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Author:	Jeff Tung, Senior Project Developer, New World Development Company Limited
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New World Centre Remodeling – Sustainable Building Design and Next-Generation Mixed-Use Developments

新世界中心改造——可持续建筑设计与下一代混合使用建筑的开发



Jeff Tung | 董正纲
Senior Project Director | 高级项目总监

New World Development Company
Limited | 新世界发展有限公司

Hong Kong, China | 香港, 中国

Jeff Tung graduated from the School of Architecture at the University of Hong Kong in 1985. He is a Registered Architect and a Fellow Member of the HK Institute of Architects.

He joined New World Development Co., Ltd. in 2010, and his current position is Senior Project Director. Jeff is overseeing the design procurement and project management of the remodeling of New World Centre and underground retail space, and the revitalization project in Tsim Sha Tsui Waterfront.

董正纲先生1985年毕业于香港大学建筑学系，任职注册建筑师多年，乃香港建筑师学会资深会员。

2010年7月，董先生加入新世界发展有限公司，现任项目管理部高级项目总监，负责新世界中心和梳士巴利道十二号之地下商场重建的设计采购、项目管理及执行工作。他亦主理尖沙咀海滨活化工程。

Abstract | 摘要

As one of the most concentrated metropolises in the world, Hong Kong developers and architects face some unique challenges on sustainable building design. The Hong Kong Buildings Department launched the Sustainable Building Design (SBD) Guidelines in 2011 to encourage developers to take a more responsive role on issues regarding bulk, height, ventilation, greenery and energy efficiency in buildings. The remodeling of New World Centre will be the first-ever large-scale development in Hong Kong with design in strict adherence to SBD Guidelines, and it is scheduled for completion in 2017/2018. This paper will present the New World Centre Remodeling Project as a case study to elaborate the effect of SBD Guidelines on the creation of mixed-use development in a crowded urban environment. With a holistic design and overall site planning, New World Development is able to overcome those challenges and set a new standard for urban sustainable development.

Keywords: New World Centre, New World Development, Sustainable Design and Victoria Harbor

作为全球一大高密度发展的大都会，香港在可持续发展设计方面挑战之大，犹过于其他发达地区。为了促进建筑质量及可持续发展的愿景，香港特区政府屋宇署在2011年推出《可持续建筑设计指引》（简称SBD指引），旨在鼓励发展商和建筑师聚焦于楼宇体积、高度、通风、绿化、功能等议题。新世界中心重建项目将为香港建筑发展史谱写崭新篇章，此项旗舰工程是本港首个严格遵照SBD指引而设计的大型发展项目。本文以新世界中心重建工程作为研究个案，阐释其中如何排除万难，将SBD指引融入高密度市中心环境，一个混合用途的大型发展项目之中；在树立全方位设计典范的同时，整个地盘规则又能完全符合相关指引，为本港市区可持续发展建筑设定新标准。

关键词：新世界中心、新世界发展、可持续建筑设计、维多利亚港

One of the iconic landmarks of Hong Kong is currently in the making. The remodeling of the New World Centre is well underway and will soon emerge as the architectural pinnacle of Victoria Harbour, illuminating the skyline of Hong Kong. The New World Centre, situated on the Tsim Sha Tsui waterfront, is conceived as a vibrant hub with various stellar attractions, and will dominate the Hong Kong arena as an urban oasis with dazzling features for our bustling city when its final phase is unveiled in 2017–2018 (Figures 1–3).

The New World Centre will mark a new chapter in Hong Kong's history of building development. This flagship project will be the first-ever large-scale development in Hong Kong with design in strict adherence to the recently announced Hong Kong Sustainable Building Design (SBD) Guidelines.

As one of the most concentrated metropolises in the world, Hong Kong is presented with the most demanding challenges in sustainable building design when compared with other developed regions. In keeping with the vision of promoting quality and sustainability, the

香港一处地标性建筑正在酝酿之中。对新世界中心的改建工作正在有条不紊地进行，这里很快将崛起成为维多利亚港旁的建筑尖塔，点亮香港的天际线。新世界中心坐落于尖沙咀码头，其设计构想为一处蕴藏着无数恒星景观的活力中心。项目计划于2017或2018年揭幕，届时，这座特色鲜明的建筑将化身成我们喧嚣闹市之中的一片绿洲，在香港建筑界占领一席之地（图1–3）。

新世界中心将开启香港建筑开发史上一个新的篇章。这座旗舰项目将成为香港有史以来首次大规模开发的建筑，而且，项目严格遵照近期发布的《香港可持续建筑设计（SBD）指导方针》进行设计。

作为世界上最为集中的大都市之一，香港与其他发达地区相比，一直在可持续建筑设计上呈现出最为苛刻的挑战。为了符合促进质量与可持续性协调发展的愿景，屋宇署在2011年颁布了第一版《SBD指导方针》，旨在鼓励开发商和建筑师全力采纳可持续建筑，对诸如体量、高度、通风及绿化等问题给予特别的关注。



Figure 1. Overview of New World Centre - view from Kowloon side (Source: New World Development Company Limited)

图1. 新世界中心 - 从九龙角度拍摄 (来源: 新世界发展有限公司)



Figure 2. Overview of New World Centre - view from Hong Kong side (Source: New World Development Company Limited)

图2. 新世界中心 - 从香港岛角度拍摄 (来源: 新世界发展有限公司)

Buildings Department launched the first version of its SBD Guidelines in 2011. The aim was to encourage developers and architects to fully embrace sustainable buildings and pay particular heed to issues such as bulk, height, ventilation and greenery.

This paper will present the New World Centre Remodeling Project as a case study to elaborate how this project can reconcile its challenges and succeed in adapting the first SBD Guidelines to a large-scale mixed-use development in a crowded urban environment. The result will be a model demonstration of holistic design and overall site planning in alignment with the Guidelines, setting a new standard for urban sustainable development. It also manifests The Artisanal Movement of New World Development, which expands one's imagination, not only limited to design and aesthetics, but also amasses a modern living culture through our persistence in delivering bespoke craftsmanship imbued with originality.

A New Landmark

Tsim Sha Tsui District on the Kowloon Peninsula of Hong Kong has historically been at the center of the many commercial, cultural and

本文将以新世界中心改建项目为研究案例, 介绍该项目如何应对自身的建筑挑战, 以及一座处于拥挤城市环境之中的大规模综合体开发项目如何满足首版《SBD指导方针》的要求。最终建筑将成为在符合《指导方针》要求的前提下, 实现整体化设计和现场总体规划的示范项目, 为城市的可持续发展设定新标准。新世界发展有限公司提出的“工匠运动”(The Artisanal Movement)旨在扩大人们的想象力, 这不仅仅限于设计和美学, 还要通过我们打造独创性工艺的不懈努力积聚现代的生活文化。

新地标

香港九龙半岛上的尖沙咀区有史以来一直处于香港众多商业、文化和旅游胜地的核心地带。新世界中心坐落于尖沙咀的主海滨之上, 与闻名世界的维多利亚港临界, 北侧为梳士巴利道(图4), 西侧为梳士巴利花园和文化中心综合体, 而维多利亚港和一座海滨步道由南向东方向延伸(图5)。自1978年开幕以来, 新世界中心一直汇聚着尖沙咀主要的商业、酒店和娱乐设施。

在结束了同屋宇署、地政总署和规划署关于新世界中心改建方案的冗长谈判之后, 新世界发展有限公司开始着手进行详细规

划, 然后于2007年在原址开始新项目的施工。

改建项目分阶段进行, 于2009年1月开始拆除多层停车场和办公地块(如东楼)。新世界中心的剩余建筑将随后于2010年3月停止营业, 并于2011年1月开始拆除工作。毗连的名店城于2014年2月停止营业, 以进行设计变更和新增工作(图6)。新世界中心的改建工作是当今在尖沙咀海滨进行的最为宏大、全方位的城市改建项目之一。

本次改建开发项目的焦点是一座综合大楼, 该建筑内有国际A级办公室和一家配有高端服务及用餐设施的五星级奢华酒店(图7)。受到了新世界集团工匠运动的启发, 改建后的新世界中心将以创新设计、可持续特色绿植和无与伦比的建筑特色打造一处具有吸引力的城市人居环境, 而以上特色将为项目吸引多种用户以及一般公众。

一旦新世界中心的改建完成, 它将为海滨带来新生, 为香港带来焕新活力, 也将在这片重现活力的多处景点中心重塑香港的天际线, 为香港这座熙熙攘攘的城市带来一片令人精神大作的城市绿洲。

改建项目的总建筑面积为2,951,444平方英尺。



Figure 3. Overview of New World Centre - view of HK and Kowloon side (Source: New World Development Company Limited)

图3. 新世界中心 - 从九龙和香港岛角度拍摄 (来源: 新世界发展有限公司)



Figure 4. View from Salisbury Road (to the North of NWC) (Source: New World Development Company Limited)

图4：从梳士巴利道角度拍摄（新世界中心北面）（来源：新世界发展有限公司）

tourist attractions in the city. Bounded by the world renowned Victoria Harbour, the New World Centre is located in the prime waterfront location of Tsim Sha Tsui, with Salisbury Road to the north (Figure 4), Salisbury Garden and the Cultural Centre complex to the west and Victoria Harbour and a sea front promenade running south to east (Figure 5). The New World Centre has been a major hub for commercial, hospitality and entertainment in Tsim Sha Tsui since it first opened in 1978.

After lengthy negotiations with the Buildings Department, Lands Department, and Planning Department concerning the remodeling proposal for the New World Centre, New World Development commenced the detailed planning and then the construction works of the new project on-site in 2007.

The remodeling project commenced in phases with the demolition of the multi-story carpark and office block (i.e., east wing) in January



Figure 6. Old New World Centre before demolition (Source: New World Development Company Limited)

图6：新世界中心的旧貌（拆除前）（来源：新世界发展有限公司）



Figure 5. View from Tsim Sha Tsui East (Source: New World Development Company Limited)

图5：从尖沙咀东部角度拍摄（来源：新世界发展有限公司）

2009. The rest of the New World Centre was subsequently closed in March 2010 and demolition work commenced in January 2011. The Palace Mall in the adjacent lot was closed in February 2014 for alteration and addition work (Figure 6). The remodeling of the New World Centre is one of the most ambitious and comprehensive urban remodeling projects ever undertaken on the Tsim Sha Tsui waterfront in recent times.

The focal point of the remodeled development is a mixed-use tower that comprises international Grade-A offices and a five-star luxury hotel with elaborate hospitality and dining facilities (Figure 7). Inspired by The Artisanal Movement of the New World Group, the remodeled New World Centre will create an attractive urban habitat with innovative design, sustainable green features and unparalleled architectural features that will engage the diverse users of the development and also the public at large.

融入《可持续建筑设计指导方针》

主流绿色建筑认证方案如美国绿色能源与环境设计先锋奖（LEED）和英国建筑研究所环境评估法（BREEAM）均受到国际认可且架构完善，覆盖了房地产开发的全生命周期：选址、设计、选材、施工、经营、维修及废物处理。虽然这些认证方案广泛涵盖了房地产开发中的各个方面，但它们仍未关注到当地需求，尽管在某些案例中有所涉及，但鲜少提及如香港一般人口高度密集的城市。

本着培养高质量可持续建筑环境的精神，香港可持续发展委员会与香港特别行政区政府于2009年携手开展了一场公共活动，该活动推出了众多举措以增强建筑施工和整体设计。这些举措包含《SBD指导方针》的制定过程、建筑面积（GFA）的租让和《建筑能效指导方针》。调查结束



Figure 7. Mixed-use tower comprising international Grade-A offices and a five-star luxury hotel (Source: New World Development Company Limited)

图7：多用途大楼包括甲级办公楼及一家五星级豪华酒店（来源：新世界发展有限公司）

Once the remodeled New World Centre is completed, it will spark revitalization to the waterfront and bring renewed vigor to the city. It will also reshape the skyline of Hong Kong on a rejuvenated hub of multiple attractions and offer to the bustling city of Hong Kong a refreshing urban oasis.

Total GFA of the remodeled project will be 2,951,444 sq. ft.

Embrace the Sustainable Building Design Guidelines

Mainstream green building certification schemes, namely the US LEED and the UK BREEAM, are internationally acclaimed and well-established programs covering the complete life cycle of property development: siting, design, material selection, construction, operation, maintenance and waste disposal. While these certification schemes cover a wide-array of aspects in property development, they tend to be unattuned to local needs and in some cases have but scant relevance to densely populated cities like Hong Kong.

In the spirit of fostering high quality and sustainable building environments, the Hong Kong Council for Sustainable Development, in collaboration with the HKSAR Government, conducted a public engagement exercise in 2009, which recommended a host of measures for enhancing building construction and overall design. Measures encompass the development of the Sustainable Building Design (SBD) Guidelines, gross floor area (GFA) concessions and Guidelines for the Energy Efficiency of Buildings. Following the completion of the study, the Buildings Department commissioned another consultancy study of building designs that support sustainability in an urban living space like Hong Kong. Acting on the findings of the study, the Government introduced its SBD Guidelines in 2011 in hopes of encouraging property developers and/or owners to accentuate sustainability elements in every building design, including the following:

1. Building Separation – to improve ventilation and to enhance environmental quality at street level and to mitigate heat island effects arising from the undesirable screening effects of long buildings at different levels, length of a building should be in proportion to the width of

the street, promoting permeability. Detailed criteria were developed such as permeable elements, separating distance and intervening space;

2. Building Setback – to improve street level comfort, defined by the first 15m in height of the project;
3. Site Greenery – to improve the environmental quality of the overall urban space. The focus is on street level and is aimed at mitigating heat island effects.

The SBD Guidelines were introduced to encourage voluntary compliance and to further support the adoption of the Hong Kong Building Environmental Assessment Method (HK-BEAM) in buildings. Both the SBD Guidelines and HK-BEAM certification are prerequisites for GFA concessions¹ – a strong incentive for developers in Hong Kong where land is scarce and land value is high. The Outline Zoning Plan and the SBD guidelines laid down a road map for architects to follow in terms of development potential and building disposition of the development.

The General Building Plan of the New World Centre Remodeling Project was approved long before the introduction of the SBD Guidelines. To demonstrate the concept of sustainability, we took the initiative to revise the scheme and to improve the building design. The planning of this programmatically charged project on a site with an irregular shape is a daunting challenge. Nevertheless, New World Development decided to incorporate the newly established Guidelines into the remodeling project. We did so in a bid to create an overall design more in symphony with the urban environment in the vicinity.

After months of revisions of building plans and design adjustments, the revised scheme has successfully demonstrated significant improvements in respect of visual and physical connections to the Victoria Harbour, cross ventilation to the urban environment as well as greenery provisions. This innovative and groundbreaking approach has set the remodeling project of New World Centre apart from other projects, as it was the only major development which opted for full compliance with the SBD Guidelines.

后，屋宇署委托第三方进行了另一项关于建筑设计的咨询研究，有助于在类似香港的城市生活空间推广可持续理念。根据研究结果，香港政府于2011年引入《SBD指导方针》，以期鼓励地产开发商和/或所有者在建筑设计包括以下方面强调可持续元素：

1. 建筑隔墙——以改善通风并提高街面的环境质量，高层建筑的不同层面会形成不尽如人意的屏蔽效应，由此会产生热岛效应，而此举有助于疏导热岛效应。同时，建筑的高度应与街道的宽度成比例，可提高透气性。已制定了详细的标准，如透气元素、分割边距和间隔空间；
2. 建筑后移——以提高街面舒适感，于项目的首个15m高度处测量。
3. 现场绿化——以改善城市整体空间的环境质量。关注点在于街面，旨在疏导热岛效应。

引入《SBD指导方针》的目的是鼓励自觉遵守并进一步促进在建筑中采纳《香港建筑环境评审法》（HK-BEAM）。《SBD指导方针》和《HK-BEAM》认证都是获得建筑面积租让的前提条件¹——香港的土地不足且土地价值不菲，这对香港开发商们来说是强有力的激励政策。《分区计划大纲》和《SBD指导方针》在开发潜力和开发项目的建筑配置方面对建筑师们具有指导意义。

在颁布《SBD指导方针》很久之前，新世界中心改建项目的建筑总平面图就已获得批准。为了体现可持续理念，我们主动修改方案并改良建筑设计。在不规则形状的地块上采用编程方式对该项目进行规划，本身就是一个艰巨的挑战。然而，新世界发展有限公司决定，改建项目将参照新版《指导方针》进行设计。我们之所以这么做是为了制定的整体设计可以更加和谐地融入邻近的城市环境。

经过几个月对建筑平面图和设计调整的不断修改，改版后的方案在与维多利亚港视觉和空间的连接方面、与城市环境对流通风及绿化规定方面已实现明显改善，大获成功。这种开创性的创新方法已使新世界中心改建项目明显区别于其他项目，这是唯一一个自主选择完全遵照《SBD指导方针》进行设计的大型开发项目。

1: A concession cap has been set at 10 % of the total GFA of the development. If a development comprises both domestic and non-domestic buildings or in the case of a composite building, GFA concessions for features serving the domestic part or the non-domestic part of the development will be calculated separately such that GFA concessions for each part will be capped at 10%, based on the total GFA of the respective part of the development (Buildings Department, 2014).

1: 租让面积的上限被定为项目总建筑面积的10%。如果一个开发项目包括本地和外地建筑，或为综合体建筑，则开发项目本地建筑或外地建筑中符合要求的建筑面积租让值将予以分别计算。如此，基于开发项目中各个建筑的总建筑面积，每个建筑的建筑面积租让值上限则定为10%（2014年屋宇署）。

Building Separation

Urban developments across densely populated cities like Hong Kong are destined to encounter mounting environmental challenges. These include claims of diminishing air circulation resulting in hot air and wall effects, bellowing greenhouse gas emissions from heavy traffic and more. To address these problems, the SBD Guidelines include a series of recommendations on improving permeability and airflow within a property development.

To comply with the principle of increasing natural ventilation, one of the innovative features of the remodeled New World Centre is a visual corridor of 20m in width and 8.4m in height on the ground level, to be aligned with Chatham Road. The opening will allow gentle sea breezes blowing onshore from the Victoria Harbour into Salisbury Road and serve as a generous and inviting visual corridor for all. This visual corridor will also open up an obstruction-free vista all the way from Chatham Road to the harbor, allowing passers-by on Salisbury Road and pedestrians to take in the stunning harbor at a distance while being connected to the waterfront at all times.

In a step beyond the SBD Guidelines, the New World Centre has introduced a second visual corridor of 12.5m in width and 27m in height above the podium, enabling air to circulate through the opening from sea to inland. It will further connect the harbor with the passers-by and create a spectacular architectural feature of its own on the waterfront.

Building Innovations on Setbacks

In compliance with the Outline Zoning Plan, the hotel/office tower has been strategically located at the eastern end of the site, and has blended in well with the rest of the development. This core tower is recessed at the upper zone to form a distinctive setback, which will be used as a sky garden, seamlessly merging with the rest of the tower (Figure 8).

To allow the maximum exposure to natural daylight and increase the flow of air, generous open space is provided at the ground level on Salisbury Road and also along the waterfront. Step-like recesses in the building profile are strategically created on different levels to enhance the liberating feel of open space.

Site Greenery

At all stages of its development and actual operation, the New World Centre has carefully considered the practical needs of users. The complexity of the development necessitates hard paved areas for vehicular drop-off and

access for emergency vehicles as well as ample open space for public gatherings.

After factoring in all the necessary functional areas, it became apparent that traditional ways of providing greenery would not be in line with the SBD Guidelines, and innovations would be necessary to introduce more engaging green elements. Designed with a lush garden in mind, the development is a multi-dimensional natural landscape with a variety of local and exotic plants, water features, green roofs, shaded areas and vertical foliage.

All these features are melded into a perfect integration of natural space and local culture, allowing visitors to experience an urban oasis and to be inspired by the intimate relationship between humanity and nature. Green walls are graciously provided at various locations on the façade and innovative free-standing green columns have been installed as abstract landscape features along the waterfront.

Moreover, flat roofs of the setbacks are transformed into various types of terraces, sky gardens and green roofs, where visitors and patrons can enjoy splendid outdoor experiences. Special features have been incorporated into the landscape design and use of greenery to increase biodiversity in the urban center. All the creative designs have been conceived by a world-renowned landscape designer (Figure 9).

As of 2015, 98% of ongoing property projects in Hong Kong by New World Development have applied for the US LEED and/or the HK-BEAM certification. Over 90% of these projects are expected to achieve gold level certification or above. By referencing the SBD Guidelines in the New World Centre Remodeling Project, we are able to fulfill even more criteria required by both aforementioned green building certification schemes.

All in all, very careful consideration has been given at every stage in the design of this mixed-use urban development. We have strived to bring new maximized green areas and provide a new kind of breathing space with lush landscapes for city dwellers. It will be a location offering a totally new green urban experience to the people of Hong Kong.

	Horizontal green (m ²) 绿化园景 (平方米)	Vertical green (m ²) 绿化外墙 (平方米)
Pedestrian Zone 行人步道区	2,895	2,982
Above Pedestrian Zone 行人步道区以上	6,766	788
Sub-Total 总面积	9,661	3,770
Total 全体总面积	13,431 m ² (over 34% of site area) 13,431 平方米 (超过地盘面积的34%)	

Figure 9. Greenery size of NWC site area (Source: New World Development Company Limited)
图9. 新世界中心地盘面积绿化范围 (来源: 新世界发展有限公司)

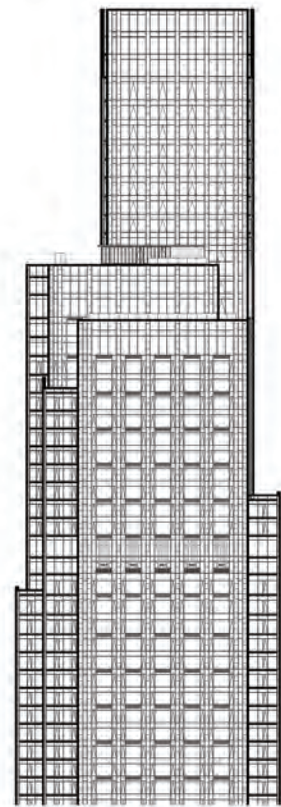


Figure 8. Upper zone of mixed-use tower with distinctive setback (Source: New World Development Company Limited)
图8. 主楼在高层往后移的特色设计新世界发展有限公司 (来源: 新世界发展有限公司)

设计各个方面的可持续性

建筑隔断

香港等人口密集都市的城市发展注定会面临不断上升的环境挑战, 包括因空气流通减缓而导致的热空气、热壁效益, 因交通拥挤而排放的大量温室气体, 还有更多。拥挤的交通而大量排放的温室气体及其他投诉。为了解决这些问题, 《SBD指导方针》采纳了在房地产开发项目中改善透气性和空气流动的一系列建议。

改建后的新世界中心具有多个创新特色, 其中一个便是为了遵循日渐提高的自然通风原则而设定的, 即一条20米宽、高出地面8.4米的视觉走廊, 与漆咸道相连。入口处拂来维多利亚港的轻柔海风, 吹向梳士巴利道, 形成一条宏大、引人入胜的视觉长廊。在这条长廊上, 漆咸道与港湾之间的星空一览无余, 梳士巴利道上的路人和行人也可隔着一段距离欣赏令人惊艳的海港, 随时可前往海滨。

Sustainability Innovations

The New World Centre is designed to provide a sustainable environment to the public and to its users. With 30% green coverage, the New World Centre offers flexible engineering equipment, which allows an adaptive and versatile layout, together with a quality indoor environment through its attainment of a good class in Indoor Air Quality (IAQ). The sustainable design of the complex has been recognized with a Platinum grade Beam-Plus provisional assessment; the most widely used green building labeling scheme in Hong Kong.

Energy saving is the key to protecting the environment. In New World Centre, many active measures to reduce energy consumption have been applied, including low power lighting, energy saving seawater cooling and a solar hot water system. Energy saving is further enhanced by installing a high performance building façade, a high efficiency chiller system and a heat pump hot water system.

An eco-friendly approach is fully incorporated in the design of the New World Centre. Green materials of highly recycled content from regional suppliers are employed as well as certified wood from sustainable sources. To further prevent environmental pollution, low VOC materials have been used in interior decoration and the air-conditioning refrigerant system is ozone-friendly. The New World Centre has also achieved 30% water saving by selecting effective water saving features and using rainwater recycling for irrigation.

Architectural Design Features

To fulfill the requirement of the SBD guidelines in an innovative way, New World Development has engaged the world-acclaimed New York-based architectural firm Kohn Pedersen Fox Associates to lead the architectural design of this project. Their concept blends the architectural languages of the program it houses: the city's most luxurious hotel, boutique office space and other multi-functional facilities with the three key sustainability elements in the building development. Like a great neighborhood, their program seamlessly connects rejuvenated networks of outdoor public space, gardens and terraces.

The design of the hotel/office mixed-use tower matches the classical design elements with the hotel's vibrantly contemporary surroundings. The design of this iconic tower is inspired by a lighthouse guiding ships to safety, with

新世界中心的设计领先于《SBD指导方针》的要求，已引入第二条宽12.5m、高出裙房27m的视觉走廊，使得海风可通过入口流入室内。将进一步方便路人前往海港，在海滨打造出自身绝妙的建筑特色。

建筑后退的创新

根据《分区计划大纲》的要求，酒店或办公大楼已更改至现场东端最佳位置，且很好地与开发项目的余下部分相融合。本座核心塔楼在高区内凹以形成独具特色的后退，这里将会被用作空中花园，与大楼的剩余部分无缝连接（图8）。

为了获得最大的自然光并提高空气的流动，宏大的开放空间被置于梳士巴利道地面上且沿着海滨。建筑物轮廓中类似台阶的凹进出现在不同的楼层，以最佳的方式增强开放空间的释放感。

现场绿化

在开发和实际经营的各个阶段，新世界中心都谨慎地考虑到了用户们的实际需求。这个开发项目的复杂性使得其需要为车辆落客区铺设硬面路区、为紧急车辆提供出入口及为公众聚会提供充足的开放空间。

考虑到所有必需的功能性区域后，传统的绿化方式明显将不符合《SBD指导方针》要求，此时需要通过创新引入更具吸引力的绿色元素。设计构想是一座郁郁葱葱的花园，而项目实际具有多维的自然景观，搭配各种当地和国外植物、水景、绿色屋顶、阴影区和垂直植物。

所有这些特色都极好地融入进自然空间和当地文化之中，游客在此可体验城市绿洲并感受人与自然之间的亲密关系。外立面上多处位置设有绿植墙体，形态优雅，而富有创新性的独立绿植支柱已完成安装，成为水滨沿岸抽象的景观特色。

此外，后移建筑的平面屋顶被改建成多类露台、空中花园和绿植屋顶，游客和客户们在这里可尽享绝佳的户外体验。景观设计中已设有特色景点，并采用绿化增加城市中心的生物多样性。所有这些创新设计都来自于一家享誉世界的景观设计公司（图9）。

到2015年为止，新世界发展有限公司在香港所有在建房地产项目的98%已申请了美国LEED和/或HK-BEAM认证。预计这些项目中90%以上将至少获得金奖认证。通过在新世界中心改建项目中参考《SBD指导方针》，我们有能力达到上文提及的绿色建筑认证方案中要求的甚至更高的要求。

总而言之，我们在设计这座城市的综合体建筑时，认真研究了各个阶段。我们一直致力于为城市居民注入最大面积的新鲜绿地、以茂盛的景观带来新式喘息空间。这里将为香港人民带来全新的绿色城市体验。

可持续性创新

新世界中心的设计目标是公众及其用户提供一可持续的环境。新世界中心的绿化覆盖率达到30%，由于提供了灵活的工程设备，项目可采用自适应且通用的布局，同时还具有达到室内空气质量（IAQ）良好等级的高质量室内环境。该综合体的可持续性设计已获得了绿建环评新建建筑暂定铂金级的评估；这是香港绿色建筑广泛认可的标志方案。

节能是保护环境的关键。新世界中心内已采取多种积极措施以降低能耗，包括低功率照明、节能海水冷却及太阳能热水系统。此外，还安装了高性能的建筑外立面、高效的制冷系统和热泵热水系统，进一步降低能耗。

新世界中心的设计中充分融入了生态友好的概念。建筑采用了从地区供应商采购的高循环性绿色材料，还有持续供应的认证木材。为了进一步控制环境污染，室内装饰中采用低VOC材料，空调制冷为无氟制冷系统。新世界中心通过采取有效的节水措施并选用雨水回收灌溉技术，已节约了30%的水资源。

建筑设计亮点

为了创造性地满足《SBD指导方针》的要求，新世界发展有限公司邀请了世界顶级纽约建筑事务所KPF建筑事务所（Kohn Pedersen Fox Associates）主导该项目的建筑设计。他们的概念融合了所容纳功能的各种建筑语言：该市最为奢华的酒店、精品办公空间及其他多功能设施，同时兼顾建筑开发的三大关键可持续因素。他们的方案俨然是一处绝妙的社区，与户外公共区域、花园和露台形成的网络无缝连接，重现地区活力。

对酒店/办公室综合塔楼的设计满足经典设计元素，酒店四周的现代背景充满活力。这座代表性塔楼的设计灵感来源于指引船只安全航行的灯塔，造型独特，塔冠光彩熠熠，在著名的天际线中一定一眼就能被认出。建筑设计的亮点是一系列配有露台的阶梯。塔楼的立面设计采用搭配丰富金属加以强调的石灰岩扶壁，令人回想起传统建筑的元素。这些石灰岩扶壁之间是3米宽的窗体，使低区办公室和高区酒店可纵览全方位、无遮挡的维多利亚港全景。

为了迎合酒店闻名的特色绿化，这里将设计多种适宜的绿化景观。除了满足《SBD指导方针》的绿化要求，景观设计还将补足并连通酒店上下及室内外的空间。

新世界中心裙房的外立面采用横向连接的石灰岩带，配有金属加以强调，阶梯状的阳台、花园和石质橱窗是设计的点睛之

its distinct form and glowing crown that is destined to become an instantly recognizable icon on our famous skyline. The architectural design features a series of cascading perspectives with terraces. The elevation design of the tower includes limestone piers with rich metal accents that recall the elements of a classical building. In between these limestone piers, 3m-wide window modules provide both offices at lower zones and the hotel above them with a 360-degree unobstructed panoramic view of the breathtaking Victoria Harbour below.

To celebrate the hotel as a destination renowned for its greenery, it will feature an abundance of appropriate landscaping. Apart from fulfilling the greenery requirements in accordance with the SBD Guidelines, the landscaping will complement and connect indoor and outdoor spaces throughout the hotel.

The activated façade of the podium of the New World Centre – horizontally articulated bands of limestone with metal accents, featuring terraced balconies, gardens and stone vitrines – is designed to contrast the rectilinear geometry of the hotel/office tower. Generously planted green walls are provided to introduce nature in an exciting way. The terraces allow for formal and informal outdoor spaces linked perfectly with the indoor design. The terraces are also designed to take full advantage of its unparalleled views of the city and the harbor.

The overall architectural design intends the use of a simple and consistent material palette that reinforces the holistic vision of the

development, yet also presents various details and architectural moods that lead to exciting spaces and forms. The architectural intent of the project is to create a building that is like a vibrant and active city, which challenges previous assumptions about how a mixed-use development can interact seamlessly with city streets, public spaces and neighboring buildings.

Conclusion

In Hong Kong, buildings account for 90% of the city's total energy consumption and over 75% of its greenhouse gas emissions. With limited land available for future development, it is expected that many new buildings will be mixed-use in order to optimize space. These facts call for a thorough study of sustainable urban development and practical examples of its application.

At New World Development, we find inspiration in The Artisanal Movement to innovate throughout our property portfolio and ensure each step delivers a unique solution in harmony with the intended end product. New World Development takes pride in being one of the first large-scale developers in Hong Kong to have adopted SBD Guidelines and have integrated their concepts in the remodeling of New World Centre. We are going even further by seeking green building and landscaping certification, to enable interesting interaction between people, art and nature. The redevelopment will redefine sustainable design in Hong Kong for years to come.

笔——旨在突出酒店/办公塔楼的直线几何结构。大面积栽种绿植的墙体将自然引入建筑，令人兴奋。这些露台与室内设计完美衔接，兼有正式、非正式的户外场地。设计这些露台也是为了尽享香港与这座港湾无与伦比的美景。

建筑整体设计偏向简单且连续的材料配色，以强调开发项目的整体观，但仍呈现出各种引导的细节设计和建筑氛围，烘托出令人激动的空间和形式。该项目的设计目标是创造一座类似活力、激情城市的建筑，而这向此前对一座综合建筑与城市街道、公共区域及临近建筑无缝互动过程的猜想提出了质疑。

总结

在香港，建筑能耗占用该市总能耗的90%且排出超过75%的温室气体。可用于未来开发的土地资源有限，因此，人们期望新建筑多为综合建筑，以优化空间资源。以上现实问题需要对可持续城市建筑及其应用实例进行彻底研究。

在新世界中心项目中，我们从工匠运动中获得灵感，创新贯穿整个项目过程，确保每一次制定的独特解决方案可融入预期的最终产品。新世界发展有限公司以成为香港首家采纳《SBD指导方针》并将其概念整合至新世界中心改建项目的大型开发商为傲。我们不会止步于此，下一步将申请绿色建筑和景观设计认证，以便能激发人类、艺术与自然之间有趣的互动。这个再开发项目将重新定义香港未来几年的可持续发展设计。

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