

DRIVING FOR GREEN LIFESTYLE

Excellence in Sustainable Built Environment

green building award 2016
環保建築大獎



green building award 2016
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50 **Finalist** - The Tanner Hill

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54 **Merit Award** - T • PARK

58 **Finalist & Special Citation** - Canton First Estate New World - Canton International House

62 **Finalist** - The Green Atrium

Completed Projects - Institutional Building

66 **Grand Award** - Ko Shan Theatre New Wing

70 **Grand Award** - Midfield Concourse

74 **Merit Award & Special Citation** - Hong Kong East Community Green Station

78 **Merit Award** - The Open University of Hong Kong - The Jubilee College

82 **Finalist** - Faculty of Science and Graduate School of Health Building / Thomas Street Building, University of Technology Sydney

86 **Finalist** - Hang Seng Management College

90 **Finalist** - Kwun Tong Promenade

94 **Finalist** - Redevelopment and Expansion of King George V School - Performing Arts Block

98 **Finalist** - Redevelopment of Kwun Tong Swimming Pool Complex and Kwun Tong Recreation Ground

Projects Under Construction and / or Design - Residential Building

102 **Merit Award** - Redevelopment of Kwun Tong Staff Quarters at Tseung Kwan O Road, Kowloon

106 **Finalist** - MOUNT PAVILIA

Projects Under Construction and / or Design - Commercial Building

110 **Merit Award** - 77 Hoi Bun Road

114 **Merit Award** - 200 - 218 Electric Road Office Development

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126 **Finalist** - 15 Middle Road Redevelopment

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Projects Under Construction and / or Design - Institutional Building

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138 **Merit Award** - Hong Kong Children's Hospital

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156 Jury's Citation

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164 **Finalist** - Breakthrough of Green Management during Shopping Arcade Typical Floor Renovation

168 **Finalist** - HK Pacific Centre

172 **Finalist** - Towngas Headquarters

176 **Finalist** - Tuen Mun Town Plaza Phase II (Shopping Arcade)

Completed Projects - Institutional Building

180 **Grand Award & Special Citation** - The Revitalization of the Old Tai Po Police Station into a Green Hub

184 **Finalist** - Extension to Block A of TWGHs Jockey Club Rehabilitation Complex

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192 **Grand Award** - K11 Art Mall

196 **Merit Award** - Exchange Tower

200 **Merit Award** - Hong Kong Gold Coast Hotel

204 **Merit Award** - Sino Estates Management Ltd. - Pacific Palisades

208 **Finalist** - Aria

212 **Finalist** - Lee Garden One Offices

216 **Finalist** - MGM Macau – Green Beyond the Building Form

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224 **Merit Award** - C.C.Wu International Co. Limited

228 **Finalist** - Office of the Printing Division, Government Logistics Department

232 Research & Planning Category

234 Jury's Citation

236 **Grand Award** - A multi-scale assessment of embodied energy use in China's construction sector: a multi-regional analysis

240 **Grand Award** - Climate Positive Urban Regeneration: Beijing New Shougang Development - Climate Positive Project Plan

244 **Merit Award** - Concrete Innovation - Application Research for Carbon Footprint Reduction

248 **Merit Award** - Research and Development of 2nd Generation Acoustic Balcony

252 **Merit Award** - Research, Planning and Promotion of Sustainable Drainage System (SuDs) for Climate Ready and Flood Resilience in Built Environment

256 **Merit Award** - ZCB Bamboo Pavilion

260 **Finalist** - Development of BEAM Plus Neighbourhood

264 **Finalist** - Establishment of Humanity Aspect of The Evaluation Standard for Green and Ecological Urban Districts in China - Comparison of LEED Neighbourhood Development, BREEAM Community, CASBEE-Cities and DGNB Urban Districts

268 **Finalist** - Improving pedestrian wind environments: analysis of the effect of building typologies on urban air ventilation from 1960 to 2015

272 Building Products & Technologies Category

274 Jury's Citation

276 **Grand Award** - Air Induction Unit (AIU)

280 **Merit Award** - Maximize the use of waste glass in cement-based construction materials

284 **Merit Award** - Vacuum Insulation Glass

288 **Finalist** - animeo IB+ 4AC Motor Controller

292 **Finalist** - Essence® by Big Ass Fans®

296 **Finalist** - Integrated Building & Energy Management System (IBEMS)

300 Green Building Leadership Category

302 Jury's Citation

304 **Grand Award** - Hong Kong Housing Authority

308 **Grand Award** - Swire Properties Limited

312 **Merit Award** - The Chinese University of Hong Kong

316 **Merit Award** - Ronald Lu & Partners

320 **Finalist** - Arup

324 **Finalist** - Business Environment Council Limited

328 **Finalist** - Grand Central Plaza

332 **Finalist** - Henderson Land Group

336 Participating Projects

About Green Building Award 2016
关于环保建筑大奖2016

With the theme of "Driving Green Lifestyle • Excellence in Sustainable Built Environment", the Hong Kong Green Building Council (HKGBC) is organising with Professional Green Building Council (PGBC) the biennial Green Building Award in 2016.

The Award aims to provide recognition of building-related projects and organisations with outstanding performance and contributions in sustainability. This year, the "Green Building Leadership" category is added to the Award to recognise pioneering organisations in contributing to the sustainable built environment and a Special Citation in Eco-Service Infrastructure Network is added to recognise the project that drive building sustainability beyond the site boundary to inspire and embolden its connection to its surrounding community and ecology.

Categories

GBA 2016 is open to all relevant projects and organisations, embracing the following five categories:

香港绿色建筑议会与环保建筑专业议会携手举办两年一度的环保建筑大奖，本届的主题为「持续发展・尽显卓越・融入生活」。

环保建筑大奖旨在鼓励和嘉许在可持续建筑发展上有杰出表现和贡献的建筑物与机构以及参与项目的机构。今年，环保建筑大奖新设「绿建领导」类别，表扬对可持续建筑发展具非凡贡献的机构。而大会今年新设「生态环境服务建设网络特别嘉奖」，表扬跨越场所限制、带动可持续发展、启发及强化邻近社区及环境生态的连结的项目。

类别

环保建筑大奖2016欢迎相关项目参与以下五个类别：

Main Category 主要类别	Sub-Category 附属类别
New Buildings Category 新建建筑类别	1. Completed Projects 已落成项目 a. Residential Building 住宅建筑 b. Commercial Building 商业建筑 c. Institutional Building 公用建筑
	2. Projects Under Construction and / or Design 兴建及 / 或设计中项目 a. Residential Building 住宅建筑 b. Commercial Building 商业建筑 c. Institutional Building 公用建筑
Existing Buildings Category 既有建筑类别	1. Completed Projects 已落成项目 a. Residential Building 住宅建筑 b. Commercial Building 商业建筑 c. Institutional Building 公用建筑
	2. Projects under Planning / Design 规划或设计中项目 a. Residential Building 住宅建筑 b. Commercial Building 商业建筑 c. Institutional Building 公用建筑
	3. Facilities Management 设施管理
	4. Interiors 室内设计
Research & Planning Category 研究及规划类别	1. Research 研究
	2. Planning 规划
Building Products & Technologies Category 建筑产品及科技类别	
Green Building Leadership Category 绿建领导类别	

• Special Citation in Eco-Service Infrastructure Network may be bestowed to one or more of the Finalists/ Awarded Projects in New Buildings & Existing Buildings Category.
• Industrial Building will be included in Commercial Building Category.

• 生态环境服务建设网络特别嘉奖有机会颁予一个或以上的新建建筑及既有建筑的入围或得奖项目。
• 工业建筑属商业建筑类别

About Hong Kong Green Building Council
关于香港绿色建筑议会

The Hong Kong Green Building Council Limited (HKGBC) is a non-profit, member led organisation established in 2009 which strives to promote the standards and developments of sustainable buildings in Hong Kong. The HKGBC aims to raise green building awareness by engaging the public, the industry and the government, and to develop practical solutions for Hong Kong's unique, subtropical built environment of high-rise, high density urban area, leading Hong Kong to become a world's exemplar of green building development.

香港绿色建筑议会有限公司创立于 2009 年，为非牟利会员制组织，致力推动和提升香港在可持续建筑方面的发展和水平。本会借连系公众、业界及政府，提高各界对绿色建筑的关注，并针对香港位处亚热带的高楼密集都会建筑环境，制订各种可行策略，从而带领香港成为全球绿色建筑的典范。

About Professional Green Building Council
关于环保建筑专业议会

The Professional Green Building Council (PGBC) is a non-profit making research and education institute to promote a better sustainable built environment through professional involvement of members from the Hong Kong Institute of Architects (HKIA), the Hong Kong Institution of Engineers (HKIE), the Hong Kong Institute of Landscape Architects (HKILS), the Hong Kong Institute of Planners (HKIP) and the Hong Kong Institute of Surveyors (HKIS). It brings together professionals to formulate better environmental practices.

环保建筑专业议会是非牟利的研究和教育机构，致力透过专业参与，与业界共同推动更持续发展的建筑环境。环保建筑专业议会集合了建筑师、工程师、园林建筑师、测量师及规划师等专业人士，共建更佳的环保作业守则。



Message from Chairman of Green Building Award 2016 Organising Committee

Ir Prof. CHOY Kin-kuen

环保建筑大奖2016筹办委员会主席贺辞

蔡健权教授工程师

In the years since the launch of this biennial Award, it has been very encouraging to witness its growing recognition in the industry, and the role it continues to play in raising awareness of sustainability. I am very pleased to report that the GBA 2016 received an overwhelming number of nominations, which reflects the way in which green development is gaining momentum and becoming a mainstream in the industry. A total of 70 projects were selected as finalists, with 12 Grand Awards and 21 Merit Awards bestowed on the most outstanding projects and organisations. The standard of all nominated projects has been recognised to be exceedingly high, and perfectly echoed the GBA 2016 theme of "Driving for a Green Lifestyle • Excellence in Sustainable Built Environment". This year, a new category of "Green Building Leadership" has also been added to the Award to recognise the role of pioneering organisations which have made a leading contribution to the sustainable built environment of our city.

To reflect the Award's status as a renowned industry event that draws an enthusiastic response from a wide range of stakeholders, the GBA 2016 Jury Panel was formed from a broad base of academic and industry expertise. It has benefitted from the generous support of three overseas experts as well as 27 local representatives from the Government, Universities, and Professional Institutions. I have to particularly express my gratitude to Mr Paul CHAN Mo-po, GBS, MH, JP, Secretary for Development, who is both the Guest-of-Honour at the GBA 2016 Dinner and the Honorary Advisor of the Jury Panel. I also have to thank all members of the Jury Panel for their valuable time and commitment contributed to reviewing the GBA 2016 finalists. Thanks likewise go to all GBA 2016 sponsors for their generous financial support, and to our Supporting Organisations for their endorsement of this important event. In addition, I would offer my thanks also to the members of the GBA 2016 Scientific Committee, who have played a key role in advising on technical issues. Most of all, I would like to congratulate the GBA 2016 award winners. They have been helping to lead Hong Kong into a new era of greener and more sustainable environment for the benefit of everyone of us.

自从环保建筑大奖成立以来，日渐获得业界认同，并且在提高可持续发展的意识上能够扮演一定的角色，我感到十分鼓舞。我很高兴告诉大家，环保建筑大奖 2016 收到十分踊跃的提名，反映了绿色建筑的发展，在业界中已成为主流趋势。今年共有 70 个入围项目，而当中有 12 个项目和机构获颁发大奖及 21 个获颁发优异奖。所有提名项目都极具水准，充分响应了环保建筑大奖 2016 的主题 —「持续发展・尽显卓越・融入生活」。今年大会更设立了「绿建领导」这个新类别，以表扬对可持续建筑发展具有非凡贡献的香港机构。

环保建筑大奖2016的评审团云集了不同范畴的学者及业界专家。是次奖项获得3位海外专家及27位包括本地政府、大学以及专业机构代表的大力支持，反映各界积极参与本奖项，同时也显示了此奖项广受业界认同。我特此鸣谢发展局局长陈茂波先生，GBS，MH，JP担任本奖项的主礼嘉宾及评审团荣誉顾问。此外，我衷心多谢所有评审团成员抽出宝贵时间评阅入围项目，也要感谢环保建筑大奖2016的所有赞助单位的慷慨赞助，以及各支持机构协助宣传本奖项。另外我还要感谢环保建筑大奖2016学术委员会对专业问题所提供的宝贵意见。最后，我衷心祝贺环保建筑大奖2016的获奖者，他们为引领香港进入环保和可持续环境新纪元作出的努力，将惠及我们每一位香港人。



Ir Prof. CHOY Kin-kuen
蔡健权教授工程师
Chairman of GBA 2016 Organising Committee
环保建筑大奖2016筹办委员会主席

List of Organising Committee & Scientific Committee Members
筹办委员会及学术委员会名单

GBA 2016 Organising Committee
环保健筑大奖2016筹办委员会

Chairman	Ir Prof. CHOY Kin-kuen	蔡健权
Vice Chairman	Mr Ivan HO	何文尧
Members	Ir Allan CHAN	陈修杰
	Mr Gilles CHAN	陈绍璋
	Mr Joel CHAN	陈祖声
	Sr Kenneth CHAN	陈佐坚
	Mr Sunny CHAN	陈咏聪
	Sr Sam CHENG	郑森兴
	Ms Yvonne IEONG	杨燕玲
	Mr Tony IP	叶颂文
	Mr Evans IU	姚宝隆
	Sr Dick KWOK	郭岳忠
	Ir Peter LEE	李启光
	Mr Randy LIEKENJIE	李国龙
	Mr Victor LI	李志良
	Mr Felix LOK	骆文辉
	Sr Joe WU	胡锦辉
	Mr Franklin YU	余烽立
	Mr Kenneth YUN	甄英杰

GBA 2016 Scientific Sub-Committee
环保健筑大奖2016学术委员会

Chairman	Mr Franklin YU	余烽立
Vice Chairman	Mr Evans IU	姚宝隆
Members	Mr Gilles CHAN	陈绍璋
	Mr Joel CHAN	陈祖声
	Ir Prof. CHOY Kin-kuen	蔡健权
	Ms Yvonne IEONG	杨燕玲
	Mr Tony IP	叶颂文
	Ir Peter LEE	李启光
	Mr Randy LIEKENJIE	李国龙
	Mr Victor LI	李志良
	Sr Joe WU	胡锦辉
	Mr Kenneth YUN	甄英杰

GBA 2016 Honorary Advisor 环保建筑大奖2016荣誉顾问



Mr Paul CHAN Mo-po, GBS, MH, JP 陈茂波先生
Secretary for Development
Development Bureau
发展局局长

GBA 2016 Jury Panel 环保建筑大奖2016评审委员



Mr CHAN Pui-cheong 陈沛昌先生
Chief Operating Officer
Hong Kong Quality Assurance Agency
香港品质保证局运营总监



Dr Edmond CHENG Kam-wah 郑锦华先生
President
The Hong Kong Institute of Facility Management
香港设施管理学会会长



Ir Joseph CHOI Kin-hung 蔡健鸿工程师
President
The Hong Kong Institution of Engineers
香港工程师学会会长



Dr Greg FOLIENTE
Senior Science Leader,
Commonwealth Scientific and Industrial Research Organisation;
Professorial Fellow,
University of Melbourne



Prof. HO Kin-chung 何建宗教授
Dean of School of Scienece and Technology,
Department of Energy and Environmental Management
The Open University of Hong Kong
香港公开大学科技学院院长及环境学与应用科学课程主任



Mr HUI Siu-wai, JP 许少伟先生
Director
Buildings Department
屋宇署署长



Prof. Kazuo IWAMURA 岩村和夫教授
Chair
Japan Sustainable Building Consortium



Mr Eddie LAM Kin-wing 林健荣先生
First Vice-President
Hong Kong Construction Association, Limited
香港建造商会第一副会长



Mr Enoch LAM Tin-sing, JP 林天星先生
Director
Water Supplies Department
水务署署长



Mrs Sylvia LAM YU Ka-wai, JP 林余家慧女士
Deputy Director
Architectural Services Department
建筑署副署长



Sr LAU Chun-kong 刘振江先生
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The Hong Kong Institute of Surveyors
香港测量师学会会长



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Emeritus Professor, Department of Architecture and Civil Engineering
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香港城市大学建筑学及土木工程学系荣誉退休教授



Mr LING Kar-kan, JP 凌嘉勤先生
Director
Planning Department
规划署署长



Mr Vincent LIU Ming-kwong, JP 刘明光先生
Deputy Secretary for the Environment
Environment Bureau
环境局副秘书长



Mr Kevin LUK Fuk-man, JP 陆复民先生
Deputy Director
Civil Engineering and Development Department
土木工程拓展署副署长



Dr Eunice MAK 麦凯蔷博士
President
The Hong Kong Institute of Planners
香港规划师学会会长



Prof. Edward NG Yan-yung 吴恩融教授
Professor, School of Architecture
The Chinese University of Hong Kong
香港中文大学姚连生建筑学教授



Mr Anthony Vincent NG Wing-shun, JP 吴永顺先生
President
The Hong Kong Institute of Architects
香港建筑师学会会长



Prof. NIU Jian-lei 牛建磊教授
Chair Professor of Building Environment and Energy
The Hong Kong Polytechnic University
香港理工大学屋宇设备工程首席教授



Prof. SHANG Chii 商启教授
Associate Head & Professor of Civil and Environmental Engineering
The Hong Kong University of Science and Technology
香港科技大学土木及环境工程学系副系主任及教授



Dr Peter Cookson SMITH
Immediate Past President
Hong Kong Institute of Urban Design
前香港城市设计学会会长



Mr Alfred SIT Wing-hang, JP 薛永恒先生
Deputy Director/ Regulatory Services
Electrical and Mechanical Services Department
机电工程署副署长



Mr TAI Lee-siang 戴礼翔先生
Chair
World Green Building Council



Mr Jason TANG 邓耀伦先生
Senior lecturer of Department of Product and Interior Design
Hong Kong Design Institute
香港知专设计学院产品及室内设计高级讲师



Mr Edwin TONG Ka-hung, JP 唐嘉鸿先生
Director
Drainage Services Department
渠务署署长



Hon Tony TSE Wai-chuen, BBS 谢伟铨议员
Member of 5th Legislative Council
(Architectural, Surveying and Planning)
第五届立法会议员（建筑、测量及都市规划界）



Prof. WANG Wei-jen 王维仁教授
Head of Department, Faculty of Architecture
The University of Hong Kong
香港大学建筑学院系主任



Mr Luther WONG, JP 王乐得先生
Chairman of Group 26 (Environmental Industries Council)
Federation of Hong Kong Industries
香港工业总会第 26 分组 (环境工业协会) 主席



Mr WONG Tak-yip 黄德业先生
President
The Hong Kong Institute of Landscape Architects
香港园境师学会会长



Mr Gary YEUNG 杨文佳先生
Vice President
The Hong Kong Association of Property Management Companies
香港物业管理公司协会会长

* Name of Jurors are arranged in alphabetical order.



Message from Chairman of Hong Kong Green Building Council

Sr WONG Bay

香港绿色建筑议会主席贺辞

黃比測量師

The HKGBC has always been driven by a clear and unwavering vision that it has an important role to play in helping to save the planet and create a healthier environment for the people of Hong Kong by promoting and facilitating green development. Buildings in Hong Kong account for 90% of the total electricity consumption, and 60% of its greenhouse gas emissions. While the industry has been highly supportive in the adoption of green design and construction in new buildings, the majority of Hong Kong's building stock comprises existing buildings. It is this huge number of existing buildings that offer such tremendous potential for turning our city into a low-carbon metropolis.

From the outset, the Green Building Award (GBA) was intended to provide a platform for industry stakeholders, creating new opportunities for them to advance the cause of green building in a wide range of categories and aspects. I am very pleased to see the important role that the Award continues to play in nourishing and strengthening the concepts of green building in the industry, especially by recognising various stakeholders' great achievements.

I offer my congratulations to all GBA 2016 award winners who have skilfully demonstrated that green building belongs at the very heart of Hong Kong's construction industry. I likewise offer my heartfelt thanks to the GBA 2016 Organising Committee and the Jury Panel for making this year's event such a successful and valuable occasion. My gratitude also goes to the Construction Industry Council for continuous support for HKGBC's development, our co-organiser Professional Green Building Council, as well as other key stakeholders including the HKGBC Directors, HKGBC Standing Committee Members and the Secretariat for their commitments and contributions.

一直以来，香港绿色建筑议会的愿景清晰方向明确，希望通过推广和促进绿色建筑发展，为香港缔造绿色的建筑环境，从而保护地球，造福香港市民。香港建筑物占全港耗电量90% 以及温室气体排放量 60%。虽然业界在新建建筑中已大量采用绿色设计和建造技术，然而香港绝大多数建筑物是既有建筑。数目之多让香港具有巨大潜力转化为低碳之都。

环保建筑大奖的设立旨在为业界相关人士提供平台及创造新机会，从而在各种不同的范畴及层面推动绿色建筑的理念。我非常高兴地看到了本奖项在建筑业界中发挥培育和强化绿色建筑意识的重要作用，并透过奖项嘉许不同持分者的杰出成就。

我谨此祝贺环保建筑大奖 2016 的所有获奖者，他们展示了绿色建筑在香港建筑界的核心地位。此外我衷心感谢环保建筑大奖 2016 筹办委员会以及评审团成就了这一成功而宝贵的活动。同时，我对建造业议会一直以来对香港绿色建筑议会发展的支持由衷感激、亦感谢是次大奖的合办机构环保建筑专业议会、香港绿色建筑议事董事、常设委员会会员和秘书处等的承担与贡献。



Sr WONG Bay
黃比測量師
Chairman of Hong Kong Green Building Council
香港绿色建筑议会主席



Message from Chairman of the Professional Green Building Council

Mr Ivan HO

环保建筑专业议会主席贺辞

何文尧先生

The Green Building Award (GBA) 2016 is the 6th Award in the Green Building Award series. Initiated by PGBC in 2006, the GBA has been pioneering in showcasing the outstanding performance and efforts taken in addressing environmental and sustainability concerns. With a fruitful collaboration with HKGBC in co-organising the Award since 2010, it is very encouraging to see that the GBA has developed into an industry-wide event recognising the innovations, efforts and leadership of professionals and many industry stakeholders here in Hong Kong as well as creating a meaningful arena facilitating knowledge sharing and synergy formation.

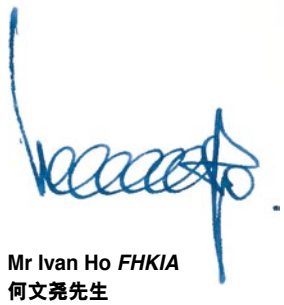
PGBC is committed to devote ourselves in further promoting the creation of a quality and sustainable built environment in Hong Kong through multi-disciplinary partnership and to crystalise the momentum gained in the GBA series for transforming towards a better common future of Hong Kong, in particular for your next generation.

I would like to offer my sincere gratitude to the GBA 2016 Organising Committee, the Scientific Committee and the Jury Panel for their valuable time and efforts in contributing to the continued success of the GBA, as well as my congratulations to all the GBA 2016 award recipients for their visions and exemplary efforts in contributing to this green movement in Hong Kong.

为了表扬在应对环境和可持续发展的卓越成就，环保建筑专业议会早在 2006 年就开始举办环保建筑大奖，今年环保建筑大奖 2016 已经是第六届。这一个两年一度的奖项鼓励发展项目以可持续环境作为原则和前题。环保建筑专业议会与香港绿色建筑议会自 2010 年起携手合办环保建筑大奖，我很欣慰看到本奖项已成为一项备受业界认同的盛事，并对业界的专业人士及持分者的创新、努力和领导能力予以肯定，这个奖项同时为我们创建了一个环保和可持续发展知识共享的平台。

环保建筑专业议会致力通过不同专业界别的合作，进一步推广香港成为优越及可持续发展的国际都会，以及籍本奖项带来的动力，推动香港创造更美好未来，惠及我们的下一代。

本人在此向环保建筑大奖 2016 筹办委员会、学术委员会及评审团致以衷心谢意，他们的宝贵时间和努力造就了环保建筑大奖的成功。同时，我也要恭喜环保建筑大奖 2016 的所有获奖者，他们的理念及努力为推动香港环保发展作出了重大的贡献。



Mr Ivan Ho *FHKIA*
何文尧先生
Chairman of the Professional Green Building Council
环保建筑专业议会主席



Message from Chief Secretary for Administration,
Government of the Hong Kong Special Administrative Region

Mrs Carrie LAM CHENG Yuet-ngor, GBM, GBS, JP

香港特别行政区政府政务司司长贺辞

林郑月娥女士, GBM, GBS, JP

My heartfelt congratulations to the winners of the Green Building Award 2016 and appreciation of the laudable endeavours and contributions of all participants to the green building movement.

Time flies, it is now a decade since the establishment of the Award. Thanks to the joint efforts of the Hong Kong Green Building Council (HKGBC) and the Professional Green Building Council (PGBC), the Award provides honoured recognition for the industry stakeholders who strive for establishing a sustainable built environment in Hong Kong.

Looking ahead, climate change will remain the major global challenge of this century. Sustained efforts of the industry in pursuing the green building movement are pivotal to a robust response. The Government is committed to developing Hong Kong into a green community with low-carbon lifestyle. We will continue to lead by example in promoting greener government buildings and also encourage greater participation by the general public in accomplishing energy efficiency for the private building stock. With the perseverance of both HKGBC and PGBC, I look forward to seeing more collaborative initiatives of fostering a sustainable built environment in Hong Kong. May I wish the two organisations every success in their endeavours in the years to come.

我衷心祝贺环保建筑大奖 2016 的得奖者，并感谢各参与者对绿色建筑运动所作出的努力和贡献。

时光荏苒，环保建筑大奖成立至今已经是第十个年头。在香港绿色建筑议会和环保建筑专业议会的共同努力下，该奖项对于在过去多年致力建立香港可持续建筑环境的业界持份者，作出了尊崇的肯定。

展望未来，气候变化将会继续是本世纪全球面对最大的挑战。应对挑战的切实回应，就是业界在推动绿色建筑运动上的坚持和努力。政府已承诺把香港发展成为一个实践低碳生活模式的绿色社区。我们将继续以身作则，在政府楼宇推行「更绿」的建筑，并鼓励市民大众，加强现存私人楼宇的能源效益。在香港绿色建筑议会和环保建筑专业议会的努力不懈下，我期待看到各界有更多的协作，共同营造可持续建筑环境。我祝愿两个议会在来年的成就，更上一层楼。



Mrs Carrie LAM CHENG Yuet-ngor
林郑月娥女士, GBM, GBS, JP
Chief Secretary for Administration
政务司司长



Message from Secretary for Development,
Government of the Hong Kong Special Administrative Region

Mr Paul CHAN Mo-po, GBS, MH, JP

香港特别行政区政府发展局局长贺辞

陈茂波先生, GBS, MH, JP

I offer my warmest congratulations to the Hong Kong Green Building Council and Professional Green Building Council on their success in jointly organising the biennial Green Building Award 2016.

As a world-class city, Hong Kong is committed to upgrading our infrastructure to meet growing demands and improve the quality of life of the people, while at the same time ensuring a sustainable built environment. Over the years, the building industry has been making great efforts in producing sustainable, environmentally friendly and aesthetically charming buildings for the community of Hong Kong. To this end, the Green Building Award plays a crucial role by establishing a platform for professionals to showcase their distinguished work, and share their knowledge on how to make buildings "greener".

I am very pleased to note that the Green Building Award 2016 has included a new category of "Green Building Leadership" to give due recognition to the professional sectors for their praiseworthy efforts on this front. I trust that this new category definitely will give the additional impetus to the industry in striving for excellence.

May I congratulate all award-winners for their outstanding performance, and wish this event a great success.

我在此衷心祝贺香港绿色建筑议会与环保建筑专业议会成功合办两年一度的环保建筑大奖 2016。

作为世界级城市，香港致力提升我们的基础建设以满足需求及改善市民生活质素，同时确保一个可持续的建筑环境。一直以来，建造业界都竭尽所能为本港社会提供可持续性高、合符环保及美仑美奂的建筑物。因此，环保建筑大奖担当一个非常重要的角色，就是建立一个平台让专业人士去展示他们的优秀作品，及分享令建筑物「更绿」的知识。

我很高兴得悉环保建筑大奖 2016 新增了一个「绿建领导」奖项，以表扬不同专业界别在这方面的贡献。我深信此新奖项会为业界加添动力去追求更卓越的成就。

我谨此向所有创出佳绩的得奖者道贺，并祝愿颁奖礼圆满成功。

Mr Paul CHAN Mo-po
陈茂波先生, GBS, MH, JP
Secretary for Development
发展局局长



Message from Secretary for the Environment,
Government of the Hong Kong Special Administrative Region

Mr WONG Kam-sing, GBS, JP

香港特别行政区政府环境局局长贺辞

黄锦星先生, GBS, JP

The green building movement is a priority, not only here in Hong Kong but worldwide. In 2015, the Environment Bureau launched the Energy Saving Plan for Hong Kong's Built Environment 2015~2025+. This important document outlines a number of key actions for promoting green building, and for reducing the city's energy intensity by 40% by 2025. This is in line with the spirit of the Paris Agreement reached at the COP21 at the end of last year, which commits all participants to the "two-degree target".

In keeping with this global movement toward greener, more sustainable development, the Government of the HKSAR will continue to proactively formulate policy initiatives that help combat climate change. In an urban area like Hong Kong, the green building movement has a central role to play. However, Government alone can never be enough to promote green building in the community and win the support of all stakeholders. That's why the Green Building Award is so important. Organised by the HKGBC and PGBC, the Award not only gathers industry stakeholders and experts to exchange ideas and experiences, it also offers well-deserved recognition to those in the industry who are making a real contribution to green building development.

The Government of the HKSAR is dedicated to the continued promotion and facilitation of green building development. Through the joint efforts of the Government, HKGBC, PGBC and all stakeholders, Hong Kong would become more liveable and low carbon in future. I would like to congratulate both the HKGBC and PGBC on the success of GBA 2016, and all award winners for helping to lead the way to a more sustainable built environment.

推动绿色建筑发展无论在本港还是海外均已属刻不容缓之举。环境局在 2015 年推出《香港都市节能蓝图 2015~2025+》，重点勾划推广绿色建筑的各项主要工作，以达致于 2025 年减少能源强度四成的目标。此目标实与去年巴黎气候变化大会上，各国代表促成《巴黎协议》中「两度目标」的精神一脉相承。

为了与国际同步，共同迈向更绿色、更可持续的发展模式，特区政府将为应对气候变化推出连串政策措施，而绿色建筑发展对香港所处的都市环境更是举足轻重。不过，单单只有官方力量，绝不足以使社会各界响应绿色建筑发展，因此环保建筑大奖的设立尤为重要。这个由香港绿色建筑议会与环保建筑专业议会合办的殊荣，既可汇集业界各方专才，互相砥砺交流经验，更向为绿色建筑发展尽心尽力的同业，给予实至名归的肯定。

特区政府将一如以往，致力推动和促进绿色建筑发展。我深信在政府、香港绿色建筑议会、环保建筑专业议会及业界同人携手同心下，将会令香港成为一个更宜居的都市，共享低碳未来。最后，我谨此向香港绿色建筑议会及环保建筑专业议会成功举办环保建筑大奖 2016，以及各得奖者为创建可持续建筑环境的傲视同侪的贡献，衷心致贺。



Mr WONG Kam-sing
黄锦星先生, GBS, JP
Secretary for the Environment
环境局局长



Message from Secretary for Transport and Housing,
Government of the Hong Kong Special Administrative Region

Prof. Anthony CHEUNG Bing-leung, GBS, JP

香港特别行政区政府运输及房屋局局长贺辞

张炳良教授, GBS, JP

My warm congratulations to the Hong Kong Green Building Council and the Professional Green Building Council on successfully launching the Green Building Award 2016!

Hong Kong is one of the most densely populated cities in the world. We have to utilise our scarce land resources in an optimal and sustainable manner to satisfy the diverse needs of a vibrant and thriving society. Driven by the vision to provide a better living environment for our citizens, the Government and the Hong Kong Housing Authority have been actively exploring new and innovative ways towards housing and related developments and rolling out continuous improvement in various aspects without compromising the long-term sustainability of our environment.

The Green Building Award has been instrumental in promoting green and sustainable practices among the stakeholders in building industry. Over the years, it has encouraged and promulgated innovative ways for taking forward building development, environmental protection and socio-economic development alongside each other harmoniously to create a sustainable and livable Hong Kong.

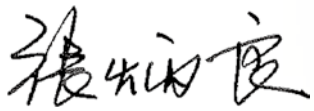
I wish the Award ceremony a great success and congratulate all winners and nominees on their excellent performance.

我衷心祝贺香港绿色建筑议会和环保建筑专业议会成功合办环保建筑大奖 2016。

香港位列全球人口最密集的城市之一，因此我们须善用珍贵的土地资源，去满足繁荣都市的多元需求。在为市民提供宜居环境的愿景下，特区政府及香港房屋委员会在推动房屋与相关发展项目时，积极探讨各种优化及创新方法，务求维持社会的长远可持续发展。

环保建筑大奖在建筑行业持份者中推广环保及可持续发展措施。多年来，环保建筑大奖促进房屋建设、环境保护和社会经济三方面和谐发展，以缔造一个可持续和宜居的香港，实在贡献良多。

我恭贺各得奖和获提名的机构，并祝贺环保建筑大奖举办成功。



Prof. Anthony CHEUNG Bing-leung
张炳良教授, GBS, JP
Secretary for Transport and Housing
Chairman of the Hong Kong Housing Authority
运输及房屋局局长暨香港房屋委员会主席

Message from HKGBC Founding Members
香港绿色建筑议会创会会员贺辞

Message from Chairman of Construction Industry Council - **Sr CHAN Ka-kui, BBS, JP**
建造业议会主席贺辞 – **陈家驹测量师, BBS, JP**

On behalf of the Construction Industry Council, I would like to extend my warmest congratulations to all the winners of the Green Building Award 2016. The award demonstrates the strength and commitment of the construction community working together to develop Hong Kong as a sustainable green city.

I wish the Green Building Award continued success in the years ahead.

本人谨代表建造业议会衷心祝贺「环保建筑大奖 2016」各项目得奖者。它彰显了建造业界为构建香港成为一个可持续发展绿色城市的共同力量和所作之贡献。

在此，祝愿「环保建筑大奖」续创佳绩。

Message from Chairman of Business Environment Council - **Mr Richard LANCASTER**
商界环保协会主席贺辞 – **蓝凌志先生**

On behalf of Business Environment Council (BEC), I congratulate the Green Building Award for gaining wide public recognition since its inception in 2006. Over the past decade, the Award has contributed greatly towards enhancing the environment of Hong Kong and Asia Pacific through recognising and showcasing the efforts and outstanding examples of green building development. I also applaud the organisers' foresight in continuously enriching the Award, thereby increasing its impact. The newly added category of Green Building Leadership this year is a good example. With a shared vision of building Hong Kong into a greener, healthier low-carbon city, BEC is pleased to be a supporting organisation of this meaningful Award.

环保建筑大奖自 2006 年举办至今，广受社会各界认同，本人谨代表「商界环保协会」衷心致贺。十载以来，大奖致力表扬各界在环保建筑发展的努力和卓越表现，对改善香港和亚太区的环境，贡献良多。主办机构不断充实奖项内容，藉以加强环保推广效益，远见尤为值得嘉许，今年新增绿建领导奖项便是明证。本会致力推动香港发展成更环保、更健康的低碳城市，与大奖怀抱共同愿景，因此，本会非常高兴成为大奖的支持机构。

Message from Chairperson of BEAM Society Limited - **Prof. John NG**
建筑环保评估协会主席贺辞 – **伍灼宜教授**

On behalf of BEAM Society Limited (BSL), I would like to express our congratulation on the 10th Anniversary of Green Building Award 2016.

This Award is the highest accolade in green building award in recognition of the industry's endless effort and commitment in sustainable building.

It is our pleasure to participate in this Award. BSL has been playing an active role in the administration and development of the BEAM Plus assessment tools, educating and training green building practitioners.

Let us all join together to build a green and liveable built environment for Hong Kong.

本人谨代表建筑环保评估协会，向环保建筑大奖 2016 迈向十周年致以最热烈祝贺。

作为绿色建筑业两年一度的盛事，在过去十年来，环保建筑大奖一直对业界在可持续发展的努力实践表示嘉许，使绿色建筑体系变得更加稳健。

建筑环保评估协会很高兴能参与其中。本会致力发展绿建环评评估工具，教育及培训绿建方面的人才。

让我们携手一起将香港建立成一个绿色宜居城市。

Message from PGBC Founding Members
环保建筑专业议会创会会员贺辞

Message from President of The Hong Kong Institute of Architects - Mr **Vincent NG, JP, FHKIA, Registered Architect, APEC Architect**
香港建筑师学会会长贺辞 – **吴永顺太平绅士，香港建筑师学会资深会员，注册建筑师，亚太经合组织建筑师**

It is my great pleasure to have joined the jury panel to adjudicate on the submissions of the "New Buildings – Completed Projects (Institutional Building)" and "Existing Buildings Category – Completed Projects (Institutional Building)" this year.

To produce a new building or revitalise an existing building, both require "Quality, Resources, Sustainability and Innovation" to reach the criteria of Green Building Award as well as total commitment and tireless effort from each member of the project team.

I would like to congratulate the award winners this year for their achievements and express my sincere appreciation of their contributions towards a "Green Lifestyle" in Hong Kong.

本人很荣幸作为评审团成员之一，参与评审本年度的「新建建筑 - 已落成项目（公用建筑）」及「既有建筑 - 已落成项目（公用建筑）」参赛项目。

兴建新建筑和活化现有建筑，两者均要求「质量、资源、可持续性及创新性」达到环保建筑大奖标准及承诺，同时也需要项目团队中每一位成员孜孜不倦的努力。

本人在此恭贺荣获本年度的获奖人员并衷心感谢他们为香港“绿色生活方式”作出贡献。

Message from President of The Hong Kong Institution of Engineers - **Ir Joseph CHOI Kin-hung**
香港工程师学会会长贺辞 – **蔡健鸿工程师**

On behalf of The Hong Kong Institution of Engineers, I would like to convey my warmest congratulations to the Green Building Award 2016 Organising Committee and the awardees on the occasion of the Award Presentation Ceremony.

Since the establishment of the Award in 2006, it has been a significant recognition for building-related projects, and organisations who have achieved outstanding performances in contributing to green building sustainability. I am delighted to note the immense responses received for this prestigious award, which shows the clear commitment and endeavours made by the building industry and professionals to developing a greener Hong Kong and a better living environment for the community.

Once again, I would like to express my heartiest appreciation to all the awardees for their accomplishments and I wish the Award Presentation Ceremony a great success.

本人谨代表香港工程师学会，向环保建筑大奖 2016 筹备委员会与各得奖者致以衷心祝贺。

成立于 2006 年，环保建筑大奖旨在表扬对可持续发展及建筑环境有出色表现及贡献的建筑项目及机构，对建造业界及相关行业的一项重要肯定。今届大奖得到业界及专业人士的踊跃支持，实在令人鼓舞。这表现了业界对绿化香港以及致力为建设一个更美好的社区环境作出的承诺和贡献。

本人希望藉此机会恭贺所有得奖者，并祝愿是次颁奖典礼成功举行。

Message from President of The Hong Kong Institute of Landscape Architects - **Mr WONG Tak-yip**
香港园境师学会会长贺辞 – **黄德业先生**

On behalf of The Hong Kong Institute of Landscape Architects, I am delighted to extend my warmest congratulations to Hong Kong Green Building Council for successfully holding the Green Building Award 2016 (The Award) and those award winners.

The Award, which had attracted overwhelming submissions of projects from overseas and local, would not only promote more environmentally friendly and sustainable developments, but also educate the future generations the significance of green buildings in providing the quality living while minimizing the environmental impacts. Thus, continuation of the Award is valuable to the ongoing improvement of our living environment.

Wish the Award continued success in the years to come!

我很高兴代表香港园境师学会，向香港绿色建筑议会成功举办 2016 环保建筑大奖（大奖）及其获奖者致以最热烈的祝贺。

这大奖吸引了大量在海外及本地的项目参赛，不单只促进了环保及可持续发展，还教育后人绿色建筑在提供优质生活而把环境影响减到最少的重要性。所以，这大奖的延续对生活环境的持续改善具有价值。

祝愿这大奖在未来继续取得成功！

Message from President of The Hong Kong Institute of Planners - **Dr Eunice MAK**
香港规划师学会会长贺辞 – **麦凯蔷博士**

群彦共展　绿城楷模

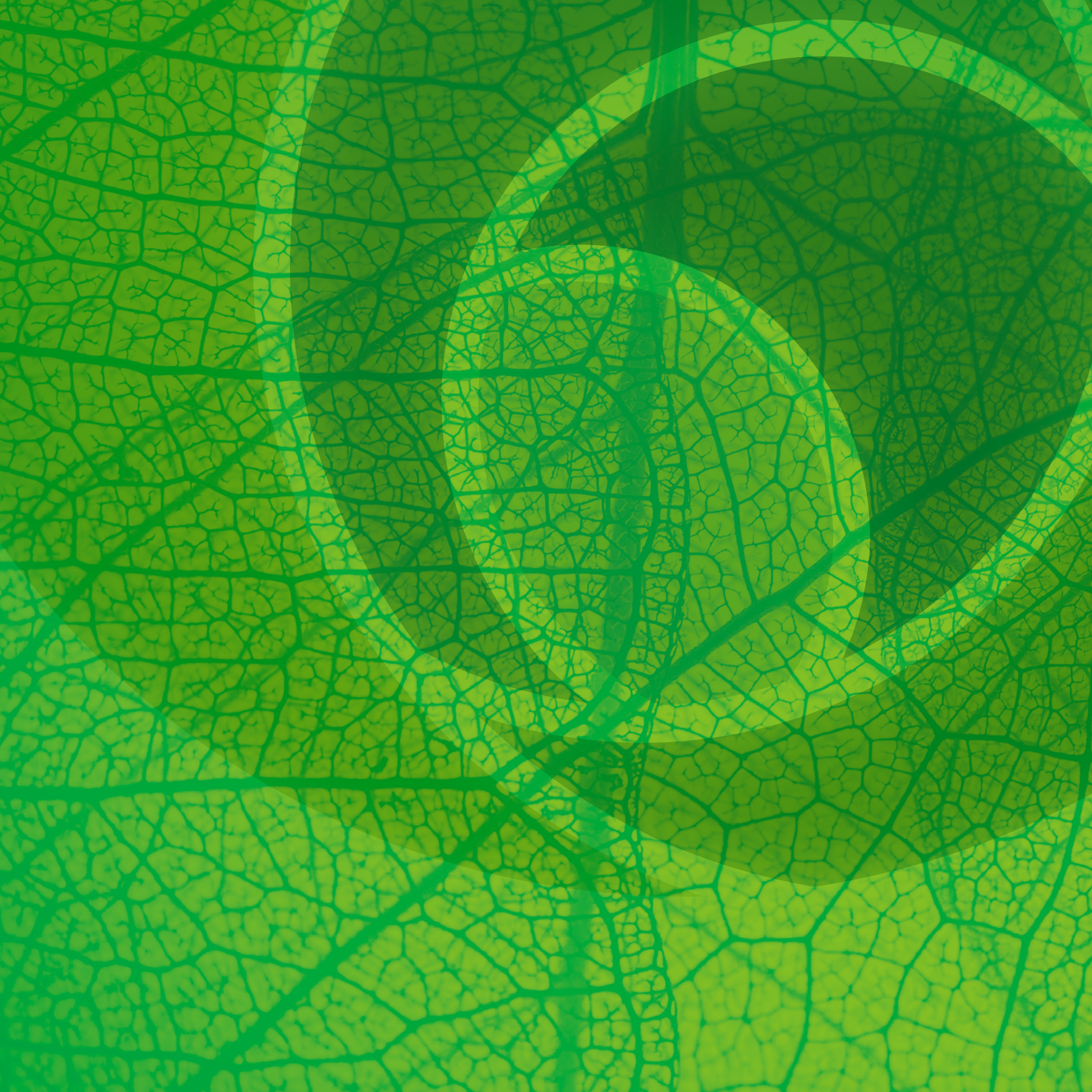
Message from President of The Hong Kong Institute of Surveyors - **Sr LAU Chun-kong**
香港测量师学会会长贺辞 – **刘振江测量师**

Public awareness of green lifestyle has been increasing in recent years. The need to develop a sustainable built environment in society is clear. Over the years, the Green Building Award has been providing recognition to outstanding building-related projects. The contributions of these projects in sustainability and the built environment are well acknowledged.

On behalf of the HKIS, I would like to congratulate all winners and nominees, and wish the Green Building Award 2016 every success.

近年大众对绿色生活的意识日渐提高。整体社会对可持续发展建筑环境的需求亦大大提升。多年来，环保建筑大奖一直表扬杰出的建筑项目，就它们对可持续发展及建筑环境的贡献作出嘉许。

本人谨代表香港测量师学会，热烈恭贺各得奖及提名机构，并祝贺 2016 环保建筑大奖举办成功。



Acknowledgements 鸣谢

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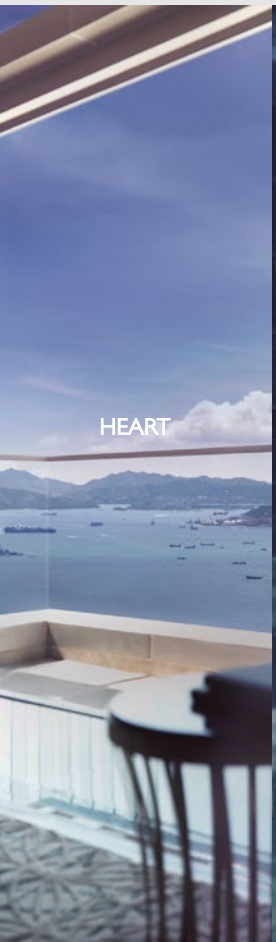
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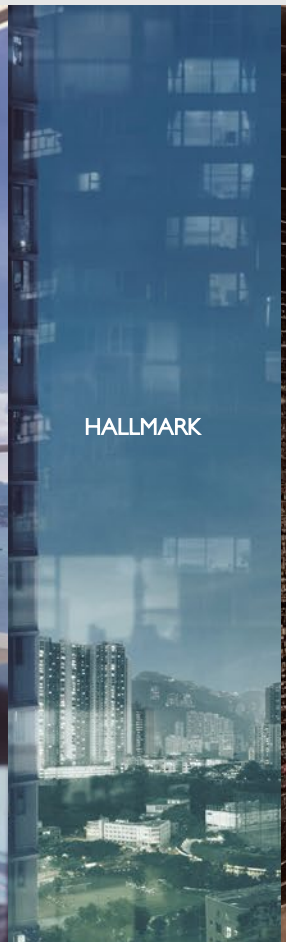
Silver Sea Sponsor

Hip Hing Construction Company Limited

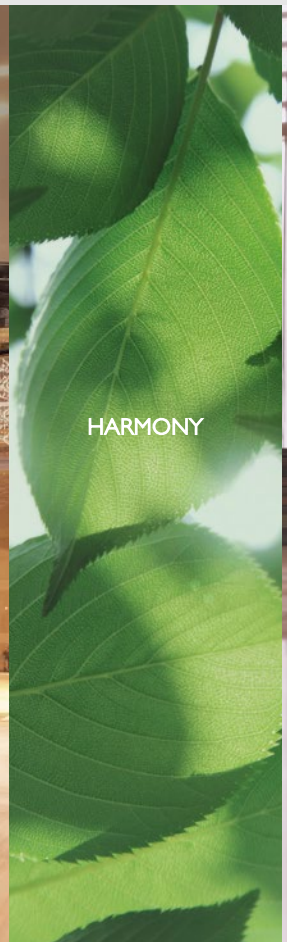
Hong Kong Housing Society

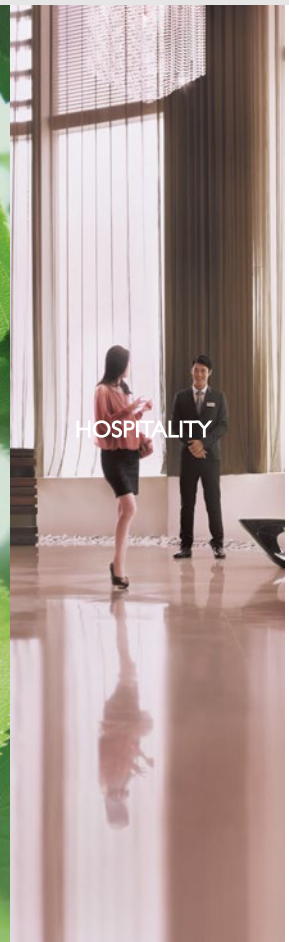












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77 HOI BUN ROAD

SUSTAINABLE DEVELOPMENT IN KOWLOON EAST, HONG KONG

領展 LINK

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The MTR Corporation cares for the life journeys of the people in Hong Kong — whether it's promoting art and culture; protecting the environment and promoting healthy living; reaching out to those in need; or helping our young people develop their full potential. Constantly planning new programmes and activities, we are working ceaselessly to build a better community together with the people of Hong Kong.

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Supporting Organisations
支持机构

Architectural Services Department
建筑署

ASHRAE Hong Kong Chapter

Asian Institute of Intelligent Buildings Limited

BEAM Society Limited
建筑环保评估协会

Building Services Operation and Maintenance Executives Society
屋宇设备运行及维修行政人员学会

Buildings Department
屋宇署

Business Environment Council Limited
商界环保协会

Civil Engineering and Development Department
土木工程拓展署

Construction Industry Council
建造业议会

Council for Sustainable Development
可持续发展委员会

Development Bureau
发展局

Drainage Services Department
渠务署

Electrical and Mechanical Services Department
机电工程署

Energizing Kowloon East Office
起动九龙东办事处

Energy Institute - Hong Kong Branch
香港能源学会（分会）

Environment Bureau
环境局

Environmental Protection Department
环境保护署

Federation of Hong Kong Industries
香港工业总会

Higways Department
路政署

Hong Kong Architecture Centre
香港建筑中心

Hong Kong Association of Energy Engineers
香港能源工程师学会

Hong Kong Construction Association
香港建造商会

Hong Kong Construction Materials Association
香港建筑业物料联会有限公司

Hong Kong Construction Sub-Contractors Association
香港建造业分包商联会

Hong Kong Environmental Industry Association
香港环保产业协会

Hong Kong General Building Contractors Association
香港建筑业承建商联会

Hong Kong General Chamber of Commerce
香港总商会

Housing Department
房屋署

Hong Kong Housing Society
香港房屋协会

Hong Kong Institute of Construction Managers
香港营造师学会

Hong Kong Institute of Project Management
香港项目管理学会

Hong Kong Institute of Urban Design
香港城市设计学会

Supporting Organisations
支持机构

Hong Kong Institution of Highways and Transportation
香港公路学会

Hong Kong Interior Design Association
香港室内设计协会

Hong Kong Productivity Council
香港生产力促进局

Hong Kong Science & Technology Parks Corporation
香港科技园公司

Hong Kong Trade Development Council
香港贸易发展局

Hong Kong Waste Management Association
香港废物管理学会

Institution of Mechanical Engineers
Hong Kong Branch

Planning Department
规划署

The American Institute of Architects
Hong Kong Chapter

The Association of Architectural Practices
建筑师事务所商会

The Association of Consulting Engineers of Hong Kong
香港顾问工程师协会

The Chartered Institute of Building
(Hong Kong)

The Chartered Institution of Building Services Engineers
(Hong Kong Branch)

The Chartered Institution of Water and Environmental Management (Hong Kong)
水务及环境管理学会（香港分会）

The Federation of Hong Kong Electrical & Mechanical Industries Trade Unions
香港机电业工会联合会

The Hong Kong Air Conditioning and Refrigeration Association Limited
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The Hong Kong Association of Property Management Companies
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The Hong Kong Chapter of International Facility Management Association

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The Hong Kong Institution of Engineers
香港工程师学会

The Institution of Civil Engineers (Hong Kong)

The Real Estate Developers Association of Hong Kong
香港地产建设商会

Water Supplies Department
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New Buildings Category ● 新建建筑类别

Jury's Citation 评审意见

New Buildings Category 新建建筑类别
Completed Projects 已落成项目

Residential Building 住宅建筑

GRAND AWARD 大奖

Hung Fuk Estate
Public Rental Housing Development at Hung Shui Kiu Area 13
洪福邨
洪水桥第十三区
公共房屋发展项目

This exemplary public housing project seeks to achieve sustainability within a very tight budget and challenging design constraints. The jury was impressed by the design team's efforts to achieve the desire density through good passive design. This resulted in majority of the housing units able to avoid excessive solar exposure while allowing maximum cross ventilation. The other excellent sustainable design is demonstrated by the bus station design. In addition to the traffic planning, the design team is able to achieve good passive daylighting while painstakingly avoid noise pollution to the housing units above. Overall, the entire housing estate shows good community landscaped spaces that ensures quality living environment. The landscaped sculptures / pavilions are even created out of recycled pre-fabricated housing blocks - a truly innovative and sustainable gesture!

此公共房屋项目力图在紧绌预算及具挑战性的设计规限下力求达至可持续发展。项目设计团队通过良好的被动式设计达到预期密度，令评审团叹为观止，让大多数房屋单元得以避免过度的太阳直射，同时又能达到最大程度的对流通风。其他出色的可持续设计还包括巴士站设计。除了交通规划，设计团队还做到良好的被动式采光，精心的设计同时为上层单位减少噪音污染。总体来说，整个房屋设计体现优良的社区景观空间，确保优质的居住环境。其中，观赏雕塑和亭阁甚至以预制单位组件回收重用制成，是名副其实的创新与可持续表现！

Kai Tak Development on 3 Muk Chui Street
焕然壹居

Kai Tak Development is a resettlement housing project that seeks to provide affordable and quality housing. Without the need to provide car parks, the development is able to create a tower and low-rise courtyard arrangement. This has resulted in a more environmentally friendly open space. Its "sacrifice" of the top most floor of the tower to create a complete communal roof garden is an impressive gesture to introduce more green space than most standard development. The unit plans were also thoughtfully designed with intention to introduce cross-ventilation wherever possible. There is also good consideration for elderly friendly features. Most of all, this development aims to bring harmonious co-existence of the young and old in a beautiful environment. From the sustainability standpoint, it is the comprehensive and thoughtful design that impresses the jury.

焕然壹居作为安置房屋项目，旨在提供优质及经济实惠的房屋。由于无需设置停车场，该项目兼有高层大厦与底层庭院，营造出更为环境怡人的开阔空间，更「牺牲」其高楼顶层，打通成为完整的公共天台花园，比大多数标准发展项目引进了更多绿色空间。单位经精心规划，意在尽可能实现对流通风，并且还考虑到年长人士的需求。最重要的是，此发展项目旨在让年轻一辈与长者在美好的环境中和谐共处。从可持续发展的角度来看，正是这一全面周到的设计，令评审团印象深刻。

Commercial Building 商业建筑

MERIT AWARD 优异奖

T • PARK
源 • 区

The jury was impressed by the huge challenge this large building has to put up with to cope with the tasks of environmental recycling. The entire building is well planned with all the work processes carefully placed in a friendly environment despite its industrial nature. Most spaces were well lit and the provision of green space helps make the development comfortable and friendly. The jury felt that more could be achieved in the offices to achieve a more ground-breaking environment. Despite this, the jury agrees that T • Park is a good attempt to achieve a more sustainable design despite the largely industrial nature of the project.

由于这大型的建筑是为应对环保回收问题的巨大挑战而兴建，因此给评审团留下了深刻印象。整座建筑经过周详规划，将各项工业程序安排在怡人的环境下进行，充足的光线和绿化景致使环境变得更舒适。评审团认为办公室可以更精益求精，提供一个更具开创性的环境。评审团认为尽管源 • 区是一个以工业为主的项目，但已致力尝试达至更切合可持续发展的设计。

Institutional Building 公用建筑

GRAND AWARD 大奖

Ko Shan Theatre New Wing
高山剧场新翼

Ko Shan Theatre New Wing fuses itself seamlessly into the tranquil nature surrounding, both indoor and outdoor. It connects together modern design, Chinese architecture figures, natural elements and sustainability. It meets people with enriched greenery and cultural heritage. Its double skins integrate an actively protected inner layer nicely with a rich passive outer layer to maximum its conservation while enhancing its functionality. Its technologies and design revitalise Cantonese Opera beyond its limits inherent from the past. Its design, build and operation enlighten the unity of nature, people and art and the harmony between modernness and traditions.

高山剧场新翼完美融合在宁静的大自然之中。它把现代设计、中国建筑意象、自然因素以及可持续发展连结，令人置身于绿树林荫与文化遗产之中。高山剧场新翼的双层设计，将受主动保护的内层与被动外层完美地结合，有效地保育环境之馀，同时又增强高山剧场新翼的功能。它采用的技术和设计让粤剧重获活力。在设计、建造与营运中启发了自然、人、艺术与和谐的统一，以及现代与传统之间的融和。

Midfield Concourse
中场客运大楼

The project team of the Midfield Concourse demonstrated admirable results in the design, use and construction of the project. The three strategies agreed for the project namely, resource reduction, operational efficiency, and health & well-being have been successfully implemented. The unique building form attracted most attention including its thoughtful design of the east and west façades to make good use of daylight.

中场客运大楼的项目团队在该项目的设计、运用与建设中表现极为出色。该项目的三大策略，即少用资源、提高操作效率与身心健康，均能一一成功实施。这一独特建筑形态，包括其充分利用了日照的东西两翼外墙设计，尤其引人注目。

MERIT AWARD 优异奖

The Open University of Hong Kong - The Jubilee College
香港公开大学银禧学院

The Jubilee College has an edge on innovative application of energy conservation and greening technology in the building design. These green installations including solar powdered sunlight tracking lighting device, tallest green wall, BIPV curtain wall and wind turbine are good pioneer demonstrations for the reference of the industry.

银禧学院的建筑设计充分体现节能与绿化技术的创新应用。这些绿色装置包括阳光追踪照明装置、全港最高绿墙、光电一体化建筑幕墙与风力发电装置，是业内先驱的典范。

New Buildings Category 新建建筑类别
Completed Projects 已落成项目

Institutional Building 公用建筑

MERIT AWARD AND SPECIAL CITATION IN ECO-SERVICE INFRASTRUCTURE NETWORK 优异奖及生态环境服务建设网络特别嘉奖

Hong Kong East Community Green Station
东区环保站

The Jury Panel appreciates that the project has utilised recyclable materials to form an active urban space at a disused area underneath a flyover, connecting the old and the new districts. The project is a successful example in promoting to the community the idea of green living.

这个项目在桥底下的废弃区域运用可再生材料，构建了一个充满活力的城市空间，连接了新旧城区，评审团对此欣赏有加，是向整个社区推广绿色生活的成功例子。

SPECIAL CITATION IN ECO-SERVICE INFRASTRUCTURE NETWORK 生态环境服务建设网络特别嘉奖

Canton First Estate New World - Canton International House
广佛新世界 – 广粤国际交流中心

This is a special citation given to a largely landscape environmental project. The jury recognises the challenges the project faces to convert a large tract of water bodies and woodland into an eco-friendly development. The thorough process from impact studies, design and eventual execution demonstrated a good attempt to ensure the long term sustainability of nature as well as possible wild life within the estate. Special efforts were noted for efforts to ensure long term good water quality.

这是给予大型景观环境项目的特别嘉奖。评审团了解到这个项目所面对的挑战，是要将大片水域与林地融会成绿色建筑项目。从环境影响研究、设计到最终实施的整体流程都体现了该项目致力尝试确保该地的自然环境与野生动物的可持续发展。团队为确保水质长期良好而付出特别努力，亦值得一赞。

Double Cove - A Large Scale Residential and Commercial Development at Lok Wo Sha, Ma On Shan, Hong Kong
迎海 – 香港马鞍山落禾沙大型住宅及商业发展

Double Cove is a large scale residential development that incorporated ambitious green features from macro to micro scale. The jury is impressed by the creation of a public urban thoroughfare on top of private amenities to link the seafront to MTR station. The integration of landscape, artwork and privacy is exemplary. The concentration of car parking facilities in this integrated low rise block has also freed surrounding land up for more landscaping on true ground. Such holistic consideration of landscaping at such a macro scale is indeed a good demonstration of a truly green development and community.

迎海是一个大型住宅项目，从宏观到微观上致力结合各种雄心勃勃的绿色环保元素。评审团十分欣赏连接住宅与港铁站的公共城市通道。此设施在景观、艺术与私隐的结合上堪称典范。停车设施集中在一体化的低层建筑里，空出周围的地方进行更多景观布置，这一大型景观的全面考虑切实体现绿化发展与绿色社区。

New Buildings Category 新建建筑类别

Projects Under Construction and / or Design 兴建及 / 或设计中建筑

Residential Building 住宅建筑

MERIT AWARD 优异奖

Redevelopment of Kwun Tong Staff Quarters at Tseung Kwan O Road, Kowloon:
九龙将军澳道观塘职员宿舍重建计划

For a typical residential tower in Hong Kong, the project rigorously studies critical environmental factors, in particular, shading and ventilation, providing effective resolution for shaping a substantial green building.

就典型的香港住宅而言，此项目研究了重要的环境因素，研究特别注重遮光和通风，为兴建一座绿色建筑提供了有效的处理机制。

Commercial Building 商业建筑

MERIT AWARD 优异奖

77 Hoi Bun Road
海滨道77号

The project provides an anchor lobby, bring together urban design with effective measures for green office complex.

项目所提供的主大堂，将城市设计和商厦实用的环保措施相互融合。

200-218 Electric Road Office Development
电气道200-218号写字楼项目

With innovative system of natural ventilation and carefully moderation of natural lighting, the project successfully integrate design aesthetic with principles of green architecture, demonstrating a new direction for sustainable office tower in Hong Kong.

这个项目的自然通风系统创新，同时悉心地调节了自然光，成功将设计美学和绿色建筑理论集于一身，展示了香港可持续发展的商业大厦的新方向。

King Saud University (KSU) Minaret Tower
沙特国王大学尖塔塔楼

The project strategically provides a signature anchor tower, leading to the state-of-art green mall for campus in the hot climatic region.

项目建有一座具代表性的大楼，巧妙地将最崭新设计的绿色空间引进气候炎热地区的校园。

New Buildings Category 新建建筑类别
Projects Under Construction and / or Design 兴建及 / 或设计中建筑

Institutional Building 公用建筑

MERIT AWARD 优异奖

A 30-Classroom Secondary School at Kai Tak Development (Site 1A-2)
九龙启德发展计划（地盘1A-2）
1所设有30间课室的中学

The project proposes an alternative layout for classroom clustering, successfully being together the commitment from the stakeholder in shaping a sustainable prototype for future school.

这个项目提供了另类的课室格局，在建构未来学校可持续发展框架时，成功兼顾了持分者的参与。

Hong Kong Children's Hospital
香港儿童医院

The project provides comprehensive resolutions for supporting sustainability responding to multiple challenges in a hospital design with complicated functions.

这个项目提供了完善的处理机制达至可持续发展，设计同时应对医院所面对的各项复杂用途。

SPECIAL CITATION
IN ECO-SERVICE INFRASTRUCTURE NETWORK
生态环境服务建设网络
特别嘉奖

Green Site Office
绿色工地办事处

Innovative idea for recycling building materials, creating quality working environment with sense of place for the working team of construction industry.

回收工业材料的意念创新、而绿色工地办事处建设有质素和归属感的工作环境予建造业。

Waste Electronic and Electrical Equipment Treatment Facility (WEEETRF)
废电器电子产品处理及回收设施

The Waste Electrical and Electronic Equipment Treatment Facility (WEEETRF) is the first massive industrial facility that re-process electronic waste. Jury Panel agreed the facility fully embodies the requirement of green building.

废电器电子产品处理及回收设施是全港首座为处理废电器电子产品的大型工业设施。评审团认为该设施充分体现了现今社会对绿色建筑的要求。

New Buildings Category 新建建筑类别

Completed Projects - Residential Building 已落成项目 – 住宅建筑

GRAND AWARD 大奖

Hung Fuk Estate Public Rental Housing Development at Hung Shui Kiu Area 13

洪福邨 洪水桥第十三区公共房屋发展项目



Team or Organisation Name
Hong Kong Housing Authority

Client / Developer
Hong Kong Housing Authority

Location
Hung Shui Kiu, Yuen Long,
New Territories, Hong Kong

Completion Date
29 May 2015

Site Area
6.4 hectares

Gross Floor Area
Domestic GFA: 202,012m^2
Non-domestic GFA: 9627m^2

Project Manager
Hong Kong Housing Authority

Architect
Hong Kong Housing Authority

Civil & Structural Engineer
Hong Kong Housing Authority

Building Services Engineer
Hong Kong Housing Authority

Quantity Surveyor of Ph.1 & 2
Langdon & Seah Hong Kong Limited

Quantity Surveyor of Ph.3
Hong Kong Housing Authority

Landscape Architect
Hong Kong Housing Authority

Town Planner
Hong Kong Housing Authority

Main Contractor of Ph.1 & 2
Hsin Chong Construction Co. Limited

Main Contractor of Ph.3
Yau Lee Construction Co. Limited

Management Office
Hong Kong Housing Authority


洪福商場
HUNG FUK SHOPPING CENTRE 2015
JHC





1. Quality

(1) **Indoor Environmental Qualities:**
Enhancing natural ventilation and thermal comfort by strategic disposition of blocks and keeping two view corridors unobstructed, achieving 99% noise compliance rate.

(2) **Landscape Design and Management:**
30% green ratio, landscape design enhances ecological value of the environment, large amount of plants are native species. Automated dripline irrigation system is provided at green roofs for ease of maintenance.

(3) **Site and Neighbourhood:**
Comprehensive range of social welfare, retail & catering facilities and transport links serve residents and neighbourhood in rural villages. Improvement works on public pavements serve better connection with the adjacent lots.

2. Resources

(1) **Energy and towards Zero Carbon**
Solar panel & solar poles provide source of renewable energy. Application of solar tubes, LED lightings, motion sensor, photocell, two-level lighting system, and heat wheel energy recovery system reduce carbon emission.

(2) **Material Use & Water Conservation:**
Granite from demolished roadside planters was reused as finishes materials. Recycle garden is introduced for educational purpose. Zero irrigation systems save irrigation water.

(3) **Waste Management & Pollution Control:**
Precast concrete panels, channels and traps were reused in construction site. Recycling bins are provided at Refuse Storage & Materials Recovery Room and provisions for garden waste recycling have been allowed in the development.

3. Sustainability

(1) **Life Cycle Perspective:**
Open plan in domestic unit allowing flexibility for tenants' use. Street shops with open arcade minimise energy consumption.

(2) **Building Passive Design:**
Passive design was adopted with micro-climate studies to optimise planning and layout.

(3) **Building Amenities**
Rotational symmetry in the layout of typical domestic floors facilitates ease of construction. Standard fittings and simple design enable lowering of management & maintenance cost.

(4) **Sustainability Policy & Feedback Loops:**
Residents' survey and education programs for green living will be conducted.

4. Innovation

(1) Design of cover for the Public Transport Interchange (PTI) minimises noise nuisance from bus lanes. It allows penetration of natural lighting, natural ventilation without the help of mechanical system.

(2) All-sand rootzone profile design was adopted in community lawn. The sand layer provides excellent drainage meanwhile the sand / aggregate layer retains water at rootzone. This design improves durability and reduces the need for frequent maintenance.

(3) Recycling the felled trees as fertiliser at construction stage.

1. 质量

(1) **室内环境质量**
楼宇的细致布局及两个景观廊的构建让自然通风效能及温感舒适度大大提升，99% 的单位符合噪音标准。

(2) **园境设计及管理**
园境绿化面积达 30%，我们在邨内种植了大量本地品种的树木，提高附近环境的生态价值。为方便保养，我们在绿化天台采用了自动排滴灌溉系统。

(3) **项目地点及邻近环境关系**
本项目不单为邨内外的居民提供全面的零售、餐饮及社福设施，更改善周边的交通网络。

2. 资源运用

(1) **能源与零碳**
我们用太阳能板为邨内装置提供再生能源。我们安装了管状采光设备，发光二极管，动作及光度感应器，二级光度控制系统及热轮能量回收系统去减低碳排放。

(2) **物料及水的运用**
项目路旁的花槽遭拆掉后遗留大量麻石，我们回收这些麻石作建造园境设施材料之用。邨内设有「循环再造」花园，提升居民之环保意识。我们采用无水灌溉系统，节省灌溉用水。

(3) **垃圾管理及污染控制**
在建造过程中，我们采用了预制石屎板、水渠、沙井等。在设计上，楼层的垃圾房设有垃圾分类及回收箱，邨内更预留了园余回收的空间。

3. 可持续发展

(1) 住宅单位内没有间墙，令住户更有弹性地使用室内空间。街铺设计减低能源消耗。

(2) 我们采用顺应自然的建筑设计，利用微气候研究去优化规划及设计。

(3) 我们在标准层设计时考虑了旋转对称，令建造更容易；我们尽量采用标准灯具及简单的设计以减少维修成本。

(4) 我们会进行住户意见调查及绿色生活教育项目。

4. 创新

(1) 公共交通交汇处的盖顶设计不但有效地减低巴士噪音对居民的影响，更不需要机械系统的辅助，让自然风流通，天然光渗入。

(2) 园境区的大草地用了全沙根质种植法，其沙层不但排水能力高，而且沙层及石粒界面能有效地储水，这设计提高草地的耐用性及减少草地所需的保养。

(3) 在建筑过程中，我们把砍伐了的树木循环再造成堆肥。




洪福邨
HUNG FUK ESTATE


Hung Fuk Market Place

New Buildings Category 新建建筑类别
Completed Projects - Residential Building 已落成项目 – 住宅建筑

GRAND AWARD 大奖
Kai Tak Development on 3 Muk Chui Street
煥然壹居





Team or Organisation Name
Ronald Lu & Partners

Client / Developer
Urban Renewal Authority

Location
3 Muk Chui Street, Kai Tak, Kowloon, Hong Kong

Completion Date
December 2015

Site Area
0.57 hectare

Gross Floor Area
28,470m^2

Project Manager
Urban Renewal Authority

Architect
Ronald Lu & Partners

Civil & Structural Engineer
AECOM Asia Co. Limited

Building Services Engineer
AECOM Asia Co. Limited

Quantity Surveyor
Currie & Brown (China) Limited

Landscape Architect
ADI Limited

Main Contractor
Bordon Construction Co. Limited

Environmental / Ecology Consultant
AECOM Asia Co. Limited







Kai Tak Development on 3 Muk Chui Street focuses on building community, sustainability, and modest yet practical design. It comprises three 23-storey towers, an elderly friendly low-rise block, and a retail block.

Multiple levels of communal spaces encourage community building and enhance connections and communication. Central courtyard is infused with community rooms, children's play, tai-chi area and urban farm; Low-rise block rooftop garden provides green space for passive use and pleasant view to higher units; the Roof Clubhouse has a jogging track sheltered by a covered walkway alongside outdoor fitness equipment, barbecue area and multi-purpose rooftop pavilions.

The design has achieved BEAM Plus Platinum rating (Provisional). Permeability to pedestrian level is enhanced by the design of podium free towers with vertical ventilation slots. Naturally ventilation and daylighting are optimised in the design of the units, lobbies, and community spaces. Greywater recycling, use of energy labelled appliances, LED lightings, insulated glass, etc., reduce water and energy consumption. Precast facades and aluminium formwork reduce production waste.

The architecture has modest use of materials with basic provisions. Juxtaposition of activities promotes communal and healthy life style. Through interplay of indoor and outdoor spaces, the architecture connects its occupants to their new environment.

焕然壹居包括三幢高层住宅，一幢设长者配套的低层住宅及一座商业建筑。设计重于社区连系，可持续发展及简约概念。多层次的社区空间让邻舍交流接触。地面中庭、低座及高座空中花园有多样化的休闲及绿化，从室内延展至室外。

设计获得绿建环评暂定铂金级。建筑中加设风廊，没有裙房使地面可通风。住宅单位、大堂及会所均自然通风及采光。雨水及灰水循环、节能家电、LED 灯、隔热玻璃等，均减低食水及能源消耗。预制件及铝板模减少地盘废料。

建筑简约为主，提供生活配套。特多的社区空间提倡邻舍精神及健康生活。交错的室内、外空间，让建筑与环境融合。







New Buildings Category 新建建筑类别
Completed Projects - Residential Building 已落成项目 – 住宅建筑

FINALIST AND SPECIAL CITATION IN ECO-SERVICE INFRASTRUCTURE NETWORK
入围项目及生态环境服务建设网络特别嘉奖

Double Cove – A Large Scale Residential and Commercial Development at Lok Wo Sha, Ma On Shan, Hong Kong
迎海 – 香港马鞍山落禾沙大型住宅及商业发展



Team or Organisation Name
Henderson Land Development Co. Limited

Client / Developer
Harvest Development Limited

Location
Double Cove, Lok Wo Sha,
Ma On Shan, N.T., Hong Kong, China

Completion Date
Foundation Commencement Date:
20 January 2010
Phase 1: 17 April 2013
Phase 2: 30 July 2014
Phase 3: 20 October 2015
Phase 4 21 March 2016
Phase 5: Anticipated July 2016

Site Area
9.68 hectares

Gross Floor Area
2,950,660m^2

Project Manager
Henderson Real Estate Agency Limited,
Project Management (2) Department

Architect
Dennis Lau and Ng Chun Man Architects & Engineers (HK) Limited

Civil & Structural Engineer
Stephen Cheng Consulting Engineers Limited

Electrical & Mechanical Consultant
J. Roger Preston Limited

Landscape Architect
ADI Limited

Main Contractor
Heng Shung Construction Co. Limited /
Hip Hing Construction Co. Limited

Design Consultant
Rogers Stirk Harbour + Partners Limited

Sustainable Design Consultants
Ove Arup & Partners Hong Kong Limited /
Allied Environmental Consultants Limited /
GB Tech Consulting Limited

BEAM / LEED Consultant
Allied Environmental Consultants Limited

China Green Building Label Consultant
GB Tech Consulting Limited

Façade Consultant
Ove Arup & Partners Hong Kong Limited

Clubhouse & Interior Designer
Steve Leung Designers Limited

Shopping Arcade Interior Designer
Aedas Interiors Limited

Lighting Design Consultant
PRO-LIT Co. Limited

BIM Consultant
Summit Technology (HK) Limited

Traffic and Infrastructure Consultant
AECOM

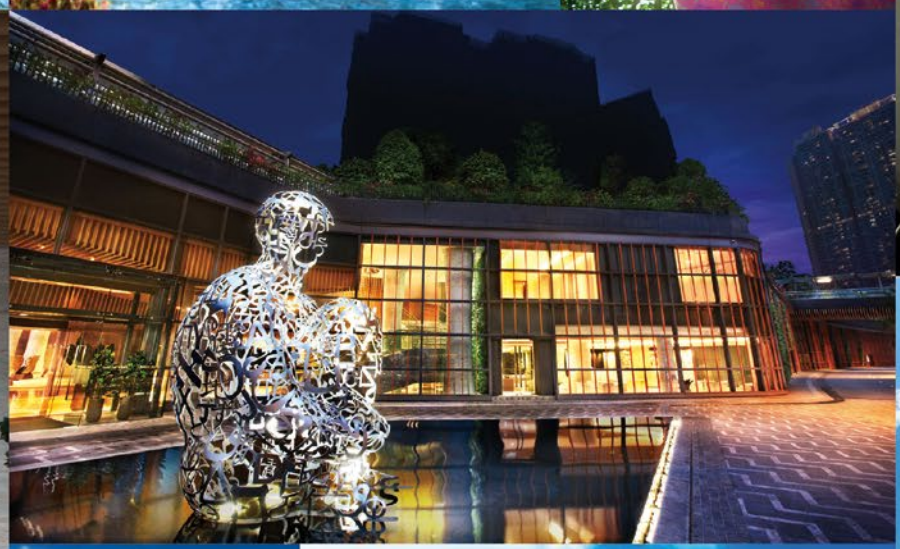
Planning Consultant
Kenneth To & Associates Limited

Quantity Surveyor
Davis Langdon & Seah














Double Cove residential development was awarded a Grand prize in Quality Building Award (Multiple Buildings Category) on 24 June 2016 and certified in September 2015 as Hong Kong's first LEED-Neighbourhood Development, demonstrating sustainable certification being applied beyond just the Green building blocks.

Smart growth, new urbanism and sustainable buildings are the principles which must be collectively considered in order to attain such a quality standard and connectivity or walkability is one of the key features. Double Cove provides a 24-hr covered footpath on the podium level allowing residents and public to move freely to the MTR Station and the Public Transport Terminus.

The residential towers all lie along the perimeter of the development in a stepped layout from south to north, creating a larger sense of space and view for residents. Walkways, cycle paths and sitting-out areas are also available to encourage exercise within the community and promoting social cohesiveness.

The core concept of "Living in a Park" by Sir Richard Rogers pertaining to a sustainable lifestyle has convinced the developer to put aside 38% of the buildable land within the project boundary for landscaping which echoes the theme of Green Building Award 2016, Driving for Green Lifestyle • Excellence in Sustainable Built Environment.

香港马鞍山落禾沙迎海大型住宅发展项目 (迎海) 于 2016 年 6 月 24 日举行的 2016 年度优质建筑大奖获颁发香港住宅项目 (多幢建筑物) 的大奖，于 2015 年 9 月成为香港区首个美国 LEED - 小区发展 金级认证的项目，发展商把可持续发展的概念由绿色建筑已延续至小区可持续发展 。

智能增长、新都市主义和可持续建筑是发展项目原则控制质量标准主要的考虑，连接性或可步行性是关键特徵之一。迎海的平台层提供 24 小时全天候行人道，让居民和大众自由穿梭港铁站和公共交通总站。

住宅楼宇沿著发展区的范围由南至北以阶梯式布局兴建，为居民创造了更大的空间感和景观。行人信道、自行车道和休憩区都鼓励居民运动及提升小区凝聚力。

发展商采用 Richard Rogers 先生提出「Living in a Park 自然生活」的可持续生活方式核心概念，将项目用地 38% 景观美化，迎合 2016 年度环保建筑大奖的主题：「追求绿色生活方式及卓越的可持续建筑环境」"Driving for Green Lifestyle • Excellence in Sustainable Built Environment"。

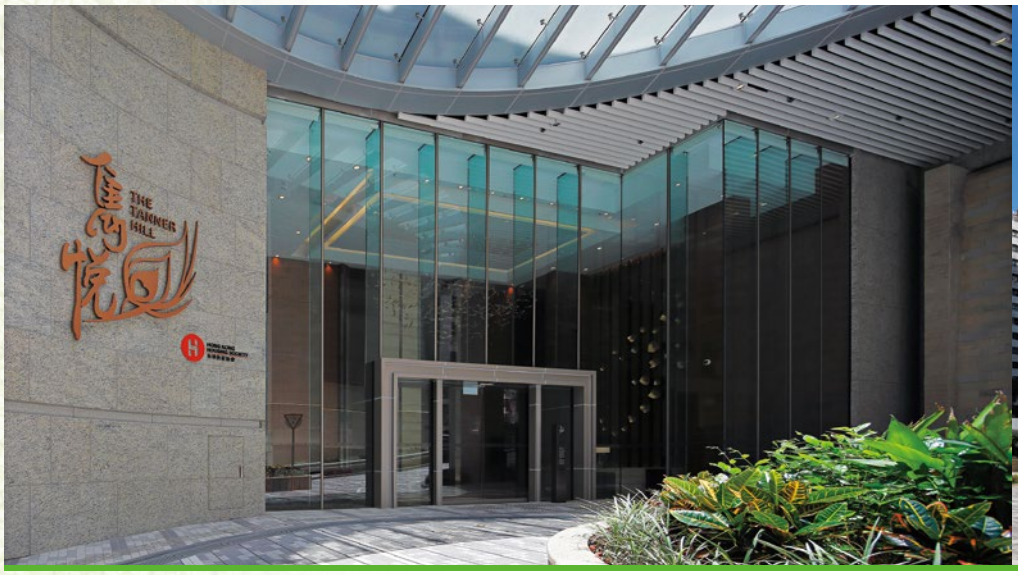






New Buildings Category 新建建筑类别
Completed Projects - Residential Building 已落成项目 – 住宅建筑

FINALIST 入围项目
The Tanner Hill
隽悦





Team or Organisation Name
Hong Kong Housing Society

Client / Developer
Hong Kong Housing Society

Location
8 Tanner Road, North Point, Hong Kong

Completion Date
7 December 2015

Site Area
0.85 hectare

Gross Floor Area
52,398.367m^2

Project Manager
Hong Kong Housing Society

Architect
Ronald Lu & Partners

Geotechnical & Structural Engineer
Greg Wong & Associates Limited

Building Services Engineer
Hyder Consulting Limited

Quantity Surveyor
Currie & Brown

Interior Consultant
GRV Project Management Limited /
Steve Leung Designers Limited

Environmental Consultant
AECOM Asia Co. Limited

Landscape Consultant
Urbis Limited

Main Contractor
Paul Y. General Contractors Limited









The Tanner Hill adopts the concept of “Ageing-in-Place” to deliver a sustainable lifestyle for the increasing needs of ageing population. “Ageing-in-Place” is a sustainable and quality living initiative that aims to provide senior citizens with a relaxed ambience, a continuum of professional healthcare and skilled care services, thoughtful home and lifestyle amenities, and a wide range of social activities to enhance their wellbeing, so as to help them spend their golden years in a hassle-free environment.

The Tanner Hill enables seniors to have lifetime residency in independent-living residential units with provisions for holistic care, and enjoy an active, positive, joyous and carefree lifestyle. Special areas for continuing and skilled care services are provided to those who need extra attention as they reach an advanced age. They include a day-care centre with rehabilitation facilities, and a residential care home with a combination of Western and Chinese health and wellness services.

One of the challenges of this project is to create an “architecture” which is conceivably convenient to senior residents. In applying the same design concept throughout the site, the building maximises residents’ mobility, and incorporates a diverse range of lifestyle facilities and innovative home care support system. The project also adopts a synergistic green design strategy, resulted in the award of the BEAM Platinum Certificate.

The Tanner Hill is a unique trailblazing project in Hong Kong that goes beyond a mere re-definition of quality and sustainable design for seniors, and serves as a benchmark for “Ageing-in-Place” projects.

有赖医学昌明、科技发展，今天银发族的生活比从前更加多采多姿。丹拿山「隽悦」正是为那些向往优质退休生活的银发族打造全港首个可持续一站式「居家安老」方案。隽悦结合居所、家居服务、会所、专业管理、消闲设施及专业护养设备与服务于一身，为银发族缔造一个「生活绿洲」，令他们可以安享晚年，创建一种崭新及可持续发展的退休生活概念。

隽悦的规划和设计是香港首个提供全方位生活配套，包括专业护养、保健及养生设施、多元化社交和消闲活动、全面及个人化家居服务，以及配合苍翠山林及精心设计的居住环境，让长者能全面自主自足地生活，在舒适和稔熟的生活圈子里，得到持续而完善的可持续起居配套，享受丰盛无忧及快乐自主的退休生活。对一些需要更多照顾的长者亦特设专业护养服务，提供设有康复设施的日间照护中心及护养床位，致力创建一个悠然逸乐的居住环境，让住户能自主及安心地享受个人化的配套服务，提升积极康健的身心，与亲人共叙天伦、与朋友写意畅聚，投入可持续及身心健康的退休生活。

建筑师由设计之初已针对长者需求为大前题，于室外或室内均采用无障碍设计，让住客活动畅通无阻，项目亦以用家主导及人性化的细节，各项设计不单可媲美私人屋苑，更多出一份对长者住客的体贴关怀。隽悦亦起用了多项环保建筑方法，如使用预制外墙、可重复使用的钢模板、充分利用已建之地基桩柱等，结果项目更获取香港环保建筑协会的白金级别。

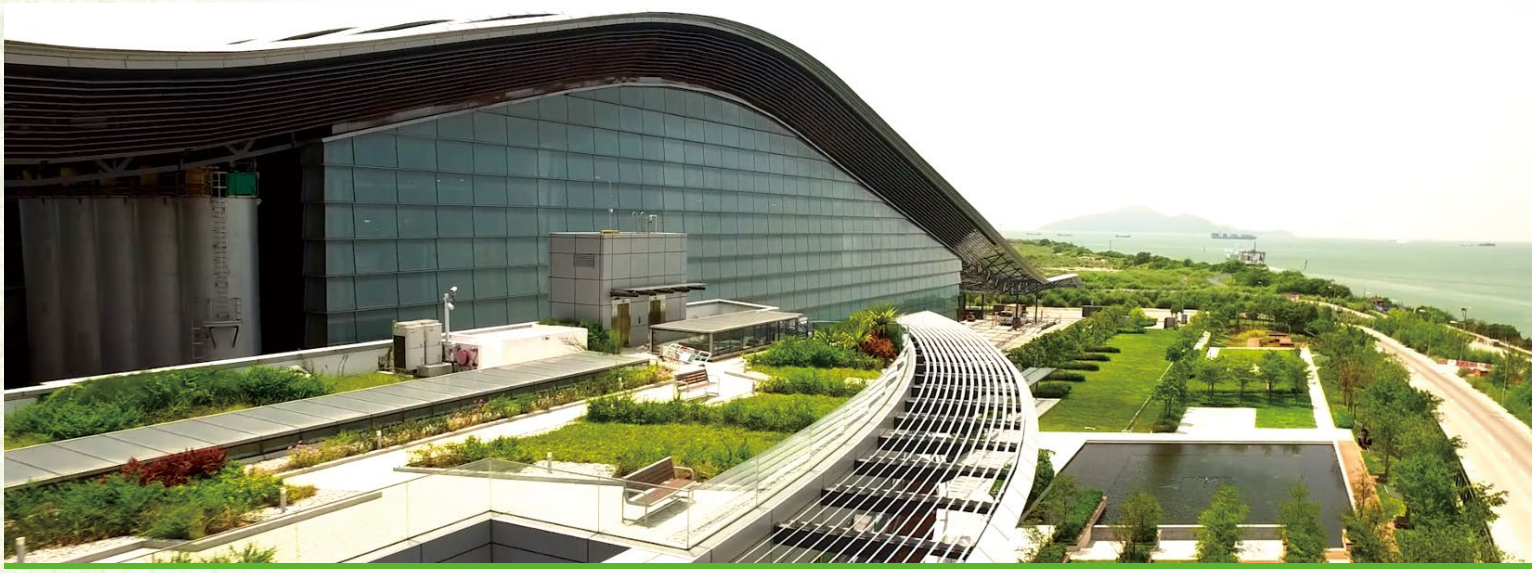





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New Buildings Category 新建建筑类别
Completed Projects - Commercial Building 已落成项目 – 商业建筑

MERIT AWARD 优异奖
T • PARK
源 • 区



Team or Organisation Name
VW-VES (HK) Limited

Client / Developer
Environmental Protection Department, Government of the HKSAR

Location
Tsang Tsui, Tuen Mun, New Territories, Hong Kong

Completion Date
1 April 2015

Site Area
7 hectares

Gross Floor Area
23,000m^2

Concept Architect
Vasconi Associes Architects

Local Architect
P & T Group

Civil & Structural Engineer
ARUP

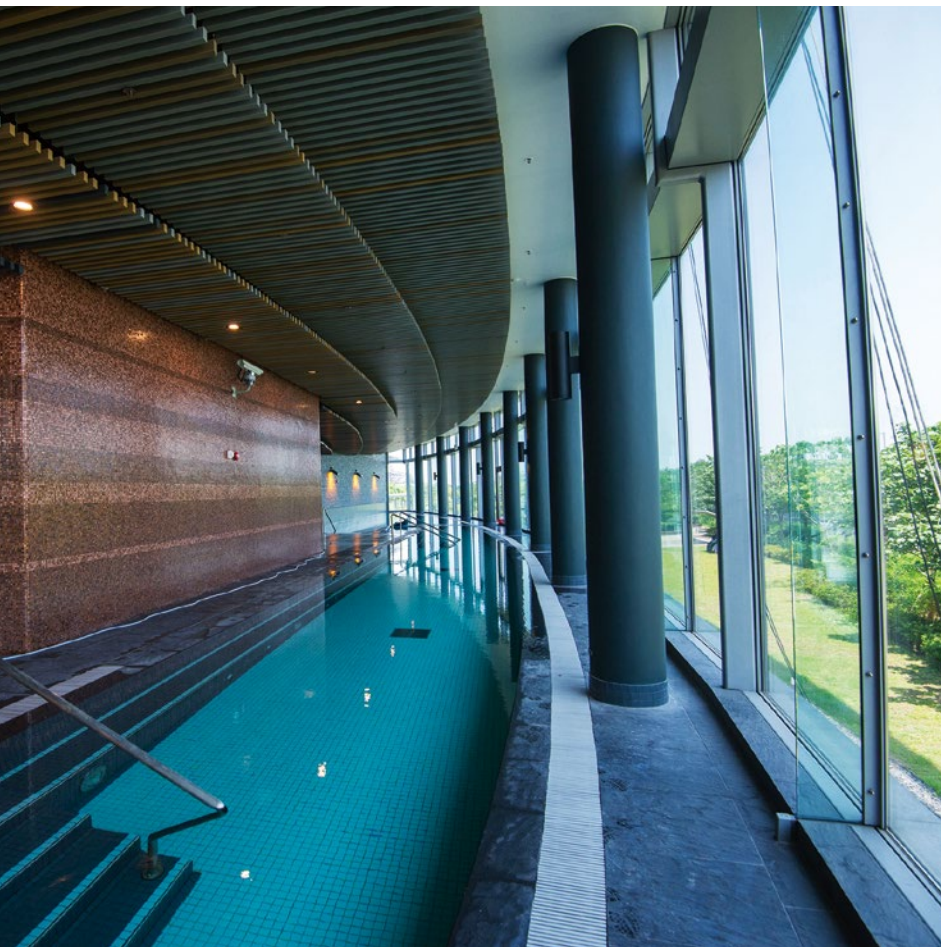
Building Services Engineer
ARUP

Landscape Architect
ADI Limited

Ecology Consultant
AEC

Management Company
VW-VES (HK) Limited









T • PARK is a revolutionary initiative towards the concept of waste-to-energy, tackling the unique waste challenges in Hong Kong in a sustainable manner.

The unique self-sufficient facility features a variety of advanced technologies combined into a single complex: sludge treatment, power generation, seawater desalination and wastewater treatment. It also features an outdoor landscaped and ecological garden to provide visitors with a green open space and a natural environment, as well as providing a habitat for water birds.

The ecological design and architecture of T • PARK set a new standard for green building in Hong Kong. The “wave-form” and streamlined design of the process plant building blends with the surrounding environment and the flue gas stack is concealed neatly within the facility. The design also makes the best use of daylight with green roofs acting as energy-saving insulation.

This green facility is able to treat up to 2,000 tonnes of sludge per day through efficient combustion and considerably cut the volume of waste by up to 90 percent. Heat energy generated from incineration is transformed into electricity that fully meets the energy needs of the entire facility and produce surplus electricity that can be exported to the public grid.

The facility is built-in with sophisticated flue gas treatment equipment to ensure the emitted gas is in full compliance with strict international standards.

T • PARK also achieves “zero effluent discharge” in total water management. Both potable water and process water for the facility is generated on-site through a seawater desalination plant. Rainwater is collected for non-potable use, and wastewater from the entire facility is treated and reused.


WASTE WATER




140C LP STEAM


HP CONDENSATE
HP CONDENSATE

New Buildings Category 新建建筑类别
Completed Projects - Commercial Building 已落成项目 – 商业建筑

FINALIST AND SPECIAL CITATION IN ECO-SERVICE INFRASTRUCTURE NETWORK
入围项目及生态环境服务建设网络特别嘉奖

Canton First Estate New World – Canton International House
广佛新世界 – 广粤国际交流中心



Team or Organisation Name
New World China Land Limited

Client / Developer
New World China Land Limited

Location
Canton First Estate, No.333 Golf Road,
Shi Shan Town, Nanhai Distrct, Foshan, P8T
Guangdong, China

Completion Date
2014

Site Area
1.76 hectares

Gross Floor Area
37,187m²

Sustainable Design / Green Building Consultant
Guangdong Provincial Academy of Building Research

Architect
P&T Group International Consultants Limited

Landscape Architect
Place Design Group

Interior Designer
SWD

Main Contractor
广东省广弘华侨建设投资集团有限公司

Facility Manager
新世界自主运营

Civil & Structural Engineer
HSArchitects

Building Services Engineer
HSArchitects









The project design concept primarily focuses on the distinctive harmony between building and nature to maintain a comfortable microclimate of the building surrounding. Three major blocks connected by landscaped colonnade / bridges create various transition spaces filled with landscape and water attraction. This maintains a green continuity between inland and natural lake to enhance natural cool ventilation across the building perimeter. Building elevation is composed with balconies and terraces suitable for all season activities, further breaking away the visual impact to allow building naturally blends with surrounding environment.

To control heat gain of building at such an open location, several architectural aspects are utilised. Ground floor colonnade roof is loaded with natural green. Top floor semi open colonnade space acts as sun shading around outdoor activity space and directs wind across circulation area and interior spaces. Other architectural features such as sun shading folding shutter facade, low-e glass usage and reduction of west facing glazing deliver a primary concern of human comfort within interior spaces. The building is awarded LEED Gold Award for building sustainable design.

The building further caters sustainable technology to maximise the prospects of human living standard. Application of food waste recycling system and solar hot water system can maintain a high level of physical waste reduction and energy consumption control during building operation.






WELCOME
2015欧洲高尔夫球挑战巡回赛
佛山公开赛

New Buildings Category 新建建筑类别
Completed Projects - Commercial Building 已落成项目 – 商业建筑

FINALIST 入围项目
The Green Atrium





Team or Organisation Name
Christopher Leung & Associates Limited

Client / Developer
New World Development Co. Limited

Location
68 Kung Um Road, Yuen Long,
New Territories, Hong Kong

Completion Date
March 2015

Site Area
0.08 hectare

Gross Floor Area
2,200m^2

Project Manager
New World Development Co. Limited

Architect
Christopher Leung & Associates Limited

Civil & Structural Engineer
C.M. Wong & Associates Limited

Building Services Engineer
Meinhardt (M&E) Limited

Quantity Surveyor
NW Project Management Limited

Landscape Architect
axxa group Limited

Main Contractor
Hip Hing Construction Co. Limited

Sustainable Design Consultant
Ove Arup & Partners Hong Kong Limited

Environmental Consultant
Ove Arup & Partners Hong Kong Limited

Wind / Air Ventilation Consultant
Ove Arup & Partners Hong Kong Limited











The Green Atrium is an experimental building that combines commercial, educational and sustainability into an integrated low-carbon building. Incorporating active and passive sustainable design considerations, it is a green hub to promote a holistic life style in Hong Kong.

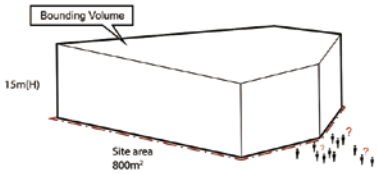
The building is horizontally sliced in the middle level to create a “breathing deck” allowing fresh air to penetrate through it. The upper “green” block, wrapped in a climatic responsive facade to minimise heat gain, is a learning centre for sustainable technologies, and an energy hub at rooftop to sustainably convert natural resources into energy for The Green Atrium. Commercial activities take place in the lower block, which is a market to sell and promote organic food and goods. This provides economical support to the building operation in order to achieve sustainability in its course to the environmental protection work. The upper and lower block form a complementary linkage where commercial activities and environmental protection can co-exist and maintain a symbolic relationship with neither one to be neglected.

The Green Atrium will showcase a holistic sustainable living style to the visitors through interactive engagement and installed sustainable features. Totally 28 sustainable features are categorised into 5 fundamental elements: Energy, Air, Water, Food & Waste. Each element creates its own cycle and interlinks with each other to form a semi-self-sustained system.

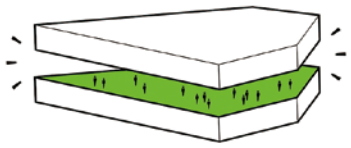
The Green Atrium 是一个将商业，教育和可持续发展集于一身的实验建筑。这个低碳的绿色枢纽结合主动和被动式的可持续设计方案来促进一个整体环保生活方式。

The Green Atrium 的设计特点是于把建筑物于中层水平地切开，打造一个「呼吸空间」，使新鲜空气能渗透整个建筑。建筑物上半部是一个可持续发展技术的学习中心及以可持续转换方式，提供建筑节能的能源中心。充满垂直绿化的「气候响应外墙」能有效的减低建筑物的热能的吸收量。下半部的商业活动，提供环保工作的长久经济支柱，使环保工作及商业活动保持一种共生关系。

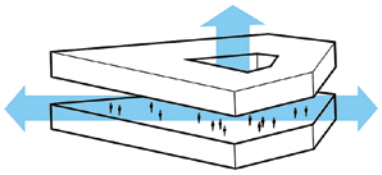
在 The Green Atrium 内，通过互动和已安装的可持续项目，向参观者展示一个全面的可持续的生活方式。已安装的 28 种可持续项目可以被归例到 5 个基本元素：能源、空气、水、食品和废物。每个元素创建它自己的周期和互联以形成一个半自我持续系统。



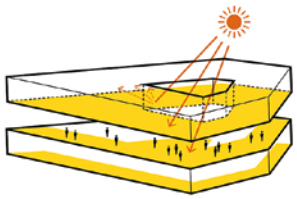
1 Site development potential permits max. GFA of approx. 2200m².



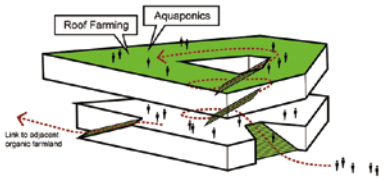
2 The intermediate level is removed creating an elevated event space in between the volumes.



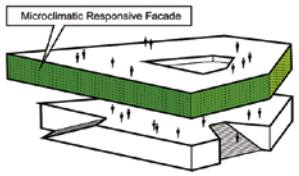
3 The open level and atrium enables air to flow across the building easily.



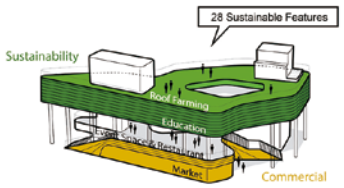
4 Permeability and shallow room depth enables daylight to illuminate the building.



5 By exposing circulation to outdoor, air-conditioned space is reduced. Access is direct and navigation is easy.



6 Microclimatic responsive façade to reduce heat transfer to building.



7 The Green Atrium demonstrates commercial and environmental protection can form a complementary link and promote a holistic lifestyle.

Data

Location: 68 Kung Um Road, Yuen Long, Hong Kong
Number of Storey: 3
Building Height:b 13.1m
Gross Floor Area: 2200.95sqm
Site Area: 799.30sqm
Completion Date: March 2015

Intermediate deck

The building is horizontally sliced and lifted up to create a shaded intermediate deck that acts as the "breathing space" of the building. This is where the communal actives, eco-classes and afternoon tea can happen under the ambiance of natural wind.

Air induction unit

The Green Atrium has initiated the patented "Air Induction Unit". AIU is bladeless ventilation system with no mechanical part exposed to its service environment. AIU consumes approximately 30% less energy than conventional fans. It is safer and easier to clean and maintain compared with conventional industrial fans, thus lead to lower maintenance cost.

Reverse vending machine

Reverse vending machine is a device that takes maximum 500 empty plastic bottles or other recyclable material and returns coupon to users which encourage users to adopt an environmental-friendly lifestyle.

Eco-restaurant / Farm-to-table

Food waste from the restaurant and the farmer'smarket will be converted into fertilizer and fish feed by the food waste decomposer for on-site farming and fish farming in the aquaponics system. The vegetable and fish crops, both organic and low-carbon, would be freshly served at the restaurant and market in the Green Atrium creating commodity supply.

Solar hot water system

Photovoltaic panel

Microclimate monitoring station

Wind turbine lamp post

Eco-atrium

The Eco-atrium forms the focal point to the exhibition zone. This facilitates solar chimney and cross ventilation for the building, as well as to enhance the daylight and ventilation performance by reducing the depth of rooms.

Aquoponics

Innovative building-integrated aquaponics system provides a solution to reduce the need of potable water by adding a hydroponic farm as a complement to the fish pond. Aquaponics mimics natural ecology and requires less energy for water treatment compared to other technologies. Nutrients are generated by fishes to feed the vegetation.The vegetation in hydroponic filters the fish pond water and the filtered water would be re-circulated to the fish pond.

Landscape

Rooftop garden and green wall brings colour and life to residents of Park Signature and the neighborhood, introducing visual comfort to the area and creates harmony. A unique 360 degrees permeable green wall allows breeze and sunlight enters the building to save energy. Rooftop garden consists of micro-climate station, butterfly garden, chef garden, aquaponics and viewing deck.

Storm-water minimization

Storm water is stored through the rooftop herb's garden, aquaponics and rainwater harvesting system in the Green Atrium. The stored water is used to irrigate the drought-tolerant plants by the drip type irrigation system. The water is supplied directly to the soil to minimize evaporative losses of water. This reduces the use of irrigation water approximately by 21% annually and minimize water runoff by 75% approximately.

Herb Garden

PV landscape lamp

Natural Daylighting

Micro-climatic responsive facade

The upper block is wrapped in a permeable live green wall. This is a simple but effective system to minimize heat gain while allowing and natural cross-ventilation to the building. The slide-open doors behind the vertical green wall allows maintenance work to be carried out easily and safely from the inside of the building without scaffolding or BMU. Drip lines tubing, stainless steel tray and vigorous shrubs species were used on green wall to facilitate low maintenance and sustainability. Shrubs replacement is lower than 5% per year. The rainwater recycling system and drip-type irrigation together achieve an approximate 21% reduction annually for irrigation demand, and particularly up to 40% reduction in summer months (May-Sep).

Drip type irrigation

Drip-type irrigation system had been integrated to the green wall of The Green Atrium to reduce operation maintenance. The irrigation water is from the rainwater recycle system which reduces water usage approximately by 21% annually.

Setback shading

Natural ventilation

The building is to enable natural ventilated to remove accumulated hot air by cross-ventilation and evaporative cooling through greenery when weather permits. This provides an option for users to enjoy the natural ambience of wind and reduces building energy consumption at the same time.

Direct circulation

The Green Atrium demonstrates as an anti-thesis to the norm of the sheiled air-conditioned commercial buildings of Hong Kong by exposing all of its circulation spaces semi-outdoor to bring the visitors closer to its natural surrounds.

XIR high thermal performance glass

Farmer's market

The aquaponics and herb's garden at The Green Atrium roof garden and the nearby Gaia organic farm of 47,220 sq ft, supplies organic or low carbon food sources to the restaurant and farmer's market, serving as its own commodity supply.

Complementary linkage

The activities in the Green Atrium forms a complementary linkage where commercial activities and environmental protection can co-exist and maintains a symbolic relationship and neither one can be neglected. The upper energy hub sustainably convert natural resources energy and provide The Green Atrium with energy, while commercial activities in the lower block provides economical support to the environmental protection work.

Daylight-linked lighting control

High-volume low-speed ceiling fan

Energy efficient active systems are introduced to decrease energy demand while maintaining indoor environmental quality. Daylight responsive lighting control is used for intelligent lighting control and highvolume low-speed (HVLS) ceiling fan is implemented to provide thermal comfort enhancement and to reduce A/C use approximately up to 12% annually.

Food waste conversion unit

Food waste generated from the Eco-restaurant is converted to organic fertilizers through a food waste decomposer which can treat maximum 100kg/day waste and produce fertilizers for on-site farming and used as ingredients for fish farming in the aquaponics system.

Waterless urinal

Further reduces water usage.

Energy use display monitor

Energy and water usage, renewable energy generation and microclimate are measured by sensors and meters. These data is analyzed and feedback to improve ongoing operation. Performance dashboard is located at main entrance which help visitors to understand building performance.



Sustainable features of THE GREEN ATRIUM

New Buildings Category 新建建筑类别

Completed Projects - Institutional Building 已落成项目 – 公用建筑

GRAND AWARD 大奖

Ko Shan Theatre New Wing

高山剧场新翼





Team or Organisation Name
Ronald Lu & Partners

Client / Developer
Leisure and Cultural Services Department, Government of the HKSAR

Location
77 Ko Shan Road, Hung Hom, Kowloon, Hong Kong

Completion Date
17 December 2013

Site Area
0.4 hectare

Gross Floor Area
10,538m^2

Project Manager
Architectural Services Department, Government of the HKSAR

Architect
Ronald Lu & Partners

Civil & Structural Engineer
Mott Macdonald Hong Kong Limited

Building Services Engineer
Electrical and Mechanical Services Trading Fund, Government of the HKSAR

Quantity Surveyor
Rider Levett Bucknall Limited (RLB)

Landscape Architect
ACLA Limited (ACLA)

Town Planner
PlanArch Consultants Limited

Main Contractor
Gammon Construction Limited

Facility Manager
Leisure and Cultural Services Department, Government of the HKSAR

Environmental / Ecology Consultant
Allied Environmental Consultants Limited







Ko Shan Road Park is a precious green park within the densely populated residential district of To Kwa Wan. A theatre within this context has inherited a challenging design dilemma:

To design a THEATRE for the Cantonese Opera & Cultural Communities
OR
To design a PARK for the Locals?

The unique "A Theatre In A Park • A Park In A Theatre" has then evolved from the design…

A Theatre In A Park
The Ko Shan Theatre New Wing negotiates sensitively with the park's existing topography, preserving the mature precious trees on site. External timber-outlook sun-shading fins, metaphorically connecting the existing tree-scape, dematerise the building mass and blend subtly into the scale, textures and colours of the surrounding environment. A "Green Trail" extends the at-grade park vertically, while the lavishly-landscaped terraces, the tea house, exhibition gallery, Cantonese Opera Information Centre and the roof garden called the "Moon Lawn", inject a fresh cultural and leisure experience into the community.

A Park In A Theatre
Taking advantage of the external landscape, a traditional Chinese landscaping design technique called "View Borrowing" was adopted in the design of the foyer. Curvilinear in shape so as to wrap around the auditorium, the foyer is enclosed by a full-height glazed building envelope along one of its long sides, while the other side is furnished with a red timber slat screen which provides varying degrees of spatial layering and represents the Chinese cultural meaning of "abundance". People walking through the foyer are continually exposed to daylight and views of the park's scenic greenery "borrowed" from outside; as if they were strolling through a garden. This spiritually cleansing experience takes the audience away from the hustle and bustle of city life, preparing them for an enjoyable performance.

The project with the existing theatre strengthens the Ko Shan Theatre as a dedicated venue for Cantonese opera to support development of traditional Chinese and other performing arts. In order to carry through the green approach to building systems, sustainable features are provided including rainwater recycling system for landscape irrigation, bleed-off water of cooling tower system for toilet flushing, water cooled chillers, demand control for fresh air by carbon dioxide sensors, heat wheel for heat energy reclaim of exhaust air, compact fluorescent lamps with electronic ballast and lighting control by occupancy sensors, light-emitting diode (LED) type exit signs, services-on-demand control for escalators, etc. Installation of photovoltaic system and solar bollard park light to provide renewable energy for environmental benefits.

The "Theatre + Park" typology has positively brought in a good environmental impact to the Site for that it increases the green coverage by more than 300% of the existing site condition; preserving the precious mature trees within the park; and achieving a design that has minimized the impact on the district air ventilation pattern.

高山道公园是在人烟稠密的土瓜湾内一个珍贵的绿色园林。在地理与情感上为建筑师设计高山剧场新翼时带来了独具难度的挑战：-

一个专为粤剧及文化团体而设计的「剧院」
还是
一个为附近居住者而设计绿色「庭园」？

一个赋予特色的【园院合一】就这样从设计演变而来 ...

园中有院 - 与众不同的城市公园
衍生出回应社区和环境的独有策略
高山剧场新翼顺山势而兴建，致力保留原有树木，亦使其全然融入园林环境。围绕外墙的仿木窗栅遮阳板与周边林木相互协调，令建筑视觉变得轻盈。外围布局成梯级状，增加了可绿化面积，配以绿化平台及天台花园，令建筑和自然融为一体。亦为用者开拓全新的公共空间 。

院中有园 - 借景入室
剧场主要设计概念引用借景入室手法，光和声、风和景穿透偌大的落地玻璃，令附近园景成为设计的一部份，让视野一览无遗，大量引入自然光之馀，也巧妙地点缀故有的公众园林。

新翼与现有剧院，将加强高山剧场作为推动传统粤剧发展及其他表演艺术重要场所的角色。

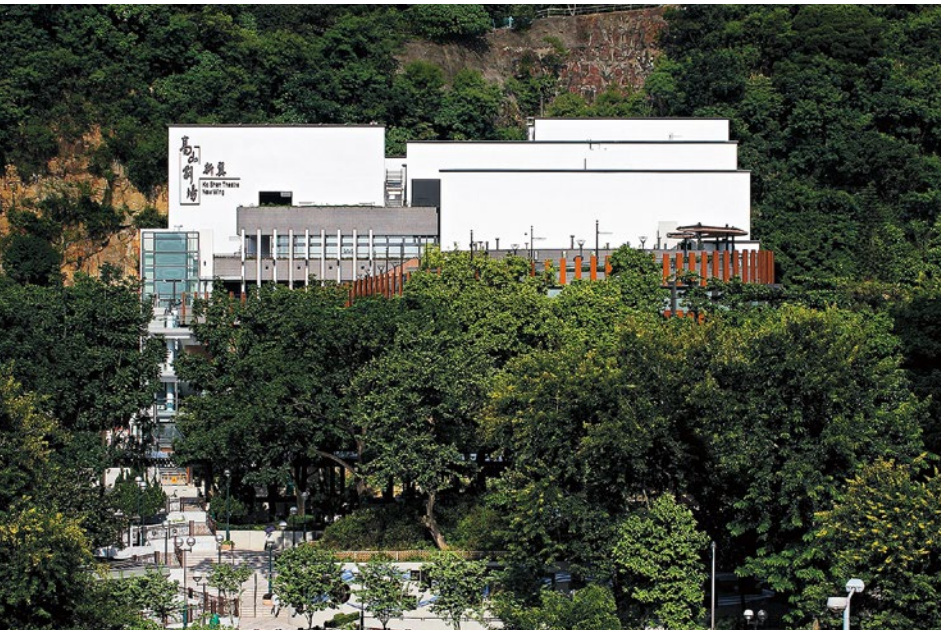
新翼更充分考量可持续发展，包括使用雨水循环灌溉系统、冷却塔用水辅助冲水系统、水冷式冷水机、二氧化碳感应器、节能送风设备、节能照明设备、LED 灯出入指示、节能电梯、太阳能光伏板、太阳能发电及照明等提供再生能源及各样环保效益。

透过「园院合一」的设计，为邻近环境带来正面的影响，新冀设计所增加的绿化覆盖率，与原本地块相比超过了 300％。同时，致力保留了园内成熟珍贵的林木；并确保减少对区内空气流动所造成的影响。











New Buildings Category 新建建筑类别

Completed Projects - Institutional Building 已落成项目 – 公用建筑

GRAND AWARD 大奖

MidField Concourse

中场客运大楼



Team or Organisation Name
Airport Authority Hong Kong

Client / Developer
Airport Authority Hong Kong

Location
Hong Kong International Airport, Hong Kong

Completion Date
28 December 2015

Site Area
26 hectares

Gross Floor Area
163,737m^2

Project Manager
Airport Authority

Project Designer
Mott MacDonald – Arup Joint Venture

Architect
Aedas Limited

Civil & Structural Engineer
Mott MacDonald Hong Kong Limited / Ove Arup & Partners HK Limited

Building Services Engineer
Ove Arup & Partners HK Limited / Mott MacDonald HK Limited

Quantity Surveyor
Davis Langdon and Seah

Landscape Architect
Aedas Limited

Main Contractor
Gammon Construction Limited

Sustainable Design Consultant
Ove Arup & Partners Hong Kong Limited

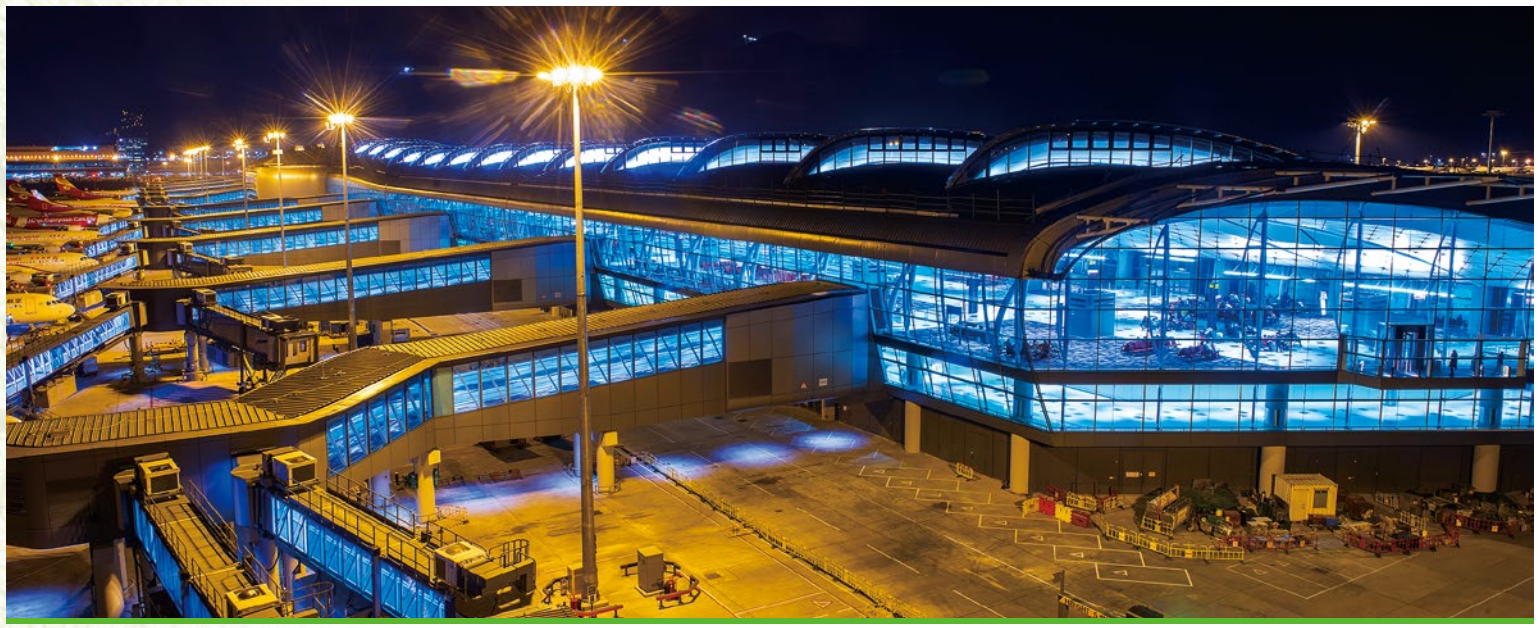
Environmental / Ecology Consultant
Ove Arup & Partners Hong Kong Limited

Wind / Air Ventilation Consultant
Mott MacDonald Hong Kong Limited / Ove Arup & Partners HK Limited

Airport Planning
OTC Limited







The newly commissioned Midfield Concourse (MFC) is a major project recently delivered at Hong Kong International Airport (HKIA). Situated to the west of Terminal 1 and between the two existing runways, the five-level concourse occupies a site area of 26 hectares and is connected to Terminal 1 by an extension of the Automated People Mover (APM) system. 20 new parking positions are provided at the MFC that help increase the passenger handling capacity by at least 10 million passengers per year.

The MFC is oriented almost north-south and adopted an environmentally responsive cross section. Taking into account lower annual solar heat gains on east-facing façades in Hong Kong, the east face of the MFC has been raised up to increase daylight and views while the west façade glazing has been lowered. Performance is further enhanced by incorporating skylights on the roof that face due north. Approximately 1,200m^2 of photovoltaic panels are installed to offset the use of grid electricity. Intelligent daylight and occupancy controls will work in parallel to further optimise performance.

A sustainable water strategy is adopted for the MFC which covers demand reduction, grey water recycling and condensate water harvesting. Demand reduction is mainly supported by installing water-conserving sanitary fittings and use of sea water flushing. Grey water are collected and treated by a wastewater treatment plant on the airport island, which are reused together with the condensate water in the cooling system of the MFC to further reduce potable water consumption at the facility.

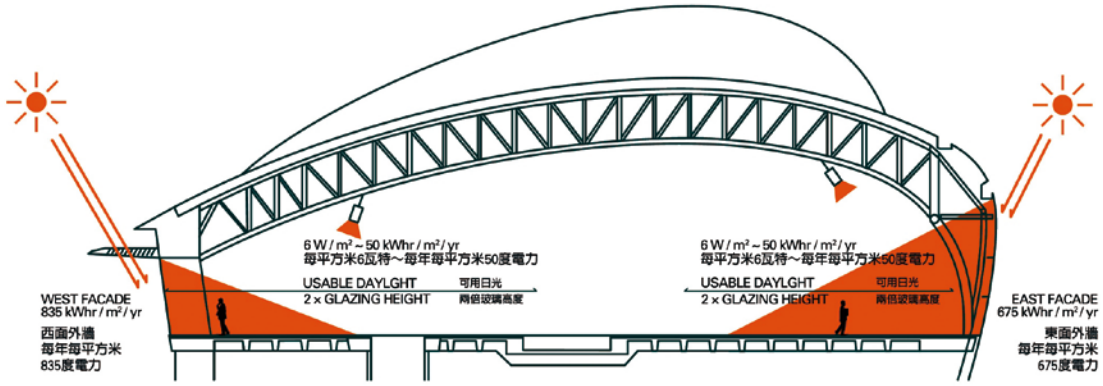
Overall there are 35 green initiatives that have been incorporated into the design of the MFC project for delivering a sustainable high-performance building. The MFC serves as a testimony to HKIA's commitment as not only one of the finest, but also one of the greenest airports in the world.

全面投入服务的中场客运大楼，是香港国际机场最近完成的重要工程项目。中场客运大楼位于一号客运大楼以西，两条现有跑道之间，占地 26 公顷，共有五个楼层，以伸延扩建的旅客捷运系统连接一号客运大楼。中场客运大楼提供 20 个停机位，每年可额外处理最少 1,000 万人次的客运量。

中场客运大楼沿南北轴兴建，楼宇外形的设计富环保心思。由于在香港朝向东面的外墙每年吸收的太阳热力较少，透过加高大楼东面玻璃幕墙，可引入更多天然光，令景观更开扬；同时亦降低西面的幕墙。为达到更佳环保效果，大楼楼顶装有朝向北面的天窗，并安装面积约 1,200 平方米的光伏板，以抵销电网电力的消耗。大楼亦同时采用智能日光及感应调光系统，进一步提升能源效益。

中场客运大楼采纳可持续发展的水资源策略，当中包括减少用水、循环再用废水及收集冷凝水。大楼主要透过节水卫生设备及利用海水冲厕减少用水。收集的废水会经由机场岛上的污水处理厂处理，并跟冷凝水于中场客运大楼的冷却系统循环再用，以进一步减少设施的食水使用量。

中场客运大楼项目在设计上采纳了 35 项环保措施，以成为环保表现卓越的可持续发展建筑。中场客运大楼充分展现香港国际机场的承诺 — 不单要成为世界最优秀的机场之一，更是全球其中一个最环保机场。



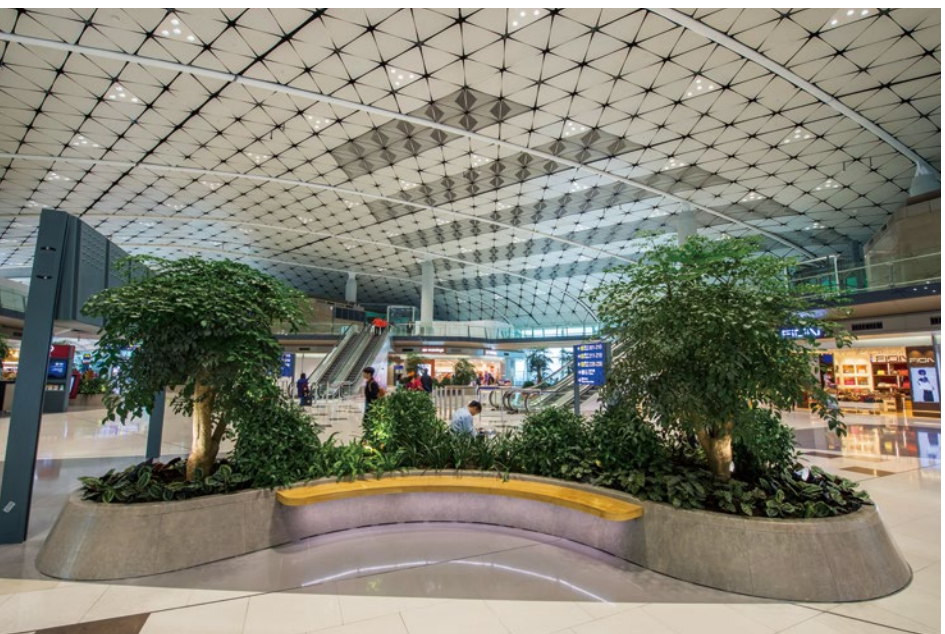
ENVELOPE OPTIMISATION
優化建築物外殼

West facade glazing minimised, east facade raised up to increase daylight and views

盡量降低西面外牆玻璃高度，並提高東面外牆高度，以引入更多天然光線及令景觀更開揚









New Buildings Category 新建建筑类别
Completed Projects - Institutional Building 已落成项目 – 公用建筑

MERIT AWARD AND SPECIAL CITATION
IN ECO-SERVICE INFRASTRUCTURE NETWORK
优异奖及生态环境服务建设网络特别嘉奖
Hong Kong East Community Green Station
东区环保站



Team or Organisation Name
Architectural Services Department,
Government of the HKSAR

Client / Developer
Environmental Protection Department,
Government of the HKSAR

Location
30 Oi Shun Road, Shau Kei Wan,
Hong Kong

Completion Date
5 May 2015

Site Area
0.32 hectare

Gross Floor Area
514m^2

Project Manager
Architectural Services Department,
Government of the HKSAR

Architect
Architectural Services Department,
Government of the HKSAR

Building Services Engineer
Architectural Services Department,
Government of the HKSAR

Structural Engineer
Architectural Services Department,
Government of the HKSAR

Landscape Architect
Architectural Services Department,
Government of the HKSAR

Quantity Surveyor
Architectural Services Department,
Government of the HKSAR

Environmental Consultant
Business Environmental Council Limited

Main Contractor
Shui On Building Contractors Limited

Management Company
Po Leung Kuk







The Hong Kong East Community Green Station is a pilot project for promoting green living and collection of recyclables at the community level. We do not want the Station to be a rubbish collection point, but a positive asset to the local area.

The concept is to create a Street through the site to connect the surrounding communities. Greenies of the nearby Park are extended to the old district through this urban intercourse. Through the use of green wall, bamboo trellis and courtyard garden, it embodies a sense of community and a touch of oasis within the city.

We reused the modular containers as the bases of our buildings yet modified to suit the need of different functions. Various sustainable initiatives are adopted here to put the green culture of “Use Less, Waste Less” into practice. The flyover above contributes to the passive cooling of the venues thus reducing solar heat gain. The provision of large overhanging roof and vertical greening can shelter the interior from the sun. Natural daylight is brought into the multi-purpose room by large Low-E glazing.

Although the building is temporary, it embodies permanent cultural value, rediscovers our roots and finds parallel with prevailing green features.

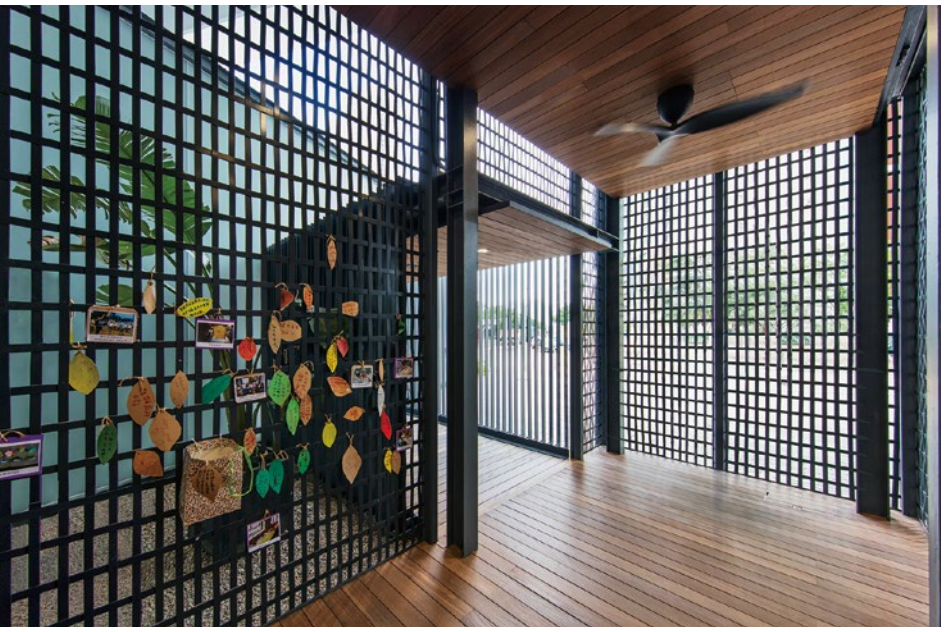
东区环保站位于港岛东区西湾河，是环保署于十八区设立社区环保站的首批试点，目的是推行源头减废。环保站为社区提供物料回收再造支援，包括物料回收及分类等。环保站透过加强推广环保教育，鼓励市民实践绿色生活。

设计意念是把绿化带从爱秩序湾公园，沿著新开辟的行人通道向南穿过天桥延伸至社区，贯通东区走廊两侧的新、旧民居，便利街坊往来。竹林和园林景观营造出的绿意渗透在环保站的每个角落，让行人放慢脚步，享受一下这城中绿洲。

建筑群以旧货柜改装并配合多种环保建筑物料建成，行人通道旁有环保教育中心和多用途室，适合举办展览、讲座、工作坊或其他形式的环保教育活动。环保站地处天桥下，檐篷及垂直绿化为其遮挡直射阳光，隔热玻璃及竹篱为室内引入柔和的天然光线，为使用者提供舒适的空间。垂直及地面绿化渗透庭园的每个角落，植物、竹篱与建筑物融为一体。

尽管建筑物是临时性的，它却展现了永恒的文化价值与环保共融，让绿色生活扎根社区。









New Buildings Category 新建建筑类别
Completed Projects - Institutional Building 已落成项目 – 公用建筑

MERIT AWARD 优异奖
The Open University of Hong Kong – The Jubilee College
香港公开大学银禧学院



Team or Organisation Name
P&T Architects and Engineers Limited

Client / Developer
The Open University of Hong Kong

Location
Chung Hau Street, Homantin, Hong Kong

Completion Date
23 January 2014

Site Area
0.43 hectare

Gross Floor Area
21,500m^2

Project Manager
The Open University of Hong Kong

Architect
P&T Architects and Engineers Limited

Civil & Structural Engineer
P&T Architects and Engineers Limited

Building Services Engineer
P&T (M&E) Limited

Quantity Surveyor
Rider Levett Bucknall Limited

Landscape Architect
ACLA Limited

Interior Designer
Meta4 Design Forum Limited

Main Contractor
Penta-Ocean Construction Co. Limited

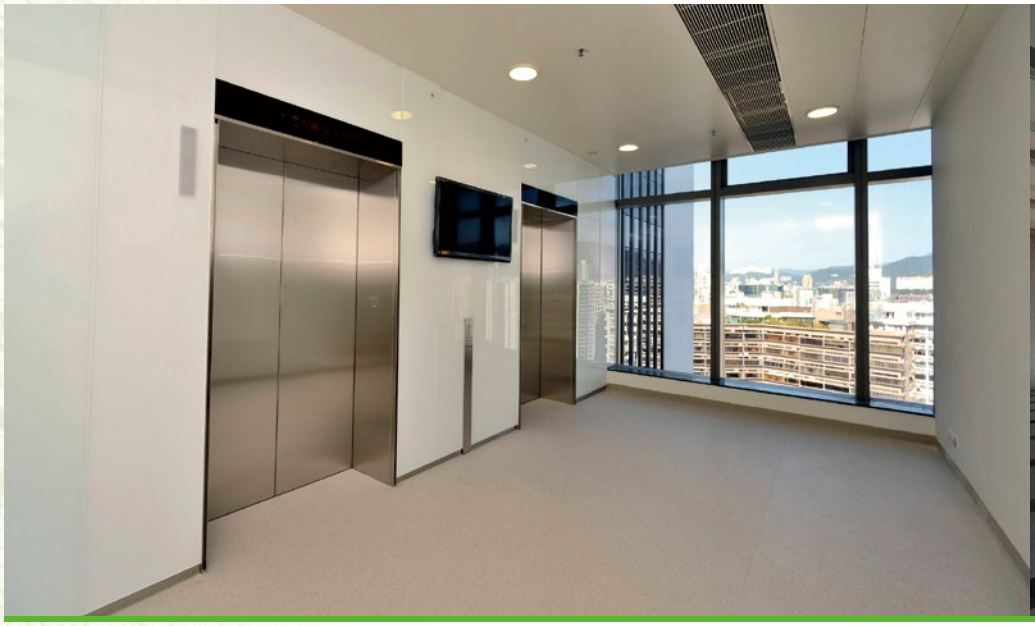
Environmental / Ecology Consultant
Business Environment Council Limited

Facility Manager
The Open University of Hong Kong


THE OPEN UNIVERSITY OF HONG KONG
Jockey Club Campus




Sha Tin
沙田
Mong Kok
旺角
Ho Man Tin
何文田
8
STOP
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The Jubilee College of the Open University of Hong Kong is one of the first university buildings which achieve the Final Platinum rating under BEAM Plus New Buildings V1.1 in April 2015. The project was a collaborative effort of different professionals as well as a determination from the University to GO Green. It features a number of project specific green installations, including a 73m high green wall, 1,412m^2 of BIPV curtain wall façade, sunlight tracking lighting device, wind turbine installation, solar sensing irrigation system and other green installations.

The quality of the built environment is carefully designed to achieve the highest indoor air quality, carefully designed lighting and acoustic environment, with a respect to the vicinity neighbours and ecology environment.

Solar and wind energy transforming devices are incorporated, with a consciousness in the use of recycled and low carbon trail materials, and careful control of site activities preventing unnecessary pollution to the environment.

Sustainability in design is also achieved by flexible usage of spaces, careful orientation of building solid and glazed facades, and the provision of appropriate facilities for management, operation and maintenance of the building.

The University has a pro-active management and maintenance team keeping the building systems operating in the optimum conditions, as well as arose the University population and public awareness to environmental issues through guided tours or other publications. The adoption of the above-stated green installations and holistic approach of the making of the building has proved the innovative quality achieved for this exemplary project.

香港公开大学银禧学院在 2015 年 4 月得到绿建环评 1.1 版铂金等级，成为当时其中一所最早得到此殊荣的大学建筑物。此项目是经过一个专业团队的合作努力，加上大学对实现环保的决心而建成。它具有一些独特的绿色设施，包括一个 73 米高的绿化外墙，面积达 1412 平方米的光伏建筑一体化玻璃幕墙，阳光跟踪照明装置，风车安装，太阳能感应灌溉系统和其他绿色安装。

建筑环境的质量是经过精心设计，以达到最高的室内空气质量、精心设计的灯光和音响环境等。项目设计还包括各种装置，确保对附近邻居，生态环境做成最少的干扰。

项目也包括太阳能和风能转化设备，起用循环再用和低碳足迹的材料，并严格控制工程活动避免对环境不必要的污染。

灵活的使用空间，建筑外立面实体及通透构造的比例，以及提供管理，运营和维护建筑物的适当的设施，以实现可持续性设计的理念。

大学的专业管理和维修队伍确保各建筑系统在最佳条件下运行。通过导赏或其他出版物，让大学群体及公众认识到保护环境问题。上述的各种环保设施及建筑设计显示了此项目作为一个环保建筑所包含的创新素质。





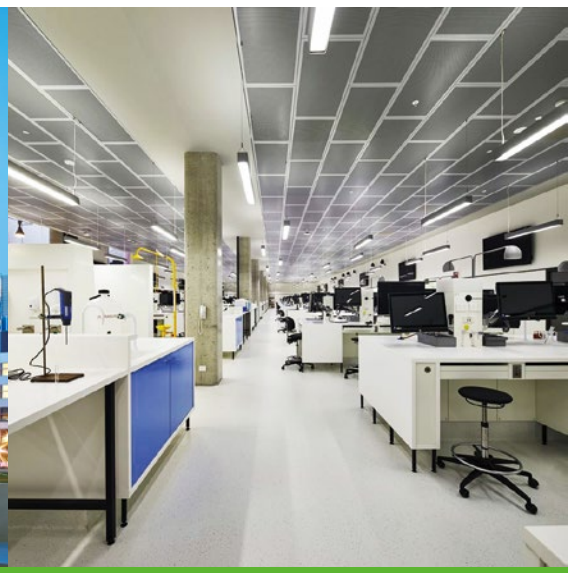


New Buildings Category 新建建筑类别
Completed Projects - Institutional Building 已落成项目 – 公用建筑

FINALIST 入围项目

Faculty of Science and Graduate School of Health Building / Thomas Street Building, University of Technology Sydney





Team or Organisation Name
Steensen Varming

Client / Developer
University of Technology Sydney

Location
Building 7, Thomas St,
Ultimo NSW 2007 Australia

Completion Date
January 2015

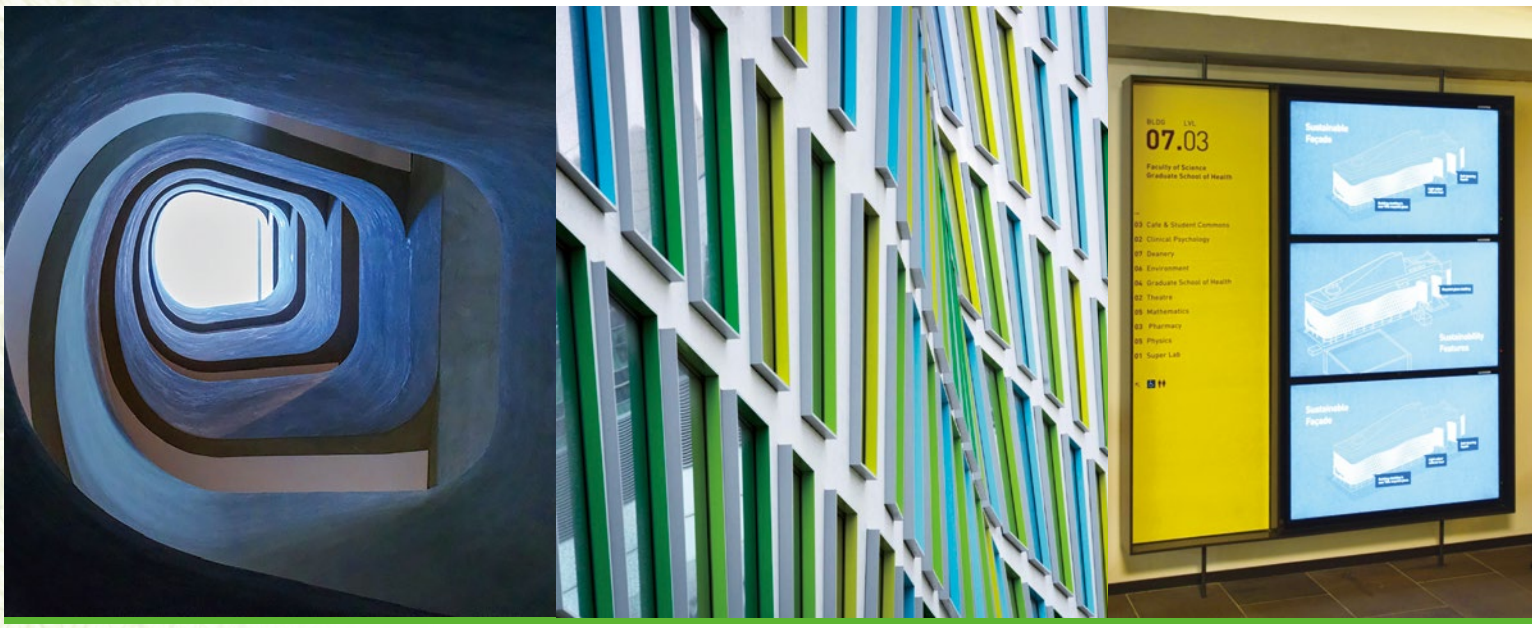
Site Area
0.22 hectare

Gross Floor Area
15,000m^2

Architects
Durbach Block Jaggers / BVN Architecture

Main Contractor
Richard Crookes Constructions

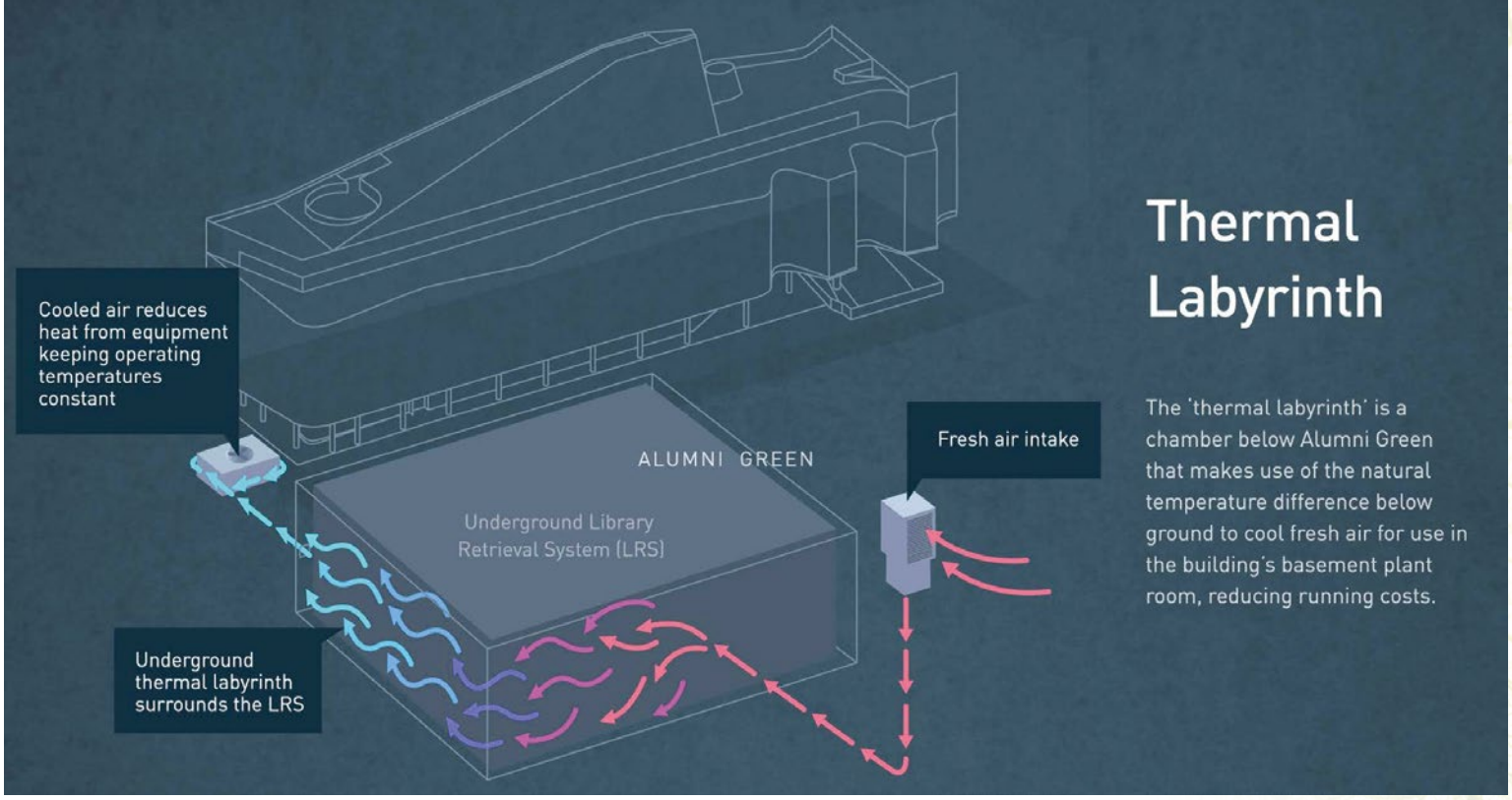




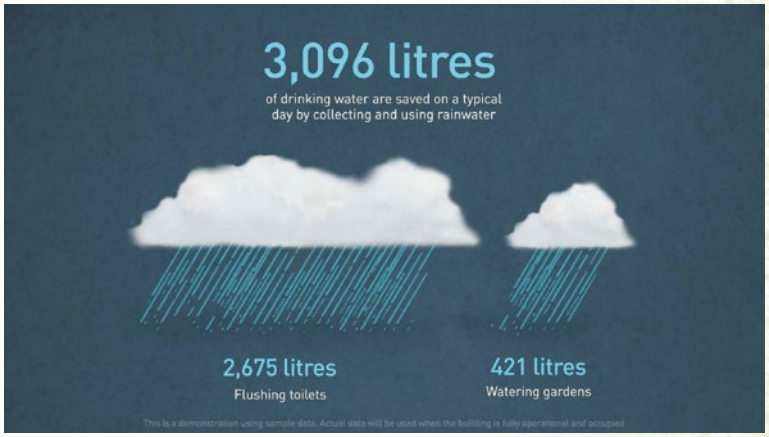
The Thomas Street Building is the new Faculty of Science and Graduate School of Health at University of Technology Sydney. The 15,000m^2 building features a variety of laboratories with specialist research support areas, including PC2 research laboratories, a clean suite with embedded PC2 labs, open plan workspaces and a “Super Lab” that will give large numbers of students access to the latest technology in a single laboratory space. Steensen Varming led the sustainability design and achieved a “World Leadership” 6 Green Star certified design rating.

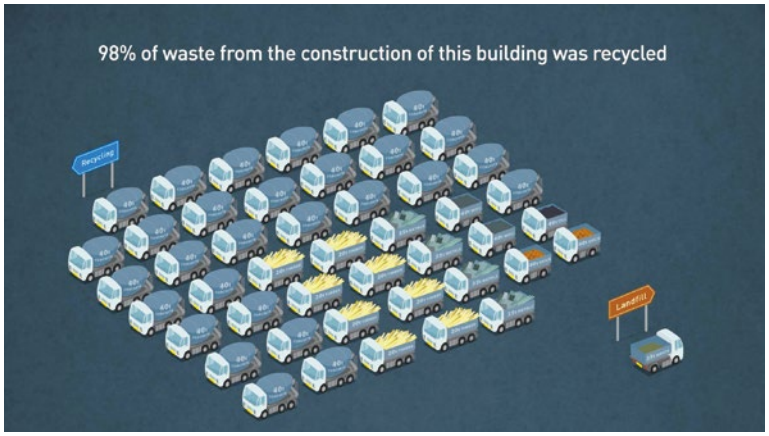
Sustainability has been considered throughout the building, which includes external cladding made from more than 75% recycled glass, a roof garden and green roof for research. A 27,000-litre rainwater tank supplies recycled water for the rooftop garden and the building’s toilets. Low airflow fume cupboards and natural cooling system using a thermal labyrinth have been incorporated into the building design, significantly cutting energy use and reducing running costs by up to 20%.

The building also achieves a usable floor area greater than 60% which is far in excess of comparable benchmark laboratory buildings thus making greater use of the embodied energy within the building. This was achieved by high utilisation of riser space by having roof fed down serviced plantrooms and basement fed up plantrooms. The use of Fan Coil Units in the ceiling voids also reduced on floor plant requirements.


Cooled air reduces heat from equipment keeping operating temperatures constant
ALUMNI GREEN
Underground Library Retrieval System (LRS)
Fresh air intake
Underground thermal labyrinth surrounds the LRS
Thermal Labyrinth
The 'thermal labyrinth' is a chamber below Alumni Green that makes use of the natural temperature difference below ground to cool fresh air for use in the building's basement plant room, reducing running costs.


The energy currently being used on this floor of the building is equal to
37 Tour de France cyclists
This is a demonstration using sample data. Actual data will be used when the building is fully operational and occupied
56kWh


3,096 litres
of drinking water are saved on a typical day by collecting and using rainwater
2,675 litres
Flushing toilets
421 litres
Watering gardens
This is a demonstration using sample data. Actual data will be used when the building is fully operational and occupied


98% of waste from the construction of this building was recycled
Recycling
Landfill

New Buildings Category 新建建筑类别

Completed Projects - Institutional Building 已落成项目 – 公用建筑

FINALIST 入围项目

Hang Seng Management College

恒生管理学院



Team or Organisation Name
Allied Environmental Consultants Limited

Client / Developer
Hang Seng Management College

Location
Hang Shin Link, Siu Lek Yuen, Shatin, New Territories

Completion Date
Sports and Amenities Centre - October 2013
Lee Quo Wei Academic Building - March 2014
HSMC Jockey Club Residential Colleges - August 2015

Site Area
Sports and Amenities Centre: 0.84 hectare
Lee Quo Wei Academic Building: 5.51 hectares
HSMC Jockey Club Residential Colleges: 0.77 hectare

Gross Floor Area
Sports and Amenities Centre: 6,703m^2
Lee Quo Wei Academic Building: 14,318m^2
HSMC Jockey Club Residential Colleges: 14,306.68m^2

Steering Committee Chairman
Martin TAM
Able Mart Limited

Project Manager
Hang Seng Management College - Campus Development and Management Office

Architect
Wong & Ouyang (HK) Limited

Civil & Structural Engineer
AECOM Consulting Services Limited

Building Services Engineer
Wong & Ouyang (Building Services) Limited

Sustainable Design Consultant
Allied Environmental Consultants Limited

Landscape Architect
URBIS Limited

Main Contractor
Build King Construction Limited

Quantity Surveyor
Rider Levett Bucknall Limited











Hang Seng Management College is located at the suburban area in Sha Tin.

As an environmental responsive institution, the College organises regular activities to propagate the sustainability concept. On site design level, all relevant sub-items of the Urban Design Guidelines have been addressed. In particular, stepped height design approach is adopted for the entire site to reduce the building massing and reserve a visual corridor viewing the ridgeline of Tate's Cairn and existing green features. Extensive use of greenery was given after thorough assessments to improve the ecological value.

Environmental friendly resources are widely implemented in the building design. High emissivity roofing and ecofriendly materials, high efficiency building services equipment and low water demand devices were employed with detailed analysis to optimise the material use, building-energy performance and water conservation during design stage. Building materials were selected with the intended use of regionally manufactured materials, rapidly renewable materials (Bamboo) and reusable materials. Rainwater and grey water will be reclaimed and every kind of waste (including construction) shall be reduced and recycled before disposed of.

Tremendous effort has been in place to infuse innovative and sustainability ideas into the Project, such as radiant chilled ceiling, district cooling system and eco-farm to promote sustainability. Whilst reduction in energy demand can be achieved by selection of high efficient building service equipment and building envelope, renewable energy (PV panel) was incorporated in HSMC Jockey Club Residential Colleges to offset 4.3% energy use in common area.

恒生管理学院位于沙田的近郊，为响应环保，学院定期举办活动来传播可持续发展的环保理念。整体规划符合特定的主要城市设计课题指引，并采用了梯形高度轮廓设计以减少建筑体量及保留观看大老山的山脊线和现有的绿色视觉环境，经评估后增添的广泛绿化面积更增加了当地的生态价值。

在建筑设计方面，环保资源被广泛应用。高发射率天面物料、环保材料、高效率屋宇设备及用水装置都经详细分析后得以优化，以致减少使用材料，能源和用水。建筑材料主要为来源地较近、快速再生（竹）和材料及再使用材料。雨水将被回收和各种废弃物（包括建筑）应减少和前处置回收。雨水将被回收，而各种废弃物（包括建筑）将会于处置前先减少和循环再用。

学院以巨大的努力注入创新和可持续发展的理念，包括使用环控顶板装置，区域供冷系统和生态农场。为进一步节约建筑物能耗，在恒生管理学院赛马会住宿书院每座建筑物的屋顶安装的太阳能板每年产生的电量，相当于公众区域建筑物能耗的 4.3%。


LEE QUO WEI ACADEMIC BUILDING

New Buildings Category 新建建筑类别
Completed Projects - Institutional Building 已落成项目 – 公用建筑

FINALIST 入围项目
Kwun Tong Promenade
观塘海滨花园



Team or Organisation Name
Architectural Services Department,
Government of the HKSAR

Client / Developer
Leisure and Cultural Services Department,
Government of the HKSAR

Location
Hoi Bun Road, Kwun Tong,
Hong Kong

Completion Date
19 December 2014

Site Area
4.16 hectares

Gross Floor Area
3,211m^2

Project Manager
Architectural Services Department,
Government of the HKSAR

Architect
Architectural Services Department,
Government of the HKSAR

Structural Engineer
Architectural Services Department,
Government of the HKSAR

Building Services Engineer
Architectural Services Department,
Government of the HKSAR

Quantity Surveyor
Architectural Services Department,
Government of the HKSAR

Landscape Architect
Architectural Services Department,
Government of the HKSAR

Main Contractor
Chun Wo Construction & Engineering
Co., Limited

Consultant of Microclimate Study and Zero Carbon Technical Feasibility
Ove Arup & Partners Hong Kong Limited





Victoria Harbour is the host of the design. Glass balustrades erected along the waterfront not only enhance the quality of space, but also allow visitors to have a good sense of immediacy towards the sea. All vertical elements, including trees or light poles are all set back at least 8m from the seawalls. This high degree of transparency allows an unobstructed view for the visitors to enjoy the Hong Kong Island cityscape beyond along the slightly elevated boardwalk. The theme "to bring Nature into our City", can be enjoyed at every corners of the promenade.

Iconic features are strategically placed at the termination of all major streets to the promenade. They not only serve as vista to enhance the character of the immediate urban fabric, but also signify the entrances to attract the public in.

The structure of the former marine department office was reused as the Administration Building of the promenade. With the integration of park features (the shelters) and the energy generation devices (the photovoltaic panels), the operation of the Administration Building can attain a zero carbon operation. Post occupancy evaluation meetings are conducted to monitor and improve the operational energy consumption of the Administration Building.

Extensive lawn, locating buildings under Kwun Tong by-pass, shading walls with vertical greening, low shelters, trees and mist not only reduce the solar heat gain to the promenade, but also maximise the greening area of the promenade. Timber materials originated from sustainable timber source, low water consuming devices, use of LED light fittings, use of occupancy sensors at Administration Building, pre-fabricated manholes, cable draw pits, steelwork, metal cladding are widely adopted in the promenade.

The Contract was also a pilot scheme requiring innovation and creativity input from the tenderers on reducing construction nuisance to the surrounding. The Contractor adopted various green construction measures and able to achieve reuse / recycle 90% C & D waste generated during the construction.

维多利亚港是整个设计的主角，所有邻近海旁的树木及设施，都摆放在离开海堤最小 8 米的位置，在略为升高的木板行人道上，配合玻璃造成的栏杆，仅为观塘市民提供一个豁然开朗，尽情舒展的空间，也可以让市民能更直接地近距离接触美丽的维多利亚海港。「让大自然进入都市」的理念贯通整个海滨花园，让游人在海港的衬托下，尽情享受阳光、蓝天、绿荫、清新的空气、美丽的海滨、以及海港迷人的景致。

观塘海滨花园著重与毗邻地方的连接，亦与旧区的城市纹理相呼应，在街角尽头，设有不同富有工业元素的特色塔楼，引领著市民前往开阔通透的海滨空间。

原有的海事署办公大楼亦重新翻新及加以利用成为海滨花园办公大楼，而其他观塘公众货物起卸区海旁上的旧物料，设计师及承办商都尽量加以重用，减轻建筑废料运往堆填区的需要。而结合太阳能发电板设计的凉亭，不仅为市民遮挡阳光，更可产生足够的电力让办公大楼零碳运作，在开放后亦与用家进行楼宇用后评估，以提高能源效益及节约能源，并建议有效节约能源的内部运作。

设计师在考虑到海滨的独特环境之后，把建筑物尽量布置于观塘绕道行车桥之下，此举不仅让整体海滨维持一种开阔感，在大量绿化环境衬托下，热岛效应大大减低。而材料的选取亦经细心的考虑，木建材均原自可持续发展之树林，使用耗水量低水的装置，LED 灯具，灯光感应器，预制的建筑组件等，都在海滨花园中应用到。

工程进行招标时有别其他合约，承办商需要提出创作而可行的减少排放建筑废料的方法，承办商亦成功在施工期间落实，达致接近 90% 的废料可循环再用。







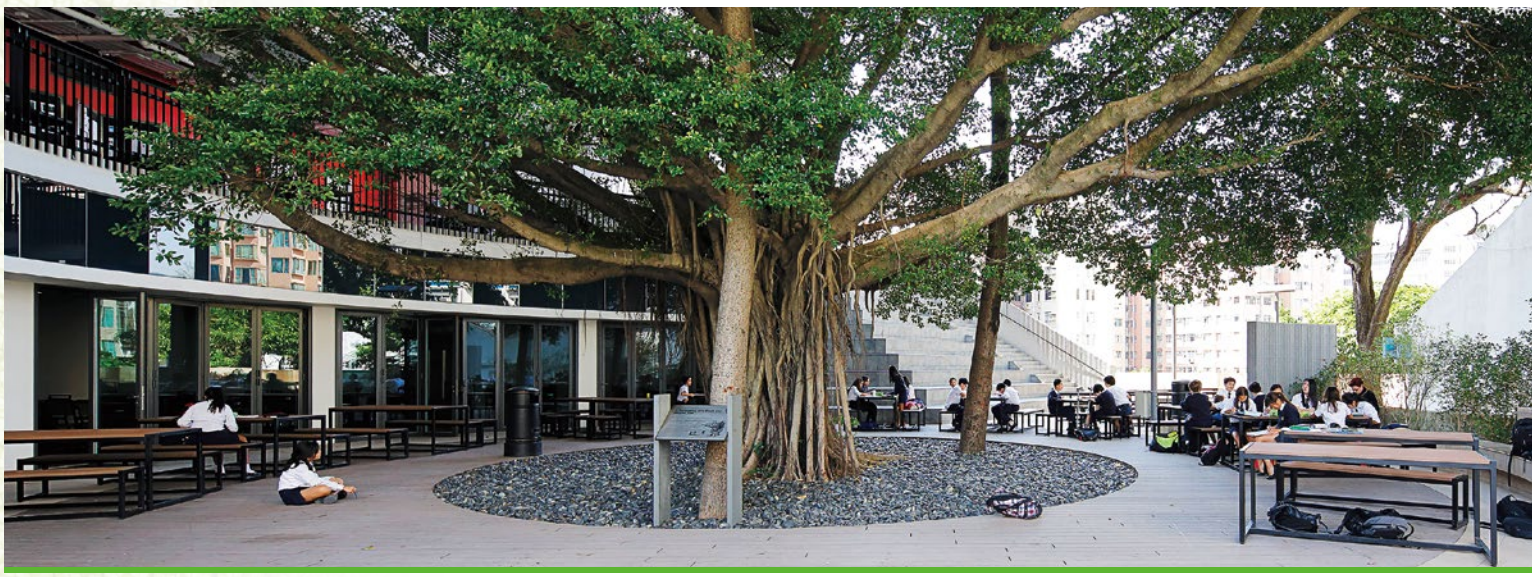




New Buildings Category 新建建筑类别
Completed Projects - Institutional Building 已落成项目 – 公用建筑

FINALIST 入围项目

Redevelopment and Expansion of King George V School - Performing Arts Block
英皇佐治五世学校校舍重建及扩建项目 – 演艺大楼



Team or Organisation Name
Ronald Lu & Partners

Client / Developer
English Schools Foundation

Location
2 Tin Kwong Road, Ho Man Tin, Hong Kong

Completion Date
2013

Site Area
0.16 hectare

Gross Floor Area
3,522m^2

Architect
Ronald Lu & Partners

Civil & Structural Engineer
JMK Consulting Engineers Limited

Quantity Surveyor
WT Partnership (Hong Kong) Limited

Main Contractor
Sun Fook Kong Construction Limited

Mechanical & Electrical Engineer
Mott MacDonald Hong Kong Limited

BEAM Plus Consultant
Ronald Lu & Partners

Landscape Consultant
ERM-Hong Kong Limited

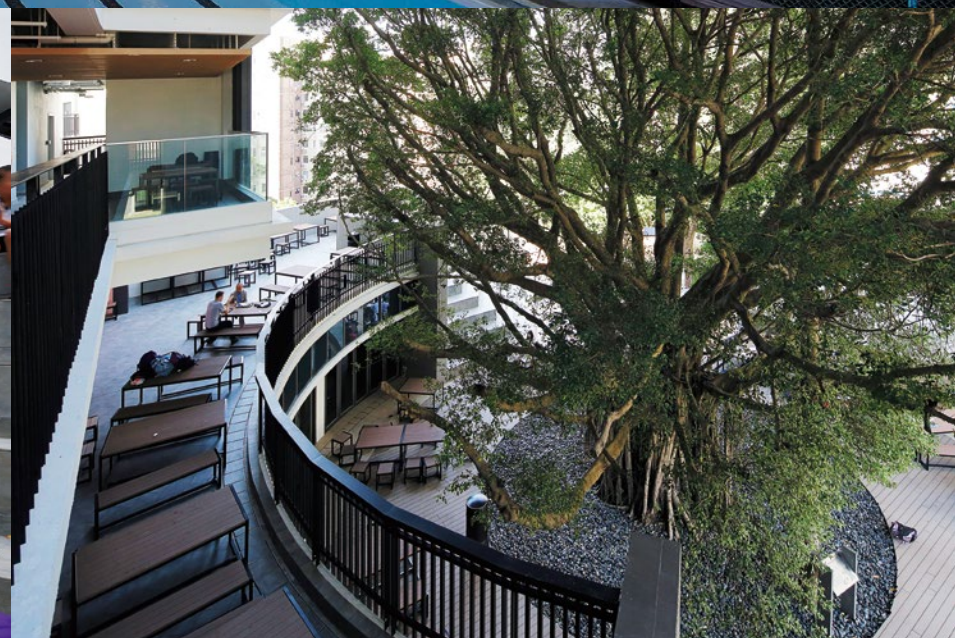
Acoustic Consultant
Campbell Shillinglaw Lau Limited

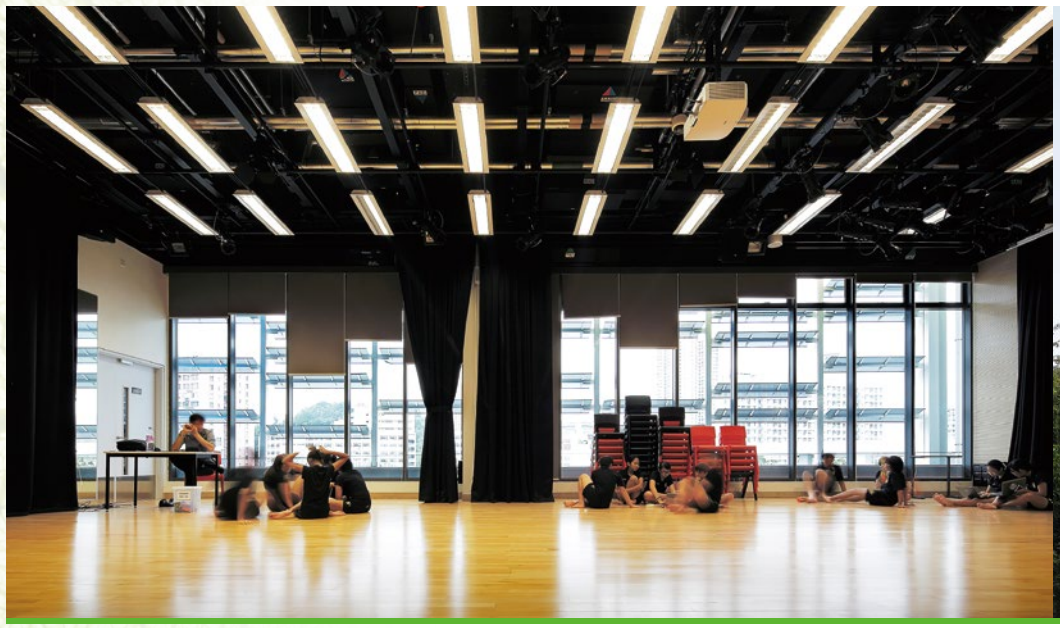
Audio Visual Consultant
Betrue Limited

Theatre Lighting Consultant
Spectrum Design & Associates (Asia)











Performing Arts Block (PA Block) is a newly developed building in the campus of one of the oldest schools in Hong Kong – King George V School. The school was looking for a new state-of-the-art PA Block design which can blend in well with the existing site context, in response to the spatial needs and demand for upgrading or expansion of campus facilities.

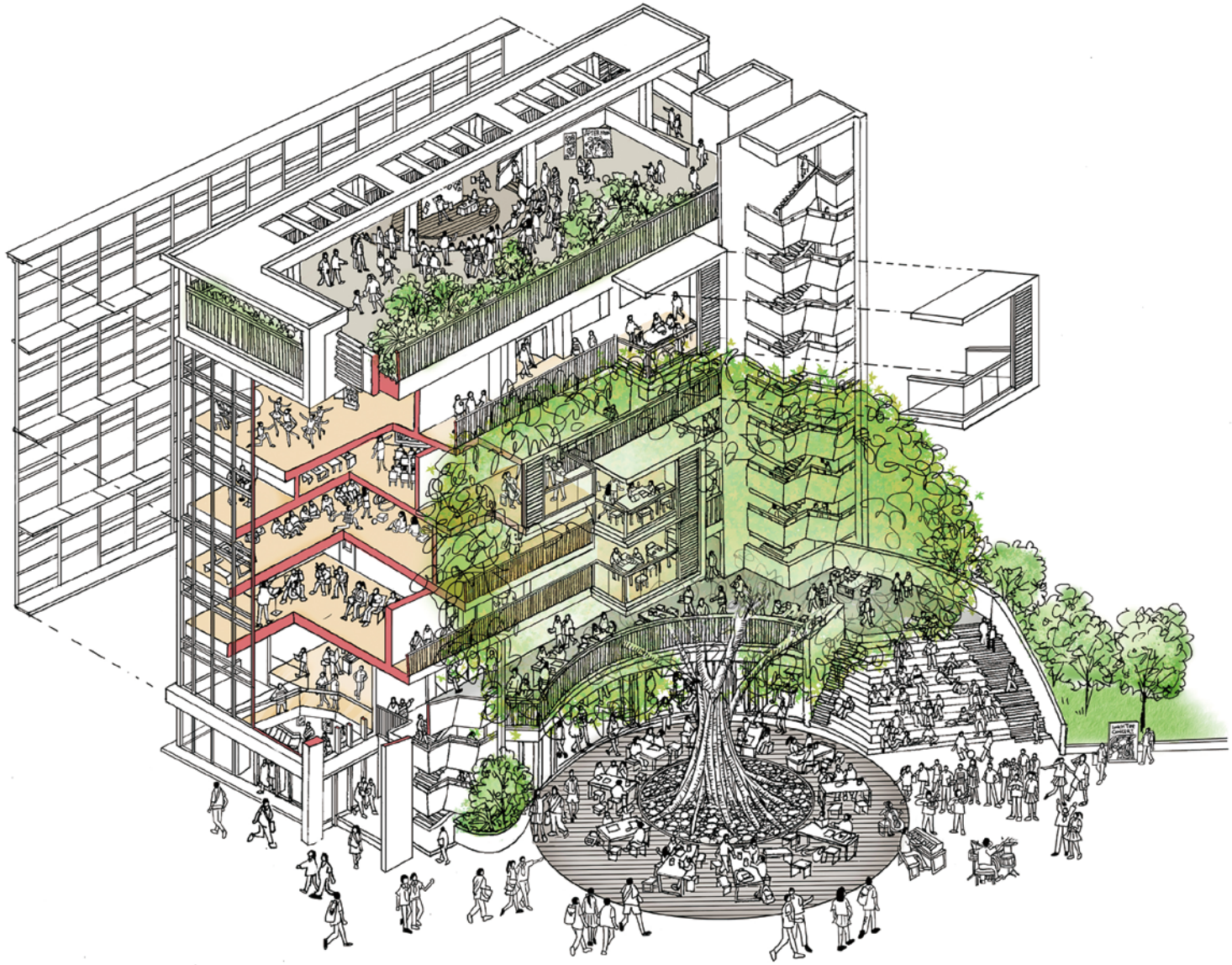
The PA Block connects learning and living with nature. The design ingeniously turns the constraint of an existing 18m-high Banyan Tree at the backyard of the old canteen into the place-making theme of the new block. The architectural spaces and form of the new block evolve around and embrace this Tree. An amphitheatre and surrounding outdoor learning / social spaces are carefully designed around the Tree, from which the space flows from the performing deck up to the first floor of the outdoor canteen patio, blending the indoor / outdoor environments into one commons.

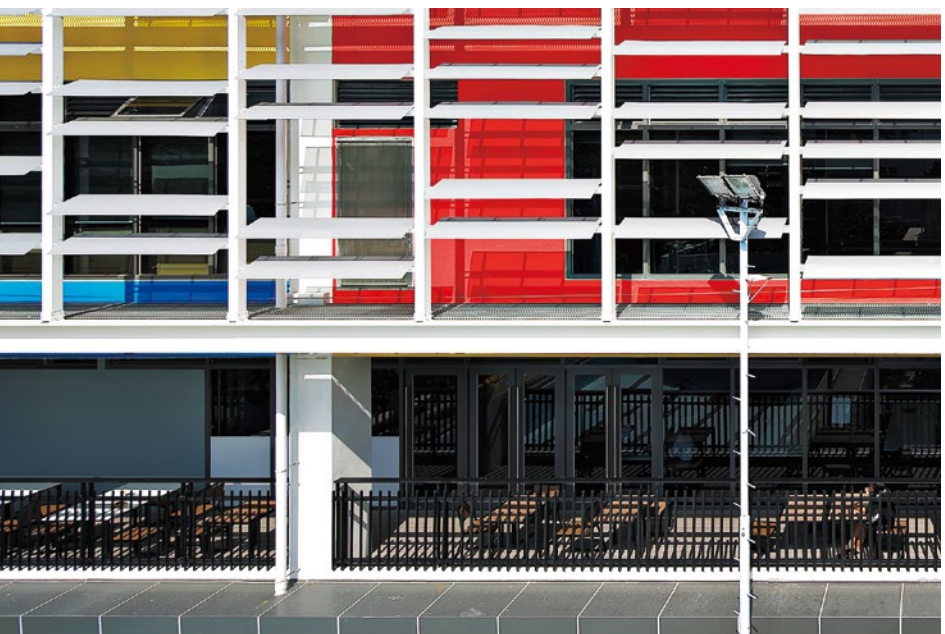
The horizontal sun-shading devices are incorporated in the façade of the building to minimise the impact of the southern sun to the internal areas. Typical floors take a simple rectilinear form with a shallow depth which can promote good cross ventilation through the building. Building layout with its service core at the western end alleviate the effect of solar heat gain to functional rooms. Headroom of each typical floor is maximised to provide natural daylight and good ventilation in the interior spaces. Building materials with recycled contents such as recycled timber, carpet, and linoleum etc. are carefully chosen.

演艺大楼是历史悠久的英皇佐治五世学校内的顶尖新建建筑，以应付现时校园空间的不足。学校要求大楼的设计和功能与原来的主楼统一，可以保留原来的历史文化之余也不失创意。

建筑师巧妙地将本生长于旧饭堂的后园的一棵 18 米高大榕树变成设计的重心。位于演艺大楼最底两层的新饭堂绕树而建以「怀抱」大榕树，露天剧场于底层饭堂的末端展开，将树台的空间延伸至一楼的饭堂平台，并融合室内与室外的空间。置于二至五楼音乐及戏剧工作室外的露台用作师生的休憩及小型表演空间。

为减低由南方射进室内的日光，向南的主立面安装了横向的挡阳板。演艺大楼采用传统学校的直线型建造，楼宽较浅，令大楼渗透凉风。每层的头顶空间设计至最高，为室内空间吸纳最多的自然光，同时能享受极佳的通风效果。建筑师更精心挑选了循环再造物料如再生木材、地毯和油毡等，希望能为师生打造最优质的绿色校园。







New Buildings Category 新建建筑类别
Completed Projects - Institutional Building 已落成项目 – 公用建筑

FINALIST 入围项目

Redevelopment of Kwun Tong Swimming Pool Complex and Kwun Tong Recreation Ground
重建观塘游泳池场馆及观塘游乐场



Team or Organisation Name
Architectural Services Department, Government of the HKSAR

Client / Developer
Leisure and Cultural Services Department, Government of the HKSAR

Location
Kwun Tong Swimming Pool:
02 Tsui Ping Road, Kwun Tong, Kowloon, Hong Kong;
Kwun Tong Recreation Ground:
06 Tsui Ping Road, Kwun Tong , Kowloon, Hong Kong

Completion Date
24 January 2015

Site Area
3.9 hectares

Gross Floor Area
17,545.72m^2

Project Manager
Architectural Services Department, Government of the HKSAR

Architect
Ronald Lu & Partners (Hong Kong) Limited

Civil & Structural Engineer
Mott MacDonald Hong Kong Limited

Building Services Engineer
Mott MacDonald Hong Kong Limited

Quantity Surveyor
Langdon & Seah Hong Kong Limited

Landscape Architect
ACLA Limited

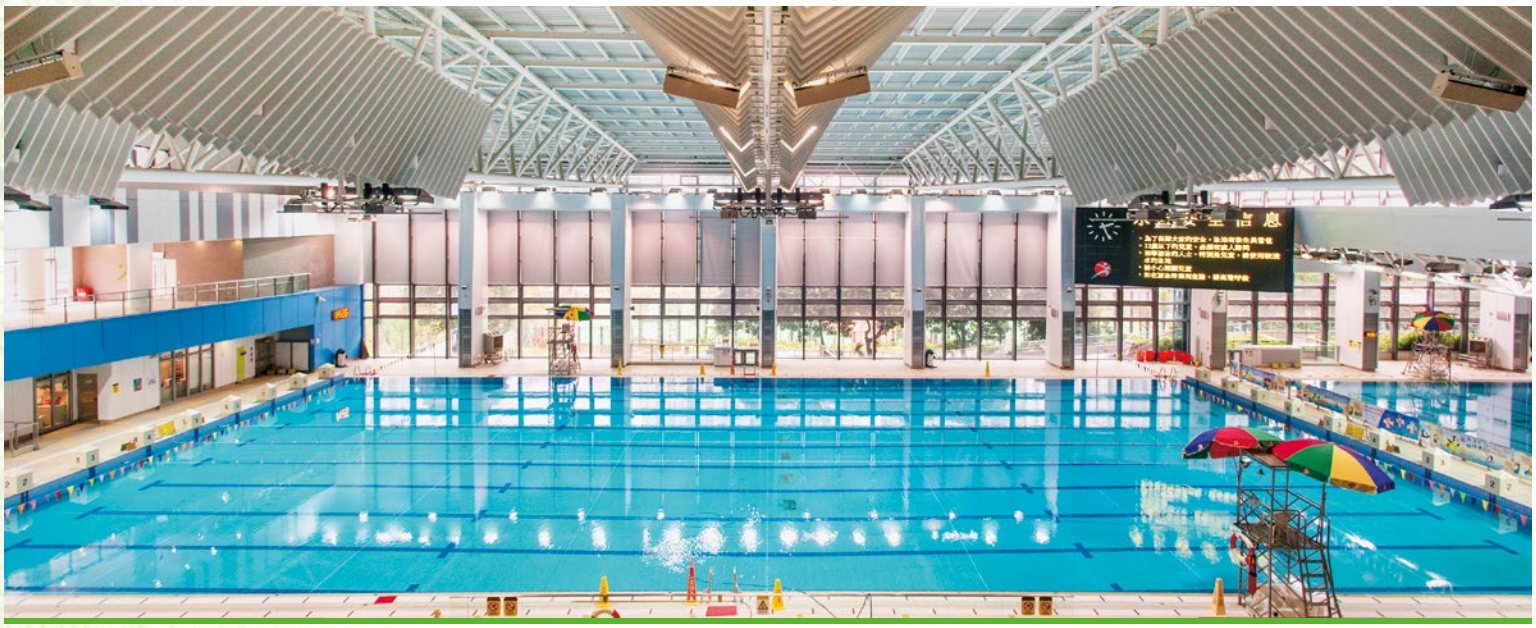
Sustainable Design Consultant
Allied Environmental Consultants Limited

Environmental / Ecology Consultant
Allied Environmental Consultants Limited

Main Contractor
Gammon Construction Limited







The redevelopment of the Swimming Pool Complex and Recreational Ground was planned in 2 phases. The new Pool Complex was completed in Q1 2013 and the Recreation Ground was completed in Q4 2014. The design envisaged a holistic integrated passive design approach in response to the site and environments. The disposition of the building and open spaces were in-line with the proposed urban renewal scheme.

As one of the most important community facilities in Kwun Tong, the project aspires to be a socially responsible architecture to the people in Kwun Tong. The transformation of the old swimming pool was carried out in stages, ensuring no interruption of pool services to the general public. Noise monitoring plan, waste and water management plan are deployed during the demolition and construction to mitigate the environmental impact. End-user has been engaged throughout the design, construction and post-occupation stages. The project has already obtained the HK-BEAM Platinum Rating.

The Complex orientates to maximise natural light for the Indoor Pool Hall relying solely on passive and/or mechanical ventilation for the 1,500 seat spectator stand. Natural ventilation is enhanced through public areas. Extensive greenery is provided and an outdoor landscape deck continues the green carpet concept around the building exterior, bringing public from recreation ground to spectator stand level by universal access. Photovoltaic panels, solar tubes, rainwater recycling facilities are deployed to encourage renewable energy and reduction on energy consumption.

This project demonstrates how sustainable design can be carried out with due consideration to the social aspect, people, showcasing not only a sustainable design with high building performance, but a design that caters for the need of the community, leaping into a demo of social sustainability.

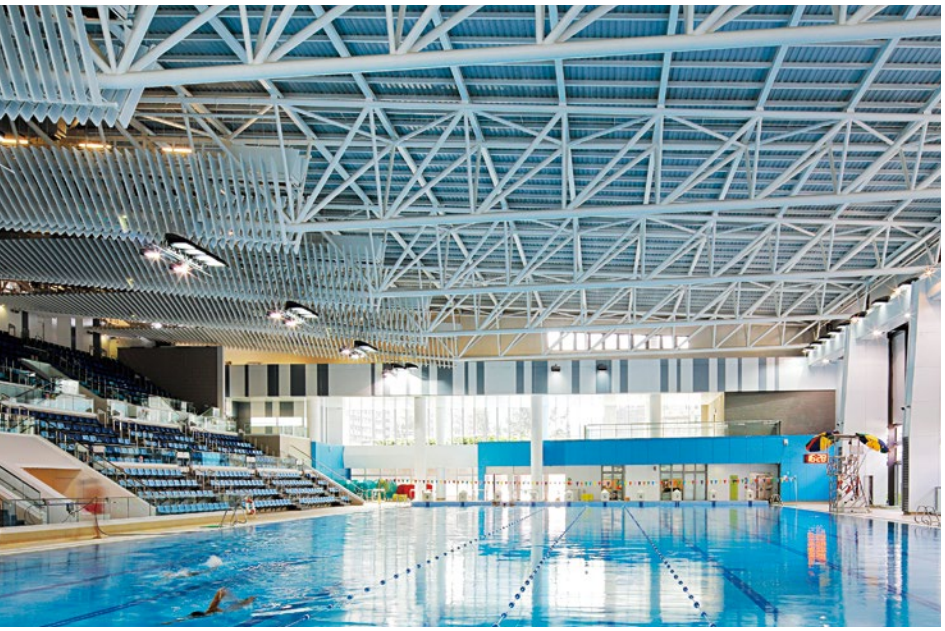
为满足区内日益增长人口的需求，观塘泳池场馆及观塘游乐场重建计划分成两个阶段，第一阶段兴建新泳池主楼，包括 1,500 座的看台和符合国际游泳总会竞赛标准的 50 米室内比赛泳池。第二阶段兴建足球场和篮球 / 排球场等户外休闲设施。

新设计融汇现场环境，以延续不断的绿化气息，使新泳池大楼和公园融为一体。宽阔的绿化平台彷如一张绿毯围绕著大楼，引领公众由观望台经过蜿蜒的室外小径，途经游乐场漫步至公园。大量可持续发展元素包围整个重建计划，为社区带来丰富的体育设施及舒适的休憩环境。

主大楼的建筑采用被动式设计，由两建筑主体构成，利用平立面的变奏，使视觉变得轻盈，于相对平坦的地段连接及提供各种活动空间。主大楼座向充分考量日光照射，大量引入自然光，营造一个天然环境，并阻隔来自室外的噪音及污染物。宽广开扬的大堂设计有效加强自然通风效果，为大楼营造宽敞及舒适的效果。而立面以玻璃覆盖，斜角屋顶宛如在大楼上方升起，呈现了建筑横向延展的美态。

设计渗入不少挡阳元素和动态系统，加上场内外种植了不同品种的植物，均有效减低热能，配合可再生能源科技，达到节约能源的效果。








游泳池
KWUN TONG
SWIMMING POOL



New Buildings Category 新建建筑类别

Projects Under Construction and / or Design - Residential Building 兴建及 / 或设计中项目 – 住宅建筑

MERIT AWARD 优异奖

Redevelopment of Kwun Tong Staff Quarters at Tseung Kwan O Road, Kowloon
九龙将军澳道观塘职员宿舍重建计划



Team or Organisation Name
Architectural Services Department, Government of the HKSAR

Client / Developer
Immigration Department, Government of the HKSAR

Location
4 Tseung Kwan O Road, Kwun Tong, Kowloon, Hong Kong

Completion Date
Mid 2019

Site Area
0.41 hectare

Gross Floor Area
31,070m^2

Project Manager
Architectural Services Department, Government of the HKSAR

Architect
Ho & Partners Architects, Engineers & Development Consultants Limited

Civil and Structured Engineer
Meinhardt (C & S) Limited

Building Services Engineer
Parsons Brinckerhoff (Asia) Limited

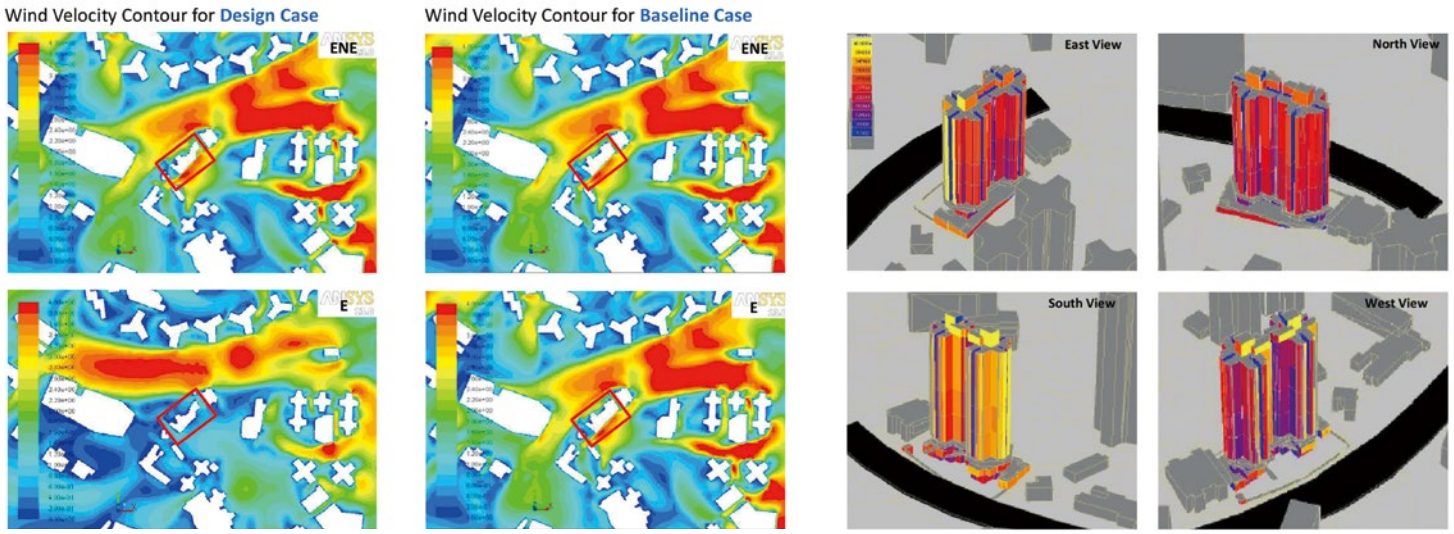
Quantity Surveyor
Langdon & Seah Hong Kong Limited

Landscape Architect
Urbis Limited

Main Contractor
Yau Lee Construction Co., Limited

Environmental Consultant
Meinhardt Infrastructure and Environment Limited





Situated in a densely populated area with environmental issues, the development takes a holistic approach to demonstrate and implement the idea of “GREEN” in its life cycle. From inception, design, construction and completion; from landscaping to building structure and interiors; from design consultants to builders and end users; from passive design to active energy saving device and energy every party plays an important role in each stage of the development. The project is targeted to achieve at least GOLD rating in BEAM Plus Certification organised by HKGBC.

The landscape theme of Green Living is to provide a context for healthy living primarily for the residents and to a lesser extent the community at large.

The landscape design demonstrates the overall “greenness” of the project with various landscape open spaces to be provided at different levels within the development, which are accessible to all residents to enjoy and to project the sense of openness, bold yet welcoming landscape, and a symbol of new healthy living style that will integrate well within the local community.

Various measures have been taken to maximise the sustainability performance of the building including high extent of modular and standardised design for structural and façade elements, architectural and internal building elements, and building services elements; optimising building setback and separation from site boundary to allow wind penetration; arranging windows to minimise undesirable solar heat gain, etc. The building sustainability performance has also been verified by use of various models e.g. CFD model, DIALux and EMSD LCEA Tool.

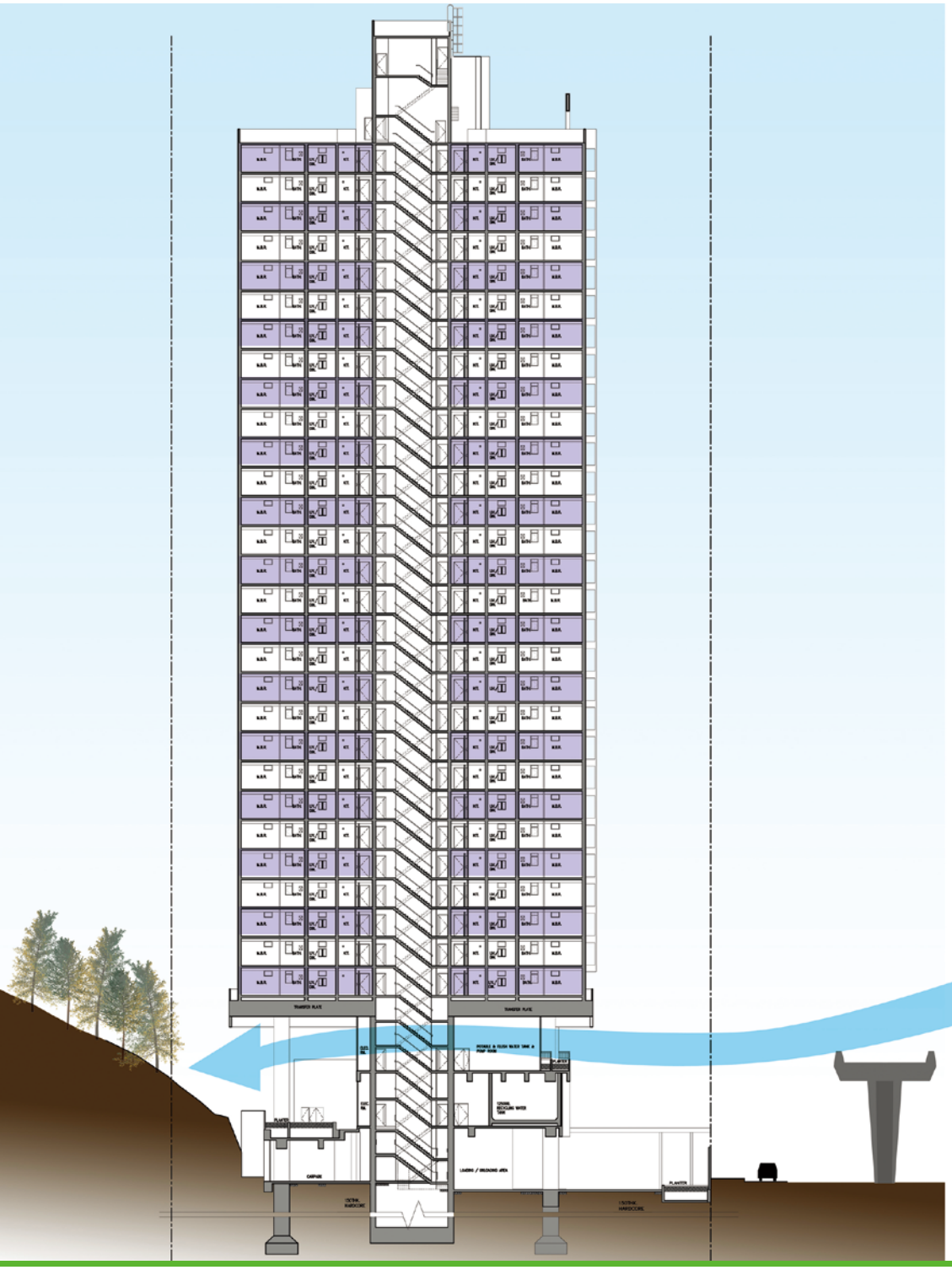
项目座落于闹市中，面对多种环境问题。项目需要从整体布局的考虑上去实行及展示其「绿色」的意念。无论是从项目的构思、设计、建造及完成；从园景、大厦结构到户内；从设计顾问、承建商到用家；从被动式的设计到节能装置，所有团体在项目的每个阶段都扮演著重要角色令到项目可以达到香港绿色建筑议会绿建环评中准「金」的评级。

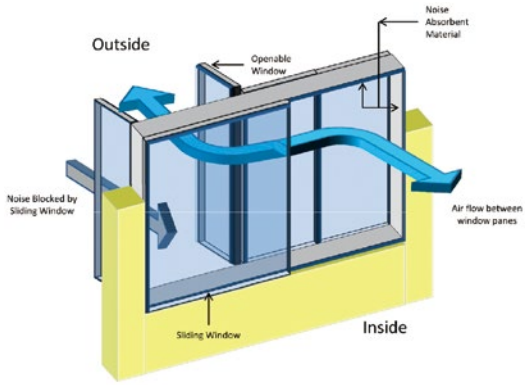
绿色生活是园境设计主题。其目的是为居民和社区提供健康生活。

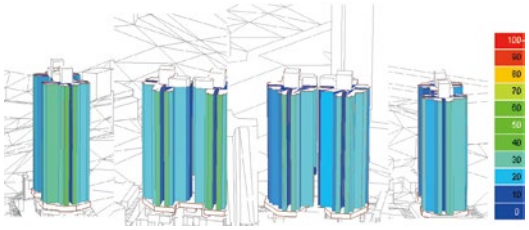
在园境设计中会演示各种不同景观的绿色意念，使所有居民能感受开放空间及大胆的园境设计，这新的健康生活方式将会融合当地社区。

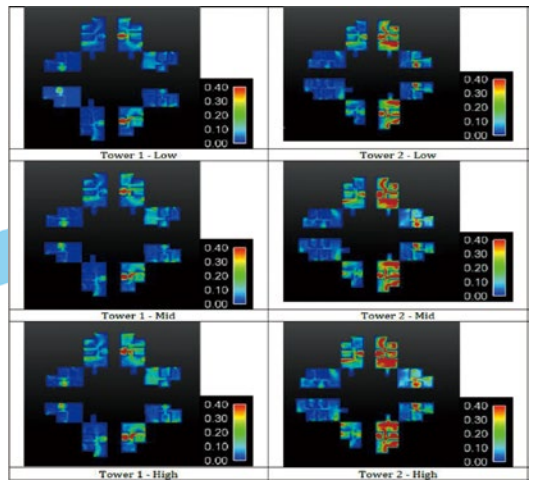
项目已采取不同的措施令其表现出最好可持续性，包括在建构、外墙、大厦内部的建筑部分 (间墙、楼面、面楼梯等等) 使用大量的标准化预制组件；最大化项目边界与周边建筑物的间距令通风更加良好；合理地安窗口位置以减少不必要的日照升温等等。

另外，项目可持续性表现经多个电脑模拟验证，如 CFD 模拟、室内外光照模拟以及机电工程署的建筑物能源评估工具等等。




Outside
Noise Absorbent Material
Openable Window
Noise Blocked by Sliding Window
Air flow between window panes
Sliding Window
Inside


100+
90
80
70
60
50
40
30
20
10
0


0.40
0.30
0.20
0.10
0.00
Tower 1 - Low
Tower 2 - Low
Tower 1 - Mid
Tower 2 - Mid
Tower 1 - High
Tower 2 - High

New Buildings Category 新建建筑类别

Projects Under Construction and / or Design - Residential Building 兴建及 / 或设计中项目 – 住宅建筑

FINALIST 入围项目

MOUNT PAVILIA

傲泷



Team or Organisation Name
Wong Tung & Partners Limited

Client / Developer
New World Development Co. Limited

Location
663 Clear Water Bay Road

Completion Date
31 December 2016

Site Area
6.68 hectares

Gross Floor Area
Total Domestic GFA: 98,200m^2
Total Non-Domestic GFA: 1,998m^2

Project Manager
NW Project Management Limited

Architect
Wong Tung & Partners Limited

Civil & Structural Engineer
C M Wong & Associates Limited

Building Services Engineer
WSP | Parsons Brinckerhoff

Quantity Surveyor
WT Partnership

Landscape Architect
Adrian L. Norman Limited

Main Contractor
New World Construction

Sustainable Design Consultant
Ove Arup & Partners Hong Kong Limited

Environmental Consultant
WSP | Parsons Brinckerhoff

Cascading building profile improving natural lighting and ventilation



Integration of outdoor and indoor living space



Use of recyclable and non-extravagant materials



Climatic responsive building façade



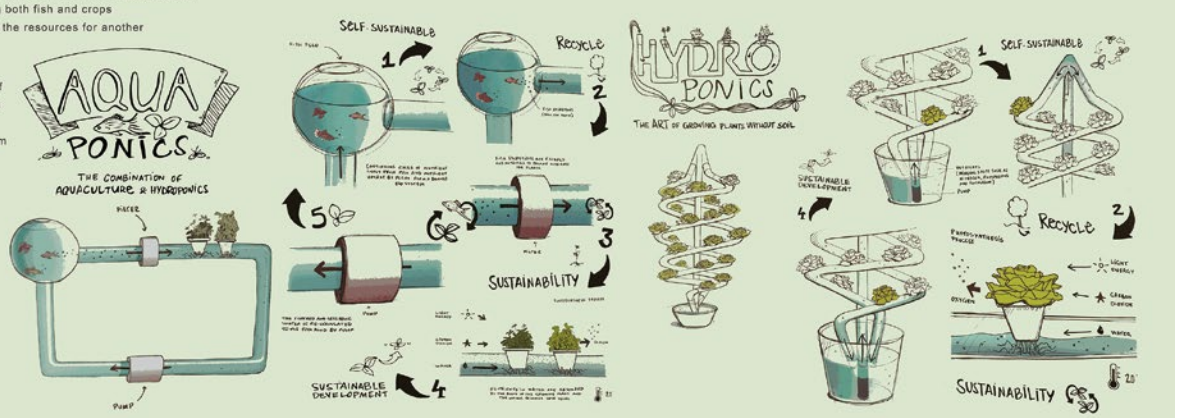
RESOURCES | material use & sustainability

Aquaponics: Waste Management, Life Cycle and Environmental Perspective

- 1st Aquaponics System integrated in New Residential Development in Hong Kong
- Integration of an Eco Pond with Hydroponics and Landscape design
- Modern integral farm for farming both fish and crops
- Waste from one system used as the resources for another

Education Platform

Aquaponics Systems shall consist of Eco Pond Systems and Hydroponics Systems. This aims to act as environmental & educational platform to demonstrate the knowledge of ecology and its benefits.



New World Development is creating a new lifestyle for tomorrow called “Sculpture Park Living,” which is epitomised in their breakthrough residential project: MOUNT PAVILIA.

The stunning new residential complex is situated in Clearwater Bay, an area that itself has come to be known as the “back garden of Hong Kong”. Renowned for its idyllic green spaces, breath-taking seascapes and natural resources.

Creating a future of green living

Sustainable development is an important factor in maintaining a balanced ecology. With the incorporation of bountiful green spaces that showcase the significance of the nature of life, it is important to educate the next generation on environment friendly and organic practices through interactive and first-hand experience.

The family urban farm in MOUNT PAVILIA reflects green living in an active and educational walk of four-step process. The bicycle parking spaces at the development encourage residents to use environment friendly forms of transportation, which will help in reducing pollution; the planting gardens and education area allow children and parents to plant crops together and experience nature’s ecosystems through Aquaponics and Hydroponics at first hand. The dining and barbecue area allows residents to experience the process of preparing a meal from scratch while cherishing the importance of food resources and reducing waste.

In recent years, outdoor activities such as picnicking, hiking, and cycling have become highly popular with the Hong Kong public. The architectural planning of MOUNT PAVILIA has taken this interest into account, and incorporated these pleasures into every aspect of the living space design.

Within the project area, there are over 345,000 square feet of clubhouse and landscape area, approx. 400-metre-long hiking trails, an approx. 85-metre-long art trail, and an approx. 950-metre-long cycling track[1]. These allow residents to enjoy the outdoors, and experience all that nature has to offer right in the comfort of their own home, thus helping to create a healthy new lifestyle tailored to one’s individual tastes: the true embodiment of The Artisanal Movement.

新世界发展将这个雕塑公园智慧和文化涵养的未来式生活概念，定性为「雕塑公园生活」(Sculpture Park Living)，并将之呈现于住宅建筑项目之中，以未来居住思潮的概念，创建位于清水湾的物业发展住宅项目 MOUNT PAVILIA 傲泷。

全新概念物业发展住宅项目 MOUNT PAVILIA 傲泷落户「香港后花园」[2]，清水湾得天独厚，坐拥清幽环境，展现其大自然美景。

融入绿色生活 建构未来生态

可持续发展是维持未来生态的重要概念，除了以大量的绿化空间呈现大自然的生机，更要透过互动、可以参与的亲身体验，向下一代灌输环保有机意识。

傲泷中的亲子有机园圃，以四部曲体现现代绿色生活，项目设有单车停泊处，鼓励居民以绿色交通工具代步，减少污染；其后的种植园圃和教育区，让孩子与家长一同亲手种植农作物，以鱼菜共生、原始水耕的种植方法灌溉植物，认识大自然的生态系统。最后的用餐及烧烤区，让他们完整经历食物由零开始到可食用的过程，真切感受珍惜食物和环保的重要性。

近年户外活动大行其道，野餐、行山、踏单车等广受市民欢迎，这些绿色趋势亦尽在傲泷规划之内。项目内逾 345,000 平方呎的会所及园林面积，提供约 400 米长行山径、约 85 米艺游径及约 950 米单车径[2]，令住户拥有让身体呼吸的户外生活，与山光水色共振，赠予住客更宽广的公共生活空间，重建人与人的关系，重建现代生活态度，体现 The Artisanal Movement 丰富生活空间的联翩浮想的理念。

1. Hong Kong Fun in 18 Districts – Welcome to 18 Districts - http://www.gohk.gov.hk/eng/welcome/sk_intro.html (Extracted on 13 January 2016)
2. 香港自游乐在 18 区 - 齐来 18 区 - http://www.gohk.gov.hk/chi/welcome/sk_intro.html (撷取日期 :2016 年 1 月 13 日)

VISION and TEAMWORK | **site planning**

- Site Area: approx. 719,000 sq.ft. (over 1nos. of the Hong Kong Zoological and Botanical Gardens)
- Landscape & Clubhouse area: approx. 345,000 sq.ft. (over 4nos. International football match pitch)

PERMEABILITY
- 10m/25m wind corridor
- Buildings height not exceed ridge line of the nearby mountain

GREENERY
- Central Green

UNIT MIX / DIVERSITY OF FLAT MIX
- 27 towers with 680 units
- 7 building types
- 12 unit types



ENVIRONMENTAL CONSIDERATION | **energy and towards Zero carbon**

Energy Saving



14% Energy Saving against BEC 2012 achieved by high performance of VRV & split-type units and CO sensor in car park

Renewable Energy

100% Energy consumption for main lobby lightings by
- 13 nos. of wind turbines (8m tall) producing total 39,000W
- 80m2 of PV panels producing total 12,000W

Shower hot water use for 50 persons per day by
- 4,000L solar hot water supply for clubhouse per day

Integration of biggest scale application of wind turbines into residential development in Hong Kong

Overcome various design concerns in residential development

13 nos. of wind turbines (8m tall) are integrated into this residential development to demonstrate and promote sustainability into living environment and community



Solar hot water panel



Illustration infrastructure for renewable energy generation and usage at public area



Wind turbine

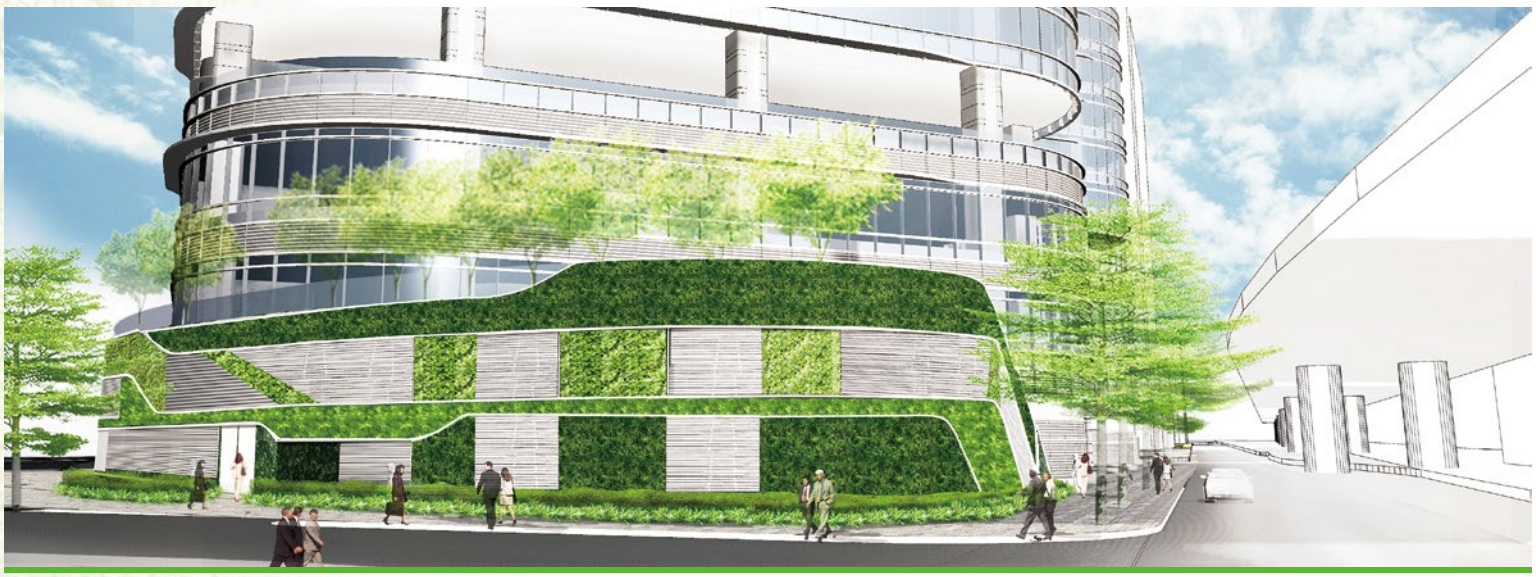
New Buildings Category 新建建筑类别

Projects Under Construction and / or Design - Commercial Building 兴建及 / 或设计中项目 – 商业建筑

MERIT AWARD 优异奖

77 Hoi Bun Road

海滨道77号



Team or Organisation Name
Century Land Investment Limited

Client / Developer
Link Asset Management Limited and Nan Fung Development Limited

Location
Kwun Tong, Hong Kong

Completion Date
2019 (Tentative)

Site Area
0.68 hectare

Gross Floor Area
82,000m^2

Project Manager
Land Champion Limited (Subsidiary of Nan Fung Development Limited)

Architect
P&T Architects and Engineers Limited

Sustainability Consultant
Ove Arup & Partners Hong Kong Limited

Structural Engineer
AECOM Asia Co. Limited

Electrical & Mechanical Consultant
Parsons Brinckerhoff (Asia) Limited

Landscape Consultant
AECOM Asia Co. Limited

Interior Designer
CL3 Architects Limited

Quantity Surveyor
Langdon & Seah HK Limited

Traffic Consultant
Ove Arup & Partners Hong Kong Limited

Acoustic Consultant
Shen Milsom & Wilke Limited

Façade and BMU Consultant
Buro Happold Engineering Limited

Lighting Consultant
LIGHTLINKS International Limited

Lease Consultant
Knight Frank Petty Limited

Safety Consultant
ASCC Limited









The proposed commercial development at New Kowloon Inland Lot No. 6512 envisions a welcoming, healthy, and sustainable office architecture in the heart of Kowloon East, where accordingly to the vision of Energizing Kowloon East Office, the once industrial neighbourhood would become a green and highly liveable CBD of Hong Kong. In line with the community's visionary future, this project advocates a delightful balance between optimal user experience and community engagement, and a harmonic design vision that encompasses concepts of commercial viability and environmental responsibility.

1. Functionally, the project aims at the making of healthy through appropriate use of shading devices, non-toxic finishes and maximum views and natural light.

2. Socially, the public podium garden for healthy exercises and outdoor relaxation consolidates the project's identity as an urban oasis, while its unique location at the pedestrian junction between downtown Kowloon Bay and the waterfront allow the building to stand in the public realm as a prominent advocate for a green community.

3. Environmentally, the variety of green technologies and passive design strategies ensure the building's long term sustainability, and low energy consumption and carbon emission.

From building orientation and massing, diverse functional programme, innovative technologies, landscape design, to the pursuit of work-life balance and community engagement, the project exemplifies an integrated design approach that involves seamless exchange and coordination among various design disciplines and the client in the making of an office architecture with optimal performances functionally, socially, and environmentally.

在政府整个「起动九龙东计划」的推动下，九龙湾至观塘一带的旧工业区在未来将逐步转型为香港新一代的绿化核心商业区。适逢本项目位于计划范围的中心地段，发展目标亦相应地从环境保育和健康生活出发，期望为该社区提供一个健康、舒适，并可持续发展的商业空间，并为环保建设的公众教育出一分力。

为有效提升能源效益，本项目在节能减废方面进行一连串策略措施。除了严密地考虑建筑物座向及体积分布与周围环境的关系外，室内空间的质素亦随广泛应用环保建筑技术与遮阳装置而大大提升，致力减少能源消耗及炭排放量之余又可令室内空间更健康和舒适。

另外，利用其优越地理位置及四方八达的交通，本项目更希望为社区打造一个城市绿洲。除了在地面范围大量种植翠绿植物外，外墙亦安装垂直绿化，提供一个写意荫凉的空间予行人使用。此外，三楼的公共平台花园亦提供园林景致和缓跑径，市民在花园休憩及欣赏海滨景观之余，也可使用设施健身，以此推动健康生活。

透过与社区的互动和崭新环保科技，本发展可望为九龙东带来一个充满生机的绿化公共及商业空间，切实地贯彻城市绿化和健康生活的宗旨。




MUJI
無印良品

New Buildings Category 新建建筑类别

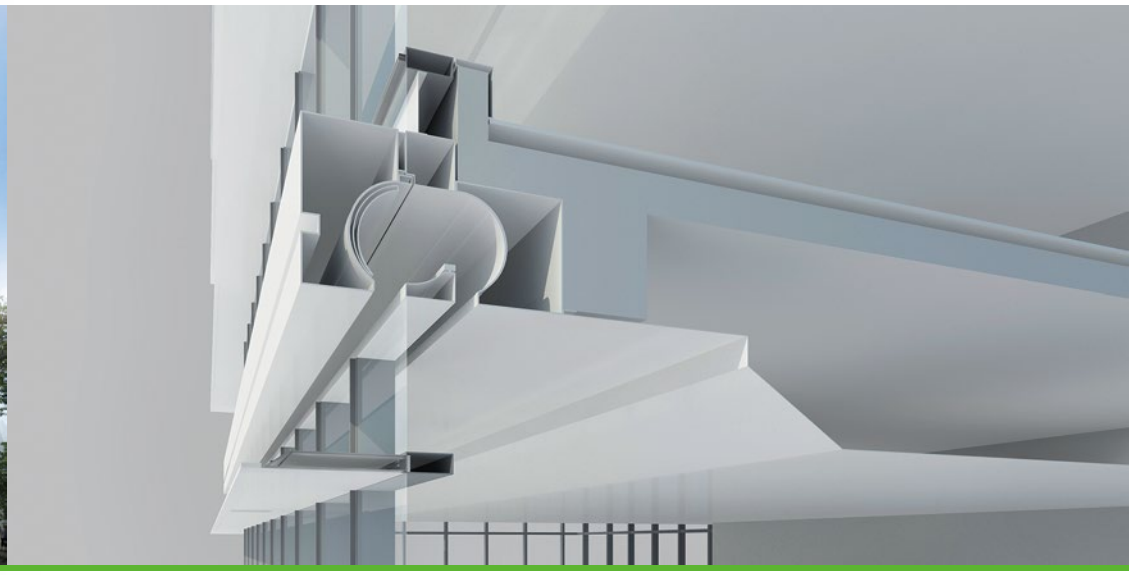
Projects Under Construction and / or Design - Commercial Building 兴建及 / 或设计中项目 – 商业建筑

MERIT AWARD 优异奖

200-218 Electric Road Office Development

电气道200-218号写字楼项目





Team or Organisation Name
Henderson Land Development Co. Limited

Client / Developer
Vansittart Investment Limited

Location
Nos. 200-218 Electric Road, North Point, Hong Kong, PRC

Completion Date
4th Quarter 2019

Site Area
0.09 hectare

Gross Floor Area
13,378m²

Project Manager
Henderson Real Estate Agency Limited

Architect
Dennis Lau & Ng Chun Man Architects & Engineers (H.K.) Limited

Civil & Structural Engineer
Stephen Cheng Consulting Engineers Limited

Building Services Engineer
P&T (M&E) Limited

Quantity Surveyor
Davis Langdon KPK (Hong Kong) Limtied

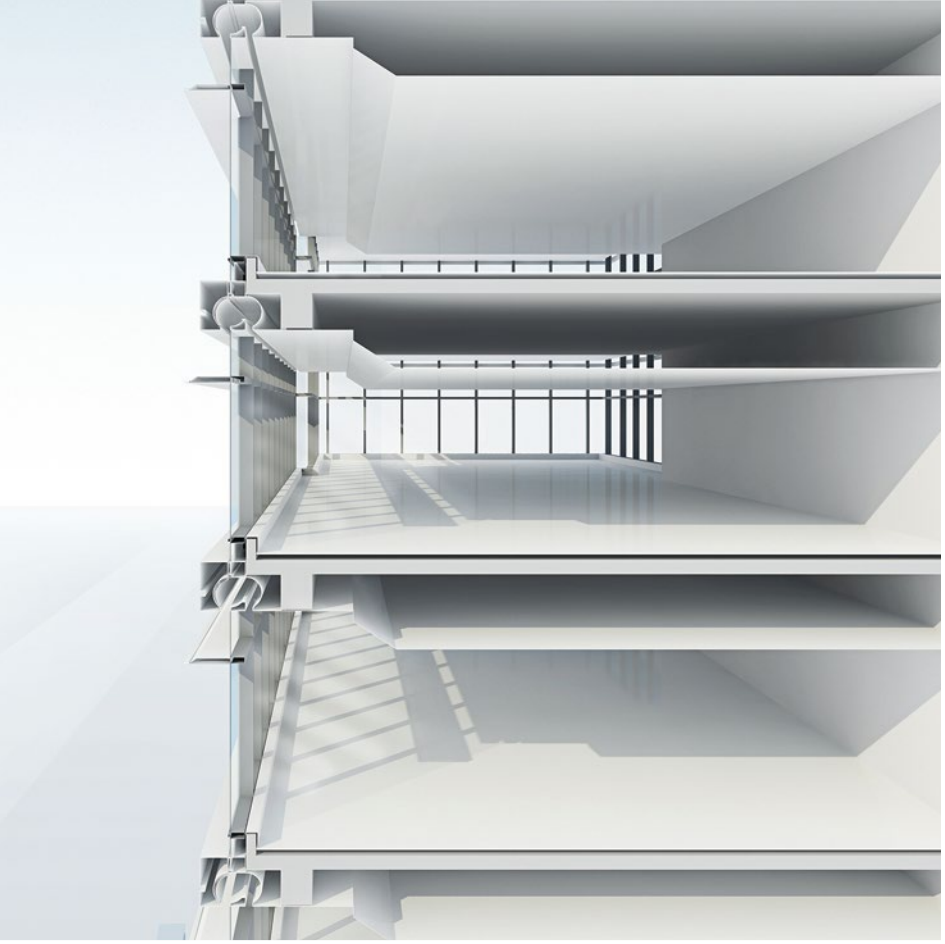
Sustainable Design Consultant
Ove Arup & Partners Hong Kong Limited

Wind / Air Ventilation Consultant
Ove Arup & Partners Hong Kong Limited

Owners Association
Henderson Real Estate Agency Limited

Façade Consultant
Meinhardt Facade Technology (HK) Limited

Acoustic Consultant
AECOM Asia Co. Limited









Office building design is experiencing the second wave of transformation since the invention of air conditioning and curtain walls. With more people working indoor, the demand for mechanical system that can cater to users' desire has improved indoor comfort with improved health. In 2015, average working hours in Hong Kong was 49 hours per week, the highest among the countries surveyed. As the trend of longer working hours continues, healthier workplace has become more critical, placing a greater emphasis on indoor environment and its impact on human wellbeing. Since the inception of the project, the design team of the Electric Road Development (ERD) strives to achieve healthier building culminated in a single coherent synthesised idea of Healthy Buildings for Human Wellbeing.

In addition to the health and wellbeing of the tenant, user-oriented design is also the core design of this project. Users and Stakeholders engagement activity was initiated and performed to generate the KPIs of an user-oriented office building. The final design of the building was based on the KPIs generated to truly realise an user-oriented design of office building.

ERD positions itself to be the first of its kind breakthrough office building. Liquid desiccant cooling system and climate responsive façade are adopted in ERD. The idea of both features are to target to change the perception of comfort and to provide the control to the tenant to decide on their own comfort.

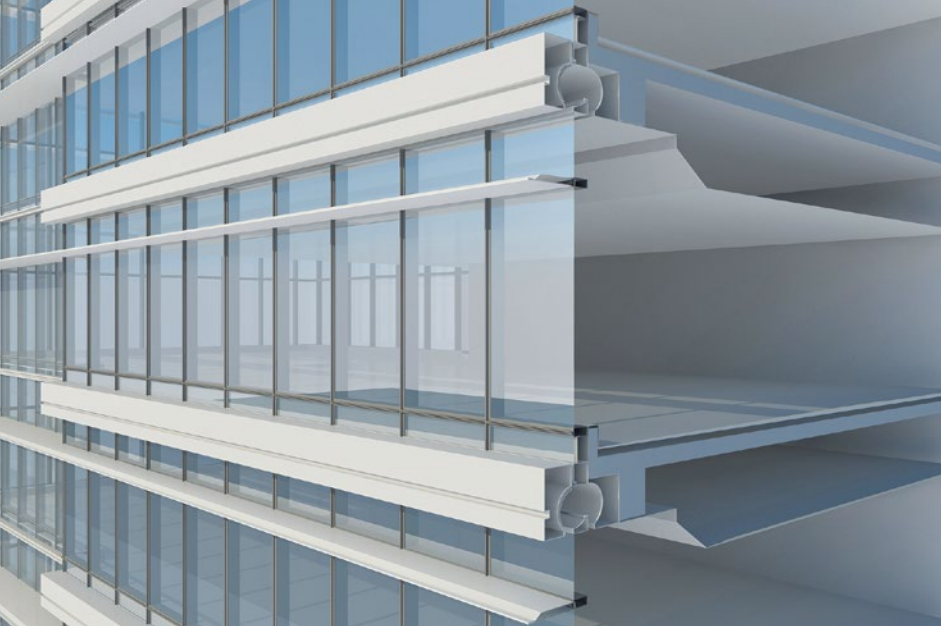
With state-of-the-art technologies and innovative design principles, ERD is targeted to accomplish healthy indoor environment, comfortable indoor space, energy efficient building, and user-oriented design.

自发明冷气机及玻璃幕墙，写字楼设计已经历第二波转变。现时很多人于室内工作，以空调系统改善室内环境及使用者健康的需求日益重要。于2015年，香港人平均每星期工时为49小时，居于各调查地区之首。当工时越来越长，一个健康之工作环境对使用者之重要性相应增加，对室内环境之健康标准亦随之上升。电气道项目 (ERD) 之设计团队从一开始已提出要透过创造一个健康的环境，达致使用者身心健康。

除了关注环境卫生及用者之身心健康外，ERD 亦希望透过用者为本的设计，令大家能更有效地使用各项环保节能措施。鼓励用者及其他持份者利用关键绩效指标，一起参与及互相比较，实现一个真正用者为本的环保写字楼环境。

ERD 希望为环保写字楼之设计带来突破。包括首次于香港的商业项目采用液态除湿系统及可适应天气变化的外墙设计。期望增加大家对环境舒适的认知，和令用者可按需要调节各项环保节能措施。

透过最先进的技术和创新的设计原则，ERD 希望提供健康的室内环境、舒适的室内空间、高效率及以用者为本的建筑设计。









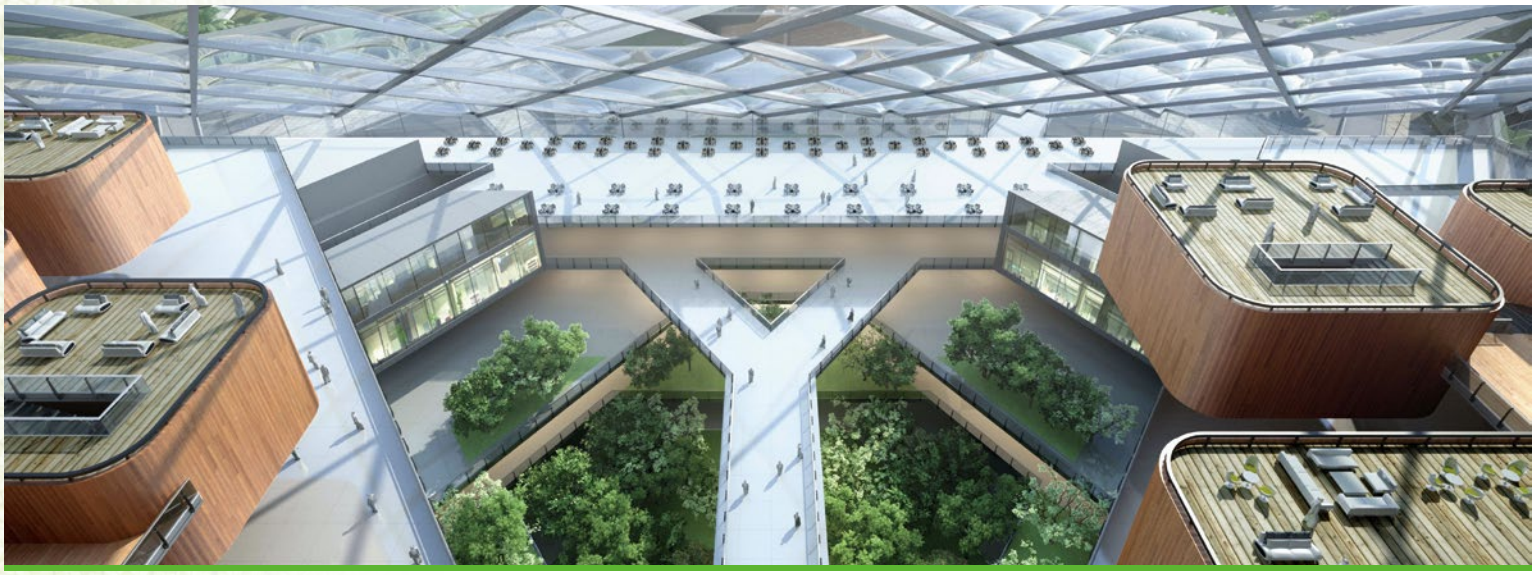
New Buildings Category 新建建筑类别

Projects Under Construction and / or Design - Commercial Building 兴建及 / 或设计中项目 – 商业建筑

MERIT AWARD 优异奖

King Saud University (KSU) Minaret Tower

沙特国王大学尖塔塔楼



Team or Organisation Name
Integrated Design Associates Limited

Client / Developer
King Saud University

Location
King Saud University
Riyadh, Saudi Arabia

Completion Date
To be confirmed

Site Area
8.009 hectares

Gross Floor Area
350,000m^2

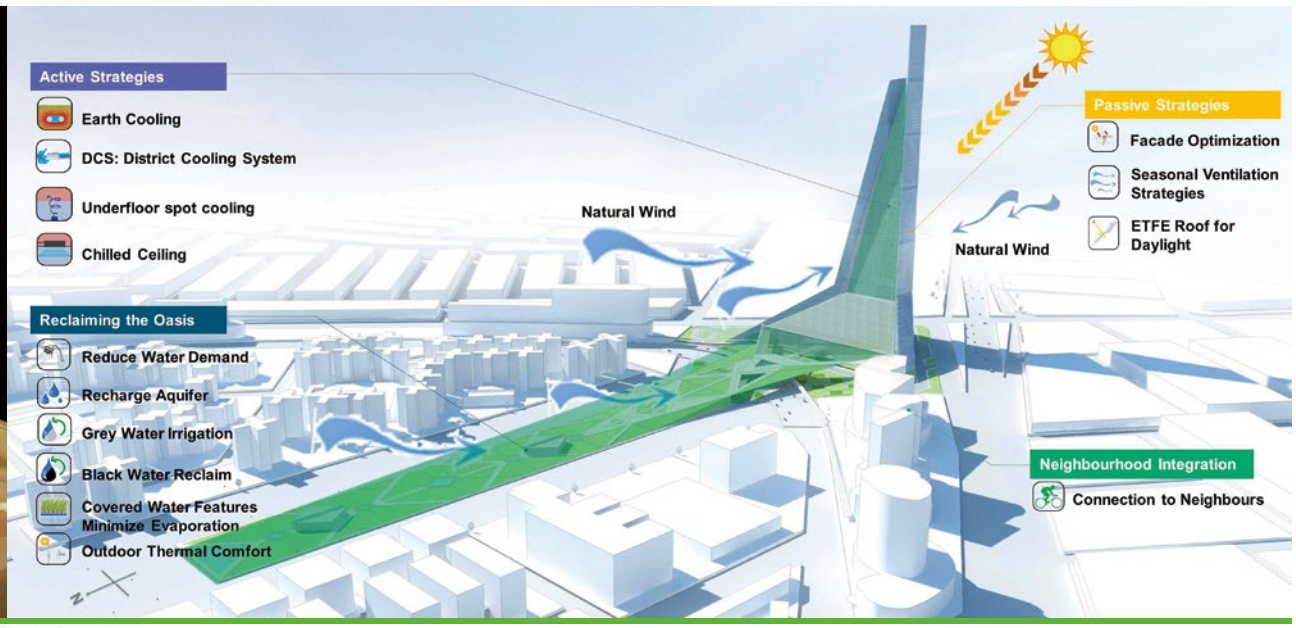
Leading Architect
Integrated Design Associates Limited

Project Manager
Parkview (HK) Limited

Sustainable Design Consultant
Ove Arup & Partners Hong Kong Limited


EVERMOTION





The Minaret Tower sits at the junction of two major thoroughfares and in a commanding location that defines the southern corner of the KSU Campus. At over 400m tall it stands shoulder to shoulder with other tall buildings in Riyadh, it is a landmark building and its prominence will inevitably become the symbol for the University.

The Tower orientates to a North-South axis to harmonise with the principal grid alignment most of the major buildings on campus are planned. The central axial strip, extending from the Tower as landscaped gardens, covered courtyards, sunken conservatories, creates a new Civic Plaza and an Eco Park. It will, in future, become the main urban space that ties all development around the Plaza cohesively.

The Tower is a modern, advanced and environmentally sustainable tour de force. It is an open building designed for the public. Its easy connection with roads and public transport ensures excellent public accessibility and connectivity with other parts of the University. At its heart, under the enclosure of a lightweight, large span ETFE canopy is an Oasis. The green lung provides the users with a visual and thermal relief from the harsh climate outside. All the public areas within the low zone of the Tower, from the Retail Mall to the Convention Centre, encircle the Oasis under one roof.

The east and west side of the Tower elevation have double skin façade. The outer skin forms a passive solar protection layer to shield the building from the harsh climate as well as restricting views that overlook the neighbouring development. It allows natural light to permeate into the inner space, creating a unique atrium between the outer skin and the inner skin that encloses the functional spaces. The void forms a key component for natural ventilation that contributes to the Sustainability Strategy.

Functional organization and massing

Major functions are stackedaccording to the degree of Public / Private interfaces. The higher the floor up the Tower the more private the area becomes:

- Public and private transportation facilities such as car drop-off, car parking, LRT Station are located at the base;
- Retail Mall above car park structures for convenientaccess by public;
- Convention Centre above Retail Mall with shared F & B facilities;
- Hotel above Convention Centre to provide clear and simple connection for guests and conference goers;
- Typical Offices in two separated clusters; and
- Executive Offices at the pinnacle of the Tower.

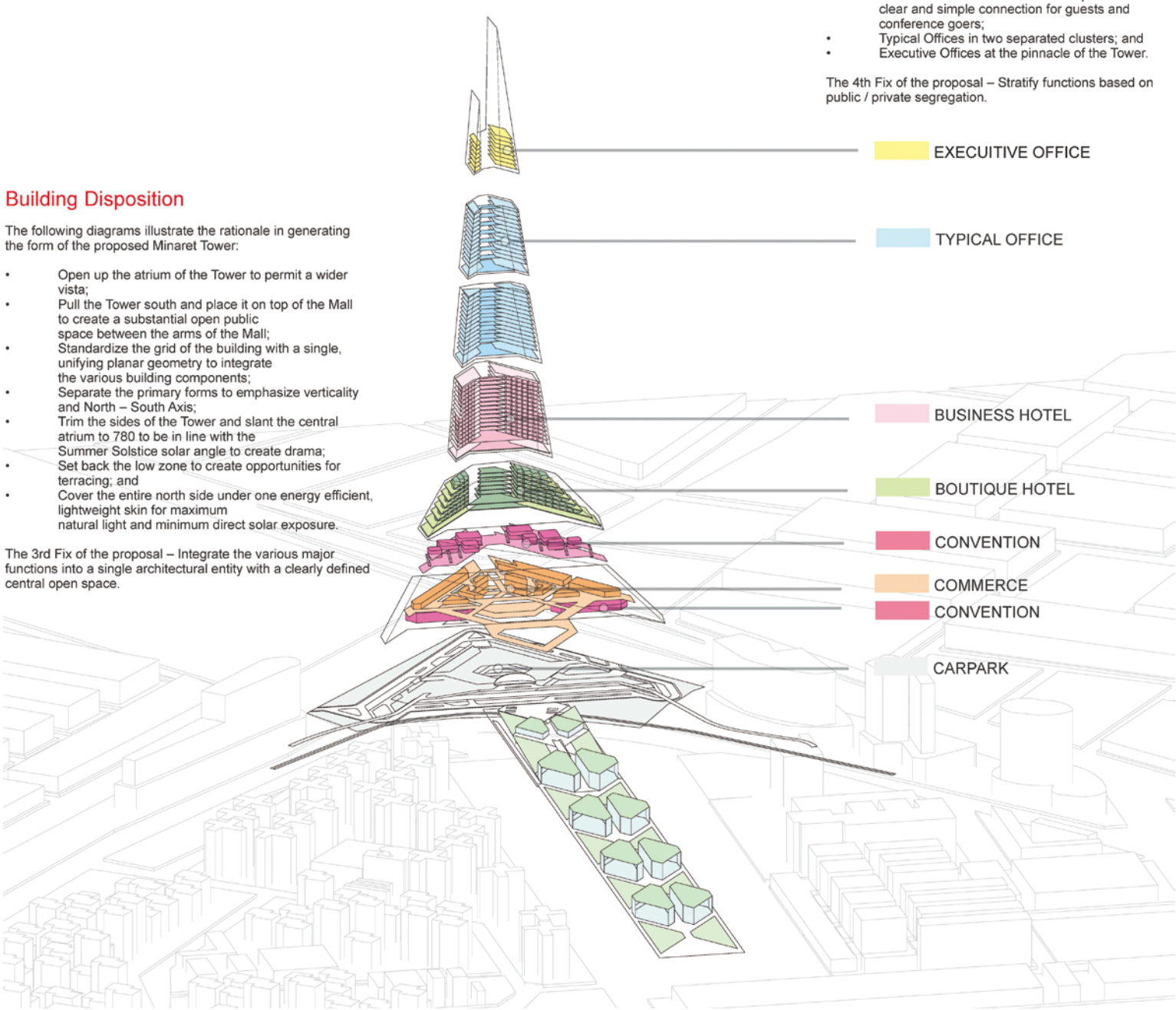
The 4th Fix of the proposal – Stratify functions based on public / private segregation.

Building Disposition

The following diagrams illustrate the rationale in generating the form of the proposed Minaret Tower:

- Open up the atrium of the Tower to permit a wider vista;
- Pull the Tower south and place it on top of the Mall to create a substantial open public space between the arms of the Mall;
- Standardize the grid of the building with a single, unifying planar geometry to integrate the various building components;
- Separate the primary forms to emphasize verticality and North – South Axis;
- Trim the sides of the Tower and slant the central atrium to 780 to be in line with the Summer Solstice solar angle to create drama;
- Set back the low zone to create opportunities for terracing; and
- Cover the entire north side under one energy efficient, lightweight skin for maximum natural light and minimum direct solar exposure.

The 3rd Fix of the proposal – Integrate the various major functions into a single architectural entity with a clearly defined central open space.



New Buildings Category 新建建筑类别

Projects Under Construction and / or Design - Commercial Building 兴建及 / 或设计中项目 – 商业建筑

FINALIST AND SPECIAL CITATION IN ECO-SERVICE INFRASTRUCTURE NETWORK
入围项目及生态环境服务建设网络特别嘉奖

Waste Electronic and Electrical Equipment Treatment Facility (WEEETRF)
废电器电子产品处理及回收设施



Team or Organisation Name
Dennis Lau & Ng Chun Man
Architects & Engineers (HK) Limited

Client / Developer
Environmental Protection Department,
Government of the HKSAR

Location
Eco Park, 133 Lung Mun Road,
Tuen Mun, N.T., Hong Kong

Completion Date
May 2017

Site Area
3.06 hectares

Gross Floor Area
11,527m^2

Project Design-Build and Operate Contractor
ALBA Integrated Waste Solutions Limited

Project Procurement Consultant
Sustainasia Limited

Architect
Dennis Lau & Ng Chun Man
Architects & Engineers (HK) Limited

Civil & Structural Engineer
Hyder Consulting Limited

Building Services Engineer
Hyder Consulting Limited

Green Building / HKBEAM Consultant
Hyder Consulting Limited

Quantity Surveyor
WT Partnership (Hong Kong) Limited

Building Works Sub-contract Contractor
CR Construction Company Limited

Process Equipment Sub-contractor
Erdwich Vertriebs Gmbh







The Waste Electrical and Electronic Equipment Treatment Facility (WEEETRF) is a government-owned industrial facility that exemplifies the principles of “lean, green and clean” architecture of new government facilities.

The building, as massive re-processor of electronic waste, is the first of its kind in Hong Kong.

Commitment to the practice of passive design has reinforced the WEEETRF’s pedagogical function; as well as being an advanced and large recycling plant the WEEETRF is an exhibition, open to the public, of best practice of sustainable living.

Inspired by the Environmental Protection Department’s vision for government buildings, the WEEETRF strives to re-invent the way in which we approach the design of this type of facility.

The public viewing gallery that brings the visitors into the heart of the reprocessing facility is a key feature. The gently ramped and elevated gallery provides a number of viewing platforms throughout its length. No lifts are required and the building is barrier free both in spirit and practice therefore provides an inclusive user experience for all types of visitor.

The simplified, modular structure is designed to be as robust and loose-fitting as possible in order to facilitate future adaptability.

Construction materials have been locally sourced and the building`s footprint and site strategy refined and optimised so as to minimise embodied energy, emissions and construction waste.

Strategies towards low energy and zero-carbon, such as natural lighting and ventilation, along with minimal maintenance planting, have successfully contributed towards a self-sufficient facility with low recurring energy cost.

废电器电子产品处理及回收设施 (WEEETRF) 是全港首座为处理废电器电子产品的大型工业设施。该设施充份体现了现今社会对绿色建筑的要求。

为实践可持续发展的概念，以及提倡环保教育，本设施将会向公众开放，并特意打造一条无障碍的公众访客廊，引导访客到达观景平台，访客俯视整个设施回收线的运作。

WEEETRF 采用模组化结构的设计，以便日后可轻易拆卸并在其他地点循环再用，达至灵活适应未来需求。WEEETRF 采用本地绿色环保建筑材料，以简约设计及建造方法，大量采用自然光和通风，从而有助减低电能消耗和减低碳排放。种植低保养需求的植物亦有助设提高设施的能源效益，贯彻设施可持续发展的理念。











New Buildings Category 新建建筑类别

Projects Under Construction and / or Design - Commercial Building 兴建及 / 或设计中项目 – 商业建筑

FINALIST 入围项目

15 Middle Road Redevelopment



Team or Organisation Name
Wong & Ouyang (HK) Limited

Client / Developer
Smart Bright Development Limited

Location
Tsim Sha Tsui, Hong Kong, China

Completion Date
March 2019

Site Area
0.26 hectare

Gross Floor Area
31,554m^2

Project Manager
Smart Bright Development Limited

Architect
Wong & Ouyang (HK) Limited

Civil & Structural Engineer
Stephen Cheng Consulting Engineers Limited

Building Services Engineer
WSP Hong Kong Limited

Sustainable Design Consultant
Ove Arup & Partners HK Limited

Quantity Surveyor
WT Partnership





SOWING THE "S.E.E.D." FOR FUTURE GREEN LIFESTYLE

15 Middle Road project will be redeveloped into a commercial hub and focus in a prominent commercial and cultural district in Tsim Sha Tsui. The redevelopment will provide various services for the district and neighbourhood, including the required public carpark re-provision, to revitalise the area.

"S.E.E.D." design philosophy underpinning the following sustainable strategies is adopted for the redevelopment to encourage green and healthy lifestyle and strive to lead the trend in sustainable retail development:-

Salubrious Provisions - Enhancing human comfort and health to arouse users' enjoyment and satisfaction.

Energy Efficient Design and Systems – Siting and massing of the building is generated according to the solar movement and air ventilation analysis. High performance façade and high-efficient E & M systems will be designed and adopted to reduce energy consumption.

Evolving Building – Building energy-cum-carbon audit and uses' behaviour data will be collected and analysed in future to enhance building performance.

Depuration in District - Local air purification will be provided through negative-ion purification system and TiO2 membrane integrated facade.

The project offers a 'green' and 'high performance' development model, which will provide a sustainable environment for future users and inspire them to adopt green and healthy lifestyle.

以可持续发展概念 塑造未来绿色生活

中间道 15 号位处于尖沙咀，是一个商业及文化的中心点。项目将重建为一幢 18 层高的商业大厦，为该区带来零售、饮食、消闲、娱乐等各项设施，当中包括原址重置之公共停车场。完成重建后，将为中间道一带带来热闹及多元化的景像，有助推动区内的发展。

项目透过「S.E.E.D.」的概念，涵盖以下之多项可持续发展设计，提倡并鼓励环保及健康的绿色生活，冀能成为引领环保商厦发展的典范。

健康舒适的环境 (Salubrious Provisions) — 项目将引入一系列的配备，以环保的方法调控及优化项目内的环境、空气质素等，提高舒适度，令用户达致身心健康，尽享绿色生活。

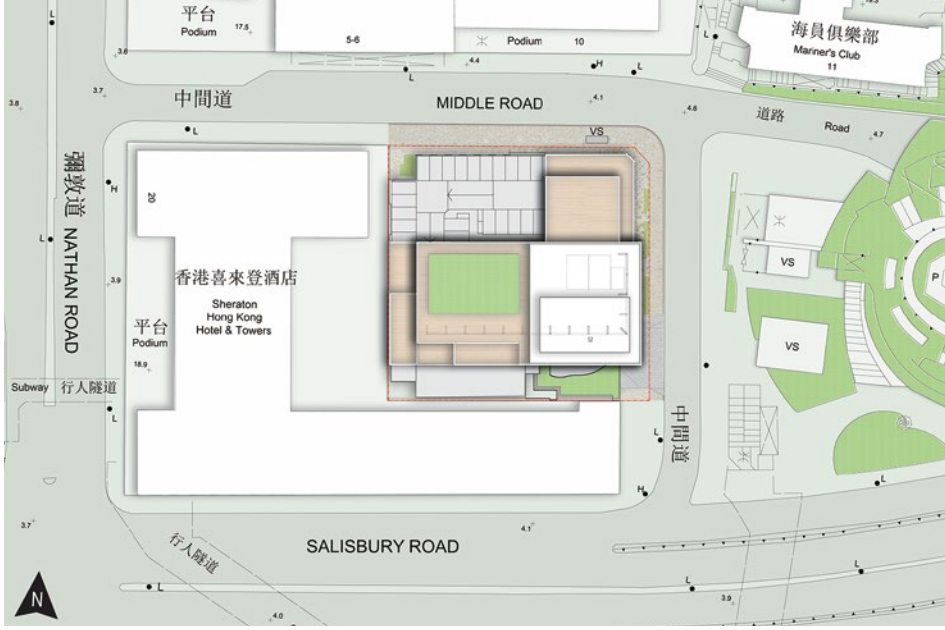
高效能的设计和系统 (Energy Efficient Design and Systems) — 建筑的座向、外观及布局设计，源于日照及空气通风研究结果，加上玻璃幕墙的节能处理及高效能的机电系统，将进一步减少此项目的能源使用及需求。

持续进化的建筑 (Evolving Building) — 建筑节能及二氧化碳排放综合审计，以及用户行为数据收集、分析，可为项目各系统引进适当的监控，以不断提升节能表现，体现持续发展概念。

区域净化 (Depuration in District) — 采用负离子空气净化系统及二氧化钛光触媒薄膜外墙处理技术，以达致减排及区域净化。

项目各方面均贯彻了「绿色」和「高效能」的设计概念，将为未来的用户带来一个可持续发展的环境，带领他们投入健康的绿色生活。




平台
Podium
17.5
5-6
Podium
10
海員俱樂部
Mariner's Club
11
中間道
MIDDLE ROAD
道路
Road
彌敦道 NATHAN ROAD
香港喜來登酒店
Sheraton
Hong Kong
Hotel & Towers
平台
Podium
18.9
Subway
行人隧道
VS
中間道
SALISBURY ROAD
行人隧道
N





New Buildings Category 新建建筑类别

Projects Under Construction and / or Design - Commercial Building 兴建及 / 或设计中项目 – 商业建筑

FINALIST 入围项目

Green Plus Powerland
Hong Kong-Zhuhai-Macao Bridge Substation
绿建新电园 港珠澳大桥变电站



Team or Organisation Name
CLP Power Hong Kong Limited

Client / Developer
CLP Power Hong Kong Limited

Location
Hong Kong Boundary Crossing Facilities (HKBCF), Chek Lap Kok, New Territories

Completion Date
3rd Quarter 2017

Site Area
0.16 hectare

Gross Floor Area
958m²

Project Manager
CLP Power Hong Kong Limited

Architect
Andrew Lee King Fun & Associates Architects Limited

Civil & Structural Engineer
Meinhardt (C&S) Limited

Building Services Engineer
Parsons Brinckerhoff (Asia) Limited

Landscape Architect
Urbis Limited

BEAM Consultant
Ramboll Environ Hong Kong Limited

Quantity Surveyor
Beria Consultants Limited

Foundation Consultant
Yee Hop Construction Co., Limited

Main Contractor
Hip Hing Construction Co., Limited







The new 2-storey electric power substation is situated on a newly reclaimed area at Chek Lap Kok and provides electric power supply to the future Hong Kong-Zhuhai-Macao Bridge transportation hub.

Low Carbon Initiatives Substation

Green practices for the substation has been developed with a systematic and innovative approach. The development of this substation addresses various aspects of environmental protection throughout the entire project life cycle.

More than 30% greenery including vertical green wall creates a welcoming entry and blend-in with the surrounding of the new transportation hub. Rainwater recycling system and automatic dripping irrigation system will save more than 77% water for irrigation when compared with the conventional irrigation system. P.V. panels with solar tracking devices will maximise the harvest of the solar energy which will further reduce power consumption of the substation. Solar tube will be provided to enhance the use of clean natural energy for the interior space.

Building Information Modelling (BIM) will be implemented to enhance coordination among different professional disciplines. Green site office and zero construction waste schemes promote the adaptive reuse of temporary construction materials and reduce cost / wastage for future substation construction.

The green substation not only marks the standard for substation design but also acts as a milestone to strive for environmental excellence continuously.

楼高两层的港珠澳变电站将坐立于新赤腊角填海区，并为未来的港珠澳大桥交通枢纽提供全面电力支援。

倡议低碳的变电站

全球气候变化已成为过去几十年和将来的主要环境问题；因此变电站的设计将尽量加入更多环保及可持续发展的建筑元素。

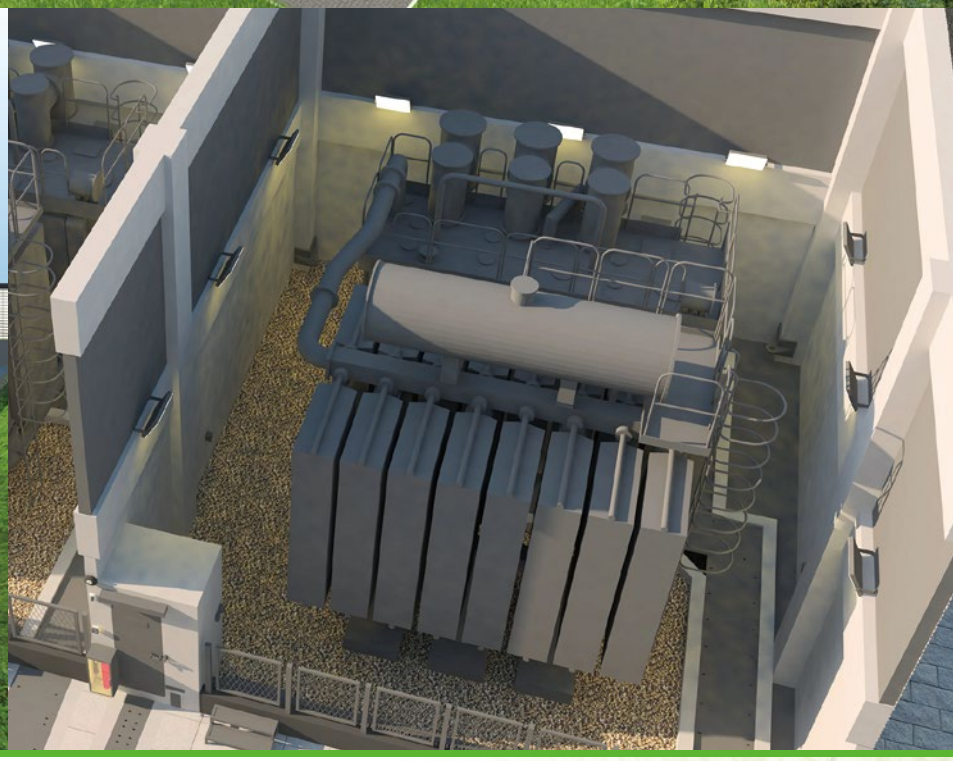
站内的绿化比例将会多于 30％以上，当中的垂直绿化不单营造好客气氛，并与周边的交通枢纽融为一体。当与传统的灌溉系统比较，雨水回收系统和自动滴灌系统将节省超过 77％的灌溉用水。太阳能光伏板更加入太阳追踪装置以便提升收集可再生能源效能，以进一步降低变电站的电力消耗。自然阳光导管将提供洁净的自然光透入室内空间。

建筑信息模拟平台将有助各专业之间之协调。环保工地办公室及零建筑垃圾计划，将推动循环再用建筑物料以减少将来新变电站的开支及建筑废料。

绿色环保变电站不仅标志著变电站设计的标准，更是追求未来更好环境的里程碑。







New Buildings Category 新建建筑类别

Projects Under Construction and / or Design - Institutional Building 兴建及 / 或设计中项目 – 公用建筑

MERIT AWARD 优异奖

A 30-Classroom Secondary School at Kai Tak Development (Site 1A-2)

九龙启德发展计划(地盘1A-2)1所设有30间课室的中学



Team or Organisation Name
P&T Architects and Engineers Limited

Client / Developer
Architectural Services Department,
Government of the HKSAR

Location
Muk Hung Street,
Kai Tak Development Site 1A-2, Kowloon

Completion Date
1st Quarter 2019

Site Area
7,510m²

Gross Floor Area
13,780m²

Project Manager
Architectural Services Department,
Government of the HKSAR

Architect
P&T Architects and Engineers Limited

Civil & Structural Engineer
P&T Architects and Engineers Limited

Building Services Engineer
P&T (M&E) Limited

Landscape Architect
Urbis Limited

Environmental / Ecology Consultant
AECOM Consulting Services Limited









The project is to design and construct a 30-classroom secondary school in Kai Tak Development (Site 1A-2), Kowloon-Cognitio college (Kowloon). The total construction floor area (CFA) is about 13,500m^2. The overall site area is about 7,500m^2 and it is next to Muk Hung Street and Shing Kai Road. The School is be scheduled for completion and handover by 1st quarter of 2019.

This project is in line with the "Green City" concept of Kai Tak Development Area. The highlight of this project is to achieve environmental design via passive building elements rather than the incorporation of relatively high cost building services installations.

The School is designed in low-rise building approach with open, creative, green and naturally ventilated environment (ECOL). This approach significantly minimise the visual impact to the adjacent housing development and provide breezeways and air paths to neighbours.

The 4 distinct upper teaching blocks spatially define the voids and courtyard spaces, whereas the lower building portion provides an elevated podium garden for student outdoor activities. School will open respective functional areas for communal use to promote interaction of the school population with the nearby communities.

The overall greening consists of more than 30% of the site area at ground floor, podium deck, terrace and roof level. On grade greening cover is also more than 20% of site area. In addition, vertical greening wall would be provided for both ornamental and shading purposes.

Various form of energy efficient features and renewable energy technologies would be adopted such as the Rainwater recycling system and Photovoltaic (PV) Panels System.

此项目是位于启德区的三十间班房的中学 - 文理书院（九龙）。总建造面积约为 13,500 平方米。基地毗邻沐虹街与承启道，面积为 7,500 平方米。校员预计 2019 年第一季交付使用。

为配合启德发展区「绿色城市」的概念，此项目的亮点在于通过运用环保建筑设计，而非通过投入相对成本较高的机电服务设施以达到环保要求。

学校运用低密度建筑设计的方法，基于开放创新绿色以及自然通风的设计理念将建筑对附近的住宅通风以及视野影响减少到最低。

学校主体上部由四个独立的建筑体组成并且围合出庭院空间。群楼部分提供了有盖操场等室内活动空间，群楼顶为室外活动用途的平台花园。学校亦会开放部分功能空间供公众使用。

整个项目的绿化面积超过基地面积的 30%，分别位于地面、群楼、各层平台花园以及屋面。地面绿化面积占基地面积的 20%。同时提供了垂直绿化用于观赏及遮阳。

项目采用了多种形式的高效能源和可再生能源技术，如雨水回收系统和光伏面板系统。









New Buildings Category 新建建筑类别

Projects Under Construction and / or Design - Institutional Building 兴建及 / 或设计中项目 – 公用建筑

MERIT AWARD 优异奖

Hong Kong Children's Hospital

香港儿童医院



Team or Organisation Name
Architectural Services Department, Government of the HKSAR

Client / Developer
Hospital Authority

Location
Shing Cheong Road, Kowloon Bay (Site C of South Apron at Kai Tak Development Area), Hong Kong

Completion Date
Mid 2017

Site Area
2.17 hectares

Gross Floor Area
117,973.54m^2

Project Manager
Architectural Services Department, Government of the HKSAR

Design and Building Contractor
China State – Shui On Joint Venture

Architect
Simon Kwan & Associates Limited

Sustainable Design Consultant Wind / Air Ventilation Consultant
Cundall Hong Kong Limited

Building Services Engineer
J. Roger Preston Limited

Civil & Structural Engineer
Meinhardt (C&S) Limited

Landscape Architect
ACLA Limited

Façade Consultant
Meinhardt Facade Technology (HK) Limited

Environmental Consultant
ENVIRON Hong Kong Limited

Traffic Consultant
MVA Hong Kong Limited

Lighting Consultant
LightSource International (Asia) Limited

Medical Planner
Billard Leece Partnership – Medical Planner

Interior Design
Teamdeco Design Limited

Wayfinding Consultant
Marc & Chantal

Acoustic Consultant
Shen Milsom & Wilke


香港兒童醫院
Hong Kong Children's Hospital







The Hong Kong Children's Hospital (HKCH) is the first hospital in Hong Kong specialised to provide family and child-centric tertiary care to children with serious and life-threatening illnesses both locally and overseas. The hospital will not only be patient centred but also education and research facilitating.

The Design

The project team aims to deliver a child-friendly hospital providing the appropriate level of health and comfort in an efficient layout benefiting caregivers. Abutting the future waterfront promenade fronting the Kai Tak Approach Channel, it is a two blocks building complex with a basement and three link-bridges. It is a no podium design, where the two blocks are evolved to allow connection with the promenade, via a central garden on ground level.

A large area of the ground level of the HKCH is devoted as external landscaped garden and internal public areas with a variety of functions. 45% of the ground level frontage is directly connected to the waterfront promenade. This enhances connectivity and accessibility to the waterfront promenade.

The Green Hospital

"It is important to empower children in their respective environments; to encourage close relationships with nature; include positive distractions such as nature, artwork and entertainment, and avoid environmental stressors such as noise, unpleasant odours and adverse temperatures." (HBN 23 NHS Estates) Abundance of sunlight and fresh air are vital components of HKCH.

Users and visitors are welcomed by a Rehab Garden at ground level upon their arrival. Gardens and planting areas are provided throughout HKCH to promote a natural setting for the patients and staffs. They are designed as breakout spaces for enjoyment of patients, families and staff. Boundary fencing is decorated by vertical greening at appropriate locations to create a natural backdrop at pedestrian level.

香港儿童医院是香港公营医疗体系内首间集中提供大部分第三层医疗服务的专科医院，主力接收病况复杂、罕见及需要跨专科治理的儿科转介个案，希望为病童提供更优质的专科医护服务。香港儿童医院除了提供医疗服务，还著重培育人才和进行科研。

设计概念

医院主要的设计概念包括：城市化的设计、良好的规划、人性化的安排，现代化的医院和绿化的环境

绿化医院

医院设计采用没有平台，两栋大楼的设计 — 有连接的地库和行人桥；两栋大楼中间之地面有中央花园能有效促进城市的通风；也为到访者和病人缓和了传统医院令人惧怕的严肃气氛。大楼 45% 立面面向海滨，在视觉与空间上贯通了启德海滨。

另外，大量的绿化为医院员工及使用者提供跟大自然环境相近的休憩空间，供大家享受。


護士站 Nurse Station









New Buildings Category 新建建筑类别

Projects Under Construction and / or Design - Institutional Building 兴建及 / 或设计中项目 – 公用建筑

FINALIST AND SPECIAL CITATION IN ECO-SERVICE INFRASTRUCTURE NETWORK
入围项目及生态环境服务建设网络特别嘉奖

Green Site Office
绿色工地办事处



Team or Organisation Name
Architectural Services Department,
Government of the HKSAR

Client / Developer
Architectural Services Department,
Government of the HKSAR

Location
Site 1A-3 & Site 1A-4,
Kai Tak Development;
GLA-NK785, Choi Hing Road,
Kwun Tong; and sites of future projects

Completion Date
May 2014, August 2015 and onwards

Site Area
1.32 hectares (1st Generation Green Site Office at the Kai Tak site)
0.69 hectare (2nd Generation Green Site Office at the Kwun Tong site)

Gross Floor Area
818m^2 (1st Generation Green Site Office at the Kai Tak site)
294m^2 (2nd Generation Green Site Office at the Kwun Tong site)

Project Manager
Architectural Services Department,
Government of the HKSAR

Architect
Architectural Services Department,
Government of the HKSAR

Building Services Engineer
Architectural Services Department,
Government of the HKSAR

Quantity Surveyor
Architectural Services Department,
Government of the HKSAR

Landscape Architect
Architectural Services Department,
Government of the HKSAR

Main Contractor
Kaden Construction Limited /
Fook Lee Construction Co. Limited


樂晴樓









The Government is committed to reduce the generation of C&D wastes in public works. To this end, we have conducted research and explored the type of prefabricated components to allow reuse in future and reduce C&D wastes, the market readiness to reuse and recycle old construction materials to create green construction site office. To enhance a sustainable future of the construction industry, a more environmental friendly site office helps to promote a positive image of the industry in attracting a sustainable workshop.

The concept was to use the old to create something new. The site office for the Kai Tak Schools was the pilot trial, we collected used materials and components to construct the site office. When this first site office was to be removed, we collected the re-used components and materials again, to adopt them for the next site office of the Kwun Tong School and further for other future projects.

Apart from adopting sustainable construction, the green site office also worked towards enhancing the working environment of site offices. A courtyard was introduced between the site office blocks, to create a different form of cooperation. Long ribbon windows and screens were used to connect the spaces, the interiors and the courtyards. Greening was incorporated in the courtyards, the offices and the garden, creating a harmonious environment. This aims at shaping a new model for site offices, to re-distribute wastes and materials; and to provide a harmonious environment for our site staffs and contractors.

政府致力于减少工务工程产生的建筑废料。为此，我们研究用预制组件建造工地办事处，达至可循环再用，减少建筑废料，并探讨业界对回收废料建造工地办事处的认受性。为了提高建筑业的可持续发展，环保的工地办事处模式将有助促进建筑业走向可持续发展的正面形象。

绿色工地办事处的概念是利用旧物料创造新用途。启德学校的工地办事处是我们这个研究的实验试点。我们收集废料改造成工地办事处。要拆卸时，我们再收集相关组件及材料来建造观塘学校的工地办事处及将来其他工程的工地办事处。

除了采用持续发展的建造模式，我们亦改善工地办事处的工作环境。办事处大楼间设庭院缔造户外共用空间，促进各方的夥伴关系。长窗带及屏风将室内与庭院联系起来；并设置绿化，营造和谐气氛。我们希望这成为工地办事处的模式，重新分配废物和材料，亦营造和谐的工作环境。









New Buildings Category 新建建筑类别

Projects Under Construction and / or Design - Institutional Building 兴建及 / 或设计中项目 – 公用建筑

FINALIST 入围项目

Mactan Cebu International Airport (MCIA), Terminal 2, Lapu-Lapu City, Cebu, Philippines





Team or Organisation Name
Integrated Design Associates

Client / Developer
Megawide GISPL Construction Joint Venture (MGCJV)

Location
Lapu-Lapu City, Mactan Cebu, Philippines

Completion Date
1st Quarter 2018

Site Area
To be confirmed

Gross Floor Area
53,000m^2

Management Company
GMR Megawide Cebu Airport Corporation

Architect
Integrated Design Associates

Civil & Structural Engineer
Ove Arup & Partners, Philippines

Building Services Engineer
Ove Arup & Partners, Hong Kong

Main Contractor
Megawide GISPL Construction Joint Venture (MGCJV)

Environmental/ Ecology Consultant
Woodfields Consultants, Inc (WCI) for Environmental Impact Assessment
SGS India for Green Building Services

Owner's Association
GMR Megawide Cebu Airport Corporation







The concept of the new MCIA Terminal 2 is inspired by and drawn from the context of the Philippines, the locality of Cebu, and the arts and crafts of this region, which are world-renowned for their simple practicality and their inherent natural beauty. This is expressed through traditional architecture, landscape and hand-built furniture, forming the backbone of the architectural concept for the new terminal building, which is a modern, 21st century interpretation of these traditions.

Green Strategies are integrated in the architectural planning and design of the MCIA Terminal. The design studies on Environment for MCIA terminal are aimed to highlight architectural features that could increase the potential for

- Minimal operative energy use
- Climate Resilience
- Improving passenger's thermal, visual and psychological comfort

This project will maximise use of materials which have post or pre-consumer recycled content, ensuring that there is less virgin material utilisation. To the extent possible, materials will also be sourced within 800km from the project site to reduce the embodied energy associated in the transport of materials, without compromising the technical requirements of the project. Wood from managed forest and rapidly renewable materials will be used.

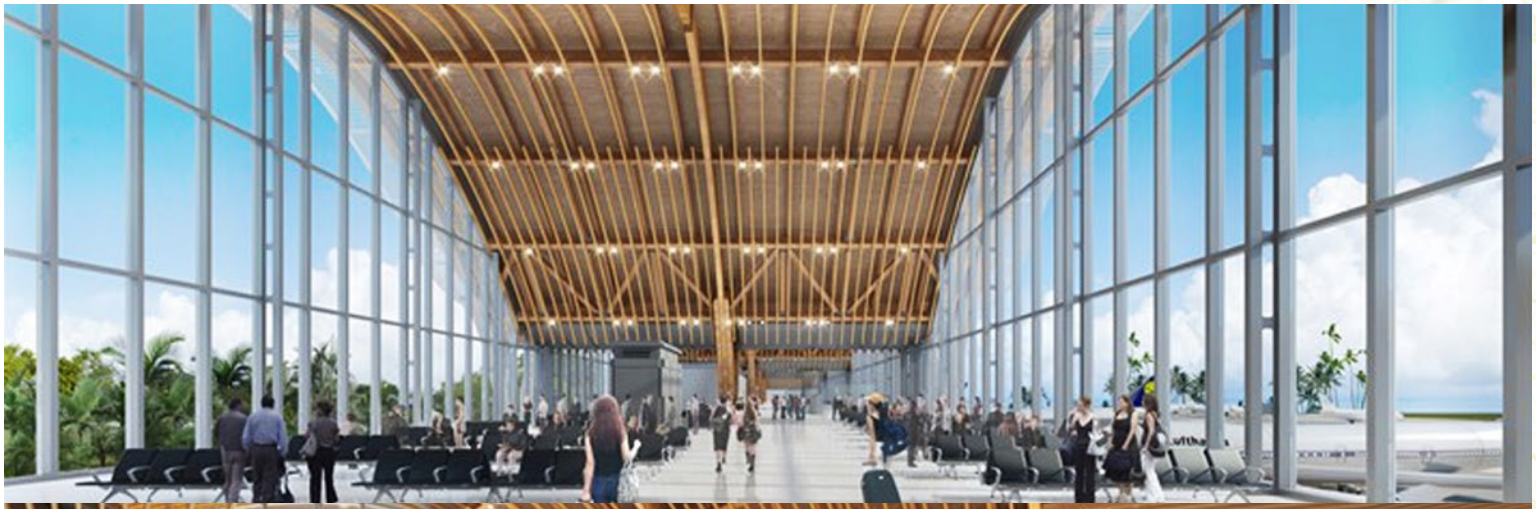
To assure good IEQ, an IAQ management plan will be implemented during construction. IEQ will be maintained post occupancy by use of low VOC materials, urea formaldehyde free products, and CRI certified carpets. The airport will also undergo mechanical flush out to remove all particulate matter before occupancy.

To minimise heat island effect, parking would be underground or shaded, surface hard paved area would either be covered in grass pavers or would be finished with high SRI material, including roof and terraces.

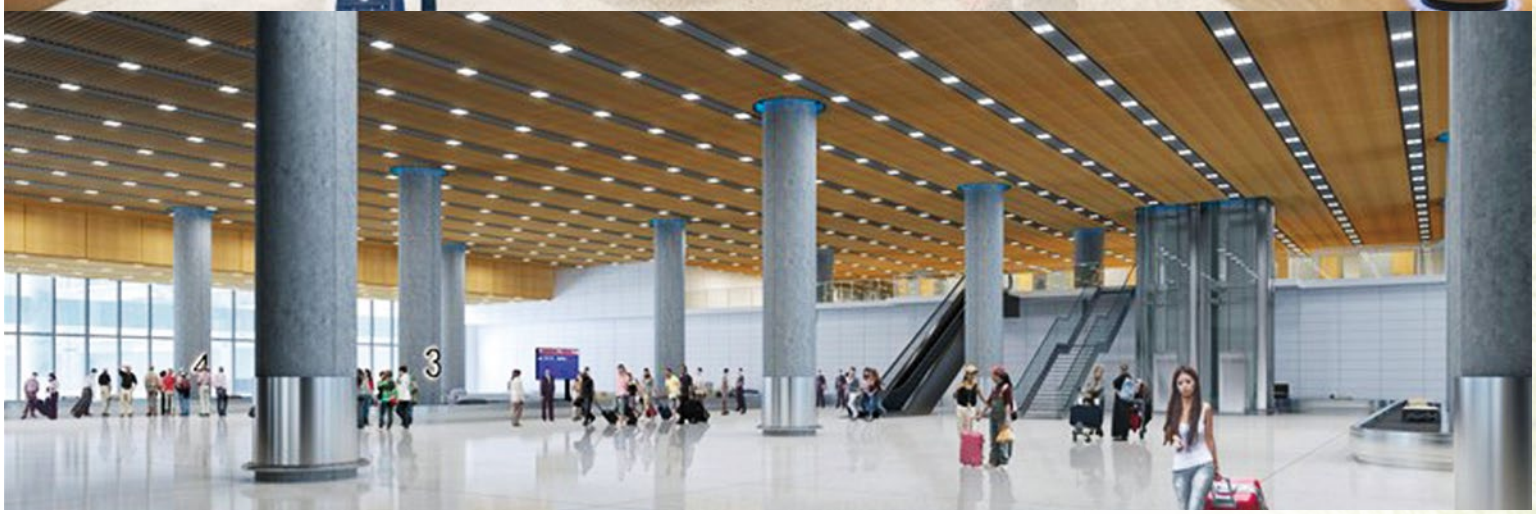
At site, liquid waste management (installation of sediment traps & concrete washout containment) & solid waste management (provision of staging area for segregated wastes) are implemented. At the maximum extent possible, other wastes are donated/ recycled. Post construction, various waste segregation bins would be placed within the airport facility.

Ultra low flow & flush fixtures will also be installed to reduce water consumption. Water requirement for landscaping will also be minimised.

The building is also designed such that day lighting is achieved in its regularly occupied areas and the energy performance is optimised. Metering system will measure and verify the building's energy performance post occupancy. CFC-free refrigerants will also be installed.




PERFUME
FURNITURE
CLOTHES
DUTY
FREE


4
3

New Buildings Category 新建建筑类别

Projects Under Construction and / or Design - Institutional Building 兴建及 / 或设计中项目 – 公用建筑

FINALIST 入围项目

New Changing Room and Toilet Block (Happy Valley Recreation Ground)
The Dancing Keys
新更衣室及洗手间 (跑马地游乐场) 舞动琴键





Team or Organisation Name
Drainage Projects Division,
Drainage Services Department,
Government of the HKSAR

Client / Developer
Drainage Projects Division,
Drainage Services Department,
Government of the HKSAR

Location
Hong Kong

Completion Date
August 2016

Site Area
0.2 hectare

Gross Floor Area
807m^2

Project Manager
Drainage Services Department,
Government of the HKSAR

Architect
Ivanho Architect Limited

Main Contractor
Chun Wo Construction and Engineering Co., Limited

Structural Engineer
Canwest Consultants Limited

Electrical & Mechanical Consultant
Sunland. AL (International) Co., Limited


New Jogging Track
Lawn / Green Slope
Barrier free access
Barrier free access
New Stretching Area
Public Entrance
Water Pump Room
E.V.A.
INSPECTION CORRIDOR
INSPECTION CORRIDOR
Toilet B
Courtyard
Blue Showers zone
Green Showers zone
Yellow Showers zone
Orange Showers zone
Red Showers zone
Baby Care Room
Public Entrance
Family Changing Room
BLOCK II
BLOCK I
Toilet A
Accessible Shower
Blue Dry Changing zone
Green Dry Changing zone
Yellow Dry Changing zone
Orange Dry Changing zone
Red Dry Changing zone
SPRINKLER PUMP ROOM
N



As the largest public changing room and toilet facilities in public parks in Hong Kong, the project strives to achieve one of a kind public architecture incorporating green living style and green building with aesthetical, sustainable and functional designs under one roof.

The project is funded by the Wan Chai District Council, with an aim to provide sufficient toilet, shower and changing facilities to the users and to cater for increasing needs arising from the enhanced amenities of the Happy Valley Recreation Ground.

The semi-sunken design and green roofing of the changing room and toilet facilities minimise visual impact and blends harmonically with the surrounding environment characterised by green pitches and horse racing track. The “dancing “ roof design promotes natural lighting and cross ventilation.

Two separate entrances / exits and zoning (Zone A and Zone B) provide flexibility in building operation and maximise usage efficiency.

Water harvested from rain and groundwater in the adjacent Happy Valley Underground Stormwater Storage Scheme is used for irrigating the green areas and toilet flushing.

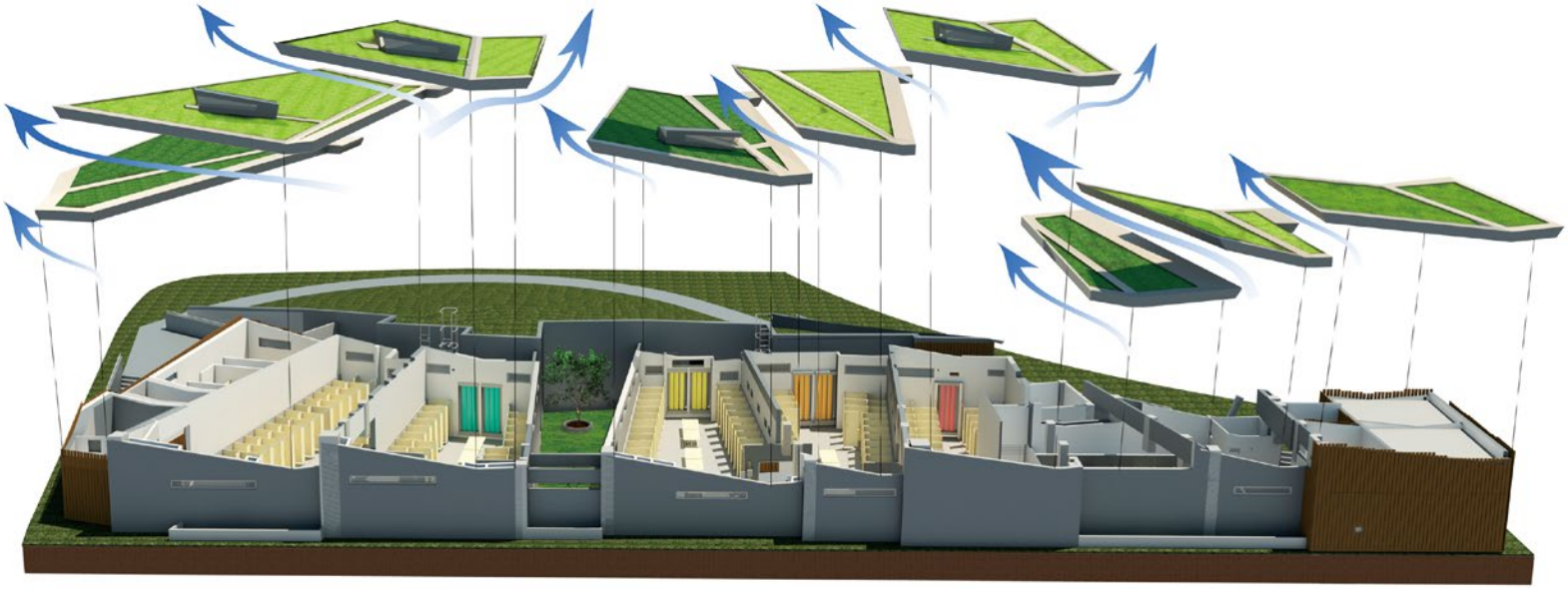
作为香港公共休憩公园里最大的更衣室及洗手间设施，这项目致力将前瞻建筑纳入绿色生活和绿色建筑里，与美学、可持续和实用性并列在同一屋檐下。

拟建的新更衣室及洗手间由湾仔区议会拨款兴建，目的是为跑马地游乐场十一个球场，缓跑径及其他设施的使用者提供更充裕的洗手间、淋浴及更衣设施，以配合跑马地游乐场未来发展的需要。

新设施采用了半下沈式的设计，借著绿化天面活化整体场地，和周边绿色球场和常青马场跑道融合为一。像木琴键的起伏屋顶设计可让自然光渗透室内空间，东南立面斜割式开口能增加空气流通。

两个独立的出入口及分段式 (A区和B区) 的设计给予场地管理更灵活地按需要开放设施和安排维修工作。

采用了渠务署跑马地蓄洪计划所收集及处理后的重用水作绿化地带灌溉及洗手间冲厕之用。











Existing Buildings Category ◉ 既有建筑类别

Jury's Citation 评审意见

Existing Buildings Category 既有建筑类别
Completed Projects 已落成项目

Institutional Building 公用建筑

GRAND AWARD AND SPECIAL CITATION IN ECO-SERVICE INFRASTRUCTURE NETWORK 大奖及生态环境服务建设网络特别嘉奖

The Revitalization of the Old Tai Po Police Station into a Green Hub
活化旧大埔警署为绿汇学苑

The Green Hub is a very inspiring demonstration of the visionary and holistic approach in successfully executing the sustainability concept from project planning, design, implementation and operation. The project team's strong focus on sustainability on every aspects of the revitalization process of the existing building and tremendous efforts in enriching the biodiversity of the neighbouring ecologically sensitive environment is definitely enlightening. The Green Hub has set a new step in the realm of sustainable green development.

绿汇学苑从项目规划、设计、实施与营运上，以具前瞻性与全面综合的方式成功实践了可持续发展理念，实属鼓舞人心的范例。项目团队极为重视这座既有建筑活化过程中每一方面的可持续性，并付出巨大努力丰富周边生态敏感区的生物多样性，绝对令人倍受启迪。绿汇学苑在可持续绿色发展领域踏出了新的一步。

Facilities Management 设施管理

GRAND AWARD 大奖

K11 Art Mall
K11购物艺术馆

K11 has deployed extensive amount of resources in maintaining its facility through various extensive capital investment and proactively engaging the community and neighbourhood with its culture.

K11 processes one of the largest food waste recycling systems in Hong Kong to handle the food waste within its premise and also extends the food waste recycling services to other eateries in the neighbouring region. It maintains a real time Indoor Environment Quality (IEQ) system accessible to tenants & visitors. It designates art space and dedicated tours to promote Art Culture to the general public.

In terms of energy management, K11 has developed an online smart system to monitor its daily energy consumption pattern which allows timely feedback and quick rectification by its facility management team, and at the same time, setup an effective and practical benchmarking platform to compare energy performance levels with similar facilities outside Hong Kong.

K11 投放大量资源保养设施，并积极让社区与附近居民参与其中了解其文化。

K11 拥有全港最大的厨馀回收系统，处理 K11 内的厨馀，并将该服务延伸到邻近社区的其他食肆。它为住户和来访人士提供实时的室内环境质量系统，又划出艺术空间和安排专门的导赏团向大众推广艺术文化。

能源管理方面，K11 已经开发了网上的智能系统监控日常能耗模式，设施管理团队可以及时回应和作出调整。同时，K11 建立了一个有效及实用的基准平台，比较海外类似设施能源性能水平。

MERIT AWARD 优异奖

Exchange Tower
国际交易中心

The FM team has emphasised largely on in-depth green culture engagement with its tenants. Special advices, green practices orientation & green tours are made available to new moved in tenants. Apart from different resources invested & passive design on energy savings, the FM team has also spent over HK$1 million on sub meters to monitor energy consumption patterns in various public areas and used the data to uncover potential area of improvement for tenants. Whenever applicable, the team has even provided joint assessment and consultancy to help tenants on better energy practices.

The 27,000 sq ft Sky Garden of the premise has been maintained as a pleasant and relaxed environment for tenants use. At the same time, the management has dedicated ample space for gardening with charity group and demonstrated hydroponic farming. Furthermore, the management and the tenants have taken the initiatives to participate in the Waste Reduction Reward Scheme, one of the pioneer projects organised by EPD in preparing for the future Municipal Solid Waste Charging Scheme.

设施管理团队十分重视租户与绿色文化的深入接触。新搬入的租户会获得特别建议、环保措施简介和安排参观环保设施。除了在节能方面投放不同资源并加入被动式设计，设施管理团队还投放了 100 多万港币在电量分表上，以监测各处公用范围的耗能模式，并利用这些数据为租户找到潜在可改进的地方。管理团队在可行的情况下会为租户提供联合评估与咨询服务，帮助租户改进能源措施。

面积达 27,000 平方尺的空中花园为租户提供休闲的地方。同时，管理人员划分了大量的空间给慈善团体作园艺及展示水耕之用。而且，管理人员与租户主动参与环境保护署的都市固体废物收费试点计划，为未来的城市固体废物收费方案作好准备。

Hong Kong Gold Coast Hotel
香港黄金海岸酒店

A 23-year-old hotel with 453 guest rooms occupying a site of 3.58 hectares has demonstrated its enduring facility maintenance of high quality and comprehensive upgrading works and management strategies for energy and water saving. Its dedication to staff development and customer engagement to sustainability is also highlighted. Meanwhile, with emphasis of human-nature interactions, the hotel features its one of the largest landscaped gardens with due consideration of native species and drought tolerant plants, and the first organic farm among hotels in Hong Kong.

The jury panel is impressed by its holistic approaches to food waste reduction and recycling. Waste reduction at source is advocated by offering small food portions, low carbon dishes, green wedding banquets and green meeting packages. In addition to daily collection of food waste for conversion to animal feeds, the hotel has partnered with food bank organizations to donate surplus food on the weekly basis.

这家已有 23 年历史的酒店，占地 3.58 公顷，共有 453 间客房。酒店一直以来以优质和全面的设备提升能源与节水管理策略，在设备维修方面展示极高水平，并重视员工发展和住客互动。同时，酒店强调人与自然的互动，酒店拥有全港最大的景观园林之一，并植有本土物种与耐旱植物，更为首座拥有有机农场的香港酒店。

酒店全面减少与回收厨馀的方式令评审团留下了深刻印象。为了从源头减废，酒店倡导提供少分量的食物、低碳食品、绿色婚宴和绿色会议服务。除了每日收集厨馀转化成饲料，酒店还与食物银行处组织合作，每周捐献剩食。

Sino Estates Management Limited - Pacific Palisades
信和物业管理有限公司 – 宝马山花园

Pacific Palisades is a role model of green property management among large, long-established residential developments with a limited budget and a multi-national tenant profile. The jury panel is impressed by its green living engagement circle of residents, property management staff and community, and continuous commitments to driving residents' behaviour changes to green living style. The variety of recycling programmes and interactive green living establishments, such as Living Green Path, Living Green Corner, Living Green Family and Living Green Planner, have gained tremendous residents' support.

In particular, their effort on advocating food waste recycling is highly commended. This has successfully initiated individual households to separate decomposable food waste and treat it as a resource to produce organic fertiliser by a composting machine on site. The fertiliser is used for landscape and vegetation of the estate, individual households and neigbouring NGOs. Flourising vegetation is also showcased at the residents' organic farming areas.

在众多历史悠久的大型住宅发展项目中，预算有限以及拥有来自多个国家住户的宝马山花园是环保物业管理的模范。评审团十分欣赏住户、物业管理员工和社区间的绿色生活互动，以及为促使住户行为改变所作的不懈努力。各种不同的回收计划以及互动式的绿色生活设施，包括环保教育径、环保生活园地、绿色生活家庭和绿色生活规划者，都获得了居民大力的支持。

他们在宣扬厨馀回收的努力尤其值得表扬，这项措施已经成功促使各个住户开始分类处理可分解厨馀，并通过堆肥机器生产有机肥料，将厨馀视为资源。所生产的肥料可用于物业内、住户和邻近的非牟利组织作美化景观与栽种植物。居民的有机农作区域亦见繁茂的植被。

Existing Buildings Category 既有建筑类别

Interiors 室内设计

GRAND AWARD 大奖

Architectural Services Department
Renovation of 1/F Main Block
APB Centre
建筑署建业中心文楼一楼翻新工程

The project has transformed the office of a building built in 1990 into a modern green office. The internal floor area is about 800m² with 110 numbers of occupancy. Its exceptional environmental performances and integrated pioneering works outstand the project from other submissions. The key achievements comprise >98% C&D waste reduction, >97% furniture & partitions to be reused, >80% sustainable materials, >50% lighting power density reduction and >70% water saving. Open plan layout allows daylight penetration to most of the working spaces. By adopting the radiant cooling panel (chilled ceiling system), insulating glazing panels with low-e coating and other features, over 14% saving of cooling energy is achieved. This is the first BEAM Plus Interiors Platinum Government office.

The jury panel is impressed by its integrative design features which consist of the real-time environmental display system for driving positive behaviour change, bio-filtration green wall system for pleasant visual display plus actively removing VOC from the indoor air, and BIM utilisation and mobile platform for daily operation and routine maintenance.

该项目将建于 1990 年的办公室翻新成为现代绿色办公室。内部楼层占地面积约为 800 平方米，约有 110 位员工在内工作，其出色的环境表现与综合先进成果让这个项目远胜其他入围项目。它的主要成就包括减少多于 98% 的拆建废料；家具物件重用率大于 97%；可再生材料使用率大于 80%；减少多于 50% 的照明功率密度以及节水率大于 70%。开放式布局使大多数工作区域都能受到日光照射。通过采用辐射冷板（冷却吊顶系统），以及带有低辐射镀膜和其它特点的隔热玻璃面板，其冷却能源节约率达到 14% 以上。这是第一间获绿建环评室内建筑铂金级的政府办公室。

该项目的一体化设计包括促进行为改变的实时环境显示系统、作观赏用途并去除室内空气中的有机化合物气体的生物过滤绿墙系统、作日常营运与定时维护的建筑信息模型使用与流动平台。这些设计给评审团留下了深刻印象。

MERIT AWARD 优异奖

C. C. Wu International Co. Limited
伍集成国际有限公司

Pleasant, healthy working environment for wellbeing is the main goal of the interior renovation. Indoor environmental qualities are emphasised. About 95% of working spaces receive natural lighting. Sound masking and noise control are considered by adopting high-performance acoustic partitions and light music as white noise to mask the sound and smoothen the stress atmosphere. A strip of indoor plants with local species is installed along the windows, which allows sufficient daylight for growth of vegetation and offers comfortable working environment and chances for interaction with nature.

The jury panel appreciates the project team's extra effort on material selection. Over 40% furniture in the project is re-used furniture from the existing office. Use of recyclable materials include carpet flooring with consideration of 100% closed loop recycling process, linoleum flooring, palm eco walls with 100% recycled fibre, cork partitions and composite wall panels with hardwood fibre and recycled glass. The flexible spatial design layout is also commended.

打造舒适健康的工作环境是此室内装修的主要目的。项目特别注重室内环境质素，约 95% 的工作空间均获得日照。通过使用良好的隔音墙和以轻音乐作为白噪音，以达到隔音和噪音控制的效果，并舒缓紧张的工作气氛。另外，室内的窗边放置一列本地植物，让植物在充足的阳光下生长，同时营造舒适的工作环境和提供与自然亲近的机会。

评审团很欣赏项目团队在材料选择上所付出的额外努力。该项目超过 40% 的家具重用自原有办公室，使用的回收材料包括经过 100% 闭合回收利用流程的地毯地面、油布地毡地面以及用 100% 回收的纤维、软木部件、复合墙板和硬木纤维与回收玻璃所制成的棕榈环保墙，另外其灵活空间设计布局也值得一赞。

Existing Buildings Category 既有建筑类别
Completed Projects - Commercial Building 已落成项目 – 商业建筑

FINALIST 入围项目
Breakthrough of Green Management during Office Typical Floor Renovation



Team or Organisation Name
Kai Shing Management Services Limited - Grand Century Place

Client / Developer
Kai Shing Management Services Limited - Grand Century Place

Location
Mongkok, Kowloon, Hong Kong

Completion Date
2015

Site Area
14.864 hectares

Gross Floor Area
66.890m²

Green Manager (Site)
Kai Shing Management Services Limited

Green Manager
Kai Shing Management Services Limited

Green Coordinator (Management)
Kai Shing Management Services Limited

Green Coordinator (Technical)
Kai Shing Management Services Limited

Green Officer (Management)
Kai Shing Management Services Limited

Green Officer (Technical)
Kai Shing Management Services Limited

Green Officer (Operation)
Kai Shing Management Services Limited

Green Ambassador
Kai Shing Management Services Limited


The Nature Conservancy
大自然保護協會
拯救
SAVING THE YUNN
GOLDEN MONK
您也能盡一分力
YOU CAN HELP
tnc.org.hk/savemonke
您的支持
ACT NOW





Grand Century Place, a landmark site constructed by a renowned developer - Sun Hung Kai Properties in Mongkok in 1997. Throughout the past 19 years, under the management of Kai Shing Management Services Limited, it has become the household name to Hong Kong people, and an A-grade investment property in Hong Kong.

Carrying the vision of the Company, "We Serve You Best", we always strive to provide supreme quality of green property management services to all stakeholders. From 2013-2015, our management team had witnessed the remarkable change of premises with innovative GREEN BUILDING elements after a large scale of office typical floor renovation works.

Various renowned awards and compliments had been received and recognised our team's efforts in property and facility management, especially in energy saving and green office. The improvement works of Office Towers' chiller system, high pressure mist pre-cooling system, lighting system and other green measures had rewarded us lots of recognitions in the industry and local community which further proved our excellent performance in services and facility improvement and intimate care during and after office tower renovation.

We believe we are able to make this GREEN BUILDING in sustainable development together with all stakeholders and local community.


EXIT出口





Existing Buildings Category 既有建筑类别
Completed Projects - Commercial Building 已落成项目 – 商业建筑

FINALIST 入围项目
Breakthrough of Green Management during Shopping Arcade Typical Floor Renovation





Team or Organisation Name
Kai Shing Management Services Limited - MOKO

Client / Developer
Kai Shing Management Services Limited - MOKO

Location
Mongkok, Kowloon, Hong Kong

Completion Date
2015

Site Area
14.864 hectares

Gross Floor Area
66.890m²

Green Manager (Site)
Kai Shing Management Services Limited

Green Manager
Kai Shing Management Services Limited

Green Coordinator (Management)
Kai Shing Management Services Limited

Green Coordinator (Technical)
Kai Shing Management Services Limited

Green Officer (Management)
Kai Shing Management Services Limited

Green Officer (Technical)
Kai Shing Management Services Limited

Green Officer (Operation)
Kai Shing Management Services Limited

Green Ambassador
Kai Shing Management Services Limited


MOKO



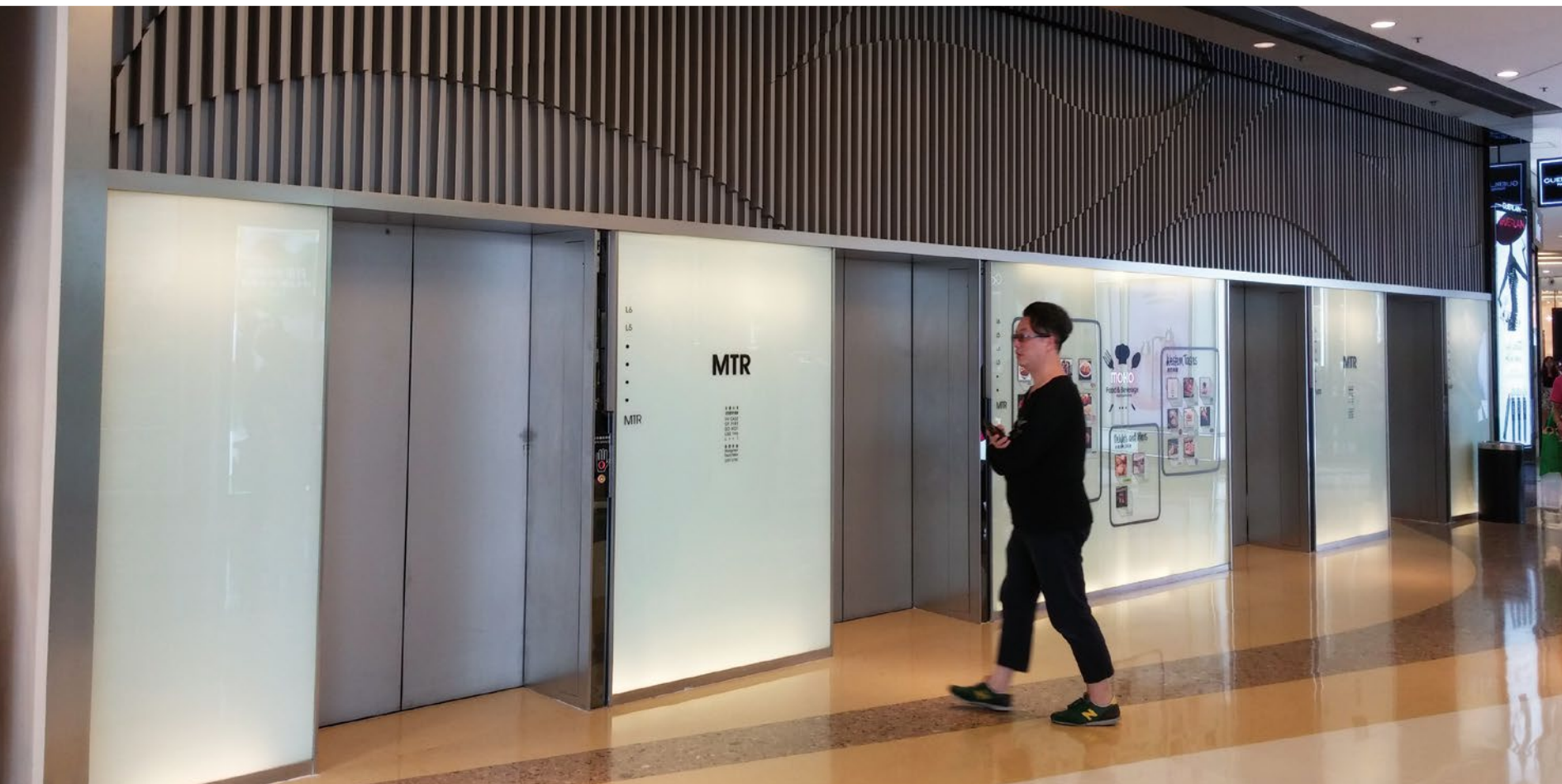
MOKO (the Shopping Arcade previously known as Grand Century Place and re-named in December 2014), a landmark site constructed by a renowned developer - Sun Hung Kai Properties in Mongkok in 1997. Throughout the past 19 years, under the management of Kai Shing Management Services Limited, it has become the household name to Hong Kong people, and an A-grade investment property in Hong Kong.

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Various renowned awards and compliments had been received and recognised our team's efforts in property and facility management, especially in energy saving and green building. The improvement works of the mall's chiller system, high pressure mist pre-cooling system, lighting system and other green measures had rewarded us lots of recognitions in the industry and local community which further proved our excellent performance in services and facility improvement and intimate care during and after mall renovation.

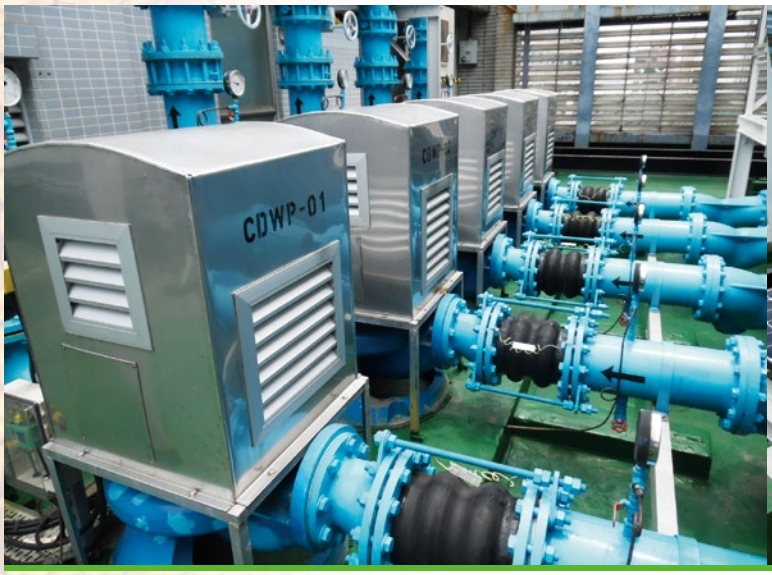
We believe we are able to make this GREEN BUILDING in sustainable development together with all stakeholders and local community.


SHOPPING
PRINCE王子


MTR
MTR
MTR

Existing Buildings Category 既有建筑类别
Completed Projects - Commercial Building 已落成项目 – 商业建筑

FINALIST 入围项目
HK Pacific Centre
亚太中心





Team or Organisation Name
Sino Estate Management Limited

Client / Developer
Sino Estate Management Limited

Location
HK Pacific Centre, 28 Hankow Road,
Tsim Sha Tsui, Kowloon, HKSAR

Completion Date
7 November 2015

Site Area
0.17 hectare

Gross Floor Area
20,349m^2

Main Contractor
Shun Hing E & M Engineering Limited

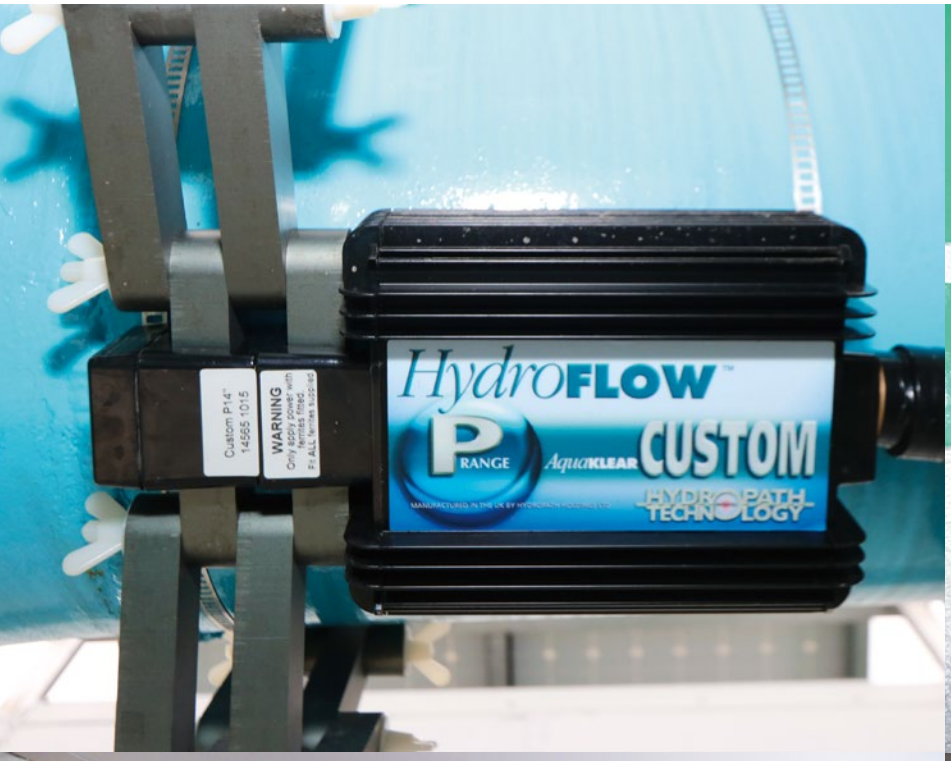

RENÉ
WebCTRL Superset Server
localhost/_common/lvl5/main.jsp?wbs=17&operatorlocale=zh_TW
AUTOMATEDLOGIC
: Chiller Plant
Carrier
Hong Kong Pacific Centre
Chiller Plant
Outdoor Condition
33.2°C
71.2%
CT-01
CT-02
CT-03
CT-04
WCC-01
WCC-02
CHWP-01
CHWP-02
CHWP-03
CDWP-01
CDWP-02
CDWP-03
BWP-01
BWP-02
Main Page
Control Page
Power Meter
Power Meter (Pump)
PAU
Zone Valve
Energy Report





Sino Estates Management Limited adhering to Sino Group's environmental philosophy, committed to the implementation of green management. HK Pacific Centre is a medical building located in Tsim Sha Tsui. Over the past few years, we implemented some green policies and led in green technology in order to enhance the air quality, hygiene quality and energy saving, such as replacement of LED lightings, installation of PV automatic water tape, installation of touchless automatic system and installation of catalyst air filters. In 2015, HK Pacific Centre completed a major energy-saving project - Replacement of Air-cooled Chillers to Water-cooled Chillers. The energy-saving project included the installation of intelligent building management system, High Performance and Variable Speed Chillers, Electronic Water Conditioner, Real-time Monitoring and Responding Condenser Water Treatment, Control of Air-conditioning at Typical floors and Grid Connected Photovoltaic System etc., in order to use new technology to improve energy efficiency and environmental elements of the HK Pacific Centre.

信和物业管理有限公司秉承集团的环保理念，致力推行绿色管理，旗下管理的亚太中心为位处尖沙咀的医务商业楼宇，多年来积极实施及引进各项环保设施，全面提升大厦的空气、环境及卫生质素。亚太中心推行的措施包括智能大厦管理系统、高效能空调及变频系统、电子除垢系统、实时监控水处理系统、区域空调控制、太阳能光伏系统、太阳能水龙头、自动门控制系统、空气净化系统等。善用科技持续提升亚太中心的节能和环保元素。


HydroFLOW
P RANGE
AquaKLEAR
CUSTOM
HYDROPATH TECHNOLOGY
WARNING


CH.W. R
CHWP-04




請將手揮過此
處開啟自動門

Existing Buildings Category 既有建筑类别
Completed Projects - Commercial Building 已落成项目 – 商业建筑

FINALIST 入围项目
Towngas Headquarters
香港中华煤气有限公司总部





Team or Organisation Name
The Hong Kong and China Gas Company Limited

Client / Developer
The Hong Kong and China Gas Company Limted

Location
Towngas Headquarters, 363 Java Road, North Point, Hong Kong, China

Completion Date
2014

Site Area
0.26 hectare

Gross Floor Area
38,793m^2

Environmental Consultant
Allied Environmental Consultants Limited


Dream
Zone
SCAN ME!





Awarded first batch of “Final Platinum” rating both under HK-BEAM 5/04 in 2010 and BEAM Plus for Existing Buildings V1.2 in 2015, Towngas Headquarters is pioneer in green building management and has demonstrated their pursuance and persistence towards sustainability for more than a decade. Through a stringent sustainability programme of monitoring building energy consumption, auditing water and material resources, adopting best operating practices, cultivating green living lifestyle and investing in energy-efficient technologies, Towngas is ready for the next sustainability journey.

The new central chiller plant at rooftop, that came into full operation in 2014, replacing the old air-cooled chillers with efficient oil free centrifugal type water-cooled chillers, leds to an annual saving of 1,000,000 kWh/yr, which is equivalent to 700 tonnes reduction in CO2-e. Optimisation of the chiller plant was also carried out in 2015 to further enhance its overall coefficient of performance.

Various lighting fixtures including LED luminaires and T5 fluorescent tubes are installed. Occupancy sensors had been installed in intermittently occupied spaces, such as conference rooms, staircases, pantries, toilets etc. to switch off lighting when unoccupied.

Since number of occupancy is intermittent in office area, CO2-based Demand Control Ventilation is incorporated in these area in order to modulate fresh air supply rate based on real-time occupancy. This strategy offers energy saving over traditional fixed ventilation approaches when the number of occupancy is reduced.

The Building Management System was enhanced so that users could extend the operation time of lighting in particular zone as per demand through intranet. In addition, hundreds of energy meters were installed to facilitate building energy analysis.

Other green initiatives includes conducting a waste audit to reduce waste, upgrading water fixtures, maintaining IAQ Certificate, promoting a rooftop organic farm, rain water and condensate recycling system.

煤气公司总部于 2010 年及 2015 年分别获得首批 HK-BEAM 5/04 及绿建环评 BEAM Plus V1.2(既有建筑) 的「最终铂金级」认证，这显示煤气公司是绿色建筑管理的先驱，另外，这亦证明了我们在可持续发展的支持和成果。煤气公司物业管理人员透过监测建筑能耗、用水量审计和废物审计，制定及实行最佳楼宇运行方案，并培养员工实践绿色生活方式。此外，煤气公司亦投放不少资源于不同的节能技术上，为可持续发展作更佳的准备。

煤气公司总部于 2014 年全面使用无油磁浮冷冻机组，以取代旧有冷冻机组。使用新机组后，每年节省 1,000,000 kWh 的能源消耗，相当于减少排放 700 吨二氧化碳。冷冻机组的运行操作优化工程亦于 2015 年展开，进一步提升冷冻机组的整体效能。

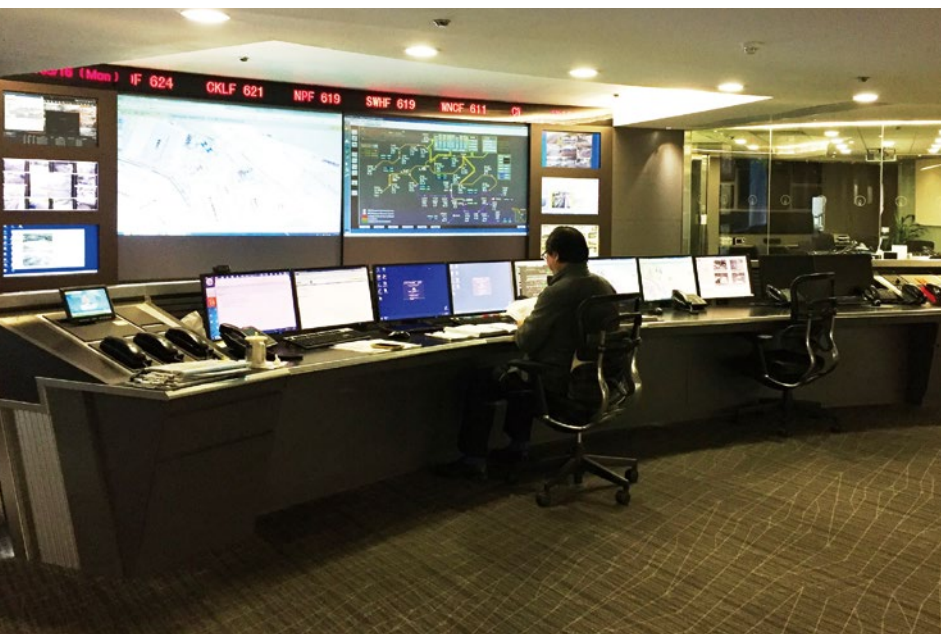
在照明系统方面，煤气公司总部更换了各种节能灯具，包括安装 LED 灯及 T5 管。除此之外，公司总部亦于会议室、楼梯、茶水间、洗手间等地方安装了感应器，当没有人使用时，灯光会自动关上，以减少能耗。

由于办公室人数会随时间改变，煤气公司总部安装了二氧化碳量传感器，按照实时需求调节鲜风送风量。当办公室人数减少时，鲜风送风量亦相应减少，这较传统固定风量装置节省能源。

煤气公司总部亦提升了楼宇管理系统，同事能根据个人需要，透过公司内联网延长照明的开启时间。此外，公司亦安装了百多个电能表，收集耗电数据，以进行建筑能耗分析。

煤气公司总部还推行了其他环保措施，当中包括进行废物审计，以制定废物分类计划、更换节水洁具、持续参与室内空气质素检定计划、增设屋顶有机农庄、安装雨水及冷凝水循环再用系统等。


Towngas
Hall of Innovation
Towngas Innovators


IF 624
CKLF 621
NPF 619
SWHF 619
WNCF 611



Existing Buildings Category 既有建筑类别
Completed Projects - Commercial Building 已落成项目 – 商业建筑

FINALIST 入围项目
Tuen Mun Town Plaza Phase II (Shopping Arcade)
屯门市广場第二期（商場）



Team or Organisation Name
Sino Estates Management Limited

Client / Developer
Sino Estates Management Limited

Location
No. 3, Tuen Lung Street,
T.M.T.L. 235, Tuen Mun, N.T.

Completion Date
2014

Site Area
0.355 hectare

Gross Floor Area
11,980m^2

Management Company
Sino Estates Management Limited


空調冷氣種類
中央空調冷氣機 (Chiller System)
(Air Cooled Chiller)
(Water Cooled Chiller)


tmtplaza
屯門市廣場
滙豐
HSBC 滙豐


CITY CHAIN



Our company recognises the importance of sustainable development and environmental protection. Over the years, we have practised green property management and instituted energy and water saving innovations in the shopping arcade including:

A. Energy Saving

1. Renovation of chiller system from reciprocating type to screw type air-cooled chiller including using VSD
2. Modernisation of passenger lift by using VVVF
3. Installation of active harmonic filter system
4. Replacement of ceiling lighting to LED lighting
5. Using solar energy water tap

B. Educate Tenant in Behaviour Change

1. Advise tenant to using energy saving equipment and environmental friendly material for fitting out work
2. Prepare energy saving courses to educate tenants and frontline staff
3. Advise F&B tenant to join food waste collection programme and use food waste decomposer to treat the food waste

C. Building Performance Audit

1. Energy audit by CLP
2. Good energy performance certificate by Electrical and Mechanical Services Department
3. Carbon audit
4. A/C and electrical system performance audit
5. Energy saving charter


tmtplaza
屯門市廣場
AEON
MARKS & SPENCER
TASTE
MORE THAN FOOD
自家濕涼茶坊
HERBAL TEA & SOUP SQUARE
涼茶專家組
一致認定
有效
解毒除濕

Existing Buildings Category 既有建筑类别
Completed Projects - Institutional Building 已落成项目 – 公用建筑

GRAND AWARD AND SPECIAL CITATION
IN ECO-SERVICE INFRASTRUCTURE NETWORK
大奖及生态环境服务建设网络特别嘉奖
The Revitalization of the Old Tai Po Police Station into a Green Hub
活化旧大埔警署为绿汇学苑



Team or Organisation Name
Thomas Chow Architects Limited

Client / Developer
Kadoorie Farm and
Botanic Garden Corporation

Location
Tai Po, Hong Kong

Completion Date
23 April 2015

Site Area
0.66 hectare

Gross Floor Area
1,250m^2

Lead Consultant Architect
Thomas Chow Architects Limited

Design Architect
Meta4 Design Forum Limited

Structural Engineer
APT Engineering Consultant Limited

Building Services Engineer
Mott MacDonald Hong Kong Limited

Heritage Consultant
Centre for Architectural Heritage Research,
School of Architecture,
The Chinese University of Hong Kong

Landscape Architect
Landscape Workshop Limited /
Team 73 HK Limited

Quantity Surveyor
Rider Levett Bucknall Limited

Contractor
Junic Construction Company Limited







The Green Hub, an adaptive re-use of the historically significant Old Tai Po Police Station (OTPPS), serves as a demonstration of sustainable living with the architecture, heritage and nature through collaboration with the community. The Green Hub aims to transform the OTPPS into an influential landmark for Hong Kong and the region to promote sustainable living and integrated conservation. Sustainable designs have been incorporated to the project in the following aspects,

- New programmes are designed to be fitted into the existing building layout. Construction wastes from alteration or demolition were minimised. Original verandah and louvre windows have been purposely restored acting as an effective passive design to cope with local weather.

- Natural lighting and ventilation are utilised at the building with minimal artificial lighting and air conditioning installed.

- The Tai Po Market Egretry, Old and Valuable Trees (OVTs) and most trees at the site are protected and retained.

- The landscape was restored and enhanced. The new garden with water feature at central courtyard significantly enriched the wildlife's habitats. An organic Kitchen Garden acts as open classroom for food education.

- The gardens at the Green Hub work as a basin for organic resource recovery – 100% of the food and horticultural waste were recovered and reused on-site either as mulch or compost.

- Minimal external lighting design to ensure minimal disturbance caused to natural habitat.

- Grey water system has been installed at site. The process of water management on site will be "visible" and serves as part of the education programme of the Green Hub.

- Environmentally friendly and recycled materials were used at various locations at site.

- Heritage Display Area with regular heritage tour to promote heritage conservation. Workshops sharing traditional arts and skills were introduced to the community.

历史悠久的旧大埔警署经活化成为绿汇学苑，旨在透过社区合作，展示建筑，文化古迹和大自然如何与可持续发展生活共存。藉由绿汇学苑，于香港以及华南地区推广低碳可持续发展生活与多元保育。可持续发展的设计概念融合于旧大埔警署活化项目中，简述如下：

- 项目团队大幅度保留旧有建筑布局，在旧有建筑布局上赋予新的用途，建筑废料因此大大减少。另外，团队特意还原徊廊，木百页等被动式设计以适应本地天气

- 建筑物尽量利用自然采光及通风，大大减少使用电灯与安装冷气的需要

- 建筑基地里珍贵的大埔墟鹭鸟林，古树名木和大部份树木都予以保护及保留

- 项目团队用心修复、提升建筑周边自然景观。中庭内水景庭园让自然生态更丰富，新添的有机菜园成为食育教学的最佳学习场所

- 绿汇学苑内的庭园是转化有机资源的场所，厨余和园艺废料全部回收作为肥料

- 尽量减少户外照明，保证将对自然栖息处的干扰减低

- 安装灰水回收处理系统，访客能够看见灰水处理过程，成为教育学习的一部份

- 建筑不同地方优先采用再生物料与环保物料

- 绿汇学苑设有文化遗产展览及导赏团，推广有关古迹活化及文化保育，并举办不同传统工艺工作坊给社会大众





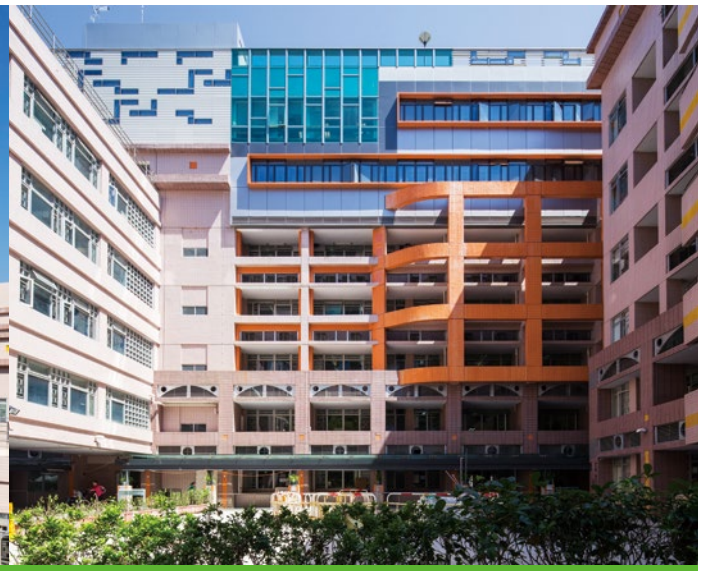




Existing Buildings Category 既有建筑类别
Completed Projects - Institutional Building 已落成项目 – 公用建筑

FINALIST 入围项目
Extension to Block A of TWGHs Jockey Club Rehabilitation Complex
东华三院赛马会复康中心





Team or Organisation Name
Urbanage International Limited

Client / Developer
Tung Wah Group of Hospitals

Location
4 Welfare Road, Aberdeen, Hong Kong

Completion Date
March 2015

Site Area
1.626 hectares

Gross Floor Area
2,935m^2

Project Manager
Tung Wah Group of Hospitals, Property Division

Architect
Urbanage International Limited

Main Contractor
Yan Lee Construction Co. Limited

Structural Engineer
TTC Consultants Limited

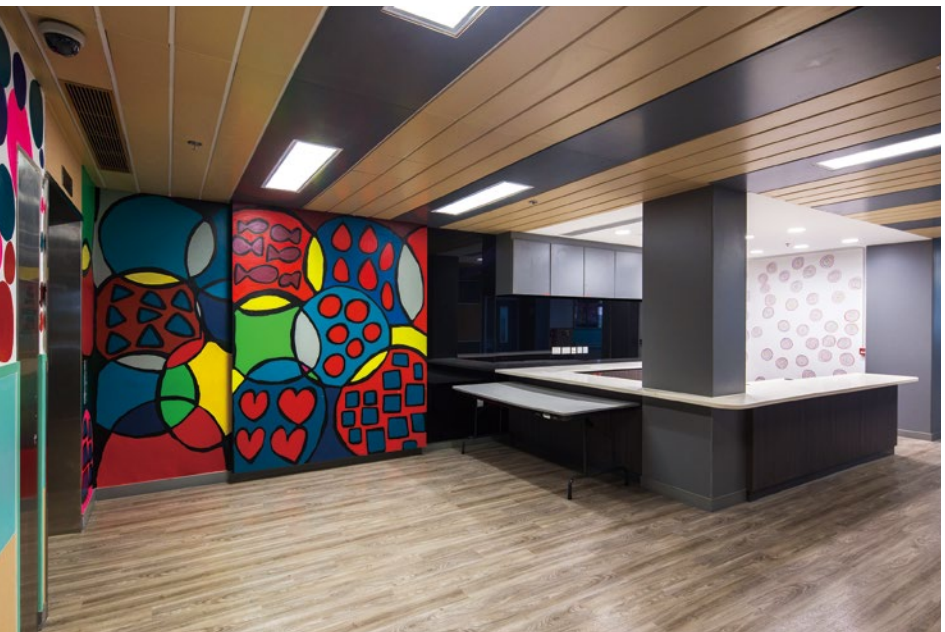
Quantity Surveyor
Beria Consultants Limited

Building Services Engineer
Talent Mechanical & Electrical Engineers Limited

Landscaping
Constance Design Studio Limited

Independent Checker
Amasia International Architects Limited


東華三院賽馬會復康中心





The site of the project was located in 4 Welfare Road, Aberdeen, Hong Kong, TWGHs Jockey Club Rehabilitation Complex (JCRC). The rehabilitation complex was funded by Jockey Club to construct a new extension to add 2 storeys to Block A, which consisted of a SWD licensed residential care home. Sited on top of a 5-storey rehabilitation facility, the proposal rejuvenates an unutilised roof deck into a 2-storey extension accommodating 75 additional bed spaces. A tailor-made environmentally sustainable rehabilitation green deck is re-provided for users of the complex.

The design tries to create a distinctive identity for the new extension, while respecting the existing building fabric. In order to break away from the monotony of rehabilitation institutes, the planning focuses on creating a homely environment and introducing nature and greenery for the users. Careful articulation on the curtain wall façade, by a subtle play on scale and transparency, provides a cozy home in contrast with the mundane of adjacent repetitive concrete frames and ribbon windows. Contrasting with the boldness of existing RC structures and mosaic tiles, the marriage of glazed panes and aluminium panels creates playful built-form as the new focus of the central court.

The proposal addresses the need to create a rehabilitation garden for the physically challenged. The new roof rehabilitation green deck is equipped with special landscaping elements providing senses of smell, touch and sound for the therapeutic treatment of the residents. Outdoor galleries run the length of the trellis and continued to flank the edge of the roof deck to herbal gardens, running water features and outdoor musical instrument farms.

这项扩建工程的选址在复康中心内一个原来五层高的建筑物，在原本的屋顶平台加建两层，为专门照顾残疾人士的复康中心宿舍提供额外 75 个宿位，更在加建的屋顶上建造成空中复康花园让中心的学员使用，为原来的复康中心注入新活力。

新建部份的设计除了尊重原有的建筑结构，同时也为建筑物创造独特性，为了摆脱一般复康中心单调乏味的感觉，整个设计著重于建立一个温馨和舒适的环境，并加入自然和绿化原素，提供了一个舒适的家。在幕墙设计上，对比起原来建筑物实用的钢筋水泥结构、纸皮石外墙和单调的铝窗，新建部份采用玻璃和铝板预制的幕墙组件，利用透明度不一的面板巧妙地布局，造成了有趣的建筑外观，也为整个复康中心缔造了新的焦点。

新建复康中心的室内部份充份地利用了自然采光，愉悦和彩色的室内设计也为复康中心添上生气。室内和空中花园的设计融合了复康中心学员的手绘图像，并为住宿院友带来喜悦和幸福的感觉。复康中心经历多年来的营运，职员与院友已建立了强烈归属感，新建的独特建筑物不但提高了院友在社区内的自豪感，更为复康中心建立新形象。

新建部份的高效节能幕墙系统包括了低辐射玻璃镶板与遮挡阳光装置和渗透性铝板，也融合了部份原有的屋顶结构。有趣的外墙设计，不同的透明度，是根据室内空间的不同功能和用途来打做的，使室外并与室内在视觉和感观上连接起来。

设计提案针对残疾人士的需要建立了一个无障碍康复花园，新的空中花园包括了 60% 的草坪和 20% 的离地甲板，配有特殊的景观元素，提供针对嗅觉，感官触觉及声音复康的治疗。花园还包括室外画廊，香草花园，水景设施和室外音乐农场。

草坪和木甲板占天台达 80% 面积，为整个中心提供了绝佳的自然隔热及绿岛效应。









Existing Buildings Category 既有建筑类别

Projects Under Planning / Design - Institutional Building 规划 / 设计中项目 – 公用建筑

FINALIST 入围项目

Green Transformation of Electrical and Mechanical Services Department Headquarters

机电工程署总部绿色转型



Team or Organisation Name
Electrical and Mechanical Services Department, Government of the HKSAR

Client / Developer
Electrical and Mechanical Services Department, Government of the HKSAR

Location
Hong Kong, China

Completion Date
2019

Site Area
2.8 hectares

Gross Floor Area
81,800m^2

Project Manager
Electrical and Mechanical Services Department, Government of the HKSAR

Owner
Electrical and Mechanical Services Department, Government of the HKSAR

Facility Manager
Electrical and Mechanical Services Department, Government of the HKSAR





The Electrical and Mechanical Services Department Headquarters Building (EMSD HQs) successfully exhibited an excellent showcase of sustainable development through complete renovation of the old structure of a former air cargo terminal building into an office-cum-workshop building. As a pioneer in advocating environmental responsiveness, EMSD continues to adopt a proactive approach for promoting energy efficiency and sustainability.

Since moving in the new headquarters in 2005, we have been implementing many enhancements to our indoor and outdoor facilities and environment in various aspects to making the EMSD HQs to become greener and more sustainable. These enhancements include application of many advanced technologies leading to energy conservation, waste reduction and better environmental quality. Examples include the use of high efficiency oil free chiller, LED luminaires, rain water harvesting system, food waste decomposer, sun tracking photovoltaic system, solar hot water system and solar lamp poles, reuse of air-conditioning condensates for toilet flushing and pioneer to use BIM technology for asset management of building services installations.

Further enhancements are under construction or planning and they include adoption of district cooling for building air-conditioning, implementation of building energy management system, modification of education path for promotion of public awareness of energy efficiency and new technologies, and improvement of outdoor areas to well integrate with the community for enhanced public enjoyment. They are not just to meet the changes in operational need of the Department but also to enhance sustainability for the sake of our staff, our neighbours and the public.

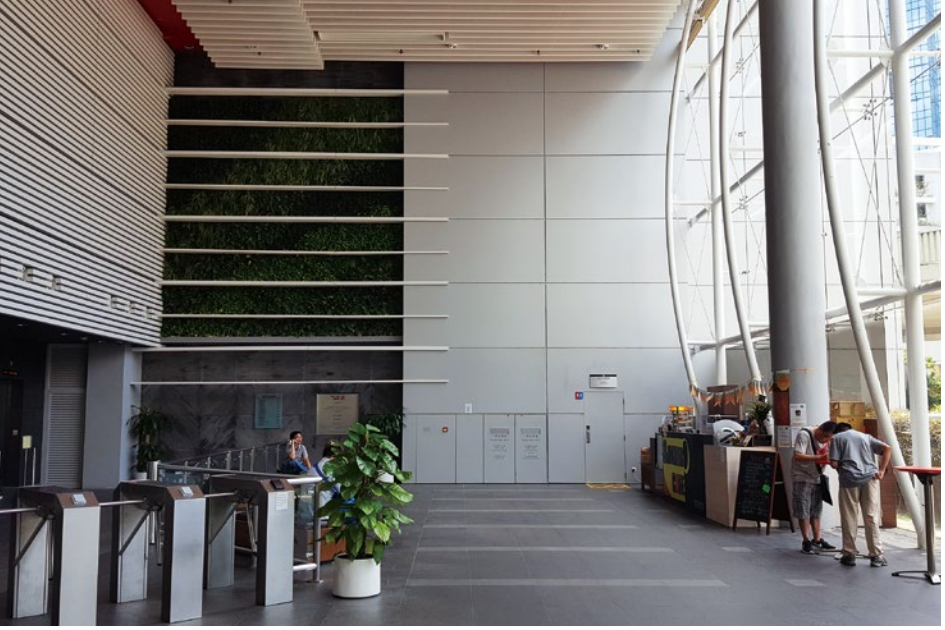
In addition to the above enhancements, EMSD has implemented green procurement policy, environmental management and energy management to advocate good practice of operation and management for the building.

机电工程署总部成功地透过改建前空运货站旧建筑结构为一座办公室和工场大楼，为可持续发展作出一个很好的示范。作为一位倡导响应环境的先锋，机电工程署一直采取积极的态度推动能源效益和可持续发展。

自 2005 年迁入新总部以来，我们不断在室内和户外空间的设施及环境各方面进行改善，使机电工程署总部改变为更环保及可持续发展的建筑物。这些改善包括引入许多节能、减少废物和美化室内环境的先进技术。例子包括使用高能效无油冷水机、发光二极管灯、雨水收集系统、厨余分解设施、可追踪太阳能光伏系统、太阳能热水系统及太阳能灯柱、使用空调系统所产生的冷凝水作为冲厕用水和先导结合建筑信息模型来管理屋宇装备装置等。

另有更多的改善工程现正建设或计划中，当中包括采纳区域供冷作为大楼空调之用、使用能源管理系统、改建教育径以提升公众人士的能源效益意识及推动新能源技术和改建户外空间与邻近社区蜗合。这不单只是应付运作上的改变，并希望籍著这些改善工程为我们的员工、邻居及公众的环境提升可持续性发展。

此外，机电工程署亦实施绿色采购政策、环境及能源管理等，以提倡建筑物良好营运和管理的做法。






SMARDT
HOT
SMARDT







Existing Buildings Category 既有建筑类别
Facilities Management 设施管理

GRAND AWARD 大奖

K11 Art Mall
K11购物艺术馆





Team or Organisation Name
K11 Concepts Limited

Client / Developer
New World Development Company Limited

Location
18 Hanoi Road, Tsim Sha Tsui,
Kowloon, Hong Kong

Completion Date
22 January 2009

Site Area
N/A

Gross Floor Area
40,238.74m^2

IAQ Consultant
Business Environment Council Limited

Environmental System Consultant
Federation of Hong Kong Industries

Lab Test Consultant
TÜV Rheinland Hong Kong Limited

TQM Consultant
SGS Hong Kong Limited

Energy Management Consultant
Telemax Environmental and Energy Management Limited

Cleaning Consultant
ISS Facility Services Limited

Architect
Dennis Lau & Ng Chun Man Architects & Engineers (H.K.) Limited

Civil & Structural Engineer
Ove Arup & Partners Hong Kong Limited

Building Services Engineer
Meinhardt (M&E) Consulting Engineers Limited

Main Contractor
Hip Hing Builders Company Limited


MIXTRA
K11







Located in the heart of Tsim Sha Tsui, K11 Art Mall is a seven-storey shopping complex, connecting Hyatt Regency Hong Kong and The Masterpiece. Established in 2008 by Founder and Chairman Mr Adrian Cheng under K11 Concepts Limited and New World Group, K11 combines Art • People • Nature as its core values and pioneers a “art x commerce” sustainable lifestyle business model.

In art we live. K11 is an art playground where cultural creatives gather and ideas are formed. This brand philosophy inspired the garden concept building design, the consideration of human and nature in facilities management, and innovation in operation and public engagement. Our efforts in enhancing green public space and building performance have been widely recognised. K11 regenerates the humanistic experience by engaging our team, nearby businesses, and the visitors to shop and enjoy our public space, join our energy saving and waste reduction campaigns, and maintain a regular sustainability dialogue. We welcome our tenants to consider a “green lease” by sharing our best practices through in-person, digital, and print communication.

Innovation is the common thread integrating art, people, and nature at K11. New practices and technologies are adopted in energy, water, and waste management. Public art exhibitions and workshops are frequently held with local and overseas organisations to promote art, upcoming technologies, and a collaborative culture.

K11 购物艺术馆位于尖沙咀的心脏地带，为一座 7 层楼高的购物中心，连接香港凯悦酒店和名铸。创始人和主席郑志刚先生于 2008 年成立 K11，以结合艺术 • 人文 • 自然为其核心价值，并开创了一种「艺术 x 商务」可持续发展生活方式的商业模式。

In art we live 活现艺术。 K11 购物艺术馆是一个艺术游乐园，聚集文化创意及新概念。这品牌哲学启发了园林概念建筑设计，考虑人与自然和设施管理，运作创新并鼓励公众参与其中。另外，我们在加强绿色公共空间和建筑性能的努力都得到了广泛的认可。为发扬可持续发展的人文体验，K11 通过我们的团队，鼓励附近的商家，购物的游客，除了享受我们的公共空间外，更加入我们的节能减废活动，并保持定期沟通。此外，我们亦欢迎租户通过亲身接触，数码科技和印刷通讯等，考虑我们提供的「绿色租赁」计划。

创新是贯串 K11 艺术、人文与自然的支柱。新的工艺和技术，能源，水和废物管理都会被我们广泛采用。 K11 经常与本地及海外机构举办公共艺术展览和研讨会，以宣扬并实践其结合艺术，人文，自然与创新的协作文化。


POLAR
POWER
Y3


K11



Existing Buildings Category 既有建筑类别
Facilities Management 设施管理

MERIT AWARD 优异奖
Exchange Tower
国际交易中心



Team or Organisation Name
Sino Estates Management Limited

Client / Developer
Sino Estates Management Limtied

Location
33 Wang Chiu Road, Kowloon Bay, Kowloon, Hong Kong

Completion Date
26 March 2009

Site Area
0.47 hectare

Gross Floor Area
56,580m^2

Architect
Rocco Design Limited

Civil & Structural Engineer
Rocco Design Limited

Building Services Engineer
Talent Mechanical & Electrical Engineers Limited

Landscape Architect
Rocco Design Limited

Main Contractor
Hong Kong Construction Co. Limited

Facility Manager
Sino Estates Management Limited

Management Company
Sino Estates Management Limited


EXCHANGE TOWER







A Green Vision for Office Building

Exchange Tower takes a pioneering view of office development and environment sustainability and strives to break new ground. Working with the award-winning architect who designed IFC Mall and One Peking, Rocco YIM, we have introduced a series of ecological innovations based on the needs of executives now and in the future. The result is Exchange Tower, a landmark building that sets a new trend for modern office design by integrating living green areas into every floor and bringing a balance to the place where we spend most of our time. It is a new era for Hong Kong - the star of a green vision for office development.

Pioneering Green Space Design

You've never seen anything like it - a tranquil green balcony integrated into every office floor lift lobby, bringing unprecedented green spaces into the working environment. When you want to meet with colleagues and business associates or brainstorm in a more relaxed environment, come to our unique and spectacular Sky Garden on the 15th floor. Here among a green oasis of serenity and fresh air, you can enhance your work and business relationships. It's a new mode of work and play based on the needs of both today's and tomorrow's executives.

写字楼环保愿景

国际交易中心在写字楼持续环境保发展方面据有前瞻性观点和地位。与得奖名设计师严迅奇合作 (曾设计香港国际金融中心商场及北京道一号) ，切合现在与将来行政人员需要，于大厦内设计一系列「生态保育」创作概念。作为九龙湾的地标之一，国际交易中心率先于各层纳入新型环保写字楼设计，掀起现代办公室设计概念的一股新趋势。这个绿色愿景办公发展的明日之星将为香港开拓一个新时代。

领先环保空间设计

你可能从未想过幽静的环保露台可融入写字楼的工作环境当中，国际交易中心正正于各层电梯大堂提供一个「前所未有」的环保空间。而 15 楼宁静、独特、舒适的空中花园更是与生意伙伴碰面或与同事讨论、进行会议的理想地点。此空中花园有如「沙漠绿洲」，提供宁静、清新空气环境，必定能提升工作和生意上人际关系。这里崭新的工作模式，专为行政级人员而设，均迎合目前需求及未来发展路向。



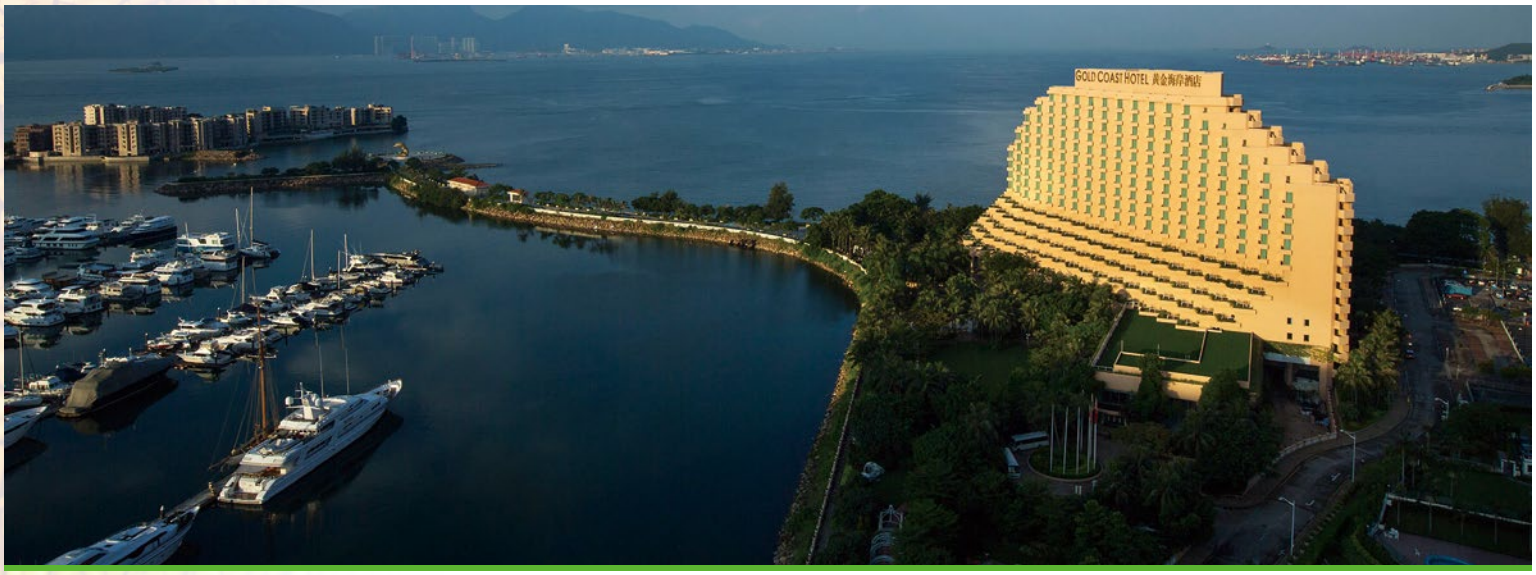






Existing Buildings Category 既有建筑类别
Facilities Management 设施管理

MERIT AWARD 优异奖
Hong Kong Gold Coast Hotel
香港黄金海岸酒店



Team or Organisation Name
Hong Kong Gold Coast Hotel
(Member of Sino Hotels)

Client / Developer
Sino Hotels

Location
1 Castle Peak Road, Gold Coast,
Hong Kong

Completion Date
1993

Site Area
3.114 hectares

Gross Floor Area
36,483m^2

Architect
Wong & Ouyang (HK) Limited

Civil & Structural Engineer
Wong & Ouyang (HK) Limited

Management Company
Sino Hotels

Owners Association
Sino Group





Hong Kong Gold Coast Hotel is the Hong Kong's only resort hotel nestled in the New Territories. As of now, Hong Kong Gold Coast Hotel managed the largest outdoor landscaped garden among hotels in Hong Kong. The building design integrates with its surrounding environment creating a unique place for leisure in Hong Kong.

Through careful planning, Hong Kong Gold Coast Hotel strives to incorporate various sustainable energy measures and practices to use energy wisely in daily operations in order to reduce carbon footprint. Hong Kong Gold Coast Hotel often finds new and innovative ways to reduce, reuse, and recycle the types and quantities of waste generated. The outstanding environmental performance includes the following areas:

- Strategic environmental management
- Well landscape maintenance
- Excellent performance in energy and water conservation and efficiency
- Leadership in waste management
- Strong commitment to sustainability
- Proactive stakeholders engagement and guests participation
- Continual green education programme for staff and guests

Hong Kong Gold Coast Hotel will continue to actively support green initiatives and activities to raise the awareness and understanding on environmental sustainability of our industry peers, general public and our hotels' guests and employees.








food
serve with love





Existing Buildings Category 既有建筑类别
Facilities Management 设施管理

MERIT AWARD 优异奖
Sino Estates Management Ltd. - Pacific Palisades
信和物业管理有限公司 – 宝马山花园



Team or Organisation Name
Sino Estates Management Limited - Pacific Palisades

Client / Developer
Sino Estates Management Limited - Pacific Palisades

Location
1 Braemar Hill road, North Point

Completion Date
N/A

Site Area
1.538 hectares

Gross Floor Area
76,900m^2

Management Company
Sino Estates Management Limited




A.M.S.S







Pacific Palisades is located at 1 Breamar Hill Road of North Point and was built in 1991 consisting of 14 residential towers, a multi-storey car park and a clubhouse.

The U-shape design of residential towers allows maximum sunlight penetrating into apartments, in which residents could enjoy natural light through windows and the balconies. A tropical style swimming pool is located at the heart of the estate. During summer when wind blowing across the top of the pool, pool water can absorb heat from the air and the wind can bring cool air to the apartments.

Energy Saving

Energy saving is one of the prime objectives of our building management. Over the past, these objectives were completed and highlighted as follows:

1. Modernisation of Lift
2. Retrofitting of air-cooled chillers
3. Installation of motion sensors for staircase lighting

Energy saving programme of 28 sets passenger lift modernisation has been completed and it is aimed to reduce about 20% of electricity consumption on lift installation. Also, 2 sets of 60TR air cooled chiller serving for clubhouse has been replaced.

Waste Recycling

In order to achieve sustainability in Pacific Palisades, we have been taking part in the scheme of **Source Separation of Waste Programme, Weekly Rotating Schedule of Recyclables and Food Waste Recycling**.

Engaging in Green and the Community

Owners' Committee of Pacific Palisades has been promoting environmental protection for years. Pacific Palisades is devoted to share the green activities and provide Green Tour to the community. A resident's volunteer organisation, "**SEPP – Sustainable Environmental Protection Power**" was formed to continually organise various activities and look for different opportunities to promote message of environmental protection for our residents and the community such as the **Living Green Path and Living Green Corner**.

In the past, the beneficiaries included Tung Wah Group of Hospitals Jockey Club Tai Kok Tsui Integrated Services Centre, Asbury Methodist Social Service, Hong Kong Junior Police Call, etc.





Pacific Palisades
寶馬山花園

超級3色分類「持續環保力量」
廢物源頭分類計劃回收日誌

星期一 Monday 月曜日	星期二 Tuesday 火曜日	星期三 Wednesday 水曜日	星期四 Thursday 木曜日	星期五 Friday 金曜日	星期六 Saturday 土曜日	星期日 Sunday 日曜日
			廢紙 Paper 廃棄の紙			
金屬製品 Metallic Product 金屬製品	鐳射光碟 CD CD	墨盒、碳粉盒 Ink Cartridge & Toner Cartridge トナーカートリッジとインクカートリッジ	電池 Battery 電池	塑膠製品 Plastic Product プラスチック製品	廢紙 Paper 廃棄の紙	



Existing Buildings Category 既有建筑类别
Facilities Management 设施管理

FINALIST 入围项目
Aria
峻弦



Team or Organisation Name
Royal Elite Service Company Limited

Client / Developer
Owners' Committee of Aria

Location
51 Fung Shing Street, Ngau Chi Wan, Kowloon, Hong Kong

Completion Date
30 December 2010

Site Area
1.45 hectares

Gross Floor Area
79,046m^2

Project Manager
Sun Hung Kai Properties Limited

Management Company & Facility Manager
Royal Elite Service Company Limited

Owners' Association
Owners' Committee of Aria







Aria, developed by Sun Hung Kai Properties Limited, is a luxury residential property on Kowloon Peak. Most of the flats equipped with expansive windows and wide balconies that afford open views of the natural surroundings.

The designer has drawn the nature into the estate by building a Podium Garden at 3/F where the residents will pass through every day. Residents can enjoy the sight of greening as well as the lush and abundant natural resources in one time. In addition, landscaped open spaces are designed on the 340m long Sky Promenade at 37/F in which sitting lounges are equipped. Residents can enjoy jogging along the Sky Promenade in a sensational way.

Also, the building design for Aria has integrated sustainable environmental features, including the glass main entrance with ceiling of about 52 feet and the glass tower lobbies that can utilise the natural light; energy efficiency equipment such as VVV-F type lifts, heat pumps for swimming pool, all-electric cooking appliances making the green kitchens of the clubhouse's restaurants; recycle waste segregation bags at each residential storeys, etc.

Besides energy management system (EnMS) and measures established, sustainable green life amongst the residential was cultivated through the "Green Steps Reward Program", and more than 10 educational programmes & activities of environmental protection were held yearly.

Under the continuous promotion and enforcement, almost 10 awards and certificates are acquired in 2014-2015 in which mostly are green related achievements.

峻弦为新鸿基地产位于飞鹅山发展的豪宅项目。大部份单位均设开扬露台，外墙设计更融会露台与玻璃幕墙的特色，将大自然的山峦氛围引入。

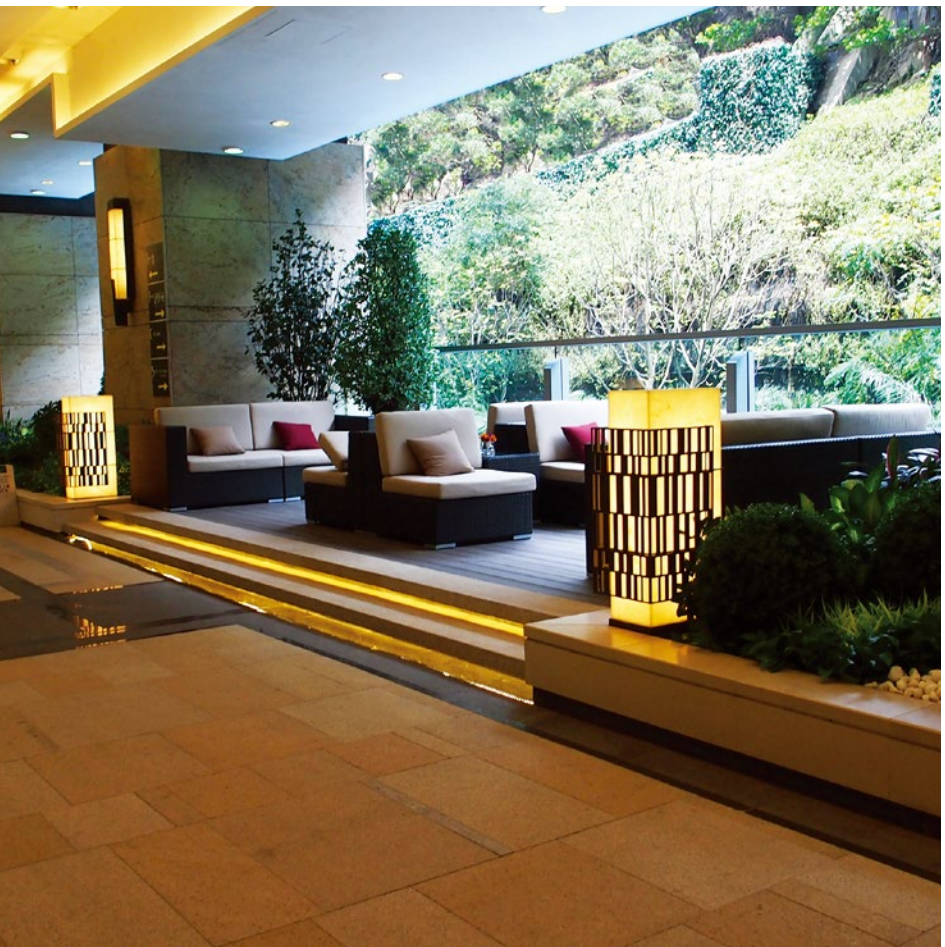
峻弦饱览飞鹅山翠峦的无穷景致，设计者引自然入室，于住户必经的 3 楼平台建立了一望无际的平台花园，住户在观赏平台花园绿化设计的同时，更可享受飞鹅山自然美景。为增添住户可享用的绿化设施，设计者于 37 楼的 340 米空中长廊上增设观景雅坐，以让住户可休憩地享受绿化景致。住户更可于 37 楼的空中长廊作健步及运动的同时，呼吸著新鲜空气，享受鸟语花香。

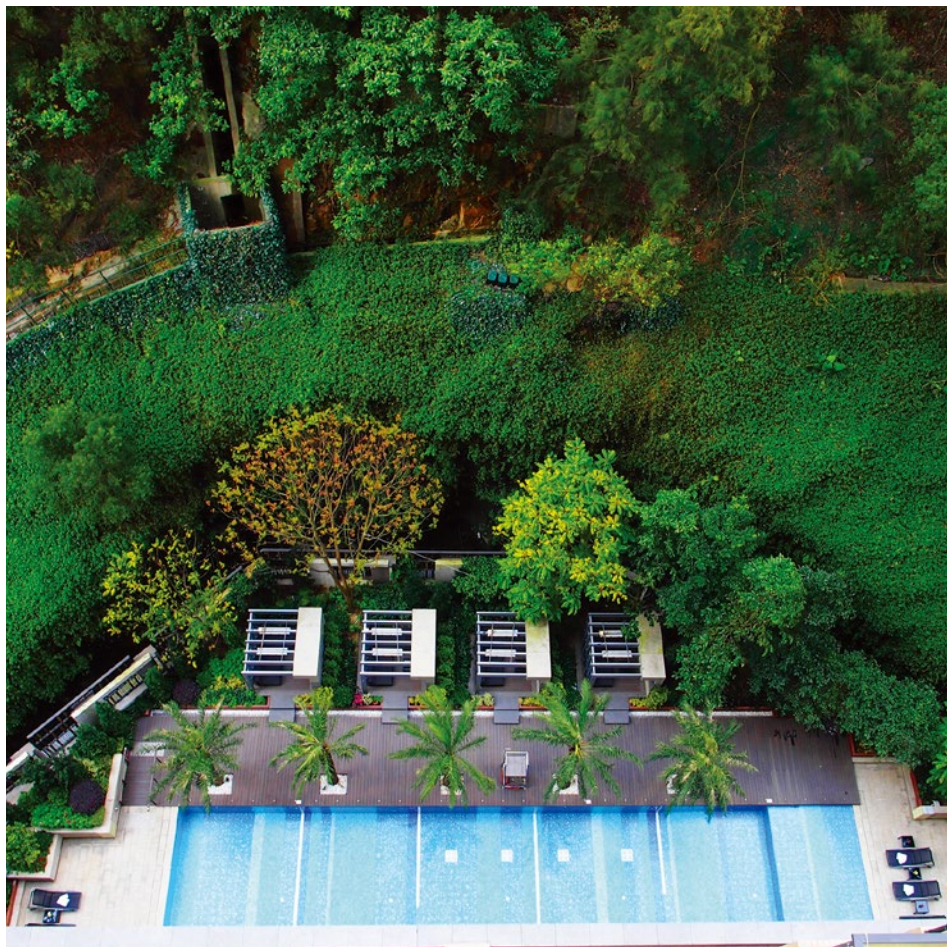
峻弦融入了可持续发展的环保特质，包括入口大堂及各座大堂以玻璃盒为概念，地下大堂更有约 52 呎的特高楼底，能成功善用天然光；采用节能设备及装置如变压变频升降机驱动器，采用全电能炉具于会所餐厅建立绿色厨房；于楼层设立源头分类回收箱等等。

此外，峻弦除建立能源管理系统及措施外，于透过「绿色印记」奖励计划及每年举办超过 10 个的环保教育活动，持续性为住户建立绿色生活。

在不断的推动及持续的执行下，峻弦于 2014-15 年荣获接部 10 个的奖项及成就，大部份更与环保相关的。







Existing Buildings Category 既有建筑类别
Facilities Management 设施管理

FINALIST 入围项目
Lee Garden One Offices
利园一期写字楼



Team or Organisation Name
Hysan Property Management Limited

Client / Developer
Hysan Development Company Limited

Location
33 Hysan Avenue, Causeway Bay, Hong Kong

Completion Date
June 1997

Site Area
0.56 hectare

Gross Floor Area
72,104m^2 (Office);
93,868m^2 (this porject):
80,493m^2 for office Tower;
13,375m^2 for carpark

Management Company
Hysan Property Management Company Limited

Facility Manager
Hysan Property Management Company Limited

BEAM Plus Consultant
Business Environment Council Limited




金
Metal
屬
塑
Plastic
膠
紙
Paper





Hysan is guided by the principle of being a responsible business. With our vision to be the PREMIER property company in the marketplace, our Environmental Policy provides a firm foundation that ensures environmental considerations are an integral part of our culture and thinking.

In addition to the Environmental Policy, Hysan has established an Environmental Roadmap that embraces our environmental strategies and outlines a 3-year action plan to strengthen our sustainability practices.

Lee Garden One Offices is the flagship office building within Hysan's portfolio. It was completed in 1997, and since then the Property Services Team has been looking for ways to maintain and improve the building's office portion in a range of areas, from health, safety and environmental management to building and site operation and maintenance. We have also enhanced our waste management, water and energy use, as well as indoor environmental quality.

In 2015, Lee Garden One Offices became the first-ever office building to achieve a Provisional Platinum BEAM Plus (Existing Building) Commercial Building certification. Despite the challenge of fulfilling the standard's stringent requirements for a 1990s commercial building, Hysan's Property Services Team succeeded by making improvements on various aspects of asset enhancement and green management.

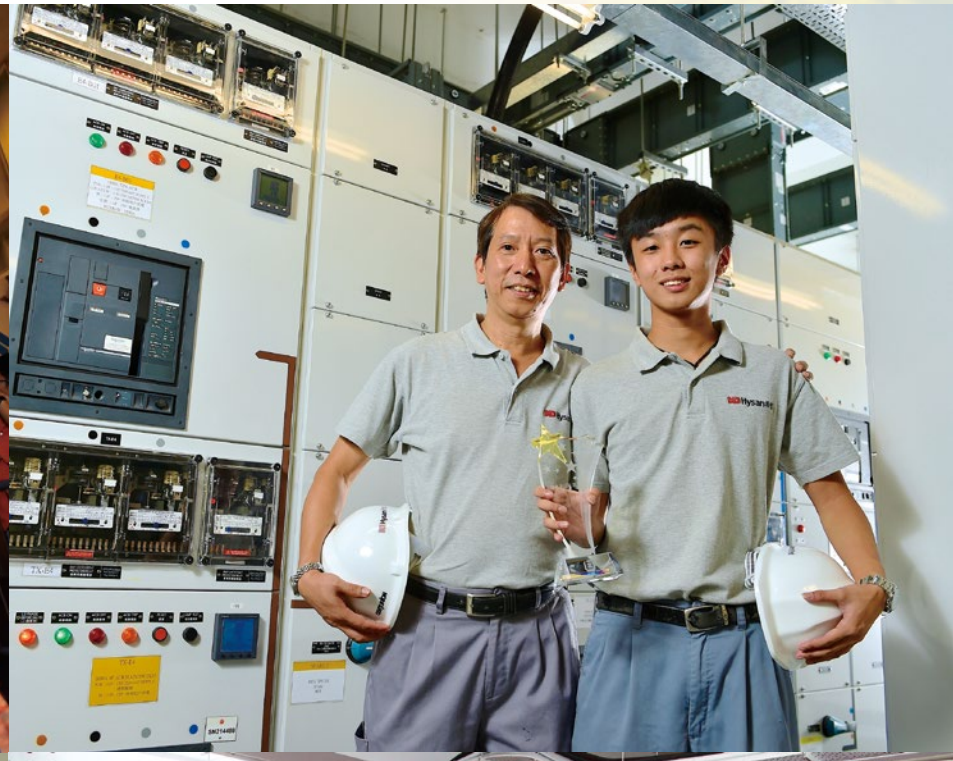
希慎兴业秉持作为负责任企业的经营原则。集团的愿景是成为首屈一指的地产公司。集团在环境政策所奠定的坚实基础上，确保关爱环境是企业文化及思维中不可或缺的一部分。

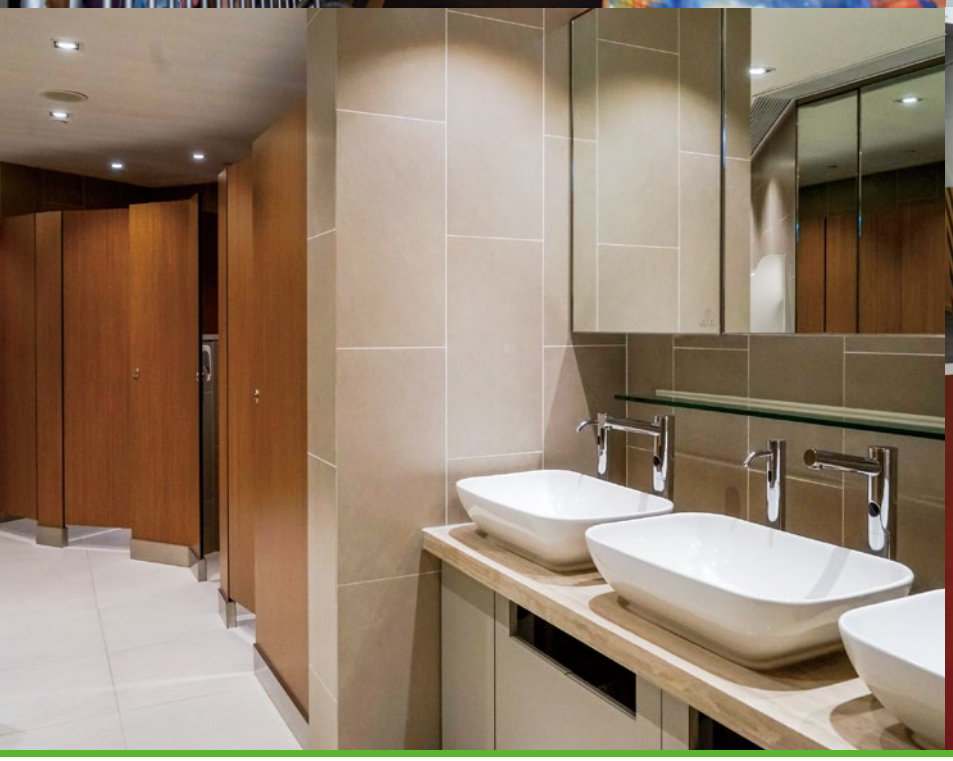
除了环境政策外，希慎还制定了「环保路线图」(Environmental Roadmap)。该路线图叙述集团的环保策略，并勾勒出一个三年行动计划，让集团精心策划，全面强化可持续发展实务。

利园一期写字楼是希慎于 1997 年落成的旗舰写字楼大厦。物业服务团队一直努力不懈，务求在多个范畴为该建筑物写字楼部分缔造卓越成绩，包括健康、安全及环境管理、楼宇及场地的营运与保养、废物管理、水及能源使用，以至室内环境质素等。

在 2015 年，利园一期写字楼荣获首项绿建环评 BEAM Plus（既有建筑）商业楼宇暂定铂金级认证。纵然要让一栋 90 年代的商业楼宇符合这个标准各方面的严格要求，极具挑战性，希慎物业服务团队从提升资产价值和绿色管理入手，成功为此商厦取得佳绩。


LEE
GARDENS






TESLA
TESLA
TESLA
TESLA 54
ONLY

Existing Buildings Category 既有建筑类别
Facilities Management 设施管理

FINALIST 入围项目
MGM Macau – Green Beyond the Building Form



Team or Organisation Name
Energenz Consulting

Client / Developer
MGM Macau China

Location
Macau SAR

Completion Date
18 December 2007

Site Area
4.32 hectares

Gross Floor Area
211,545m^2

Energy Consultant
Energenz Consulting

Architect
Wong & Tung International Limited

Building Services Engineer
J. Roger Preston Limited

Interior Designer
(Casino and public spaces)
Dougall Design Associates, Inc.

Interior Designer
(Rooms, suites and villas)
Wilson & Associates

Main Contractor
Hip Hing Engineering (Macau) Limited


MGM
美高梅







MGM is determined to and has made significant strides in transforming its property into one of the greenest multi-entertainment resort in the world: This mind-set carries on from building design and construction into facility management for continuously improvement. MGM sees sustainability and green beyond the building form and fabric, it is a mentally embedded in our staff, culture, operations, process and management.

This ethos forms the basis of our Sustainability Vision, "Create a Better Tomorrow Today", which means that the decisions we make today, will affect the society and the environment of tomorrow. This means we make decisions where environmental and social benefits are key consideration.

Quantifiable performance is a key measure of success at MGM. Since our 2008 baseline, we have reduced our total energy consumption by 28%, despite a growing business and a progressively warmer climate. In 2015, we continued to reduce our water usage in our hotel yielding a 13% reduction from our 2012 baseline.

We recognise the importance of responsible waste management, and endeavour to reduce waste sent to the landfill and incineration by managing our resources more wisely. From 2012, we have reduced our incinerator waste by 7%.


YUMMY !
低碳菜單
食多兩餐
LOW CARBON
LOW IMPACT



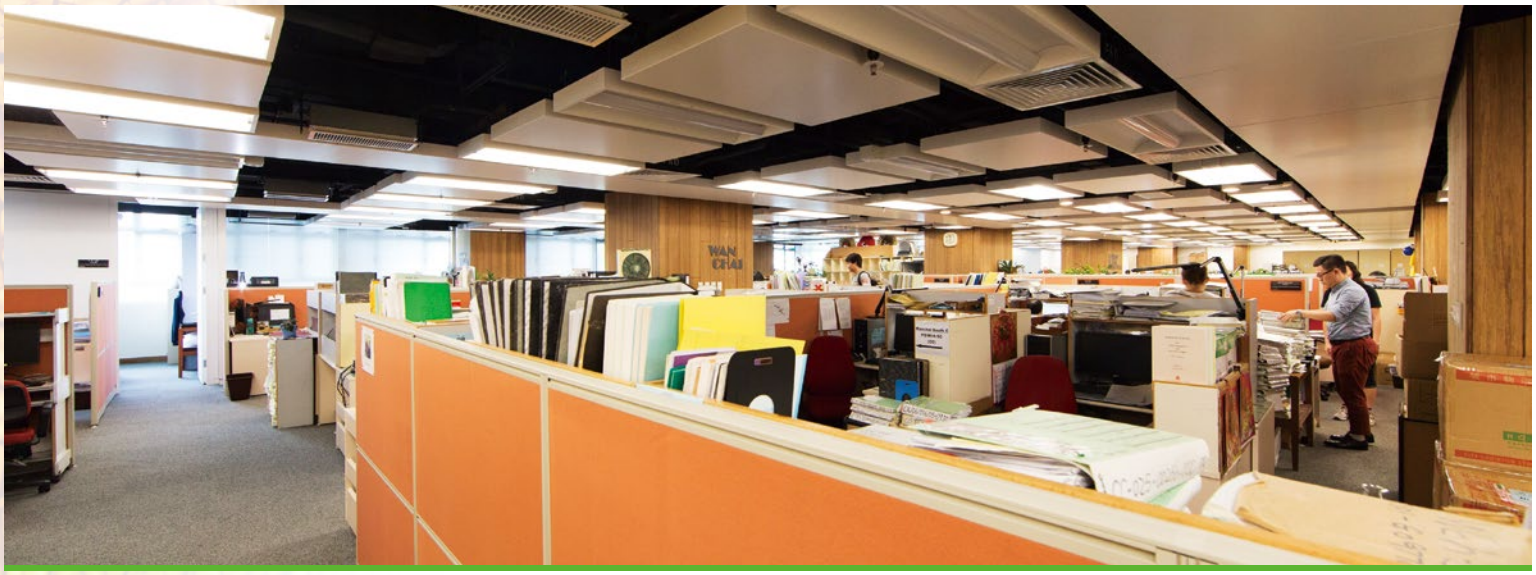

MGM
MGM
MGM



Existing Buildings Category 既有建筑类别
Interiors 室内设计

GRAND AWARD 大奖

Architectural Services Department Renovation of 1/F Main Block APB Centre
建筑署建业中心文楼一楼翻新工程



Team or Organisation Name
Ove Arup & Partners Hong Kong Limited

Client / Developer
Architectural Services Department,
Government of the HKSAR

Location
1/F, Main Block, APB Centre,
9 Sung Ping Street, Hunghom,
Kowloon, Hong Kong

Completion Date
March 2015

Site Area
N/A

Gross Floor Area
794m^2

Project Manager
Architectural Services Department,
Government of the HKSAR

Sustainable Design and BEAM Plus Interiors Consultant
Ove Arup & Partners Hong Kong Limited

Main Contractor
Able Engineering Co. Limited

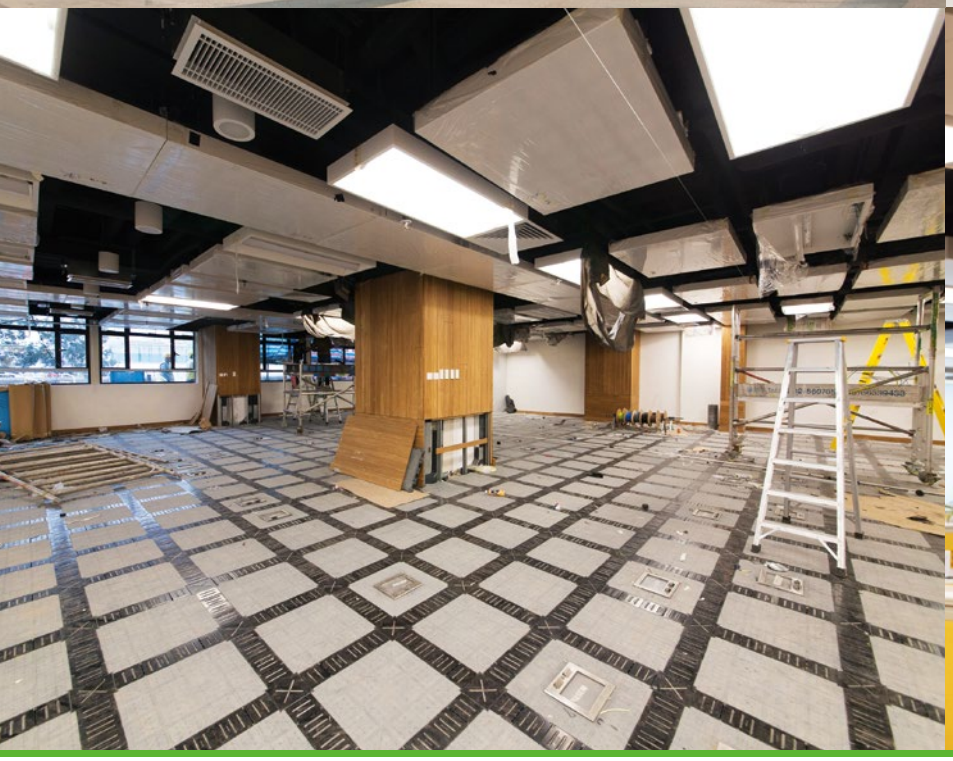
Architect
Llewelyn-Davies Hong Kong Limited

Building Services Engineer
Wong & Ouyang (Building Services) Limited

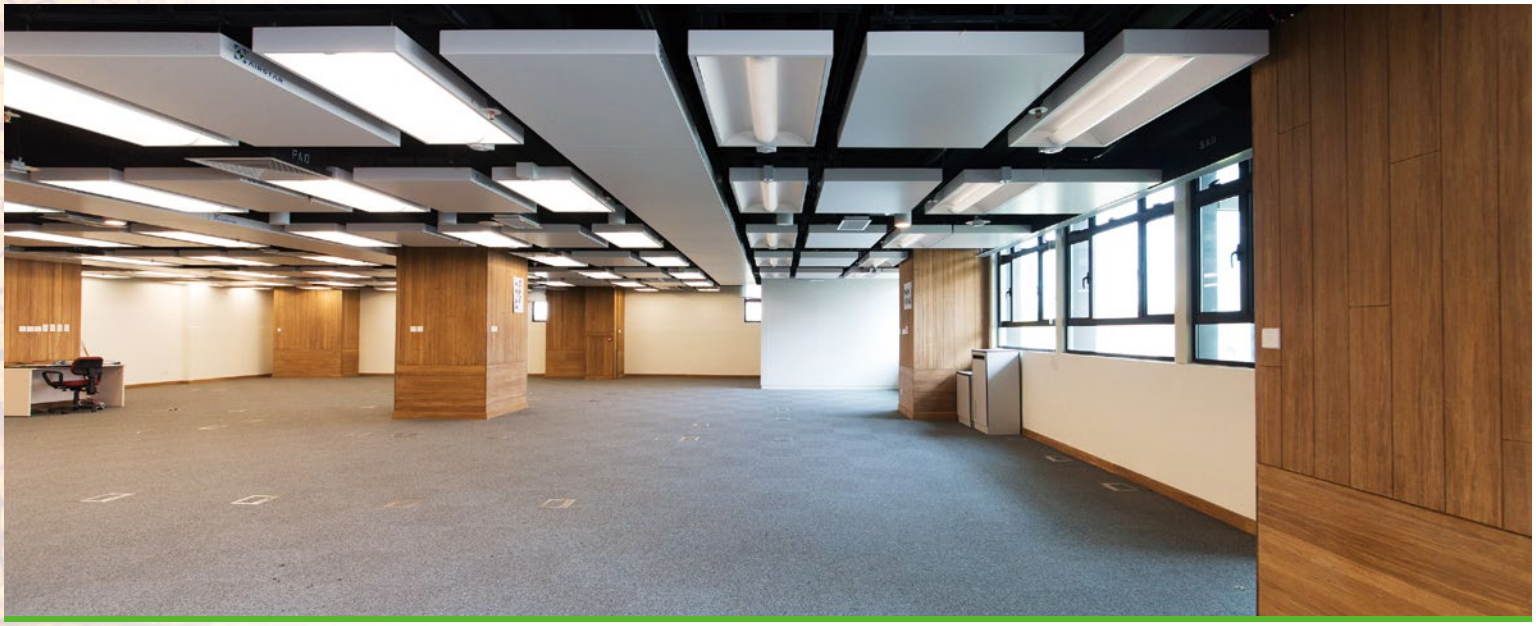
BIM Consultant
Vircon


A P B CENTRE






CENTRAL
PEAK
MID LEVEL



The new Architectural Services Department (ArchSD) office is located at 1/F of Main Block, APB Centre, Hunghom, Kowloon, Hong Kong

The renovation project adopted a holistic approach on sustainable design, green construction, environmental friendly operation and maintenance to transform existing premises to a green workplace.

Since the new office occupants were relocated from the existing office on 8/F of APB Centre, almost all furniture, partitions and electrical appliances in the new office were reused from the old office to minimise purchasing of new items.

Sustainable and innovative design strategies, such as radiant cooling system, indirect LED lighting, automatic control for building systems, water efficient fixtures, sustainable materials and flexible layout were integrated to create a low carbon, green, healthy and modern indoor environment to the office occupants.

The project had successfully demonstrated the feasibility of practice of a sustainable office renovation.

新建筑署办公室位于红磡建业中心的一楼。

该改造工程采用一个包含可持续设计，绿色施工，环保营运和保养的全面策略来改造现有的场所，以提供一个绿色的工作环境。

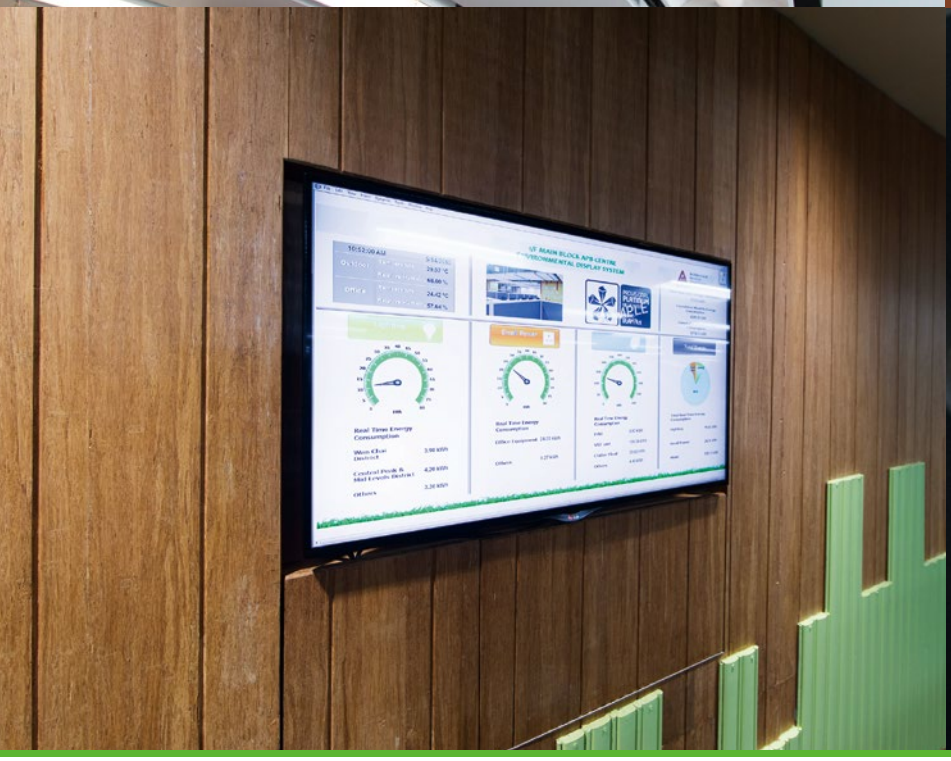
新办公室的员工从既有的八楼办公室搬迁过来，因此，几乎所有的家具，隔板和办公室电器都是从八楼回收重用，以减少新的采购。

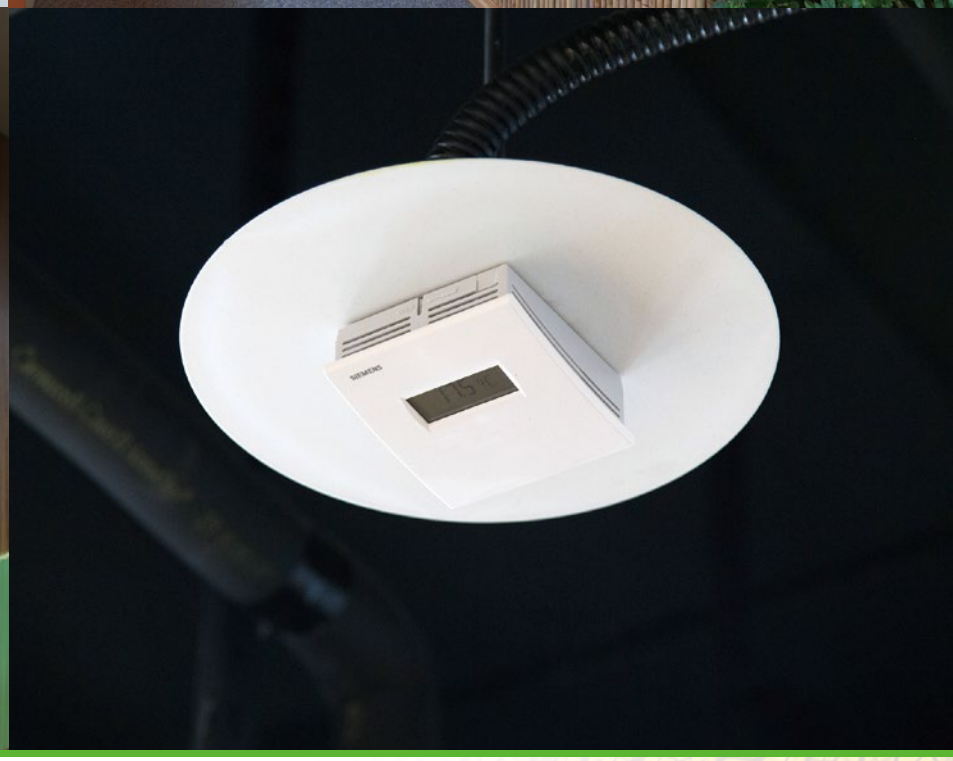
新办公室整合了持续和创新的设计策略，如辐射空调系统、间接 LED 照明、建筑自动化控制系统、节水装置、可持续材料和灵活的布局，给员工带来一个低碳、绿色、健康及现代化的室内办公环境。

该项目成功地展示了可持续办公室装修的可行性。


AIRSTAR




Real Time Energy Consumption


SIEMENS

Existing Buildings Category 既有建筑类别
Interiors 室内设计

MERIT AWARD 优异奖
C.C.Wu International Co. Limited
伍集成国际有限公司





Team or Organisation Name
Y.I. & Associates Limited

Client / Developer
C.C. Wu International Co. Limited

Location
Room 608, CC Wu Building,
302-308 Hennessy Road, Wan Chai,
Hong Kong

Completion Date
26 June 2015

Site Area
N/A

Gross Floor Area
317m^2

Architect and Interior Designer
Y.I. & Associates Limited

Environmental Consultant
Acumen Environmental Engineering and
Technologies Co., Limited

Environmental Consultant
Beexergy Consulting Limited

Mechanical & Electrical Engineer
Consolidated Consulting Engineers Limited

Main Contractor
Parks Decoration & Engineering Limited



1 FLOOR LAYOUT PLAN
1:100 (A3)

0m 1m 2m 4m 10m



This project is an interior renovation for the Management Office of CC Wu Building in Wan Chai, Hong Kong. It occupies approximate 294 m^2 net area with 16 occupants. The major tasks of this office involve team works between staffs, meeting with tenant, consultants, and contractors, in order to give high quality services for the users and occupants of this building.

Inducing well-being working spaces, sustainable environment and lively atmosphere are the major design objectives of this project. Interior passive design consideration for layout is adopted. It optimises the use of natural resources instead of adding artificial installation. To improve the enclosed situation of the original layout (i.e. all rooms occupied the windows and office had no direct daylight), an open plan was designed to maximise the use of natural lighting and result in energy saving.

Flexible spatial design is adopted on the furniture layout, alternation of usage and special arrangement. The open office is designed to welcome and serve its tenants. It provides its office members a dynamic working environment while the multi-function area is designed for holding events for staffs. By improving the spatial quality, it creates a positive impact on the work productivity. Work motivation, team spirit and sense of belongings are believed to be built and enhanced.

集成中心管理处的办公室除了提供日常的办公空间，还不时作为租客和管理处的会议地点，多用途室亦会开放予员工举办活动。本设计致力从室内设计上达到节能减碳的效果，推广绿色工作空间，提供一个舒适、健康的环境予所有使用者。同时，尽力减低装修工程时对周边环境的影响，善用天然资源，大量重用旧有家具与使用环保装修物料。

为了改善原来只使用电灯照明的情况，本设计使用了开放式的办公室设计，办公台尽量与窗边摆设垂直，令每一张办公台都能享受到适当的天然光而不会有反射光，此举大大减少用照明灯，也令窗边得以种植大量植物，有助改善室内空气。

会议房通过使用特别设计的趟折门和家具布局，构成了灵活的空间，使用者可随时根据不同的需要，将会议室或多用途室变成中型或大型的会议或办公地方。







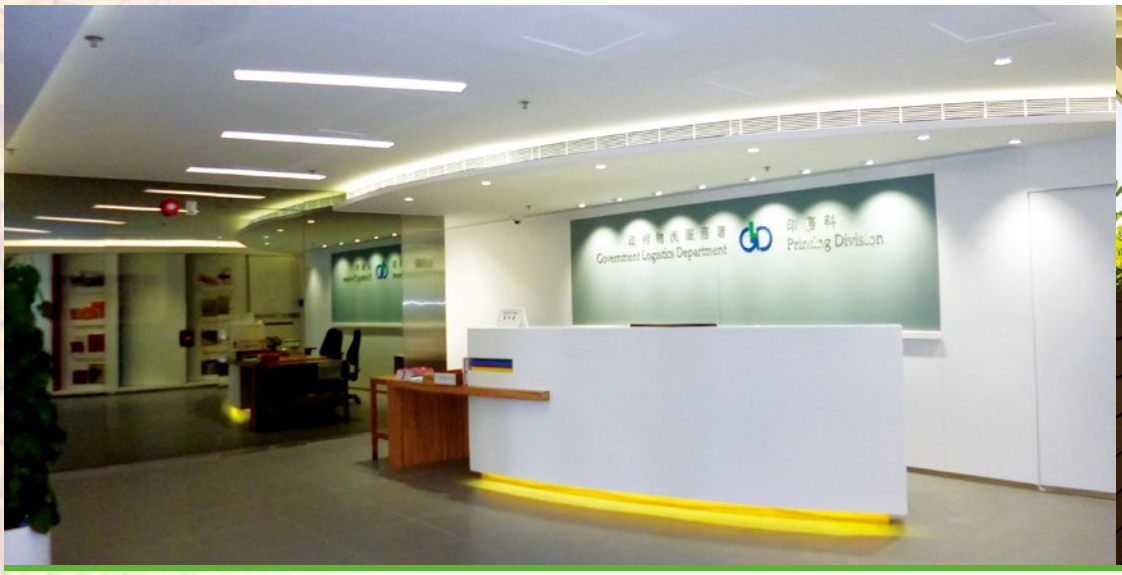


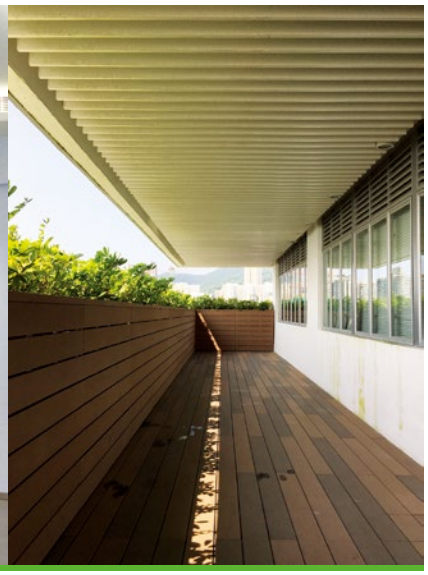




Existing Buildings Category 既有建筑类别
Interiors 室内设计

FINALIST 入围项目
Office of the Printing Division, Government Logistics Department
政府物流服务署印务科办公室





Team or Organisation Name
Architectural Services Department,
Government of the HKSAR

Client / Developer
Government Logistics Department Printing Division, Government of the HKSAR

Location
Printing Unit,
Government Logistics Department,
10/F, Government Logistics Centre,
11 Chong Fu Road, Chai Wan,
Hong Kong

Completion Date
15 February 2015

Site Area
N/A

Gross Floor Area
930m^2

Project Manager
Architectural Services Department,
Government of the HKSAR

Architect
Llewelyn-Davies Hong Kong Limited

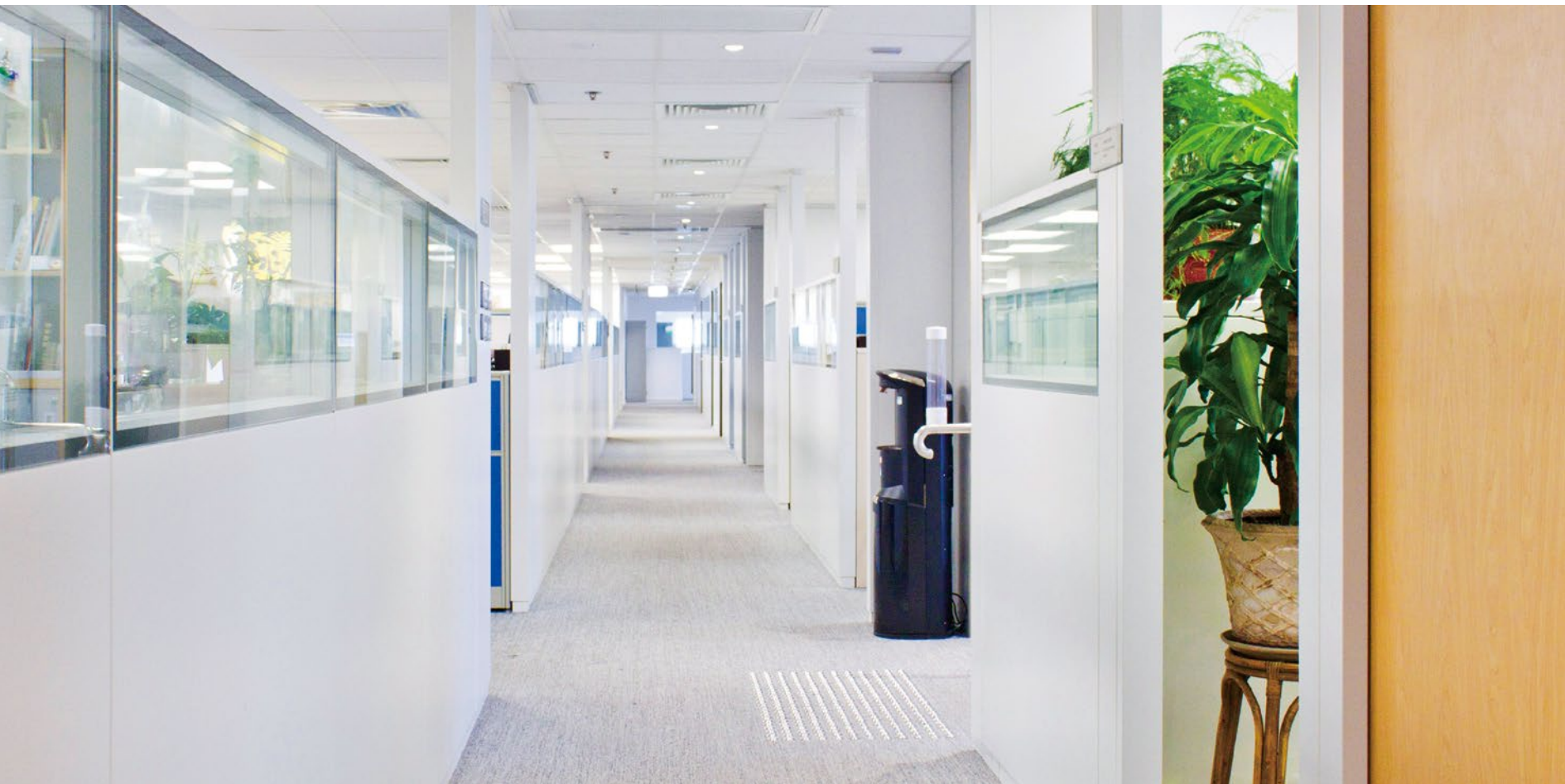
Civil & Structural Engineer
AECOM Consulting Services Limited

Building Services Engineer
Wong & Ouyang (Building Services) Limited

Quantity Surveyor
Langdon & Seah Hong Kong Limited,
An Arcadis Company

Environmental Consultant
BMT Asia Pacific Limited







The refurbishment of 10/F of Government Logistics Centre in Chai Wan has transformed the once unattractive space into a green and lively contemporary office for the Printing Division of Government Logistics Department. The refurbishment work has adopted a green approach by using various sustainable design features to provide a pleasant working environment for the staff. The key features are:

- Views to Outside is achieved for most staff by careful design of the interior layout which also enhances the daylighting level as well as occupants' comfort.
- Interior Green Wall is introduced to enliven the interior space.
- A Green Balcony is adopted to serve as an outdoor relaxing space for staff as well as for enhancing the external environment.
- Rapidly Renewable Materials such as bamboo panelling are used.
- More than 70% by weight of the total furniture and partitions including chairs, desks, cabinets, etc. are reused.
- Materials with High Recycled Contents such as timber flooring, false ceiling, plaster board, etc. are used.
- Task lighting design with high efficiency LED downlights and fluorescent lightings is adopted.
- Facilities for recycling of glass and small electrical appliances are provided in addition to the general provisions for recycling metal, paper and plastic.

位于柴湾的政府物流中心十楼，由原来欠缺吸引力的空间，经过翻新后，为政府物流服务署印务科提供了一个充满活力及现代化的绿色办公室。翻新工程采用各种具可持续发展的设计特点，为员工提供了一个舒适的工作环境。主要特点包括：

- 透过精心的室内设计布局，大部份员工可以观览室外环境，同时也可以加强了室内的日光和员工的舒适度。
- 引入室内绿墙，并活化了室内的空间。
- 采用绿色阳台，为员工带来休闲的室外空间，以及改善室外环境。
- 采用快速再生装修材料，例如竹板。
- 重用超过百分之七十 (以重量计算) 的现有办公室家俱和屏风，包括椅子，桌子，文件柜等。
- 采用含高回收物质的材料，如木地板、假天花、石膏板等。
- 采用工作照明设计，并配置高效率的 LED 筒灯和荧光灯。
- 除了提供一般回收金属，纸张和塑料回收箱外，更提供回收玻璃和小家电的设施。






環保回收箱 Recycle Bin
SMALL ELECTRICAL APPLIANCE
GLASS





Research & Planning Category ◉ 研究及规划类别

Jury's Citation 评审意见

Research & Planning Category 研究及规划类别

GRAND AWARD 大奖

A multi-scale assessment of embodied energy use in China's construction sector: a multi-regional analysis
多尺度视角下基于区位分析的中国建筑业物化能耗计量

The Global Alliance in Building and Construction (GABC) was recently launched at COP21 in Paris, comprising of countries, cities and public and private organisations of the building sector value chain, to scale up the implementation of ambitious actions towards the "below 2°C" pathway in buildings and construction sector. With a limited time and a huge challenge, countries need to look at the broad opportunities across the whole sector, at all scales. This project presents one of the key approaches to systematically and comprehensively assess the areas of opportunities to reduce the energy consumption, and the related GHG emissions, in China at the national and regional levels, including specific industry sub-sectors, and at building or urban development project level. With better data, this approach has the potential to provide the information needed to develop cost-effective policy decisions or interventions in China's building sector, and as an example for other countries in the world.

全球建筑业界联盟最近在第 21 届巴黎气候变化大会上成立，参与成员包括了国家、城市、建筑行业的公营组织和私人组织，致力于将建筑物与建造业实现「两度目标」。面对有限的时间以及巨大的挑战，各国需要看到整个行业全方位的发展空间。这个项目展示了一个在中国国家与地区层面的有系统并全面的评估方法以减少能耗以及有关温室气体排放。有了更好的数据，这个方法可以提供所需资料，制定中国建筑业具成本效益的政策，为其他国家树立榜样。

Climate Positive Urban Regeneration: Beijing New Shougang Development – Climate Positive Project Plan
正气候城市更新：北京新首钢高端产业综合服务区 – 正气候项目

This demonstrates in a very practical and tangible way what can be achieved when virtuous ambition meets political will and a knowledgeable workforce or project team to plan and deliver a climate positive urban regeneration project. Or, in other words, innovation on the ground through systems thinking and broad collaboration across stakeholder groups. Meeting the performance framework and requirements of the C40 Climate Positive Development Program with an approved third-party assessment, a China-first, it provides an example for other urban development and regeneration projects in other parts of China and beyond.

此项目以非常切实和明确的方式，展示了由团队有识之士筹划及执行的正气候城市更新计划所得成果。换句话说，这是系统思维与持分者的通力合作的创新。此项目达到了表现指标，以及达到了第三方评估的 C40 正气候发展计划的要求。作为中国此范畴上的第一个项目，中国其他地区甚至其他地方的城市发展与重建项目可以此借鉴参考。

MERIT AWARD 优异奖

Concrete Innovation – Application Research for Carbon Footprint Reduction
创新混凝土技术 – 减少碳足迹的应用研究

With a clear focus on reducing the greenhouse gas emissions embodied in concrete, this a very practical systems-based approach that reduces the cement content (using ground granulated blastfurnace slag), reduces the use of reinforcing bars (with synthetic macro fibre reinforced concrete) and uses a new Carbon Emission estimation tool to assess design options and optimise material use.

此创新混凝土技术的目的是减少混凝土物化的温室气体，是一种非常实用的系统化方式去减少水泥含量（使用研磨高炉矿渣）、降低钢筋使用量（改用合成粗纤维钢筋混凝土）、以及使用了新的碳排放估算工具来评估设计方案和充分运用材料。

Research and Development of 2nd Generation Acoustic Balcony
研发第二代减音露台

The meritorious goal of enhancing the living condition and amenities of low-income families meets a rigorous and systems-based approach to develop a new generation of acoustic balcony in public housing estates in Hong Kong. The dedicated and persistent efforts towards these twin goals are exemplary and, when successful, would drive further innovation in design and potentially enhance the lives of many.

此项目的目标是以严格及有系统的方式去改善低收入家庭的生活条件和便利设施，发展新一代设置在香港公营房屋的减音阳台。项目团队为此两项目标所付出的不懈努力是很好的模范；只要成功，将能进一步推动设计创新以及有机会改善不少人的生活。

Research, Planning and Promotion of Sustainable Drainage System (SuDs) for Climate Ready and Flood Resilience in Built Environment
研究、策划及推广在建筑环境设置应对气候变化及提升城市耐洪的可持续排水系统

This well though-out and documented development and trial of the Sustainable Drainage System (SuDs) provide a solid foundation towards broader application and implementation of the system (or its key elements) across the region. SuDs improves water retention, re-use and efficiency, builds flood resilience, improves amenity and the aesthetic appeal of urban development projects, and reduces the urban heat island effect and the energy use (and associated GHG emissions) in buildings. Broader and at-scale applications could provide significant societal and environmental benefits.

可持续排水系统是精心规划的发展项目与尝试。系统（或其关键组件）的应用和实施为整个地区打下了稳健的基础。可持续排水系统提高了保水性与再使用率，建立了防洪功能，改善了城市发展项目的便利设施和外观，减少了城市热岛效应与房屋内的能源使用（及有关的温室气体排放）。如此系统能更广泛与大规模应用，可提供显著的环境效益。

ZCB Bamboo Pavilion
零碳天地竹亭

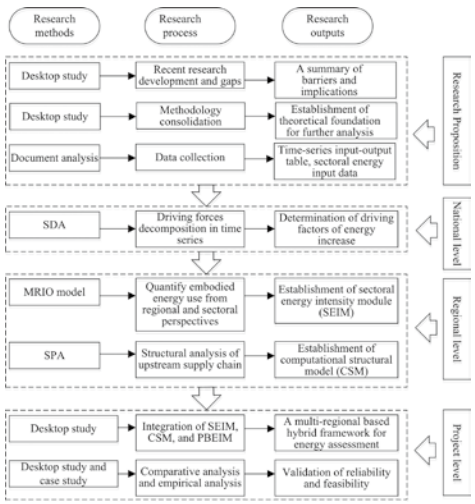
This is an innovative and practical demonstration of combining the use of advanced computer modelling and analysis tools with the traditional, plentiful and environmentally-friendly bamboo. Although a temporary structure, with many practical detailing and engineering challenges, the project has allowed a broader appreciation and perspective of the design and construction possibilities with this common material, and underlined the value of state of the art computer technologies with practical craftsmanship and know-how.

此竹亭实属创新与实用的示范。项目结合了先进的电脑模型、环保的竹子及分析工具和传统。尽管竹亭是个临时建筑，在很多实际细节与工程上面对不少挑战，这个项目加深了大众对这建筑材料的欣赏，以及设计和建筑的可能性，并且突出了先进的电脑技术与实际工艺技术的价值。

GRAND AWARD 大奖

A multi-scale assessment of embodied energy use in China's construction sector: a multi-regional analysis

多尺度视角下基于区位分析的中国建筑业物化能耗计量



Purpose of the Investigation

The Intergovernmental Panel on Climate Change (IPCC) reported that the building sector was responsible for 40% of global energy consumption and approximately 25% of global CO2 emissions (Metz et al., 2007). China also faces big challenges in energy consumption and huge environmental burdens due to its rapid urbanization. The urbanization rate in China has reached a historic high of 54.77% in 2014, and it is estimated to reach 60% by 2020, which will present considerable energy demands. As a result of its rapid development, the growth rate of energy consumption related to construction has been more than 10% in the past decade (Chang et al., 2014). Being one of society's primary energy consumers, the construction sector accounted for around 26% of total embodied energy consumption in China (Liu et al., 2012).

Because of the national drive for energy reduction in China, it is imperative to investigate the embodied energy use in the construction industry, which consists of direct energy input from the onsite production process and the indirect energy consumption from the upstream process (Chen and Chen, 2013). Not only can such investigation facilitate policy decisions on energy and environmental issues related to the construction sector but also steer the urbanization process towards more sustainable development. However, traditional methods fail to capture the hidden linkages and the economic network of inter-regional trade flows (Peters and Hertwich, 2006a, b; Wiedmann, 2009; Wiedmann et al., 2007). The specific regional characteristics such as variations in the climate, geographical location, natural resources, and level of the economy affect the inter-regional import and export among different regions, which results in cross-regional environmental shifting. This 'hidden' shifting may result in unfair or irrational policies for the construction sector.

Key Issues and Problems to be Addressed

Given the research background, the study will address the following key issues:

- How to measure the regional energy consumption and indirect energy transfers due to inter-regional trade of the construction sector?
- What are the driving forces behind the increase of energy use in the construction sector in China?
- How to decompose and quantify the energy transmissions through the entire supply chain at the regional and sectoral levels?
- How to assess the embodied energy consumption at the project level by taking regional disparities into consideration?

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Department of Building and Real Estate

Location
China

Completion Date
March 2016

Research Investigator
The Hong Kong Polytechnic University

National Level Investigation

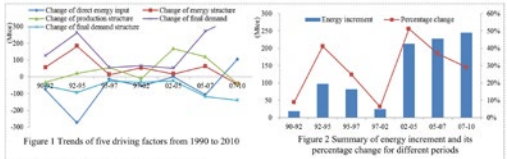


Figure 1 Trends of five driving factors from 1990 to 2010

Figure 2 Summary of energy increment and its percentage change for different periods

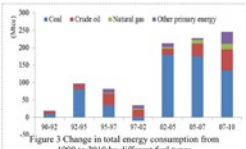


Figure 3 Change in total energy consumption from 1990 to 2010 by different fuel types

1990-1992: the energy consumption increased 8.7%;
1992-2002: the change trend of all the five affecting factors were consistent;
2002-2005: the overall energy increment was 213 Mtce (51.2%);
2005-2007: the change in volume of the final demand and production structure were two primary factors leading to energy increases;
2007-2010: the structural adjustment in energy, production, and final demand has a significant positive impact in energy reduction.

- The coal consumption is dominant in all energy sources;
- A typical fossil fuel energy-oriented sector;
- The consumption of coal was consistently reduced after 2002 due to the great efforts in structural optimization by the central government.

Table 1 Basic profile of different scenarios

	Reference scenario	Optimistic scenario	Pessimistic scenario
Agriculture	(3%)	(3%)	(3%)
Industry	(50%)	(45%)	(55%)
Iron and steel	2.9%	2.6%	3.2%
Non-metallic minerals	1.1%	1.0%	1.2%
Chemicals	2.2%	2.0%	2.4%
Service	(47%)	(52%)	(42%)
Natural gas	5.7%	6.3%	5.1%
Other primary energy	3.4%	3.7%	3.1%

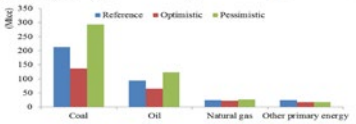


Figure 5 Energy increments of different primary energy sources in three scenarios

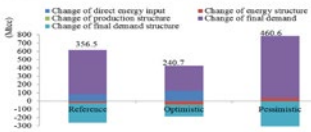


Figure 4 Energy increments of different driving factors in three scenarios

- The energy increase driven by the volume of final demand has been restrained significantly due to the structural optimization of production and energy in the optimistic scenario
- The proportion of clean energy (natural gas) and renewable energy in total energy consumption has been improved from 6.8% and 6.9% to 8.9% and 7.1%, respectively.

Regional Level Investigation-Regional Analysis

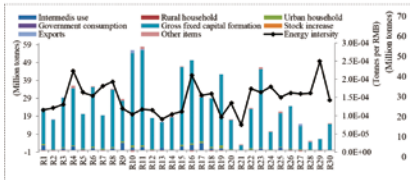


Figure 6 Total energy use embodied in the construction industry by region

- Top 3: Zhejiang (R11), Jiangsu (R10), Henan (R16);
- A typical demand-driven industry where gross fixed capital formation represents the highest relative contribution in all final demand categories;
- The total embodied energy use from the construction sector in China is 793.74 Mtec, which accounts for approximately 29.6% of the total national energy consumption;

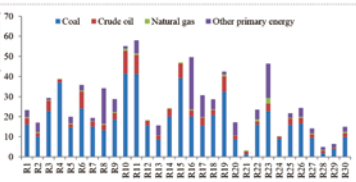


Figure 7 A breakdown of total embodied energy of 30 regions by energy sources

- Coal dominates in all energy types with the percentage ranging from 29.69% in Hainan to 72.03% in Shanxi.
- Construction sector in China is typical fossil fuel energy oriented, which leads to a large amount of ecological damage.

Table 2 Description of area categories

Area	Province/municipality	Energy intensity (Tonnes per 10^4 RMB)	Geographic location
1	Hainan (R21), Fujian (R13), Guangdong (R19)	=<1.0E-04	Southern Coastal
2	Jiangxi (R14), Shandong (R15), Anhui (R12), Beijing (R1), Jiangsu (R10), Zhejiang (R11), Shanghai (R9)	1.0E-04–1.2E-04	Central–Eastern Coastal
3	Tianjin (R2), Hebei (R3), Guangxi (R20)	1.2E-04–1.4E-04	-
4	Xinjiang (R30), Yunnan (R25), Liaoning (R6), Hubei (R17)	1.4E-04–1.6E-04	-
5	Gansu (R27), Hunan (R18), Qinghai (R28), Shanxi (R26), Inner Mongolia (R5), Sichuan (R23), Chongqing (R22), Guizhou (R24)	1.6E-04–1.8E-04	West
6	Jilin (R7), Heilongjiang (R8)	1.8E-04–2.0E-04	Northeast
7	Henan (R16), Shanxi (R4), Ningxia (R29)	>=2.0E-04	Central

- A geographical relationship still exists although all regions are divided according to the value of energy intensity;
- The southern coastal area, eastern coastal, and some parts of the central area have shared similar low energy intensity in the construction sector;
- For regions in the northeast, west, and several places in the central area, the construction sectors are representing energy intensive.

Regional Level Investigation-Regional Analysis (Cont'd)

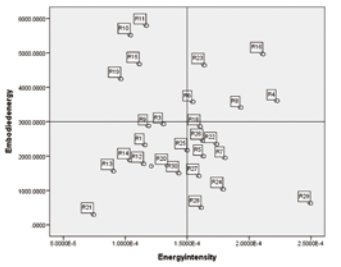


Figure 8 Distribution of thirty regions in categorization coordinates

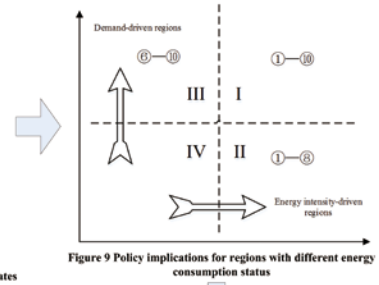


Figure 9 Policy implications for regions with different energy consumption status

- For the first quadrant: attention should not only be given to improve energy efficiency but also to optimize the energy and production structure, which could offset the energy increment from the rapid growth of final demand.
- For the second quadrant: authorities should enhance the application of high-efficiency technology and encourage innovative construction techniques.
- For the third quadrant: local government should be geared toward optimizing the energy and production structure, which is expected to balance the energy increment from the increase of the final demand.

Table 3 Energy saving strategies

	Strategy
Energy intensity	① Adopting advanced production techniques
	② Developing less energy-intensive and high value-added products in identified primary energy suppliers
	③ Changing the production process from extensive mode to intensive mode
	④ Improving energy productivity
	⑤ Innovative construction techniques (precast construction)
Energy consumption structure	⑥ Improving the share of renewable and clean energy sources
	⑦ Using less energy-intensive fuels
	⑧ Adopting clean-coal technologies
Production structure	⑨ Switching from energy-intensive industry toward energy-efficient lighter industry;
	⑩ Shifting economic growth pattern from resource-intensive oriented to resource efficient

Regional Level Investigation-Regional Analysis (Cont'd)

Table 4 Top three energy paths by region

R1	324.9	R1824<-R1613	15.8%	R16	1136.2	R16824<-R1605	28.8%
	108.8	R1824	5.3%		275.5	R16824<-R16821	5.9%
	91.8	R1824<-R1513	4.5%		260.7	R16824<-R16813<-R1605	5.7%
R2	315.5	R2824<-R3513	6.9%	R17	457.7	R17824<-R17814	17.2%
	100.9	R2824<-R2814	6.6%		392.4	R17824<-R17813<-R17512	14.7%
	102.1	R2824<-R2513<-R2814	6.1%		181.3	R17824	6.8%
R3	352.2	R3824	12.5%	R18	686.1	R18824<-R18513	24.8%
	242.3	R3824<-R3514	8.6%		162.3	R18824<-R18514	5.9%
	179.0	R3824<-R3513	6.3%		157.6	R18824<-R18513<-R18522	5.7%
R4	603.1	R4824<-R4814	17.8%	R19	776.5	R19524<-R19513	18.8%
	300.5	R4824<-R4513<-R3522	8.9%		191.3	R19524<-R19513<-R19513	4.6%
	234.1	R4824<-R4514<-R4514	6.9%		119.7	R19524<-R19525	2.9%
R5	398.4	R5824<-R5814	20.5%	R20	500.2	R20824<-R20813	29.8%
	213.6	R5824<-R5513	11.0%		167.6	R20824<-R20814	10.0%
	132.0	R5824	6.8%		65.4	R20824<-R20823	3.9%
R6	498.9	R6824<-R6813	14.4%	R21	50.3	R21824<-R21813	17.7%
	304.4	R6824<-R6814	8.8%		38.8	R21824<-R21814	13.7%
	247.1	R6824	7.2%		18.3	R21824<-R21822	6.4%
R7	234.6	R7824<-R7814	12.3%	R22	359.9	R22824<-R22813	15.6%
	174.4	R7824<-R7813	9.2%		195.7	R22824<-R22814	8.5%
	124.8	R7824<-R8814	6.6%		88.8	R22824	3.9%
R8	538.5	R8824<-R8814	16.3%	R23	690.8	R23524<-R23514	15.3%
	244.0	R8824<-R8513<-R8814	7.4%		678.3	R23824<-R23813	14.9%
	160.6	R8824<-R7814	4.9%		212.3	R23824	4.7%
R9	356.8	R9824<-R9813	14.5%	R24	152.8	R24524<-R24813	15.0%
	191.0	R9824<-R9814	7.8%		120.1	R24524<-R24814	11.8%
	144.4	R9824	5.9%		43.1	R24524	4.4%
R10	710.8	R10824<-R10513	13.3%	R25	449.0	R25524<-R25813	22.3%
	296.3	R10824<-R10514	5.5%		159.2	R25824<-R25814	7.9%
	89.9	R10824<-R10813<-R10822	1.7%		114.0	R25824<-R25825	5.7%
R11	553.0	R11524<-R11513	9.9%	R26	337.8	R26524<-R26513	14.2%
	247.4	R11524<-R11514	4.4%		153.9	R26524<-R26514	6.5%
	110.7	R11524<-R3514<-R11513	2.0%		101.2	R26524	4.2%
R12	236.6	R12824<-R12814	14.8%	R27	317.8	R27824<-R27813	22.7%
	200.8	R12824<-R12813	11.5%		151.5	R27824<-R27814	10.8%
	115.6	R12824	6.7%		76.3	R27824	5.4%
R13	192.9	R13524<-R13514	13.5%	R28	139.4	R28524<-R28514	24.3%
	103.3	R13524<-R13513<-R13513	7.2%		65.5	R28524<-R28513<-R28513	12.3%
	103.3	R13524	7.9%		19.0	R28524<-R28514<-R2854	3.9%
R14	344.0	R14824<-R14514	18.8%	R29	111.8	R29824<-R29814	18.0%
	169.3	R14824<-R14513	9.3%		104.6	R29824<-R29513	16.8%
	91.9	R14824<-R14514<-R14514	5.0%		31.2	R29824<-R1605<-R2902	5.0%
R15	657.5	R15824<-R15513	14.8%	R30	134.1	R30524<-R30813	9.1%
	462.6	R15824<-R15514	10.4%		80.9	R30524<-R30925	5.5%
	435.7	R15824	9.8%		73.9	R30524<-R30514	5.0%

Table 5 Region division by geographic location

	Area	Region
A1	Beijing-Tianjin	Beijing, Tianjin
A2	Northeast	Liaoning, Jilin, Heilongjiang
A3	Northern coast	Hebei, Shandong
A4	Eastern coast	Jiangsu, Shanghai, Zhejiang
A5	Southern coast	Fujian, Guangdong, Hainan
A6	Central	Shanxi, Henan, Anhui, Hubei, Hunan, Jiangxi
A7	Northwest	Xinjiang, Qinghai, Ningxia, Gansu, Shaanxi, Inner Mongolia
A8	Southwest	Sichuan, Chongqing, Yunnan, Guangxi, Guizhou

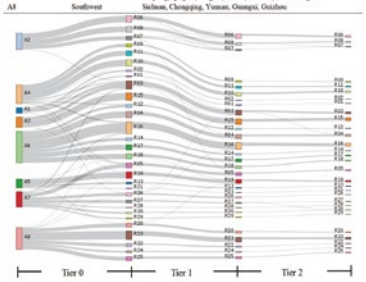
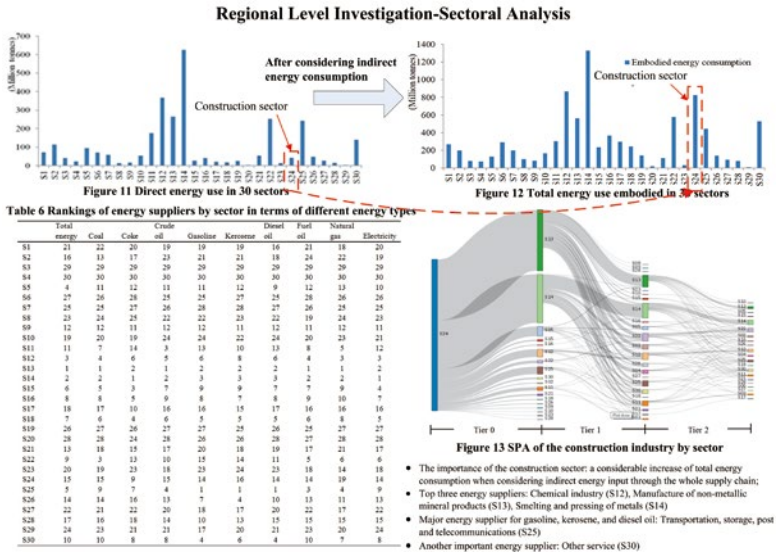


Figure 10 SPA of the construction industry by region

- **Self-sufficiency** is the major characteristic for the first-stage energy supply in the regional construction sectors with the exception of Beijing;
- **Hebei** and **Inner Mongolia** comprise the major energy suppliers in northern China;
- **Henan** was identified as a hub for energy in eastern and western regions.



This study investigated and quantified embodied energy use of China's construction sector at a multi-scale level. In general, a structural decomposition analysis (SDA) was employed to explore the driving forces behind the construction sector at the national level. At the regional level, a multi-regional input-output (MRIO) model was then used to investigate the hidden energy linkages among construction sectors in various provinces. Simultaneously, an optimised algorithm based on structural path analysis (SPA) was designed to quantify energy input to the upstream supply chain. Ultimately, a multi-regional system for assessing the embodied energy use at the project level was developed and validated in real cases by conducting comparative and empirical analyses.

Findings at the national level provided an indication of potential barriers and the means of improving the development of sustainable construction in China. The regional analysis of energy transfers could not only enable a holistic understanding of the current energy consumption status of regions, but also help policy makers to develop fair and equitable energy reduction policies. The project-level embodied energy assessment system provided valuable information concerning preliminary embodied energy use at the early stage of a construction project, which enabled relevant stakeholders to conduct what-if analyses and formulate appropriate energy-saving strategies through various scenarios before decisions are made.

本研究旨在计量多尺度视角下由于中国建筑活动而产生的直接和间接能耗。在国家层面上，通过运用结构分解模型（SDA）来揭示建筑业能耗增加的内在驱动因素。在地区层面上，首先通过运用多区域投入产出模型（MRIO）测算了不同地区及不同经济部门之间由于建筑活动而产生的能耗传递。并在此基础上，通过结合优化算法后的结构路径分析模型（SPA），系统分析了建筑业上游产业链能耗供给，并筛选出其中的关键能源消耗路径。在项目层面上，研发了建筑物物化阶段能耗计量系统。

在国家层面上的研究结果可作为进一步提升和发展中国建筑业可持续建设管理的重要理论依据。区位分析的结论可以进一步为中央及地方政府认识地区建筑业能源消耗现状，促进建筑业产业和能耗结构转型升级，优化绿色供应链管理，合理调整房地产市场供需平衡提供政策依据。项目研发的能耗评估系统可以对一般建设项目初始阶段能耗基准测量提供技术支持，为进一步制定有针对性的节能策略提供理论基础和实践经验。

Project Level Investigation-A Multi-Regional Embodied Energy Assessment System

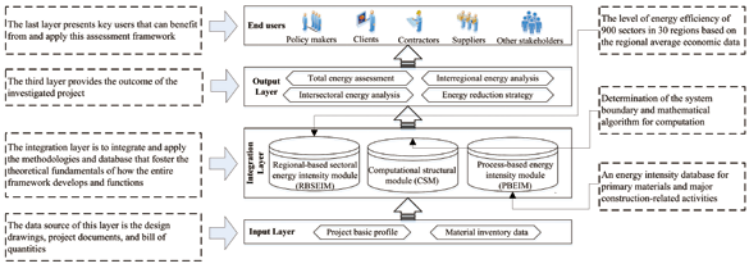
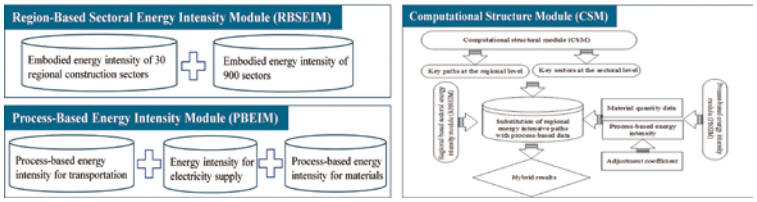


Figure 14 A multi-regional hybrid framework for assessing embodied energy of construction project



Project Level Investigation-Empirical Analysis

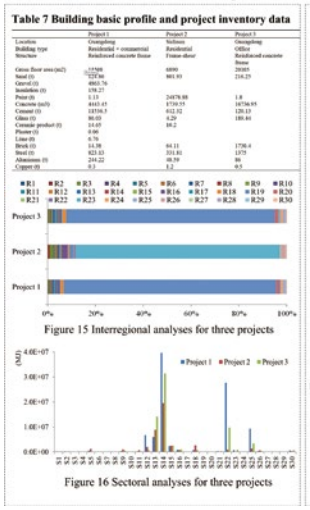


Figure 15 Interregional analyses for three projects

Figure 16 Sectoral analyses for three projects

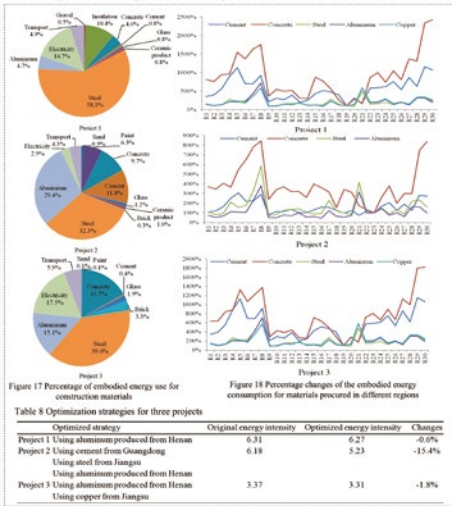


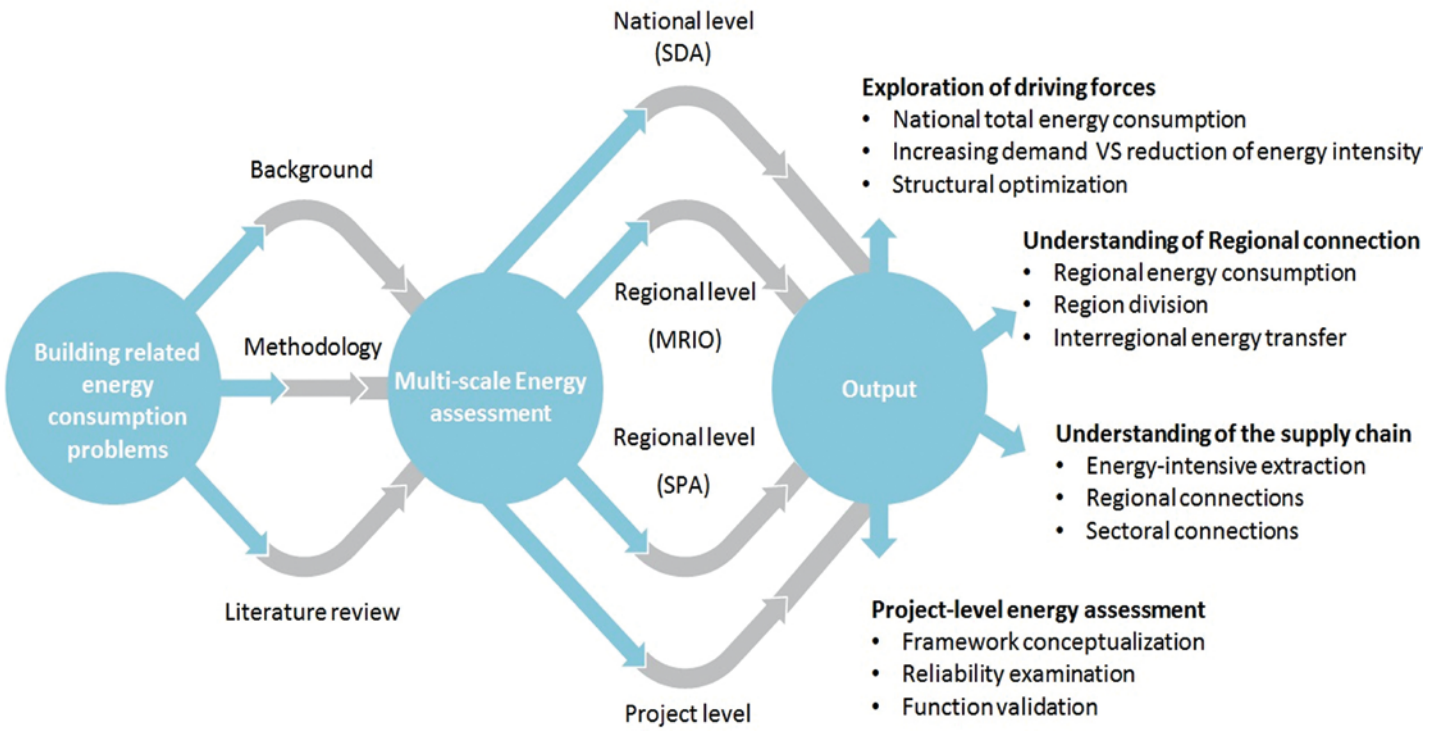
Figure 17 Percentage of embodied energy use for construction materials

Figure 18 Percentage changes of the embodied energy consumption for materials procured in different regions

Table 8 Optimization strategies for three projects

Optimized strategy	Original energy intensity	Optimized energy intensity	Changes
Project 1 Using aluminum produced from Henan	6.31	6.27	-0.6%
Project 2 Using cement from Guangdong	6.18	5.23	-15.4%
Using steel from Jiangsu			
Using aluminum produced from Henan			
Project 3 Using aluminum produced from Henan	3.37	3.31	-1.8%
Using copper from Jiangsu			

Conclusions



Research & Planning Category 研究及规划类别

GRAND AWARD 大奖

Climate Positive Urban Regeneration: Beijing New Shougang Development – Climate Positive Project Plan
正气候城市更新：北京新首钢高端产业综合服务区 – 正气候项目





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Applicant Name
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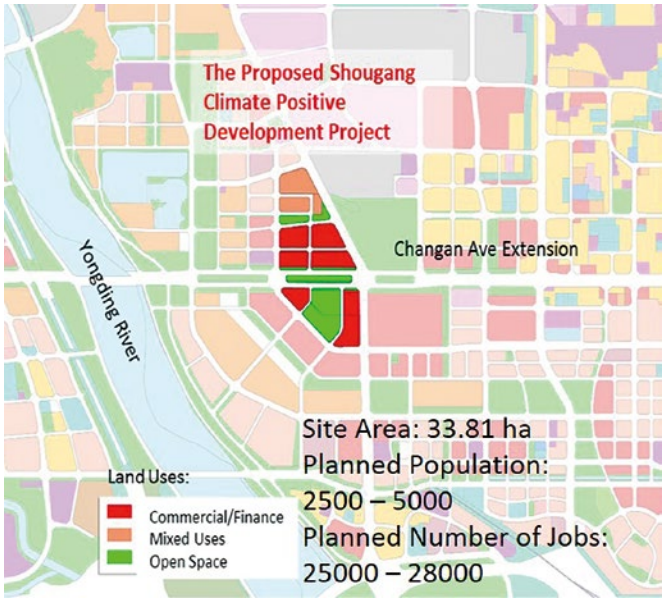
Completion Date
2023 (estimated)

Co-Project Manager
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Town Planner
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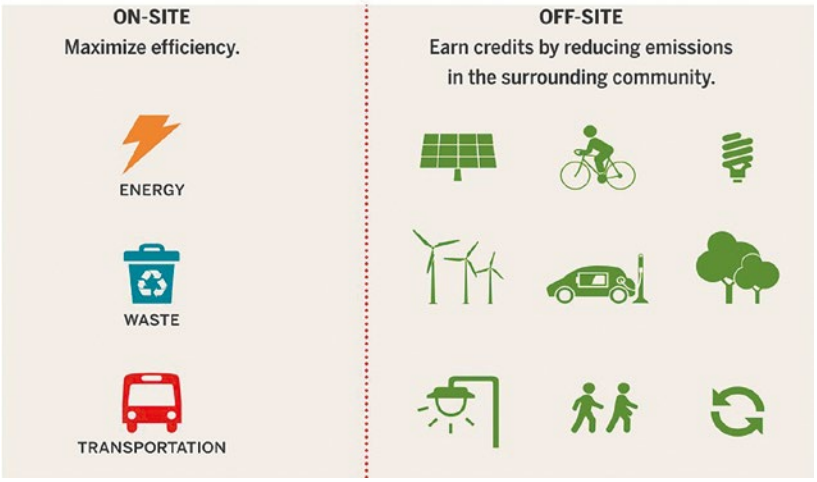
Sustainable Design Consultant
Dr Stanley YIP

Low Carbon Planning
Dr Stanley YIP / Arup China



What is "Climate Positive" ?

The Project will (1) Minimize it on-site carbon emission; and (2) Generate positive externality in carbon reduction off-site, offsetting its emissions and creating a 'Climate Positive' net impact to the city.





This project was commissioned by The Shougang Group to prepare a Climate Positive urban development plan for the 33.81 ha of mixed use project as part of the regeneration of the relocated steel works. The project is located at the Shijingshan District of the City of Beijing. The plan was prepared in accordance with the technical requirements of the "Climate Positive Development Program" of the C40 Climate Leadership Group. (http://www.c40.org/networks/climate-positive-development-program)

The project has recently been announced at The Second China-US Climate-Smart / Low Carbon Cities Summit in Beijing on 8 June 2016, as the first Climate Positive Development Project in China (and one of the some 20 Projects around the world endorsed by C40).

The C40 Climate Positive Development Program requires the urban development project to minimise its operational energy demand, and maximise carbon abatement impacts. These actions will reduce the operational emissions of the Project (On-site emission - I) and at the same time bring along positive externalities and generate emission credits for the surrounding areas (Off-site credits - C). The net outcome will be the attainment of an annual operational phase of net negative emissions (C>I). The elements of the Shougang Climate Positive roadmap include: Green Building, Renewable / Clean Energy, Green Transport, Waste Management, Water Resources, Green Open Space, Post-industrial Cultural Heritage Resources, and Contaminated Site Rehabilitation.

This project is of national significance as the pioneer innovative pilot for Chinese cities to achieve early emission peaking, hence adopting an urbanisation strategy that supports the national goal of carbon emission peaking at around 2030. This is also a local response in support to the Paris Agreement to keep a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels, and achieve global carbon negative by 2050.

首钢正气候发展项目是北京首钢总公司就主厂区搬迁，发展转型与绿色生态城市更新建设项目。项目位于北京市石景山区，占地 33.81 公顷。项目规划团队根据 C40 城市气候变化领导小组的「正气候发展计划」技术要求而编制。(http://www.c40.org/networks/climate-positive-development-program)

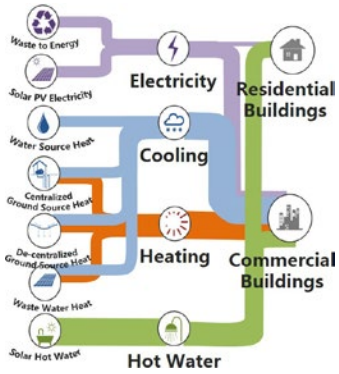
首钢正气候发展项目于 2016 年 6 月 8 日于北京举行的第二届中美气候智能 / 低碳城市峰会上由 C40 公布为中国第一个正气候发展项目（也是 C40 认可全球约 20 个正气候发展项目之一）。

C40 的「正气候发展计划」要求城市发展项目首先把建设项目的能源需求最少化，碳排放减缓效率最大化，达到减少项目的运行阶段碳排放量 I（场内）；同时正气候发展项目会带来减低碳排放外部效应，使更大范围的周边地区减少排放量 C（场外），用来抵消开发项目本身产生的排放量，而最终达到项目每年有「净负排放量」的正气候效应（C > I）。首钢正气候项目的主要规划战略包括：绿色建筑、能源、交通、废弃物管理、水资源、绿地生态空间、后工业文化资源、污染场地复修等。

首钢正气候发展专案规划有极大的意义：规划订立迈向正气候发展的路径图，提供了一个通过创新城市建设模式，支撑中国城市在 2030 年左右达到碳排放峰值的重要目标，为巴黎气候协议应对气候变化控制全球平均气温较工业化前水准升高控制在 2 摄氏度之内，及于 2050 年前达到负碳排放目标做出地方实际行动回应。

The Project has adopted four planning strategies in the development plan: zero carbon, zero waste, conservation of industrial heritage and climate adaptation.







- **Building Energy Saving**
  - Residential Buildings
  - Commercial Buildings



- **Energy**
  - Usage Level of Renewable Energy



- **Water Resources**
  - Water Saving
  - Non-portable water Usage
  - Rain Water Harvesting



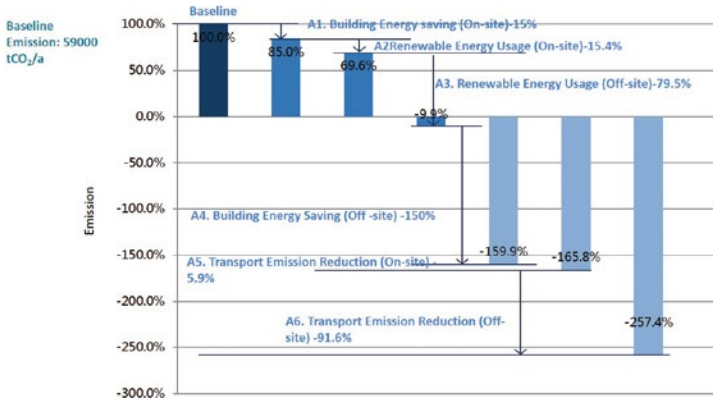
- **Waste**
  - Waste Classification
  - Zero Waste to Land Fill
  - Waste to Energy



- **Green Building**
  - Green Building Certification



- **Transport**
  - Green Transport
  - Accessibility of Transit Stops

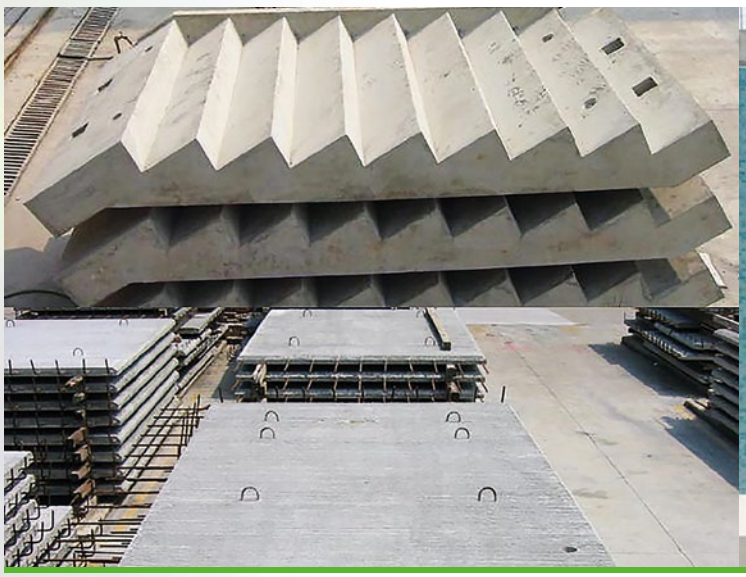




Research & Planning Category 研究及规划类别

MERIT AWARD 优异奖

Concrete Innovation – Application Research for Carbon Footprint Reduction
创新混凝土技术 – 减少碳足迹的应用研究





Team or Organisation Name
Hong Kong Housing Authority

Client / Developer
Hong Kong Housing Authority

Location
Hong Kong

Completion Date
2016

Project Manager
Hong Kong Housing Authority

Architect
Hong Kong Housing Authority

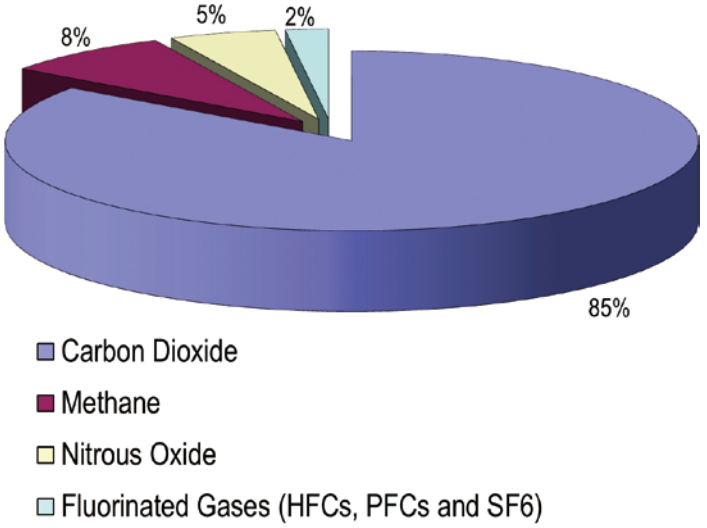
Structural Engineer
Hong Kong Housing Authority

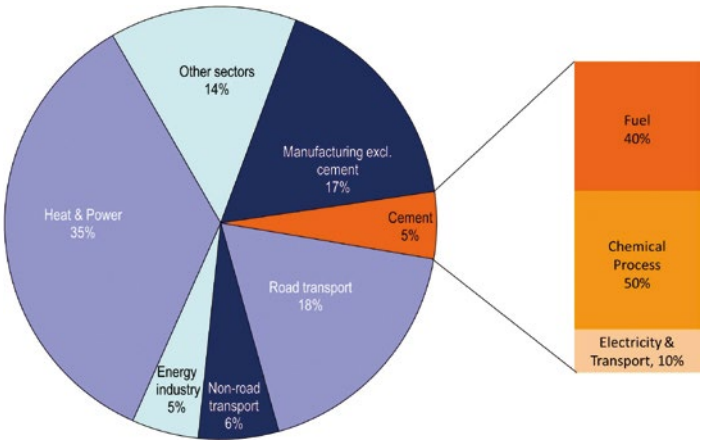
Building Services Engineer
Hong Kong Housing Authority

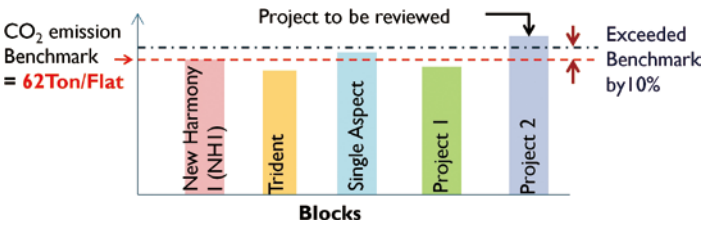




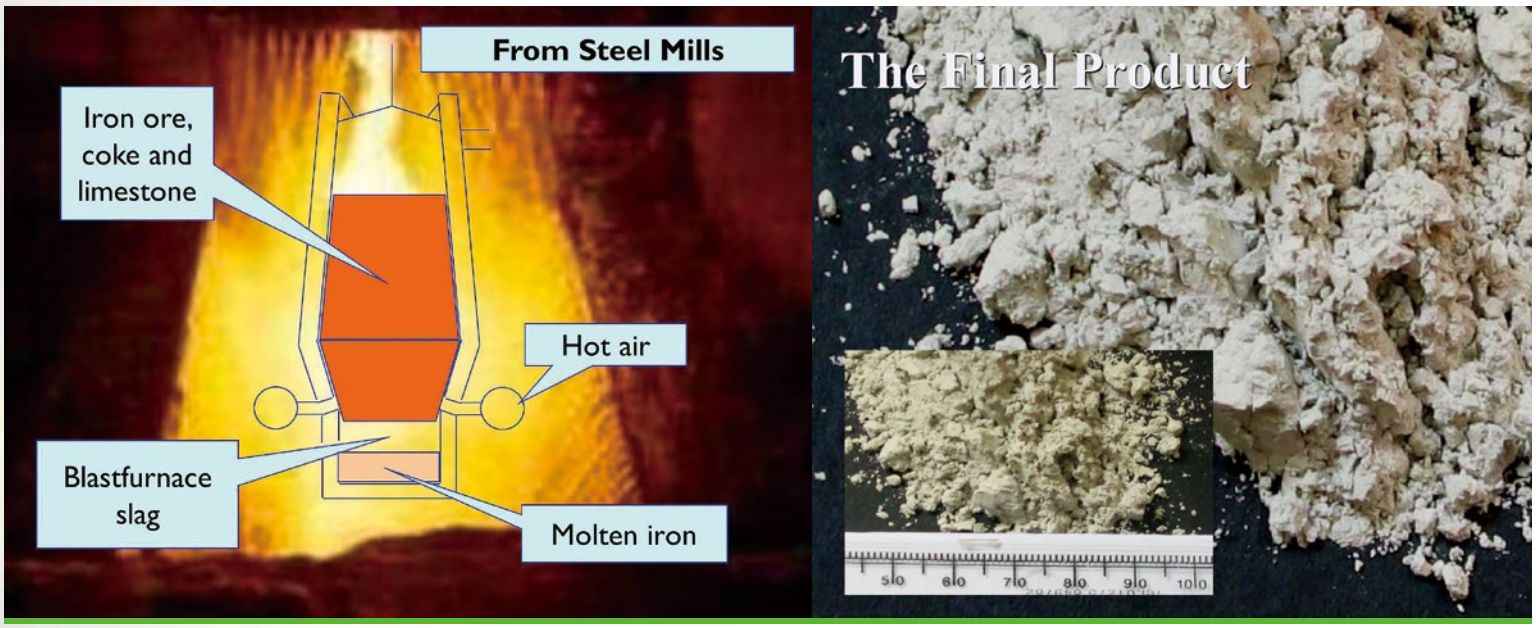



8%
5%
2%
85%
Carbon Dioxide
Methane
Nitrous Oxide
Fluorinated Gases (HFCs, PFCs and SF6)


Other sectors 14%
Manufacturing excl. cement 17%
Cement 5%
Road transport 18%
Non-road transport 6%
Energy industry 5%
Heat & Power 35%
Fuel 40%
Chemical Process 50%
Electricity & Transport, 10%


CO_2 emission Benchmark = 62Ton/Flat
Project to be reviewed
Exceeded Benchmark by10%
New Harmony I (NH1)
Trident
Single Aspect
Project 1
Project 2
Blocks


Less CO_2 Emission



Carbon Dioxide is the major contributor of the greenhouse effects. Cement and steel are the major sources of Carbon Dioxide Emission in building industry. Minimising the use of cement and steel reinforcement in concrete will help to improve the embodied carbon content and hence the carbon dioxide emissions. In view of the above, HA has initiated different approaches in Concrete Innovation for Green Buildings to achieve the goal.

1. We are the pioneer introduced the use of GGBS as a substitute of cement in building works in Hong Kong. HA successfully obtained approval from the Building Department Structural Engineering Committee on the use of GGBS in buildings since 2010 and subsequently, the use of GGBS in building works was included in the Hong Kong Code of Practice for the Structural Use of Concrete 2013.

2. The use of SMFRC in structural concrete to replace steel reinforcement and will reduce the embodied carbon content in steel and hence the carbon dioxide emissions.

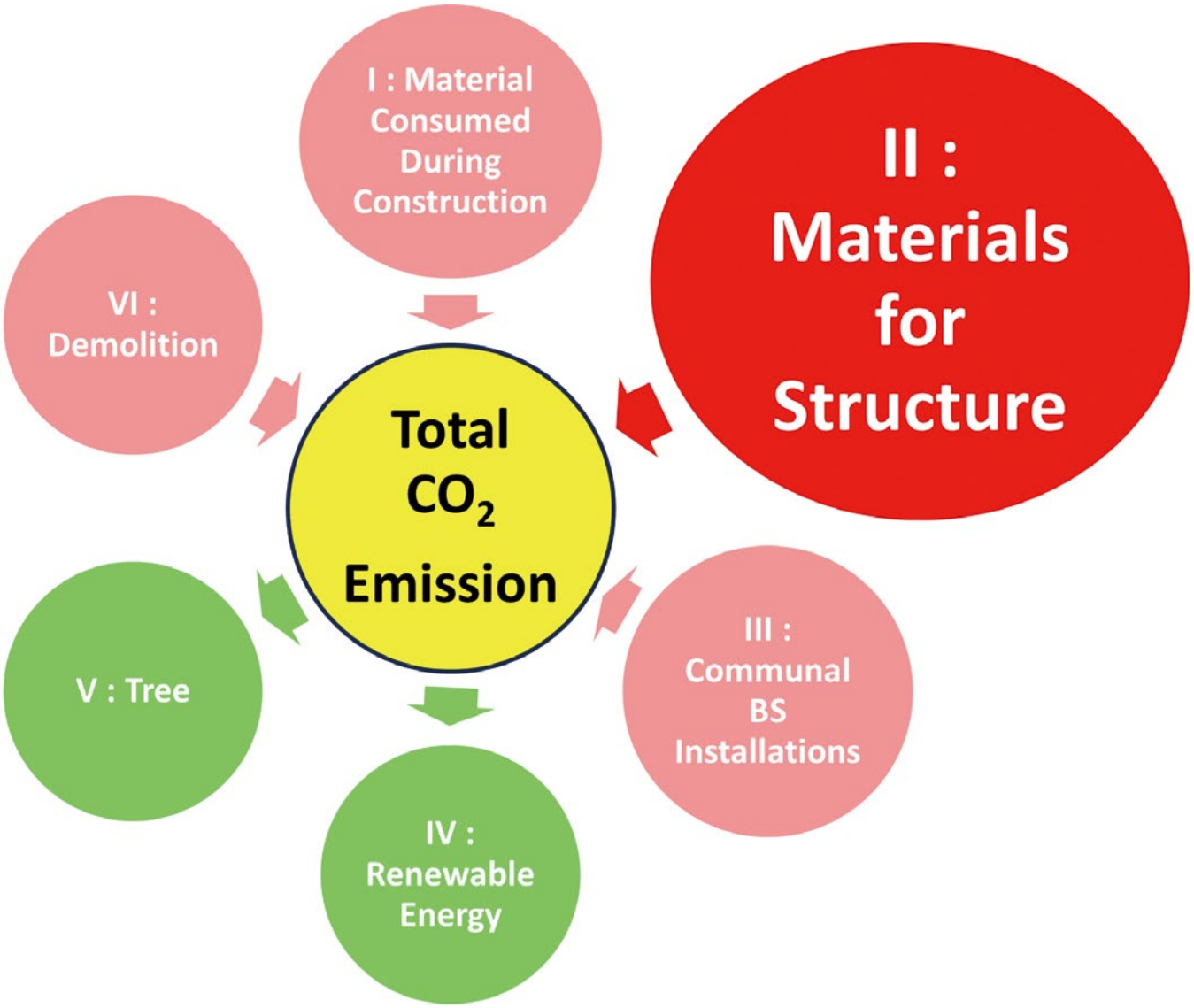
3. Carbon Emission Estimation (CEE) is a self-developed tool and the only comprehensive tool to gauge the net CEE on the public housing development. By using the tool, the new public housing development will be optimised to reduce the concrete volume and hence the carbon emission. Each of the HA new public housing development will need to satisfy the target emission figures based on benchmarking standard block / estate of design life of 100 years.

二氧化碳是引至温室效应的主要原因。在建造业中，水泥和钢铁是二氧化碳排放的主要来源。在混凝土项目中，尽量减少使用水泥和钢铁将有助于减少建筑业所带来的碳排放。基于上述情况，香港房委会采用了创新混凝土研究的应用研究来实现这一目标。

1. 我们是香港楼宇建造业界中，最先应用矿渣微粉作为水泥替代品的机构。早在 2011 年，房屋署就有关在楼宇建造工程中使用矿渣微粉，向屋宇署的结构工程专业委员会，提出申请，并获得批准。随后有关在香港楼宇建造工程中，使用矿渣微粉的细则，更被列入混凝土结构作业守则 2013 中。

2. 在混凝土工程中，使用合成粗纤维来代替传统钢筋，从而减少因使用钢铁的碳排放。

3. 「碳排放估算」是房委会的一项自主研发工具，用来量度公共房屋发展的碳排放量。通过使用该工具，新建造的公共房屋发展会进行优化，以减少使用的混凝土数量，从而减少该公共房屋发展项目所带来的碳排放量，并达至经由标准楼宇所制定的碳排放量目标。


I : Material Consumed During Construction
II : Materials for Structure
VI : Demolition
Total CO_2 Emission
V : Tree
III : Communal BS Installations
IV : Renewable Energy

Research & Planning Category 研究及规划类别

MERIT AWARD 优异奖

Research and Development of 2nd Generation Acoustic Balcony
研发第二代减音露台



Team or Organisation Name
Hong Kong Housing Authority

Client / Developer
Hong Kong Housing Authority

Location
Hong Kong

Completion Date
Mid 2016

Project Manager
Hong Kong Housing Authority

Architect
Hong Kong Housing Authority

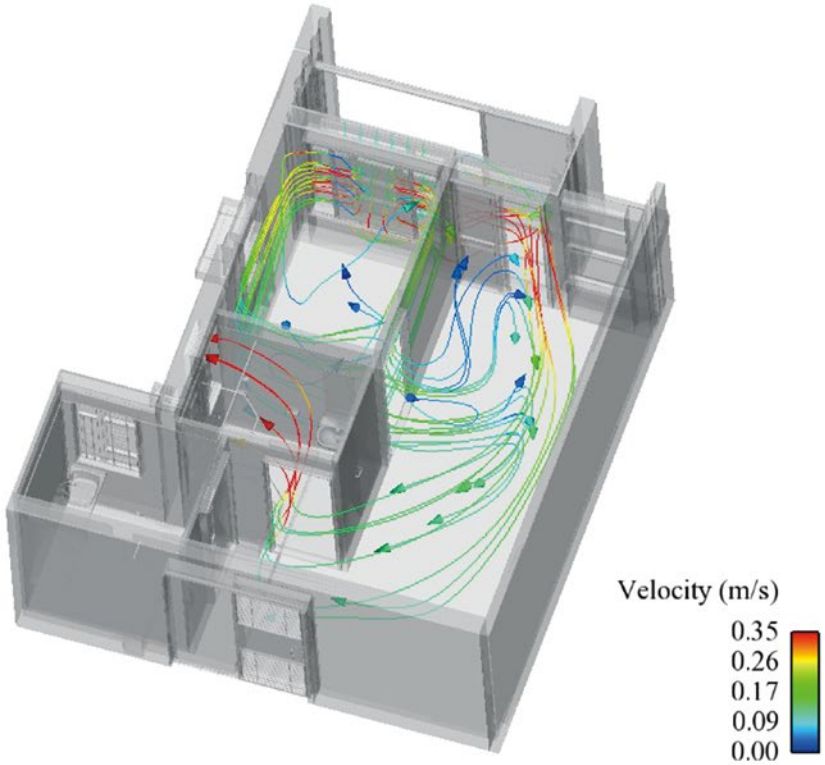
Civil Engineer
Hong Kong Housing Authority

Structural Engineer
Hong Kong Housing Authority

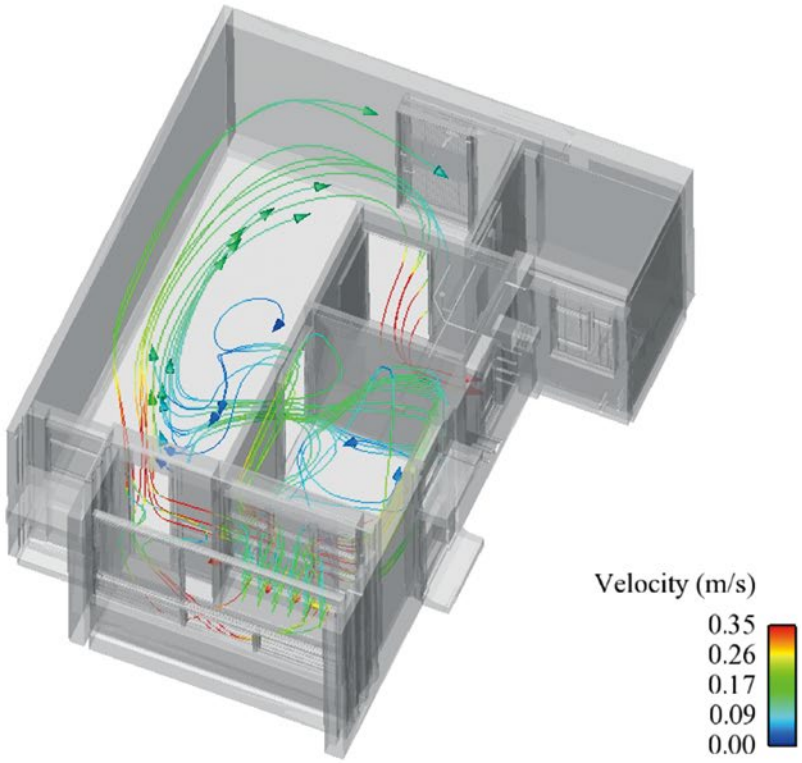
Building Services Engineer
Hong Kong Housing Authority

Research Investigator
PolyU Technology and Consultancy Co. Limited

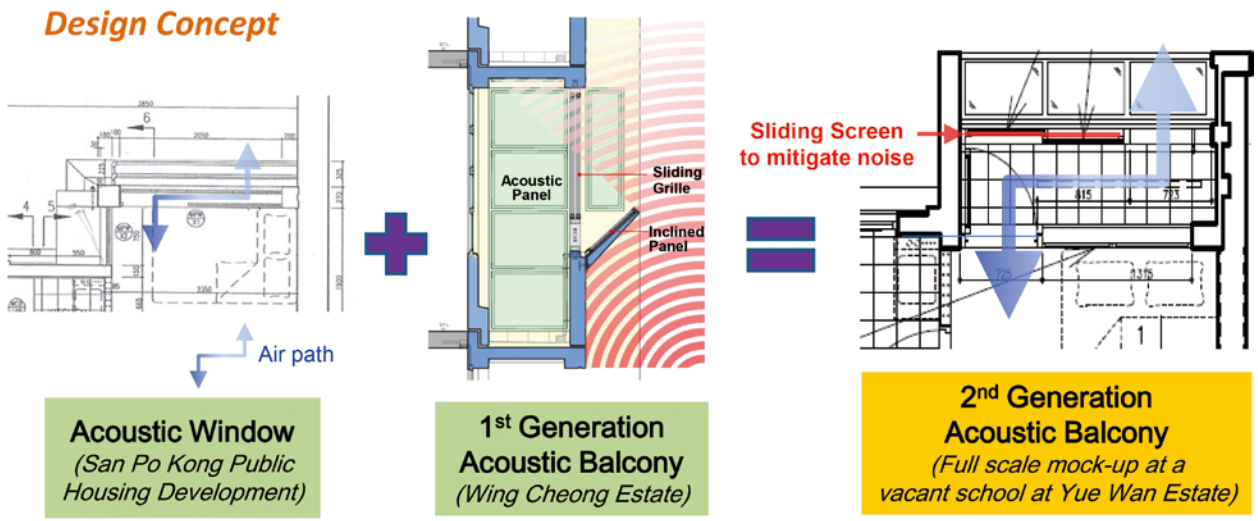
Environmental Consultant
Ove Arup & Partners H.K. Limited


Velocity (m/s)
0.35
0.26
0.17
0.09
0.00



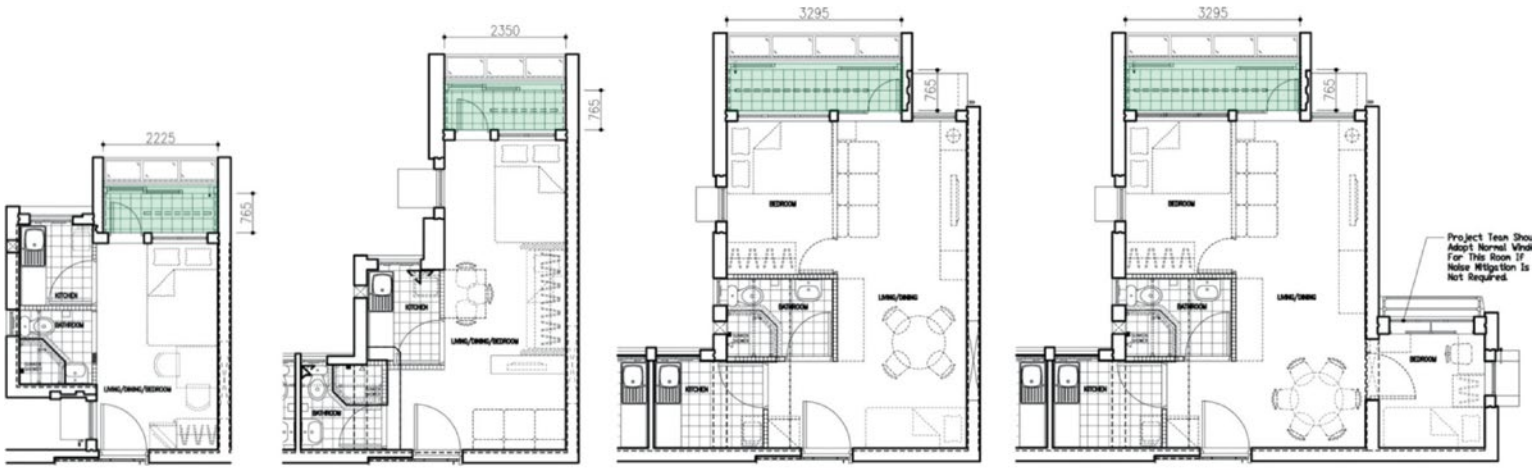

Velocity (m/s)
0.35
0.26
0.17
0.09
0.00





Completed in 2013, Wing Cheong Estate in Sham Shui Po adopted the first generation “Acoustic Balcony” design that could effectively reduce noise by about 2 to 6 dB(A) much to the satisfaction of the tenants. In mid 2015, we explored enhancement to the Acoustic Balcony design through a full scale mock-up with prototype acoustic balconies inside a vacant school at Yue Wan Estate. Initial results indicated that the acoustic balconies with the different fittings (like acoustic lining at wall and ceiling, projected panel) could achieve noise attenuation ranging from 6 to 10 dB(A). Site measurements proven to be an effective design for noise mitigation while maintaining 1.5 air changes per hour for the habitable area of the flat by keeping the balcony door open. This enhanced version of Acoustic Balcony can be applied in areas with undesirable wind environment for acoustic window installation or traffic noise.

于 2013 年完工的深水埗荣昌村采用了第一代「减音露台」设计，能有效地减少噪音约 2 至 6 分贝，并有很多租户表示满意。2015 年中旬，我们研发第二代减音露台，透过在渔湾村空置学校设置的实体模型作研究及评估。初步结果显示，利用不同的装置（如在墙壁和天花板设置隔音板及在露台外加上隔音斜板等）可以减少噪音约 6 至 10 分贝。现场测量亦证实这是一个有效减低噪音的设计。同时在露台门打开的情况下，单位里能保持每小时换气次数不少于 1.5 次。第二代减音露台适用于因通风不佳而不能安装减音窗户的环境，或受交通噪音影响的地区。



Type A flat **Type B flat** **Type C flat** **Type D flat**

Remark :

Acoustic Balcony





Research & Planning Category 研究及规划类别

MERIT AWARD 优异奖

Research, Planning and Promotion of Sustainable Drainage System (SuDs) for Climate Ready and Flood Resilience in Built Environment

研究、策划及推广在建筑环境设置应对气候变化及提升城市耐洪的可持续排水系统



Team or Organisation Name
Drainage Services Department,
Government of the HKSAR

Client / Developer
Drainage Services Department,
Government of the HKSAR

Location
Hong Kong

Researches and Field Trials Completion Date
- Green Roof: 2014
- Vertical Greening: 2015
- Water Harvesting: 2015
- Porous Pavement: 2016
- Wetland: 2016
- Bioswale: 2017

Consultancy Study Completion Date
Early 2018

Promotion and Implementation Completion Date
Continuous

Project Director
Drainage Services Department,
Government of the HKSAR

Project Manager
Drainage Services Department,
Government of the HKSAR

Chief Project Engineer
Drainage Services Department,
Government of the HKSAR

Senior Project Engineer
Drainage Services Department,
Government of the HKSAR









Drainage Services Department (DSD) has a Strategic Target to research, plan and promote Sustainable Drainage System (SuDS) for climate ready and building flood resilience in the built environment.

To support the Target, fundamental researches, consultancy studies, implementations and public promotions were carried out and would continue.

In collaboration with the academia, completed researches on green roof, vertical greening, water harvesting and porous pavement had demonstrated beneficial effects for the built environment, such as runoff reduction and purification, hear island effect mitigation, water consumption reduction and energy saving. Continuous researches on SuDS include bioswale, constructed wetland, water harvesting, and porous pavement.

Consultancy studies commenced to consolidate the findings and develop more long term strategic plans. Concurrently, close liaison with Civil Engineering and Development Department and Planning Department is in place to ensure SuDS would be included in new developments. For example, retention lake, river revitalisation, water harvesting, porous, pavement, green roof, bioswale and constructed wetland are already included in the latest new development schemes such as Anderson Road Quarry, Hung Shui Kiu, Yuen Long South and Tung Chung river park.

To promote public awareness and industry incorporation, DSD organises the annual R&D forums, R&D academic gatherings, technical visits, seminars and regular green group meetings. DSD also proactively seek collaborations with the academia in furthering SuDS researches, and supported many Innovation and Technology Fund and Environment & Conservation Fund applications.

渠务署订下策略性目标，研究、策划及推广在建筑环境设置可持续排水系统，以应对气候变化及提升城市的耐洪。

为达作目标，渠务署已完成多项基础研究、顾问研究、落实安排，以及公众推广活动，并会再接再厉，继续进行这些工作。

与学界合作方面，有关绿化天台、垂真绿化、雨水集蓄及多孔透水路面的研究已告完作。结果显示，上述设计概念有利建筑环境，如减少及净化径流、纾缓热岛效应、节省用水及能源。继续进行的可持续排水系统研究包括生态洼地、人工湿地、雨水集蓄设施，以及多孔透水路面。

渠务署已展开多项顾问研究，以整合研究结果及制订更多长期策略性方案；同时与土木工程拓展署及规划署保持紧密联系，以确保新发展计划中会包含可持续排水系统。

最新的发展计划〔如安达臣道石矿场、洪水桥、元朗南、东涌河畔公园〕已加入蓄洪湖泊、河道活化、雨水集蓄、多孔透水路面、绿化天台、生态洼地及人工湿地元素。

为提高公众意识及鼓励业界合作，渠务署会举办年度研究及发展论坛、研究及发展学术聚会、技术考察、研讨会和环保团体定期会议；积极邀请学界合作，就可持续排水系统再作研究；并支持多个申请创新及科技基金和环境及自然保育基金的项目。







Research & Planning Category 研究及规划类别

MERIT AWARD 优异奖

ZCB Bamboo Pavilion
零碳天地竹亭



Team or Organisation Name
The Chinese University of Hong Kong, School of Architecture

Client / Developer
Construction Industry Council / Zero Carbon Building

Location
8 Sheung Yuet Road, Kowloon Bay, Kowloon, Hong Kong

Completion Date
15 October 2015

Design Research Consultant
The Chinese University of Hong Kong, School of Architecture

Civil & Structural Engineers
Goman HO / Alfred FONG / George CHUNG

Authorised Person
Martin TAM

Bamboo Consultant
Vinc MATH

Main Contractor
W. M. Construction Limited

Bamboo Construction
Sun Hip Scaffolding Eng. Co., Limited

Fabric Contractor
Ladden Engineering Limited

Lighting
CONA Technology Co. Limited / Brandston Partnership Inc.

Photography
Michael Law Studio / Grandy LUI

Photography & Project Documentation
Kevin Ng Camera Person Advisory & Film Services

Drone photography
Ramon VAN DER HEIJDEN






CCCB



The “ZCB Bamboo Pavilion” is a public event space built for the Construction Industry Council (CIC)’s Zero Carbon Building (ZCB) in the summer of 2015 in Kowloon Bay, Hong Kong. It is the first bending-active bamboo gridshell structure of this size, standing four-storeys high, spanning thirty seven metre, and having a footprint of approximately 350m^2 capable of seating 200 people. It is built from tensile fabric and 473 natural bamboo poles, hand-tied together with metal wire.

Built following Hong Kong’s unique bamboo scaffolding construction methods, the pavilion is a study on how this endangered craftsmanship can be expanded through the introduction of digital form-finding and real-time physics simulation tools. The hyper-lightweight bamboo structure is a large diagrid shell structure that is folded down into three hollow columns. A tailor-made white glass-fibre reinforced polymer tensile membrane is stretched over the structure and is LED-lit from inside the three legs at night.

The “ZCB Bamboo Pavilion” is used to host exhibitions, performances and events that advocate low carbon living, construction, and development. By promoting sustainable, light-weight building methods for large span architecture the project additionally seeks ways for traditional Cantonese craftsmanship to evolve for the 21st century.

建筑业议会的零碳天地竹亭于 2015 年夏季开幕。竹亭是首个达四层楼高、350 平方米、可容纳 200 个座位、最长横跨 37 米的大跨度弯曲网架结构。网架以金属线将 473 枝天然竹材扎紧，并盖上纤维布料造成舒适的公共空间。

竹亭以香港独特的搭棚技术建造，透过电脑即时物理模拟及结构优化，新颖设计不但体现竹棚可能性，也给式微的搭棚业一个展现技艺的新天地。竹亭由三角网格结构向下折迭而成，组成的三个空心柱固定于地基上，以抵受强风。然后以量身定做的纤维布料将竹结构包裹，并有射灯从空心柱中擦亮整个竹亭。

竹亭曾用作绿色生活展览、表演及活动的场地，它创新和可持续发展的概念将影响公众和建筑设计界，大跨度轻建筑亦为搭棚业的发展提供了更多空间。




IKEA
mega
BOX

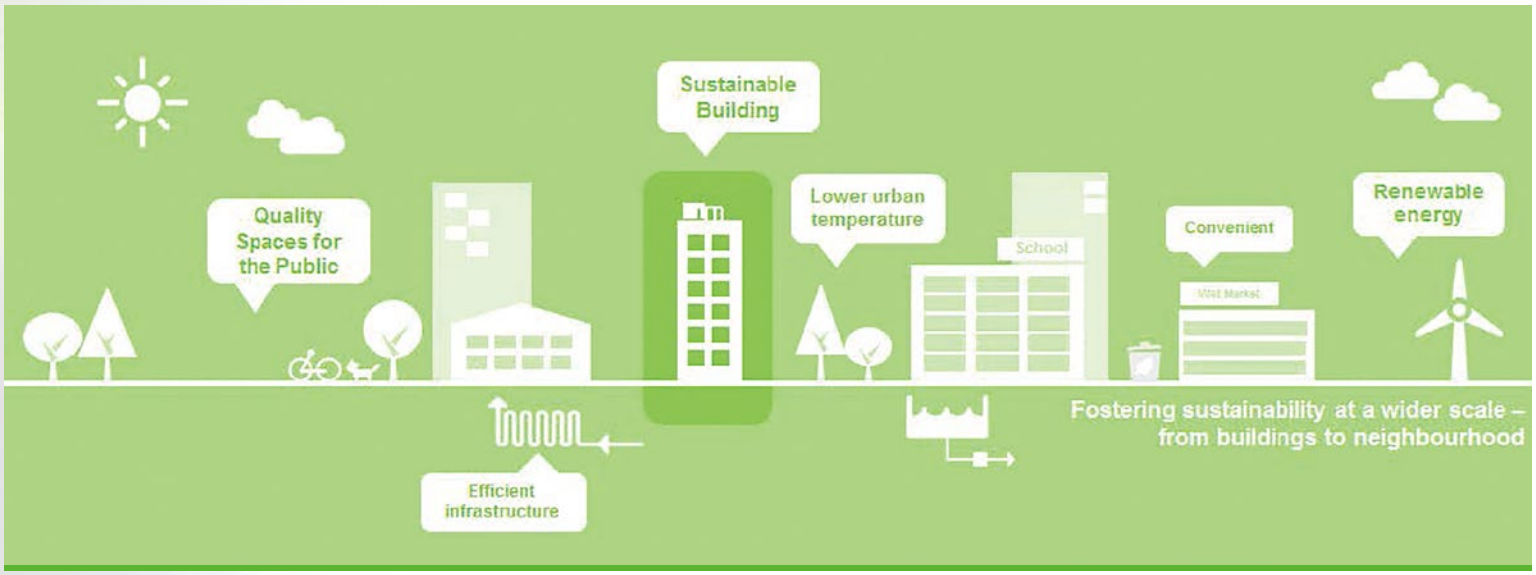




Research & Planning Category 研究及规划类别

FINALIST 入围项目

Development of BEAM Plus Neighbourhood
绿建环评社区评估工具



Team or Organisation Name
Arup

Client / Developer
Hong Kong Green Building Council

Location
Hong Kong

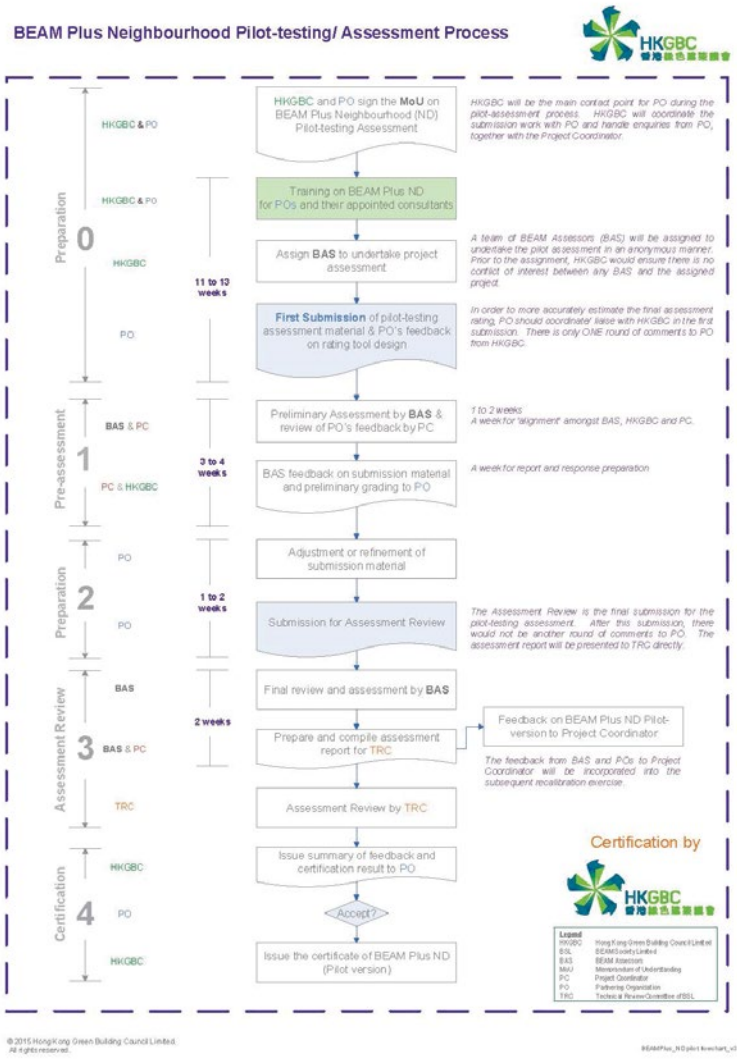
Completion Date
December 2016

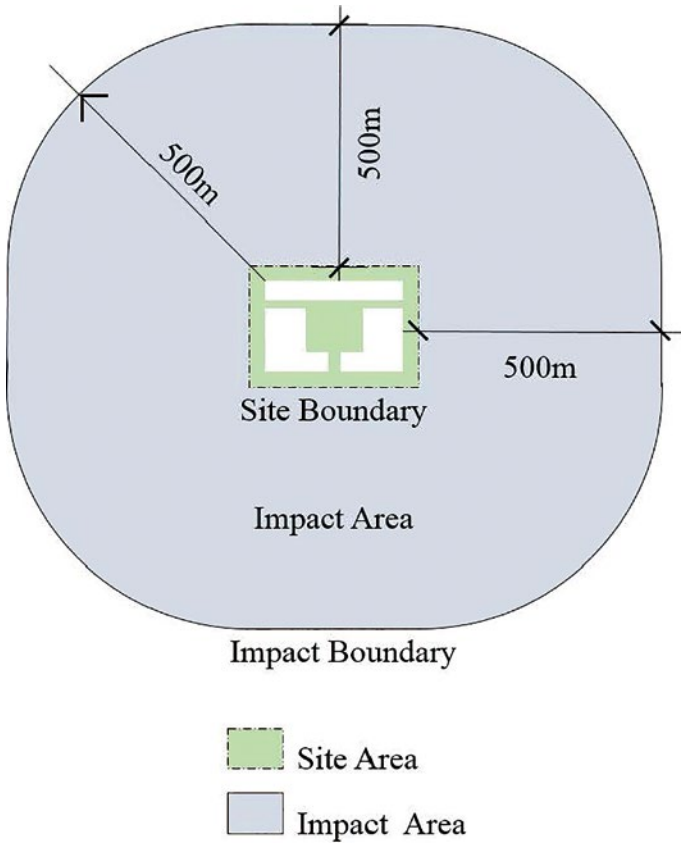
Lead Consultant
Arup

Architecture Consultant
Ronald Lu & Partners

Planning Consultant
PlanArch Consultants Limited

Landscape Architecture Consultant
Urbis Limited


BEAM Plus Neighbourhood Pilot-testing/ Assessment Process
HKGBC
Preparation
0
HKGBC & PO
HKGBC & PO
HKGBC
PO
11 to 13 weeks
HKGBC and PO sign the MoU on BEAM Plus Neighbourhood (ND) Pilot-testing Assessment
HKGBC will be the main contact point for PO during the pilot-assessment process. HKGBC will coordinate the submission work with PO and handle enquiries from PO, together with the Project Coordinator.
Training on BEAM Plus ND for POs and their appointed consultants
Assign BAS to undertake project assessment
A team of BEAM Assessors (BAS) will be assigned to undertake the pilot assessment in an anonymous manner. Prior to the assignment, HKGBC would ensure there is no conflict of interest between any BAS and the assigned project.
First Submission of pilot-testing assessment material & PO's feedback on rating tool design
In order to more accurately estimate the final assessment rating, PO should coordinate/ liaise with HKGBC in the first submission. There is only ONE round of comments to PO from HKGBC.
Pre-assessment
1
BAS & PC
PC & HKGBC
3 to 4 weeks
Preliminary Assessment by BAS & review of PO's feedback by PC
1 to 2 weeks
A week for 'alignment' amongst BAS, HKGBC and PC.
BAS feedback on submission material and preliminary grading to PO
A week for report and response preparation
Preparation
2
PO
PO
1 to 2 weeks
Adjustment or refinement of submission material
Submission for Assessment Review
The Assessment Review is the final submission for the pilot-testing assessment. After this submission, there would not be another round of comments to PO. The assessment report will be presented to TRC directly.
Assessment Review
3
BAS
BAS & PC
TRC
2 weeks
Final review and assessment by BAS
Prepare and compile assessment report for TRC
Feedback on BEAM Plus ND Pilot-version to Project Coordinator
The feedback from BAS and POs to Project Coordinator will be incorporated into the subsequent recalibration exercise.
Assessment Review by TRC
Certification
4
HKGBC
PO
HKGBC
Issue summary of feedback and certification result to PO
Accept?
Issue the certificate of BEAM Plus ND (Pilot version)
Certification by
HKGBC
Legend
HKGBC Hong Kong Green Building Council Limited
BSL BEAM Society Limited
BAS BEAM Assessors
MoU Memorandum of Understanding
PC Project Coordinator
PO Partnering Organization
TRC Technical Review Committee of BSL
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500m
500m
500m
Site Boundary
Impact Area
Impact Boundary
Site Area
Impact Area


HKGBC
BEAM Plus Neighbourhood
Multi-Stakeholder Consultation Forum
EXIT





BEAM Plus Neighbourhood is a rating tool developed by the HKGBC to promote urban sustainability at neighbourhood (or community) level. The tool aims to provide more comprehensive guidance to stakeholders / practitioners in the development sector on practices that can reduce undesirable effects of urban development with the aim to improve the quality of our built environment, in particular, the public realm.

The new tool is the latest addition to the BEAM Plus suite of tools, which currently sets out assessment criteria for new buildings, existing buildings and building interiors. The new tool for neighbourhood would help fill the gap in the development process by bringing the components together and relating them to a wider site context / sustainable framework at the inception or planning stage of a project. It is primarily designed for new or planned neighbourhoods, but it may also be used for the assessment of existing neighbourhoods.

The tool's development process involved three important steps: first by evaluating similar tools being used in other countries, then by examining their potential application in Hong Kong context and the tool's linkage with other BEAM Plus tools; and lastly, by conducting multi-stakeholder engagements to consult the needs / aspirations of the local industry and related professions. In addition to environmental performance, the assessment under BEAM Plus Neighbourhood covers the process of integrating community elements, site planning and design of the public realm and spaces between buildings.

To ensure that the new tool would be applicable, practical and user-friendly, a pilot-testing process involving 3 live projects of different nature and scale is currently under way as part of the development process of BEAM Plus Neighbourhood. Upon completion of such piloting, the tool will be further calibrated before its official launch, which is scheduled by the end of 2016.

BEAM Plus Neighbourhood encourages development projects to map out a more holistic framework with longer-term goals for sustainability at the early stage of a development project. It is hoped that such initiative would help Hong Kong progress itself in a global trend to create better, healthier and more equitable community at large.

由香港绿色建筑议会 (HKGBC) 发展的绿建环评社区评估工具 (BEAM Plus Neighbourhood)，旨在于社区层面推动城市的可持续发展。该工具为各持分者及业界提供一个更全面的指引，以减少城市发展所带来的不良影响，并改善都市环境的质量，特别是室外公共空间方面的改善。

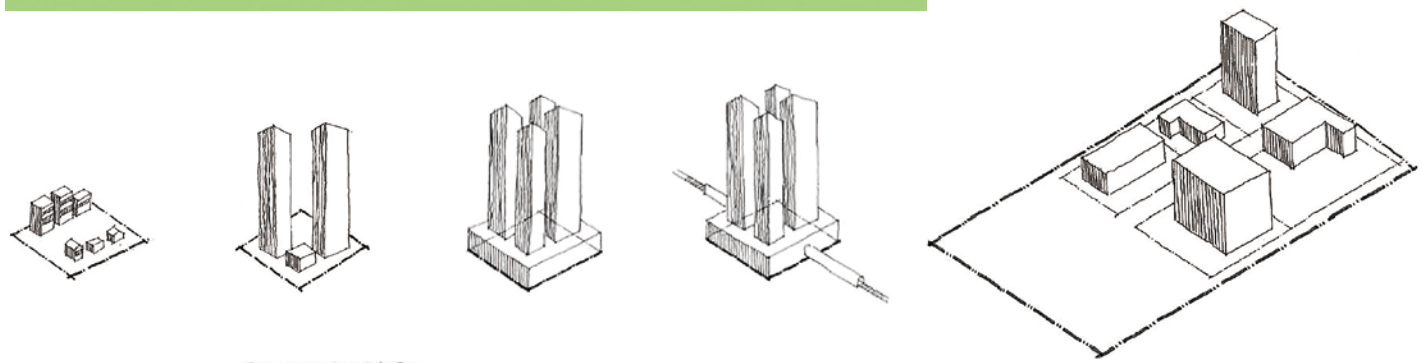
现时绿建环评系列有新建建筑、既有建筑和室内建筑三套不同的评估工具，绿建环评社区评估工具将会是绿建环评系列的新成员，它将会填补在绿建环评系列所缺少的社区发展的一环。该工具将有助于项目在设计概念或规划阶段对可持续发展能有更广泛的考虑。它主要应用于评估新建的或规划中的社区发展项目，在情况容许下亦可应用于评估既有的社区。

绿建环评社区评估工具的发展过程包括三个重要步骤：首先，评估已在其他国家采用相类似的工具；然后，检视这些工具在香港的应用潜力，以及与其他绿建环评工具的关联性；最后，通过与不同的持分者咨询以了解本地业界及相关专业的需求和愿望。绿建环评社区评估工具除了检视项目的环保表现，还涵盖了社区整合的元素、总体规划以及楼宇之间的公共空间设计。

为确保绿建环评社区评估工具的可用性、实际性及用户友好性，议会在发展过程中加入先导评估，目前正就三个不同性质及规模的项目进行评估。在先导评估完成后，议会将会就绿建环评社区评估工具的内容作出调整，并计划在 2016 年底正式推出。

绿建环评社区评估工具鼓励项目在发展初期规划能制定更全面的可持续发展框架及长期目标。此工具有望能助香港向全球趋势迈进，以缔造更美好、更健康、更和谐的社会。





Presentation 1b
Review of 5 overseas schemes and interim solution

Consultancy starts

Presentation 1a
Discussion on methodology & work plan

Presentation 2 b &c
Stakeholder engagement
2 sessions &
Pre & Post
engagement Questionnaire*

Additional scope on Landscape and ecology sections awarded

Presentation 2a
Interim scheme

Draft

Presentation 3a &3b
Findings from the stakeholders' exercise and revised BEAM Plus Neighbourhood Pilot Version to TRC and GLC

Revised

Presentation 3C & 4
Landscape and ecology extension and long-term road map

Meetings with POs
Present and discuss the Pilot Study

Training for Potential BASs
Training of a number of potential BASs for the Pilot Study

BASs Kick-off

FA Submission

PA Submission

Consultancy continues

inal
Estimated launch ir
Late 2016

Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3

2013 2014 2015 2016

Research & Planning Category 研究及规划类别

FINALIST 入围项目

Establishment of Humanity Aspect of The Evaluation Standard for Green and Ecological Urban Districts in China - Comparison of LEED Neighbourhood Development, BREEAM Community, CASBEE-Cities and DGNB Urban Districts

中国绿色生态城区评价标准人文章节制订的专题研究 – 通过美国LEED Neighborhood Development、英国BREEAM Community、日本CASBEE-Cities和德国DGNB Urban Districts的比较





Team or Organisation Name
SRT (S&P) Architects Limited

Client / Developer
中国城市科学研究会绿色建筑与节能（专业）委员会

Location
China

Completion Date
March 2016

Research Investigator
National University of Singapore /
The University of Hong Kong /
Chinese Society for Urban Studies /
SRT (S&P) Architects Limited /
GB Tech Consulting Limited

專欄 7　綠色城市建設重點

01　綠色能源
推建新能源示范城市建设和智能微电网示范工程建设，依托新能源示范城市建设分布式光伏发电示范区。在北方地区城镇开展风电清洁供暖示范工程。选择部分县城开展可再生能源热利用示范工程，加强绿色能源县建设。

02　綠色建筑
推进既有建筑供热计量和节能改造。基本完成北方采暖地区居住建筑供热计量和节能改造，积极推进夏热冬冷地区建筑节能改造和公共建筑节能改造。逐步提高新建建筑能效水平，严格执行节能标准。积极推进建筑工业化、标准化，提高住宅工业化比例。政府投资的公益性建筑、保障性住房和大型公共建筑全面执行绿色建筑标准和认证。

03　綠色交通
加快发展新能源、小排量等环保型汽车，加快充电站、充电桩、加气站等配套设施建设，加强步行和自行车等慢行交通系统建设，积极推进混合动力、纯电动、天然气等新能源和清洁燃料车辆在公共交通行业的示范应用，推进机场、车站、码头节能节水改造，推广使用太阳能等可再生能源。继续严格实行运营车辆燃料消耗量准入制度，到 2020 年淘汰全部黄标车。

04　產业园区循环化改造
以国家级和省级产业园区为重点，推进循环化改造，实现土地集约利用、废物交换利用、能量梯级利用、废水循环利用和污染物集中处理。

05　城市环境综合整治
实施清洁空气工程，强化大气污染综合防治，明显改善城市空气质量；实施安全饮用水工程，治理地表水、地下水，实现水质、水量双保障；开展存量生活垃圾治理工作；实施重金属污染防治工程，推进重点地区污染场地和土壤修复治理。实施森林、湿地保护与修复。

06　綠色新生活行动
在农食住行游等方面，加快向简约适度、绿色低碳、文明节约方式转变。培育生态文化，引导绿色消费，推广节能环保型汽车、节能省地型住宅，健全城市废旧商品回收体系和餐厨废弃物资源化利用体系，减少使用一次性产品，抑制商品过度包装。

2014 年 3 月 16 日，我國頒佈了國家新型城鎮化規劃（2014－2020 年）(住房與城鄉建設部, 2014)。其中，第五篇“提高城市可持續發展能力”中的第十八章“推動新型城市建設”中的第一節“加快綠色城市建設”提出了綠色新生活行動的重點（見：專欄 7）以及第三節“注重人文城市建設”提出了關於人文城市建設的重點（見：專欄 9）。

專欄 9　人文城市建設重點

01　文化和自然遺產保護
加强国家重大文化和自然遗产地、国家考古遗址公园、全国重点文物保护单位、历史文化名城名镇名村保护设施建设，加强城市重要历史建筑和历史文化街区保护，推进非物质文化遗产保护利用设施建设。

02　文化设施
建设城市公共图书馆、文化馆、博物馆、美术馆等文化设施，每个社区配备建设文化活动设施，发展中小城市影剧院。

03　体育设施
建设城市体育场（馆）和群众性户外体育健身场地，每个社区有便捷实用的体育健身设施。

04　休闲设施
建设城市生态休闲公园、文化休闲街区、休闲步道、城郊休憩带。

05　公共设施免费开放
逐步免费开放公共图书馆、文化馆（站）、博物馆、美术馆、纪念馆、科技馆、青少年宫和公益性城市公园。

表格 2　LEED ND v4 人文部分條文解讀

人文城市建設精神的反映		條文分類	條文標題	條文得分	條文要求	條文設計考慮因素	是否適用於中國
以人為本	平等性	社區規劃和佈局設計（Neighborhood Pattern and Design，以下簡稱 NPD）	提高緊密和可承受性	1-7 分	選項一：住房類型多樣性 要求集中住宅的類型和大小至少多樣，在兩家內或距離家 1/4 英里的範圍內，對其 Simpson 多樣性指標有定量的要求，按實際情況可得到 1-3 分 選項二：經濟上可承受的住宅 對付諸內可能具有可購買的住宅價格與地區平均收入定量要求，按實際情況可得 1-3 分 選項三：在上述兩個選項中內容額外分以上的項目可額外得到 1 分	提供不同類型的住宅與周圍不同的成員居住在同一個社區，它為在附近工作的人群提供住宅，即年輕的專業人員，例如，緊急救助人員，醫務工人， 不同經濟能力和不同年齡組的居民能夠在社區內找到一處住宅，促進社會公平，使社區都需要具魅力	與美國種的居住現象在美國較為明顯，社區包容性表現不足，且 LEED ND 設置的住房類型多樣性與文化傳統與西歐等多元程度和社區包容程度	適用
	開放性	社區規劃和佈局設計	市民全開與公共空間可進性	1 分	對每個居住單元及非居住功能區域和公共空間的距離做了定量規定，同時對公共空間的大小尺度做了定量規定，滿足即可得 1 分。	提供鼓勵社工作場所附近或場所的公共空間和設施，促進社區社交網路發展，提高社區共聚度。	在美國，社區開發的往往跟隨著財政預算做，一個種植（往往打造成社區概念）定位都為第一，住戶往往關於同一經濟水準，混合型居住模式專案很少，建議在美國綠色人文建構文中加入這一個內容。	適用於我國，可在我國綠色人文標準中加以應用。
	開放性	社區規劃和佈局設計	休閒空間可進性	1 分	對每個住宅單元及非居住功能區域和休閒空間的距離做了定量規定，同時對公共空間的大小尺度做了定量規定，室外休閒設施必須包括健身器械，滿足即可得 1 分。	提供鼓勵社工作場所附近或場所的休閒空間和設施，促進社區社交網路發展，提高社區共聚度。	適用於我國，可在我國綠色人文標準中加以應用。	
	平等性	社區規劃和佈局設計	無障礙設計和通用設計	1 分	內含新建住宅單元的專案：20%的多種新建住房專案滿足住宅通用設計，特色創意設計或特色設施/廣告周圍設計三者中的一項即可得 1 分。 不含新建住宅單元的專案：重新設計交通節點或新建公共交通節點和基礎設施規範，可得 1 分。	將居民的可參與行動能力納入考慮範圍，來提高社區內都可使用的範圍。	適用於我國，可在我國綠色人文標準中加以應用。	
	參與性	社區規劃和佈局設計	社區基礎與準入	1-2 分	選項一：在設計之前，開始幫助創造環境所有人，住戶，商戶，工人代表，開始有目的地式工人意見的意見性，在初步設計階段，至少召開一次社區會議，根據社區意見改善工程設計，如不進行修改，解釋為什麼社區意見對設計沒有改善作用，在設計建造過程中建立開發與社區的交流機制，可得 1 分。 選項二：在選項一的基礎上，開展至少兩天的公開設計會議或主題會議，並有幫助幫助創造環境所有人，住戶，商戶，工人代表參加，可得 2 分。 選項三：在選項一的基礎上，由一個非政府組織來開發管理專案，可得 3 分。	為了得到更好的社區規劃建議，在設計，開發和決策階段與社區居民和參與者的規劃，設計，參與決定社區的提高和知識設施。	適用於我國，可在我國綠色人文標準中加以應用。 其中的鼓勵機制應得到國學習，在參與者中不知有項目所設計圖的社區，住戶，工人或居民，應包括了幫助地區處理者，有設計社區之間的知識與配套建設的建設。	適用
歷史文化和保護		綠色基礎設施和綠色建築（Green Infrastructure and Buildings）	歷史資源保護和適應性利用	2 分	專案中要包含一個或一個以上歷史建築，在歷史保護區域加建，或基地範圍內有歷史保護區域。 除歷史建築保護機構或有關審查機構批准外，任何項目都不准拆除任何歷史保護建築，或在歷史建築保護區域進行加建，或在項目範圍內改變歷史氣氛，這是一個定性的條文。	這等保護歷史建築的理念，以保持其原有材料和特色， 在保護歷史建築時，應保留有特色，建議鼓勵保護歷史建築者對歷史建築進行適應性再利用，使用的材料和文化資源	適用於我國，可在我國綠色人文標準中加以應用。	

表格 3　BREEAM-Communities 中人文部分條文解讀

		條文分類	條文標題	條文得分		條文要求	評價階段	條文設計與考慮因素	是否適用於中國
				權重 (%)	比分 (分)				
以人為本	參與性	治理 Governance (GO)	GO01 諮詢計畫	2.3%	1	1. 成員為當地社區或具與建案利益相關者。 2. 諮詢內容：根據規定需要明確訂出諮詢的時間表與諮詢方式，並且諮詢內容需含以下的主題：(1) 開發期間與完成後對應進行區的影響 2) 設計品質 3) 管理，維護或操作問題 4) 與現有或鄰近社區共用設施的機會。 3. 簡易化的社區諮詢方法。 4. 協力廠商諮詢。 獲得一至二為強制規定必須要滿足的項目，再滿足最後的第四獲項，即可獲得滿分 1 分。	階段一：建立發展前期	于整個設計，規劃和建設過程中，確保其要求，想法與社會知識基礎用於提高相關利益者參與計畫的品質。	適用
			GO02 諮詢與參與	3.5%	2	1. 諮詢計畫 60001 用來確定利用進行協調與和協商物件 2. 良好諮詢方法之實踐 3. 協商後的意見回饋 4. 設計協商之影響或是是否的總體規劃等被視為諮詢過程的結果 5. 於協商過程中舉辦研討會方式告知總體計畫的發展 獲得一至二為強制規定必須要滿足之專案，達成獲得一至四可獲得 1 分，達成獲得一至五可獲得滿分 2 分。	階段二：確定發展與商品	為了保證社會的需求，整活和知識和關聯的利益相關者都來提高整個設計過程中的品質和可接受性，	
			GO03 設計審查	2.3%	2	1. 諮詢作為一個重要且獨立的方式，用來推動與解決許多關鍵的城市設計問題，例如：公共空間的設計、參與計畫的多樣性與創發性等。 2. 諮詢內與專的意見是被視為設計的參考依據。 3. 給予諮詢參與者回饋，並且需要達成解決與不同利益關係的原因。 4. 設計審查是由建築環境專家組成之獨立且跨學科的小組。 5. 設計的改進被視為審查的結果。 滿足前四一至四可得到 1 分，滿足項目一至五可得到滿分 2 分。	階段二：確定發展與商局	為確保總體規劃的設計並由社區和其他關鍵利益相關方審查，以保證它支持一個具有活力、功能性和包容性的發展計畫。	適用
			GO04 開放社區管理	1.2%	3	1. 諮詢計畫 60001 展示社區如何進行與參與其社區設施的管理。 2. 所有社區設施在建設過程中參與者的程式轉移到計畫完成後的責任方進行管理。 3. 提供社區管理與維護之相關細節的資訊予居民予選行為，特別是關於可持續性發展的設計與民眾手冊。 4. 開發商可舉辦社區團體提供協助來管理社區設施的運行計畫。 5. 開發商同意透過社區發展信託基金，或以管理公司進行新社區發展商基本相關進行計畫。 6. 與地方政府進行社區發展信託基金的合作，或是與編規定新社區管理公司其職責，作用與官方結構。 滿足前四一至五，可獲得 1 分，滿足前四一至四，可獲得 2 分，滿足全部六個專案，可獲得滿分 3 分。	階段三：設計細節	為新開社區規劃的參與發展計畫與管理計畫。	
	平等性		SE 02 人口與文與優先事項	2.7%	1	1. 基於分析地區經濟發展，政府政策，社區發展計畫與諮詢過程之內容，提出開發計畫，其內容應包含住宅結構，社區設施與就業機會。 2. 社區與利益相關者透過協商，對計畫地區表與要求進行分析，並且根據意見程度解釋結不高，中，低之優先序列，即進行發展策略的擬定。 3. 提供地區目前與未發展之計畫與基礎設施之長期財政與發展策略，以及建立合適的計畫資訊與機構合與機制。 專案一與專案二為強制要求，滿足專案一至專案三，即可獲得滿分 1 分。	階段一：建立發展前期	基於當地人口發展趨勢與重點，進行住宅提供與服務設施之發展計畫。	適用
	開放性	社會福利 Social and Economic wellbeing (SE)	SE07 公共領域	2.7%	2	1. 瞭解發展後潛在使用者其交際活動，使用模式與地方區！並且與有居民如何融讓使用公共空間與人與劃考慮。 2. 公共空間的設計需具有多用，安全性與舒適性，且滿足不同使用者之需求，如：兒童，高齡與行動不便之族群， 3. 公共區域的設計需要考慮與周圍地區之連結性，以創造更多地區活動。 4. 對於使用的開發中共用基礎空間的適用性進行評估， 5. 確定共用與適空間後，必須明確的指明空間範圍。 6. 如果共用與適空間分佈位置不合適，設計方案不應行設明如何在開發地區與周圍地區空間進行互動。 7. 公共空間之設計參考發展部的資料。 8. 透過社區空間打造完整具地區認同感。 9. 對於多用途的開發計畫，鼓勵其低成種進行混合開發。 如果滿足專案一至專案四，以及專案五或專案六其中一者，即可獲得 1 分；再者是於上述，再滿足剩餘項目七至項目九，即可獲得滿分 2 分。	階段二：確定發展與商局	透過打造公共領域之舒適性與活力空間以促進交多社區互動與交流。	適用

表格 4　GSBEE-Cities 中 人文部分條文解讀

人文城市建設精神的反映		條文分類	條文標題	條文要求與得分	條文設計與考慮因素	是否適用於中國
以人為本	平等性	Q2 社會方面	Q2.1.3 包容性	將一地區之每平方公里未來數量與總人口數量，和省資料進行指數分析，調整人口數及規劃人口數加上已開放數人口。 = 已開未來/調整人口數（每平方公里/1,000 人）	考慮區域的安全性與包容性的程度，	適用
			Q2.2.1 教育服務	將一地區小學，國中的學生總數與教師人數，兩者進行指數分析，透過基礎建設學校的資料分析，顯示地區之教育服務水準。 =中小學學生人數/老師人數（人）	希望提高對地區教育的服務品質與重視度。	適用
			Q2.2.2 文化服務	將一地區可使用的社區中心，圖書館數量與行政區面積，進行指數分析。 =社區中心與圖書館總數/總面積（數量/每 10 平方公里）	提高社區之公共討論與活動空間之服務水準。	適用

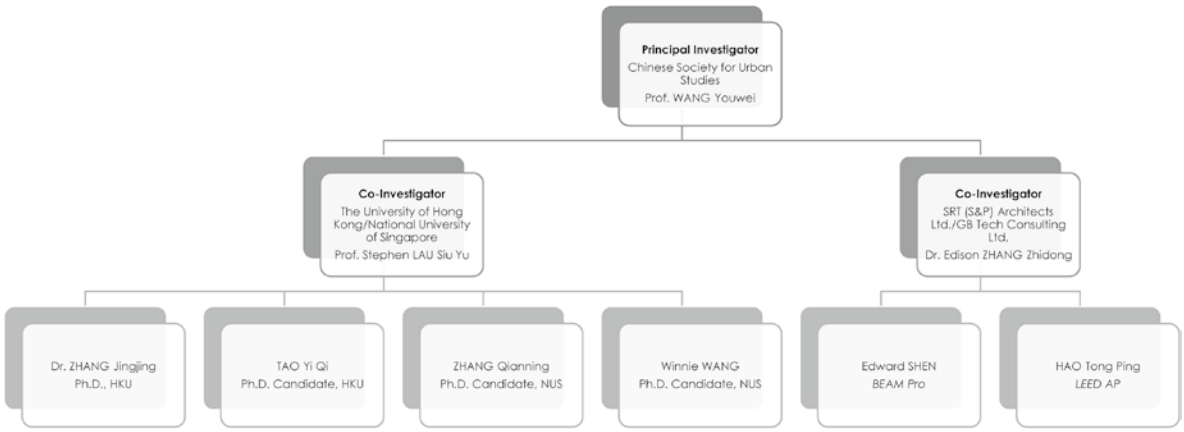
表格 5　CASBEE-Cities 中 人文部分條文解讀

人文城市建設精神的反映		條文分類	條文標題	條文要求與得分	條文設計與考慮因素	是否適用於中國
以人為本	平等性	Q2.2.4 幼托服務	將一地區之幼托機構與 0-4 歲幼兒總數，兩者資料進行指數分析。 =托幼設施數量/0～4 歲人口數（數量/每 100 人）	希望幼兒的社會性與基礎教育	適用
		Q2.2.5 老人服務	將一地區老齡照護機構 65 歲以上老年人口，兩者資料進行指數分析。 =老人服務設施數量/65 歲以上人口數（數量/每 1,000 人）	希望與新創群之間建構基礎設施品質。	適用
		Q2.3.1 出生率與死亡率	將一地區出生死亡人口數量與總人口，進行指數分析。 =（出生人口-死亡人口）/總人口數(%)	對於區域人口設自然因素產生增加與減減之人口總數的重視。	適用
		Q2.3.2 移入與移出人口率	將一地區移入移出人口數量與總人口，進行指數分析。 =（移入人口-移出人口）/總人口數(%)	對於區域人口設機性因素產生增加與減減之人口總數的重視。	適用

表格6　DGBI 中 人文相關條款解讀

人文城市建設精神的反映	條文分類	條文標題	條文評價方法	條文設計考慮因素	是否適用於中國
以人為本	平等性	社會及功能多樣性	定性分析現建區域，是否有一種或的存有建築和建築類型，包括居住和工作類型，公共設施，商業設施，公共空間等。 定量分析現建是否有足夠的符合要求的公共空間。 定性評估當地人們（居民，商務等）是否能參與塑造城間發的各個階段。 定性評估是否有不同形式的建模形式，或設施或有不同的開發商，投資者和組織等。 定性評估設計方案內是否包括了不同的開發物種，可獲立場主與居民， 定量評估區域內現在預分的社區，不能大於 DGBI 認證區域中 80%的建議開發量。 定性評估區域內是否有大範圍內混合使用的設計理念。 定性評估區域內是否有大範圍內混合使用的設計理念。	促使兩城的第一用途土地與人轉化為混合型用地，促成其他，商業設施，公共空間等。 定量分析區域內是否有足夠的符合要求的公共空間。 定性評估當地人們（居民，商務等）是否能參與塑造城間發的各個階段。 定性評估是否有不同形式的建模形式，或設施或有不同的開發商，投資者和組織等。 定性評估設計方案內是否包括了不同的開發物種，可獲立場主與居民， 定量評估區域內現在預分的社區，不能大於 DGBI 認證區域中 80%的建議開發量。 定性評估區域內是否有大範圍內混合使用的設計理念。 定性評估區域內是否有大範圍內混合使用的設計理念。	在促進城市人口增長的同時，提高和改善設施，針對特殊使用群體的使用問題，內容的需要（醫院或，或是，學校等），醫療，配套服務，文化設施，餐館，都是設施等，完善的配套設施是一個綠色社區的實力體現，本條款對問題設施出了明確的規定。	適用於我國，可在我國綠色人文標準中加以應用。
	平等性，開放性	社會品質	主客觀安全	建築商局，定性評估建築商局，如戶外空間設計，公共空間或建造性等方面， 公共空間，定量評估可以清晰定義的戶外空間的比重（公共空間，半開放空間和私人戶外空間），定明確其責任歸屬和對處狀況， 社會數據，定性評估地區層的整合使用狀況，包括用者是否感到在此單項在使用時是否或對個人感覺的情況等， 定量分析公眾可進空間的同時設計情況， 定性評估是否有區域管理，區域自身活動或共用的設施，是使得社區可控程度提高，在突發情況下可作為緊急或急通路日標地點， 定性評估是否有充分相關警察局或專家的建議，在規劃設時考慮預防犯罪事件發生， 定量評估可建設面積。	適用於我國，可在我國綠色人文標準中加以應用。
	開放性	社會品質	公共空間舒適度	社交一體化：定性評估公共空間規劃，促進社區一體化，具體評價內容為指定範圍內的個公力，使用到的多樣性，使用者的多樣性和地點的關連性， 空間影響力：定性評估公共空間規劃時不同戶外空間類型的影響程度，評價內容有地段發展，思辨認知度，一體化程度， 公共空間的舒適程度：定性評估舒適度指標，包括基本舒適度，風環境舒適度，戶外空間舒適度，	創造體驗式的社區空間，創造高品質的公共空間，創造一體化的公共空間，提高安全感，提高人體舒適度，促進人體健康，	適用於我國，可在我國綠色人文標準中加以應用。
	開放性	社會品質	提供開放空間	定量分析個別區域的公共空間狀況， 定量評估社區內健康與保障可達開放空間的比重，	在步行距離內，為使用者提供足夠的高品質開放空間（包括公共的和私人的），保障人體健康，創造社交空間和個體休閒空間，	適用於我國，可在我國綠色人文標準中加以應用。
	平等性	社會品質	全面可進性	符合全面可進性相關指標，	使每個人都享受到可進性，自由活動性，移動便捷性和可使用性；主要交通設施，建築，公共空間，風景點都能通用無障礙可達，設計方案對所有可影響都有每位力，設計一體化設施，將個性空間和整體人員都考慮在社區內，	適用於我國，可在我國綠色人文標準中加以應用。
	開放性	社會品質	公眾集會設置	定性評估公共空間內的聚會設置。	可以設置創造區域的聚會水準和評估室地生活的品質，創造區域活動，體現活力城區的個性，創造文化交流的空間，提升社區穩定，創造社區與交流的空間，提高可設置具創文化水準。	公眾聚會設置是用在我國較為薄弱，可供我國綠色人文標準中參考。
	參與性	過程品質	參與度	評估指針包括可參與過程，用戶可參與過程的實現性。	通過公眾可參與社區規劃過程來實現可持續性。	適用於我國，可在我國綠色人文標準中加以應用。 但由於我國在公眾參與這方面基礎較為薄弱，需要結合我國國情，儘快完善相關條例，建立聚集機制。

ORGANIZATION CHART OF THE RESEARCH TEAM



In 2014, China unveiled the national urbanisation plan for the 2014-2020 period in an effort to steer the country's urbanisation onto a human-oriented and environmentally friendly path (CPC & State Council, 2014). In 2015, the State Council started to accelerate the building of ecological civilisation, one of the goals is to promote the construction of "Green and Eco-Urban District". Under such background, the Ministry of Housing and Urban-Rural Development formed a research committee to establish the Evaluation Standard for Green and Ecological Urban Districts (GBL for UD).

This study is part of the research outcomes, focusing on humanity, humanism and social sustainability issues. Firstly, it compares the definition of humanities and humanism between China and other western countries. Secondly, it compares the human-oriented issues of the four world leading green assessment standards – the US LEED Neighbourhood Development, UK BREEAM Communities, Japan CASBEE-Cities and German DGNB Urban Districts. Through the above comparisons, this research attempts to establish the assessment framework and requirements for the humanism aspect of the GBL for UD.

早在 2004 年，美国已经开始研究制订适用于社区规划的绿色评价标准。直到 2014 年，国务院颁布了《国家新型城镇化规划（2014-2020）》，我国开始推动以人为本和生态友好的城市发展。 2015 年，国家开始推进「生态文明」建设。其中，绿色生态城区的发展是重要任务之一。在国家发展的需求引导下，国家住建部在 2014 年启动并组织专家展开《绿色生态城区评价标准》的研究和编制工作。

本《标准》的特色之一是引入了软性的评价指标——人文评价指标。这是第一次在国家的绿色评价标准中引入了除硬性技术指标以外的评价指标。因此，本研究是整个《标准》研究的其中一个重要子项研究。首先，本研究比较分析了我国和西方国家关于「人文」的定义和理解。其次，本研究从城市规划和发展的角度对我国人文城市建设的要求以及联合国的人居议程的内容进行比较，从而总结出人文城市发展所需要的四个重要指标。第三，基于四个人文指标，本研究对目前世界上四个先进的绿色生态城区 / 社区评价体系——美国 LEED Neighbourhood Development、英国 BREEAM Community、日本 CASBEE-Cities 和德国 DGNB Urban Districts 进行剖析，并且总结提炼出和四个人文指标有关的评价要求进行横向比较。最后，我们将比较结果与我国实际情况进行分析讨论，最终形成了我国绿色生态城区评价标准人文章节的评价体系和要求。

Framework analysis of the Humanity Aspect in GBL for Urban Districts

Table 1 - Weighting of each assessment aspect in different assessment stages

Assessment Stage	Land use W_1	Ecological environment W_2	Green building W_3	Resources & CO2 emission W_4	Green transportation W_5	Intelligent system management W_6	Industry & economy W_7	Humanity W_8
Planning & Design Stage	0.15	0.15	0.15	0.17	0.12	0.1	0.08	**0.08**
Operation & Management Stage	0.1	0.1	0.1	0.15	0.15	0.15	0.15	**0.1**

Fig. 1- Weighting of the key indicators in humanity aspect

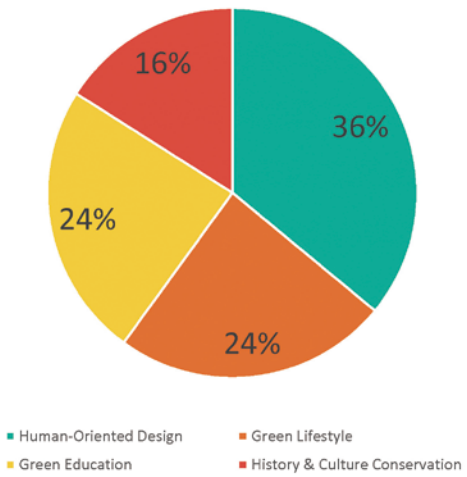
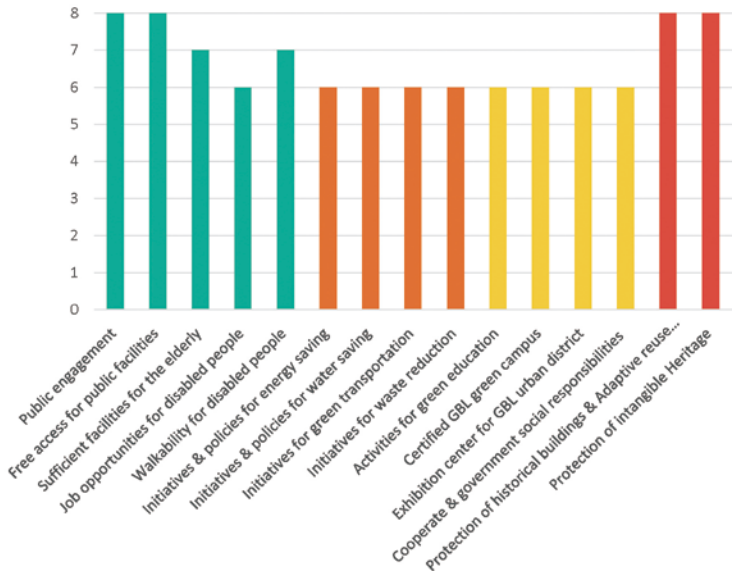


Fig. 2 - Scores of each credit in humanity aspect



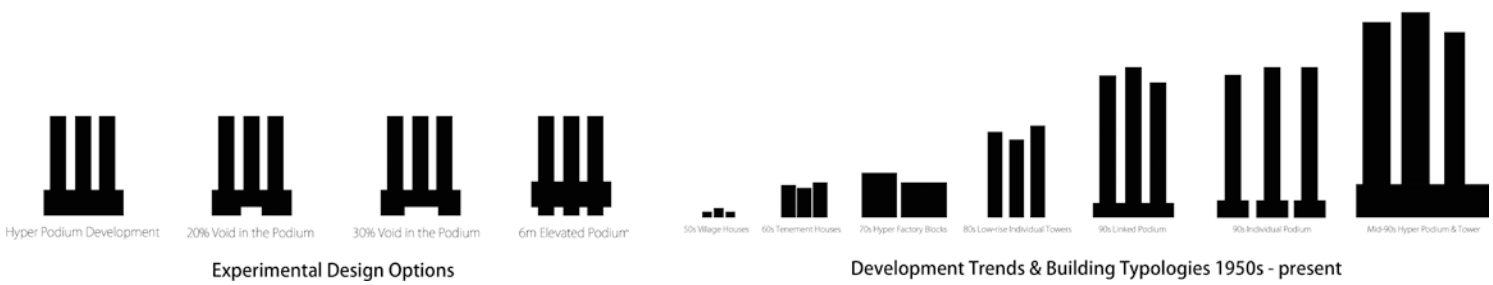
绿色生态城区评价标准人文章节内容

一级指标	类别	二级指标	条文编号	条文要求			通用分值		指标修正		
							规划设计	实施运营	规划设计	实施运营	
人文章节	控制项	以人为本	11.1.1	城区规划设计、建设和运营阶段设置独立章节。							
		绿色生活	11.1.2	编制绿色生活倡导原则。							
		历史文化	11.1.3	保护城区内历史文化街区、历史建筑以及其他历史遗存。							
	评分项	以人为本（30%）	11.2.1	城区规划设计、建设和运营阶段公众参与的组织形式和参与主体多样化。评价总分值为8分，应按下列规则分别评分并累计：	1 公众参与组织形式多样的四项，得4分	4	8	8			
					2 公众参与的参与主体包括政府领导、事业单位/非营利组织、专家组成和居民，得4分	4					
			11.2.2	城区公益性公共设施免费开放使用，评价总分值为8分，城区公益性公共设施免费开放率达到：	75%	5		8			
					90%	6					
					95%	8					
			11.2.3	设置完善的婴老服务设施和体系，评价总分值为7分，每千名老年人床位数达到	50张	3	7	7			
					55张	5					
					60张	7					
			11.2.4	设置针对气象和地域人士的装置介绍和社区培训宣传册系，评价总分值为6分。			6				
			11.2.5	设置人性化和无障碍的通制设施，增强城区各类设施和公共空间的可进性，评价总分值为7分，应按下列规则分别评分并累计：	1 20%路街大道和道制建设置无障碍坡缘或铁梯，得3分	3	7	7			
					2 所有人行横道设置盲人通制语音信号提醒，得2分	2					
					3 合理设置在周行人信息式信息牌，得2分	2					
		绿色生活（24%）	11.2.6	鼓励城区简间管理，有促进管理措施，评价总分值为6分，应按下列规则分别评分并累计：	1 制定管理措施，公共建筑夏季室内空调温度设置不低于26℃，冬季室内空调温度设置不高于20℃，评价分值为3分	3		6			
					2 制定慢惠措施，鼓励居民慢展一级或二级即能家电，评价分值为3分	3					
			11.2.7	鼓励城区简展雨水，有促进雨水措施，评价总分值为6分，应按下列规则分别评分并累计：	1 制定用水限额水费，促进居民简展可为雨水，评价分值为3分	3		6	0.08	0.1	
					2 制定慢惠措施，鼓励居民慢展雨水器具，评价分值为3分	3					
			11.2.8	鼓励城区绿色出行，有促进绿色出行措施，评价总分值为6分，应按下列规则分别评分并累计：	1 针对不同使用人群，制定公交慢惠制度，得3分	3		6			
					2 针对不同使用人群，制定公共自行车和慢惠换惠惠制度	3					
			11.2.9	设取管理措施促惠生活垃圾简减量，评价总分值为6分，应按下列规则分别评分并累计：	1 简展促进居民简展垃圾分期的管理措施，得2分	2		6			
					2 制定垃圾收费制度，实施居民生活垃圾收费，得2分	2					
					3 制定限制商品惠度包装管理制度，减少包装废弃物的产生，得2分	2					
		绿色教育（24%）	11.2.10	简展绿色教育和绿色实践，评价总分值为6分，应按下列规则分别评分并累计：	1 针对青少年简展绿色教育和绿色实践，得3分	3		6			
					2 设置绿色行动日活动，横建多样的立尊教育模式两千量，得3分	3					
			11.2.11	城区内中小学和高等学校被得绿色校园道路的比例达到	75%	3	6	6			
					90%	6					
			11.2.12	横建绿色生态城区展示和体验平台，评价总分值为6分			6	6			
			11.2.13	城区成府部门和企某展现绿色社会责任感，评价总分值为6分				6			
		历史文化（10%）	11.2.14	对非文物保护单位，但有一定历史文化特色的既有建筑，做好保护展更新利用，评价总分值为8分			8	8			
			11.2.15	对城区非物质文化遗产进行保护，弗承展弗播，保留城区有价值的历史文化记忆，评价总分值为8分			8	8			
		人文章节得分总和				通用总分	50	100	0.08	0.1	

FINALIST 入围项目

Improving pedestrian wind environments: analysis of the effect of building typologies on urban air ventilation from 1960 to 2015

改善行人路的通风环境：1960年至2015年建筑物类型学对都市通风环境影响的分析



Experimental Design Options

Development Trends & Building Typologies 1950s - present

Team or Organisation Name
Chu Hai College of Higher Education

Client / Developer
Chu Hai College of Higher Education

Location
Tsuen Wan City,
Hong Kong

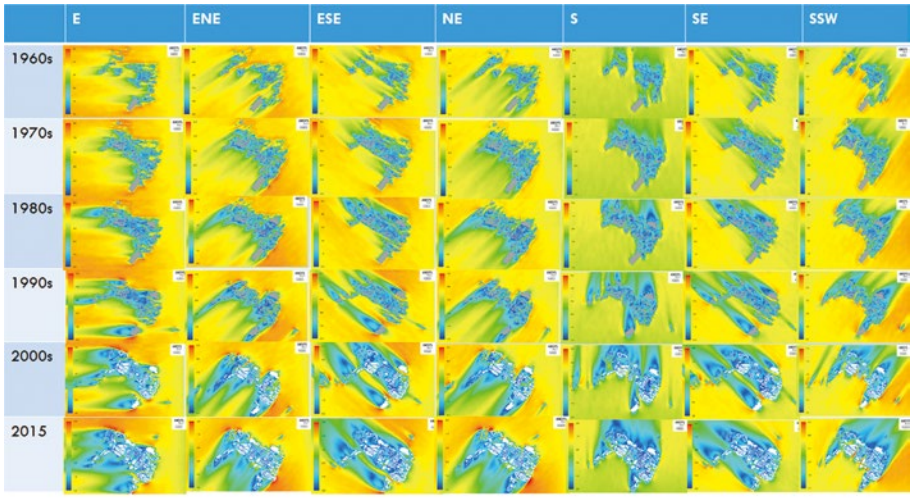
Completion Date
Phase I - December 2015
Phase II - December 2016
Phase III - December 2017

Co-Investigator & Project Leader
Chu Hai College of Higher Education

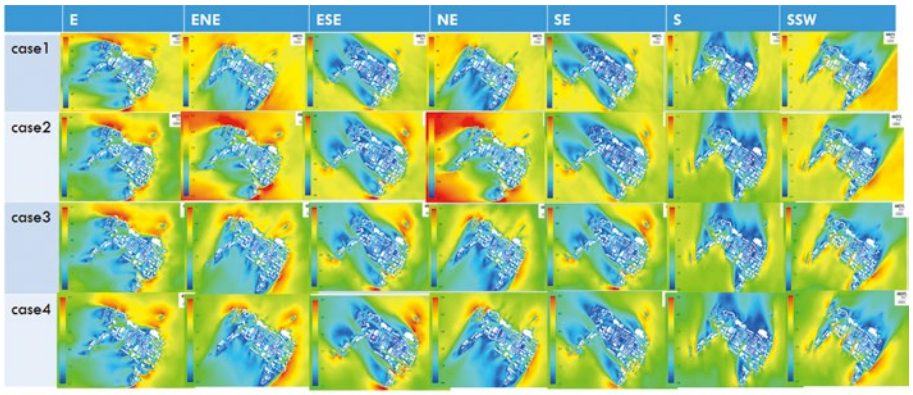
Principal Investigator
Chu Hai College of Higher Education

Research Assistant for Air Ventilation Simulation
Chu Hai College of Higher Education

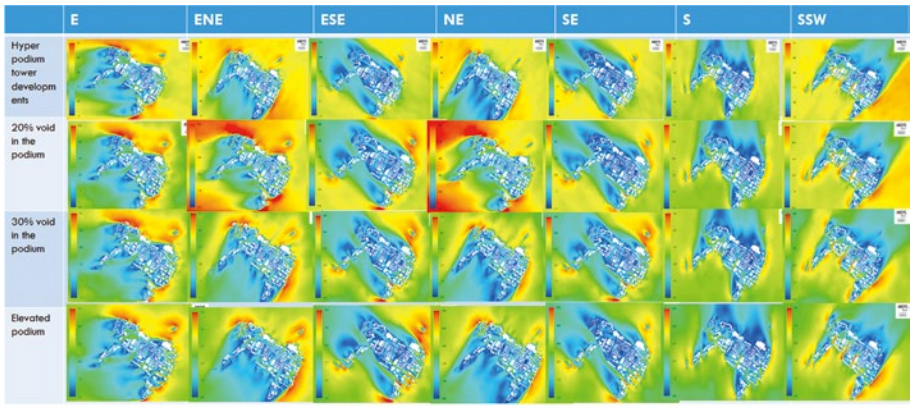
Research Assistant for 3D Digital Model Creation
Chu Hai College of Higher Education



1960-2015 HISTORICAL WIND PROFILES



Design Options Wind Performance Analysis



Testing with Modification to the Podium

Originality

This study contributed to the advancement in sustainability and built environment knowledge by developing historical wind profiles from 1960-2015 and identifying the effect of development trends and building typologies on urban ventilation.

This is the first study that has developed a city scale mapping of the impact of developments on pedestrian wind environment based on longitudinal data.

Practicability

Historical wind profiles developed for each decade of development from 1960-2015 with further refined wind profiles for three year interval from 1997 to 2015 will serve as a reference for future developments.

Findings from four design case options tested on two prospective redevelopment sites in Tsuen Wan are also applicable when considering future residential typologies.

Quality

Adopting protocols of AVA methodology strictly and increasing mesh resolution to 15 million cells instead of standard 8 million cells, this study increased the precision for city scale AVA studies compared to site scale AVA studies.

Innovations

This study identified the impact from “hyper podium residential” typology on pedestrian level air ventilation reporting approximately 1m/s drop in pedestrian ventilation rates in the year 2000 compared to 1960s and 0.5m/s drop compared to 1990.

Findings from design modification options to the 15m podiums residential typologies indicate promising directions for future developments in order to improve pedestrian wind environments.

Findings from this study call for review of residential development trends and particular attention to CDA policy.

原创性

此项研究综合和建立了 1960 年至 2015 年的都市通风轮廓和数据，以鉴定建筑物类型发展的改变与都市通风环境的影响，丰富了可持续发展和建筑环境的知识。这是首项以都市尺度利用纵向数据去研究建筑物类型学发展与行人路通风环境关系的研究。

实用性

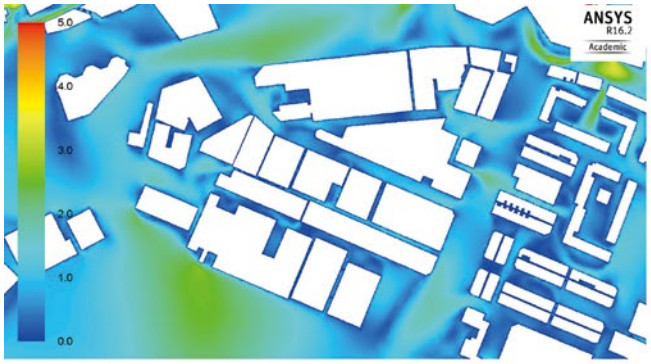
此项研究建立了一个由 1960 年至 2015 年、每十年为一时期的历史都市通风轮廓，和由 1997 年至 2015 年、每三年为一时期的未来都市通风轮廓为研究模型。研究所提出的位于荃湾两个地点的四个测试方案，可供未来住宅类型学设计作参考之用。

质量性

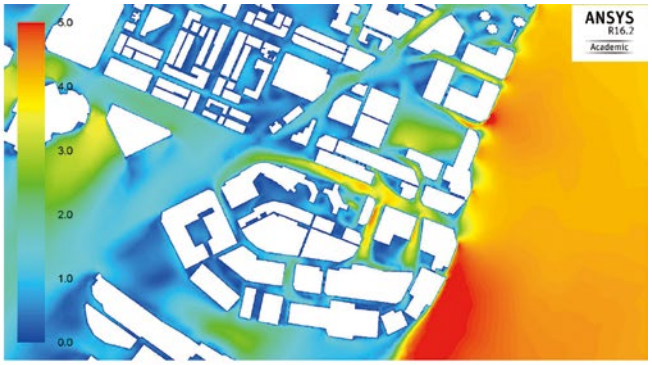
此项研究把建筑物网状解像度在一般 AVA 研究方法的标准的 800 万单元提升至 1500 万单元。与 AVA 研究方法的工地尺度标准（800 万单元）相比，此项以都市为研究尺度的研究提高了精准度。

创新性

此项研究鉴定了「超大型裙楼住宅类型发展」在 2000 年对行人路通风风速的影响，为比 1960 年下降了约 1m/s，比 1990 年下降了约 0.5m/s。研究测试显示改良了的 15 米高裙楼设计方案可改善行人路通风环境。研究结果希望持份者可检讨住宅类型学，特别是「综合发展项目」中的裙楼设计部份，以改善都市通风情况。



Factory Site "A"
Wind Profile before modification

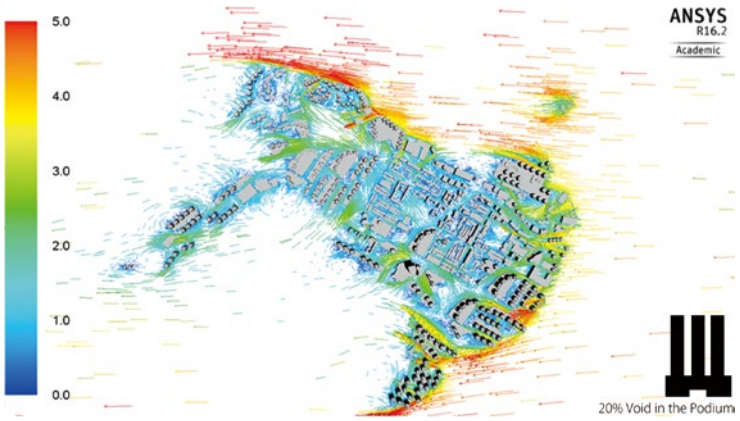


Factory Site "B"
Wind Profile before modification

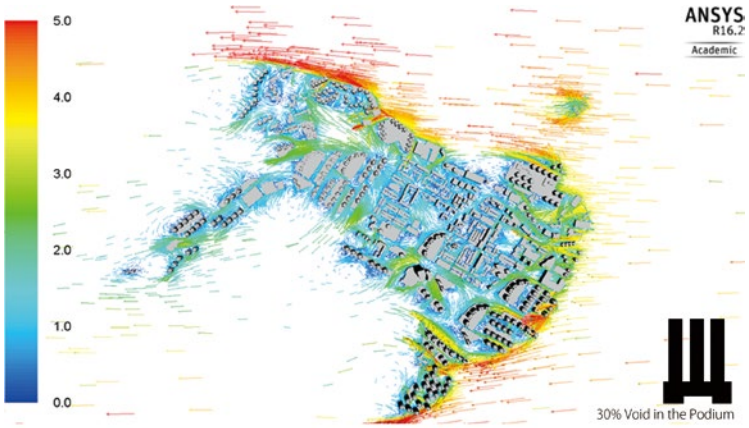
Wind Performance in Two Prospective Redevelopment Zones



Case 1 Wind Performance East Direction



Case 2 Wind Performance East Direction



Case 3 Wind Performance East Direction



Case 4 Wind Performance East Direction





Building Products & Technologies Category
建筑产品及科技类别

Jury's Citation 评审意见

Building Products & Technologies Category 建筑产品及科技类别

GRAND AWARD 大奖

Air Induction Unit (AIU)

The Air Induction Unit is an innovative and aesthetic way to provide natural breeze in large public spaces to improve the comfort of a large number of people in a cost-effective and environmentally-friendly way. The system can be incorporated with other design concepts to enhance overall indoor environment quality while reducing the building's energy consumption and GHG emissions. This is an exemplary demonstration of local ingenuity, inter-disciplinary collaboration and innovation, with global significance and potential impact.

Air Induction Unit 以创新又美观方式为大型公共场所提供自然微风的装置，提高人群的舒适度，而且既环保又符合经济效益。这个系统可与其他设计理念结合起来，提高整体室内环境质量、减少房屋能源消耗与温室气体排放量。它体现了本地智慧和跨界别的合作与创新，并对全球具意义和潜在影响。

MERIT AWARD 优异奖

Maximize the use of waste glass in cement-based construction materials
废弃玻璃在建筑材料中的最大资源化利用技术

Demonstrated an innovative prototype process to produce a new generation of eco-architectural cement-based materials that maximises the use of waste glass. This helps to recycle the vast volume of waste glass in Hong Kong, which would normally go to landfill, and to reduce the use of cement and natural aggregates (replaced by crushed glass powder and crushed recycled glass cullet, respectively), which in turn reduces the carbon footprint of the new construction material. Furthermore, innovative ways to incorporate different types and amounts of photo-catalytic materials allow for other enhancements of the functional properties of the finished material.

这项目展示了生产新型生态建筑水泥材料，从而对废弃玻璃作最大的资源运用，是一个创新的示范。它有助回收大量原先会运送到堆填区的废弃玻璃，同时减少使用水泥与天然骨料（分别由碎玻璃粉和碾碎的回收玻璃碎所取代），继而降低了碳排放量。再者，混合不同种类与数量的光催化材料的创新方法加强了制成品的功能。

Vacuum Insulation Glass
真空玻璃

This new generation of glass products provide a significant improvement in the thermal insulation, acoustic insulation and condensation-resistance of window and façade systems in buildings. Their applications also extend to household appliances, solar panel systems and the transportation industry, where these enhanced properties are also important. In buildings, the use of Vacuum Insulation Glass (VIG) could drive innovative design while maintaining and even enhancing overall indoor environment quality and reducing energy consumption and GHG emissions due to building operations.

这个新一代玻璃产品在建筑物窗户与外墙的隔热、隔音、不易结露方面明显地改进。这项产品应用于家用电器、太阳能电池板系统和运输业，作用不容忽视。在建筑物方面，使用真空隔热玻璃不但推动了创新性设计的发展，同时保持甚至是提升整体室内环境质量和降低建筑施工带来的能源使用与温室气体。



Building Products & Technologies Category 建筑产品及科技类别

GRAND AWARD 大奖

Air Induction Unit (AIU)



Team or Organisation Name
ARUP

Client / Developer
ARUP

Product / Technology Country
Hong Kong

Product Development Engineer
ARUP







The Air Induction Unit (AIU) is a ventilating device designed utilising aerodynamic principles to enhance thermal comfort of a space by inducing a large volume of gentle air movement. It is an innovative and energy efficient alternative to other means of mechanical ventilation such as electrical fans.

The AIU is characterised by the following features:

Quality Enhancement

- Simulating natural breeze – AIU generates a gentle, continuous airflow that feels like natural breezes, improving the indoor environmental quality.
- Simple, streamlined design – Its modern, seamless appearance can be easily integrated into any architectural design.
- Quiet in operation – AIU is quiet in operation as the air movement is generated from a connecting fan located at the far end from the air outlet.

Resources Minimisation

- Effective – Able to achieve a ventilation effectiveness up to 7x more than traditional fans.
- Energy efficient – AIU consumes 65% less energy than conventional industrial fans.
- Bladeless – Without blades and associated gears, the AIU requires minimal maintenance and provides safe operation.

Due to substantial energy saving achieved by AIU, it is expected to have a payback period as short as 2.5 years.

The AIU has successfully become a real product and has been installed in at the semi-outdoor dining area of The Green Atrium in Yuen Long, Hong Kong.

AIU 是一项利用流体动力学原理，为活动空间引入大量且和缓气流运动的通风装置，相较于传统风扇，AIU 是一项极富能源效益的创新产品。

AIU 具备以下特点：

提升品质

- 模拟自然微风 – AIU 可以制造和缓且持续性的气流，犹如草原上的微风般柔和，提升室内环境品质。
- 简洁、流线的设计 – 极具现代感的造型，AIU 轻易地融入各种建筑设计中。
- 寂静的运转 – AIU 的气流主要来自远端连结的风扇及周边的气流，运转近乎无声。

节约资源

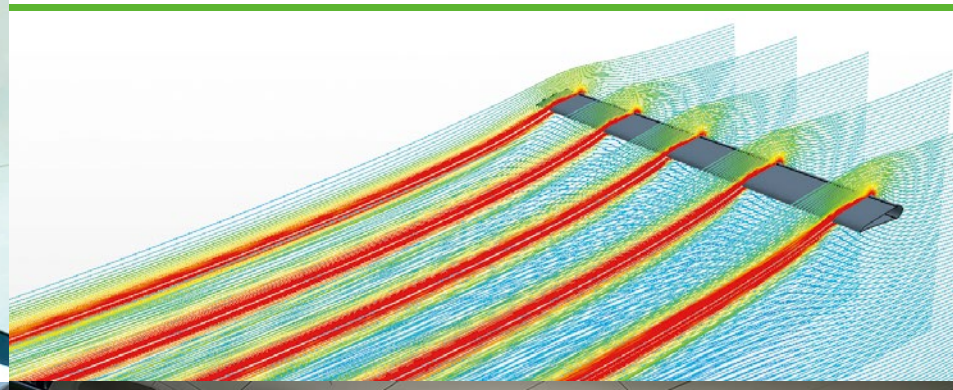
- 效益 – AIU 的有效通风范围大概是传统风扇的 7 倍以上。
- 节能 – AIU 的能耗大约是传统风扇的 65%。
- 无扇叶设计 – 无扇叶及传统的零组件，AIU 仅需最简单的保养并提供最安全的运转模式。

由于 AIU 显见的节能效益，回本期预期可快至 2.5 年。

AIU 已经成功的实体化并实际安装在元朗 The Green Atrium 一处半户外空间中，提升该处的空间品质。











Building Products & Technologies Category 建筑产品及科技类别

MERIT AWARD 优异奖

Maximize the use of waste glass in cement-based construction materials
废弃玻璃在建筑材料中的最大资源化利用技术



Team or Organisation Name
The Hong Kong Polytechnic University

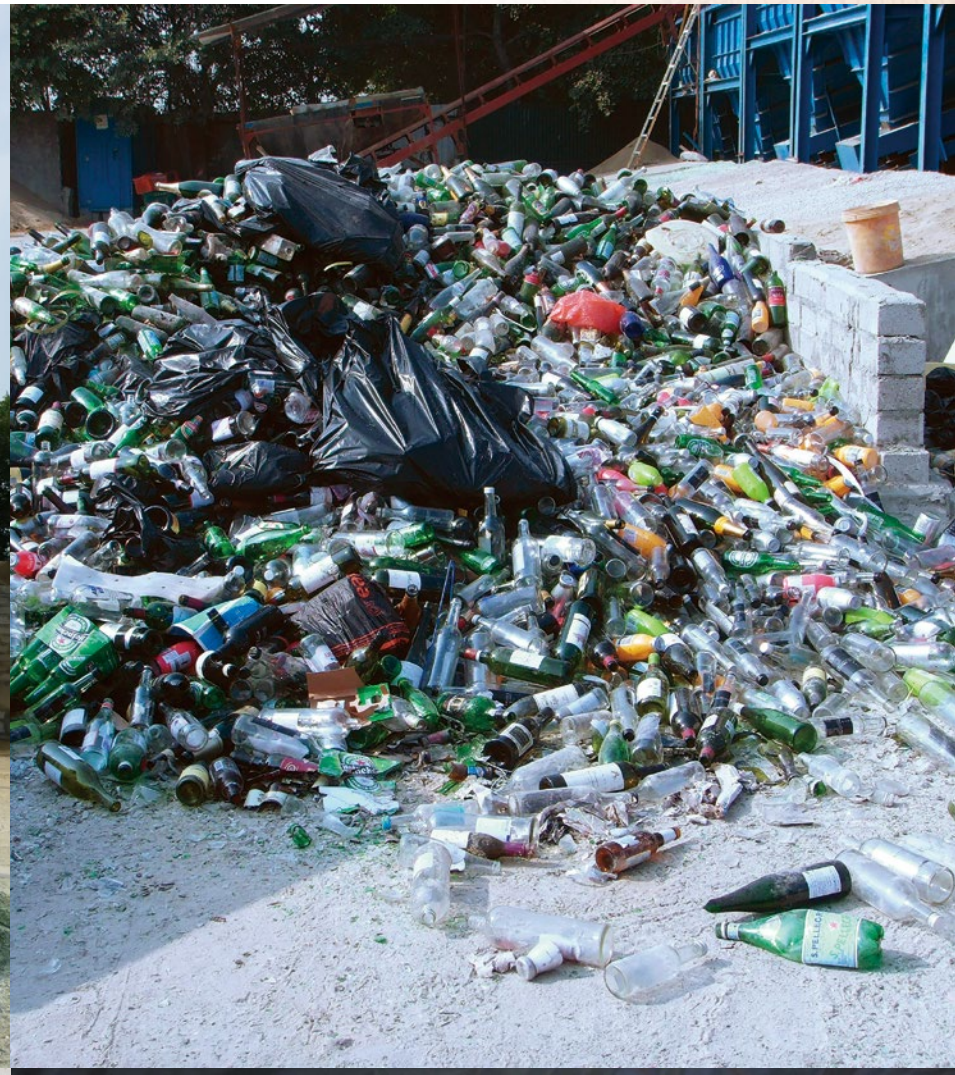
Client / Developer
The Hong Kong Polytechnic University

Product / Technology Country
Hong Kong, China

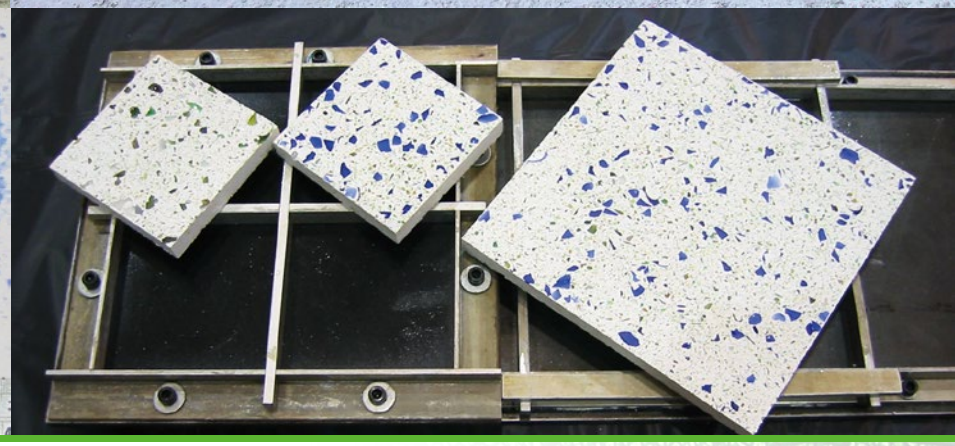
Project Manager
The Hong Kong Polytechnic University

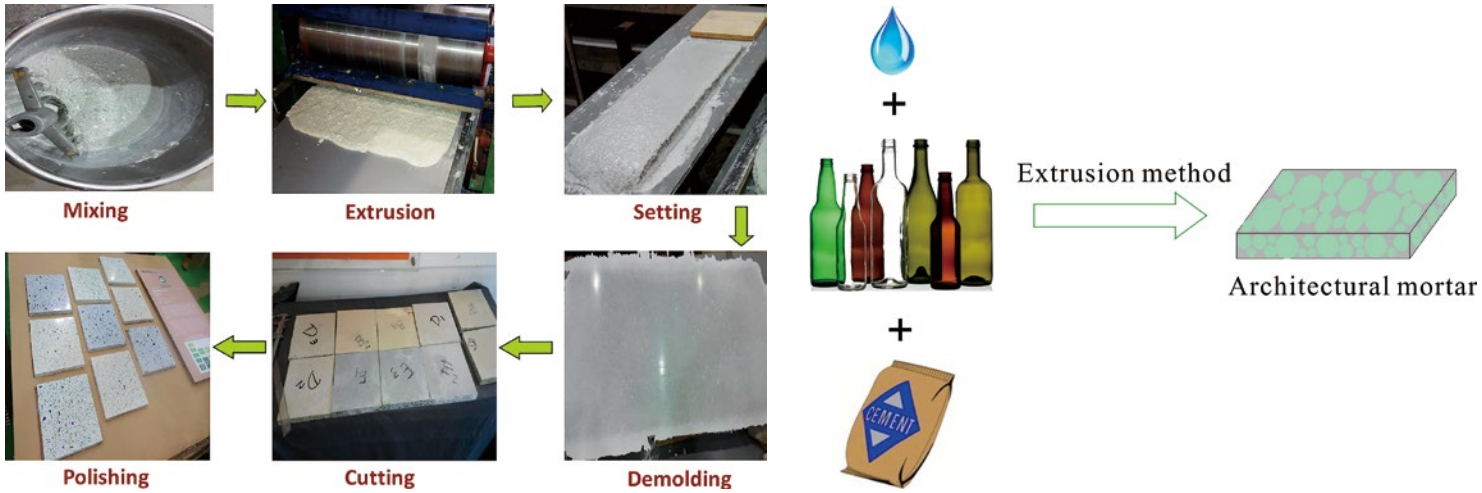
Research Investigator
The Hong Kong Polytechnic University







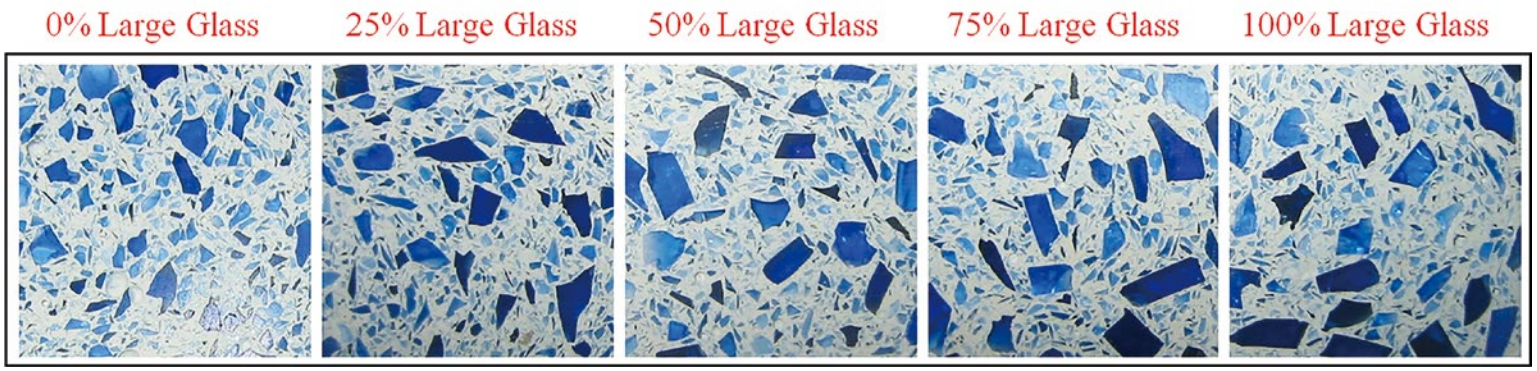




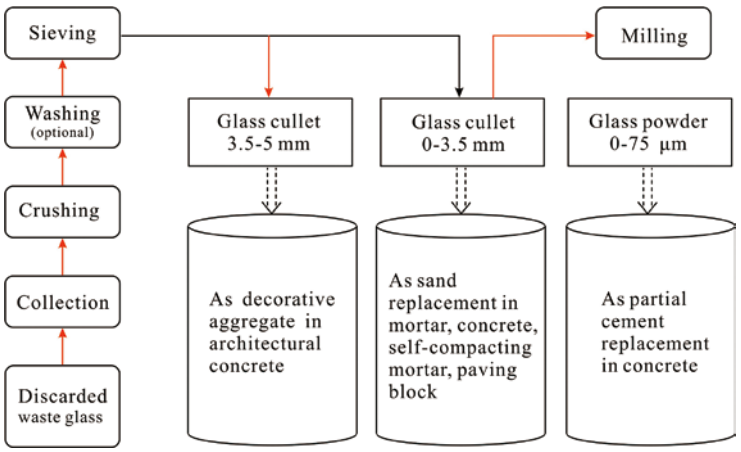
To increase the rate of re-utilising of recycled glass beverage bottles in Hong Kong, the PolyU team had conducted extensive studies to assess the potential of using crushed mixed coloured recycled waste glass both as a sand replacement (100% replacement rate) and as a supplementary cementitious material (replace up to 20% of cement) for the production of self-compacting white cement mortar for architectural mortar applications. With the optimal mix proportions, recycled glass constitutes about 60-70% by mass of the novel construction product developed. Moreover, a new molding method (calender extrusion) has been developed to allow the forming of the glass architectural mortar into terrozo tiles without the use of steel molds to enhance the production efficiency, thus effectively reducing the cost. More interestingly, when combined with photocatalysts, the eco-friendly construction materials can be further incorporated with value-added photocatalytic functions, such as air-purifying, self-cleaning, anti-fouling and antibacterial properties. The architectural glass mortar may be suitably adopted in plastering, screeding and terrazzo tile (architectural tiles) applications. It can be perceived that a wider application of this technique will not only provide a viable recycling channel for maximising the use of waste glass in Hong Kong, but also address the air pollution problem in an environmentally-friendly way.

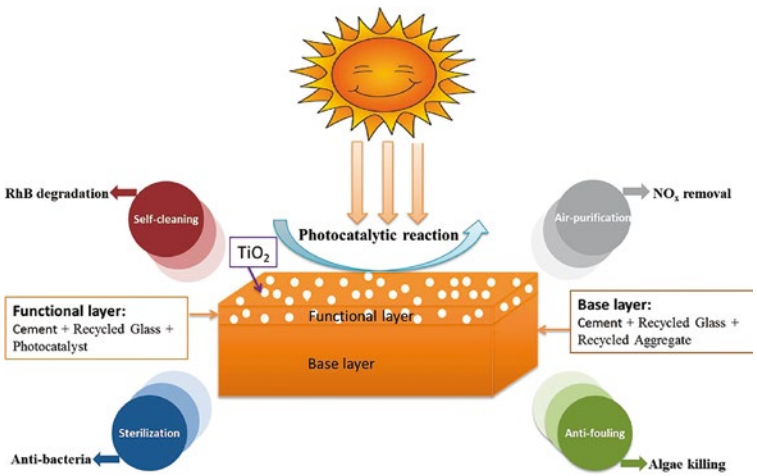
为了更好地解决废弃玻璃的回收再利用问题，减轻环境压力，香港理工大学研究团队对如何最大化地将回收玻璃应用于建筑材料中进行了广泛而深入的研究。我们通过工艺控制将废弃玻璃不仅用做细骨料完全取代河沙，更将其研磨成细粉用来取代一定量的白英泥，以生产环保建筑装饰砂浆。同时，我们采用新的成型技术（挤压成型）来提高生产效率，降低生产成本。此外，通过不同添加方法将光触媒材料与此种环保建筑装饰砂浆有效结合，得到具有去除空气污染、自洁功能和杀菌特性的新型环保产品。这种工艺的广泛应用将会有效缓解废弃玻璃对香港有限填埋堆的压力，同时解决严重的空气污染问题。

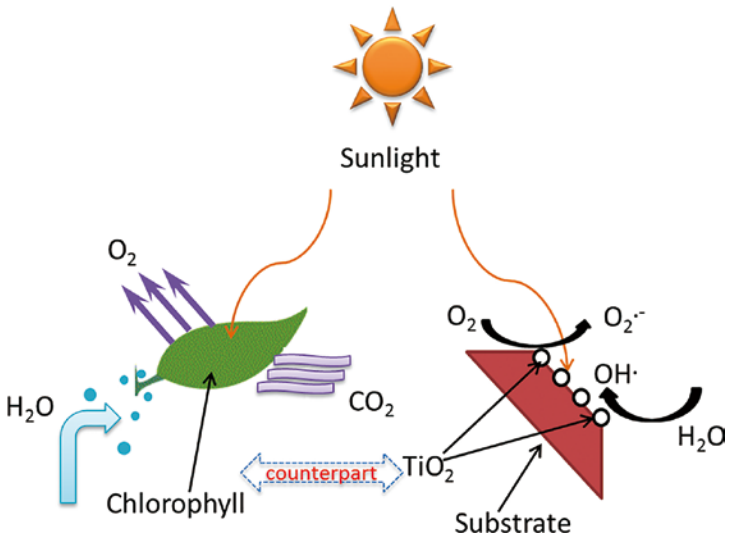
SCGM featuring different particle size of blue glass aggregates









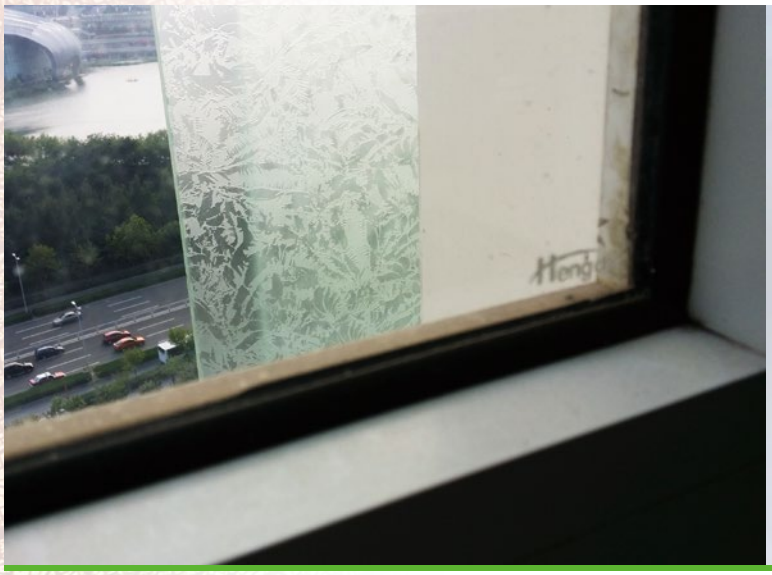


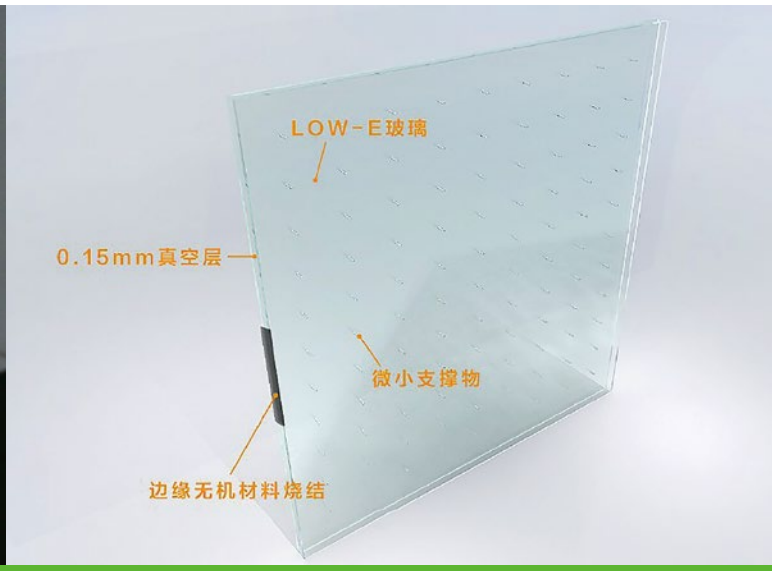
Building Products & Technologies Category 建筑产品及科技类别

MERIT AWARD 优异奖

Vacuum Insulation Glass

真空玻璃





Team or Organisation Name
Foerch Hong Kong Co., Limited

Client / Developer
Kei Chun Electrical Engineering Co.

Product / Technology Country
China

Hong Kong Distributor
Foerch Hong Kong Co., Limited

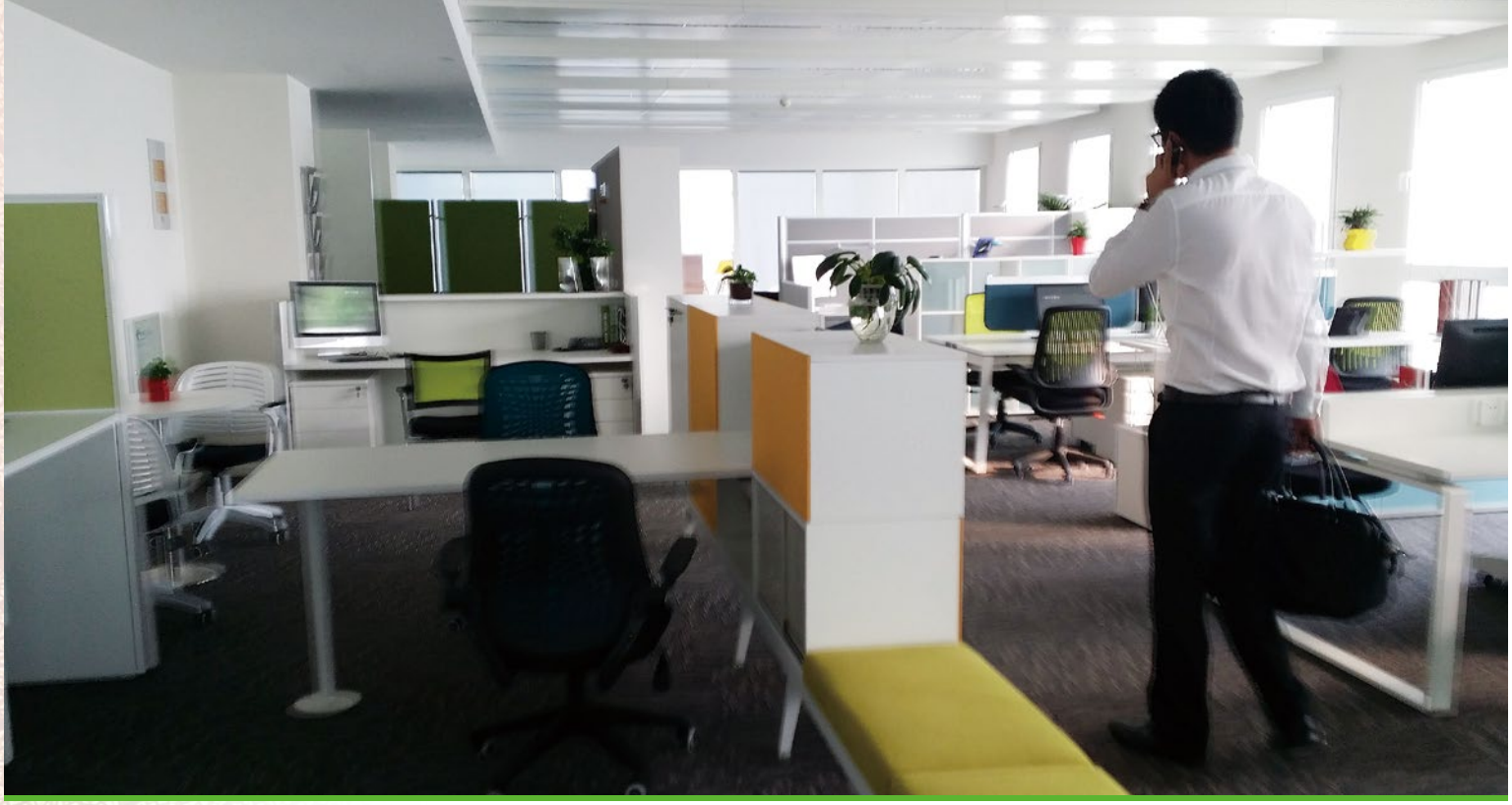
Distributor for Asia Pacific
Fulan Group Limited

Manufacturer
Qingdao Hengda Glass Technology Co., Limited









Hengda vacuum insulation glass (VIG) is the only semi-tempered / toughened vacuum glass in the world. Vacuum insulation glass (VIG) is the third generation of the energy saving glass product after insulating glass and Low-e insulating glass. The technical indicators of semi-tempered / toughened vacuum glass processed with off-line Low-e substrate are fully beyond those of the traditional triple insulation glass and comparable to the quadruple insulation glass in the market that is rarely used. The heat transfer coefficient of the windows and doors made of VIG reaches or near that of the walls in various forms. This glass is a good solution to the “Zero energy building” in the future.

Advantages of VIG:

1. Ultra-thin thickness means more day lighting, less frame material and easy replacement.

2. Once-for-all enhancement of thermal insulation and energy saving, for it can block off all energy escaping holes in the windows and doors of existing buildings.

3. Sound insulation, which can facilitate a comfortable and quiet living environment.

4. Anti-condensation, which can help prolong the life span of the windows and doors and improve living comfort.

Right now, the U value of the whole window using VIG can be lower than 1.

亨达真空玻璃是世界上唯一一个钢化 / 半钢化真空玻璃。

真空玻璃是继中空玻璃和 Low-e 低辐射中空玻璃后的第三代节能玻璃。在性能指标上，以离线 Low-e 低辐射为原片的半钢化 / 钢化真空玻璃完全超越传统三波两腔中空玻璃甚至是世面很少使用的四玻中空，使门窗的传热系数尽可能接近墙面的传热系数。

真空玻璃优势：

1. 非常的薄，意味著更好的采光，节省窗框材料的同时非常容易替换。

2. 彻底增强隔热系数，达到节能效果。可以有效阻挡能源溢出。

3. 隔音，可以营造一个舒适安静的生活环境。

4. 防结露，可以延长门窗寿命并提高舒适度。

现在，使用真空玻璃的门窗，整窗传热系数可以低于 1。









Building Products & Technologies Category 建筑产品及科技类别

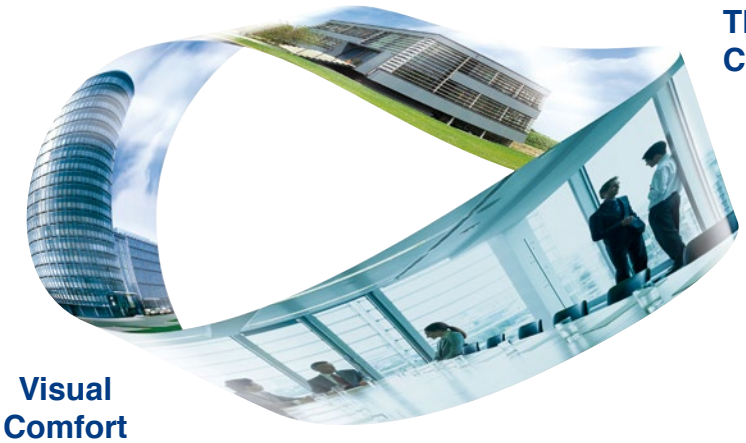
FINALIST 入围项目

animeo IB+ 4AC Motor Controller



Energy Efficiency

Thermal Comfort



Visual Comfort

Team or Organisation Name
Somfy Co., Limited

Client / Developer
Somfy Co., Limited

Product / Technology Country
France

Project Leader
Somfy Co., Limited

Project Engineer
Somfy Co., Limited

Project Communication
Somfy Co., Limited



PEP ecopassport

> Reference product
Motor Controller 4AC IB+ WM

PEP ecopassport n° S0MF-2014-001-V1-EN

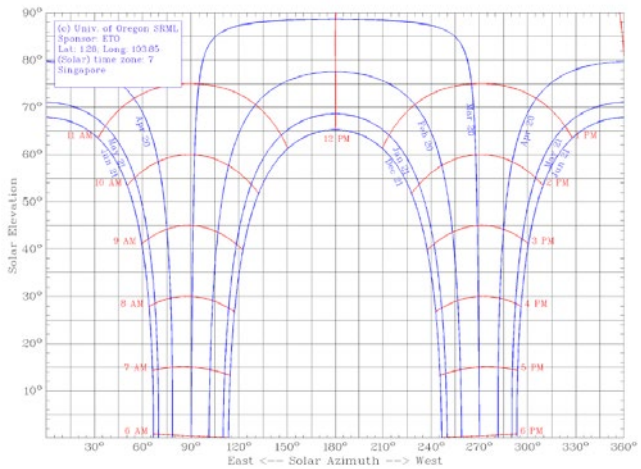
Materials and substances

All useful measures have been adopted to ensure that the materials used in the composition of the product do not contain any substances banned by the legislation in force at the date of PEP release.

Plastics			Metals			Other		
	g	%		g	%		g	%
ABS	279,3	34,1	Copper	20,1	2,46	Glass fiber	34,1	4,16
PC	270,5	33,03	Other	17,0	2,07	Other	23,7	2,89
PBT	18,3	2,24				Packaging		
Epoxy resin	18,1	2,21				Cardboard	109,4	13,36
Other	11,8	1,44				Paper	16,7	2,04
Total mass od reference product: 819 g								
Estimated recyclable content: 38,1%								

> RoHS
All our products comply, with the restrictions on substances specified in the RoHS directive.

> REACH
At the date of PEP release, the product doesn't contain, as far as we know, any substance of the candidate list to authorization of the REACH regulation with a concentration above 0,1% w/w.



The sun movement during a given day at a given building location can be calculated by sun tracking system. aniemo IB+ intelligent shading solution automates window shadings according to the change in the sun position and indoor comfort needs.



animeo IB+ is an innovative intelligent system for dynamic solar shading management. With the sun trajectory simulation tool to calculate the building's size and geographical location, sensors can be programmed to control the solar shadings automatically in accordance with sun position, temperature, time of the days and seasons. This improves the indoor environment for occupants' health and well-beings while reducing energy cost:

Thermal Comfort

Solar shadings are raised and lowered automatically as per time and sun positions. Together with the right fabric and façade glass, excessive heat will be blocked from or reflected to the outside to maintain the indoor temperature at a comfortable level at all times.

Visual Comfort

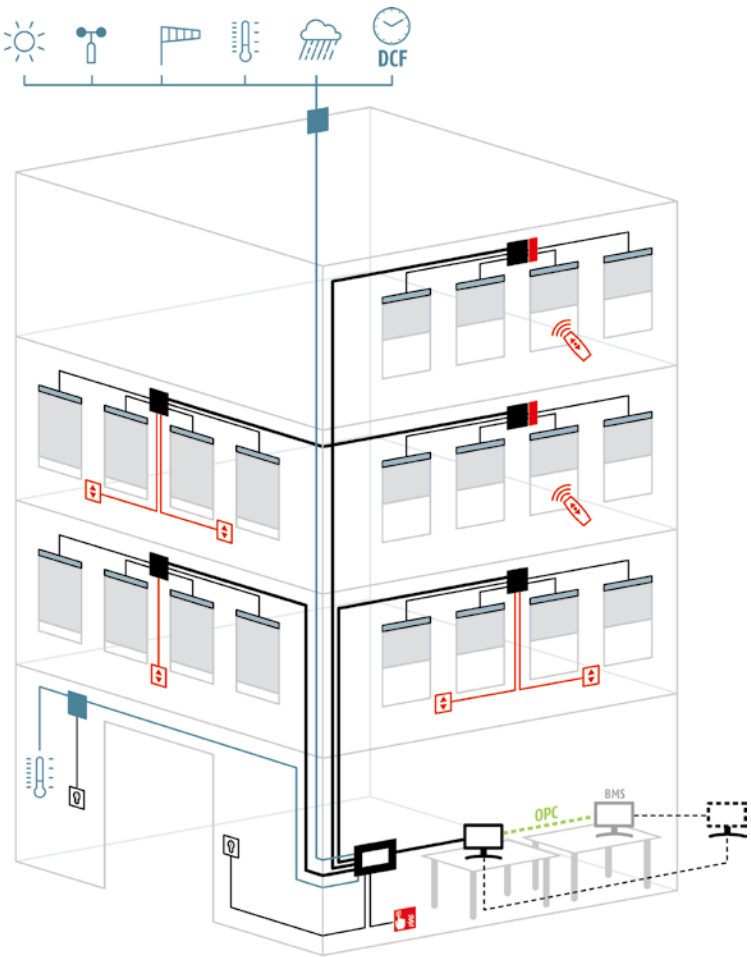
animeo IB+ system comprises sensors to centralise the movement of solar shadings, which utilises natural light and eliminates excess glare. It optimises indoor luminosity while saving energy on artificial lighting. Overall, it enhances occupants' well-beings and productivity.

Energy efficiency

Delicate design of the system has taken into account the sun's trajectory and solar irradiation so as to manage the building's energy performance by

- Prioritising the use of natural light
- Reducing solar gains in summer
- Minimising heat lost in winter

Somfy dynamic solar shading provides solution to conserve energy without compromising occupants' well-beings. Buildings can be more sustainable by utilising natural resources to maintain a comfortable indoor environment and achieve energy saving.


DCF
OPC
BMS



Building Products & Technologies Category 建筑产品及科技类别

FINALIST 入围项目

Essence® by Big Ass Fans®

必爱风Essence吊扇



Team or Organisation Name
Big Ass Solutions

Client / Developer
Big Ass Solutions

Product / Technology Country
United States

Designer
Big Ass Solutions

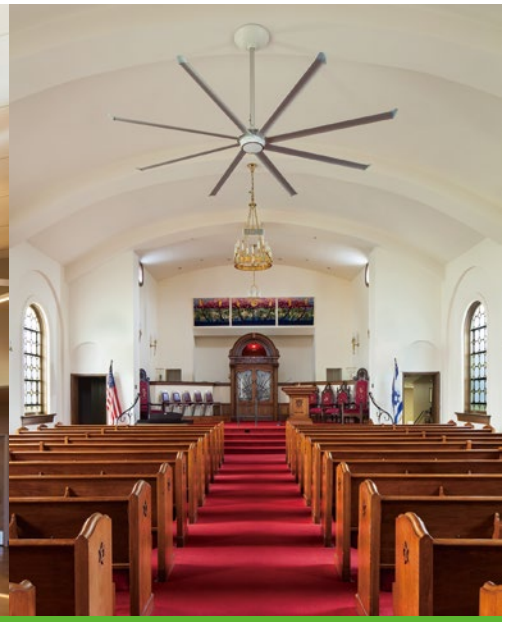
Manufacturer
Big Ass Solutions


TEXAS
GasMonkey
BAR N GRILL









Ranging from 2.4 to 4.3 metres (8- to 14-ft.) in diameter, Essence® is both a money-saving machine and a work of art, indoors or out. Essence is ideal for any space from lobbies, pavilions and music venues to seaside dining and open-air theatres.

Engineers identified shortcomings of existing ceiling fans and built Essence specifically to address those problems. Essence's innovative motor ensures efficient, silent air movement, while the sleek design and customisable options make it the perfect ceiling fan for commercial spaces.

Designed for efficiency, Essence was built specifically to work in tandem with HVAC systems to offset energy usage. Because Essence provides up to a 10°F (5.6 °C) cooling effect, users can raise thermostat setpoints and reduce HVAC run-time, saving up to 30% on air conditioning costs. In summer, using Essence in conditioned spaces, electricity bills can be reduced by 20% and circulation of cooling air in the space can be largely improved. In winter, Essence gently pushes warm air down from ceilings meaning heaters work less and users save up to 30% on heating costs.

Essence's motor also features an array of microprocessors that monitor power and temperature conditions to ensure optimal performance and decrease energy use. Use of internal microprocessors offers Essence an unprecedented level of sophistication and control in a fan of its size.

Essence is designed to last for durability and longevity meaning less eventual landfill waste. The fan does not contain lead or asbestos and is made of premium-grade materials. Additionally, the packaging is 100% recyclable. The inks used are water based with no harsh chemicals and the foam used to cradle the motor is recyclable as well.

Essence 吊扇是不仅省电，更是一件艺术之作。Essence 的直径由 2.4 至 4.3 米 (8 至 14 英呎) 不等，是第一款室内及户外均适用的风扇。无论是大堂、展馆及音乐厅，还是海边餐厅和露天剧院，Essence 均可以带来安静而舒适的凉风。

工程师发现旧有的吊扇存在的缺点，因此设计了 Essence 吊扇来解决这些缺点。Essence 的创新电机高效、静逸运行，带动凉风，而流线型设计和可选择的定制服务，使其成为商业空间的最完美吊扇。

Essence 吊扇以高效运行，与暖通空调系统共同，更可大幅减少能源消耗。因为使用 Essence 吊扇可以达致最多 10 ℉（5.6℃）的凉爽效果，用户可以提高空调系统的温度设定值，减少空调运行时间，最多可节省空调电费 30％。在夏季，冷气空间使用风扇可以帮助节省冷气开支达 20%，而空间内的冷气亦可均匀分布。而在冬季，Essence 缓慢运行，将暖气再带回地面，因此可以减少暖气供应，用户可节省供暖费用达 30％。

Essence 的电机更可配备多个微处理器，可以监控电源和温度条件，以确保最佳的性能和降低能源使用。搭载微处理器的 Essence 吊扇，成为最精密的风扇。

Essence 耐用性强、使用寿命长，即意味著更少的堆填垃圾。风扇不含铅或石棉，均采用优质材料制成。另外，包装是 100％可回收。所使用的油墨不含苛刻的化学品，而包装电机的发泡胶亦可回收。





FINALIST 入围项目

Integrated Building & Energy Management System (IBEMS)
综合楼宇及能源管理系统



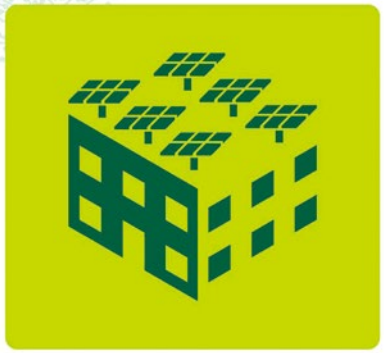
Team or Organisation Name
ATAL Building Services
Engineering Limited

Client / Developer
BMS System Provider:
Schneider Electric Hong Kong Limited
Energy Module Developer & System
Integrator:
ATAL Building Services Engineering Limited

Product / Technology Country
Hong Kong

System Integrator & Designer
ATAL Building Services
Engineering Limited

太陽能光發電
Photovoltaic Panels



2014年 Year 2014	1月1日至今 1 Jan to Date
減省能源 Energy saving	17,050.94kWh
減省電費 Saving on electricity bills	HK$6,820.38

自2014年9月開幕至今 (Since opening in Sep 2014)	
累積減省能源 Cumulative energy saving	17,050.94kWh
累積減省電費 Cumulative saving on electricity bills	HK$6,820.38

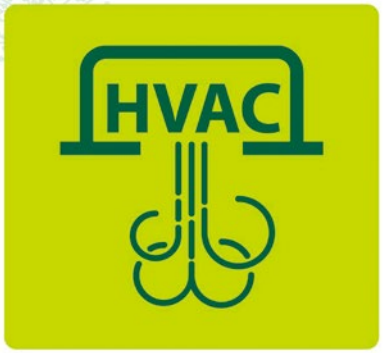
環保照明設計
Environmental Lighting System



2014年 Year 2014	1月1日至今 1 Jan to Date
減省能源 Energy saving	975,371.94kWh
減省電費 Saving on electricity bills	HK$202,949.9

自2014年9月開幕至今 (Since opening in Sep 2014)	
累積減省能源 Cumulative energy saving	975,371.94kWh
累積減省電費 Cumulative saving on electricity bills	HK$202,949.9

高效益空調節系統
Ultra Efficient HVAC System

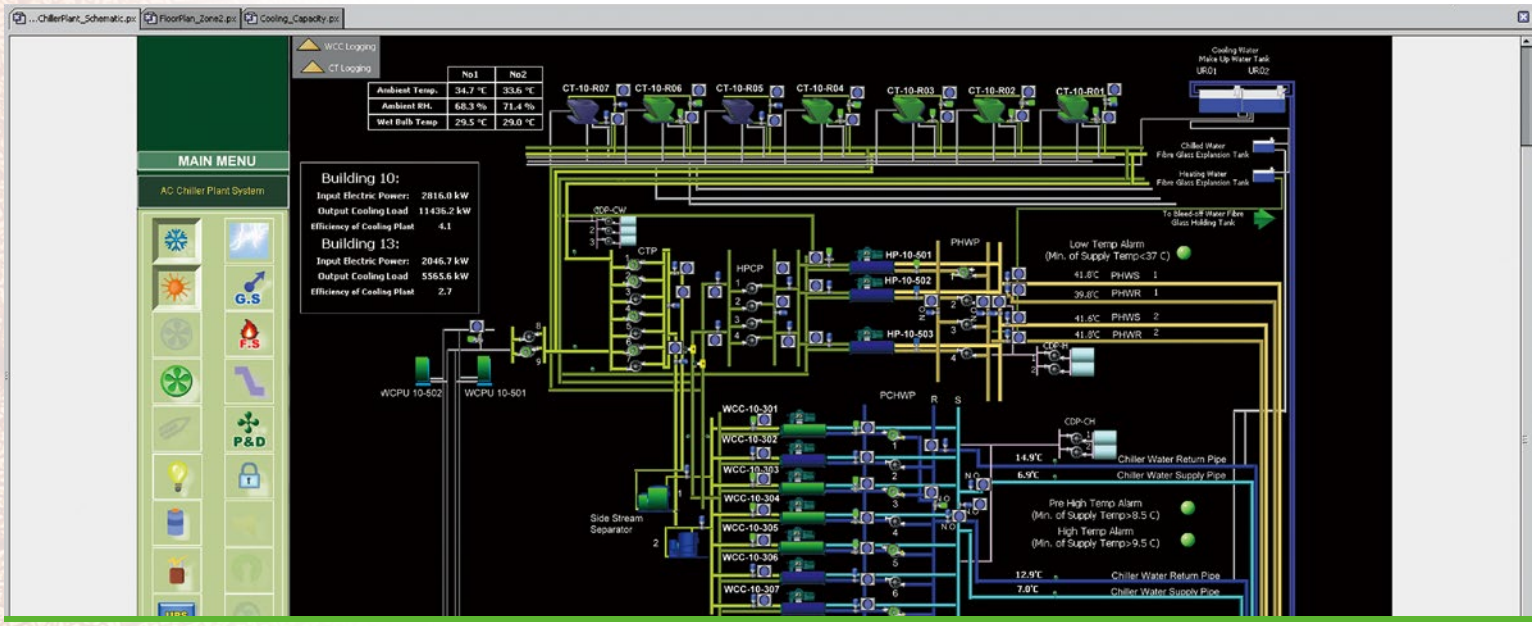


2014年 Year 2014	1月1日至今 1 Jan to Date
減省能源 Energy saving	52,866.47kWh
減省電費 Saving on electricity bills	HK$21,146.59

自2014年9月開幕至今 (Since opening in Sep 2014)	
累積減省能源 Cumulative energy saving	52,866.47kWh
累積減省電費 Cumulative saving on electricity bills	HK$21,146.59







Conventional building management systems serve the basic purpose of running a building. With recent attention to the rising cost of energy consumption, advanced energy management systems are required for continuous improvement in efficient and sustainable energy use, so here comes the Integrated Building & Energy Management System (IBEMS).

IBEMS is a comprehensive solution to address today's challenges in providing effective building services through sustainable measures. IBEMS brings all individual systems into a single network platform, making centralised control and real-time monitoring possible while ensuring all components of the building are interconnected to optimise functions such as HVAC, lighting, security, fire services, etc. It has a solid foundation allowing integration of green features – control optimisation and energy management system.

Control optimisation for HVAC systems ensures equipment runs at its most efficient points. The lifetime of HVAC plant and equipment can be extended and hence reduced maintenance cost. Apart from that, energy savings can be achieved through intelligent lighting controls which cover a combination of multiple control strategies including occupancy sensing, scheduling, and daylight harvesting.

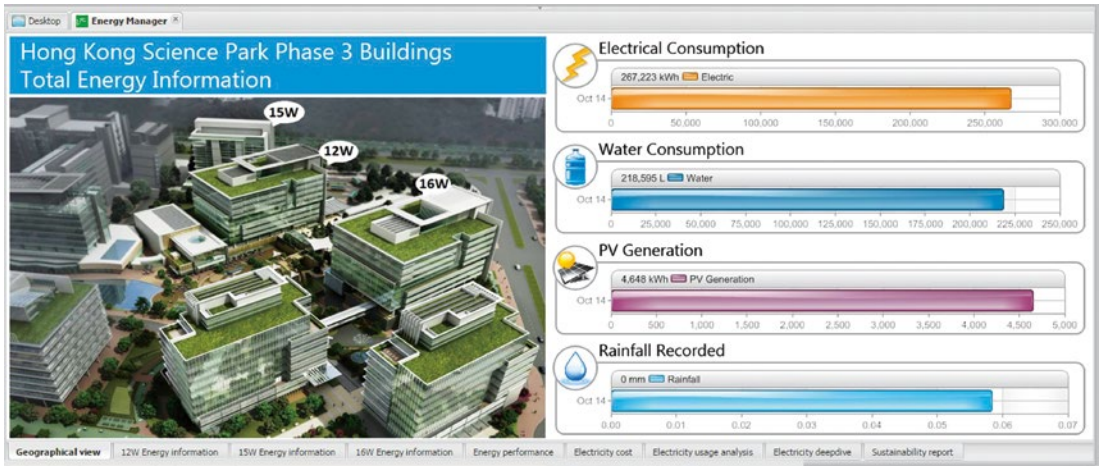
Energy management system is web-based software for providing clear visibility of energy consumption by leveraging energy data and predictive analytics. The tenant energy dashboard keeps tenants informed of their energy consumption. The public display kiosks make energy performance data accessible for the public, raising awareness of energy saving.

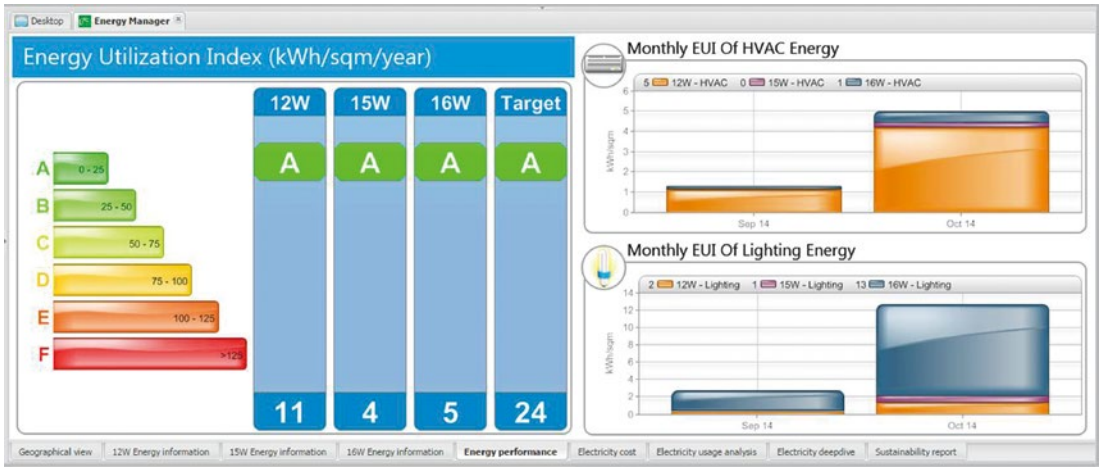
传统的楼宇管理系统虽足以维持楼宇的基本运作，但近年来能源成本持续增加，为了更有效且可持续地使用能源，社会需要更智能、更先进的楼宇管理系统。综合楼宇及能源管理系统随之成为理想的解决方案。

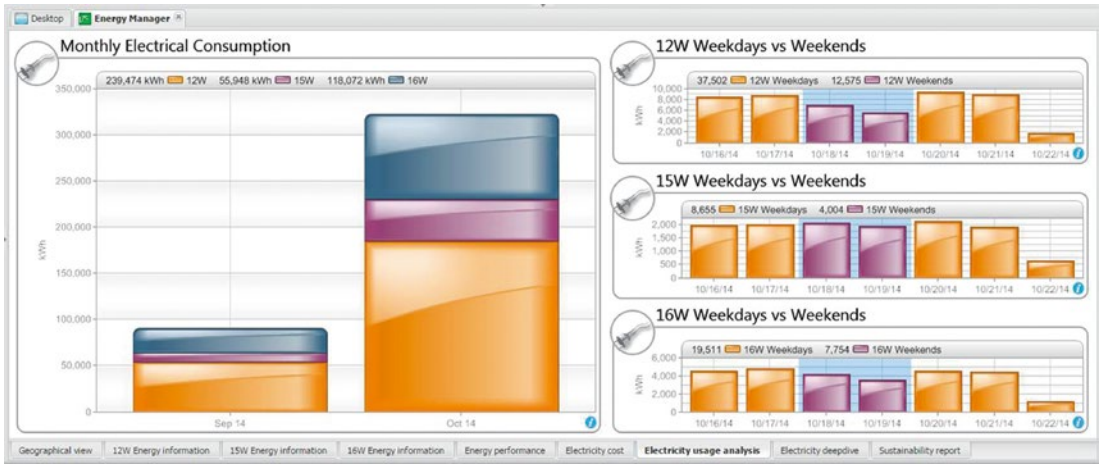
如何以可持续性的技术去执行屋宇设备服务可谓是业界每每面对到的挑战，而这套全面的综合楼宇及能源管理系统就是答案。此系统将所有个别的配置整合到单一的网络平台，做到中央控制及实时监测，确保楼宇内的所有系统如暖通空调、灯光、保安、防火等系统得以互通，加强运作效率和能源效益。使绿色技术如调控优化、能源管理等以此系统为基础上从而建立。

为暖通空调系统而设的调控优化技术确保设备物尽其用，发挥最高效能。同时，暖通空调机组及设备的使用期得以延长，有助减省保养支出。此外，利用智能照明控制系统配合侦测空间占用、规划使用时间及日光采集等多方面的控制策略，也能有效节省能源。

能源管理系统是根据能源数据作出可预测分析的网络应用软件，其租户能源仪表板可为租户提供清晰的能源消耗量资讯。公众显示板让市民大众也能够查阅能源表现数据，借此提高公众对节能的关注。


Desktop
Energy Manager
Hong Kong Science Park Phase 3 Buildings
Total Energy Information
15W
12W
16W
Electrical Consumption
267,223 kWh Electric
Water Consumption
218,595 L Water
PV Generation
4,648 kWh PV Generation
Rainfall Recorded
0 mm Rainfall
Geographical view
12W Energy information
15W Energy information
16W Energy information
Energy performance
Electricity cost
Electricity usage analysis
Electricity deepdive
Sustainability report


Desktop
Energy Manager
Energy Utilization Index (kWh/sqm/year)
12W
15W
16W
Target
A
A
A
A
11
4
5
24
Monthly EUI Of HVAC Energy
5 12W - HVAC
0 15W - HVAC
1 16W - HVAC
Monthly EUI Of Lighting Energy
2 12W - Lighting
1 15W - Lighting
13 16W - Lighting
Sep 14
Oct 14
Geographical view
12W Energy information
15W Energy information
16W Energy information
Energy performance
Electricity cost
Electricity usage analysis
Electricity deepdive
Sustainability report


Desktop
Energy Manager
Monthly Electrical Consumption
239,474 kWh 12W
55,948 kWh 15W
118,072 kWh 16W
12W Weekdays vs Weekends
37,502 12W Weekdays
12,575 12W Weekends
15W Weekdays vs Weekends
8,655 15W Weekdays
4,004 15W Weekends
16W Weekdays vs Weekends
19,511 16W Weekdays
7,754 16W Weekends
Sep 14
Oct 14
Geographical view
12W Energy information
15W Energy information
16W Energy information
Energy performance
Electricity cost
Electricity usage analysis
Electricity deepdive
Sustainability report




Green Building Leadership Category ● 绿建领导

Jury's Citation 评审意见

Green Building Leadership Category 绿建领导类别

GRAND AWARD 大奖

Hong Kong Housing Authority
香港房屋委员会

The Hong Kong Housing Authority is praised for her long term commitment and continuous efforts in going above and beyond the best practices of the green building industry. Being as the major public housing provider in Hong Kong, the Authority plays active roles in advocating green building policy and promoting green initiatives in the community. Insisting on clear corporate sustainability goals and practical strategic plans, the Authority has enthusiastically promoted healthy and hygienic living in the community, and taken leadership in Smart Greening and Energy & Resources Saving / Optimisation. Particularly, the Authority is commended for adopting functional approaches and cost-effective practices in the planning, design, construction and management of housing projects while successfully promoting healthy living and green building works with internal and external stakeholders. It is the role model for achieving sustainable built environment for metropolitans of similar size and economic standards of Hong Kong in the South East Asia region.

香港房屋委员会 (房委会) 在环保建筑业界的持续努力和长期的承诺获评审的赞许，亦是业界的范例。房委会作为香港主要的公营房屋发展商，一直积极推动环保建筑政策及在社区推广环保措施。房委会坚持实践明确的可持续发展理念和切实的计划，在社区中推广健康及卫生的生活，并在绿色智慧和节约及善用资源上作领导地位。房委会在规划、设计、建筑和管理房屋项目上实事求事，并采用符合经济成效的措施，同时成功向持份者推广健康生活和环保建筑，尤其值得表彰。房委会是实践可持续发展上的模范，可供与香港面积和经济标准相约的东南亚大城市借镜。

Swire Properties Limited
太古地产

Being as a leading developer, owner and operator of mix-used properties in Mainland China and Hong Kong, Swire Properties Limited is praised for long-time and continuous commitment to the goals and policies of sustainable development. Particularly, Swire Properties Limited has successfully incorporated environmental sustainability principles and practices throughout the business operations. The “Integrated Design Approach” involves all relevant parties including architectural design, property development and facility management in the early stage of planning and operation. Moreover, it applies real operational data from other existing buildings to build up key KPI for new developments. The Knowledge-Based Energy Management system also enables more energy saving opportunities. It is widely recognised that Swire Properties Limited is a significant leader in promoting environmental excellence and disseminating knowledge of and well-being of life to employees, the community as well as the building and property management industries.

太古地产作为在中国内地和香港多用途物业的发展商、业主和营运商的先驱，它一直以来对实践可持续发展的目标和政策的承诺，深受评审赞许。太古地产成功将可持续环境发展的宗旨和措施带进业务营运，尤其可嘉。其「综合设计」涉及在规划和营运的所有相关单位，包括建筑设计、物业发展和物业管理。再者，它应用了既有建筑物营运数据去制定新发展项目的关键绩效指标。其能源管理系统同时提供更多节能的机会。太古地产积极向员工、社区以及建筑和地产管理层分享环保心得以及宣扬生活素质，其卓越领导地位有目共睹。

MERIT AWARD 优异奖

The Chinese University of Hong Kong
香港中文大学

The Chinese University of Hong Kong (CUHK) which occupies 137.3 hectares of land comprises of 8 Faculties, 1 Graduate School and 9 Colleges. Having the largest university campus in Hong Kong, CUHK maintains ~60% greenery coverage although its 160 buildings shall accommodate the teaching and learning activities, residential & recreational uses and research & development facilities for the 8,000 staff and 28,000 students. Stimulatingly, the university campus supports 200 plant species, 130 bird species (~30% in Hong Kong), 70 species of butterflies and 20 species of dragonflies that can be claimed as ecological friendly built environment. This attributes to the University’s vision and leadership in enabling sustainable development principles and practices in the design, operation and management of the campus with respect to pressures of conservation of natural heritage from alumni as well as the society. Merits of the CUHK campus include but not limited to continuous efforts in making the campus pedestrian-friendly, promoting green living of college life, conserving places of historical values and scientific interests, landscaping vital importance, active response to climate change, innovative learning garden and promoting education and research relevant to sustainable built environment.

香港中文大学 (中大) 占地 137.3 公顷，由 8 个学院、1 间研究院及 9 间书院组成。中大是全港最大的校园，校园内共有 160 栋大楼提供教学、住宿、康乐、研究及发展设施予 8,000 名教职员和 28,000 名学生。校园绿化范围约占 60%，共有 200 种植物、130 种鸟类 (占全港约 30%)、70 种蝴蝶及 20 种蜻蜓，实在可称为一个生物多样化的建筑环境。另外，面对著来自校友及社会就自然遗产保育的压力，促使中大在校园的设计、营运和管理中坚持可持续发展原则，这亦归功于大学的愿景和领导层的努力。中大一直提倡健步文化、推广绿色校园生活、保育有历史和科学价值的地方、优化校园景色、积极回应气候转变、推广有创意的学习花园和可持续建筑环境的教育和研究等。

Ronald Lu & Partners
吕元祥建筑师事务所

Ronald Lu & Partners was conferred numerous international awards including but not limited to the BCI Asia Top Ten Award for 12 consecutive years. The Company commits the mottos “Caring for the environment in not an option but an architectural imperative” and “Architecture is an act of change that can inspire humanity and create a better living environment for future generations”. It was the first architecture firm in Hong Kong certified with ISO 14001 that can be backdated to year 2006. According to statistics provided, the Architectural Firm has 50% of professional staff claimed to be Green Professionals. Out of the ~200 registered architects appointed, more than 35 are BEAM Professional and more than 40 are LEED Accredited Professionals. Internally, the Architectural Firm has an In-house Sustainable Design Specialist Group which enables holistic approach for energy efficiency and eco-friendly development. With a number of successful environmental-friendly projects in hand, the Architectural Firm is merited for actively advocating green building design and planning, incubating green professionals and active sharing of knowledge and experiences with the community and industries.

吕元祥建筑师事务所获得了众多国际奖项，包括连续十二年获得 BCI Asia Top Ten Award。吕元祥建筑师事务所的格言是「环境保护并不是一项选择，是一座建筑的必要元素」和「建筑可以启发人性和为下一代建设更好的居住环境」。吕元祥建筑师事务所是第一所香港的大型建筑事务所获得 ISO 14001 环境管理系统证书 (自 2016 年)。根据资料提供，吕元祥建筑师事务一半的员工拥有绿色建筑的专业知识，事务所大概超过 200 名注册建筑师，当中超过 35 名是香港绿建专才，以及超过 40 名美国绿色建筑评估系统体系认证的专才。公司内部方面，吕元祥建筑师事务所设环保设计专项小组，实现能源效益和环保发展的全面政策。评审对吕元祥建筑师事务所的一系列环保项目，其积极提倡绿色建筑设计和规划、孕育绿建专才以及积极与社区和业界分享知识及经验，致以赞许。

Green Building Leadership Category 绿建领导

GRAND AWARD 大奖

Hong Kong Housing Authority 香港房屋委员会

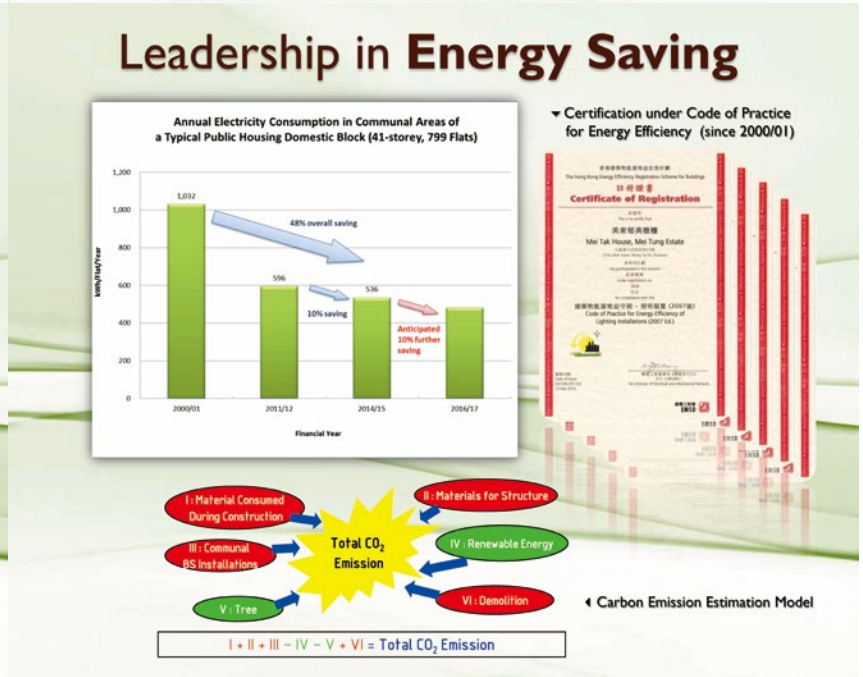


Team or Organisation Name
Hong Kong Housing Authority


Policy, Goal & Planning
Continual Improvement
Environmental Policy
Planning
Implementation and Operation
Checking
Management Review
Plan
Do
Check
Act
Financial Performance
Water Conservation
Waste Management
Micro-climate Studies
Staff Development and Participation
Operation with Cost-Effectiveness
Engaging Various Parties
Enhancing Estate Management and Services
Sustainable Living Environment
Housing Rent Policy
Resource Optimization
Economic
Environmental
Social
Energy and Carbon Emissions
Biodiversity
Air Quality
Noise Control
Green Materials
Control of Hazardous Materials
Estate Greening and Landscaping
Green Activities
Safety Performance
Public Health and Hygiene


Leadership in driving Innovation
W-trap
Ground Granulated Blastfurnace Slag
Hard paved construction
Precasting
Marine mud recycling
Fabric Reinforcement
Precast Façade
Volumetric Precast Bathroom
Semi-precast Slab
Precast Staircase
Acoustic Balcony
Acoustic Windows
Sustainable timber
Hydraulic concrete crusher
Microclimate Studies


Leadership in Smart Site Planning
Passive Design with Micro-climate Studies
Green roof
Acoustic window
Automated refuse collection system
BIM & GIS application
BIM Assembly
Acoustic balcony
30% green ratio


Leadership in Energy Saving
Annual Electricity Consumption in Communal Areas of a Typical Public Housing Domestic Block (41-storey, 799 Flats)
kWh/Flat/Year
1,032
596
536
48% overall saving
10% saving
Anticipated 10% further saving
2000/01
2011/12
2014/15
2016/17
Financial Year
Certification under Code of Practice for Energy Efficiency (since 2000/01)
Certificate of Registration
I : Material Consumed During Construction
II : Materials for Structure
III : Communal BS Installations
IV : Renewable Energy
V : Tree
VI : Demolition
Total CO2 Emission
I + II + III – IV – V + VI = Total CO2 Emission
Carbon Emission Estimation Model

Policy

Our corporate vision is underpinned by our robust Environmental Policy, Environmentally Responsible Procurement Policy and Safety & Health Policy forging sustainability into our core business across whole life cycle from design to construction and property management. Environmental Management System is also in place for good governance and impact tracking by top management.

Goal & Planning

Having a housing stock of over 750,000 flats and serving 30% of HK's population, our policies actuate a 2-year rolling environmental goal & plan, covering all significant environmental aspects. Our standing practices to build sustainable homes and create harmonious communities along our core values of "Caring, Customer-focused, Creative and Committed" are signified by our passive design, modular flat design, BIM application, green specification, extensive prefabrication and construction. We have a clear road map on reducing carbon footprint from cradle to grave.

Industry Leadership

We go beyond the industry baseline in terms of (a) quality systems: ISO14001, ISO50001 (Hong Kong first), carbon and energy audits, community engagement; (b) pioneer R&D that gained wide recognition: [Site Aspect] micro-climate studies, acoustic balcony & window; [Material] GGBS, marine mud; [Water] twin-tank, zero irrigation system; [Energy Saving] Carbon Emission Estimation; [Innovation] W-trap; and (c) projects: BEAM-Plus-ready with large number of Platinum rated residential projects.

Knowledge Sharing

We share knowledge proactively at multiple levels from local to regional and international. Our HA Exhibition Centre is used as an educational platform for our tenants, students and general public since 2002. We have community environmental education programmes covering all housing estates since 2012. We share our green pursuit with green groups, government authorities, consultants, contractors and suppliers by regular meetings, participation in local / regional / international seminars, exhibitions, journals & conferences. We publish annual Sustainability Reports (http://www.housingauthority.gov.hk/mini-site/hasr1415/common/index.html) and knowledge management for our staff through e-learning, green-corner, site visits etc.

政策

我们推出清晰的环保政策和环保采购政策及环保健康及安全政策，把可持续发展元素注入核心业务，跨越设计施工及物管整个生命周期，体现我们的机构理想。建立环境管理体系统完善管治，由最高管理层检视进度。

目标与规划

我们有超过七十五万个单位，服务香港 1/3 人口。在环保政策驱策下，制订一个以每两年期滚存的环保目标与规划，涵盖各重大环境范畴。建立及创造可持续发展的居所及社区，发挥「关怀为本、顾客为本、创新为本、尽心为本」基本信念的作业模式已恒常化，当中包括被动式设计、构件式单位设计、建筑信息模型应用、绿色建筑规格、广泛应用预制组件与施工。我们有一套明确及由最初产生至最终处置的减碳足印路线图。

领导业界

我们在多个范畴超越业界基准，包括 (a) 品质管理系统：ISO14001、ISO50001〔香港首推〕、碳排放及能源审计，社区参与；(b) 广受认同的创先研发成果：《用地》微气候研究、减音窗及露台；《用材》矿渣微粉、海泥造砖；《用水》孖水缸系统、零灌溉系统；《能源使用》碳排放估算；及《创新》W 型聚水器；(c) 发展项目：「准」绿建环评基准，并拥有大量「铂金级」的住宅项目。

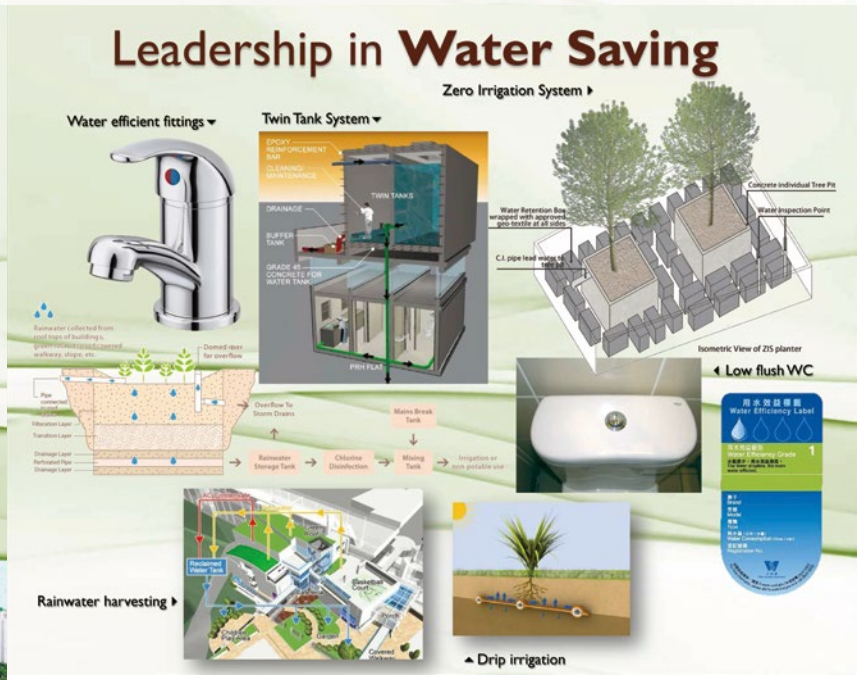
知识分享

我们积极于本地、区域及国际多个层次分享绿建知识。自 2002 年起，利用房委会展览厅作为教育平台，接待租户、学生与大众。自 2012 年起，向全港公屋推动社区环保教育计划。亦通过定期会面及参与本地、区域及国际性的研讨会、展览、期刊及会议，与绿色团体、政府机构、顾问、承建商及供应商分享对绿色建筑的追求。我们每年发布可持续发展报告 (http://www.housingauthority.gov.hk/mini-site/hasr1415/common/index.html)，亦透过易学网、环保角及考察等，向员工提供知识管理。


Knowledge Sharing in Industry
Seminar
Eco Expo Exhibition
Experience sharing session
Research & Development
Regular liaison with business partners
Experience sharing with industry stakeholders
Engage tenants
Taking on board advanced construction practices


Leadership in Energy Saving
2-Level Lighting System
Manual push button at corridor / lobby
Motion sensor at staircase landing
EV charging facilities
Hybrid ventilation system
Electronic Ballast
Utilization of Regenerative Power from Lift System
Main Isolator
Regenerative Power
Heavy Load Down
Light Load Down
Heavy Load Up
Light Load Up
Regenerative power from lift
Power supply to lift
Grid-connected PV system
Variable speed drive pump
Solar powered lamp pole
Gearless lift system


Knowledge Sharing in Community
Community Farm
Exhibition Centre
Community Engagement
Customer Satisfaction Indices from 2003/04 to 2014/15 based on Residents Survey (RS) Results
95.56%
Satisfaction Level
Financial Year
Corporate video
Sustainability Reports


Leadership in Water Saving
Zero Irrigation System
Water efficient fittings
Twin Tank System
TWIN TANKS
DRAINAGE
BUFFER TANK
PRH FLAT
Concrete individual Tree Pit
Water Inspection Point
Isometric View of ZIS planter
Low flush WC
Rainwater Storage Tank
Chlorine Disinfection
Mixing Tank
Rainwater harvesting
Drip irrigation

Green Building Leadership Category 绿建领导

GRAND AWARD 大奖

Swire Properties Limited 太古地产有限公司



Team or Organisation Name
Swire Properties Limited






Marriott
CONRAD
SHATIN
CMG

Swire Properties Limited is a leading developer, owner and operator of mixed-use, properties focusing in Hong Kong and Mainland China, with a record of creating long-term place making value by transforming urban areas.

We are pioneer and leader in green building design and management with a long history on continuous improvement. We have policies established on various sustainable development issues with long term goals and action plans.

Integrated design approach has been adopted in our new development projects for years by creating a platform to share knowledge between all stakeholders including designers, users and operators early in the design stage.

We set realistic green targets based on our existing building performance data and drive the establishment of robust management systems and comprehensive energy and EHS database systems.

We fund and collaborate intensively with Tsinghua / Hunan University for in-depth research studies and our buildings are used as living laboratories for testing pilot initiatives in energy efficiency improvement. Technical papers have been published for knowledge sharing.

We provide a wide range of environmental trainings to our staffs to sustain our development. Our experts also actively participate in the industry such as HKGBC, IEA, BSL, BSOMES, ASHRAE, BEC and also different government committees on establishing new industry sustainable building benchmarks for local and global industry.

We believe the success of sustainability is building on the cooperation with all stakeholders. In view of this, various stakeholder programmes, with strong focus on tenant engagement, have been implemented for over 10 years. In addition, we offer a wide range of recreational and cultural events upgrades the value of the community around portfolios.

太古地产有限公司是领先的发展商、业主及营运商，尤其专注于香港及中国内地的综合物业项目。我们一直采用 Place Making「地方营造」手法于发展项目当中。

我们著重长远政策、计划及确立目标，于环保建筑及物业管理有长久历史并不断改进，是行业的先驱及佼佼者。多年前，我们率先采用 Integrated Design Approach「综合设计」于新建发展项目当中。各持分者可藉此分享经验，并利用现存楼宇的真实数据来制定合理的环保目标。另外，我们亦发展各样数据管理系统来监察楼宇于可持续发展的表现，包括耗电、环境健康和安全。

我们资助清华 / 湖南大学，共同进行不同研究项目。以我们的物业作研究试点，致力于提高能源效益。研究成果亦已刊出作学术交流之用。

我们为员工提供环境培训。我们的专才亦活跃于在业界的不同机构，包括香港绿色建筑议会 (HKGBC) 、国际能源总署 (IEA)、香港环保建筑协会 (BSL)、屋宇设备运行及维修行政院人员学会 (BSOMES) 、美国冷冻空调学会 (ASHRAE)、商界环保协会 (BEC) 及不同政府机构，协助制定及更新本地及全球的可持续建筑标准。

我们坚信可持续发展的成功是取决于和不同持分者的合作。有见及此，我们早于 10 年前已开始举办持分者参与计划并获得广泛参与。此外，我们亦为社区举行各种康乐及文化活动，致力提高邻近社区的生活质素。






TAI KOO LI
太古里


BOOKS for LOVE @ SLO


TAI KOO LI
太古里
adidas
UNI QLO

Green Building Leadership Category 绿建领导

MERIT AWARD 优异奖

The Chinese University of Hong Kong 香港中文大学





Team or Organisation Name
The Chinese University of Hong Kong


1970s


2013


環境及自然保育基金
Environment and Conservation Fund
香港中文大學
The Chinese University of Hong Kong
綠領行動
Greeners Action
Food
惜食在中大


2013香港環保卓越計劃
Hong Kong Awards for Environmental Excellence

As a socially-responsible institution and to fulfil a distinguished educational mission, CUHK is committed to being a leader in the research, teaching and institutional practice of environmental sustainability. The University endeavours to reduce environmental impact by incorporating sustainability in every aspect of campus planning, development, life and operations.

The spacious 137.3 hectares campus of CUHK is not only home to its students and staff but also a Green Campus with myriad of trees, flowers, birds and other living creatures.

The Campus Master Plan (CMP) embraces the principles of sustainable development and strikes a balance between provision for growth and enhancement of campus environment with the conservation of natural heritage under 6 key planning precepts:

1. Making a Sustainable Campus
2. Promoting a Pedestrian-Friendly Campus
3. Promoting Green Living of College Life
4. Conserving Places of Value and Adaptive Reuse of Existing Buildings
5. A Landscape of Vital Importance
6. Planning and Design of Places for Education and Research Activities

Administered by designated Committees and Offices, Green Policies and Long-Term Goals including Sustainability, Energy, Tree Preservation, Green Purchasing are formulated.

5-Year Targets and Performance Indicators are being observed campus-wide to reduce energy consumption and greenhouse gas emissions by at least 25% and 20% respectively by 2025. Green Behavioural Patterns from departmental basis to individual's engagement are also implemented through various programmes.

中文大学是致力履行社会责任和教学使命的高等学府，决心为社会之表率，在教学、研究及校园日常运作中奉行可持续发展原则。这可见于大学制定《校园发展计划》，定出节能和减低碳排放的目标，以抗衡气候变化。

中大在从事教研等多项工作之余，也十分重视校园生态和环境，在保育方面不遗馀力。中大校园占地一百三十七点三公顷，不但是学生求学和教职员工作的场所，也是多种花草树木、虫鱼鸟兽的安乐窝。

「校园发展计划」
为平衡大学的学术和研究的发展需要及改善校园环境，因而规划了一个六大具体原则的校园发展计划：

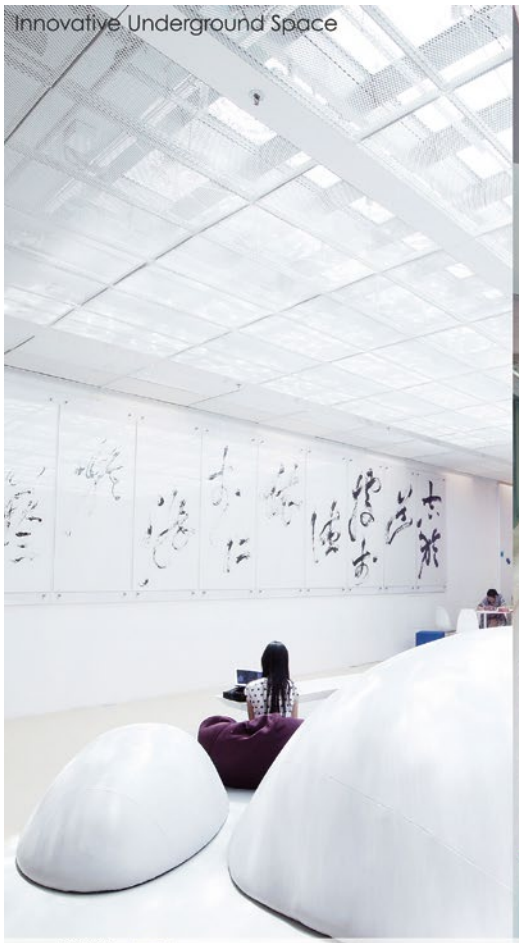
1. 建构可持续校园
2. 倡导健步文化
3. 提升书院生活
4. 保存具价值的地标
5. 优化校园景色
6. 教学与研究

环保政策 - 包括可持续发展、能源、树木保育及绿色采购政策。

长远目标，五年目标及执行指标 - 承诺到 2025 年，将能源耗量减少 25%，温室气体排放减少 20%。











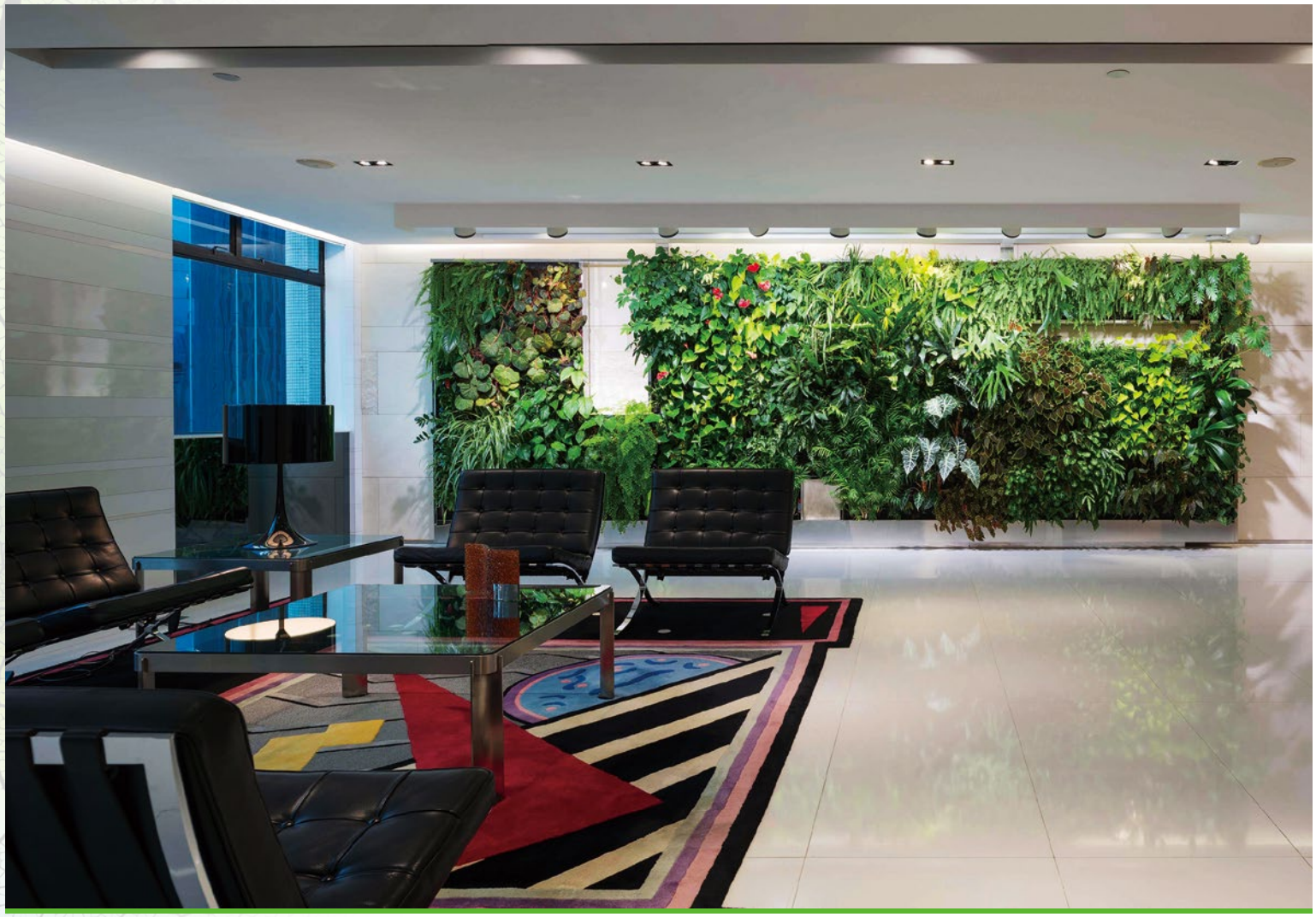


A Revolutionary Study Commons and University Library Extension CUHK

Green Building Leadership Category 绿建领导

MERIT AWARD 优异奖

Ronald Lu & Partners 吕元祥建筑师事务所



Team or Organisation Name
Ronald Lu & Partners









Ronald Lu & Partners (RLP), established in Hong Kong in 1976, specialises in architectural and interior design and master planning. RLP has set a progressive model for architectural practice in Hong Kong and within the region. Over 40 years, RLP has honored over 130 awards and is now housing over 600 staff.

Corporate Sustainability Commitments

- The first large-scale architecture firm in Hong Kong with ISO 14001 (since 2006)
- Environmental policy of green office
- Corporate Member of BEAM Society (since 2006) and USGBC (since 2008)
- Institutional Member of HKGBC since 2009
- Over 50% architects are BEAM Pro, LEED AP, BREEAM AP and/or GBL Manager
- Over 40 projects committed to BEAM, BEAM Plus or LEED certifications
- Establishment of Sustainable Design Review Panel, Sustainable Design Specialist Group and Sustainable Steering Committee

Progressive Sustainability Goals

- Reacting a Lighter Footprint since 2008
- Redefining a Lean Perspective since 2010
- Regenerating a Liveable Place since 2014

Pioneering Efforts & Thought Leadership

- 4 Grand Awards and 6 Merit Awards of the Green Building Awards
- Over 10 sustainable building design research studies
- Active Green Advocates: Director and Deputy Director of Sustainable Design serve WGBC, HKGBC, BSL, PGBC, ZCB, HKIA and/or various advisory committees of the government
- Project ACT: CSR eco-building design activities for secondary students

Knowledge Sharing

- Green Monday Blogs, Green Sharing, Green Talk DD seminars and RLP+ (Intranet) Sustainability e-library for staff
- CPD lectures, guided tours and workshops for staff and public
- Speeches at international conferences in Europe and Asia
- Corporate sustainability publication series “Jianju”

吕元祥建筑师事务所 (RLP) 自 1976 年在香港成立以来，始终以专业、负责、精益求精的态度提供优质的建筑设计服务。 40 年来的稳健发展，RLP 是香港顶尖建筑设计事务所之一，获颁发超过 130 个奖项，现有员工逾 600 人。

企业环保承诺

- 第一所在香港的大型建筑事务所获得 ISO 14001 环境管理系统证书 (自 2006 年)
- 推行绿色办公室环保政策
- 香港环保建筑协会公司会员 (自 2006 年) 及美国环保建筑协会公司会员 (自 2008 年)
- 香港绿色建筑议会公司会员 (自 2009 年)
- 超过一半具有执业资格的建筑师拥有香港绿建专才、美国 LEED 认可人、英国建筑研究院绿色建筑评估 (BREEAM) 认可人或 GBL Manager 资格
- 超过 40 个建筑设计项目获得香港环保建筑认证 (BEAM) 、香港绿建环评认证 (BEAM Plus) 或美国绿色建筑评估体系认证 (LEED)
- 成立可持续发展审查委员会、环保设计专项小组及公司环保督导小组

持续性的可持续发展目标

- 自 2008 年订立轻放碳足印的建筑目标
- 自 2010 年加强设计与研究的相辅相成，重新定义新建及复修共建的可持续环境
- 自 2014 年推动宜居城市的再生

开创性的努力与领导

- 在环保建筑大奖中共获颁 4 个大奖及 6 个优异奖
- 进行超过 10 个可持续发展建筑设计研究
- 环保设计总监梁文杰及环保设计副总监叶颂文是进取的环保支持者，他们参与多个非牟利及政府机构并提供顾问服务，包括世界绿色建筑议会、香港绿色建筑议会、建筑环保评估协会、环保建筑专业议会、零碳天地及香港建筑师学会等
- 履行对社会的责任，推行「筑．动．青年」计划：为中学生策划的建筑体验团公益计划，以借此把可持续发展的理念从小植根于年轻一代的意识中

知识分享与交流

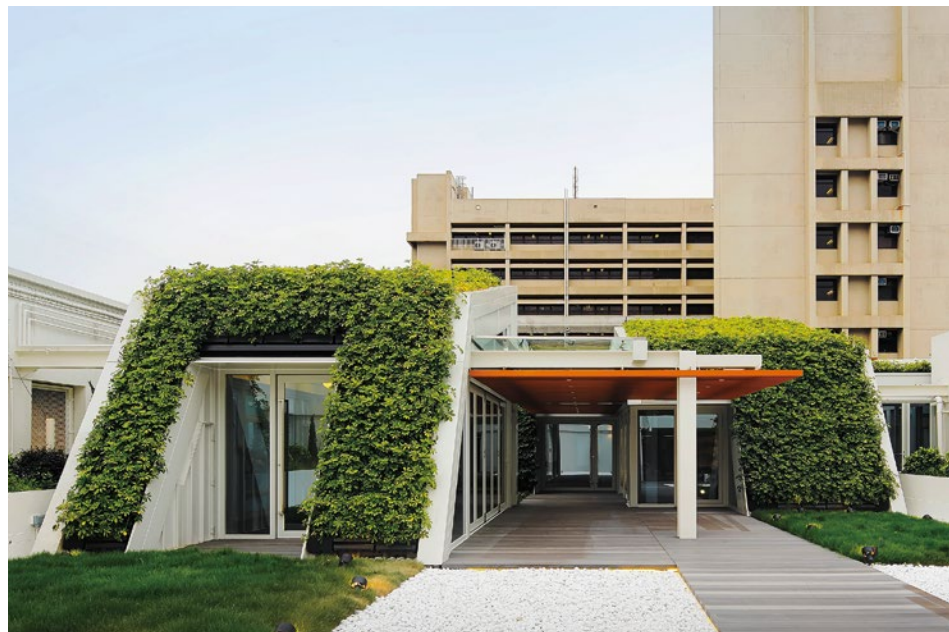
- 设立绿色星期一网志、环保分享、环保研讨会及公司内联网电子图书馆
- 举行让员工及公众参与的持续专业进修讲座、导赏团及工作坊
- 在多个欧亚的国际环保会议中演说
- 出版以可持续发展为主题的刊物系列「健筑」






TU KENG LENG SPORTS CEN





Green Building Leadership Category 绿建领导

FINALIST 入围项目

Arup 奥雅纳工程顾问





Team or Organisation Name
Arup




ARUP
20+20
Mentorship Programme
40


Hysan
PLACE
TUDOR

In 2015, Arup was included as one of the 51 companies who “do well by doing good” on Fortune Magazine’s “Change the World” list. As the only firm included from the architecture, engineering, and construction industry, Arup is recognised for its leadership and capability of marrying sustainability with a sense of the impossible in a structure.

Our founder, Sir Ove Arup, set out the importance of our work on the built environment and achieving a social purpose. We formalised these aspirations in our Sustainability Policy and Strategy, reflecting our overarching mission to “shape a better world”. We put these key elements into goals and actionable items in our Sustainability Plan, with our performance measured against a set of KPIs and reported annually in our Corporate Report.

Arup has helped formulate various regulations, guidelines and codes for government authorities and institutions around the world, driving a change in industry practices and leading the development of sustainable building design. Locally, we exert a positive influence on green building development as we helped the HKGBC develop new benchmarking and assessment.

We are the leading creative force behind many ‘firsts’ in the industry including the world’s first zero-carbon building BedZED in London, and China’s first LEED-ND project - Shanghai Expo UBPA redevelopment. In Hong Kong, the most recent ones include the city’s first waste-to energy facility T • PARK, first zero-carbon building CIC ZCB and first smart city district in Kowloon East.

We invest heavily in R&D, enabling new possibilities for a better built environment. Recent notable inventions include the BIQ house in Hamburg that features the world-first bioreactive façade, and the locally developed Air Induction Unit that provides mechanical ventilation for semi-outdoor environment.

Our partnerships with global organisations facilitate an exchange of knowledge to enable collaboration for cities on climate change initiatives and make a positive difference in society. We work with C40, World Economic Forum and Rockefeller Foundation on research to drive climate actions that help transform our built environment.

We support continuous education and training for our people on sustainability issues, enabling them to provide best solutions for clients. In Hong Kong, we have 41 LEED AP qualified and 63 BEAM Pro qualified staff. Internally, Arup University offers a range of Masters level courses in a wide variety of sustainability topics. Workshops and lunch talks on sustainability are given regularly to all staff.

2015 年，奥雅纳以其对环境的积极影响力入选《财富》杂志选「改变世界」的公司榜单。作为唯一一家来自建筑工程行业的公司，这殊荣特别肯定了我们将可持续性融入不思议建筑的能力和领导力。

公司创始人奥雅纳爵士定立了公司的目标和管理哲学，其中包括对环境影响和履行社会责任的重要性。我们把这理念纳入公司的可持续发展政策及策略，以实践「塑造更美好世界」的愿景。我们亦制定了可持续发展计划，确定长期和短期目标以及在业务和营运的方针，其进度表现会刊载于公司的年度报告。

奥雅纳为世界各地的政府机构和团体制定法规和指引，带领可持续建筑的发展并推动业界积极实践。在香港，我们为香港绿色建筑议会制定多项基准及评级系统，为绿色建筑发展带来正面影响。

此外，我们还写下了多个业界第一，包括全球首个零碳项目 — 伦敦贝丁顿零耗能生态社区，以及中国 LEED 绿色社区铂金级项目 — 上海世博会城市最佳实践区。较近期的项目包括香港首个转废为能设施 —「源・区」、香港首个零碳建筑 — 零碳天地，及在东九龙设计香港首个智慧城区。

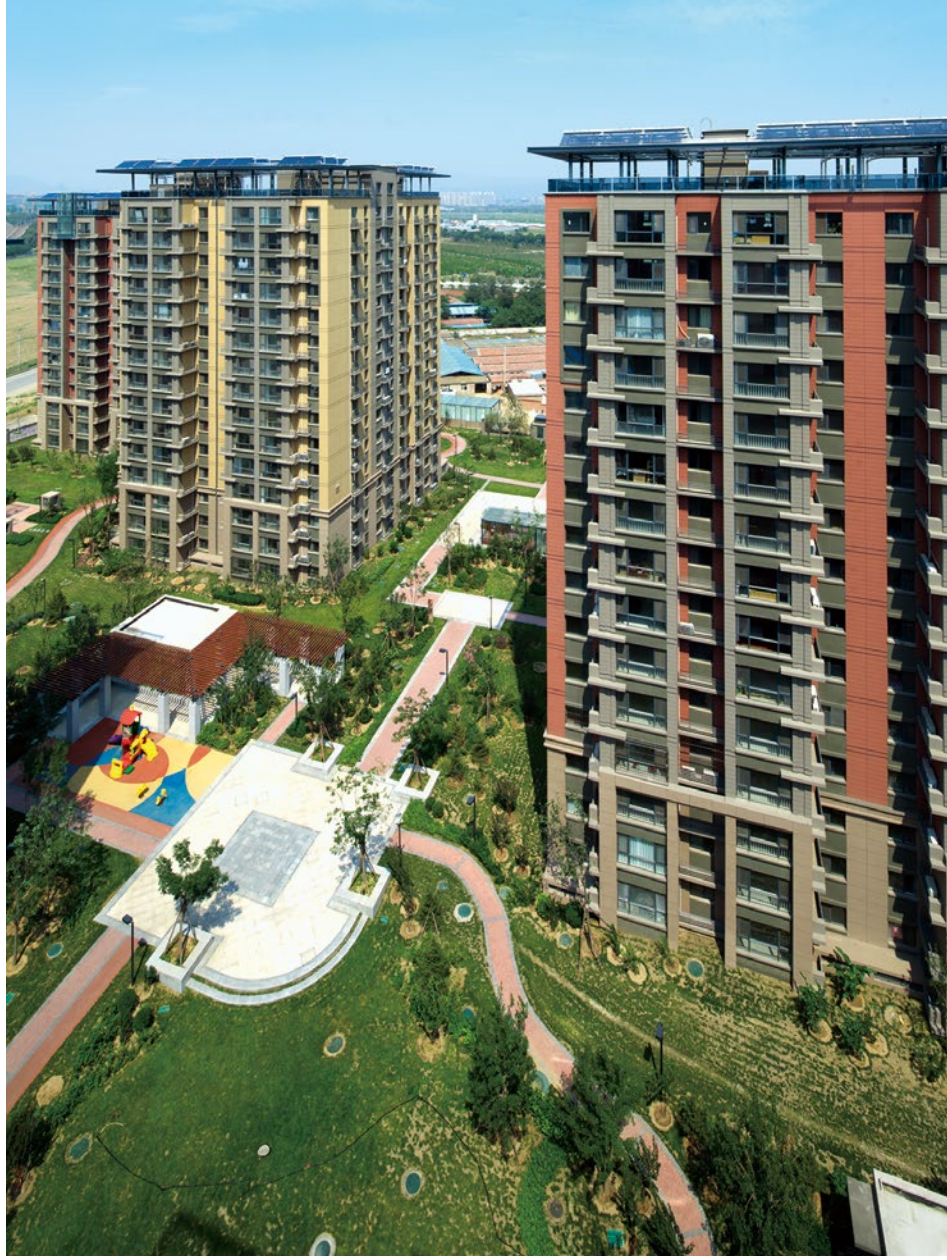
我们大力投入研发，促进新技术、新方案和新应用的发展，为绿色建筑环境带来更多可能。新近的研究成果包括位于德国汉堡的全球首座藻类供电建筑 BIQ House，以及曾获多个设计大奖的机械通风装置 AIU 等。

我们与多个国际机构包括 C40、世界经济论坛及洛克菲勒基金会合作进行研究，促进知识和经验交流，协助城市应对气候变化。

我们为员工提供适当培训，助其取得专业资格，为客户达成目标。目前，香港办公室共有 41 位员工取得 LEED AP 资格；以及 63 位取得 BEAM Pro 资格。此外，「奥雅纳大学」为员工提供多个可持续发展相关的硕士程度课程，公司亦定期举办有关讲座和研讨会并邀请专家主讲，使员工能够不断提高技术，更新知识。











Green Building Leadership Category 绿建领导

FINALIST 入围项目

Business Environment Council Limited 商界环保协会有限公司



Team or Organisation Name
Business Environment Council Limited


JEC
FRP RAINWATER TANK
玻璃纖維雨水缸
VOLUME : 6,000L




Schneider
Electric


Home
Scene
Guard
Monitor
Intercom
Elevator
Settings
Home
ECO
Scene
ECO
All ON
ECO
All OFF
ECO
Meeting
ECO
Presentation
News
Visitor
Schneider

1. Policy

BEC's top management:

i) formulated vision and mission which embrace sustainability to make Hong Kong a low carbon city;
ii) made a set of action-oriented commitments; and
iii) committed to disclose environmental performance regularly.

2. Goals and Planning

BEC has devised a strategic plan with short and long-term overarching goals:

i) Be a showcase centre for the business case on sustainability solutions;
   - BEC has transformed its headquarters into an energy efficient building as a model for emulation to existing building owners.
ii) Become a pre-eminent centre of excellence on sustainability in Hong Kong;
   - To turn its headquarters into a "green hub" by organising various environmental related activities; and
   - BEC is working with its tenants to implement green lease. A taskforce comprising BEC's senior management and tenant representatives is established to set environmental targets and explore possible incentives.

3. Industry Leadership

i) BEC headquarters is the first commercial building to achieve provisional Platinum Rating of BEAM Plus Assessment for Existing Building;
ii) BEC is one of the few non-profit organisations in Hong Kong to publish sustainability report in accordance with GRI G4 guideline and NGO Sector Supplement;
iii) Established Advisory Groups to advocate green building related policies and share best practices; and
iv) Submit views to CE policy address and actively respond to Government's consultation papers.

4. Knowledge Sharing

i) Set up Green Office Team to promote sustainability to our staff through our green initiatives and activities;
ii) Collaborate with other NGOs and professional institutions both locally and internationally to organise seminars / workshops on energy efficiency and CSR;
iii) Organise training courses and events such as EnviroSeries Conference, seminars and industry visits on green building topics; and
iv) Published reports and handbooks to promote best practices for sustainable built environment.

1. 政策

商界环保协会高级管理层：

i) 订立使命及愿景，支持可持续发展，构建香港成为低碳城市；
ii) 作出行动承诺；以及
iii) 承诺定期汇报环境方面的表现。

2. 目标与计划

商界环保协会制定策略性计划，订立短期及长期的总体目标：

i) 作为商业案例的示范，展示可持续发展方案；
   - 商界环保协会提升其总部大楼成为节能建筑物，在业界树立典范。
ii) 成为可持续发展卓越的中心；
   - 举办各项环保相关活动，打造总部大楼成为一个「环保中心」
   - 商界环保协会正与其租户商讨实行绿色租赁，其高级管理人员及租户代表组成工作小组，共同设定环保目标及商讨可行的奖励方法。

3. 行业领导

i) 商界环保协会总部是首幢获得绿建环评暂定铂金级认证的既有建筑物；
ii) 商界环保协会采用《全球报告倡议组织（GRI）》G4 的披露框架，并参考 GRI 的非政府组织行业补充指引，以编制可持续发展报告。商界环保协会为香港少数披露资料至该等程度的非牟利机构；
iii) 成立咨询小组，倡议绿色建筑相关政策，并与商界分享最佳实践；以及
iv) 就行政长官的施政报告提交意见，并积极地回应政府的咨询文件。

4. 知识分享

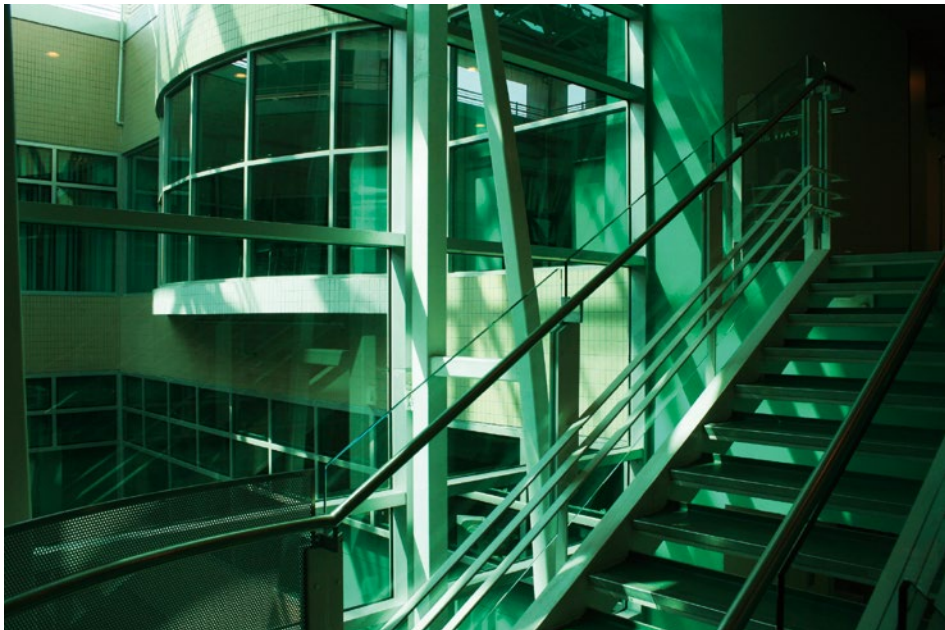
i) 成立绿色办公室小组，透过各项环保行动及活动向员工宣扬可持续发展。
ii) 与其他本地及国际的非政府组织和专业机构合作，举办有关节能及企业社会责任的讲座或工作坊；
iii) 举办以绿色建筑为题的培训课程及活动，包括环保领袖论坛，讲座及参观活动；以及
iv) 撰写及出版报告和指引，推动可持续建筑环境的最佳实践。


PM-012
PM-014
Schneider Electric









Green Building Leadership Category 绿建领导

FINALIST 入围项目
Grand Central Plaza 新城市中央广场



Team or Organisation Name
Kai Shing Management Services Limited - Grand Central Plaza


HELLO KITTY GO GREEN
有機薈低碳農莊
HELLO KITTY 有機薈低碳農莊
啟勝管理服務有限公司
KAI SHING MANAGEMENT SERVICES LIMITED
新城市中央廣場
GRAND CENTRAL PLAZA
低碳農莊一天遊


飯、麵類
塑膠、金屬、玻璃類
玉米皮、竹筍、堅果殼、核桃
大量熱湯、牛奶或油
牛、豬的骨頭
蟹殼、蝦殼、魚骨
可投入之食物
不可投入之食物


新城市中央廣場
魚菜共生系統





Grand Central Plaza initiates the objective of “Excellence in Green Sustainability & Companion in Community Education”. We combine elements of “Reduction, Collection, Reproduction, Reuse, Education & Step Out of Community” and integrate environmental protection and social enterprises to promote environmental concepts.

To achieve the goal of energy-saving and waste reduction, Grand Central Plaza not only carried out the chiller plants refurbishment work and successfully saved power consumption, but also instantaneously separated construction waste for recycling so as to alleviate the pressure of landfill. Besides, “Green Education Center” was set up for organising green events in community, conducting special projects on ecology periodically while “Aquaponics System” and “Butterfly Garden” were created so as to promote the importance of biodiversity and habitat conservation.

新城市中央广场推行「绿色持续卓越，社区教育同行」，订立「减废、回收、再造、循环、教育、冲出社区」六大元素，将环保与社企精神融为一体，将环保理念推而广之。在节能及减废方面，除透过优化冷冻机组工程，以节省用电外，更将工程废料即时分类，循环再用，减少堆填区的压力。此外，亦设立「环保教育中心」，以举办环保及社区活动、定期进行生态专题研习、同时亦增设「鱼菜共生系统」及「蝴蝶园」，借以推广生物多样性及保育的重要性。




愛護地球
請支持環保回收


有機耕種農圃

Green Building Leadership Category 绿建领导

FINALIST 入围项目

Henderson Land Group 恒基兆业地产集团



Team or Organisation Name
Henderson Land Group




THE尚
BEACH前悦







Founded in 1976 by its Chairman, Dr The Honourable LEE Shau Kee, GBM, Henderson Land Development Company Limited is a leading property group with a focus on Hong Kong and mainland China. Its core businesses comprise property development and property investment. In addition, it has direct equity interests in a listed subsidiary, Henderson Investment Limited, and three listed associates, The Hong Kong and China Gas Company Limited (which in turn has equity stakes in a listed subsidiary, Towngas China Company Limited), Hong Kong Ferry (Holdings) Company Limited and Miramar Hotel and Investment Company Limited.

Henderson Land has been listed in Hong Kong since 1981 where it is one of the largest property groups. As at 31 December 2015, Henderson Land had a market capitalisation of HK$157 billion and the combined market capitalisation of the Company, its listed subsidiary and its associates was HK$358 billion.

The Company is vertically integrated, with project management, construction, property management, and financial services supporting its core businesses. In all aspects of its operations, Henderson Land strives to add value for its shareholders, customers and the community through its commitment to excellence in product quality and service delivery as well as a continuous focus on sustainability and the environment.

恒基兆业地产有限公司乃由主席李兆基博士大紫荆勋贤于一九七六年所创立，现为一间于香港及内地均具领导地位之地产发展集团。其核心业务包括物业发展及物业投资。此外亦直接持有一间上市附属公司恒基兆业发展有限公司及三间上市联营公司，即香港中华煤气有限公司（该公司持有一间上市附属公司港华燃气有限公司之股份权益）、香港小轮（集团）有限公司及美丽华酒店企业有限公司之股份权益。

恒基地产自一九八一年在香港上市，至今已发展成为本港最大地产发展商之一。于二零一五年十二月三十一日，恒基地产之市值达港币一千五百七十亿元，连同旗下之上市附属公司及联营公司，总市值为港币三千五百八十亿元。

本公司以垂直整合方式经营，并以项目管理、建筑、物业管理及财务服务支持其核心业务。恒基地产旗下所有业务，均致力提供最优质产品、最称心服务、及最切合环保及可持续发展需要，务求对股东、客户以至社会大众均能提升价值。

Corporate Social Responsibility Policy

Henderson Land Development Company Limited (the "Company") and its subsidiaries (the "Group") recognize that its business activities have an impact on the community. The Group strives to reconcile its commercial objectives with the long-term imperatives of sustainable growth, social prosperity and well-being.

The Group is committed to :

- meeting all applicable legal and regulatory requirements on corporate social responsibility ("CSR") matters;
- pursuing good practices of CSR in its operations;
- implementing the policies relating to workplace quality, environmental protection, operating practices and community involvement;
- minimizing the potential environmental impact;
- providing a safe and healthy working environment to all employees and site staff in compliance with the applicable legal requirements;
- supporting meaningful community-oriented activities in partnership with our employees, community bodies, society and government;
- encouraging our staff to be proactive in CSR and providing training to them;
- promoting CSR awareness among consultants and contractors;
- engaging our stakeholders in the CSR process; and
- monitoring and improving the performance in CSR.



Participating Projects
参与项目

Project / Organisation Name 项目 / 机构名称	Applicant 申请者	Client / Developer 客户 / 发展商
New Buildings Category - Completed Projects - Residential Building 新建建筑类别－已落成项目－住宅建筑		
Double Cove – A Large Scale Residential and Commercial Development at Lok Wo Sha, Ma On Shan, Hong Kong 迎海 – 香港马鞍山落禾沙大型住宅及商业发展	Henderson Land Development Company Limited	Harvest Development Limited
Greenview Villa 绿悠雅苑	Hong Kong Housing Society	Hong Kong Housing Society
Hung Fuk Estate Public Rental Housing Development at Hung Shui Kiu Area 13 洪福邨洪水桥第十三区公共房屋发展项目	Hong Kong Housing Authority	Hong Kong Housing Authority
Kai Tak Development on 3 Muk Chui Street 焕然壹居	Ronald Lu & Partners	Urban Renewal Authority
The Parkside	Wheelock Properties Limited	Wheelock Properties Limited
The Tanner Hill 隽悦	Hong Kong Housing Society	Hong Kong Housing Society
New Buildings Category - Completed Projects - Commercial Building 新建建筑类别－已落成项目－商业建筑		
Canton First Estate New World - Canton International House 广佛新世界 - 广粤国际交流中心	New World China Land Limited	New World China Land Limited
One HarbourGate	Wheelock Properties Limited	Wheelock Properties Limited
Shenzhen Super D Technology Centre 深圳超多维科技大厦	Ho & Partners Architects Engineers & Development Consultants Limited	Super D Technology Co. Limited
The Green Atrium	Christopher Leung & Associates Limited	New World Development Co. Limited
T • PARK 源 • 区	VW-VES (HK) Limited	Environmental Protection Department, Government of the HKSAR
New Buildings Category - Completed Projects - Institutional Building 新建建筑类别－已落成建筑－公用建筑		
Faculty of Science and Graduate School of Health Building / Thomas Street Building, University of Technology Sydney	Steensen Varming	University of Technology Sydney
Hang Seng Management College 恒生管理学院	Allied Environmental Consultants Limited	Hang Seng Management College
Hong Kong East Community Green Station 东区环保站	Architectural Services Department, Government of the HKSAR	Environmental Protection Department, Government of the HKSAR
Ko Shan Theatre New Wing 高山剧场新翼	Ronald Lu & Partners	Leisure and Cultural Services Department, Government of the HKSAR
Kwun Tong Promenade 观塘海滨花园	Architectural Services Department, Government of the HKSAR	Leisure and Cultural Services Department, Government of the HKSAR
Midfield Concourse 中场客运大楼	Airport Authority Hong Kong	Airport Authority Hong Kong
Redevelopment and Expansion of King George V School - Performing Arts Block 英皇佐治五世学校校舍重建及扩建项目 - 演艺大楼	Ronald Lu & Partners	English Schools Foundation
Redevelopment of Kwun Tong Swimming Pool Complex and Kwun Tong Recreation Ground 重建观塘游泳池场馆及观塘游乐场	Architectural Services Department, Government of the HKSAR	Leisure and Cultural Services Department, Government of the HKSAR
The Open University of Hong Kong - The Jubilee College 香港公开大学银禧学院	P&T Architects and Engineers Limited	The Open University of Hong Kong
New Buildings Category - Projects Under Construction and / or Design - Residential Building 新建建筑类别－兴建及 / 或设计中建筑－住宅建筑		
MOUNT PAVILIA 傲泷	Wong Tung & Partners Limited	New World Development Co. Limited
Redevelopment of Kwun Tong Staff Quarters at Tseung Kwan O Road, Kowloon 九龙将军澳道观塘职员宿舍重建计划	Architectural Services Department, Government of the HKSAR	Immigration Department, Government of the HKSAR
The Spectra 朗屏 8 号	K. Wah International Holdings Limited	K. Wah International Holdings Limited
Twin Peaks 嘉悦	K. Wah International Holdings Limited	K. Wah International Holdings Limited

Project / Organisation Name 项目 / 机构名称	Applicant 申请者	Client / Developer 客户 / 发展商
New Buildings Category - Projects Under Construction and / or Design - Commercial Building 新建建筑类别－兴建及 / 或设计中建筑－商业建筑		
15 Middle Road Redevelopment	Wong & Ouyang (HK) Limited	Smart Bright Development Limited
77 Hoi Bun Road 海滨道 77 号	Century Land Investment Limited	Link Asset Management Limited and Nan Fung Development Limited
200-218 Electric Road Office Development 电气道 200-218 号写字楼项目	Henderson Land Development Co. Limited	Vansittart Investment Limited
Green Plus Powerland Hong Kong-Zhuhai-Macao Bridge Substation 绿建新电园 港珠澳大桥变电站	CLP Power Hong Kong Limited	CLP Power Hong Kong Limited
King Saud University (KSU) Minaret Tower 沙特国王大学尖塔塔楼	Integrated Design Associates Limited	King Saud University
Waste Electronic and Electrical Equipment Treatment Facility (WEEETRF) 废电器电子产品处理及回收设施	Dennis Lau & Ng Chun Man Architects & Engineers (HK) Limited	Environmental Protection Department, Government of the HKSAR
New Buildings Category - Projects Under Construction and / or Design - Institutional Building 新建建筑类别－兴建及 / 或设计中建筑－公用建筑		
A 30-Classroom Secondary School at Kai Tak Development (Site 1A-2) 九龙启德发展计划 (地盘 1A-2)1 所设有 30 间课室的中学	P&T Architects and Engineers Limited	Architectural Services Department, Government of the HKSAR
Green Site Office 绿色工地办事处	Architectural Services Department, Government of the HKSAR	Architectural Services Department, Government of the HKSAR
Hong Kong Children's Hospital 香港儿童医院	Architectural Services Department, Government of the HKSAR	Hospital Authority
Mactan Cebu International Airport (MCIA), Terminal 2, Lapu-Lapu City, Cebu, Philippines	Integrated Design Associates	Megawide GISPL Construction Joint Venture (MGCJV)
New Changing Room and Toilet Block (Happy Valley Recreation Ground) The Dancing Keys 新更衣室及洗手间 (跑马地游乐场) 舞动琴键	Drainage Projects Division Drainage Services Department, Government of the HKSAR	Drainage Projects Division, Drainage Services Department, Government of the HKSAR
Existing Buildings Category - Completed Projects - Residential Building 既有建筑类别－已落成建筑－住宅建筑		
Jade Grove 琨仑	Chinachem Group	Citi-Sky Development Limited
Existing Buildings Category - Completed Projects - Commercial Building 既有建筑类别－已落成建筑－商业建筑		
Breakthrough of Green Management during Office Typical Floor Renovation	Kai Shing Management Services Limited - Grand Century Place	Kai Shing Management Services Limited - Grand Century Place
Breakthrough of Green Management during Shopping Arcade Typical Floor Renovation	Kai Shing Management Services Limited - MOKO	Kai Shing Management Services Limited - MOKO
HK Pacific Centre 亚太中心	Sino Estate Management Limited	Sino Estate Management Limited
Standard Chartered Bank Building - Replacement of Central Chiller Plant 渣打银行大厦 - 更换中央空调制冷系统	Hang Lung Properties Limited	Hang Lung Properties Limited
Towngas Headquarters 香港中华煤气有限公司总部	The Hong Kong and China Gas Co. Limited	The Hong Kong and China Gas Co. Limted
Tuen Mun Town Plaza Phase II (Shopping Arcade) 屯门市广場第二期 (商場)	Sino Estates Management Limited	Sino Estates Management Limited
Existing Buildings Category - Completed Projects - Institutional Building 既有建筑类别－已落成建筑－公用建筑		
Extension to Block A of TWGHs Jockey Club Rehabilitation Complex 东华三院赛马会复康中心	Urbanage International Limited	Tung Wah Group of Hospitals
The Revitalization of the Old Tai Po Police Station into a Green Hub 活化旧大埔警署为绿汇学苑	Thomas Chow Architects Limited	Kadoorie Farm and Botanic Garden Corporation
Existing Buildings Category - Projects under Planning / Design - Commercial Building 既有建筑类别－规划 / 设计中建筑－商业建筑		
Enhancement project of Siu Ho Wan Sewage Treatment Works to combat climate change for sustainable development 应对气候变化以达致可持续发展 - 小濠湾污水处理厂改善工程项目	Electrical and Mechanical Projects Division, Drainage Services Department, Government of the HKSAR	Drainage Services Department, Government of the HKSAR
Existing Buildings Category - Projects under Planning / Design - Institutional Building 既有建筑类别－规划 / 设计中建筑－公用建筑		
Green Transformation of Electrical and Mechanical Services Department Headquarters 机电工程署总部绿色转型	Electrical and Mechanical Services Department, Government of the HKSAR	Electrical and Mechanical Services Department, Government of the HKSAR

Participating Projects
参与项目

Project / Organisation Name 项目 / 机构名称	Applicant 申请者	Client / Developer 客户 / 发展商
Existing Buildings Category - Facilities Management 既有建筑类别－设施管理		
Aria 峻弦	Royal Elite Service Co. Limited	Owners committee of Aria
Exchange Tower 国际交易中心	Sino Estates Management Limited	Sino Estates Management Limtied
Hong Kong Gold Coast Hotel 香港黃金海岸酒店	Hong Kong Gold Coast Hotel (Member of Sino Hotels)	Sino Hotels
Imperial Cullinan 珑玺	Royal Elite Service Co. Limited	Sun Hung Kai Properties Limited
K11 Art Mall K11 购物艺术馆	K11 Concepts Limited	New World Development Co. Limited
Lee Garden One Offices 利园一期写字楼	Hysan Property Management Limited	Hysan Development Co. Limited
MGM Macau - Green Beyond the Building Form	Energenz Consulting	MGM Macau China
Project of Design, Planning and Replacement of Air Cooled Chiller Plant and the existing recessed down-light from halogen lamp to LED inside the Shopping Mall and the outdoor flood light fittings from metal halide fixture to LED 设计、策划及更换风冷式冷冻机组及商场内的卤素灯和户外的泛光灯改为发光二极管的项目	Island Resort Estate Management Co. Limited	Island Resort Estate Management Co. Limited
Shatin Galleria 沙田商业中心	Sino Estates Management Limited	Handsome Lift Investment (CI) Limited
Sino Estates Management Ltd. - Pacific Palisades 信和物业管理有限公司 - 宝马山花园	Sino Estates Management Limited - Pacific Palisades	Sino Estates Management Limited - Pacific Palisades
Existing Buildings Category - Interiors 既有建筑类别－室内设计		
Architectural Services Department Renovation of 1/F Main Block APB Centre 建筑署建业中心文楼一楼翻新工程	Ove Arup & Partners Hong Kong Limited	Architectural Services Department, Government of the HKSAR
C.C.Wu International Co. Limited 伍集成国际有限公司	Y.I. & Associates Limited	C.C. Wu International Co. Limited
Office of the Printing Division, Government Logistics Department 政府物流服务署印务科办公室	Architectural Services Department, Government of the HKSAR	Government Logistics Department Printing Division, Government of the HKSAR
Research & Planning Category 研究及规划类别		
A multi-scale assessment of embodied energy use in China's construction sector: a multi-regional analysis 多尺度视角下基于区位分析的中国建筑业物化能耗计量	The Hong Kong Polytechnic University, Faculty of Construction and Environment, Department of Building and Real Estate	The Hong Kong Polytechnic University, Faculty of Construction and Environment, Department of Building and Real Estate
Climate Positive Urban Regeneration: Beijing New Shougang Development - Climate Positive Project Plan 正气候城市更新：北京新首钢高端产业综合服务区 - 正气候项目	Dr Stanley YIP	The Shougang Group
Concrete Innovation - Application Research for Carbon Footprint Reduction 创新混凝土技术 - 减少碳足迹的应用研究	Hong Kong Housing Authority	Hong Kong Housing Authority
Development of BEAM Plus Neighbourhood 绿建环评社区评估工具	Arup	Hong Kong Green Building Council
Establishment of Humanity Aspect of The Evaluation Standard for Green and Ecological Urban Districts in China - Comparison of LEED Neighbourhood Development, BREEAM Community, CASBEE-Cities and DGNB Urban Districts 中国绿色生态城区评价标准人文章节制订的专题研究 — 通过美国 LEED Neighborhood Development、英国 BREEAM Community、日本 CASBEE-Cities 和德国 DGNB Urban Districts 的比较	SRT (S&P) Architects Limited	中国城市科学研究会绿色建筑与节能 (专业) 委员会
Improving pedestrian wind environments: analysis of the effect of building typologies on urban air ventilation from 1960 to 2015 改善行人路的通风环境：1960 年至 2015 年建筑物类型学对都市通风环境影响的分析	Chu Hai College of Higher Education	Chu Hai College of Higher Education
Research and Development of 2nd Generation Acoustic Balcony 研发第二代减音露台	Hong Kong Housing Authority	Hong Kong Housing Authority
Research, Planning and Promotion of Sustainable Drainage System (SuDs) for Climate Ready and Flood Resilience in Built Environment 研究、策划及推广在建筑环境设置应对气候变化及提升城市耐洪的可持续排水系统	Drainage Services Department, Government of the HKSAR	Drainage Services Department, Government of the HKSAR
ZCB Bamboo Pavilion 零碳天地竹亭	The Chinese University of Hong Kong, School of Architecture	Zero Carbon Building of the Construction Industry Council

Project / Organisation Name 项目 / 机构名称	Applicant 申请者	Client / Developer 客户 / 发展商
Building Products & Technologies Category 建筑产品及科技类别		
Air Induction Unit (AIU)	Arup	Arup
animeo IB+ 4AC Motor Controller	Somfy Co. Limited	Somfy Co. Limited
Essence® by Big Ass Fans® 必爱风 Essence 吊扇	Big Ass Solutions	Big Ass Solutions
Housing Electronic Plan Submission System (HePlan) 公营房屋入则易	Independent Checking Unit, Transport and Housing Bureau, Government of the HKSAR	Independent Checking Unit, Transport and Housing Bureau, Government of the HKSAR
Integrated Building & Energy Management System (IBEMS) 综合楼宇及能源管理系统	ATAL Building Services Engineering Limited	BMS System Provider: Schneider Electric Hong Kong Limited Energy Module Developer & System Integrator: ATAL Building Services Engineering Limited
Maximize the use of waste glass in cement-based construction materials 废弃玻璃在建筑材料中的最大资源化利用技术	The Hong Kong Polytechinc University	The Hong Kong Polytechinc University
Vacuum Insulation Glass 真空玻璃	Foerch Hong Kong Co., Ltd.	Kei Chun Electrical Engineering Co.
Green Building Leadership Category 绿建领导		
Allied Environmental Consultants Limited 沛然环境评估工程顾问有限公司	Allied Environmental Consultants Limited	N/A
Arup 奥雅纳工程顾问	Arup	N/A
Business Environment Council Limited 商界环保协会有限公司	Business Environment Council Limited	N/A
Grand Central Plaza 新城市中央广场	Kai Shing Management Services Limited - Grand Central Plaza	N/A
Henderson Land Group 恒基兆业地产集团	Henderson Land Group	N/A
Hong Kong Housing Authority 香港房屋委员会	Hong Kong Housing Authority	N/A
Ronald Lu & Partners 吕元祥建筑师事务所	Ronald Lu & Partners	N/A
Swire Properties Limited 太古地产有限公司	Swire Properties Limited	N/A
The Chinese University of Hong Kong 香港中文大学	The Chinese University of Hong Kong	N/A

* All project details and photos are provided by the applicant.
所有项目资料和相片全由申请者提供。







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