

Green Roof Service LLC presents:

June 19, 2012

Projects	Services	Modern Green Roof Technology	Living Architecture	Resources	About Us
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Happy New Year from the Green Roof Team

We wish you a brand new year with lots of luck and happiness!



A Flower in Disguise

Humans may stereotype some plants as weeds, but these so-called pests might just be the answer to a flourishing green roof.



Brush up on your green roof plant knowledge with a new plant every month! Only on our Green Roof Plant Blog!



Solar Power (and Green Roofs) on the Rise

Sustainable practices such as harvesting solar energy have been increasing in popularity recently; the solar industry alone has grown 71% over the past year.



Common Sense

Our commitment is to common sense, never nonsense. Simple mistakes are easily avoided.



Happy New Year from the Green Roof Team!

"It's unwise to pay too much, but it's worse to pay too little. When you pay too much, you lose a little money - that's all. When you pay too little, you sometimes lose everything, because the thing you bought was incapable of doing the thing it was bought to do." - John Ruskin

The common law of business balance prohibits paying a little and getting a lot - it can't be done. If you deal with the lowest bidder, it is well to add something for the risk you run, and if you do that you will have enough to pay for something better."



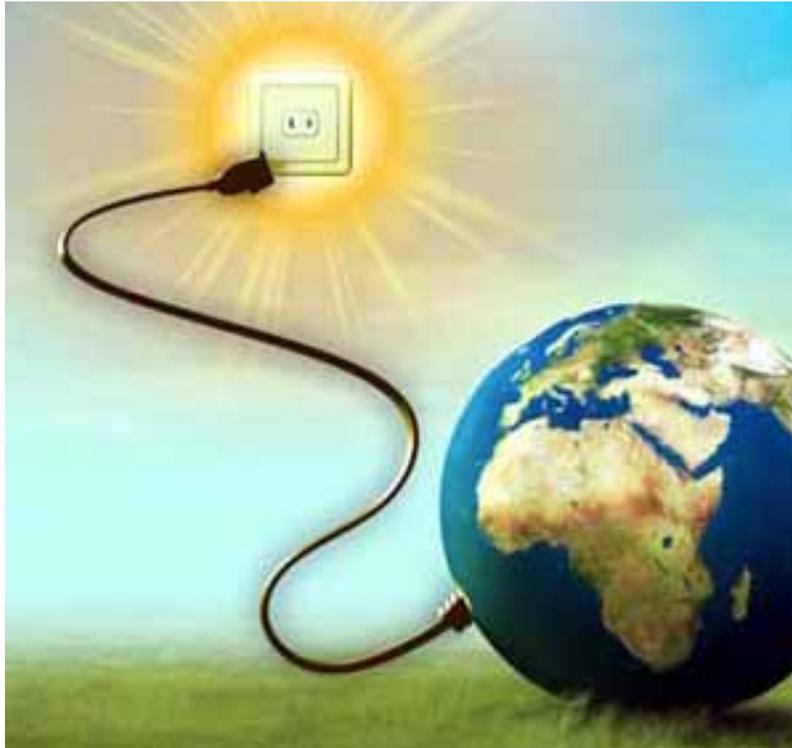


A Flower in Disguise

“A weed is a plant that has mastered every survival skill except for learning how to grow in rows.” - Doug Larson

It is all about perspectives, experience and evolution. Weeds are typically plants growing where they are in competition with cultivated plants or simply unwanted by humans. However, seeing it from a philosophical point of view any organism has a right to exist. It is the intention of each organism to multiply, spread and adjust to the surrounding environmental conditions. This adamant approach has also helped humans to develop and thrive over ten thousands of years. The word native has become a stereotype of certain plants that should be growing in a particular region. But with human perspectives being far from uniform, the term ‘native’ has been skewed over time. The term is irrelevant when looking at the larger picture of evolution. An unwanted plant on intensive green roofs could be ideal ground cover for un-irrigated extensive green roofs or vice versa. Being an outside element, green roofs will undergo natural succession and evolution as described above. This succession can effect the function of a green roof in the long run for the better or worse. Ideally, maintaining a green roof helps to guide the plants in a stable coexistence with minimal succession, creating little maintenance. In most cases it doesn’t matter whether the green roof plants were planted intentionally or not.

Un-irrigated extensive green roof designs tend to have extreme conditions; therefore the plant pallet is rather narrow. It is very difficult for most plants to sustain themselves over decades. Introducing many of these so-called ‘weeds’ on to a rooftop environment may prove to be more efficient because of the vigorous growing capabilities. Yet many factors such as unique weather events during the establishing phase (3-8 years), artificial irrigation, pre-grown nursery trays, excessive fertilization, can be counterproductive in modern green roof technology.



Solar Power (and Green Roofs) on the Rise

Solar energy has been on a modest climb for most of its existence, but this year the solar power market jumped 71% compared to last year's sales. A growing renewable industry is a boost to our economy; over 93,000 Americans are employed within the solar business alone. As the demand for solar installations grows higher, the prices will drop correspondingly. This is already evident, in 2006 the price of a residential installation plummeted from \$9 a watt down to \$5.46 a watt. Today we see prices around \$ 4.00 per watt.

Even with the rise in solar sales, the US is still trailing behind Germany, Italy and Spain. Around 20% of power in Germany is harvested from the sun only, but only around 11% of energy here in the United States comes from a collaboration of renewable resources (solar, wind, hydro, etc.). Harvesting power from the sun is a smart idea. Not only is the sun a renewable resource, but the process creates zero atmospheric emissions. It's clean and reliable! Even with this spike in interest, solar power is still underused here in the United States because investors often look only at the capital costs. Capital costs of a Coal Power Plant are at around \$ 2.10 (source Wikipedia) vs. around \$ 4.00 for Solar.

Note that the capital costs are not the only determinant of the cost of the electricity produced. A coal plant needs to burn coal to produce power (a limited resource), while a solar panel and other renewable generation has no fuel input at all.

"Externality and insurance costs of energy sources" became in the 2010s recognized as equivalent to fuel costs as a decision factor. In particular for Nuclear and coal power plants but also for ground mounted Solar these costs can be deal breaking.

Roof mounted Solar power plants combined with a vegetated roof (extensive green roof) increases the capital costs by less than 20%. At the same time this marginal increase pays back in a short time due to the reduction in stormwater fees, reduction of the environmental foot print and recognizable increased in efficiency.

The synergetic combination of vegetated roof / Green Roofs with Solar is truly State-Of-The-Art and unmatched in modern green energy production and environmental protection.



Common Sense

Recently we have been receiving more and more calls regarding performance issues on extensive green roofs. Most of these roofs have been installed between 2-5 years ago by various green roof companies or supplied by different manufactures. Common complaints include dying plants, drainage system failure, growing media erosion and waterproofing leaks. Especially pre-vegetated systems (planters, trays, modules) mostly don't meet expectations or even minimum requirements for green roofs. More often than not, green roof failures are the result of simple design or maintenance mistakes.

Many failures start within the design. A poor design leads to a snowballing effect of problems, growing and gaining velocity with every movement forward. Failures also occur during the construction phase when inexperienced installers claim a certain expertise because of a prior job, a way-back education or simply because they once watched a green roof installation.

But problems can arise even sooner. We also noticed that many initial design and construction decisions are made 'democratically' or as a team consensus because no one person wants to carry the full responsibility on their own shoulders. Often these decisions are wrong and unrealistic. Physics, biology and chemistry are natural laws and cannot be compromised, even if done democratically.

Engineers must work within the parameters of reality and the best course of action is to always to use common sense.

In most cases things could be so easy if people would just use their own common sense and experience instead of believing all the nonsense they find on the internet.

Our commitment is to common sense, never nonsense.