To: Rep. Blake Oshiro

From: Janet Gillmar

Date: March 27, 2008

Subject:



HCR 270/ HR 229: REQUESTING THE UNIVERSITY OF HAWAII AT MANOA GREEN ROOF FEASIBILITY TEAM TO RECOMMEND INCENTIVES THAT MAY BE ESTABLISHED BY THE STATE TO ENCOURAGE GREEN ROOFING

This legislation fits well with the state sustainability initiative.

As a Hawaii landscape architect familiar with the subject of "green roofs", I urge the House to consider this proposed legislation favorably. Not only are vegetated roofs a positive way to address the huge challenge posed by global warming but they also reduce the burden of excessive amounts of storm water run-off produced by typical roofs on our storm drain infrastructure, stream channel capacity and reefs.

Since our state is especially vulnerable to rising ocean levels and the extra wide range of extremes in weather events that apparently is being produced by global warming, we should be researching the types of incentives for vegetated roof covering which are being developed and employed by a growing number of urban areas in our country and beyond. The University of Hawaii team that has already produced a report on green roofs for you would be a logical source of this additional research.

HEDtestimony

From: Linda Cox [lindcox@gmail.com]

Sent: Thursday, March 27, 2008 10:23 AM

To: HEDtestimony

Subject: Support for Green Roof Resolution

I am a resource economist in the Department of Natural Resources and Environmental Management at the University of Hawaii at Manoa. I urge you to support the Green Roof resolution.

Green roofs will provide positive net private and public benefits to Hawaii's communities over the long run and help us move toward sustainability. Unfortunately, this technology is new to our State, which means that we do not have an established industry. The use of green roofs in tropical areas are rare. At the same time, retro fitting green roofs to existing buildings or incorporating them o new buildings is challenge, since many of the benefits accrue to the public or the tenant rather to the owner. Therefore, research on tropical green roof and the appropriate consumer incentives are needed to jump start a green roof industry. In other areas of the world these sorts of in green roof research and incentives produced an industry that became so vibrant that incentives were no long needed. This could happen in Hawaii. We could be become the world leader in tropical green roofs!

Sincerely, Linda J. Cox, PhD Community Economic Development Specialist



terrain terrain-nyc, inc. Landscape architecture + constructed ecology

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27th march, 2008

Green Roof Resolution for the State of Hawaii (HCR 270)

To whom it may concern:

I write in full support of the Green Roof Resolution scheduled for review today. We are a landscape architecture firm specializing in the design and construction of urban landscapes and green roofs in NYC and we are well aware of the benefits these constructed ecologies can bring to both the local user and the city as a whole. I believe that the State of Hawaii has the extraordinary opportunity to show leadership and initiative in creating and supporting sustainable strategies at a policy level that will change the way development is encouraged and directed.

Our personal and direct experience with the bonus plaza legislation in NYC has proved that if the public policy is well considered and managed over time, these relatively small policy decisions can have a profound effect on the quality and value of public space and the urban landscape for the city as a whole over many generations. We have found that these policies have encouraged growth throughout the development sector and benefited the public and quality of public open space.

The State of Hawaii has this opportunity to build on the experience of many other states currently incorporating sustainable practice policies and legislation while crafting a set of standards and building practices specific to Hawaii and it's unique landscapes and flora.

On behalf of our office terrain, I hope that you find the public support and awareness that this ground breaking and forward thinking resolution deserves.

Sincerely,

Steven Tupu



HEDtestimony

From: Olwen Huxley [olwen.huxley@gmail.com]

Sent: Thursday, March 27, 2008 11:09 AM

To: HEDtestimony

Subject: Support for the Green Roof Resolution

To whom it may concern:

I am writing to offer my support for the green roof resolution being considered today. I work in the field of sustainable design and energy efficiency in the built environment. I believe that green roofs are well suited to address a number of problems facing the State of Hawaii and the City and County of Honolulu in particular.

- 1 Paved Surfaces and Runoff: the hardening of the surfaces throughout the state is driving runoff from our frequent rainfalls straight into the water, carrying with it soil, heavy metals, other particles, as well as chemicals out onto our fragile coral reefs. Green roofs and other bio-based features help to reduce runoff, retaining and treating these pollutants. Our coral reef ecosystems are already stressed, and any way we can reduce the impacts of land development on them will make it easier for them to resist all the other problems that affect their health. The widespread implementation of green roofs in Honolulu will help clean up the waters immediately offshore, which are becoming steadly less clear and pristine as more and more runoff is channeled into them.
- 2 Heat Island: In spite of the ideal ambient climate and trade winds, Honolulu has developed a heat island. It's HOT downtown, particularly on a windless day. Increasing the amount of green surfaces on the roofs will significantly reduce temperatures in our urban core, making them more pleasant places to work and walk around, and less expensive to air condition.
- 3 Energy efficiency: Green roofs help to absorb heat and sunlight, which normally would have heated the exposed roof and forced more of a load on the air conditioning systems of the buildings. Electricity become more expensive every month, it seems, and we must use all possible cost -effective ways to reduce demand. Green roofs are one of those ways. On Hawaii, where most electricity comes from expensive imported oil, this also helps to reduce our dependence on an imported fuel that costs us \$5 billion a year (including oil for transportation).

It is a shame that Honolulu is not currently leading the push among U.S. cities to deploy green roofs en masse, but it's never too late to adopt that as a goal. Hawaii has a wealth of native flora that are well adapted to the sometimes unusual conditions to which green roofs are exposed, and Honolulu has plenty of real estate where green roofs could be installed. Any sensible legislative proposal which helps to advance green roofs in Honolulu is a good thing for Honolulu. Carpe Diem!

Olwen Huxley 152 A N. Kalaheo Ave. Kailua, HI 96734





Hawaii ASLA 1164 Bishop Street, Suite 124 Box 246 Honolulu, Hawaii 96813

March 27, 2008

Dear Chair Jerry Chang and Vice-Chair Representative Joe Bertram,

On behalf of the American Society of Landscape Architects (ASLA) Hawaii Chapter, I am writing today in support of HR229/ HCR 270. ASLA knows the benefit of green roofs to individual property owners as well as the benefits to our community when multiple green roofs are built within the urban environment. Our own headquarters building in Washington DC was retrofit with a beautiful green roof that has since hosted many policy makers, property owners and designers alike to serve as a model in green roof design and construction. As this roof matures and as technology improves so will the efficiency and the beauty of green roofs.

Our local chapter members have received inquiries about this technology as well as any incentives offered at the State and local level. As these incentives are made available, interested property owners will be willing to construct green roofs here in Hawaii and will hire capable designers and contractors to assist. Green roofs stand to contribute the greatest incremental environment and health impact for our urban areas. There is also the possibility that these roofs could serve as environments for the propagation and long term survival for rare native plant species.

On a personal note, I was involved in the writing of the 2006 HR 86 Feasibility Study and I have been involved in green roof research on my office roof here in Kalihi. This research will be published in coordination with the University of Hawaii and will be available to the general public. I continue to be interested in helping my clients find the best green roof designs for our various environments and microclimates here in Hawaii. I hope that this effort and others will ultimately make Hawaii a leader in green roof technologies and research. Please feel free to contact me if you have any technical questions or concerns, I'd be glad to offer any information that I have.

Dawn Easterday, ASLA

Dawn Eastorday

Immediate Past President - Hawaii Chapter

846-3383

HEDtestimony

From: leyla cabugos [cabugos@gmail.com]

Sent: Thursday, March 27, 2008 11:27 AM

To: HEDtestimony

Subject: Testimony-Green roof resolution

To the honorable Chair Jerry Chang and Vice-Chair Representative Joe Bertram,

I am writing in support of the Green Roof Resolution. Green roofs bring myriad environmental, economic and social benefits to the urban environment. I conduct green roof research in the Department of Botany at the University of Hawai`i at Manoa, and I have seen first hand the exciting opportunities our local plant resources, climate and political will provide for green roofs in Hawai`i. We can truly be a leader in pioneering green roof research and development in sub-tropical regions of the world.

LATE TESTIMONY

After interacting with students, faculty, administrators and representatives of City agencies through tours of my research site, and surveying public interest in green roofs among visitors and residents of Honolulu, it is clear to me that green roofs are a most welcome asset to our community. It is also clear that in order to overcome the initial cost barrier, attract industry support and educate the public about the green roof option, a forward-thinking green roof incentive program is needed in Hawai`i. Incentives programs have successfully promoted green roof development in Toronto, Portand and many cities in Japan, Germany and Switzerland.

I respectfully encourage you to keep the Green Roof Resolution moving forward, for the betterment of our cities and local resources.

Sincerely,

Leyla Cabugos

Botany Department University of Hawai`i at Manoa 3190 Maile Way, Room 101 Honolulu, HI 96822