

# ENVIRONMENTAL PERFORMANCE

## ENVIRONMENTAL AWARDS AND RECOGNITION

Outstanding Environmental Management and Performance Award 2021



Considerate Contractors Site Award 2021



Hong Kong Awards for Environmental Excellence 2020



Hong Kong Green Awards 2021



Wastewi\$e Certificate



Energywi\$e Certificate



## ENVIRONMENTAL ACHIEVEMENTS

**100%**

of our environmental targets for 2021 achieved





# AWARDS

## Outstanding Environmental Management and Performance Award (OEMPA) and Considerate Contractors Site Award (CCSA)

The Development Bureau and the Construction Industry Council jointly organised the Considerate Contractors Site Award Scheme to recognise construction sites with good site safety and environmental performance and considerate attitude towards the neighbourhood and the public. In 2021, our construction sites received four CCSA and three OEMPA awards, including one Silver, one Bronze and two Merit Prizes from CCSA and one Bronze and two Merit Prizes from OEMPA. Moreover, three of our subcontractors received Model Subcontractor Award including one Gold, one Silver and one Merit Prizes.

**公德地盤獎(工務工程—新建工程)**  
Considerate Contractors Site Award (Public Works-New Works)

合約 Contract: HY/2014/20  
Central Kowloon Route - Yau Ma Tei West

承辦商 Contractor: 利基-SKEC 聯營 Building-SKEC Joint Venture

地盤監督公司 Supervising Company: ARUP

模範分包商 Model Subcontractor: 顯森建築有限公司 Hui Sun Construction Company Limited

**Pipe Jacking Work 水管推頂法**

**Box Culvert Construction 箱型暗渠改建工程**

**Depressed Road Construction 低於地面道路工程**

**Demolition of Existing Steel Bridge 現有鋼橋拆除工程**

**Innovations 創新措施**

Winner of CCSA (New Works) Silver Prize and OEMPA Bronze Prize  
Contract No. HY/2014/20  
"Central Kowloon Route - Yau Ma Tei West"

**第27屆公德地盤獎(工務工程—新建工程)**  
27th Considerate Contractors Site Award (Public Works-New Works)

合約 Contract: HY/2014/16  
西貢公路改善工程第一期 - 清水灣與區區路段 Hiram's Highway Improvement Stage 1 - Between Clear Water Bay and Marina Cove

承辦商 Contractor: 中國建築工程(香港)有限公司 CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LIMITED

地盤監督公司 Supervising Company: MEINHARDT

模範分包商 Model Subcontractor: VTEC

**工程簡介 - WORKS DESCRIPTION**

此項工程旨在改善西貢公路清水灣與區區路路段，包括改善道路、增加綠化及改善工程環境與公眾設施等。工程將提高道路的安全性及改善環境與公眾設施。

This project is to improve the section of Hiram's Highway between Clear Water Bay and Marina Cove, including the works on widening the road, landscaping and the road lighting and Marina Cove, enhance the safety of the road section and improve the local amenity in the Clear Water Bay and Marina Cove.

Winner of CCSA (New Works) Bronze Prize and OEMPA Merit Prize  
Contract No. HY/2014/16  
"Hiram's Highway Improvement Stage 1 - Between Clear Water Bay Road and Marina Cove"



**公德地盤獎(工務工程—新建工程)**  
 Considerate Contractors Site Award (Public Works-New Works)

合約 Contract: 中九龍幹線—啟德東  
 Central Kowloon Route - Kai Tak East

承辦商 Contractor: 愛銘—保華聯營  
 Alchmax - Paul Y Joint Venture

地盤監督公司 Supervising Company: ARUP M  
 Arup-Mott MacDonald Joint Venture

模範分包商 Model Subcontractor: GME 駿傑工程有限公司  
 Good Mind Engineering Limited

**工程簡介 Works Description**

環境管理 Environmental Management

創新安全 Safety Innovation

公共關係 Public Relations

員工福利 Welfare for Workers

工務安全管理 Site Safety Management

**公德地盤獎(工務工程—維修、保養、改建及加建工程)**  
 Considerate Contractors Site Award (Public Works-RMAA Works)

合約 Contract: 路政署定期合約: 05/HY/2018  
 Highways Department Term Contract  
 Management and Maintenance of Expressways and High Speed Roads in New Territories East, Kowloon East and Hong Kong Island 2019 - 2025

承辦商 Contractor: 偉全建築有限公司  
 Welcome Construction Co., Ltd.

地盤監督公司 Supervising Company: 路政署 HIGHWAYS DEPARTMENT

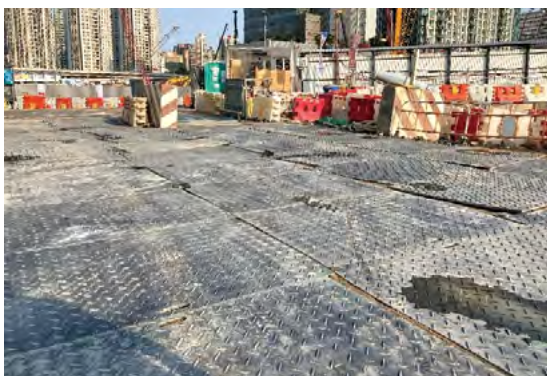
**工程簡介 Project Description**

工程相片 Project Photo

Winner of CCSA (New Works) Merit Prize and OEMPA Merit Prize  
 Contract No. HY/2018/02  
 "Central Kowloon Route - Kai Tak East"

Winner of CCSA (RMAA) Merit Prize  
 Contract No. 05/HY/2018  
 "Management and Maintenance of Expressways and High Speed Roads in New Territories, Kowloon East and Hong Kong Island 2019 - 2025"

OEMPA Bronze Award was granted to Contract No. HY/2014/20 for the good environmental performance achieved. It was the first construction site in Hong Kong to use recycled HDPE plastic mats as paving material for site haul roads to suppress dust emission. Compared with concrete slab and metal decking, HDPE mats are lightweight and less prone to noise emission. In addition, approximately 700m<sup>2</sup> of solar panels were installed on the roof of the site office and car park areas to generate renewable energy for the Feed-in Tariff Scheme. The annual production rate was over 140,000 kWh which was equivalent to reduction of 110 tonnes of CO<sub>2</sub> emission.



Use of recycled HDPE mats for site haul roads in Contract No. HY/2014/20



Solar panels on the roof of the site office and car park of Contract No. HY/2014/20

### Environmental Promotion Campaign on Construction Site

We strive for continuous improvement in our environmental performance on sites by encouraging our contractors to participate in various environmental promotion campaigns and activities including the Hong Kong Awards for Environmental Excellence and Hong Kong Green Awards.

The Hong Kong Awards for Environmental Excellence is a well-recognised campaign organised by the Environmental Campaign Committee, the Environmental Protection Department and other organisations. To honour the outstanding environmental performance in the construction industry sector, Contract No. HY/2014/20 was granted the Bronze Award in the Sectoral Awards of Hong Kong Awards for Environmental Excellence in 2021.

Hong Kong Green Awards organised by the Green Council is another highly regarded environmental awards in the industry which recognise companies with exceptional performance on green management and notable contribution to sustainable development. In 2021, our Contract Nos. HY/2014/20 and HY/2014/08 were granted Gold Award and Silver Award respectively in the category of Green Management Award – Project Management (Large Corporation).

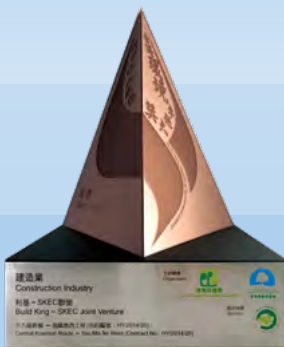
The Hong Kong Green Organization Certification scheme is a prestigious scheme which encourages participants to strive for self-improvement in specific environmental aspects. Under the scheme, the Wastewi\$e and Energywi\$e certificates are granted to well performed organisations in recognition of their efforts in adopting measures to reduce the amount of waste generated and to save energy within their establishments respectively. In 2021, Contract No. HY/2014/20 attained the Good Level and Basic Level in Wastewi\$e Certificate and Energywi\$e Certificate respectively, and for Contract Nos. HY/2014/07 and HY/2009/19, they attained the Basic Level in Wastewi\$e Certificate and Energywi\$e Certificate respectively.



Good Level  
Wastewi\$e Certificate



Basic Level  
Energywi\$e Certificate



**BRONZE AWARD**  
**Hong Kong Awards for Environmental Excellence 2020**  
by the Environmental Campaign Committee alongside the Environmental Protection Department



**GOLD AWARD**  
**Hong Kong Green Awards 2021**  
by the Green Council



**SILVER AWARD**  
**Hong Kong Green Awards 2021**  
by the Green Council

## ENVIRONMENTAL OBJECTIVES AND TARGETS

### ACHIEVEMENT IN 2021

(1.1.2021-31.12.2021)

Objective	Target	Achievement (as at 31 Dec 2021)
Reducing the energy consumption in public lighting	To replace 10,000 lighting points with LED lights/LED tubes.	Replaced 36,000 lighting points with LED lights/LED tubes.
Saving 6% electricity consumption in the Highways Department (HyD) offices by FY 2024/25 (comparing with the baseline electricity consumption in FY 2018/19)	To continue implementing housekeeping measures and best practices for energy saving.	Comparing with the baseline in FY2018/19, electricity consumption of HyD offices in 2021 has achieved the saving target. Nevertheless, electricity consumption will be monitored closely with a view to achieving the 6% saving target by 2024/25. Housekeeping measures and best practices for energy saving are being implemented.
Adopting measures in water conservation	To continue implementing measures in water conservation and exploring the appropriate installation of latest water saving devices in HyD offices.	Measures in water conservation are being adopted continuously.
Improving indoor air quality	To continue upkeeping the indoor air quality at or above Good Class level in HyD offices.	HyD offices' air quality attained the Excellent Class or Good Class.
Carrying out carbon audit and implementing measures to reduce greenhouse gas emission	To continue carrying out carbon audit annually. To explore energy conservation opportunities by identifying our major emission source from the carbon audit result.	Carbon audit was arranged by the Building Management Office of Ho Man Tin Government Offices in 2021.
Encouraging the use of recycled paper in the Department	To upkeep percentage usage of recycled paper at 98% or above of the total paper consumption.	21,235 reams of paper were consumed in the year, and all of them were recycled paper.
Setting target in reducing photocopying paper consumption	To maintain the consumption of photocopying paper per staff member at a level not exceeding the consumption level of 2020.	The consumption of photocopying paper per staff member in 2021 is lower than the consumption level of 2020.
Promoting the wider use of recycled materials	(i) To introduce the use of full depth recycled materials as sub-base of local distributors and feeder roads in more maintenance contracts; and (ii) To use paving blocks containing recycled glass materials for at least 97% of the newly laid concrete paving block pavements.	(i) 2 road maintenance contracts which were awarded in 2021 have included the specification clauses for the use of full depth recycled materials as sub-base of local distributors and feeder roads; and (ii) 100% of the newly laid concrete paving blocks contain recycled glass materials.
Planting trees and shrubs	To plant 94,000 additional trees/shrubs in capital works contracts of Major Works Project Management Offices (MWPMOs).	188,511 additional trees/shrubs have been planted.



## ACHIEVEMENT IN 2021 (1.1.2021-31.12.2021)

Objective	Target	Achievement (as at 31 Dec 2021)
Adopting site office equipment with energy saving labels	To include particular specification clauses for using site office equipment with energy saving labels and water consuming appliances with WSD water efficiency labels in all Engineer's site offices (excluding those using existing premises) of capital works contracts of MWPMOs to be tendered during the calendar year of 2021.	All 5 applicable capital works contracts tendered in 2021 have included the particular specification clauses for using site office equipment with energy saving labels and water consuming appliances with WSD water efficiency labels.
Using environment-friendly vehicles in capital works projects	<ul style="list-style-type: none"> <li>(i) To procure at least two electric or hybrid electric vehicles of approved types under each capital works contract of MWPMOs to be tendered during the calendar year of 2021; and</li> <li>(ii) To procure at least three electric or hybrid electric vehicles of approved types under each road maintenance term contract to be tendered during the calendar year of 2021.</li> </ul>	<ul style="list-style-type: none"> <li>(i) All 5 capital works contracts tendered in 2021 have procured at least two electric or hybrid electric vehicles of approved types; and</li> <li>(ii) All road maintenance term contracts tendered during the calendar year of 2021 have procured at least three electric or hybrid electric vehicles of approved types.</li> </ul>
Reducing dust emission	To include a particular specification clause for dust emission reduction in all capital works contracts at MWPMOs to be tendered during the calendar year of 2021.	All 5 capital works contracts tendered in 2021 have included the dust emission reduction particular specification clause.
Adopting energy efficient features and renewable energy technologies	<p>In all capital works consultancy agreements of MWPMOs for which invitation to submit Technical and Fee Proposals during the calendar year of 2021 to include requirements for the consultants:</p> <ul style="list-style-type: none"> <li>(i) To identify opportunities to utilize energy efficient features and renewable energy technologies; and</li> <li>(ii) To assess carbon footprint of the road works project during design stage and to provide recommendations on measures to reduce carbon footprint.</li> </ul>	All 5 consultancy agreements tendered in 2021 have included the requirements (i) and (ii).
Green roof and/or green wall at the Engineer's site office	To include a particular specification clause for construction of green roof and/or green wall in all capital works contracts of MWPMOs to be tendered during the calendar year of 2021 with Engineer's site office (excluding those using existing premises) exposed in sunlight.	All 4 applicable capital works contracts tendered in 2021 have included the particular specification clause for construction of green roof and/or green wall.
Promoting the use of renewable energy on highway structures	To install photovoltaic (PV) panels on existing and new highway structures.	PV panels have been installed on selected existing and new highway structures.
Encouraging the use of "zero/low emission" plants in construction sites in capital works projects	To use "zero/low emission" plants in construction sites in capital works contracts of MWPMOs.	3 applicable capital works contracts have used "zero/low emission" plants in construction sites.

## LOOKING AHEAD FOR 2022-23

(1.1.2022-31.3.2023)

Objective	Target
Reducing the energy consumption in public lighting	To replace 14,000 lighting points with LED lights.
Saving electricity consumption in HyD Offices	To continue implementing housekeeping measures and best practices for energy saving.
Adopting measures in water conservation	To continue implementing measures in water conservation and exploring the appropriate installation of latest water saving devices in HyD offices.
Improving indoor air quality	To continue up-keeping the indoor air quality at or above Good Class level in HyD offices.
Carrying out carbon audit and implementing measures to reduce greenhouse gas emission	To continue carrying out carbon audit annually. To explore energy conservation opportunities by identifying our major emission source from the carbon audit result.
Encouraging the use of recycled paper in the Department	To upkeep percentage usage of recycled paper at 98% or above of the total paper consumption.
Setting target in reducing photocopying paper consumption	To maintain the consumption of photocopying paper per staff member at a level not exceeding the consumption level of 2021.
Promoting the wider use of recycled materials	To use paving blocks containing recycled glass materials for at least 97% of the newly laid concrete paving block pavements.
Planting trees and shrubs	To plant 36,000 additional trees/shrubs in capital works contracts of MWPMO.
Adopting site office equipment with energy saving labels	To include particular specification clauses for using site office equipment with energy saving labels and water consuming appliances with WSD water efficiency labels in all Engineer's site offices (excluding those using existing premises) of capital works contracts of MWPMO to be tendered during the year of 2022/23.
Using environment-friendly vehicles in capital works projects	To procure at least two electric or hybrid electric vehicles of approved types under each capital works contract of MWPMO to be tendered during the year of 2022/23.



## LOOKING AHEAD FOR 2022-23 (1.1.2022-31.3.2023)

Objective	Target
Reducing dust emission	To include a particular specification clause for dust emission reduction in all capital works contracts of MWPMO to be tendered during the year of 2022/23.
Adopting energy efficient features and renewable energy technologies	In all capital works consultancy agreements of MWPMO for which invitation to submit Technical and Fee Proposals during the year of 2022/23 to include requirements for the consultants: (i) To identify opportunities to utilize energy efficient features and renewable energy technologies; and (ii) To assess carbon footprint of the road works project during design stage and to provide recommendations on measures to reduce carbon footprint.
Green roof and/or green wall at the Engineer's site office	To include a particular specification clause for construction of green roof and/or green wall in all capital works contracts of MWPMO to be tendered during the year of 2022/23 with Engineer's site office (excluding those using existing premises) exposed in sunlight.
Promoting the use of renewable energy on highway structures	To install photovoltaic panels on existing and new highway structures.
Encouraging the use of electric-powered plants/equipment in construction sites in capital works contracts	To use electric-powered plants/equipment in construction sites in capital works contracts of MWPMO.

