

# pasadena

A photograph of Pasadena City Hall, a grand neoclassical building with a prominent red-tiled dome and ornate facade. The building is the central focus of the magazine cover, with the sky visible in the background.

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**GO SMALL  
& GO HOME**

ThriveLA's innovative  
solution for veteran  
homelessness

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**NO PLACE LIKE HOME.** ThriveLA is agnostic about the ultimate construction material, but abundantly available, and inexpensively convertible shipping containers may hold the most promise.

# Big Problem, “Small” Solution

ThriveLA hopes to tackle Los Angeles' large homeless veteran problem by going small. Micro-housing communities may provide the answer.

STORY BY // **CUYLER GIBBONS** ARCHITECTURAL RENDERINGS BY // **BIG BOOM DESIGN**

↳ **NO INDIVIDUALS SACRIFICE MORE FOR OUR SOCIETY THAN THE MEN AND WOMEN OF OUR ARMED FORCES WHO DEFEND US ABROAD. YET, IT REMAINS A FACT THAT MANY VETERANS FIND THEMSELVES ON THE FRINGES OF SOCIETY UPON THEIR RETURN, UNABLE TO SUPPORT OR ADEQUATELY SHELTER THEMSELVES AND THEIR FAMILIES. NEARLY 10 PERCENT OF L.A.'S 41,000 HOMELESS ARE MILITARY VETERANS.**

While the total homeless population grew over the last year, the number of homeless veterans remained steady. Even with zero growth however, over 4,000 veterans remain sleeping on the streets and under the bridges of Los Angeles.

This is a situation that local lawyer and entrepreneur, Perry Goldberg, finds unconscionable. He met me in a co-operative office space in Westwood to discuss the ideas behind his proposed solution. Goldberg speaks softly, in a thoughtful tone and at a measured pace, but in sentences that are screaming with innovative ideas.



IMAGE COURTESY: LA URBAN FARMS

## HOW DOES YOUR GARDEN GROW?

The revolutionary process behind the hyper-productive, super efficient vertical garden from LA Urban Farms.

You'll find them in locations as diverse as The Getty House, home of Mayor Garcetti, the Google cafeteria, the Bellagio Hotel in Las Vegas and Stanford University. It seems vertical gardens are sprouting up all over—and for a good reason! These super efficient, economical, low maintenance gardens just may be the future of produce farming and a vital piece of the sustainable community puzzle.

The garden towers mentioned above, as well as those contemplated for the ThriveLA project, are the brainchild of inventor Tim Blake and produced by LA Urban Farms, founded by Wendy Coleman, along with her three children Jessica, Tara and Chase. These modular towers can produce as many as 44 individual plants as quickly as every three weeks, in the case of leafy greens such as lettuce or kale. A bit longer for root vegetables, fruit bearing vines, or tomatoes, squash and the like. A marvel of efficiency, the tower can do so using 95 percent less water and one-tenth the area required for traditional agriculture. And as Coleman relates, the benefits go well beyond the stunning production achievements. As she says, "There are so many wonderful things around horticulture therapy involved in the life cycle of plants. Planting something and watching it grow. To be part of that process creates such a different sort of connection between you and your food."

Sounds fantastic, but how does it work?

Made of the best food grade plastic available, FDA compliant and free of the harmful components usually found in agricultural

plastics, the garden tower is made up of stackable growing pots, that require only a 2.5 x 2.5 footprint to produce up to 44 individual plants (commercial unit) or 28 plants (residential unit).

Seeds for the unit are germinated in natural rock fiber "seeding cubes." Once germinated, they are placed in full light for a week or two, then transferred to the tower.

The base of the tower is a reservoir that holds up to 20 gallons of water and a small wattage immersible pump. Research by world experts in plant and human nutrition led to the development of a proprietary aeroponic plant food that is added to the water. This nutrient rich food is the world's first high performance ionic mineral solution specifically designed for all types of food and flowering crops.

While the Ph balanced blend of natural plant nutrients provides the optimum plant diet, the pump continuously pulls water from the reservoir up through the center to the top of the tower. From there, the water drips through a special device that delivers water directly to the roots. As the water cascades down through the tower, it delivers highly oxygenated, nutrient rich moisture equally to all plants throughout the system. Any water that is not absorbed or evaporated is returned to the reservoir to begin the journey again. In this way, the plants continuously receive fresh oxygen, water and nutrients with no waste whatsoever. The resulting living produce is not only as obviously fresh as is possible, it's also chemical and pesticide free...and absolutely delicious.

Goldberg, it seems, has always thought more in terms of solutions than problems. He solved the Rubik's Cube in 6th grade, mere weeks after it came out. Mostly, he says, because he believed he could, and wasn't afraid to apply what he believes was a novel approach. It's a method of problem solving he has maintained throughout his life. "Problems frustrate us. But working toward a solution you believe is possible makes them less so. My whole life I've approached problems that way. If you focus and stick with it, you can find a solution."

The application of this philosophy informs his professional life as the managing partner of the innovative law firm, Progress LLP, as well as his work as co-founder and CEO of 12 Columns, a public benefit corporation that provides a novel, multi-pronged approach to addiction recovery. Goldberg calls himself an eternal optimist but he also says, "I don't think it's a forgone conclusion that things will always go in a positive direction, and I think that in order to increase the odds of things working out as we want we need to push them in that positive direction."

Most recently, Goldberg's positive push has resulted from his leadership role as the founder and president of E Pluribus University. Echoing the motto that appears on U.S. currency (E pluribus unum or, "out of many, one"), E Pluribus University is dedicated to "using and sharing innovative models for cooperation and problem solving to address global issues." And the first problem E Pluribus has turned its attention to is the plight of homeless veterans. Under the moniker ThriveLA, Goldberg hopes to develop a scalable blueprint for the creation and development of sustainable, self-sufficient communities that can solve not only L.A.'s homeless veteran problem, but potentially homelessness worldwide.

Finding homes for the homeless is, fortunately, a high-priority goal of many prominent politicians and institutions. "There is currently an incredible push among service providers for the homeless to tackle this," says Goldberg. In 2009, the Veterans Administration announced it was their goal to end veteran homelessness by the end of 2015, and Los Angeles Mayor Eric Garcetti, has pledged it as his personal goal as well. Goldberg applauds the intention, and welcomes any effort at improving the situation—it's the methodology he questions. "There are huge dollars available to tackle this. Prop 41 set \$600 million aside in the state to increase the stock of affordable housing for this purpose. The first round of \$75 million was just released a month ago," he says, explaining



**SELF CONTAINED.** Shipping containers provide an indestructible, yet easily modified shell from which to construct small, but super efficient living spaces.

that the funds will go to developers who submitted affordable housing plans. All seems well and good, except this new construction will not be ready until 2017.

Further, he finds the expense involved in this type of new construction unnecessary and unsupportable, and the ultimate delivery method for current low income housing stock—how homeless vets and affordable units are matched together—to be inefficient and inadequate. He begins by explaining the math. Under the current system veterans are given vouchers to pay for housing. This first round of Prop 41 funding will provide newly constructed housing for fewer than 700 veterans, at a cost of more than \$88,000 per unit. And beyond the unit cost, the government will spend more than \$1,000 per month on a voucher for a single veteran.

As part of the recent push, the nonprofit organization United Way has been engaged in what they call “The Surge.” The idea is to locate all the homeless, get them vouchers, then locate rental units where those vouchers can be used. Goldberg is blunt. “The process is very difficult. It’s an incredibly well-intentioned effort, on the part of everyone involved. It is also doomed to failure. There is zero chance of it succeeding.”

The ThriveLA model rests on three

pillars—affordability, community and sustainability.

The problem is that voucher programs, coming from a theory known as “housing first,” address only the issue of affordability. The idea behind the theory is, if you get a homeless person housed they will turn their lives around. While the essential need for shelter is obvious, there is considerable research that suggests community is just as important for quality of life. Yet, under the voucher model, “success” often results in a single vet, alone, with no peers in the building to which he’s been assigned. While weekly support services are available there is no community provided.

For Goldberg, this lack of community is a fatal flaw. “We all need to feel that we belong. We need to feel that sense of purpose that comes from being a part of something bigger than ourselves,” he says.

Addiction is an all-too-common element in the lives of a large percentage of the homeless population, and the assumption is that it’s the addiction that drives the isolation. The reality however, may be exactly the opposite. In the ’70s, Bruce Alexander, a psychology professor, altered the typical rat in a cage experiment that had been used to illustrate the certain debilitating, addictive effects of cocaine and heroin. Where before, the rats had been isolated in a

barren cage, and would soon learn to prefer and become addicted to drug laced rather than unadulterated water, Alexander conducted the same experiment in what he called “Rat Park,” a highly stimulating, social environment that included other rats, balls, tunnels and the like. What Alexander found was that the rat park rats, given a choice, consumed less than a quarter of the drug laced water than the isolated rats, and none became addicted to the drugged water, consuming it until it killed them, like the rats who were alone in their cage. The lesson is not lost on Goldberg. “It’s simple,” he says. “What we are proposing is not just housing, it’s community.”

“So, just how will that work?” I ask him. How do you get the cost down? Where do you put it? How do you make it self-sufficient? The challenges seem daunting. Yet, the answer is apparently simple. Go smaller and go smarter. Why do we need thousands of isolated apartments, at a cost of \$1,000 a month or more, when we know we can build comfortable communities of proximately located individual units at a fraction of the cost, with little to no go forward expense?

The answer, it seems, begins with micro-housing. ThriveLA is undecided about the ultimate form of the structure. In the short term, should they encounter resistance from the



Department of Building and Safety, they will move forward with traditional building materials. They believe, however, that shipping container construction holds the most promise. With a standard size of 8' x 20' the space is diminutive, but units are virtually indestructible, and when converted, are fully livable, insulated domiciles, with passive heating and cooling systems, similar to the Earthship Community in Taos, New Mexico, that keeps tiny homes at a comfortable 71 degrees year round in a desert climate.

There are over 300 million empty shipping containers in the world right now. Even after conversion costs, they are a surprisingly inexpensive housing option. According to Goldberg you can get a nearly new container for \$2,400, half that for older ones. There are conversion kits available now that include cutting the openings and installing electricity that can be had for \$3,100. And ThriveLA has partnered with Rad-Lab, who recently built an entertainment complex in San Diego using shipping containers, and have agreed to provide design and permitting help on the project. In the end, whether kit or custom, you can have a fully functional living space, requiring only furnishings, for exponentially less than new home construction.

Affordability is obviously essential, but Goldberg tells me the sustainable component

of the model was also a focus from the beginning, and one he is particularly attracted to, as it relates to his general belief that a society of our means can abolish problems of scarcity when it comes to fundamental needs.

A central element of the community's sustainability will be the construction of vertical gardens. ThriveLA is partnering with LA Urban Farms, a vertical garden manufacturer, that has seen their gardens placed everywhere from Chicago O'Hare Airport, to the Kennedy Center to Mayor Garcetti's residence. Requiring no soil, these gardens use 90 percent less water than traditional agriculture and produce 10 times the yield by unit of land. Since getting multiple uses out of as many of the community resources as possible is also a primary goal, ThriveLA plans to build a vertical garden along the south wall of each residence. The production numbers are impressive. In a community of 30 homes, not only are these super efficient gardens capable of producing over 10,000 individual leafy vegetable plants such as lettuce or kale every 21-28 days (slightly longer for other produce). With a south-facing wall, the garden will provide passive cooling shade coverage for the wall with the greatest sun exposure. Augmenting the sustainable package, similarly aligned solar panels on the roof will provide

significant shade up top, while producing off the grid electric power.

With affordability and most sustainable elements nearly locked in, finding a place to locate these communities perhaps remains the stickiest problem. In terms of space, ThriveLA is ultimately looking at area's like the Antelope Valley where land is very inexpensive—as little as \$1,000 per acre. Given a 5,000 square foot lot requirement for a single dwelling, ThriveLA is aiming for a four-acre parcel, on which to put 30 micro-homes as the ideal configuration. This would leave half an acre for a community center, community kitchen, rec center, job training and other social and support oriented services. Community centers will connect to the city water supply, with individual homes drawing their water from the community center. Unlike a typical home which uses more than 100 gallons a day, water conserving showers, waterless toilets, along with washing machines and dishwashers housed in the center and not individual homes, will allow each unit to function comfortably on less than 10 gallons per day.

A key component of the community concept will be its internal economy. Residents will pay some portion of their assistance into a community fund. With the community off the grid, the residents themselves, in exchange



for payment from the fund, will provide most of the community services. This could include water delivery, general maintenance, waste disposal, farming—basically anything the community requires that residents can provide themselves.

Most immediately however, ThriveLA would like to establish a pilot program, both as a proof of concept demonstration, and as a “staging” community, where program participants would be acclimated to community living and trained for participation in the community economy. ThriveLA is in talks now with the Veterans Administration, which sits on 388 acres in the heart of Los Angeles that were gifted to veterans after the Civil War. Four years ago the Veterans Administration was sued by the American Civil Liberties Union, which declared the land was not being used to adequately benefit veterans. The VA settled the suit this year, and Goldberg is looking to them to provide an acre for his proof of concept community build.

As part of the settlement, the VA was charged with producing a master plan. While Goldberg is still waiting on the ultimate verdict of that review process, he remains hopeful. The VA is a massive bureaucracy, and as such potentially more responsive to the known and predictable, than more revolutionary

ideas, no matter how seemingly attractive. That said, Mike Huff, Senior Director of Communications for the VA confirms, “We appreciate and support the work being done by ThriveLA and other partners to help end Veteran homelessness in Greater Los Angeles. As we progress in planning for the VA campus, we will be exploring creative and innovative approaches to provide dignified housing for our veterans, and look forward to ThriveLA being a part of these important discussions.”

Solving problems often requires keeping your options open, and Perry Goldberg is a believer in the saying “never put all of your eggs in one basket.” He’s clearly on fire to start implementing what he believes is an obvious and eminently achievable solution, regardless of the VA land use decision. Goldberg’s personal time frame for the launch of the first community is by the end of this year. “I will be terribly disappointed if we don’t have our first community within a few months,” he says. He has no illusions about how ambitious his goals are, it’s just that he feels this is an emergency. “If any of us became homeless because of a natural disaster, we would consider it an emergency. We’d expect society to treat it that way. We’re certainly not going to wait until 2017 for housing.”

Goldberg is clearly on a mission. But it’s even more than that. He’s simply compelled

**OUT OF THE BOX.** Solar panels, passive heating and cooling systems, and dry flush toilets are but a few of the green innovations that can shrink a container home’s environmental footprint.

to take this problem on. “I actually think we humans get to choose our purpose. We’re the only animals that get to choose. And almost no one actually does it. I’ve chosen my purpose.”

He’s as certain of finding the solution to the homeless problem as he was when he solved the Rubik’s cube in 6th grade and hopes now to help the rest of us see the light. “There is the plan, the blueprint, but there is also a need to ring the alarm that this issue is an emergency. That word needs to be said over and over again.”

There is no doubt, armed with an innate belief in the possibilities of his solution and a human compulsion to help others, Perry Goldberg will continue to sound the alarm. He’s already found some solid partners who share his vision and have pledged their support to make it real, but his ultimate vision includes us all. “I feel that it’s really important for all the well intentioned people of the world to actually push things in a positive direction. That’s what causes me to think about tomorrow. Everybody working to make tomorrow a safe and happy place.” ☺