

## About the Newstips editorial project proof-of-concept house

### ***Challenging goal: an energy-miserly, 40-years-maintenance-free ultra-automated house***

#### **Premise:**

We're discovering that pulling together a 40-year-maintenance-free house is not as impractical, unrealistic or impossible as we thought, and our decision to build such a house using today's technology leads to interesting, noteworthy and significant examples for others. How close can we get? What are the trade-offs? And ultimately, where's the "sweet spot"? We can't solve that on paper.

And yes, we may be interested in incorporating your products into this project – but no, we're not asking you to pay us any money. (*Money isn't necessarily off the table, at your option; we can take sponsorships for covering our out-of-pocket costs or can even discuss naming rights; more on that in a moment*). These few pages can explain why you may want to participate.

#### **The project site:**

We secured a 5-acre hilltop property in Aiken County, South Carolina and, after three years, finalized the floor plans. We describe it all on a Web site with a *Book of the House* at <http://40yearhouse.com>

#### **Project appeal to participating providers of materials:**

The *Newstips Bulletin* is a 35-year-longstanding weekly publication that's read by major media people, several are already covering the project and more (including some giants) already committed to coverage of our debut media event, hopefully in mid-2017. Coverage acceptance is so strong that I believe it will reach literally hundreds of millions; feel free to ask me what's behind that belief.

We've been getting weekly coverage since early 2016, and the reach for that is now over 6 million. We use that coverage to explain why we make the choices we do; our storytelling tends to embed the why-to-buy for the products and materials we spotlight.

We are asking manufacturers and vendors to provide the materials going into this project: we would be ungracious to attach any fee to that so there is no pay-to-play element here, no sneaky money mousetrap. We cannot ethically accept donations of anything other than the materials themselves; we can, accept the participation of trained personnel to do installation work, but that's entirely at your option. The *quid pro quo* we offer is in coverage.

If you have an interest in participating in the coverage but do not have a product to provide, we can discuss a sponsorship payment to underwrite out-of-pocket costs (like trades-worker fees, concrete pours and so on); those payments would be made to a fund the builder has established and not to us. Sponsorships for as little as \$250 (associated with specific items) may be possible; total naming rights will cost \$350,000.

#### **No invisibility**

Our promise: No contributions to the house, no matter how hidden they may be to the casual observer, will be invisible to the press coverage or the educational classroom resources that accompany this project.

Additionally, we will be developing a graphical medallion to indicate that a product has been selected for the 40-year house and participants will be allowed to use it in labeling and promoting those products.

### **Design precept: an ultra-automated house**

This is generation-after-next automation applied to a residence. Thousands of sensors, hundreds of actuators and more than half a hundred computers and controllers will work together. The house will recognize the needs of both its occupants and its structure and, as much as possible, meet those needs without requiring human participation.

We are also taking pains to make the elements of this system all but invisible by masquerading, hiding or integrating them into elements that are not unexpected in a residence. Some of this involves new tech you might regard as inventions; we are working with vendors to get those manufactured.

We intend to have the system monitor most rooms for fire, smoke, temperature, humidity, air pressure, occupancy/vacancy, closed doors, water leaks and ambient light levels, if not more. We intend to connect electrical door locks, an outdoor irrigation (watering) controller, LED fixture lighting panels, perimeter video surveillance and more.

### **Design precept: reduced energy consumption**

We aren't going off the grid but we do intend to slow the meters. We're finding ways to very strongly defend against energy losses, meaning reducing utility costs enough to make a cheapskate smile. The Plans section of the Web site discusses many of the tricks up our sleeves.

Effective insulation is a major concern and we are focusing on shell (wall, ceiling, roof, door, window, etc.) materials that accomplish surprisingly high (as the general population would regard them) levels of insulation on their own, before other insulation is added. Energy efficiency is a major concern. Local utility pricing favors natural gas over electricity so we intend to use gas more, but not exclusively.

We are also interested in adjuncts that may make sense for energy husbandry as long as there is no compromise in the project's longevity goal and no detriment to the "curb appeal" of the residence (important here in the context of press coverage, not any resale value). We'll need a lot of convincing, for example, before we look at awnings.

### **Design precept: reduced maintenance**

How often do you change light bulbs? LED lighting fixtures today offer a 50,000-100,000-hour rated life expectancy, meaning more than 40 years in typical usage; once initially installed, they just work. (that little factlet is what initially inspired this project).

The shell of the house needs to insulate but we also want it to look good for decades, to need little to no maintenance in that time, and to endure. Consider similar requirements for infrastructure items: well pumps, plumbing, AC and Low-Voltage wiring, HVAC systems and their ducting, hot water, irrigation systems, lightning protection, fire countermeasures, breaker boxes and their adjuncts (whole-house surge protection, transfer switches for generators, usage monitoring interfaces) and so on.

### **Design precept: smart extensions**

Without suggesting here how these tricks can be done, we can suggest some of the little stunts that can make life easier for a homeowner and reduce daily distractions.

An occupant's car is uniquely identified as it enters the driveway, lighting up the door to its garage space, opening that door, turning on the lights in the garage, unlocking the door to the house and sending a message to any whose cars have not yet arrived that you made it home OK. Once the car is turned off, the system waits a moment then closes the garage door once sensors affirm that it's safe to do so.

The house tells you when a package or mail gets picked up or delivered. Rather than a single doorbell, a library of scores of doorbell tones get selectively played in appropriate rooms, at appropriate times, to signal that as well as arrival or departure events (at the garage and the driveway), waiting cars at the front door, people at the front door and more.

If there's a fire, every fan in the house turns off, the HVAC turns off, the gas line turns off at the tap past the generator feed, the house makes voice phone calls to two relevant fire departments, the exterior doors unlock, the surveillance cameras monitoring those doors go into full-time record and a vanity panel at the front door that normally only shows the house number changes to show a floor plan of the house with the location of every adult, child, infant or pet and every hot spot in the house.

Heating and cooling run less often with longer on times and longer off times while still improving comfort in each and every room, both reducing energy costs and prolonging system life expectancy. The system recognizes rooms that are vacant and relaxes their settings.

We know of products and developments that can make all of this possible before the construction completes and we would love to hear of other clever items. For example, we already have a small pet door that only opens when it senses our pets' chips, and then only during the hours we allow.

**Note:** *We're a bit picky about "home automation" products. We insist that they work without Cloud connections; security and privacy demand that all connections stay inside our hardware firewall. Also, we address the spousal approval factor by forbidding the "wall measles" of little white lumps stuck everywhere. And we replace batteries with direct DC feeds.*

### **Simplifying the task: grown-ups**

Our proof-of-concept project house is designed as a residence for adults only. It has a master bedroom plus a Jack & Jill pair of guest bedrooms. The kitchen and pantry are ample but don't need to support the ongoing inventory and preparation demands of a large family. There is no anticipated play or game room.

There is no "man cave" *per se* but the bonus room above the 3-car garage serves many roles: a new office for Newstips (which also involves test benches and workbenches and a small soundproof recording booth), an exercise room, storage and a small (spouse's) office.

### **No mortgage, so timing depends on phases**

The house is being built in project segments, meaning some flexibility in timing when any next phase begins. This approach makes it ineligible for a mortgage, which also means that it is being funded out of pocket by Newstips, which may from time to time influence the overall completion time.

In balance, many third parties are already offering significant contributions to the project, reducing its overall cost and, as a result, keeping the overall timetable reasonable. Also, of course, having no mortgage is another element of being 40-years-maintenance-free.

The less-than-strict timetable is one reason that Newstips is providing early-on coverage of the many elements going into the project. We are also, in some cases, making arrangements for similar initial coverage by fellow journalists. The biggest coverage events will occur, of course, on completion.

### [The Book of the House](#)

We thoroughly document our principles and plans for this build on <http://40YearHouse.com>, which we intend as a go-to resource for media assets for press people, for curriculum resources for educators and for general information for curious members of the general public. We anticipate the site being close to 900 pages when done, including the ability to drill down to product-specific information and documentation.

We plan to include multiple time-lapse views of the construction, thermal images of the house, audio and video assets, high-resolution photography, product descriptions and links, in-process media coverage by us and others, narratives about choices, details about products and techniques and more.

### [Bottom line: help us build this and gain high visibility](#)

Newstips is exposing the elements of this project to thousands of journalists and to millions of readers of and viewers/listeners to the media that are doing their own coverage of the project. We are making arrangements for enormously widespread coverage at and after the project's debut media event, enough to reach most of the American population. Companies providing products or other underwriting are welcome to attend that media event and to invite their own press "familiar". If this project makes sense as a showcase for your products – and if your products make sense for this project – let's talk.



Martin Winston, Editor

**Newstips Bulletin**

**(803) 642-6664**

*Mobile (rarely near it):*

440-836-2334

[marty@newstips.com](mailto:marty@newstips.com)

<http://40yearhouse.com>