

FRANK T. MARTINEZ
City Clerk

KAREN E. KALFAYAN
Executive Officer

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CITY OF LOS ANGELES

CALIFORNIA



ANTONIO R. VILLARAIGOSA
MAYOR

Office of the
CITY CLERK
Council and Public Services
Room 395, City Hall
Los Angeles, CA 90012
Council File Information - (213) 978-1044
General Information - (213) 978-1133
Fax: (213) 978-1040

CLAUDIA M. DUNN
Chief, Council and Public Services Division

04-0074

May 3, 2006

Councilmember Reyes
City Attorney
Planning Department,
Director of Planning
Department of Building & Safety,
General Manager
Environmental Affairs Department

Councilmember Perry
City Administrative Officer
Bureau of Engineering
Department of Water and Power
Fire Department
Bureau of Sanitation
Department of General Services

RE: INCORPORATING ROOFTOP GREEN SPACES AS AN ENERGY EFFICIENCY MECHANISM

At the meeting of the Council held May 2, 2006, the following action
was taken:

Attached report adopted..... X
Attached motion () adopted.....
Attached resolution adopted.....
FORTHWITH.....
Ordinance adopted.....
Motion adopted to approve communication recommendation(s).....

Frank T. Martinez

City Clerk
jr

TO THE COUNCIL OF THE
CITY OF LOS ANGELES

FILE NO. 04-0074

Your

PLANNING AND LAND USE MANAGEMENT

Committee

reports as follows:

	<u>Yes</u>	<u>No</u>
Public Comments	<u>XX</u>	<u>—</u>

PLANNING AND LAND USE MANAGEMENT COMMITTEE REPORT relative to incorporating rooftop green spaces as an energy efficiency mechanism.

Recommendations for Council action, initiated by Motion (Reyes - Perry):

1. DIRECT the Bureau of Engineering (BOE), in conjunction with the Environmental Affairs Department (EAD), Los Angeles Department of Building and Safety (LADBS), Department of City Planning (DCP), Los Angeles Department of Water and Power (LADWP), Bureau of Sanitation (BOS), General Services Department (GSD), City Administrative Officer and other appropriate departments, to prepare a proposal for a pilot program to demonstrate Green Roof technology on City buildings. Departments shall report back to City Council in 90 days for approval of the pilot program with the following information:
 - a. One or more options for new City projects that could incorporate a green roof that is designed for environmental benefits rather than public access.
 - b. An estimate of related additional costs of design, construction, and operation and maintenance of the green roof.
 - c. A set of procedures to collect and record specific data from the pilot program, including but not limited to actual energy costs/savings, storm water retention data, and related factors.
 - d. A plan to identify potential opportunities to fund the pilot project and the data collection efforts.

Based on the 90-day report by BOE, and upon City Council approval, a lead department will be designated to conduct the Green Roof Pilot Program and report back to City Council at six-month intervals on the progress of the program with status information and appropriate recommendations.

2. APPROVE the Green Roofs Resource Guide "Green Roofs - Cooling Los Angeles" developed by the EAD and authorize City Departments to use and distribute the Guide as administrative guidance and background information to further the goals of the Green Roofs Program.
3. DIRECT EAD, in coordination with BOE, LADBS, DCP, LADWP, BOS, and GSD to address the need for education and outreach on Green Roofs, for both City staff and members of the public, to encourage the development of green roof projects in the City of Los Angeles.

Fiscal Impact Statement: The EAD reported that there is no anticipated impact on the General Fund.

Summary:

At its meeting held on April 18, 2006, the Planning and Land Use Management (PLUM) Committee considered the Motion (Reyes - Perry) that the City Council request the Environmental Affairs Department (EAD), as lead, to form a Task Force with the assistance of the Department of General Services, Planning Department, Building and Safety, Los Angeles Fire Department, Bureau of Engineering, Department of Water and Power, City Administrative Office, City Attorney, and any other appropriate department, which implements a process, program, or procedure that will require City facilities to incorporate rooftop green spaces as an energy efficiency mechanism, and which uses among other cities mentioned in the text of this Motion, the City of Tokyo's roof garden ordinances as a model as detailed in the attachment; and that the abovementioned Task Force prepare and present a report of its findings for consideration by the Planning and Land Use Management (PLUM) and Environmental Quality and Waste

Management Committees within 45 days. The Committee also considered the report submitted by the EAD dated April 18, 2006.

The EAD report dated April 18, 2006, notes that several cities in the United States and worldwide have begun their own programs to promote the use of green roofs for heat island mitigation, stormwater retention, open space and other environmental benefits. Examples include the following:

- Tokyo, Japan uses green roofs to mitigate the heat island effect. Its large population and growing industry produce heat that has been difficult to offset. Tokyo's ordinance requires new buildings with over 1,000 square meters (1,196 sq. yd.) of roof area to cover at least 20 percent of the surface with greenery. New publicly funded buildings with roofs as small as 250 square meters (299 sq. yds.) are also required to add greenery. The plan's goal is to add 2,965 acres of new plant life to the city. The government offers subsidies for greening projects.
- Portland, Oregon uses eco-roofs (green roofs) to reduce stormwater runoff, counter urban heat island effects and improve air quality and energy efficiency. A Green Investment Fund was created to provide resources for green building practices. Portland also provided a zoning bonus allowing for additional building square footage, depending on the percentage of the building's roof that was dedicated for a green roof.
- Chicago, Illinois uses green roofs to reduce urban runoff and has created municipal demonstration projects to develop professional expertise. Chicago's green roof program started with a 20,300 square foot demonstration roof on Chicago City Hall. This project retained over 75% of the volume from a one-inch storm, thus preventing runoff from entering the sewer system.
- Milwaukee, Wisconsin installed seven green roofs, including one on the Highland Gardens senior housing project. This 20,000 square foot green roof was installed for \$380,000 and is designed to retain 85% of a 2-inch rainfall.
- Vancouver, British Columbia, Canada installed over 30 green roofs in the area. The Central Branch of the Vancouver Public Library has a 20,000 square foot green roof and showed a 49% reduction in the volume of stormwater runoff when compared to a conventional roof.

Examples of private buildings include:

- San Bruno, California: A green roof was incorporated on the GAP headquarters building with a layer of grass and plants on a six-inch layer of soil. This layer of greenery acts as insulation and also absorbs rain and air pollution.
- Newport Beach, California: Designers incorporated a green roof on the Peter & Mary Muth Interpretive Center in Upper Newport Bay for a CEQA mitigation (visual impacts).
- Irvine, California: Architects designed a green roof for the new Ford Motor Land Service Corporation in Irvine. The installation is designed to provide a stable growing environment for the plant community; maximize the efficient use of water resources; and accommodate and control runoff from rainfall.

According to EAD, current City policy (Council File No. 02-0182) requires all City department construction building projects 7,500 square feet or larger in size to achieve the "Certified" level of the Leadership in Energy and Environmental Design (LEED) System. A Green roof is an accepted measure under LEED standards and can garner from one to fourteen points toward LEED certification.

In summary, EAD concluded that, the Task Force did not find any City ordinances that would impede the construction of a green roof. However, the Task Force feels that a mandatory program requiring new City buildings to include green roofs would be premature at this time, due to the current lack of experience, uncertainty of costs related to design and construction, potential lack of funding available and competing strategies for LEED points and rooftop space. The Task Force recommends that a voluntary approach would be more appropriate, with a City operated pilot program and education program to begin. Upon City Council approval, designated departments would conduct the Green Roof Pilot Program and report back to City Council at six-month intervals on the progress of the program with status information and appropriate recommendations.

The pilot program would allow for a better understanding of the associated costs, give City staff direct experience with green roof design and construction, and allow for data collection to verify the benefits and future cost savings. The Task Force identified two tools for education: the Green Roofs Resource Guide, and an overview brochure (to be written) that would describe the process for developing such a roof in the City of Los Angeles. To effectively distribute these educational tools, the Task Force felt these publications should be available at all City departments that would be involved in permitting green roofs. In addition, the named departments will coordinate to address the need for training and education of City staff on the topic of green roofs.

The PLUM Committee approved the recommendations contained in the April 18, 2006, EAD report.


The matter is hereby submitted to Council for consideration.

Respectfully submitted,

PLANNING AND LAND USE MANAGEMENT COMMITTEE

<u>MEMBER</u>	<u>VOTE</u>
REYES:	ABSENT
HUIZAR:	YES
WEISS:	YES

BG:ys
4-25-06
#040074



Rept
ADOPTED

MAY 02 2006

LOS ANGELES CITY COUNCIL