# Getting Started...

# A Planning Guide to Build Your Modular Home





# **Getting Started...**

This is your planning guide to your new modular home. Hopefully, you have completed your research and determined that modular construction is the method which will provide you the best new home that your money can buy. We definitely believe this to be the case. After all, modular construction is one of the fastest growing building methods of modern construction.

Whether you are a new homeowner doing all or part of the work, or subcontracting out the construction of your new modular home, this guide will help you plan your project, save money, and avoid many pitfalls.

We have packed a lot of information into this guide. We have grouped it into sections which are broken down by areas of home construction. Each of these areas contain tips and suggestions as well as pitfalls to avoid. We have accumulated this information over years of experience and working with prospective customers just like you.

As with any construction project, flexibility combined with a can-do attitude are key. We wish you well on the path to your new home.

The Team at Impresa Modular



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# A Planning Guide to Build Your Modular Home

# **SECTION I:**

# PLANNING AND FINANCING YOUR HOME

- √ Financing Your New Home
- ✓ Planning Your New Modular Home
- ✓ Plans and Specifications
- ✓ Home Design Tips





# Financing Your New Home

# Qualify for a **Construction Loan:**

The very first step on the path to your new home should be qualifying for a construction loan. Today's loan requirements can make financing a challenge for some. Getting this critical step taken care of first will provide you with a known budget to work with and avoid disappointing delays later.

#### **Quick Resource Link for**

More Information

# Owner/Builder Loans:

Some lenders require you to use a General Contractor. Be sure to inform your lender of your intent to be the owner/builder during your first contact with them.

# **Builder's Risk Policy:**

Insure your home while it is under construction. If you finance your home, your bank will require you to have insurance. A builder's risk policy is essentially a homeowners insurance policy for the home before it is completed. If you are not financing your home, don't forget this detail. If the home is destroyed during construction due to fire or other causes, you risk losing your entire investment in your new home.

### **Single Closing:**

When getting a construction loan, ask for a single close construction to perm loan. By only closing once instead of twice, you can save thousands in fees and costs.

#### **Quick Resource Link for**

More Information

impresamodular.com/about-construction-loans/





# Planning Your New Modular Home

#### Success:

The single worst mistake you can make is poor planning. This guide will provide you many of the items you need to manage when building your new home. Thoroughly planning the construction of your new home will save you thousands of dollars and provide you a much better quality home.

# **Quick Resource Link for**

More Information

impresamodular.com/understand-the-process/

### Timeframe:

You should begin planning your home three to nine months before construction begins. Most modular homes can be completed within one to four months from the time they are set on the foundation.

# Do-It-Yourself (DIY) **Opportunities:**

There are many areas in the construction of a modular home where the homeowners labor may save money. Determine if you have both the time and experience to perform the job. If you do, don't miss the chance to contribute to the completion of your home.

#### **Decisions:**

You will be required to make hundreds of choices while building your home. Do the research prior to construction to insure you have made all of the important decisions before your home arrives. Once your home arrives, remaining flexible and making decisions quickly will reduce stress and keep your home on schedule.



# Planning Your New Modular Home cont.

#### **Modular Home Sizes:**

Modular home sections come in standard widths. Use these as guidelines when developing your homes plan. This can save you thousands of dollars in transportation costs. Work with your modular home consultant to determine how to adapt your plan to take advantage of the modular construction process.



# Plans and Specifications

#### **Planning:**

Time spent in the planning stage will save you time and money later in the construction process. Review your design and order paperwork to insure you understand what is included and what adjustments, if any, have been made. Now is the time to clear up any misunderstandings or miscommunication.



### **Home Sprinkler Systems:**

A new requirement in the building code is for home sprinkler systems. These systems can add \$3,000 - \$8,000 in an average home. Be sure to check with your local building official to determine if they are required in your area!

# **Quick Resource Link for**

More Information

impresamodular.com/fire-sprinklers/

### **Home Budget:**

By getting qualified for a construction loan early, you will know your budget. You save yourself time and frustration when you don't emotionally get attached to a plan you can't afford.

# Modifications/Change Orders:

Unlike site built homes, modular homes are 80-90% complete the first time you see them on your site. Changes at this point are more expensive to make. However, if a change is absolutely required, then expect costs in both money and time.

# **Design Limitations:**

Today's modular home factory has made tremendous strides in engineering and construction capability. Long spans, open spaces, and unique floor plans are just some of the areas of improved capability. However, just because it CAN be built in the factory doesn't mean it is SHOULD be built in the factory. Investigate costs both ways to get the best value.



# Plans and Specifications cont.

#### Plan Review:

Prior to your home being constructed, you will be provided with a set of plans. There is much detail in these plans and the print is small. Be sure to review comments and specifications on the prints. Once you have signed off, this is the home that you have approved for construction. If you don't understand any terms, ask now!

# **Specifications:**

When you are asking for a non-standard item for in your home, be specific. If you have product numbers, model numbers, etc. provide them when discussing the changes or upgrades. In some cases, truly unique items may be better installed on-site when selected by you.

#### **On-site Construction:**

The factory is responsible for items it constructs. On-site items such as porches, decks, some roofing extensions, etc. may be constructed on-site and not be covered by the factory's engineer stamped plan. Check with your building office to determine if engineering review or special drawings are needed to supplement the factory supplied plans.



#### **Warranties:**

Most factories ship a warranty package with the home. In many cases, you must contact the product manufacturer should warranty work be required.

#### **Allowances:**

Insure that allowances are adequate to cover the job at hand. In some cases, a contractor or subcontractor may "lowball" an allowance to insure they have the lowest bid. Always do a reality check on allowances to make sure you are covered.





# Lengths and Widths:

**Home Design Tips** 

Modular homes are typically built in widths that are approximately 12', 14', and 16' wide. Some factories have limits of 60' lengths for sections of homes. While modular homes can be built to any size, incorporating these sizes into the design of a custom home can save substantial costs in the construction of the home.

# Quick Resource Link for More Information

impresamodular.com/interactive-design/

### **Complex Roof Designs:**

Complex roof designs are expensive for both site built and modular homes. Save money by reducing the number roof pitch changes in the house design and by minimizing the size of the roof overall.

# Basement and Large Room Spans:

There are many manufactured wood products available today. Laminated Veneer Lumber (LVL) provides quality and flexibility in many design applications. It can be used on modular home marriage/mating walls to extend distances between lolly columns in the basement or to spans distances of 20 feet or more on weight bearing walls in large rooms.

#### **Wind Zones:**

In coastal areas, especially the entire state of FL, high winds are an issue for construction. Jurisdictions require additional strapping and stronger attachments of materials in the homes construction. Be sure to investigate these additional requirements which may add to the cost of construction in your area.



# Home Design Tips cont.

# **Multi-Story:**

When trying to budget a home, remember, building up is generally less expensive than building out. Construction savings come from reduced roof size, a smaller foundation, and the ability to efficiently finish more square footage of the home in the factory.

### **Exterior Wall Framing:**

Most modular factories either use 2x6 construction as standard or offer it as an option. Wall studs can either be placed 16" on center or 24" on center. Today's green thinking says that 2x6 walls 24" on center are the most efficient. They provide a thicker cavity to place up to R-21 batt insulation and being 24" on center reduces the number of cracks/seams for air infiltration while maintaining structural strength. Do your own research to determine what is best for you and your new home.



#### **Interior Walls:**

Homes can be built with interior walls 16" on center or 24" on center. Modular homes that are built with 2x4 16"oc interior walls tend to be better built and resist cracking of drywall caused by shipping and setting process.

# **Specialty Rooms:**

In today's home; libraries, waterbeds, hot tubs, and other heavy items are popular. In some cases, they can require additional structural support in your home. Be sure to ask questions if there is any doubt.



# A Planning Guide to Build Your Modular Home

# **SECTION II:**

# SITE AND FOUNDATION

- ✓ Choosing Your Building Site
- ✓ Preparing Your Lot for Construction
- ✓ Foundation and Excavation





# **Choosing Your Building Site**

### **Grades and Slopes:**

Do you design your house to your building site or vice versa? Remember, excessive grades and slopes may require extensive site work. Be sure to incorporate grades and slopes into your home plan selection and design ideas.

#### **Quick Resource Link for**

More Information

impresamodular.com/ 4-key-factors-consider-choosing-land-build-home/

# Fill and Topsoil:

Remember to account for adding or disposing of fill and topsoil. Too much or too little can be very expensive to acquire or remove.

# **Building Lot Size:**

Choosing a well proportioned lot offers greater flexibility in the design of your home. Don't forget access to garages and allow for driveways on small building sites.

#### Rock:

Be aware of visible rock and the potential for underground rock on your home site. Observe neighboring sites to provide a clue if rock may be an issue. Rock removal can be very expensive.

### **Exposure:**

The orientation of the sun is important to the enjoyment of your home. Will your deck or patio be facing south? Think about how you use your outdoor spaces. Review green building guidelines to determine how to orient your home to reduce heating and cooling costs.

# Setbacks, Easements, and **Encroachments:**

Learn local setback requirements. Setback requirements determine how far your home must be set in from the front, rear, and sides of your property. Easements and encroachments can also affect where you may locate your home



# **Choosing Your Building Site cont.**

on your property. Setbacks, easements, and encroachments can affect the size and design of your home.

#### **Restrictive Covenants:**

Convents and restrictions can be placed on a property by developers or a previous owner. Research any restrictive covenants that may apply to your property. These restrictions may require you to build a certain style and size of home which is not within your budget or can affect your chosen plan.



#### **Tree Removal:**

Plan your tree removal carefully. Incorporate existing trees into your overall landscaping. Some jurisdictions limit or restrict the removal of trees on a building site.

# Septic/Sewer Systems:

For a septic system, confirm if you have a conventional/class I system or an alternative system. Alternative systems can very expensive. Septic systems are typically sized by number of bedrooms. Please plan accordingly. If you have public sewer, learn about connection and other fees that may be charged by the municipality.

### Survey:

If you have purchased a new building lot, a site survey is a relatively small

expense that may save you thousands of dollars. By knowing your lots setbacks and easements, you can place your new home accordingly. Many lenders and some states require a foundation location survey once you site your home to insure compliance with setbacks.

# Neighboring Wells and Septic Systems:

If you are required to have a well and/or septic, be aware of your neighbors well and septic system. They will impact the locations where you may be allowed to place your systems.

### **Driveway:**

While a long driveway may be appealing, remember that a long driveway adds to the expense of construction for your new home.

#### **Utilities:**

In addition to the length of the driveway, remember to check the location of utilities in respect to your homes location. For electric, confirm if access is overhead or underground.

# Modular Unit Access to Property:

Confirm that the modular units can access your property. Are there trees, power lines, fences or road width restrictions that limit access to your buildingsite? Do you have any bridges that have either weight or width restrictions that could impact accessibility of your site? In addition, you will need a location to store multiple carriers. Is there room on your lot or will



# **Choosing Your Building Site cont.**

you have to locate an area to store the home sections temporarily?

#### Water:

Confirm that water is accessible on your building lot before you purchase. If you must dig a well learn about typical wells for your area (depth, gallons per minute, water quality, etc.) If you have public water, learn about the requirements for pressure regulators and the cost of connecting to the system.



# **Preparing Your Lot for Construction**

### Top Soil:

Stockpile all of your topsoil. Topsoil is expensive to bring in if you need it during final grading.

#### Foundation Location:

Place additional corner stakes outside of the corners of your foundation. This will insure you can confirm the exact location of your foundation on tight lots.



# **Driveways and Utilities:**

Whenever possible, avoid locating utilities under driveways or sidewalks. This can avoid future issues if problems arise with utility lines.

#### **Locate Existing Utilities:**

Most jurisdictions have the ability to locate and mark existing utilities. In some states, it is the law to call and locate utilities before you perform any excavation. Check with your location jurisdiction.

### **Temporary Utilities:**

Determine who will be responsible for providing and paying for temporary utilities such as power. In many cases, it is not cost effective to have temporary power set up for a modular home. Permanent power can be established in time for occupancy and the cost for generators can be minimal.





# Foundation and Excavation

### **Foundation Depth:**

Work with a qualified excavator to determine the proper excavation depth for your foundation. It is expensive to over dig a foundation.

#### Insulation:

Review the many new foundation systems available to today's home owner. Precast, ICF, and various insulation panels can be used to insulate your foundation. Do your research to determine the most cost effective approach for you and your region.

### **Foundation Sills:**

A pressure treated sill plate is required and is secured to the foundation. In turn, the home is secured to the sill plate. Use the appropriate attachment of the sill plate per the foundation requirement and building code. The sill plate is typically made up of pressure treated 2x8 or 2x10 boards.

#### Water:

Remember, water is the enemy to your basement. Plan for foundation drains and waterproofing for your foundation. In some jurisdictions, sump pumps are required for basements.

### **Drainage:**

Building codes require positive drainage away from your foundation. Insure that finished grades divert water runoff away from the home. In some jurisdictions drywells may be required.

### **Square Foundation:**

A modular home is built on jigs and is perfectly square as delivered from the factory. Make sure your foundation is also. A foundation can't be changed once it is in place. Verify the foundation to the foundation plan provided by the manufacturer.



# Foundation and Excavation cont.

# Basement Windows and Doors:

If you have a basement, insure that your placement of doors and windows does not interfere with the location for an outside compressor or, water/sewer lines. Also plan for egress openings at any location in which a future bedroom may be placed in a basement.

# **Back Filling:**

Never backfill a foundation prior to the home being set on it. You risk the collapse of your foundation or at least cracks in the wall prior to your home being set. At the least you risk the opportunity for water infiltration through cracks that develop. In extreme circumstances, failure of the foundation could occur.

#### Ventilation:

Crawlspace areas require ventilation unless they are conditioned spaces. Check with your local building code to insure you have provided for minimum cross ventilation.

### **Undisturbed Soil:**

When pouring concrete, insure that the soil has not been disturbed. Loose or poorly compacted soil does not allow for concrete footers and slabs to achieve their maximum strength and stability.

#### Radon:

Radon is a gas that has been found to build up under some homes. The way to eliminate it is to ventilate the area under the home and/or basement slab. Jurisdictions have specific requirements to eliminate radon. Call your local building office to determine the requirements in your area.

#### **Reinforced Slab:**

Wire mesh and reinforcement bars (rebar) installed in concrete slabs reduces the possibility of cracking. Don't eliminate mesh and rebar to save money in the short term.



#### **Drains:**

To reduce the risk of water infiltration in a basement, be sure to provide adequate drain lines. The preference is to use gravity to drain water away from the home (drain to daylight). Many opt for installing a sump pump if the grade of the building lot requires it.



# A Planning Guide to Build Your Modular Home

# **SECTION III:**

# HOME CONSTRUCTION

- ✓ Doors and Windows
- ✓ Roofing, Siding, and Trim
- √ Fireplaces
- ✓ Electrical and Plumbing
- ✓ Heating and Cooling System
- ✓ Insulation and Vapor Barriers
- ✓ Interior Home Finish: Doors, Trim, and Stairs
- ✓ Flooring: Carpet, Tile, and Hardwood
- ✓ Painting: Interior and Exterior
- ✓ Kitchens and Bathrooms





# **Doors and Windows**

#### Window Brands:

There are many window manufacturers. Most factories offer single hung, Energy Star rated windows as standard. Specialty windows are very expensive. Balance design versus cost when specifying windows. Many factories will offer brands such Pella or Andersen window lines as upgrades.

### Maintenance-Free Windows:

Most factories offer vinyl or vinyl-clad windows as standard. For custom or rustic style homes, you may prefer to do interior wood clad windows. Be sure to check if the modular home manufacturer offers this option.

### **Door Finishes:**

On traditional homes, the front door is painted to match the shutter color. Ask if your factory does this or if you must paint exterior doors on-site.

# **Double Hung vs. Single** Hung:

On a single hung window the top pane is stationary and bottom pane moves. On a double hung window both panes move. Check which is standard for the home you choose. Double hung windows are not only easier to clean but offer better ventilation on warmer days.

### Window Accessories:

Screens are typically delivered with your new home. Grills, in most windows, are sandwiched between the panes of window glass and are not removable. Be sure to specify if you do or do not want grills.

# **Egress Windows:**

All bedrooms must have egress windows to meet building code. If you are building a cape cod style home and will plan future bedrooms in the upstairs space, verify that egress windows are placed appropriately. It is much cheaper



# **Doors and Windows cont.**

to install egress windows during construction of your new home than it is to install larger windows later.

# **Door Swing:**

Most exterior doors swing inward. However, new research in high wind areas promotes out swinging doors. Because the door can't blow in, the risk of damage to the home due to a buildup of interior pressure is reduced.

#### **Insulated Doors:**

Most factories offer Energy Star rated exterior doors. Verify with your factory.

# Wood vs. Steel vs. Composite:

Most factories provide insulated steel or composite doors as standard on the exterior of the home. These are low maintenance alternatives to cheaper wood doors.

### **Dormer vs. Skylights:**

Dormers are shipped from factories either fully assembled to be installed by crane or as panelized for assembly on-site. In each case there is crane and effort on-site to add to the dormers overall cost. A skylight is a budget friendly option for providing more light into a room when possible.

# **Opening Skylights:**

By allowing skylights to open, air can flow and provide additional ventilation for your home.



#### **Dead Bolts:**

Be sure to specify keyed-alike dead bolts on exterior doors. Dead bolts are much easier to install at the factory and keyed alike guarantees you won't have need to keep a key ring full of keys for your home.

### Garage Doors:

If you have a garage as part of your modular home, most factories do not provide the door. Insure that outlets are provided for overhead garage door openers.

# Roofing, Siding, and Trim

# **Shingle Quality:**

Generally heavier shingles are better. Warranties should be at least 20 years. Upgrades to architectural shingles or longer warranty shingles are usually not expensive and well worth it.

#### Warranties:

Roof shingles are mostly installed at the factory with the balance being installed when, or shortly after, the home is set. Be sure all shingles are installed per the manufacturers specification so warranties will be honored.



# Roofing, Siding, and Trim cont.

# **Metal Roofing:**

Metal roofing is not typically provided by manufacturers and is a site installed option. The manufacturer can delete the shingles from the order. Be sure to coordinate metal roof installation immediately after the home is set on the foundation.

# **Vinyl Siding:**

Horizontal vinyl siding is the standard provided by almost all manufacturers. Siding is typically offered in one or two standard profiles. Today's vinyl siding has expanded its design capabilities. It comes in board and batten, vertical cedar, horizontal wood look and more. These designs can provide unique looks in a low maintenance alternative. Be sure to investigate these options for your custom home.

### **Fiber Cement Siding:**

Many factories now provide fiber cement siding options. Fiber cement siding can offer the look and feel of wood without the issues of rot and insects. This siding can come primed or painted. It will require periodic painting to maintain its look.

# Composite Trim and Molding:

The market today is full of man-made trim and molding products. These pieces can give a home an upgraded look with very low maintenance and that is easy on the budget.

### **House Wraps:**

House wrap is now standard for many manufacturers. In some states, house wrap is required. House wrap works to allow moisture out of your home but acts as a barrier to keep water out.

# Log Siding:

Many people are discovering the advantages of modular log homes vs. conventional log homes. While modular log homes overcome many of the maintenance and construction issues of log homes, using real wood introduces ongoing maintenance. Be sure to treat the wood to preserve it and guard against insects.

#### **Quick Resource Link for**

#### More Information

impresamodular.com/modular-log-homes/

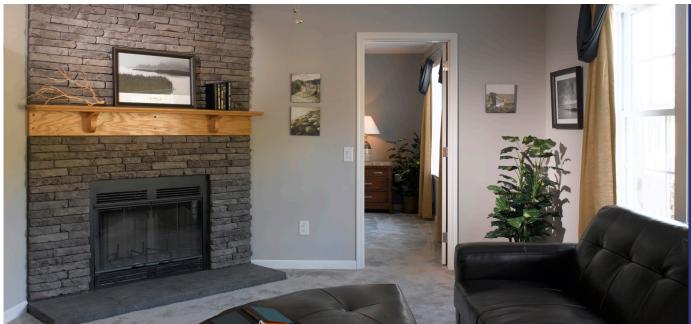
# **Exterior Lighting:**

Plan for exterior lighting when designing your home. Lighting should be planned for functional and security purposes. Areas to think about: corner flood lights, porches, and wiring for up lighting. Also think about how you will switch these lights on the interior of your home.

#### **Porches:**

Today, many manufacturers offer porches built in the factory. This is very dependent on the house design and other factors. Items to review with porches: lighting, ceiling fans, composite decking vs wood decking, etc. Porches 3'-4' wide are decorative. Porches 6'-8' wide can serve as an outdoor room. Think about how you will use the porch when designing it.





# **Fireplaces**

# Wood Burning vs. Gas Fireplaces:

Gas fireplaces have become popular over the years. Today, many homeowners do not want to cut wood, have the dirt and insects come into the home, or don't want the expense of buying wood. Gas fireplaces have made advances to simulate the look of real fireplaces and logs. Gas fireplaces can even come with a remote control!

### Heating vs. Decorative:

Gas fireplaces can be either decorative or heat producing. Is your fireplace going to be used to produce heat or just to create atmosphere? What does the climate in your area dictate?

#### Man-made vs. Masonry:

Manufactured wood burning fireplaces are now available. They allow for the same look as masonry but don't require the foundation support for weight and can cost up to 80% less than a masonry fireplace.

### Interior vs. Exterior:

When designing your home, will the fireplace be inside the room or flush with the wall. Interior fireplaces can take up considerable space inside a room. Exterior fireplaces can cost more to build.

# **Future Fireplace:**

With the availability of "Home and Hearth" type stores, many customers opt for a custom fireplace on-site. It is cheaper to have the chase and firebox area framed at the factory. Be sure to provide an installation manual with dimensions to the manufacturer.

### **Hearth:**

Is the hearth to be raised or flush with the floor? Will it be used for sitting on? Hearths were originally created to be functional for wood burning fireplaces to guard against embers jumping onto the floor. Gas fireplaces don't require a hearth. Design accordingly.



# Fireplaces cont.

#### Mantels:

Mantels can be very decorative and complex or very simple. Mantels can also be very expensive. Review your options.



# **Electrical and Plumbing**

# Completion on-site:

Plumbing and electrical connections will be completed on-site. A modular home comes pre-wired and pre-plumbed. At a minimum, the electrical panel will need to be connected to the meter box. For plumbing, stub outs will need to be connected to waste and supply lines on-site. Be sure to confirm who provides the water heater for the home and where it will be located.

# **Electrical Service:**

Modular factories typically provide a 200 amp service as standard. If your home is very large, you plan for a detached garage, or you have special electrical needs, you may want to upgrade to a 400 amp service. This is usually an on-site upgrade. Be sure to discuss this with your electrician.

### **Basement Wiring:**

An often overlooked item is wiring for basements. Be sure to plan and include this in your estimates for material and labor for on-site completion. Make sure you check with your permit office for any special permits needed since this isn't part of the modular home.

# Wiring for Telephone and Cable:

While many may initially think that the charge to wire additional outlets for telephone, cable, and even speakers at the factory is high, that is quickly dispelled once you price the materials to do it yourself. Think through how you will use telephone and cable outlets and have your home prewired at the factory.

### **Green Impacts:**

Many factories now offer Energy Star packages or "green" packages for their homes. This can impact everything from appliances and lighting fixtures to toilets, showers, and water heaters. Be sure to ask about the costs and benefits available for your modular home.

#### **Quick Resource Link for**

More Information

impresamodular.com/green-modular-homes/

#### **Future Uses:**

Make sure to define where you may put future bathrooms and other rooms in your home and plan to rough in or stub out plumbing and electric accordingly. This is especially true for Cape Cod style homes.



# **Electrical and Plumbing cont.**

# **Light Fixtures:**

Manufacturers offer standard lighting packages. These tend to be very cost effective for the typical homeowner. Review the offerings for your manufacturer. Should you decide to upgrade, it may be easier to delete the standard offering and install your upgraded lights on-site.

### **Bedroom Lights:**

Many manufacturers used switched outlets instead of overhead lights in bedrooms. Be sure to review this with your manufacturer and chose accordingly.

### **Ceiling Fans:**

Ceiling fans are heavy and need switching for lights and fan. If you think you will want ceiling fans in any room it is very cost effective to have additional blocking and switches installed at the factory. Ceiling fans are usually not provided by the factory.

### **Closet Lighting:**

Most manufacturers install lighting in walk-in closets. Some states prohibit lights in closets. Your manufacturer can review this with you.

#### **Outlets:**

Your outlets will be installed per building code. If you have special requirements relating to location or number of outlets, be sure to deal with this while planning your home. Moving or changing outlets after the fact can be very expensive.

# **Underground Conduits:**

When planning the excavation for your home, think about future lighting. Will you have light posts, outside outlets, or outside storages buildings and garages? It is cost effective to install conduits (small pipes) underground to hold these future wires now.

#### **Smoke Detectors:**

The factory will locate smoke detectors and/or carbon monoxide detectors in your home. If your locality has unique requirements for placement, it is your responsibility to inform the factory so this can be addressed there.

#### **Exterior Faucets:**

Some manufacturers install exterior faucets at the factory. For many, exterior faucets are a site option. Confirm this with your manufacturer and plan accordingly.

#### Insulation:

While most people think about insulation to control temperature it can also be used to reduce sound. Interior areas that can be insulated for this purpose are powder rooms, game rooms, TV rooms, etc.

#### **Standard Faucets:**

Manufacturers typically use name brand providers for faucets and hardware. If you have specialty faucets or a custom application, discuss this with your manufacturer.



# **Heating and Cooling System**

### **Heating Systems:**

Most factories offer electric baseboard or hot water baseboard from the factory. Depending on the region you live in, you can delete the heating system to install oil furnaces, gas furnaces, heat pumps, geothermal systems, etc. onsite. In any case, most air conditioning/cooling systems are done on-site.

### **Energy Efficiency:**

When selecting a heating and cooling system get the most efficient system you can afford. Check availability of tax credits in your state when you buy to offset some of the increased costs. These systems are typically installed on-site.

#### **Quick Resource Link for**

More Information

impresamodular.com/energy-star-rated-homes/

# **Multiples Zones:**

In larger homes, especially multi-story, separate heating and cooling zones help to save in monthly heating/cooling costs. A thermostat wire can be installed at the factory at a location you designate to save doing it after the home is installed.

# Air Conditioning:

If you are going to be installing onsite heating and cooling systems that require duct work, determine the optimum location for a central chase to locate hot and cold air ducts. Have it built at the factory. This will save much time and money versus doing it on-site after the home is installed.

# **Insulation and Vapor Barriers**

#### Insulation:

Many manufacturers provide insulation options over and above that required by code. Extra insulation in the attic and walls are a plus. Additional insulation can pay for itself quickly. Ask about the cost for upgrades.

#### **Basement Insulation:**

Code varies by jurisdiction. Ask your building official what is required in your area. Insulated foundation wall systems may eliminate the need to insulate the floor. Does your area require R-19 or R-30 in the floor for a non-insulated basement?

#### **Eliminate Drafts:**

Modular home factories are very particular about sealing areas where pipes, wires, etc. pass through floors and walls. Be sure to do the same for any on-site modifications in these areas.

#### Water Heater:

Bulk water tanks store the hot water for your home. Anything you can do to provide additional insulation will save in energy costs.



# Insulation and Vapor Barriers cont.

### **Garage Walls:**

If you are getting a factory provided garage, a firewall (typically a double layer of 5/8" drywall) will be built between the homes living space and the garage. If you immediately plan to build an onsite garage, specify a firewall be built at the factory to reduce overall costs and to insure you meet building code.



# Interior Home Finish: Doors, Trim, and Stairs

### **Options and Upgrades:**

Ask about the availability of factory options and upgrades. Many factories offer "standard" upgrades and options. Others offer truly custom construction and you are only limited by your imagination. Find out what your manufacturer offers.

#### Wall Paint:

Most modular homes come with two coats of primer. The paint is usually an eggshell white or similar color. Many customers just leave that as the finished coat of paint until they decide what colors to paint the rooms based on décor and color schemes.

### Stairs:

When planning stairs, be sure to allow for door swings, especially to the upstairs in Cape Cod style homes and into the basement with homes that have them. Think about how you will move large items into rooms and up or down steps.

### **Molded Doors:**

Most manufacturers provide white hollow core molded doors as standard.

They provide the look of wood without the expense. You may be able to upgrade to wood stained hollow core doors, real wood doors, or even different door designs.

# Specialty Cabinets and Built-ins:

Specialty shelving, built-in books shelves and some cabinets may be better built on-site. Discuss with your manufacturer what their capabilities are and determine the most cost effective way to meet your requirements.

### **Pocket Doors:**

A great option to save space in rooms is to install pocket doors where possible. They are great at providing privacy and eliminate door swing issues with furniture in tight spaces.

# Trim/Door Heights:

When installing tile or wood floors onsite, be sure to request that doors are pre-cut to a specified height. Trim can either be installed to a specified height or tacked into place for permanent installation after flooring is completed on-site.



# Interior Home Finish: Doors, Trim, and Stairs cont.

# **Closet Shelving:**

Most manufacturers provide wire rack closet shelving. Some offer upgrades to solid board closet shelves. Be sure to ask which style is standard if this is important to you.

#### **Door Hardware:**

Many manufacturers today offer lever type handles vs. knobs. Universal design proposes using lever handles to increase accessibility. While you may not need them today, lever handles may be convenient in future years. Ask about this and other Universal design features for your home.

# Flooring: Carpet, Tile, and Hardwood

#### **Standard Flooring:**

Most manufacturers install vinyl flooring in wet areas (kitchens and baths) and carpet in the remaining areas of the home. If budget is an issue, carpet is one item that is easy to replace. You can take advantage of favorable prices at home improvement and discount stores when budget allows to upgrade to laminate or hardwood floors.

#### **Subfloor:**

The type of floor preparation is determined by the finished floor. If you are installing tile, your manufacturer may install concrete backer board to prep for it. If you are installing vinyl tile floors, either Luaun or sanded OSB will be required to provide an appropriate installation surface. Be sure to check with your manufacturer about their capabilities.

# **Wood floors:**

Many options are available when selecting a wood floor. Prefinished hard woods, laminates, and hybrid floors are now available. Bamboo is a species that has become more popular and is

harder than Oak making it very durable. Many options can now be installed in the factory saving money and reducing on-site finish time for your home.

### **Expansion:**

Most solid hardwood floors are installed on-site. This is because temperature and humidity causes expansion and contraction in hardwood flooring. This can lead to problems with excessive spacing and warping of flooring later if not installed at proper temperatures.

#### **Allowances:**

If you contract out the finish of your home, flooring allowances are common in most contracts. Be sure that the allowance is realistic for the type of floors you are installing.

# Upgraded Carpet vs. Upgraded Padding:

Mid grade padding is 6# rebond pad. Stick with mid-grade pad and upgrade carpet within budget and personal preference.



# Flooring: Carpet, Tile, and Hardwood cont.

#### Floor Protection:

When a modular home is shipped, floors are covered at the factory. Be sure to check under the protective covering when delivered for any damage. Maintain protective coverings over factory installed floors until on-site home completion. Be meticulous when it comes to cleaning up loose nails, staples, and other debris quickly!



# Painting: Interior and Exterior

#### **DIY Painting:**

Many customers find that painting is an area that they can do themselves and save some money.



#### **Primer Paint:**

A quality primer is the basis for good paint job later. The factory will apply two coats of quality primer to all ceilings and walls. Usually the same primer is available locally. Be sure to match color and paint type when buying extra.

# **Preparation:**

Painted wall quality is directly tied to preparation. Insure walls are sanded and primed, trim is taped, and the floor is covered. Be sure to have the proper brushes and rollers before starting the job.

#### **Paint Quality:**

Paint is one of the cheapest forms of home decorating you can undertake. Don't select the cheapest paint when painting your home. A good, quality one coat coverage paint will save you time, money, and provide a much better finished look.

# **Textured Ceilings:**

It depends on the factory and the region of the country as to what is standard. Ask your manufacturer. Textured ceilings don't show blemishes easily but are harder to repair in the future should the need arise.

# Touch-Ups:

Most factories ships extra primer and trim paint with the home. Be sure to place this paint in a temperature controlled area to avoid extreme heat or cold.





# **Kitchens and Bathrooms**

#### **Budget Breakers:**

Kitchens and bathrooms are usually the most expensive areas per square foot in your home. Wood species, finishes, and specialty cabinets can all add up when selecting options. Carefully think through what is necessary when designing these areas.

### **Future Changes:**

Unlike flooring, changes to the kitchen and bath are some of the most costly you can make in the future. Spend time on the kitchen and baths to make sure they are right.

#### Value:

Generally, when reselling a home, the kitchen and bathroom are the two places to spend extra money to attract a buyer. Think about your needs and your priorities.

#### **Lead Times:**

When ordering a truly custom kitchen with specialty cabinets and high end finishes, lead times can be in the 6-8 week time frame. The average lead time for other materials used in the factory construction of your home is two weeks. Additionally, most factories will increase the required deposit to order these specialty items. Cabinetry provided and installed at the factory is still the most cost effective way to achieve a high profile kitchen. Remember to plan accordingly.

#### **Door and Drawer Hardware:**

Most factories don't provide door knobs or drawer pulls. In many kitchens, the clean look dictates that there aren't any. If you want them, plan to provide on-site. Budget can range from \$1.00 per item to \$12.00 and more.



# Kitchens and Bathrooms cont.

### **Utility Cabinets and Pantries:**

Utility and Pantry cabinets are expensive and can add substantially to your overall budget. A more cost effective way to provide this same space is with a standard closet in that area.

# **Appliances:**

Planning appliances is essential before you begin designing your kitchen. Appliance sizes must be calculated into kitchen plan layout. Basic stoves and all dishwashers come in a standard size. Specialty stoves, wall ovens, cook tops, and refrigerators can all come in a wide range of sizes.

#### Gas or Electric:

Specify if your stove is gas or electric. Electric is needed in either case but a different outlet is required depending on stove type. Gas connections are always provided onsite.

# **Appliance Costs:**

Each factory is different. Ask your manufacturer for appliance pricing. In some cases you may be able to get it locally cheaper. Always remember to include delivery and installation in your overall evaluation. Installation can be expensive for items such as wall ovens and cook tops.

### Lighting:

There are lots of options for kitchen lighting: Under cabinet, can lights, surface mount ceiling lights, fluorescent, etc. Rewiring for lighting changes can be expensive later. Plan now for your lighting needs.

#### **Heights:**

Wall and base cabinet heights are easily adjusted during construction, but nearly impossible to change later. Determine if you have any special needs for accessibility and share them with the manufacturer.

### **Countertops:**

Factories usually offer a choice of one piece "cultured marble" countertops or laminate countertops in bath areas. This is usually a customer preference. One piece countertops are easier to clean. In kitchens you can get a laminated countertop. Some factories offer Corian, granite, or other solid surface counter tops as an upgrade.

### **Countertop Edges:**

Almost all types of counter tops offer an upgraded edge treatment. Bevels, bull noses, etc. can provide an upgraded look at an affordable price.

#### **Toilets:**

While most people don't think about this, determine your preference and the factory standard. Do you want a round or elongated toilet. Also, raised toilets (comfort height) can be convenient for the young and not so young alike.

### **Bath Fixtures:**

Be sure to understand what is supplied with the bathroom as standard and what has to be done on-site. Each factory can be very different when it comes to this area. Plan and budget accordingly once you know.



# Kitchens and Bathrooms cont.

# Medicine Cabinets and Mirrors:

Bathroom mirrors and medicine cabinets are often overlooked. Factories commonly mount a recessed medicine cabinet with a plate mirror. Ask about what you can expect.

### **Refrigerator Doors:**

An often overlook area is refrigerator door hinging and refrigerator depth. When you place a refrigerator in a corner you limit your ability to access the refrigerator space because the door can't swing all of the way open. A deep depth refrigerator near a door can interfere with traffic. Be careful when ordering this large appliance. Also, refrigerators do not come in a standard height. Make sure of your cabinet height before you order.

#### **Bath Hardware:**

Be aware of different finishes in bathrooms. Chrome, brass, and brushed nickel are common today. Lighting, door knobs, faucets, fixtures and towel racks all need to be coordinated.

### **Utility Access:**

The factory should provide access panels to utilities in the kitchen and bath areas. Check your plans for access areas.



# A Planning Guide to Build Your Modular Home

# **SECTION IV:**

# WRAPPING UP

- ✓ Lawn and Landscaping
- ✓ Driveways, Walkways, Decks, and Patios
- ✓ Change Orders, Payments, and Closing





# Lawn and Landscaping

# **DIY Landscaping:**

Many customers decide to do their own landscaping and lawn seeding to save money. Be sure to learn about proper care in your area to start a lawn. Time of year and watering are critical to a good start.

#### Sales:

Plan ahead to take advantage of spring and fall sales at nurseries and home improvement centers.

### Landscape Value:

Plants and shrubs add tremendously to the curb appeal and therefore, value of your home. Plan early to at least install some amount of landscaping when building your home.



# **Hydro Seeding:**

Hydro seeding (a mixture of fertilizer and seed) sprayed onto the lawn may be a quick and economical option to get a lawn started quickly. Follow the companies directions for caring for you new lawn to get it off to a good start.

#### Lawn Care:

New lawns and landscaping require special care to get them off to a good start. Consider contracting lawn care from a reputable company.





# Driveways, Walkways, Decks, and Patios

#### **Driveways:**

A driveway is only as good as the base material used in it. Make sure that the driveway base is compacted and solid.

#### **Drainage:**

Insure that proper drainage is installed around the driveway. Culverts should be installed where appropriate. Make sure the driveway is crowned to shed water.

### **Stoned Driveway:**

Rural homes typically have stone driveways. This is very economical for longer driveways compared to asphalt or concrete.

# **Footings:**

Decks, patios, and stairs require solid footings. Improper footers or lack of footers will cost you later. Be sure to follow good practices when starting these projects.

### **Stamped Concrete:**

An economical alternative to stone or brick walkways is stamped concrete. It is available in many patterns and can be colored to look very realistic as a brick, paver, or stone.

#### **Turnarounds:**

Be sure to plan for turnaround space near your parking area or just outside ofyour garage, especially if you have a long driveway.

### **Decks and Patios:**

Remember, decks and patios aren't typically required to be in place to get an occupancy permit. They are also easy to add later. Remember to compact loose soil near your foundation and lay a solid base before installing a patio. Settlement within the first year of a homes construction is bound to happen.



# Change Orders, Payments, and Closing

### **Change Order Form:**

If you make changes that will affect either time or cost, be sure to put it in writing and have it signed by all parties. During the construction of a home, many things are happening. It is easy to forget what was said or to have misunderstandings. Changes almost always have a cost in time which should be noted in the change order. A change order doesn't have to be complex. If your contractor doesn't have a form, get one at any office supply store.

#### **Payments:**

Remember, to keep your home on schedule your contractor has to be paid on time to keep his employees, subcontractors, and suppliers paid. Delays in payment can cause delays in your home completion.

#### **Hold Backs:**

If any amount of money is to be held back during a phase of construction be sure it is stated in the contract. The contractor has the right to be paid and the customer has the right to ensure that the work is performed as specified.

# **Down Payment:**

Modular factories usually require a 10 - 35% deposit on the house before they will build and ship with the balance due when the house is delivered. Factories require payment the day the house is delivered unless other arrangements have been made. It's not uncommon to have an assignment of funds agreement in place so the money is wired directly to the factory from the bank upon delivery.

#### **Final Payment:**

Final payments should be made as soon as the home is completed. If you want to hold back a reasonable amount until the punch list is complete, be sure to negotiate this in advance with the contractor.



#### **Punch List:**

There is no such thing as the perfect home. Make one detailed list. When the contractor has completed that list, his job is done and you should pay him.





# A Planning Guide to Build Your Modular Home

We hope that you have found this Getting Started Guide to be helpful.

If you still have questions please, review www.www.impresamodular.com

Our Modular Home Consultants are always happy to talk with you and answer questions.

You can reach them at

800-275-7532