

新聞稿

Press Release

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Integrating Sustainable Design in Blueprint of New Railway Development MTR Attained "BEAM Plus" Accreditation for Seven Upcoming Stations

With the purpose to "Keep Cities Moving", the MTR Corporation is developing new railway projects to facilitate the development of Hong Kong, while sustainable concepts are integrated into the new stations throughout their design, construction, and operation. The Corporation is pleased to announce that seven new stations have successfully attained "BEAM Plus"[#] Provisional Gold or above certification. When these new stations are put into service in future, it is expected that each new station can achieve an average reduction of approximately 20% in carbon emissions per year when compared with traditional stations, which is equivalent to approximately 900 tons of carbon emissions or planting more than 40,000 additional trees.

The seven new stations include Tung Chung East Station* and Tung Chung West Station* of the Tung Chung Line Extension, Tuen Mun South Station* and A16 Station* of the Tuen Mun South Extension, Kwu Tung Station on the East Rail Line* and Oyster Bay Station, which have all commenced construction already, as well as Hung Shui Kiu Station on the Tuen Ma Line*, which is expected to commence construction this year. The accreditation forms a solid foundation of a commitment to carbon emissions reduction and the sustainable development of new railway projects.

Sustainable design of the new stations mainly focuses on two aspects: integrating with the community and making good use of natural resources; as well as incorporating eco-friendly design and innovative technologies (Please refer to Appendix for details). In addition, the Corporation is currently working with The Hong Kong University of Science and Technology to develop a software to quantify the embodied carbon of new railway projects and assist the new railway project development team to adopt low-carbon construction plans.

"The 'BEAM Plus' accreditation for the design of our new stations is a testimony to the Corporation's commitment and actions in carbon reduction. Under the vision of 'Go Beyond Boundaries' for the new railway projects, our Capital Works Team will continue to integrate innovative and green initiatives in designing and constructing a new generation of low-carbon stations to serve livable communities with convenient and eco-friendly mass transport and contributing to making Hong Kong a carbon-neutral city," said Mr Carl Devlin, Capital Works Director of MTR Corporation.

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Greenhouse gas emissions reduction is one of the three environmental and social objectives of the Corporation. The Corporation has actively implemented a series of "green" initiatives in Hong Kong transport services, property businesses and new railway development projects to reduce carbon emissions, supporting Hong Kong in its aim of achieving carbon neutrality by 2050.

Note:

#BEAM Plus is a comprehensive environmental assessment tool for buildings, recognised by the Hong Kong Green Building Council and established by the local construction industry. It is widely recognised as an authoritative tool for evaluating green buildings in industry.

*Station names are working titles only.

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About MTR Corporation

To Keep Cities Moving, MTR makes encounters happen and rendezvous for a more connected tomorrow. As a recognised world-class operator of sustainable rail transport services, we are a leader in safety, reliability, customer service and efficiency.

MTR has extensive end-to-end railway expertise with more than 40 years of railway projects experience from design to planning and construction through to commissioning, maintenance and operations. Going beyond railway delivery and operation, MTR also creates and manages dynamic communities around its network through seamless integration of rail, commercial and property development.

With more than 40,000 dedicated staff*, MTR carries over 13 million passenger journeys worldwide every weekday in Hong Kong, the United Kingdom, Sweden, Australia and Mainland China. Together, we Go Smart and Go Beyond.

For more information about MTR Corporation, please visit www.mtr.com.hk.

*includes our subsidiaries, associates and joint ventures in Hong Kong and worldwide

Appendix:

Introduction of sustainable design features of new stations

Integrating with the community and making good use of natural resources

Sustainable design elements are incorporated into new stations by adapting to the characteristics of the station location and making good use of the geographical environment and natural advantages surrounding the station. For example, for the Tuen Mun South Station, which is constructed on Wu King Road near Tuen Mun Ferry Pier, a compact design is employed to minimise the occupied road area. Making good use of the natural ventilation corridor of Wu King Road, an open design is also adopted for the station to enhance the station environment through natural airflow and convection.



Artist impression of Tuen Mun South Station platform

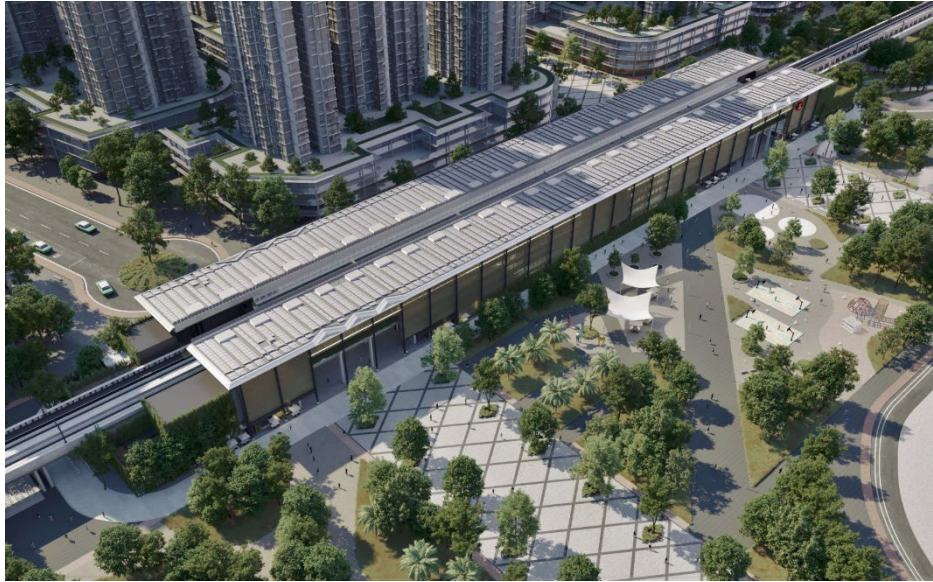
Kwu Tung Station on the East Rail Line will be located at the town centre of the future Kwu Tung North New Development Area and within walking distance of the residents nearby. The station design is also aligned with the proposed natural ventilation and green corridor nearby which integrates harmoniously with the surrounding community, aiming to create green mobility and a green lifestyle around the railway.



Layout concept of Kwu Tung Station on the East Rail Line

Incorporating eco-friendly design and innovative technologies

According to the conditions of individual stations, some new stations feature green roofs to help reduce indoor temperatures and alleviate the heat island effect. Some stations, where feasible, are equipped with solar panels on rooftops to recycle solar energy into electricity for use by station facilities. Rainwater harvesting systems will also be installed in some stations for irrigation purposes.



Artist impression of eco-friendly design of Hung Shui Kiu Station



Artist impression of green roof of Tung Chung East Station

Some of the new stations are designed with skylights or glass walls to introduce natural lighting into the stations, reducing the energy consumption of artificial lighting as well as creating a spacious and comfortable station environment.



Artist impression of skylight design at Kwu Tung Station on the East Rail Line



Artist impression of general design using natural lighting

The Corporation will adopt advanced and eco-friendly design, including the use of high-volume low-speed fans at selected new stations to facilitate ample air circulation and provide passengers with a comfortable breeze. New stations will also be equipped with energy-efficient electrical and mechanical facilities to reduce energy consumption, such as LED lighting, lifts and speed-adjustable escalators to reduce speed during non-peak hours.



Artist impression of Hung Shui Kiu Station concourse

The new railway projects will prioritise the use of high energy-efficient, large-scale and green infrastructure equipment. For instance, the air conditioning system of Tung Chung East Station will be supported by a large-scale district cooling system in Tung Chung East reclamation area, reducing the energy consumption and the space occupied by the air conditioning system in the station.

In terms of construction, the Corporation is employing Design for Manufacture and Assembly (DfMA) and prefabricated components to minimise the environmental impact of on-site construction processes, reduce construction material waste and enhance the sustainability of the stations. In addition, the Corporation is also considering the use of environmentally friendly building materials to further reduce the carbon footprint during construction.

Note: All drawings and visuals are provided for concept illustration only, and the content is subject to change.