



JR East Consultants Company Rooftop Greenery: Good for the Environment, Good for People

A "Sky Garden" of rooftop greenery sits atop the Lumine Tachikawa Store, connected with JR Tachikawa Station. The green grass promotes a good feeling – just stepping on it helps you relax. But there are also significant environmental benefits; this new installation is expected to help as a measure against global warming.

It's called the "Sora Niwa," or "Sky Garden." It is a healing space that was completed in cooperation with three companies: Tachikawa Store of the Lumine Co., who sought to make effective use of its rooftop; JR East Sports Co., who designed the Futsal Stadium; and JR East Consultants Company (JRC), who is an advocate of rooftop greenery project.

It is designed in layers, with a root-prevention sheet over the rooftop concrete; soil; and then grass. The soil is *roofsoil*, a special soil made with peat brought from a 3,500 meter plateau in China. Both drainage and water retention are good, and its high oxygen content prevents the growth of pathogens. For rooftop greenery, a minimum depth of 15cm is normally required, but with *roofsoil*, it is possible to plant with only about 7cm in depth. This means a big reduction in costs. "Seen in the long term, it's hard to imagine how great the benefits will be," says Naoto Kato of JRC.



Naoto Kato

Assistant Manager, New Business Development Office,
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JR East Consultants Company
(Currently in Business Section, Marketing Division, Mito Branch, JR East)

"I would like to promote the idea of putting greenery on rooftops of buildings in the heart of the city. This is a possibility not only for train station buildings, but also apartments and multi-purpose structures."

Organic peat *Roofsoil* is lightweight, drains well, and retains water well.



Lumine Tachikawa Building, beside JR Tachikawa Station

"Since it absorbs CO₂, there is a global warming prevention effect. There are other merits on the environmental, economic and human aspects, such as: mitigating the urban heat island effect; saving energy for air-conditioning; increasing the service life of buildings; attracting customers; soothing people, and so on."

So far, JRC has been involved in comprehensive technological consulting projects relating to railways, including design. As an innovative type of business, it is currently putting effort into information technologies as well as environmental strategies, and this rooftop greenery project is one of the latter. What they are aiming for is to create train stations that are 'good for the environment, good for people.'

"Rooftop greenery is not just for station buildings. It can be used elsewhere too," says Mr. Kato. To date, rooftop greenery has been installed on five stations and other buildings in the Tokyo area – The JR Tokyo General Hospital is one of the proposed locations for further rooftop greenery projects.

"This is not just planting vegetation for the sake of it. It can be used for many things, such as gardening programs to provide space for customers to grow vegetables. We hope to explore all the potential uses in the future."



View of rooftop of the JR East Shinjuku Nambu Gengyo Office, the first of JRC's rooftop greenery projects.



"Sora Niwa" (Sky Garden) on the rooftop of the Lumine Tachikawa store was completed in March 2005 (area: about 130 m²).