x 7'0" size, and the panel profile is routed into each face of the door in the configuration desired. This method creates only a full thickness panel, and does NOT allow for an architecturally correct panel, whereby the level of the panel sits below the level of the stiles and rails.

Continuous Lamination Method

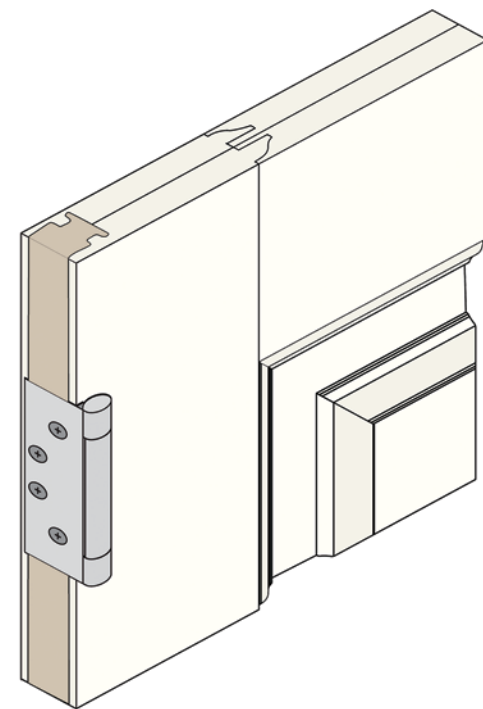
Using this method, the door is manufactured in two halves. The stiles and rails of each half are joined using a cope and stick method, and

a wood edge channel is grooved into the face of each half door to accept the wood edge. A Poplar wood edge is then inserted into the edge channel, and the two door halves are face laminated together over the Poplar wood edges to form a solid engineered door. These keyed-in poplar wood edges run the full length of the stiles, and add stability, durability, and screw holding strength. In the case of a pocket door or barn door, this keyed wood edge is inserted into the top rail as well to add screw holding strength.

Using the continuous lamination method of construction, one is able to customize the size the size of the door and width of stiles and rails for little or no upcharge. Designers can be creative by adding custom size glass, mirrors or applied moldings to enhance the beauty of their door design, as well as the where the doors are being installed.

FEATURES, FLEXIBILITY AND CUSTOMIZATION

Given the superior stability, paintability, and machinability of MDF doors, this sustainable



Keyed-in poplar wood edges run the full length of the stiles, and add stability, durability, and screw holding strength.

product offers the perfect medium to manufacture better quality and more economical paint grade doors than what the industry has traditionally experienced. Let's now identify some other benefits of using MDF doors.

Customizable Designs

Door designs are no longer dull. Architects, general contractors, and building owners now have the opportunity to customize stile, rail, and panel configurations, thereby creating a distinctive, one-of-a-kind door design that is engineered and manufactured to meet the highest quality standards.

Creating your own design can make your project truly one of a kind. You can make any door a feature, rather than just a function. Doors can be a highlight instead of a transition between rooms. Because of this, it is important to be able to distinguish the various design options for MDF doors and how they apply in the market. Let's begin by looking at a few design features.

MDF doors allow you the option to customize the width of your stiles and rails to meet special machining requirements to accommodate unique and unusual hardware you might specify. The same option is available



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for barn door or pocket door applications where unequal width stiles are called for to create a symmetrical design.

Check with your manufacturer to find out how you can customize the design and layout of your MDF door to meet your specifications. For instance, you could customize split designs, which would be ideal for mirrored closet doors or guest entry doors. You could also come up with various designs for glass and panel combinations or louver and panel combinations. Pocket sliders can even be customized with grooves, glass, and louvers.

Design Features

MDF doors are available with custom stile and rail dimensions, and therefore, customized panel layouts. This differentiates MDF doors from molded skin doors which have a fixed elevation and dimensions.

Standard Door Designs

MDF doors are available in many heights including 6'8", 7'0", and 8'0" and standard



Some MDF doors offer applications where each opening contains its own piece of glass creating an upscale custom look to the door.

widths between 1'0" and 4'0". Specialized sizing and layouts are available as many MDF doors are built to order. Door thicknesses are available in 1-3/8", 1-3/4", and 2-1/4". MDF wood panel doors may be fire-rated. Glass may be substituted for all MDF wood panels.

Increasing the height of a door even a couple of inches can make a remarkable difference in how a door feels. 7'2", 7'3", 7'4", 7'6" tall doors are as standard as 6'8", 7'0", 8'0" tall doors and are available at standard pricing. Perfect for projects with limited ceiling heights, many upscale projects that don't have the ceiling heights for 8'0" tall doors are choosing 7'6" tall doors.

Standard Glass Door Designs

True Divided Lite (TDL) doors feature individual glass units divided by muntin bars. They offer a wide range of custom options to add natural light or a featured look for residential and commercial applications. Nearly any design can have one or more panels replaced with clear, frosted, or specialty glass.

Glass Sticking

Glass can be substituted for any panel and is available in multiple sticking profiles. Some MDF doors also offer applications where each opening contains its own piece of glass creating an upscale custom look to the door. The standard face dimension of muntin bars is 1/2" wide plus the sticking width. In certain cases, compression glazing is available.

Louver Doors

Louver doors are ideal for residential and commercial applications and are customizable in layout and sizing. Wider louver blades create a more upscale luxurious look. Choose from the many options of louver doors whether fully vented louvers or false louvers. Consider fully vented louver doors where ventilation is a priority or false louvers where design is a priority and ventilation is not a necessity. Some manufacturers will customize your panel layout, and stile and rail widths, whether you are choosing swinging louver doors, bypass louver doors, or pocket louver doors. Visit your manufacturer for technical information relating to louver blade sizes, air flow requirements and mirror insert options. Some manufacturers can adjust the size and angle of the louver blade in special cases to meet specific free air space requirements.

Glass Doors

Glass is a great complement to any door design, and for some MDF doors, any paneled design may be replaced with one or more pieces of clear, frosted, decorative or specialty glass. With many distinct glass options available, MDF glass doors are a perfect option for residential projects looking to add natural light or a featured look to a living space, as well as a great option for commercial projects in need of transparency or added light. Aside from glass paneled doors, some manufacturers also offer a robust lineup of TDL and SDL (Simulated Divided Lite) designs to satisfy a variety of applications. Depending on the manufacturer, you can freely customize or tweak any design to meet your technical specifications.

One of the most popular options—acid etched frosted glass—is of the highest quality available and creates the perfect translucency for residential and hospitality projects. Alternatively, white laminated glass is also a viable option for an even more opaque look.



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Mirrored Glass

MDF doors are also available with mirrored glass. Any design can have mirrors applied to it, and depending on the manufacturer, MDF doors may have a different design on each side of the door. The “split” designs are perfect for hotels looking to have a full-length mirror within the guest room without having to place the mirror on the wall. Additionally, this option has worked well within upper-end single-family homes, where a full-length mirror in a master closet or master bath is often desired. Mirrors are fixed with adhesive, unless otherwise specified, and can be applied to one or both sides of the door; they may be field applied if desired. Glass is available in 1/8" and 1/4" thickness.

QUIZ

1. True or False: MDF is an isotropic product that has no grain, so it has no tendency to split, and is more resistant to warping, splitting or cracking.
2. In which of the 3 methods of MDF door construction is the door manufactured in two halves?
 - a. Traditional style and rail
 - b. Routed
 - c. Continuous lamination
3. True or False: MDF doors allow you the option to customize the width of your stiles and rails to meet special machining requirements to accommodate unique hardware.
4. True or False: Simulated Divided Lite (SDL) doors feature individual glass units divided by muntin bars.
5. Which of the following is a commercial application for MDF doors?
 - a. Hotels and resorts
 - b. Student housing
 - c. Assisted living
 - d. Worship facilities
 - e. All of the above
6. True or False: Typically when MDF doors are installed, a pre-drill technique is used on the hardwood edge, as failure to pre-drill will split the MDF and/or crown the face.
7. True or False: An MDF door cannot be patched, repaired, painted, re-painted, or faux finished using traditional hardwood or paint grade materials.
8. Which of the following can help MDF doors earn LEED points?
 - a. Minimum 86% recycled content
 - b. Low-VOC adhesives and primers
 - c. No Added Urea Formaldehyde material
 - d. Forest Stewardship Council Material
 - e. All of the above
9. True or False: Fire-rated MDF doors look exactly like a non-rated door.
10. True or False: MDF doors can achieve strong STC ratings from STC 32 to STC 38 and in certain cases up to STC 45.

Pocket

Some MDF doors offer optional LVL (laminated veneer lumber) stile components in pocket door applications. This ensures rigidity and straightness of stiles, to ensure no warping in pocket door applications.



This article continues on <http://go.hw.net/AR916Course1>.
Go online to read the rest of the article and complete the corresponding quiz for credit.

SPONSOR INFORMATION



Celebrating 60 years in 2016, VT Industries, Inc. is an industry leading manufacturer of architectural wood doors. With three stunning architectural wood door collections—Heritage, Artistry, and SUPA, VT's wood doors set the bar for quality, design, and environmental friendliness. Add world-class customer service and you have a complete solution for any of your project's openings.



Residential and commercial applications include private homes, hotels and resorts, assisted living, worship facilities, student housing and historic renovations.

RESIDENTIAL AND COMMERCIAL APPLICATIONS INCLUDING PRIVATE HOMES, HOTELS & RESORTS, ASSISTED LIVING, WORSHIP FACILITIES, STUDENT HOUSING AND HISTORIC RENOVATIONS

Let's look at how MDF doors are applied in the commercial market. They include:

- Hotel bathroom slider doors
- Egress doors
- Office doors
- Hotel meeting rooms
- Fire-rated glass doors dividing commercial space
- Historic preservation

Here are some ways MDF doors are applied in the residential market:

- Dining room divider doors
- Bedroom doors to increase light
- Barn sliders or pocket doors
- Mirrored master closet doors

PREPARATION PRECAUTIONS, PRIMING AND PREFINISH

Precaution...The Importance of Pre-drilling

Typically when MDF doors are installed, a pre-drill technique is used on the hardwood edge for best installation practice. Therefore,

common practice is to pre-drill a pilot hole before inserting a screw into hardwood. Preferably single thread parallel core screws are recommended for use with MDF doors (including wood edge doors).

Pocket doors, barn doors, or sliders are supplied with top wood edges when specified and should also be predrilled to install any top mounted hardware. These doors do not include a bottom edge where the grooves for slider tracks are cut. Some hinge-machined doors are predrilled upon request, as part of a standard machining procedure.

Further onsite installations of hardware will require, as a must, the carpenter or installer to pre-drill any MDF section which will take the hardware. Failure to pre-drill will split the MDF and/or crown the face.

It is imperative that you pre-drill pilot holes and do not over tighten screws. MDF is a fiberboard and if not pre-drilled, the fibers stretch on either side of the screw hold, which is unsightly, but does not affect the integrity of the door. If this splitting occurs, fill with vinyl spackle. The pilot hole should be 90 to 95% of the screw core diameter. You should also make sure that the pilot hole is drilled approximately 1/8" deeper than the length of the screw being used.

Here are some examples of when pre-drilling should be used:

- Screws inserted to hold roller latches or ball latches on top of door stiles
- Screws inserted to hold bottom door closer hardware in standard doors or fire doors
- Screws inserted for installing edge faceplates for strike plates
- Face screws inserted for face closer hardware, knockers, or door stop hardware
- Screws inserted for overhead concealed closers and concealed stops

Priming and Pre-Finishing

MDF doors are often primed, ready to accept final coats of paint to the color of your choice. Water-based acrylic latex primers are intended for priming interior wood doors. Some doors come with two coats of this primer applied.

The primer will take a very wide range of topcoats including water and oil based paints. However, due to the inclusion of strong components on some solvent top coats, your painter should thoroughly test the door surface for adhesion prior to the finish application.

Some MDF door manufacturers can offer a premium, factory pre-finish, which was originally created to cater to the hospitality industry. Normally, finishes are water-based acrylic and are available in standard or custom colors, which can be precisely matched to your needs. MDF doors also offer several options on finishes including post-catalyzed and pre-catalyzed products to serve different industry applications. Please contact your manufacturer for more details about these options when specifying a pre-finish.

Preparing for Final Paint Coat

In the instance the door requires trim molding or glazing bead to be nailed on, some manufacturers apply a filler spackle to all nail hole inserts. This nail hole spackle may not be perfectly filled when the door arrives at your location, so your paint contractor should fill the nail holes prior to applying finish paint coats.

A manufacturer may not warrant that such nail holes will be perfectly filled and will not be responsible for any charges by the painter, contractor, or distributor to fill these nail holes.

Door edges and sticking, as well as bevels on panels, are sanded by the manufacturer. This provides a smooth finish prior to shipping. However, all surfaces including faces, edges, bevels and sticking may require further sanding by the contractor prior to painting final coats depending on your finish required.

Repairability

MDF doors are easily repairable, which adds to their performance. The MDF door can be patched, repaired, painted, re-painted, or faux finished using traditional hardwood or paint grade materials.

Flexible Manufacturing

Manufacturers provide flexibility by giving customers a wide array of design and layout options for MDF doors. With modern design software, manufacturers can communicate seamlessly with their customers about their design choices.

At a more detailed level, the MDF door manufacturing process is even flexible enough to machine for nearly all types of hardware. This includes:

- Standard hinges
- Special hinges (olive knuckle/concealed/pivot/double acting)
- Flush bolts, through bolts, ball catches

- Overhead concealed closers and overhead concealed stops
- Full range of cylinder, mortise and card reader locks
- Door bottoms
- Concealed vertical rods, panic devices, and electric raceways
- Bull nosed edges for double acting doors
- Light switch box on jambs
- Silencer holes on jambs

LIFE SAFETY & SUSTAINABILITY

Historically, fire ratings have limited what is possible with stile and rail wood doors. This is no longer the case. Whether it is a 20-minute fire-rated hotel door, 20-minute house-to-garage door, or a 60-minute fire-rated commercial door application, you can effectively create a safe and fire-rated MDF door for traditional, contemporary or historic designs.

With MDF, you never have to sacrifice style for fire door safety. Let's discuss the various fire ratings used in the industry, the construction of the fire core, and the different fire-rated doors available.

Fire-rated doors include 20-, 45-, 60-, and 90-minute ratings. 20-minute rated doors are common in the industry and they have a similar construction to non-rated doors. However, the construction methods for 45-, 60-, and 90-minute rated doors can vary.

Fire-rated glass doors are increasing in popularity and expanding rapidly because the limitations are decreasing. Depending on the rating, glass sizes can range from 100 square inches up to nearly 1,300 square inches. Consult your manufacturer for more details on what they offer.

Fire Core Construction

For fire-rated MDF doors, the construction method is to layer a fire core between the two door halves to make a fire-rated MDF door look exactly like a non-rated door.

MDF fire-rated doors can be manufactured with any profile and configuration in paint grade or stain grade. They feature traditional stile and rail construction perfectly matched to the manufacturer's non-rated doors. In addition, many doors remain at the standard 1-3/4" thickness even on 90-minute ratings. Fire-rated glass doors are also available.



Whether it is a 20-minute fire-rated hotel door, 20-minute house-to-garage door, or a 60-minute fire-rated commercial door application, you can effectively create a safe and fire-rated MDF door for traditional, contemporary, or historic designs.

Standard 20-Minute Fire-rated

Stile and rail, raised or flat panel 20-minute doors using the traditional method of manufacture are available in 1-3/4" or 2-1/4" thickness.

Standard 45-, 60-, 90-Minute Fire-rated

Stile and rail, raised or flat panel 45-, 60-, 90-minute rated doors are available in 1-3/4" or 2-1/4" thickness. The manufacturer laminates the fire-rated core between the MDF halves to achieve the exact match to any standard or custom designs.

90-Minute Fire-rated Frames

Some MDF doors offer up to 90-minute fire-rated frames in paint grade or stain grade veneers. 90-minute rated frames are able to be machined for many special requirements including hinges and overhead concealed door closers.

Fire-rated MDF Door Options

Check with your manufacturer as fire-rated MDF doors are now available with the following features:

- 20-minute, 45-minute, 60-minute, and 90-minute fire-rated doors in any design
- Designed to match a non-rated door at 1-3/4" or 2-1/4" thick
- Any size up to 9'0" tall
- Single and paired fire doors
- Raised panel or flat panel fire doors
- Paint grade or stain grade
- Pre-finished in any custom color
- Arched fire doors

- False non-venting louver fire doors
- STC rated fire doors
- Temperature rise fire doors
- Concealed overhead closer preps
- Glass fire doors over 100 sq. inch (and most available without a metal lite kit)
- Machining for hinges, lock body, mortise lock bodies, card reader, rim exit devices, etc.
- Electrified hinge prep
- Category A or Category B fire rating
- Approved with the City of New York (MEA Number)
- Fire-rated glass
- 20-minute through 90-minute wood fire-rated frames (paint grade or stain grade)

STC—Acoustics

Noise consistently ranks as one of the most common complaints hotels, condos, and other commercial properties face by guests, residents, and tenants. For this reason, STC (Sound Transmission Coefficient) ratings have quickly become a primary consideration when choosing doors for commercial, large-scale residential projects, and even now for private residences. Keeping STC ratings 32 and higher can keep normal speech from being understood.

MDF doors, being made from solid, double-refined MDF, have been extensively independently tested in a wide array of combinations to achieve strong STC ratings from STC 32 to STC 38 and in certain cases up to STC 45. In addition to doors, fire-rated wood jambs are also now certified up to STC 37. Some manufacturers have tested single and paired assemblies, from non-rated to 20- through 90-minute fire ratings, with multiple hardware configurations including concealed closers.

Environment and Sustainability

Consider sustainability when choosing an MDF door because some manufacturers use recycled and recovered wood fibers and resins that meet national standards for formaldehyde content.

In order to achieve green building objectives without compromising the quality or design of doors, it is important to get a closer look at the environmental and sustainability components of MDF doors.



The industry will continue to see doors becoming more of a true project "feature" rather than an afterthought.

Sustainability and LEED

Building sustainably is no longer even a question anymore for architects, designers, hotels, or building owners. It's a standard. Pre-consumer recycled wood fibers and low VOC adhesives and primers all contribute to sustainability.

Many MDF doors are made with a minimum of 86 percent recycled wood fiber, making it an ideal choice for all projects whether pursuing LEED status or not. Some MDF doors are made with low VOC (Volatile Organic Compound) adhesives and primers. Optional LEED credits can be achieved using No Added Urea Formaldehyde (NAUF) and/or Forest Stewardship Council (FSC®) Material.

Sustainability doesn't end with delivering materials to the job site. It also means not having to replace doors for the long haul. MDF doors will stand the test of time; some manufacturers even warranty it.

Formaldehyde

Formaldehyde is a colorless, reactive, strong-smelling gas at room temperature. It is one chemical in a large family of VOCs. Many doors meet national standards for formaldehyde content with less than 0.11 parts per million. Check with your manufacturer to find out if NAUF is available upon request.

CARB

The California Air Resources Board, also known as CARB, is the "clean air agency" in the government of California. All products containing composite wood products must comply with the regulation known as the "CARB Rule."

In 2007, CARB approved an Airborne Toxic Control Measure (ATCM), which aims at reducing formaldehyde emissions from composite wood products. To ensure compliance with the ATCM, panel manufacturers must be certified using a third party certifier (TPC) approved by CARB. This involves independent emission testing of panels and factory audit of the manufacturing processes for manufacturers that sell or supply products to California.

FSC® Certified Wood

FSC® certification ensures that products come from responsibly managed forests that provide environmental, social and economic benefits. Optional FSC® material may be available upon request from your manufacturer. The material can be specified and help qualify for LEED credit.

FUTURE TRENDS FOR DOOR INDUSTRY

The industry will continue to see doors becoming more of a true project "feature" rather than an afterthought. With the increase in mass customization efforts, more architects, designers, homeowners, and developers are realizing that choosing a door can be like choosing your cell phone cover case; a diverse range of options now lets you be as creative as you want to be.

The World Health Organization reports a 54 percent increase in urban population growth over the past 60 years and projects a continuation of this demographic trend. That means more people living in close proximity, so innovations and acoustic performance will continue to advance to help mitigate and alleviate the effects of noise pollution.

Aesthetically speaking, mixed materials and taller doors will gain momentum in the marketplace. Doors will blend wood, metal and glass, and perhaps other creative materials, to create striking, one-of-a-kind doors. Manufacturers predict that 8'0"-tall doors will become the new 7'0" door standard, and expect to see more 8'6"-, 9'0"-, and perhaps even 10'0"-tall doors in the future.

Fire ratings and life safety are both top-of-mind topics, so fire safety codes will continue to evolve, and you'll likely see additional security codes and mandates developing and becoming more mainstream and prevalent in the industry.

As technology continues to grow and change, so will the integration of technology into architectural openings. This integration will improve safety and creature comfort. Face-recognizing doors, self-opening doors, and doors that promote wireless connectivity throughout a building or home are just a few of the advances the industry can look forward to seeing in the near future.

SUMMARY

Doors are increasingly becoming features in the design of commercial and residential buildings. MDF doors in particular, offer an affordable, customizable, and durable alternative to traditional stile and rail wood doors. In order to select the right MDF door designs, you must have a good understanding of the various design options, key door components, construction methods, and environmental and safety factors. We hope you now have a better perspective of how to blend design and sustainability when using MDF doors. ■

CASE STUDIES

Many projects undertaken with the use of MDF doors have been very successful. Let's look at a few case studies where solutions have varied from simple to more complex. From homes to hotels, all of these projects have benefited from a cost-effective, aesthetic, and durable solution.



15 Central Park West

LUXURY HIGH RISE RESIDENTIAL
15 Central Park West
New York, NY

15 CPW redefined luxury in Manhattan when it was built in 2008, offering the new benchmark for what condo living in New York could be. The building was described by Vanity Fair as "The King of Central Park West" and is often referred to as one of Manhattan's most prestigious addresses. The doors custom designed for 15 CPW do not disappoint. The design combines three panels in the classic, traditional six-panel layout, and a full thickness convex panel, which gives the door a truly regal look.



Ronald McDonald House

SPECIALTY
Ronald McDonald House
Downtown Chicago

At the world's largest Ronald McDonald House, located in Chicago, the families of patients at the Lurie Children's Hospital are housed here. Among the many details that were designed into this project, the elegant layout of the two-panel door combined with a custom sticking profile certainly creates a refined, contemporary, and notable look.



Westin New York Grand Central

HOTELS
Westin New York Grand Central
New York, NY

When the iconic Helmsley Hotel was being converted into a flagship Starwood property, one would imagine that no stone would be left unturned. No doubt, the design team pored over every detail, with the entry door being no exception. By harnessing the power of a well-designed, striking door, they created the luxurious "curb appeal" factor lost on many hotels over the years. To a degree, the door's crisp stair-stepping details epitomize the upscale residential feel guests have come to celebrate and cherish in staying in a luxury hotel.

Doors are increasingly becoming features in the design of commercial and residential buildings. MDF doors in particular, offer an affordable, customizable, and durable alternative to traditional stile and rail wood doors.

CASE STUDIES (CONTIN.)



Modern Private Residence

MODERN RESIDENCE
Westport, CT

A custom designed MDF door created a striking complement within this Westport modern residence. This unique design epitomizes how creative design teams can go beyond a flush door to create a one-of-a-kind, remarkable modern feature within a home.



Arizona State Veteran Home

Arizona State Veteran Home
Tucson, AZ

A customized "southwest-style" door that was both durable and affordable was the result at this 120-bed skilled facility. This project is indicative of the national trend of creating a more comfortable, "non-institutional" feel for senior/assisted living/skilled nursing facilities. ADA compliant 3'8" wide unit entry doors were built to order. Elegant designs are the standard for architectural design teams using MDF doors.



Ritz Carlton Hotel & Residence

HOTELS
Ritz Carlton Hotel & Residence
Montreal, Canada

Billed as the most prestigious address in Montreal, the \$200 million renovation helped "achieve a level of luxury that has not been seen before in Montreal." The majestic door design was customized with a defining molding to create a grand look befitting of this local treasure. While this design usually is combined with a raised panel, the choice to incorporate a flat panel creates a crisp focal point on the custom raised moldings.