



SEVEN KILLER FLAWS TO FIX WHEN RENOVATING A HOME IN SOUTH FLORIDA



A bonus
report from
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INTRODUCTION:

What you can't see will hurt you

There are dozens of components and variables to analyze when planning a major renovation or gut-rehab. But there are seven potential flaws this if missed can come back to bite you in a big way if you fail to address them at the outset. And almost all of them are hidden from view.

With our experience and unique hybrid systems to whole-house design, renovation and building we believe it's our responsibility to guide our clients in the best options to most effectively and economically address these potential weak points on their property.

Studio 818 steps dives way deeper than the surface when it comes to the complete transformation of residential properties. The vast majority of Interior Design firms deal only with the 'pretty stuff.' In contrast, Studio 818's experience allows us analyze and approach major design and build projects from a unique vantage-point.

Our experience in the design and development of spec homes blurs the line between traditional Interior Design, Architecture and construction. Because of this we see far beneath the surface of any home we analyze. This includes hidden aspects of a whole-house renovation that the typical Interior Designer or Architect fails to consider during the initial planning and budgeting process.

Even more importantly it means looking at any work being done on the home from an investor's mindset. That means making improvements that increase ROI (return on investment) and reduce your maintenance and operating costs.

So let's take peak under the hood at the hidden things you need to consider when renovating a home in South Florida.

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Building in South Florida

You'll find no more challenging place in the US to build than South Florida. And I don't say that flippantly. So you can appreciate my perspective, allow me to briefly share a thumbnail sketch of my background.

I've invested in real estate and developed properties across the Country since 1995. I caught the real estate investment bug from my first real estate investing mentor Harry Liptka. Harry shared from his prolific experience gained during his acquisition and development of over 5,000 acres of land in Central NJ and Israel.

With the help of Harry my first real estate development project in my home State of New Jersey was re-zoning farmland to commercial use and developing that property. I moved to Hawaii for 8-years to take advantage of unique short-term factors affecting real estate on the island of Oahu. There I focused on smaller multi-family properties which was eye-opening and fun.

I partnered on four 300+ unit multi-family properties in Texas (not a good experience), flipped homes in Southern California during the "Great Recession" (a grind) . . . and since 2011 with my beautiful and uber-talented wife now develop designer homes in one of the fastest-growing and most challenging markets in the US.

This broad exposure has been a blessing. It's always a challenge and I've learned A LOT through painful mistakes over the years. I share all this only to add perspective to what I'm about to say.

Nowhere have we found the costs and complexity of residential construction more shocking than in South Florida. There are many factors at play, but the high construction costs are related primarily to the potential of hurricanes in South Florida.

So, let's dive a little deeper into what makes South Florida so unique when it comes to building structures and then we'll cover the seven flaws you need to consider addressing when doing a whole-house renovation or gut-rehab.

The Structure

If you're planning a whole-house renovation or gut-rebuild on a South Florida home built before 2005 there have been significant changes in building codes since then. Many people mistakenly believe that because most South Florida homes built since the mid-1950's have been constructed using concrete block that they are strong enough to stand up to the assault of hurricane force winds. Unfortunately, that is not the case.



Hurricane Andrew hit South Florida in 1992 causing Billions in damage and triggering some of the most dramatic improvements to local building codes in history. Then in 2005 Hurricane Wilma showed engineers what improvements still could be made in strengthening structures.

As you can see in the photo above showing post-Andrew damage, concrete block construction left the shells intact, but homes were otherwise destroyed. The new building codes put into effect after Andrew and Wilma are meant to mitigate this type of damage in the future.

Living in South Florida's year-round sunshine makes it easy to forget what could happen if a major hurricane lands a direct strike. On a normal day-to-day basis, that may be fine. There's not much you can do about it. But when you're planning a major design & renovation on your South Florida home it's the perfect time to strengthen the structure, protect your family, and lower your insurance rates.



3 Key Structural Improvements To Strengthen Your Home

Most homes built in South Florida after 1960 have concrete slabs and concrete block walls which provide a great foundation for a fully-rebuilt home. But as you saw in the post-Andrew photo on the previous page there are weaknesses on these older homes that should be addressed when investing in a whole-house renovation.

Here are the three main structural improvements to consider:

1. Hurricane Strapping of Roof Trusses

Roof trusses are specially engineered structural wood components that support the roof decking and covering (either tile or shingle.) In general the trusses themselves were engineered well enough at the time of original construction that they don't need to be replaced.



The problem lies in the connection point between the trusses and the concrete block walls.

Where a truss connects to a wall is a serious weak-point in a major hurricane, particularly on pre-1992 homes.

In a major hurricane wind gusts can reach 150 MPH or more. Those hurricane-force winds can actually loosen and then blow the entire roof off the house if the trusses are not properly secured to the walls. Updated roof truss strapping is the solution to that problem.

Pre-1992 homes were constructed with minimal or no roof truss strapping. After 1992 the roof-truss strapping requirements on new construction was beefed up considerably. Additional improvements to the building code were made after Hurricane Wilma in 2005 and successively in the years since then.

When you are doing a whole-house renovation this is the ideal time to correct this deficiency that is otherwise impractical and costly to address in a finished home. With the home stripped down to the block it's a fairly straight-forward process to install new hurricane roof strapping. It will bring both peace-of-mind and substantial insurance discounts as well.

2. Windows & exterior doors

Windows are another major weak point. Hurricane force winds blow a lot of debris around at VERY high speeds. A small piece of wood can become a violent projectile when it's propelled at 150-mph. In this environment it's pretty obvious that glass would be a serious area of potential failure. Broken window or door glass leads to water intrusion and its' related destruction. But the real structural damage caused by breached window openings can be much worse than that.



Many people underestimate the ferocity of hurricane force winds. For example; the winds of Hurricane Andrew picked up 2x4's and propelled them with such force that they shot straight through the wood-frame walls of homes. When winds of this velocity get inside a home through broken windows the uplift force on roof structures can lead to catastrophic failure.

Storm shutters can work in protecting against this happening. But that option means living with ugly accordion shutters on your house all year long. Another inexpensive option are standard metal shutter-panels that take hours of prep work

installing and uninstalling with every hurricane warning. It also means turning your home into a bat-cave for what can end up being weeks at a time.

The most up-to-date solution is installing impact windows. Today's impact windows are constructed to withstand impact from objects driven by hurricane-force winds without any of the hassles or drawbacks of storm shutters.

What makes the glass "impact rated"? Special sheets of clear material and glass are sandwiched together under high pressure to create glass similar to bullet-proof glass that will prevent window failure on impact. This laminated glass may crack if struck by a projectile, but that is how they're designed. Impact windows are engineered to pass stringent Miami-Dade Code tests where they must still stand up to hours of hurricane-force winds and additional impacts.

Unlike roof truss strapping, impact windows and doors are a wise investment whether doing a gut-rehab or a basic whole-house renovation. Unless you change exterior opening sizes to windows and doors there's minimal disturbance to the interior of your home during installation.

You can learn more details about impact windows and how they are constructed here: <https://inspectapedia.com/Design/Window-Systems-Florida-IFAS-Ext.pdf>

3. Roofing

Roofing is the final structural concern related to hurricane-force winds. Roofing material and the installation methods required by code are significantly improved after 2005. Does this mean that if your house has a tile roof installed in 2000 and it's in good condition that you should rip it off and install a new one? Probably not. Only a full inspection by a qualified roofing contractor or experienced home inspector would tell you for sure.

Roofing materials can be conventional asphalt shingles, tile and metal in South Florida. Tile roof covering is most common. Tile roof systems when properly installed with good underlayment should last on average 30-35 years, and quality tile roof installations can last 40-50

years. You can use this general guidance along with an inspection report to determine if complete replacement is justified. Another benefit of a roof installed under the current building codes is an additional insurance discount.

This gives you a thumbnail view of the top-3 structural issues that you'd want to include in the budgeting for your whole-house renovation or gut-rebuild. While it's impossible to give you cost estimates for correcting each of these structural flaws without inspecting the actual property, we've included these costs for "gut-rebuilds" in the budget matrix provided in the accompanying 'Real Deal on Construction Costs' eBook.

Now let's move on to the functional systems of the home.



The Systems

These are the systems mostly hidden from view and taken for granted – UNTIL they stop working. These systems make your home functional, comfortable and energy-efficient.

Regardless of where you live -- if the home you're considering renovating was built prior to 1980, all of these potential flaws are a concern. And it's likely that at least one of the following will require replacement. If you're planning on a whole-house renovation upgrading the following moves you much closer to a fully "rebuilt" home.

Choosing to complete a cosmetic renovation without addressing these issues is like creating a ticking time-bomb. Think that's an exaggeration? What else but a "time-bomb" of unexpected costs would you call a house that's been made to "look pretty" on the surface but still has 60-year old guts on the verge of failure?

4 SYSTEMS-RELATED IMPROVEMENTS FOR HEALTH, SAFETY AND RELIABILITY

Here are four hidden improvements that can save you tens-of-thousands of dollars in future repairs. But even more than money saved is avoiding the complete disruption of your home and potential health issues. You should thoroughly investigate these when planning the renovation or gut-rebuild of a South Florida home built in the 1970's or earlier:

1. CAST IRON SEWER LINES

If your home was built before 1975 it's highly likely that it has cast-iron sewer lines. Cast-iron sewer lines have a conservative life expectancy of 50 to 65-years with more optimistic sources bumping that to 75-years. But many factors such as moisture, soil acidity and the standards used to produce the pipe can each negatively impact the lifespan of the cast-iron.

Replacing cast-iron sewer lines is the #1 biggest potential replacement cost on a completed home. And it's a MAJOR disruption to your life when you're already living in the house.

Your sewer lines are completely hidden from view and often ignored until they fail -- then you're in a pile of doo-doo . . . literally and financially.

When you're tackling a whole-house renovation or gut-rehab it's the best time to address degraded cast-iron sewer lines from both a cost and convenience vantagepoint. Doing so not only prevents outright failure, but also improves the overall efficiency of the plumbing system.

Most cast-iron sewer mains are 3" in diameter while new PVC lines would be at least 4". This nearly doubles the functional capacity. In a practical sense, this increased capacity helps avoid clogging issues due to low-flow toilets and the heavy use of garbage disposals.

Older cast-iron sewer lines were designed to function with toilet tanks of two to three gallons of water per flush. Low flow toilets are mandated by building code in a home renovation and they only push out 1.25 gallons per flush. When cast-iron begins to age the inner surfaces of the pipes often become rough which causes material to catch without sufficient water flow and these form sewer line clogs.



When you're already living in the house a sewer-line failure commonly means a specialty plumbing contractor will need to excavate under the slab of your home and replace lines from underneath your structure. Sound like that's a lot of work? You bet! So, you can guess what kind of price tag comes with that work.

On the low-side I've seen owners of a mid-size 2-bath home with 2,000 Sf to 2,500 Sf pay in the \$25,000 - \$30,000 range for a basic system. More complex under-slab challenges, which are not uncommon, can increase that cost to \$40,000 and more. Larger home + more baths = larger costs. And all that cost is ONLY to address sewer lines. The original water supply lines for the home are still behind the walls or in the actual concrete of your homes' slab.

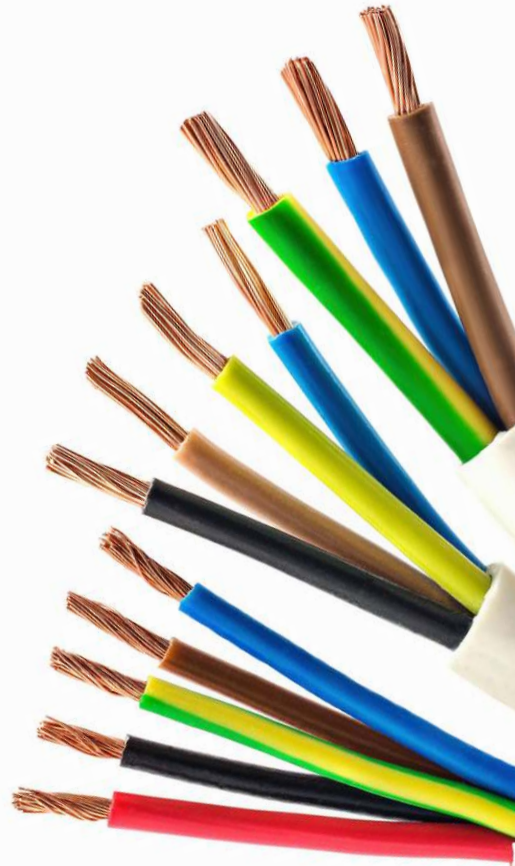
Bottom line -- by addressing these potential areas of failure when planning your gut-rebuild you can replace all the sewer and water-supply lines in the home for at least 50% less than it would cost in a finished home.

2. ELECTRICAL PANEL & ELECTRICAL WIRING

Certain brands of breaker panels originally installed in pre-1980's homes have been deemed a potential fire-hazard by insurers. Many insurance companies won't even insure the home with these brand breaker panels and will require replacement for them to issue an insurance policy.

The same is true of the actual electrical wiring. The wiring used in homes built pre-1968 often have cloth jackets (the outer layer / protective covering.) This jacket can break down over time and become a potential fire hazard. A double-whammy is that many versions of cloth-covered wiring do not have a ground. Cloth wiring with a ground could possibly be worked around if it's in good condition, but cloth wiring without a ground is a definite safety concern. Again, this is an item that many insurance companies will mandate replacement in order to issue a policy on the home.

The best time to most economically bring your electrical system up to code is when doing your whole-house renovation or gut-rehab. Similar to sewer lines you can upgrade the entire electrical system of your home from the power pole to the outlets in your home for a fraction of what it will cost in a finished home.



3. ORIGINAL OR DATED AC DUCTWORK

When it comes to the cooling system, most homeowners and many home inspectors focus only on what they can see. That means the AC condenser and air handler. AC systems in South Florida have an expected life-span of 15-years, so it's great if your air handler and condenser are relatively new.

But those are the parts of the cooling system that you actually see and are easy to replace. What about the parts of the HVAC system you can't see? The ductwork that delivers the cool air is hidden in the attic space of the home. This component of the HVAC system is

where energy efficiency can easily be compromised and it's also a potential source of health issues for people living in the home.

Looking at the positive side of original AC ductwork the argument can be made that many original AC systems in South Florida were constructed using sheet-metal ductwork. This makes cleaning practical and efficient even at a microbial level. The negative is that these original sheet-metal ducts did not have insulation integrated into the actual ductwork. The ducts were wrapped with a fiberglass insulation covered in paper that breaks down in the heat of an attic over time.

The breakdown and/or failure of this insulation is an obvious energy efficiency problem. But more importantly the lack of insulation can cause the AC ducts to 'sweat' in the heat of the attic. When that moisture sits in the ducts it creates an ideal environment for potential microbial growth. AC ducts infested with any form of mold is a major health concern.

Like the sewer lines and electrical system, be sure to have your AC system FULLY inspected. If deficiencies are found and you are planning a whole-house renovation on your home this is the most convenient and economical time to replace ductwork.

4. DEGRADED ORIGINAL INSULATION

This one pretty much speaks for itself. If you look in the attic of the home you are renovating, and you see a few inches of old flattened-out insulation; you need to upgrade the attic insulation to improve energy efficiency.

If you are doing a gut-rehab you should consider what we do on our Designer Rebuilt Homes and upgrade wall insulation as well. The original concrete block construction is usually fine structurally. But the insulation behind the plaster on the walls is normally paper ... literally, just paper.

To minimize heat and moisture transfer new foil insulation should be installed between the block and new sheetrock to maximize energy efficiency and minimize moisture transfer. This isn't practical on a cosmetic renovation, but any walls gutted to the block need to have new foil insulation installed whether you are having the work inspected by a building official or not.

I know what I've shared here in this bonus report is a lot to think about. But it's better for you to be aware when planning a whole-house renovation than be blind-sided with any of these issues during construction. Or worse – after your home has been fully renovated and you're living in the house.



Your next step

I hope you've found this bonus report and the accompanying eBook "The Real Deal on Design & Renovation Costs" helpful in planning and budgeting for your whole-house renovation or gut-rehab.

Our experience designing & developing over 40 homes in South Florida in the last eight years gives us extraordinary insight in the real-world challenges, costs and best processes for whole-house renovations, gut-rehabs and new construction.. Combined with nearly 25 years' experience in real estate investment and development our team has experience that allows us to identify, analyze and properly plan for factors that would otherwise become "surprises."

Planning a renovation? We can help . . .

Studio 818 has redefined and streamlined how great design becomes reality. That includes addressing the pretty, the practical and the hidden. Our Design + Build Management process simplifies your life by providing you a single point of contact and one single source of responsibility for your entire project. We handle the master-design along with all the moving parts necessary to successfully build it as designed — from your first idea to the last pillow placed. Learn more under the [services heading at www.Studio818.design](#).

FINDING AND BUYING THE RIGHT PROPERTY TO MAKE YOUR DREAM HOME

If you're on the hunt for a fixer-upper in South Florida that you intend on turning into your dream home or a vacation rental; be sure to take advantage of our [Buy-It-Right Consulting](#).

Ready to take the next step?

SCHEDULE YOUR

FREE DISCOVERY CALL