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Green roof solves financial problem

by Gilman Ouellette

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The green movement today is as controversial as ever.

Its proponents urge change, citing ethical implications of our lifestyles, while their opponents cite a lack of financial viability in "going green." But by taking the movement off the ground - literally - we can find options to satisfy both groups.

My geography class at Penn State University was recently approached by the local government to propose ideas for increasing sustainability in the area. A group of us chose to explore land use methods that could increase sustainability.

The problem for land use in state college is all the land is already in use. Much of it is taken by residential and office space and what is left is used for agriculture and recreation. This predicament led us to an interesting solution - recycle space.

The nascent technology of "green roofs" offers the perfect means of reusing the developed space in the area.

Green roofs are roof structures specifically made to hold a variety of plants and vegetation. While researching our proposal, we found a wealth of information about these specialty roofs and honestly were quite shocked. Green roofs accord so many benefits, it's a surprise they have yet to see wide-spread use.

The surprise lessens when you see the price tag on green roof technology. Initially, green roofs cost more to install than traditional roofs and sometimes require additional support to build onto existing structures.

Although they cost more to install, green roofs last more than twice as long as traditional roofing materials. Not only do they last longer, but green roofs also come with a host of benefits, for the wallet and the environment.

Green roofs provide superior insulation that dramatically cuts energy costs. When temperature outside rises, green roofs keep inside temperature cool. When temperature outside dips, green roofs keep more heat inside.

Because green roofs are composed of living plants, they are also good at absorbing rain water and preventing storm water runoff. And of course, vegetation helps remove particulates and CO^2 from the atmosphere.

Green roofs are just as effective in an arid climate as they are in an environment that receives more precipitation. Using native vegetation and resilient grasses or sedums can result in a green roof requiring low maintenance.

In the worst case, a little more watering may be necessary if non-native plants are used. There are several green roofs in Colorado and throughout the Rocky Mountains. One of note is on the roof of the Environmental Protection Agency Region 8 headquarters in downtown Denver.

Green roofs are not only viable in arid regions, they provide the same environmental and cost benefits as their counterparts in other climate zones.

All in all, there really are few if any reasons not to incorporate green roof cover into any building when it offers decreased energy costs, improved air and water quality and a longer lifespan - all for less money over their life span than most roofs we build today.

It really is a wonder why there are still so few in America.

Sadly, this great technology is often tossed aside for short-term considerations, seen as unnecessary or too expensive by builders.

Green roofs are perhaps one of the most important advances in environmentally friendly construction to date.

Effectively a bridge between natural and urban landscapes, green roof technology could bring us to a society that is technologically sophisticated and acutely involved in the world beyond our architecture.

This is a technology that capitalists and environmentalists could embrace. Green roofs bring nature into our urban landscapes as never before and cut costs at the same time.

As a country we need to reintroduce ourselves to the real world. Returning nature to our cities and towns wouldn't just lighten our impact on the environment - it would keep our wallets heavier and our lives richer.

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