



Home Builders Network
Making a difference in the housing industry

205 E. Ridgeville Blvd. Suite C
Mt. Airy, MD 21771
(800) 823-4344

The **DESIGN ADVANTAGE**

**How to beat the competition and increase
sales and profits through better design**

Presented by Al Trellis



The Design Advantage

When people buy a new home they buy more than the land and the raw materials that go into the home – the sticks and bricks. They also buy a means of satisfying their lifestyle needs for livability, value, and luxury.

The design is the crucial factor in the transformation of raw materials into a thing of beauty and functionality. A good design uses those materials efficiently to minimize construction costs and creates spaces adapted to the particular needs of the occupants, which can vary during different phases of their life.. It creates livability and convenience through the use of low-maintenance materials and components. And it creates status through location, luxury, and the visual appearance of the home.

Since good design always sells for more than mediocre design, and is a powerful way of setting builders apart from their competition, I am always amazed at the lackadaisical approach builders bring to improving their design. Many have been building the same tired plan for year after year. Their excuse: “People still buy the plans.” What they don’t realize is that people may be buying for other reasons: for the location, for the value the builder provides, for the confidence the builder inspires, or simply because the competition has even worse plans. The question isn’t how many houses sold...but how many more houses you could have sold with a great plan.

The real reason builders don’t upgrade their plans is that developing new plans requires effort, thought, and expense, and creates a certain level of anxiety. They know the old plans and they know what to expect in building them. They may not be great, but they’re comfortable. Here are three reasons why developing new plans and design systems is worth the effort and expense:

Increased marketability

Better design sells more houses at a higher profit margin. With the improved economy and greater personal wealth, individual buyers are becoming more sophisticated and demanding. They have different lifestyle needs and desires than previous generations, and the builder who

is able to satisfy those needs is the one who will get their business.

More efficient construction

Housing design is a constant balancing act between visual interest and efficiency. More efficient construction drives down the cost and creates greater value. The most efficient (but most boring) design is the simple box. Efficient construction, however, can go hand in hand with good visual design by paying attention to choosing the right materials, eliminating inefficient spans and overly complex roofs, and value engineering spaces and component selections. Efficient doesn’t have to be boring.

Improved design process

You not only need better designs, you need a better design process. You want to give buyers the choices they desire, without driving you (and them) nuts with too many choices, or a disorganized selection process. You want a simple way of making changes to the plans to fit your buyers particular needs. And you want to use that design process as a marketing advantage over your competition.

When people see your home and say "wow" – when they walk into a room and fall in love – that's the design advantage.



Design for Marketability

In creating design for marketability, you need to take into consideration the exterior, the interior, plan flexibility, and design details. Buying a new home is primarily an emotional experience. Yes, we justify it as an investment, but the reason we buy one home instead of another often has to do with those intangible tugs on the heart strings as we gaze from the curb for the first time, and as we open the door and step into the interior.

So how do you create that emotional appeal? Falling in love with a house is similar to falling in love with a person. Think of the things that attract you to members of the opposite sex: the way they look and their personality – the way they are inside. It's the same with houses.

Exterior styling

There's an old saying that "beauty is skin deep." When falling in love, however, you often don't get past that initial skin-deep reaction. In architecture, that skin-deep beauty is called style. Styles are interchangeable. You can use the same floor plan and create a classical, craftsman, Victorian, or Tudor style home. All you

have to do is change some of the basic architectural elements. What is important isn't the particular style, but that the house *have* some style. Each of these styles evokes a different emotional response. Victorian appeals to a love of detail and ornamentation. Craftsman appeals to a love of simplicity. Tudor appeals to a love of history and tradition. A home that doesn't use the decorative elements that are deeply buried in our subconscious minds is missing the opportunity to connect with the buyer on an emotional level.

Proportion

In architecture, this is called *massing*. It has to do with the different elements of the house, and how they relate to each other. A house that's too high or too long or too flat is an ugly house. A related issue is *articulation*, the way the house presents interesting variation in projecting elements. A boring box has little articulation. A two-story home with an projecting entryway and a gable-on-gable roof has more articulation. A T-shaped floor plan with the family room in the extending wing has even more articulation. People generally like interesting variation in elevations.



Often traditional styles such as the Craftsman style home shown here, have high buyer appeal and can produce faster sales and higher profits.

The interchangeable exterior

Elevation A – Traditional



There are two advantages of having a limited number of plans in a plan portfolio. The first is that builders gain experience in building those plans and fine tune the plans for efficiency and cost savings. This leads to greater profits. The second advantage is that limiting the number of plans helps manage the decision making process. You don't confuse the buyer with too many choices.

However, one of the problems of having a limited number of plans is that the particular houses you have may not appeal to a broad base of customers. People

Elevation B – Country French



often fall in love with an exterior style of house and if the houses you have don't fit that style, they aren't interested. So how do you build a limited number of housing plans, while having a large selection of exterior styles? You use the concept of the interchangeable exterior.

Keep the floor plan the same -- change the exterior

You can take a floor plan, and using a little imagination, create a multitude of different exterior styles based on that same plan. You may have to modify roof styles, and change exterior details and finish materials, but the house is structurally the same. You get the cost savings and experience benefits of building the same house several times, and your customer gets the benefit of the exterior style they want.

To show you how this was done, we took one floor plan and created four different interchangeable elevations in

Elevation A-2 – Traditional



different exterior styles. These variations in style were created and drawn by Dave Court.

Take a few minutes and look at these houses carefully. You'll notice that there are a few structural differences – where a wall was moved a few feet to create a different facade, and where roofs were changed to match the exterior style. Notice the use of different exterior materials and how this makes each of the houses look quite different from each other. This is not simply pasting on different ornamentation. But basically these are the same house, with only minor variations.

Elevation C – Craftsman



Create a complementary neighborhood

Notice also that each of these houses works very well with many of the other houses. They're "good neighbors" and complement, rather than clash with each other. Using different exterior styles creates a more interesting housing mix and streetscape, which enhances the value of the entire community. A neighborhood of all colonial homes can look rather monotonous, but mixing in other compatible styles gives a sense of an established community, well above the average "subdivision" look. Even though the exterior detailing is different in each one, the *level* of detailing is about the same, and this is what keeps them compatible.

If you're going to develop a portfolio of plans, it pays to go the extra step and develop a portfolio of interchangeable exteriors. But do it right, and maintain the quality of design throughout the portfolio. You'll be pleased with the results, and home buyers will show their appreciation by choosing you as their builder.

Exciting Interiors

While a person may fall in love with the exterior and style of a home, he has to live in the interior. Think of the interior as the home's personality – how easy it is to get along with, whether it makes you smile or frown, how demanding it is of your time and energy. The personality of the home is reflected in the interior floor plan and how the different rooms relate to each other. Homes that are easy to get along with have smooth circulation, light-filled rooms, and comfortable spaces. You can tell the personality of a home the minute you walk through the door. Some homes are uncomfortably pretentious, with spaces that are too big and awkwardly arranged. Some homes are chopped up and claustrophobic, with long narrow hallways and spaces that are all separated from each other. And some homes are warm and inviting, with surprising special spaces that create delight. These houses are designed not just to impress, but to function efficiently. There are a lot of things you can do to make the interiors exciting, including room size and proportion, good circulation, zones of use, focal points, the use of light, and adequate storage.

Room Mix

The number of rooms and the uses of those rooms is a function of the needs of the occupants and the size and price point of the house. Every house will have a kitchen, baths, and bedrooms. But some people want a formal dining room, and a formal living room, while others want to combine them into a more informal great room or family room. For some people, a master suite will include a luxurious master bath and sitting area, as well as multiple walk-in closets. In larger homes game rooms, libraries, and dedicated home theaters are common.

Zones of use

While the room is the primary unity of interior design, it is helpful to cluster rooms with associated uses in a zone of use. For example, the Master bedroom and master bath form the Parents Zone. The children's bedrooms, baths, and play areas form the Children's Zone. There could also be a public zone (living room, dining room), an entertainment zone (family room, recreation room, home theater), and an outdoor zone (patio, deck, pool), etc.

Size and Proportion

Rooms should be adequately sized for their intended use. If the rooms are too large, you seem to rattle around inside. If they're too small, you feel cramped and claustrophobic. Equally important is the proportion of the room. Rooms that are too long and narrow are not comfortable, and rooms that are square are difficult to arrange. The Greeks felt that the perfect proportion was what they called "The Golden Mean (approximately 1.6 to 1). A room 12 feet wide would be slightly over 19 feet long to meet those proportions. A ten foot wide room would be 16 feet long. Ceiling height matters also. While a cathedral ceiling can open up an interior and provide a feeling of spaciousness, a small two story space feels like being at the bottom of a well.

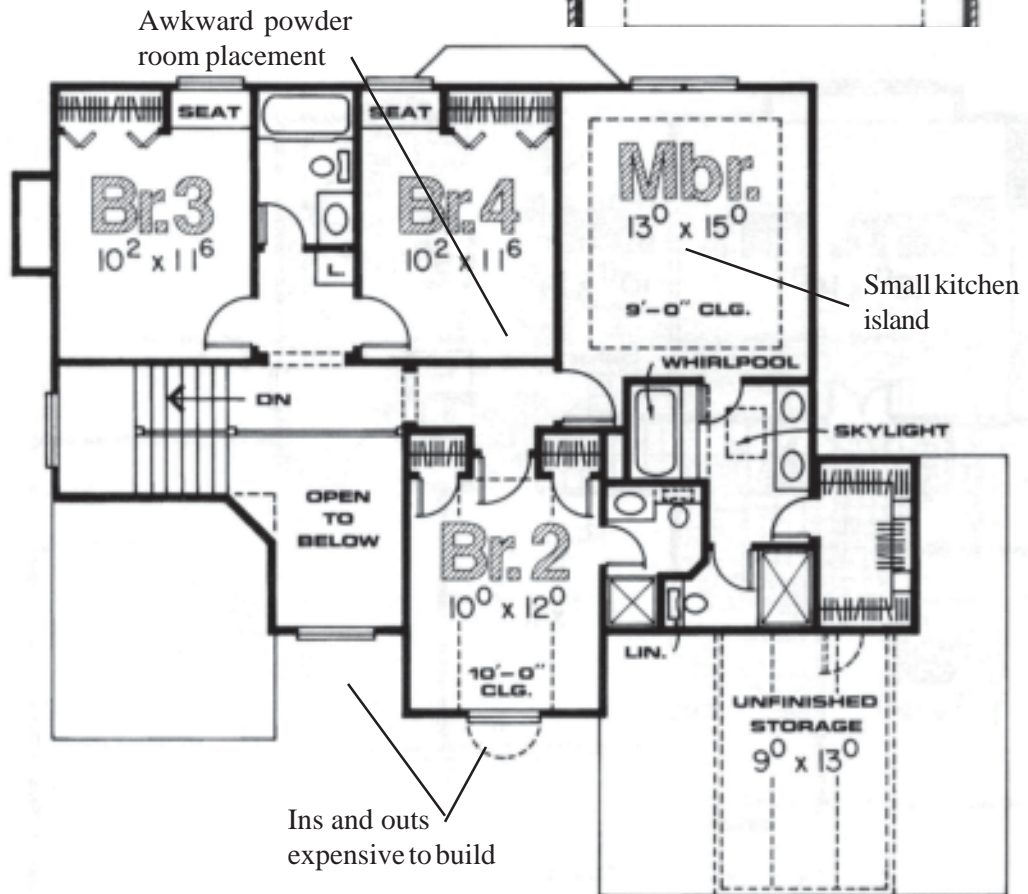
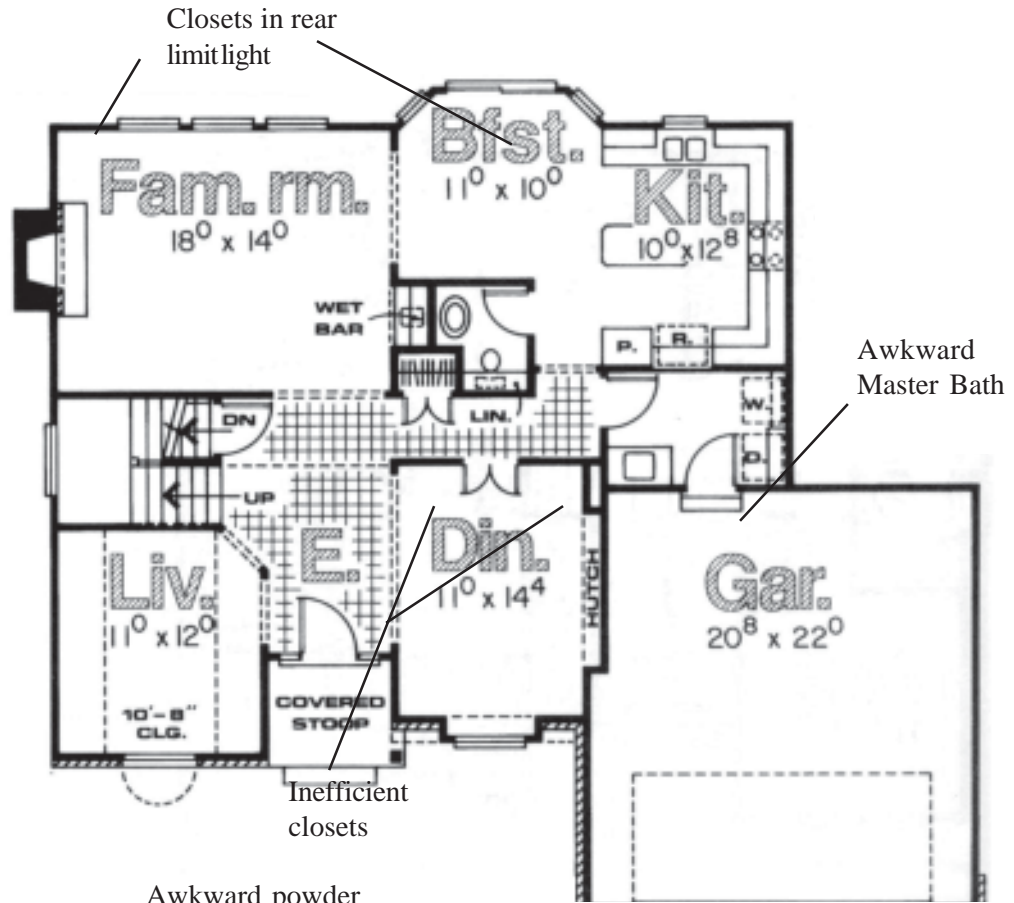
Several years ago, Sarah Susanka wrote a popular book called "The Not-So-Big House." Her premise was that many builders build large interior spaces in order to impress, but that the spaces are actually uncomfortable. It would be better, she felt, to put the money instead into better design detail to make the space more interesting and liveable.



An efficient and dramatic foyer provides an easy way to access all the major zones of the house.

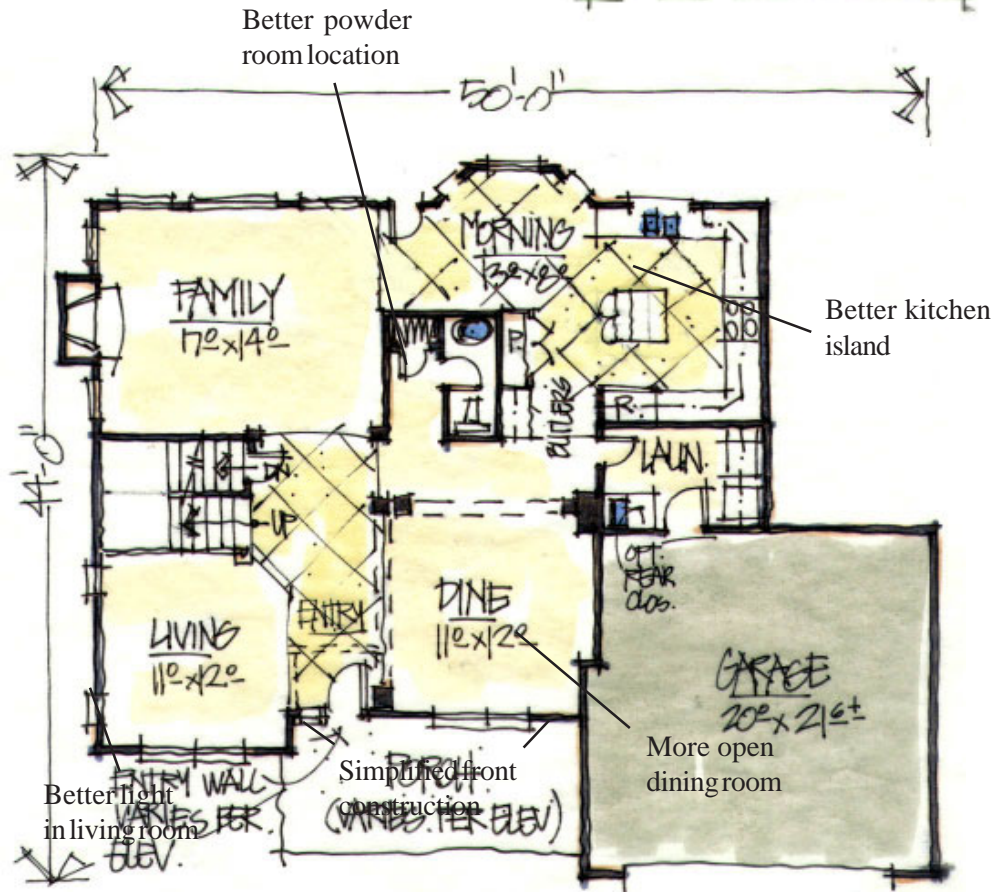
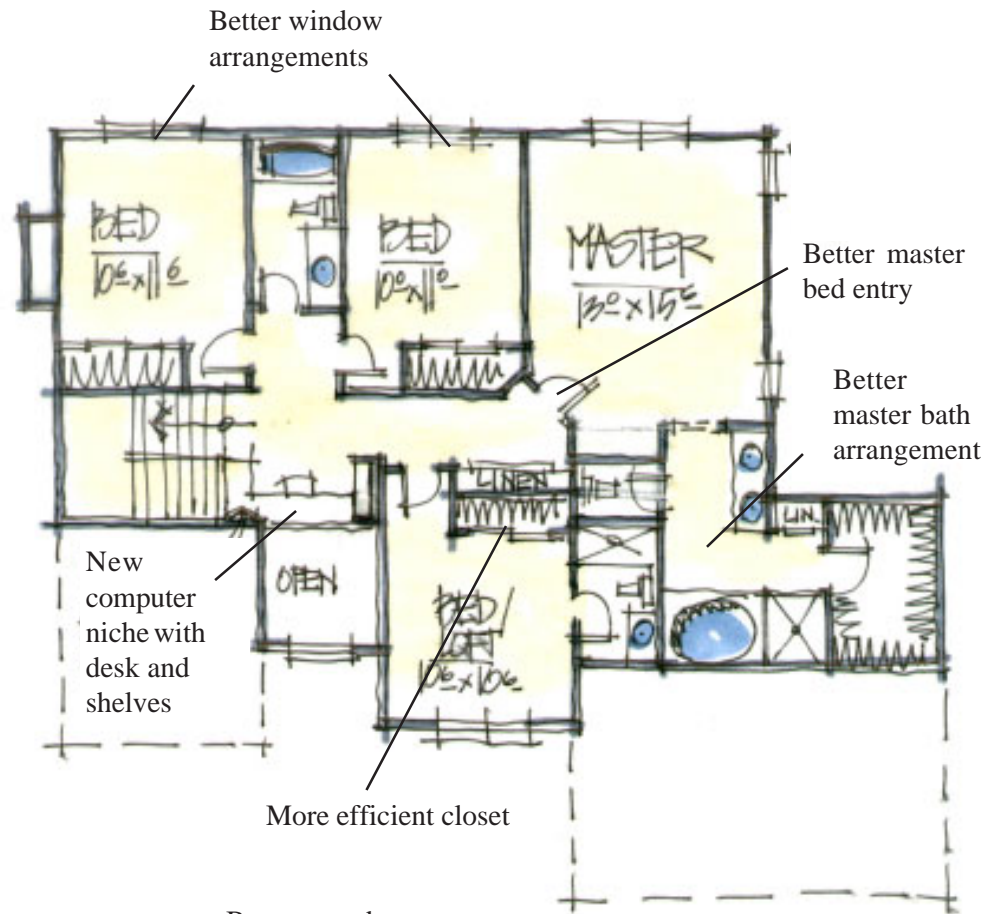
Before

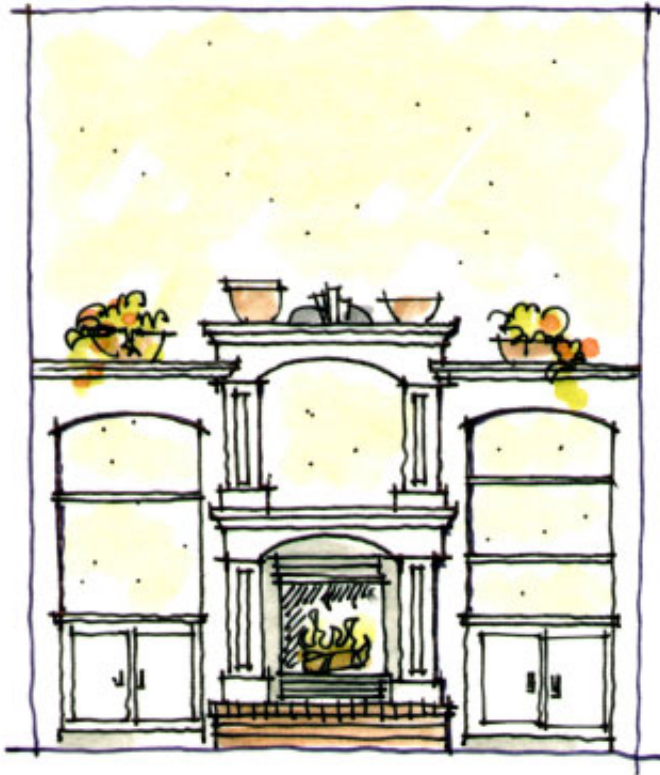
2,198 square feet



After

2,336 square feet





This fireplace/media wall provides a dramatic and functional focal point for a family room.

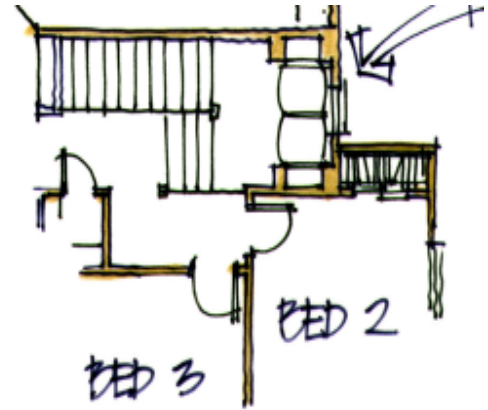
Focal Points

Interior details can make a lasting impression. This is the art of creating “Memory Points” – special spaces and details that the buyer will remember and refer to long after the visit to the home. In remembering your home, you want them to say ... “Oh yes, that was the home with the family room that projected into the outdoors,” or “You mean the home with the wonderful kitchen with the curved island.” Try to create memory points in all the major spaces – entry, kitchen, family room, master bedroom. Focal points can be either built-in or created using furniture and artwork. An attractive exterior view or access to another area (such as deck or patio) can also provide a focal point.

Major focal points

Living room, Family room – Fireplace, media wall, architectural bookcase and display area,
 Entrance: Stairway, (curved or L, U, or T-shaped).
 Framed entrance to Living or Dining areas.
 Kitchen: Unusually shaped island, special range or range hood.
 Master bedroom: Fireplace, built-in media and book-cases, tray ceilings

Window seat on stair landing



Dining room window seat



Flexible Spaces

Semi-custom builders try to satisfy a wide variety of housing needs, without having to create a unique floor plan for every client. They do this by building flexibility into the plans they offer, so that they can be easily modified.

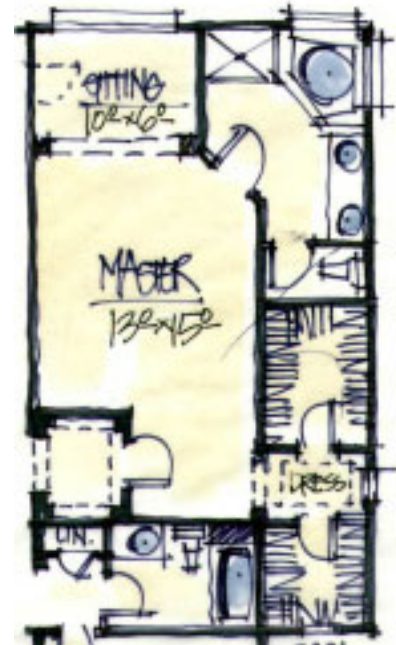
One way of building in flexibility is through the use of “switchable” spaces. Depending on the client’s needs, a particular room could be designated as a bedroom, a den, a library, a game room, a formal dining room, a home office, an exercise area, or a home theater. The key is to size the spaces so that they can perform any of these functions. If the family has fewer children, you can sometimes rearrange bedroom space to create larger bedrooms.

One form of switchable space is the “bonus” space above a garage. This is often left unfinished, but it can add value in the mind of the buyer if he understand the different uses the space can be put to.

Another form of flexibility is through “expandable spaces.” Examples are adding a few feet to a family room or master bedroom, or adding an additional bay to the garage. These should be pre-designed and pre-priced so that you can show the client exactly how the home can be modified.



*First Floor Plan
– Standard*



*Alternative Master
Bedroom Layout*

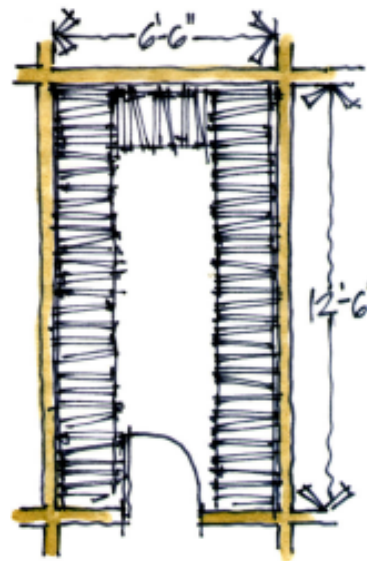
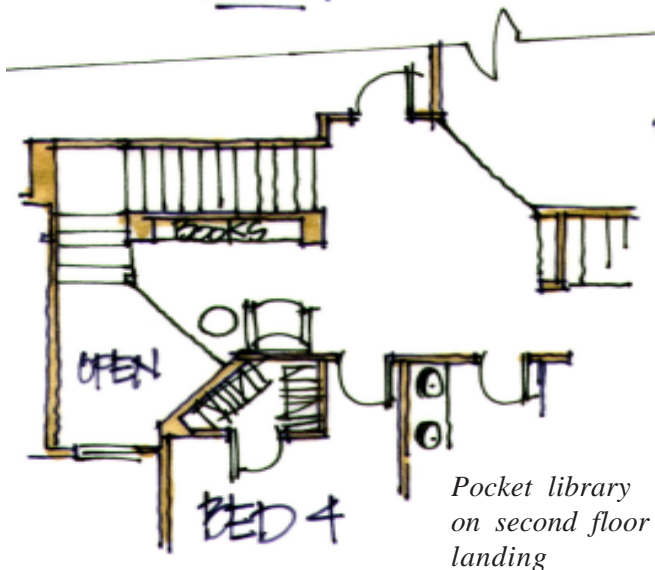
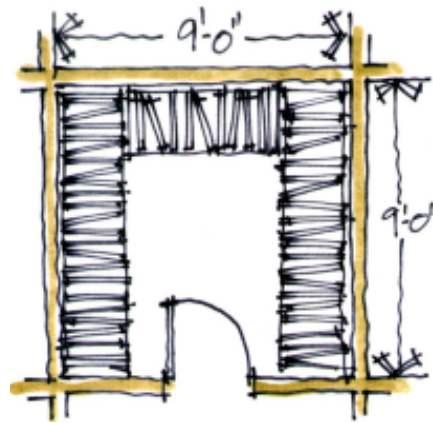
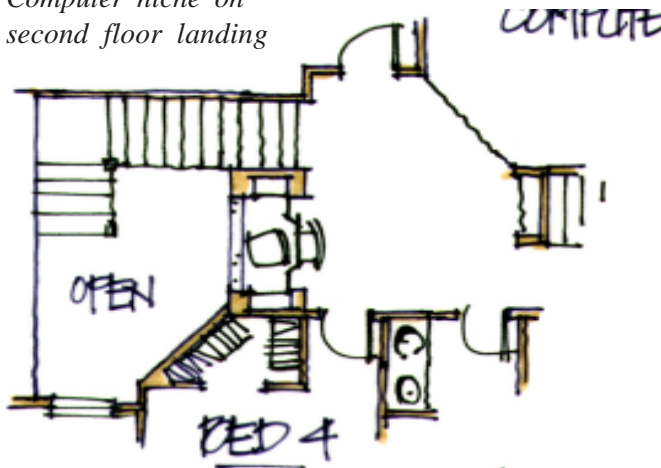
Special Spaces

Often, special needs can be accommodated without taking a great deal of space. For example, people often want a place to keep household management information handy to the kitchen. A home command center can integrate a desk and computer with security and home management hardware in one convenient place. A mini-library can fit into a 5'x8' space and provides a quiet and convenient space for study and reading. Special attention needs to be paid to the integration of television and home entertainment into entertainment areas so that these areas are comfortable and do not conflict with other uses. This can be thorough a dedicated home theater, or an area in a multipurpose family area.



Computer niches have become popular options.

Computer niche on second floor landing



Would you believe these two closets have the same square footage? And yet the lower one has 20% more hanging space, and gives the impression of a massive closet.

Efficient Circulation

Every area of the house should be easily accessible from every other area of the house, without having to go through intermediate rooms. Long narrow, poorly lit hallways are a depressing waste of space, and indicate poor space planning.

One way around this is to have circulation space centrally located, and feed the major zones of the house. Stairways are a critical factor, since they take up a great deal of space, and can form a dramatic focal point. L, T and U shaped stairs take up more space than straight stairways, but are much more interesting.

You can also use circulation space for multiple uses. Putting a bookcase on a stairway landing adds visual interest, as well as providing easy access to the library on both floors. Opening a hallway a little or adding natural light (using a light tunnel for example) makes the space more enjoyable.

Storage galore

It seems that no matter how much storage space we put in a home, it's never enough. You need closets in every bedroom, closets in the hallway and entrance, and bulk storage in the garage or attic. In the master bedroom, walk-in closets often aren't enough, you need his and hers walk in closets (with hers being much larger).

However size isn't the only criteria. Efficiency is equally important. Look at these two closets below. Both closets have the same square footage. The closet on the left, however, has 10% more hanging space – even before adding things like closet dividers, double poles, shelves, etc. Closet organizing systems can be added for little additional money, and show that you've thought through the client's storage needs. No one ever said "I can't buy this house. It has too many closets."



People gravitate towards light-filled rooms, especially when the light comes from two directions.

Light-filled rooms

In designing a new home, one of the most neglected, yet important aspects is the quality of natural light in each room. If you don't believe this, you should walk through a new home with a prospective buyer, and watch their eyes as they enter a cheerful, light-filled room. Their eyes widen in delight, and they get smiles on their faces. Then watch as they enter a dark, claustrophobic space. The smiles disappear.

People are often not even aware of this emotional reaction. They just know that deep down inside, they'd rather be in the room with soft, even light. In every home, people gravitate to those spaces. They often become the central social space of the home, regardless of the room's original function. They avoid the darker spaces, unless they're forced to go there.

Many builders don't understand this. They feel that if they put a window in a room, and an overhead light in the ceiling, that should satisfy the light requirement. If they need more light, they use a bigger window (or

more of them.) But this often fails to deal with the emotional aspects of the way light improves the quality of a home. Here are some basic rules for improving the quality of light in your homes:

Put light on two sides of every room

This basic insight comes from Christopher Alexander's book, *A Pattern Language*. When light enters a room from more than one direction, it softens and diffuses the light, reducing glare, and getting light to every corner of the room. Christopher Alexander feels that this is the single most important rule in creating livable, inviting rooms. It can be difficult to follow this rule for every room, but it's critically important for social spaces such as family and living rooms, and for master bedrooms. In some home designs it's difficult to get light on two sides of every room. However, you can use artificial light to balance the light levels. For example, light sconces on the wall opposite the windows are an excellent solution.

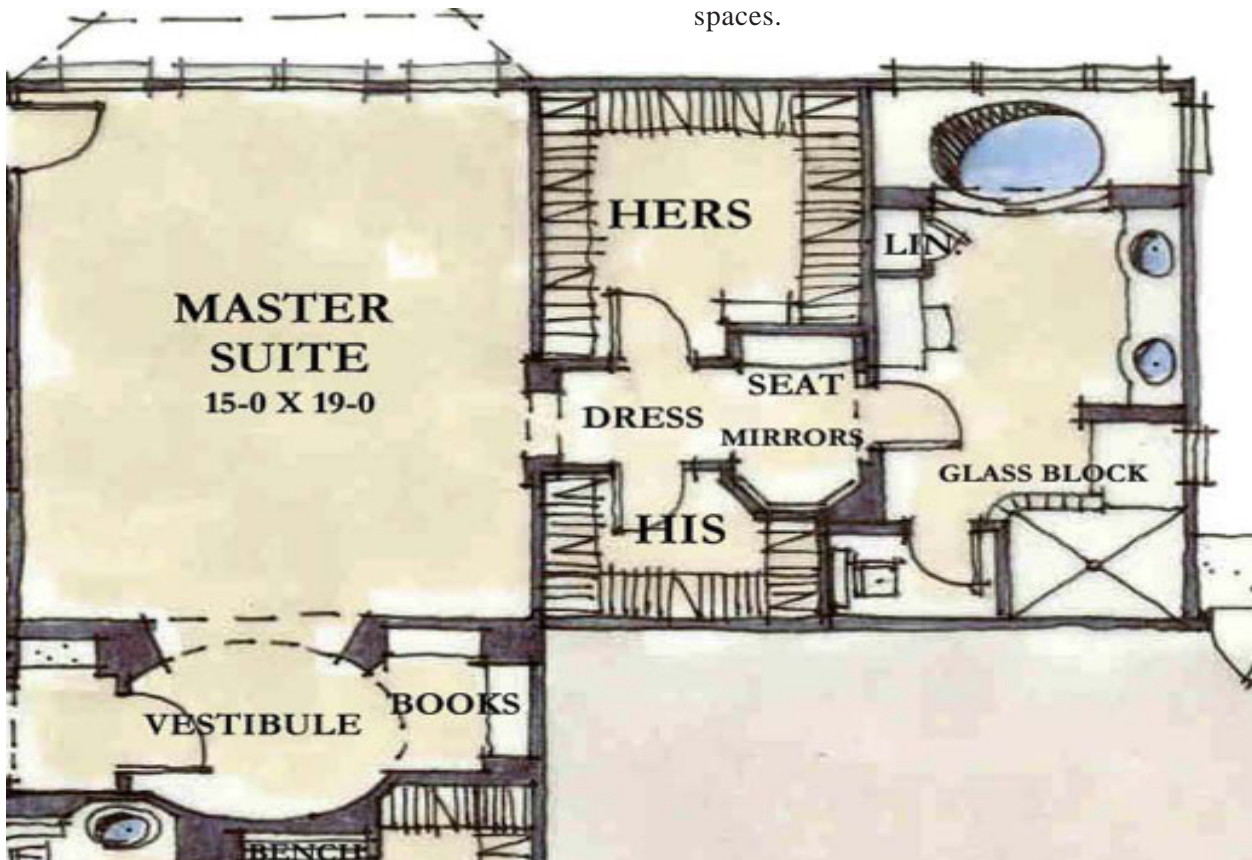
Master bedroom up or down?

Around the country, more and more home buyers are looking for a home with the master bedroom on the main level. In a way, this was quite predictable. As the baby boomers grow older and begin thinking about retirement, they know they may not be able to go up and down stairs for the rest of their lives. A master bedroom down design gives them the convenience of one-level living, combined with the cost savings of a two-level design. Another advantage of the master bedroom down design is the separation it gives parents and children. When children are very small, parents often want their bedrooms nearby in case of emergencies. As the children grow and become teenagers, both the children and the parents want more privacy and peace and quiet in their lives. Parents don't want to have to deal with loud music and messy rooms. The children want more autonomy and independence. Putting the master bedroom down creates two separate zones, provides the separation they both need, and improves the quality of family life.

One-level ranch style housing has always had a certain appeal to a segment of the population. Unfortunately, a one-level house costs approximately 15% more per square foot to build than a comparable two-story house. You have more foundation and roof per square foot. In addition, one-level homes require more land.

In a master bedroom down design, all the essential living areas are on one level, including sleeping, bathing, eating, and entertaining. The second level includes additional bedrooms for children and guests, and secondary work and entertainment spaces. If the home owners don't want to climb stairs, they don't have to.

In choosing designs for a master bedroom down house, you will generally discover that the best layouts have more living space on the ground level than on the second level. This can be accomplished by having part of the house be a one-story design, and part two-story. This also creates a more interesting exterior layout and "streetscape" for the house. The other way is to open up interior spaces to create "volume spaces" in the home. A two-story foyer or great room can open up the interior of a home and provide exciting, light-filled spaces.



This master bedroom down configuration features all the amenities of the modern master bedroom suite – luxurious bath, his and hers walk-in closets, dressing area, outdoor access, and a vestibule entry.

Master Bath: How much luxury can they afford?

Today's master bathrooms are beyond luxurious – they would make an oriental potentate feel right at home. And yet, like many aspects of today's home, it's the emotion, not the logic, that counts.

A large whirlpool soaking tub is considered absolutely essential, even though studies show that most people don't take baths – they take showers. But a soaking tub looks nice, and the room would feel incomplete without it. And let's not forget all those fantasies about bubble baths for two, while sipping champagne. Even if you never do it, it's fun to think about. Besides, what if you want to resell the home? What if the new owner actually wants a tub? It would cost a lot more to add it later.

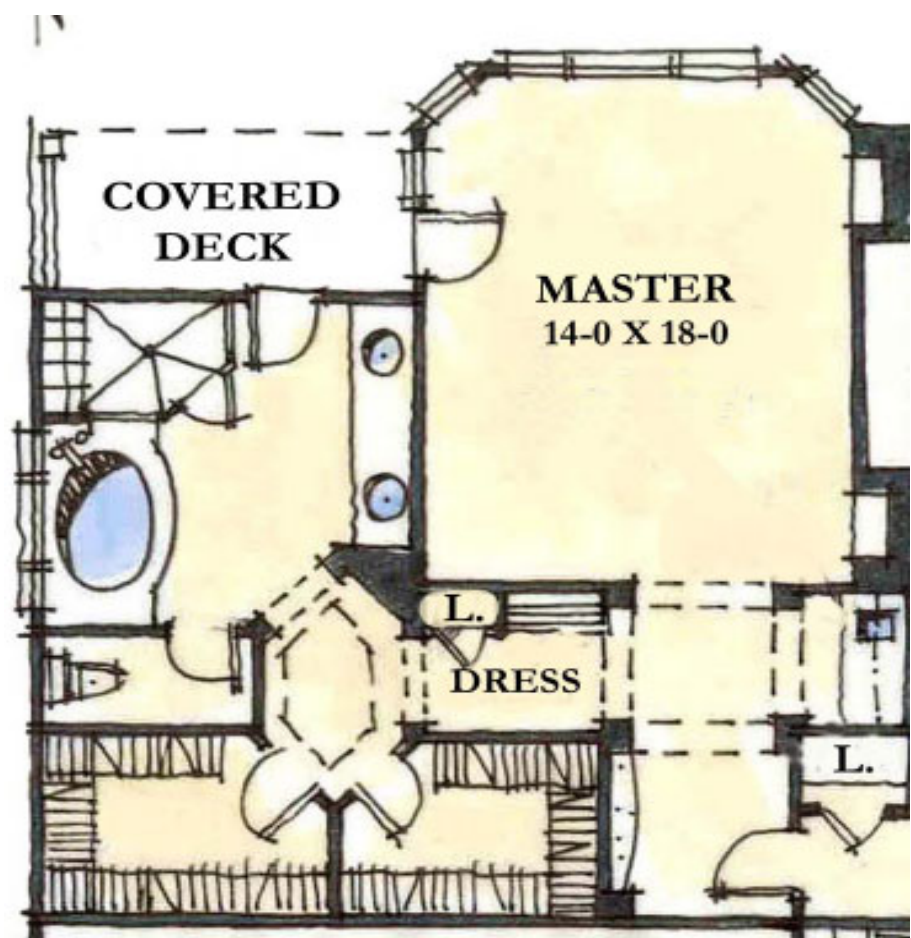
But even a simple shower isn't enough – today's showers feature multiple shower heads, cascading waterfalls, and pulsing jets of water for a total bathing experience. Two shower heads make it easier to share the shower, as well as creating a sensation of being surrounded by water. Custom showers can be huge, lined with marble, and many have walk around entryways, to eliminate shower doors. It's a big step up from the shower head in the standard tub.

One sink isn't enough – now there needs to be at least two sinks – his and hers. In some cases there are two separate vanity areas – so that the wife doesn't have to put up with the husband's shaving mess, and the husband doesn't have to put up with her hair spray.

And of course, the countertops are either Corian, granite, marble, or ceramic tile. It costs a lot more than cultured marble, but it looks better and lasts longer. When we use ceramic tile on the walls, it isn't the plain white tiles of the past. We want special colors and textures, and special inset tiles to add border and patterns.

We've upgraded the lighting, the fan (more quiet), the faucets (brass, or brass and chrome), the mirrors (framed), the towel racks and hardware. The flooring is either ceramic or marble tile. The lowly toilet has been relegated to it's own room – for greater privacy. Sometimes there are his and her toilets – presumably his with lid left up, and hers with it down.

Bathrooms aren't about being clean. They're about pampering ourselves in small ways, to give our lives more a sense of luxury and self-indulgence. After all, we're working harder, spending more time away from home, and making more money. What better way to tell ourselves, "you deserve the best."



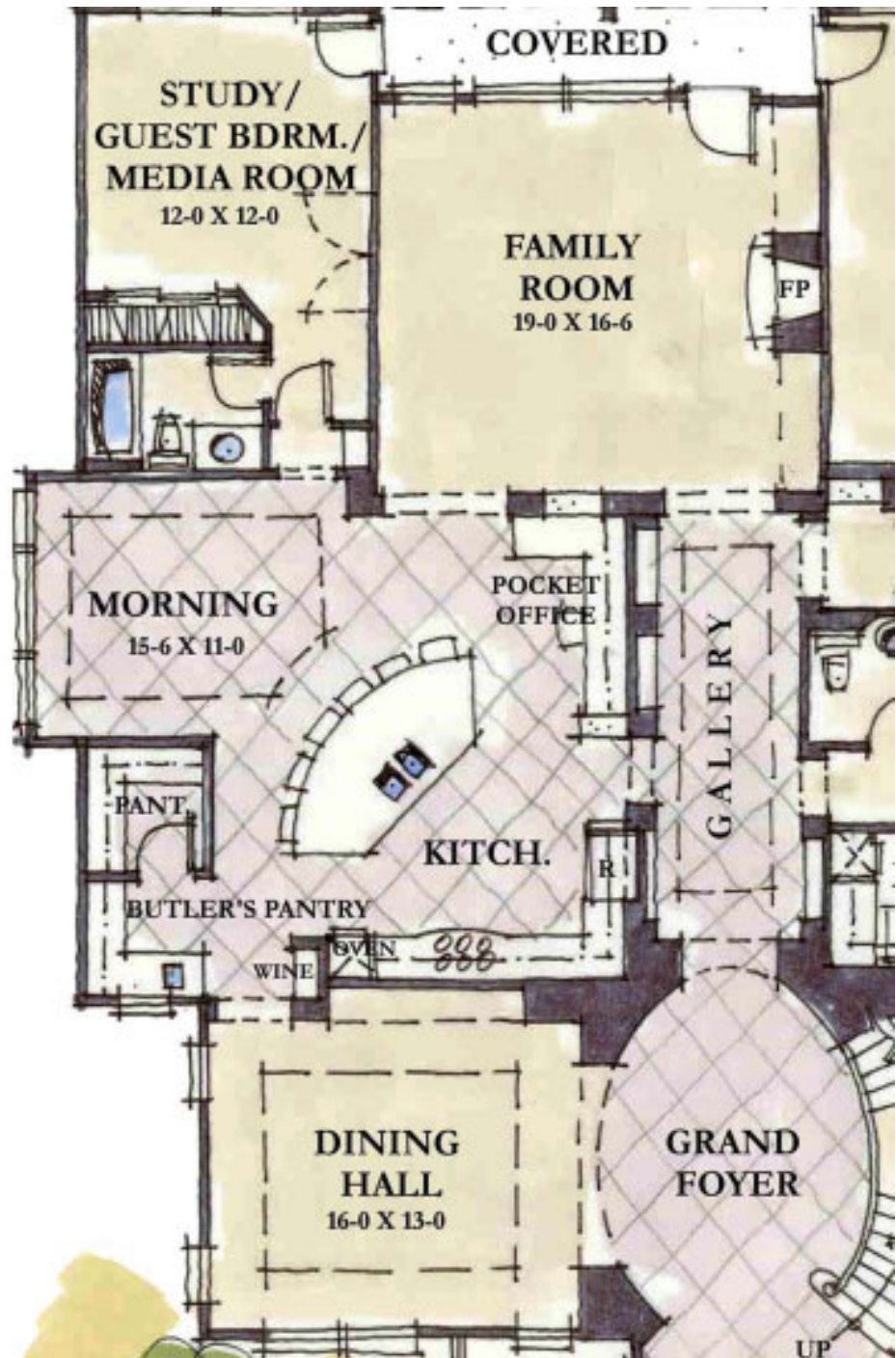
The master bath area in this home has all the elements of luxury in a compact area – double vanity, whirlpool tub, vestibule entry, segmented toilet, separate shower, dressing area, and access to the outdoors.

That's entertainment

A lot has been said and written about how American's are spending more and more time cocooning – retreating to our homes to relax and withdraw from the pressures of our jobs and society. But for many people, home provides a place to do just the opposite – a place to invite other people in – to enjoy the social interaction of friends and family, and celebrate life and its pleasures.

Today, our style of entertaining has become more relaxed and informal. Except for holiday events, there is very little formal dining. We tend to get together more for good conversation and informal get-togethers such as watching events, making simple meals, playing games, and relaxing. For those who entertain at home, certain features become very important. A large kitchen, with space for more than one person to help prepare the food. Recreation rooms with game areas such as pool or ping-pong, built-in bars, and TV viewing areas. Media rooms with wide screen or projection television. Family rooms with plenty of seating, and easy accessibility to the kitchen and the outdoors. Indoor/outdoor areas such as decks and patios that extend the living space to the outdoors and provide great space for relaxing in the sun, barbecuing, and playing.

Having a place where friends and family can congregate and enjoy each other's company is a marvelous antidote to the increasing isolation of modern life. Planning those areas into your homes is a great way to convert lookers into buyers.



The entertainment zone of this home includes the large kitchen with eat-in island, morning room, formal dining hall, family room with fireplace and media wall, and access to the outdoor areas.

Kitchen: showpiece or social center?

When did the kitchen become the social center for the home? Once upon a time, when the middle class ate at home (in the formal dining room) kitchens were out of the way places, used for cooking and nothing else. But now that we eat home less and less (approximately 50% of all meals are eaten outside the home), the kitchen has become more and more important. Eating informally has become a form of entertainment. It's not only fun to eat, it's fun to prepare the food. Friends and family gather around to talk during meal preparation and to lend a hand. Often, the kitchen is connected to the family room – to make social interaction easier.

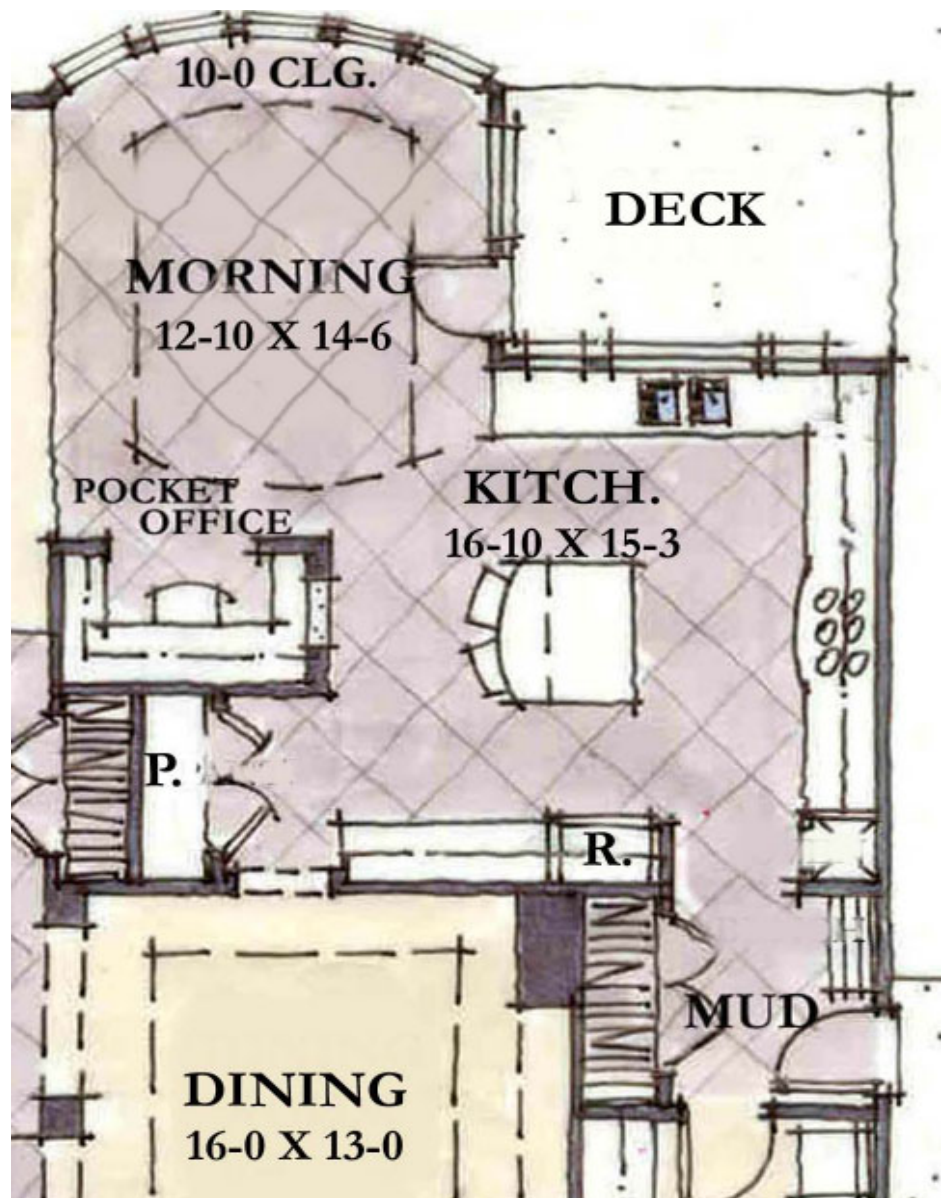
Now a parent can prepare a meal, and keep an eye on the children at the same time. "Morning" rooms and informal dining areas enhance the kitchen's convenience. Some families now claim they "live" in the kitchen, and their formal living rooms and dining rooms are rarely used.

In the 50's and 60's, kitchens were designed around the "work triangle" – the stove, sink and refrigerator, separated by cabinets and designed to minimize the steps needed to prepare a meal. Kitchens were L-shaped and U-shaped or just facing cabinets. But with more than one person preparing, the work triangle needed updating.

The kitchen zone in this home includes a small eat-in island, morning room, pantry, access to the outdoors, a pocket home management office, and easy access to the dining, laundry and mudroom.

New kitchens often have two sinks, and some have two dishwashers. An island was once considered a luxury feature. Now islands are larger, with informal seating. By putting a sink in the island, the host can more easily converse with family and guests.

Where status was once associated with never setting foot in a kitchen, the new status symbols are professional stoves, high-end cabinets, and granite countertops. We have a passion for cookware and gadgets such as Cusinarts, bread makers, and cappuccino machines (which we keep tastefully out of sight in the appliance garage). Since the kitchen is so important to the way we live today, it's little wonder that people are willing to spend more to make it a convenient and enjoyable place to spend their time.



Details make the difference

One of the last things that goes into a house, the trim and moldings, often create the quality expectations for the entire house. That's because many of the things that determine quality are hidden within the walls. But the trim is there for everyone to see.

While finish carpentry isn't inexpensive, the *difference* in cost between a 4 inch crown molding and a 6 inch molding isn't that great – and yet the value perception difference it creates is immense. In public areas it's worth the small additional expense to make a statement. You might also want to add a chair rail in dining rooms or rooms that get a lot of traffic.

In designing details, the concept of contrast is important. If all the rooms have six inch crown molding, the buyer doesn't notice them. When most rooms have four inch moldings, a six inch moldings in special rooms gets attention. Variation in detail creates both visual rhythm and perceived value.

Doorways and entrances are also important, since they are the first impression a person has of a room. You can use columns or an arched opening to set off a wide open entrance. You can frame out the entrance wall extra wide, and then panel the opening. Even a simple plinth column on each side adds interest and importance.

Ceilings can be used to define spaces and create dramatic interest using soffits, cove lighting, or medallions. A simple tray or angled tray ceiling in the master bedroom, living room or dining room gives a feeling of greater openness without the expense or complexity of a cathedral ceiling.

Built-ins, such as book cases, media walls, and seating areas create focal points for a room, and allow the buyer to better visualize how the room can be used.



The framing details around the doorways, and the flooring and stairway details make this entrance foyer a special space.



Well-designed traditional detailing like shutters, cornices, cornerboards increase the perceived value without dramatically increasing costs.

Indoor/Outdoor Living

The size and placement of rooms and the way rooms “feel” determine the livability of a home. An often-overlooked way to expand that feel and livability is by using the concept of “indoor/outdoor living.”

Too many builders design and construct a lovely home but don’t take the time to site it properly on a lot to take advantage of views and light. Or they create a beautiful home in a beautiful setting, and then tack a tiny deck onto the back of the house. As a result, the home fails to take advantage of its setting, and fails to create the perceived value that would increase the sellable price. Ironically, on a square-foot basis, indoor/outdoor living is the least expensive way to increase the livability of the home.

In designing indoor/ outdoor living, consider these three major concepts: 1) transition areas, 2) expanding indoor rooms, and 3) creating outdoor rooms.

Transition areas

At every transition between the indoors and the outdoors, take special care to make that transition as pleasant as possible. Entrances to a home should be covered and protected from the weather, through a porch or covered entry. This way you and your guests can be out of the snow or rain while you fumble for your keys or umbrella, or while they wait for someone to come to the door. In the back, an arbor or pergola can shade and soften the light that enters the home.

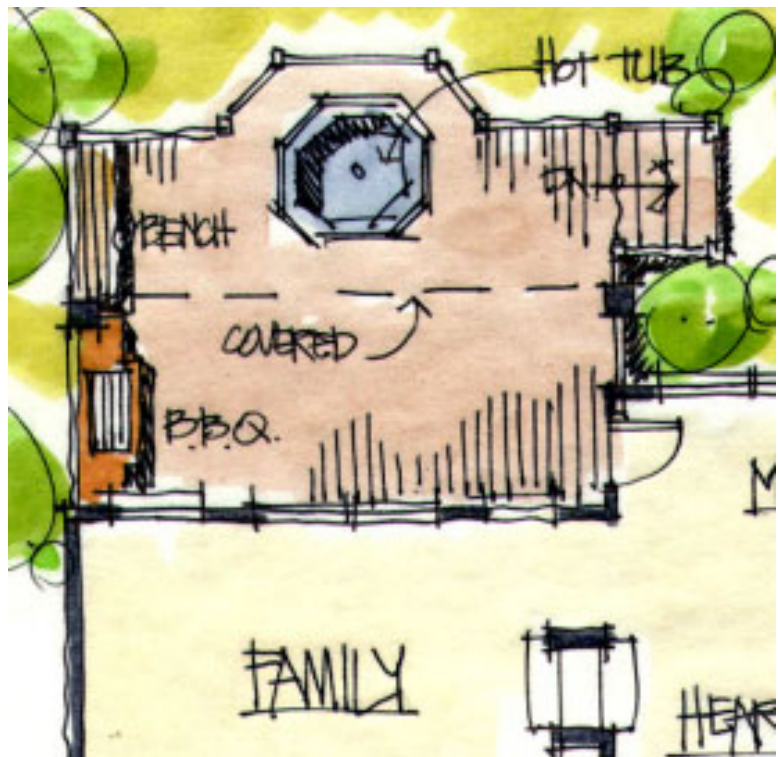
Expanding the indoors

Make indoor rooms feel much larger by opening them to the outdoors through windows and glass doors, and through placement of outdoor spaces. A living room or a bedroom that opens onto a spacious deck or patio seems much larger than one that is closed in on itself. In fact, it not only seems larger; it is larger since people will use those outdoor areas as living spaces in nice weather. A bedroom, for example, that opens onto a private garden adds color and warmth to the room year round. It provides visual interest as the weather shifts and the light changes during the day. This variety within uniformity provides a psychological comfort to the occupants and adds to their living pleasure.

Creating outdoor rooms

For a space to be truly functional and comfortable, it has to be defined with well-marked boundaries and designed on a human scale. Rooms that are too large can be as uncomfortable as rooms that are too small. This is true whether those spaces are indoors or outdoors. Decks and patios create living areas that allow comfortable interpersonal interaction and facilitate human activity. Outdoor furniture, benches, barbecues, and sports areas such as badminton, volleyball, tetherball, swimming pool, terrace – all these allow family and friends to interact in a positive fashion. It doesn’t take much to define a space. A half wall or plantings around a patio does the job. You can use trees, hedges, and terraces to divide a large, uncomfortable space into a series of smaller, more intimate spaces that can be enjoyed by all.

When you compare the cost of creating a square foot of living space outdoors with the cost indoors, and you look at the added benefits in terms of enhanced enjoyment and livability, indoor/outdoor living is a concept that should be integrated in the design of every new home.



This superdeck provides additional living/entertaining space at a fraction of the cost of indoor space.

Designing for Efficient Construction

It's not enough that the house is attractive. It must also be efficient to build. That doesn't mean bland or boring or boxy, but it does mean that floor spans and roof structure is not overly complicated, expensive, or time-consuming to build. The process is called Value Engineering – where every material and component is evaluated for its contribution to the perceived value of the finished product. Some of the things to look for in value engineering include efficient spans, simplified roofs, efficient use of materials, integration with mechanical and electrical, and reduced construction time.

■ **Efficient use of materials.** Most sheet goods (sheathing, insulation, plywood, drywall) are based on a 4' wide module. By making the outside dimensions of the house fit a 2' grid, you will get the maximum benefit from these materials and have less waste. A study by NAHB showed that by framing on a 24" grid, rather than a 16" was not only faster and less expensive, it was stronger, since all the elements (studs, roof trusses) lined up and transferred their loads directly to the foundation.

■ **Efficient spans.** Long unsupported spans mean the use of strong and expensive supports, such as steel beams or gluelams. In addition, as you work closer to the load limits of the material, floors become more springy, and can sag. While new materials such as wood I beams can have extremely long lengths and can span long distances, shorter spans use less expensive material and provides a better floor.

■ **Simplified roofs.** The roof must cover the house footprint. Therefore, the more complicated the floor plan, the more complicated the roof. A certain degree of complication adds interest to the house, and some complications (gable on gable, for example), do not add too much to the construction complexity. The roof pitch also contributes to complexity. Keep the roof simple enough to be efficient, but interesting enough to provide interest. A 12/12 pitch is more expensive to build than a 8/12 since the roofers can't just stand on the roof, but must be supported. Higher pitches, however, are sometimes necessary if you are providing living space within the roof itself.

■ **Integrated mechanicals.** Mechanical ducts for heating and cooling and plumbing are often an after-thought in the design. You want to think this through in the design stage, when you can make changes with a

pencil, rather than in the construction stage, using a chain saw.

■ **Faster construction.** All other things being equal, the less time it takes you to build a home, the less the overhead burden, and the more houses you can build in a year. You don't want to rush construction and cut corners (which can result in doing things over), but you do want to minimize the downtime on the house, and get the most efficient use out of subcontractors.

Balancing Perceived Value

No matter how beautiful a design solution may be, if the buyer can't afford it, or the builder can't recover his costs, it's not a good solution. Every design detail in the home should be evaluated in terms of what it adds to the cost versus what it adds to the benefits. Look for ways to eliminate costs and simplify construction without taking away from the perceived benefits.

For example, suppose you are selling an upscale home, and the plans call for a circular stairway, costing \$4,000. One alternative would be to replace the stairway with a straight run. The cost is \$400. You save \$3,600. However, a straight stairway does not have nearly the emotional appeal of a curved stairway. You may have lowered the overall perceived value of the home by more than you saved.

So how do you maximize the emotional appeal, while keeping the costs reasonable? One solution is an L-shaped or U-shaped stair with one or more landings. You could also add a fancy newel post and railing detail. Now you have an emotionally exciting stairway, but it only costs \$800. It may not have all the emotional appeal of a curved stairway, but it's close. You can then take the \$3,200 you saved on the stairway and either reduce the price *or* put that \$3,200 where it can really make an emotional difference. For example a better entry door, fancier sinks in the master bath, upgraded countertops, or a better grade of cabinet. All of a sudden, the perceived value has risen throughout the entire home.

Every home has a perceived value range. All the components within that home must be consistent with that range. There are two ways you can violate this rule: by overbuilding, or underbuilding.

For example, you would never put a \$10,000 media room in a \$100,000 starter home. The customer might

like the media room, but they aren't willing to pay for it. In this case, profits are reduced by the amount of the extra, but unpaid for, features. On the other hand, you don't want to put cheap linoleum in the foyer of a \$300,000 move-up home. Potential buyers will look at that and think that the entire house is poorly built. In this case, the profits are reduced by the difference between the lower selling price, if it sells at all, and the savings.

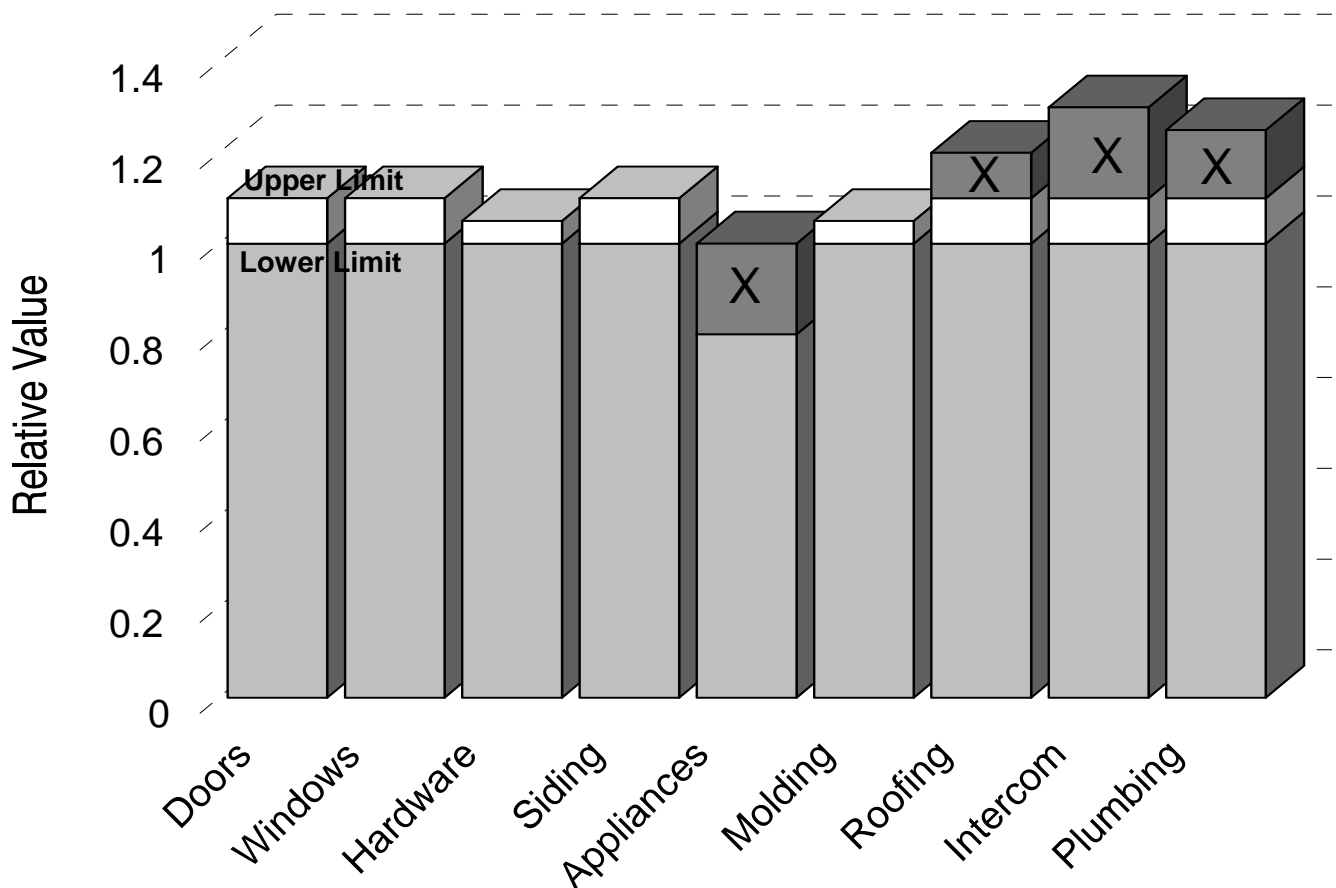
For each component, there is a range of customer acceptance. If you fall below the range, in even one small aspect, you create a negative image that clouds the entire product.

You can also err in the other direction by vastly exceeding the range of acceptance. As a result, you spend too much time, energy, or money on something that the customer is unwilling to pay for. Balancing the perceived value for each component requires thought

and effort. When you examine your product with an eye toward identifying areas that fall above or below the acceptable range you can quickly pinpoint problems that must be solved.

The graph below shows a builder who has fallen below the acceptable lower limit in selecting appliances and has exceeded the upper limit for roofing, intercom, and plumbing. This builder may have installed a wood shake roof when a heavyweight composition shingle would suffice. For the appliances, he may have selected the wrong brand, or, depending on the price range of the house, may have omitted a trash compactor or a built-in microwave.

By evaluating the relative perceived value of the components of the home, you can avoid underbuilding or overbuilding, and maximize the total value of the home.



Improving the Design Process

In order to create a design advantage, you not only have to create great new plans, you need to create a design process that enables you to modify plans to meet individual needs, and to constantly refine your plans to increase value and marketability. By improving the design process, you turn a liability into an asset, a way to constantly improve your design and your profits. The design process itself can be an advantage for the builder who understands how buyers make decisions. By making the design process easy and enjoyable for buyers, it reduces the hassles and problems builders experience during the construction process. To improve the design process you need to create a design team, work with the right people, and improve your customer interaction.

Create a design team

Design is too important to delegate strictly to architects. While good architects are excellent at the aesthetic issues of design, they may not be as good at understanding your market needs or maximizing construction efficiency. Your design team needs to consist of yourself, your designer, someone from marketing, and someone from construction. (In some small companies the same person may wear many hats).

If you use preexisting plans, have your design team select some preliminary plans and decide what modifications to make to them. If you create your plans from scratch, don't wait for the architect to create a plan and then react to it. If you do that you might find that the initial plan doesn't meet your market criteria at all. Have a meeting of your design team to establish the design program – the initial parameters of the design including square footage, room mix, plan width, architectural style, and target price point. The architect may want to create an interactive bubble diagram right there with the team, and then go back to his office and fill in the details.

Once you have an initial plan, it's time to refine and improve it. Look for ways to add visual excitement and memory points, ways to improve space usage and circulation, and ways to reduce construction costs. Here is where the team can really shine, bringing its different areas of expertise to bear on the plan. At each stage of refinement ask: "What can we do to make this plan even more exciting and efficient."

Get the right team members

The quality of the design depends a great deal on the quality of your design team. A critical factor in that is the architectural designer. What you're looking for are people who understand both aesthetics and construction, and who are able to communicate their ideas effectively. You're looking for someone who isn't trying to make an "artistic statement," at your expense or the expense of the project. You need someone who isn't a prima donna, who can keep their ego in check and work well with the ideas of others. If you've found someone you can work with, continue to use them as much as possible to minimize the learning curve every team has to undergo at first.

Pay a little more for quality

Good design costs a little more than mediocre design – at least initially. In the long run it saves you money by creating higher market value, and increasing construction efficiency. Since design is generally a small fraction of the cost of the home – it makes sense to pay the extra amount for the best design. It also pays to carry the design to a higher level of detail – including moldings, special spaces, built-ins, indoor/outdoor living, lighting, and ceiling details.

You need flexibility and quick response time

Since every customer is different, most builders will modify plans (or create plans) to meet the buyers needs and expectations. When that happens, you need a designer or a plan service that can make the modifications quickly and without hassle. Sure, you pay a service fee for the modifications (often at an hourly rate), but it's much less expensive than designing from scratch. And it's more professional and less error prone than redlining plans.

The speed of the response has two effects. First, it makes you look professional and responsive, which starts off your customer relations on a good footing. Second, the faster the turnaround, the faster you get a final price, client sign off, and can begin the permit and construction process. The reduction in cycle time can increase your productivity and lower your overhead per house.

Improve customer interaction

Many builders feel that homebuilding would be a much easier job without all those pesky customers driving them crazy with decisions and changes. And yes, some customers are just plain difficult. But homebuilders could make life much easier for themselves by streamlining the decision making process itself.

There are two aspects of this. The first is to systematize the entire design and construction process – spell out client decision responsibilities, and set deadlines for each decision. The second is to simplify the decisions that buyers make by managing their choices.

Once you have a good client interaction process in place, you need to manage it through constant interaction with the client. A weekly email communication system can do this with a minimum of administrative burden.

The Power of Choice

Providing people with choices is a powerful marketing concept. “Do you prefer product A or product B” is a better sales approach than “What do you think? You want to buy, or what?” Remember, buyers *always* have a choice. They can choose to buy, or not buy. They can buy from you, or from someone else. To get them to buy, and buy from you, you have to give them the choices they want, in a way that they like.

Too few choices

Henry Ford once had over 50% of the world market in automobiles. His philosophy on choices was simple: “You can have any color you want, as long as it’s black.” That worked fine until General Motors came along and let buyers have their pick of models and colors.

When you give buyers too few choices, they go looking elsewhere to find what they want.

Too many choices

Today, consumers have more choices than ever before. A typical supermarket may carry 350,000 different products, including (in one store) 240 brands of pain relievers. Maybe we buy so many pain relievers because we get a headache from making so many choices.

When you give buyers too many choices, they become confused and don’t buy *anything*. Making a sale is often a process of reducing uncertainty. This is often the case with the custom builder who gives their clients unlimited choices and provides little guidance.

The buyer is often overwhelmed by the decision-making process and decides to buy a production home or an existing home.

Managing choices

The correct solution is to try to give the buyer the right number of choices, organized in a way that makes it easy. The key is to break the decisions into “bite-sized pieces,” and simplify the decision-making process. Three ways to do this are preselecting, bundling, and customization.

Preselecting consists of determining the most cost-effective choice for the buyer, and providing this as the default choice. This could mean choosing Andersen Windows, Kohler fixtures, and Corian countertops, and explaining to the buyer why you chose those selections (quality, warranty, brand-name awareness, etc.) If they like those selections, many of their decisions are already made.

Bundling is the process of grouping options into a predetermined package. For example, an upgraded lighting package could include a predetermined number of additional downlights, plus a lighting cove in the dining room. Now, instead of making five or six choices, buyers only have to make one. In addition, they know that the options are designed to work together.

Customization (as opposed to pure custom) presents buyers with a home plan and allows them to make incremental changes in room size and usage. Instead of starting from a blank sheet of paper, their choices are manageable. Options are often prepackaged and prepriced so they can select from their limited menu.

Both custom builders and production builders need to help their buyers make the right decisions, including the all-important one of who builds their home. Managing the number of choices is a good place to start.

Examples

- Simplify selections (bundles, standard upgrades)
- Pre-designed upgrades and extensions (Example: indoor/outdoor living package)
- Pre-designed interior style packages (moldings, color schemes, doorways, stairs)
- Pre-designed modifications (room extensions, garage bay, flexible spaces)

Taking advantage of your advantage

Once you've created a design advantage over your competition, you need to take advantage of your advantage by telling people about it. You build your entire marketing message around your design process, your detailing and special spaces, and your cost-effective construction. In fact, you can use them to define what you mean by quality and how you are different from your competition. You do that by selling the romance, by supporting that romance with facts and specifics to increase credibility, and by selling the process to remove buyer anxiety.

Sell the romance

In selling design, you're actually selling the benefits of the lifestyle that design can provide. Since buying a home is an emotional undertaking, your marketing should also provide them with an emotional experience. Tell them how living in a home you built will affect the way their family interacts, their pride of ownership, the sense of comfort and community that comes from living in the home of your dreams. Paint vivid word pictures that allow them to place themselves inside your home.

Sell the specifics

The way to make emotional benefits credible is to provide specific details that underline the benefit. For example, it's not enough to simply state that you build a quality home. The problem with selling quality is that people don't know what it means. They have no basis for comparing it to your competitor's "quality." So if

you really want to sell quality, first you have to define it, in specific concrete terms. Once you point out to them what quality means, they can get excited about it. For example, if your definition of quality means 8-inch crown moldings in public areas... then say so. If your competitor only uses 6-inch moldings, you've created a quality difference. If your quality means 6 inches of insulation for greater comfort and energy efficiency, then say so. Find your competitive advantage and make *that* your definition of quality.

It's like falling in love all over again

Remember when you fell in love for the first time? Something about the way they looked, the way they made you feel comfortable, the way you knew you wanted to spend time with them. Walking into a Pinnacle home in Jamestown Village brings back those memories. With heartwarming exterior design, comfortable spaces for living and interaction, and the promise of years of pride and enjoyment for you and your family.

The finest homes begin with the best neighborhood

It's not just the homes you'll fall in love with. The neighborhood of Jamestown Village has everything you and your family would wish for... great schools, convenience to work and shopping, a village green for neighborly interaction. Open space and trails for recreation and leisure. It's a place you'll want to come home to, a place for you and for family to grow in and enjoy.



How to get to
Jamestown Village
Take I-270 North to 27
West. Turn right at the
3rd traffic light.

Map

**Pinnacle
HOMES**

1234 Main Street
Anywhere, USA

(301) 234-5678



Sell the process

More and more, customers realize that what sets one builder apart from another is often the quality of the experience of building the home. With some builders that process can be a creative, mind-expanding delight. With others, it can be a long, drawn-out nightmare of miscommunication and expensive overruns. The way you sell the process is to explain (or show them) the process in a way that is simple and straightforward. You can do this through graphics and testimonials. Testimonials, to be effective, must address the heart of the buyer's concerns. You should use testimonials that talk about the experience of building with you, as well as quality of work and family comfort concerns.

Reduce the number of decision points and clearly spell out the step-by-step process they will go through before they move into their new home. If you do this graphically, it will have a much stronger impact. They can see: "Oh, that's not so bad. They really know what they're doing."

Create realistic expectations

Every builder has had to deal with the problem of the customer who expects too much. The problem with perfection, they seem to feel, is that it's just not good enough. No matter how hard you tried, no matter how much extra work you put into building their home, they were never satisfied.

Creating customer satisfaction is a matter of perception. If clients expect perfection, they will be disappointed no matter how good your quality control is. If they expect no glitches, no delays, and no subcontractor mistakes and no cost overruns, then they're living in a dream world, and it's the builder's job to wake them gently.

Building a house is not brain surgery. However, a house is a highly complex, hand-crafted product, involving many different trades and skill levels. We use natural materials such as marble, which are filled with imperfections, some of which make it beautiful. The builder must convey this complexity to his customers at the same time he is trying to convince them of the quality of his work. It can be tricky at times. For the

builder, house construction may not be an emotional undertaking. But for the buyer, the process is laden with emotion. When things go wrong in one area, they'll expect problems in other areas as well.

During the negotiation process I have a conversation with the client that goes something like this: "Mr. and Mrs. Jones, do you expect a perfect house?" They look a little startled and say, "What do you mean?" "I mean," I tell them, "that there's no such thing as a perfect house. I'm a very good builder, one of the best, and I've never yet built a perfect house. So if you want a perfect house, tell me now, because it's going to cost you a lot more money." At this point, they say, "Oh, no, we're not looking for perfection. We just want a quality house."

Inevitably, during the final phases of construction, after going over a wall three times to ensure that it is perfectly smooth, I will say, "Mr. and Mrs. Jones, do you remember our conversation about the perfect house?" They will nod, and I say, "We are now approaching that line of searching for the perfect house." They laugh – and are satisfied with the high level of quality we provide.

Let them know at the beginning that things happen on the construction site that are beyond your control. Natural materials will vary. Concrete will crack. People get sick, subcontractors may have to work on other houses, the weather will turn bad and, sooner or later, you'll be behind schedule. If they know such things are inevitable during construction, they can take it in stride.

If buyers expect perfection, they will always be disappointed. But if you have created realistic expectations from the beginning, they will be thrilled to find that the glass isn't half-empty – it's practically full.

Credits

Photos on page 1, 5, 6, 10, and 12 courtesy of Thompson Homes, Westchester, PA.

Photo on page 11 courtesy of Pohlig Builders, Malvern PA. Drawings on pages 3,4,6,7,8,9,12,13,14 courtesy of Dave Court, architect.

Programming the Design Advantage

In designing any house, you start with a program—the constraints, limitations, and targeted market expectations you have to operate under. These are some of the things you need to consider:

- 1. Maximum width of house.** (This is normally determined by lot size and setback requirements.)
- 2. Target size (square footage).**
- 3. Target price range.** This determines the amount of detail and amenities that go into the house.
- 4. Master bedroom location.** Master bedroom down designs appeal to empty nesters, families with older children, and anyone preferring one level living. They tend to have more square footage on the main level than on the second level. Master bedroom up designs are preferred for families with young children.
- 5. Number of baths.** Full baths or half baths? In the master bath, do you have a separate shower and jacuzzi, number of sinks, toilet compartment?
- 6. Number of bedrooms** and minimize size of bedrooms. How much closet space per room?
- 7. Special spaces.** You can add a great deal of "wow" and functionality to a home by creating small spaces with specialized uses. This include computer niches (brain spaces), mini libraries, home offices and kitchen offices, and entertainment walls. You can often create them by using wasted circulation space.
- 8. Room sizes.** Minimum room sizes is dependent on the size and cost of the home, and the market in which you work.
- 9. Formal dining room.** Does your market or target buyer require this, or do they prefer more informal dining?
- 10. Separate parlor/living room.** In some markets you can minimize the formal living room to add to the informal family/great room.
- 11. Eat-in Kitchen/Island.** How big and important do you want the kitchen to be. Do you want to eat in the kitchen (eat-in island), or in an adjacent morning room?
- 12. Laundry room/mud room location.** Is the laundry on the first or second floor? Do you need a separate mud room?
- 13. Number of cars in the garage.** Most single family homes require a minimum of 2 car spaces. More upscale homes expect 3 or more spaces.
- 14. Basement or crawl space.** If a basement, is it finished or unfinished?
- 15. Garage loading.** The exterior of small homes tend to be overwhelmed by front loaded garages. If the lot is wide enough, you can use a side-loaded garage, or a center courtyard configuration. You can recess the garage to lessen the dominance, or in an urban situation, place the garage in the rear.
- 16. Indoor/Outdoor connection.** How do you want the home to interact with the outdoors. Decks, patios, screened in porches, natural light.
- 17. Exterior style.** You can design the same home in many different styles, including traditional, Country French, and Craftsman.