

**Agreement No. CE 35/2006(CE)
Kai Tak Development Engineering Study
cum Design and Construction of Advance Works
– Investigation, Design and Construction**

**Kai Tak Development
EIA Executive Summary**

Contents

1	INTRODUCTION.....	1
	1.1 Project Background.....	1
	1.2 Objectives of the Environmental Impact Assessment.....	2
	1.3 The Need of Project and Scenario without the Project	2
2	PROJECT DESCRIPTION	3
	2.1 Site Location and Study Area	3
	2.2 Nature, Scope and Benefits of the Project	3
3	CONSIDERATION OF ALTERNATIVES	5
4	WORKS PROGRAMME.....	7
5	KEY FINDINGS OF THE ENVIRONMENTAL IMPACT ASSESSMENT.....	9
	5.1 Air Quality Impact.....	9
	5.2 Noise Impact.....	10
	5.3 Water Quality Impact.....	12
	5.4 Waste Management Implications.....	13
	5.5 Land Contamination.....	15
	5.6 Hazard to Life	16
	5.7 Cultural Heritage	16
	5.8 Landscape and Visual Impact	17
	5.9 Ecology.....	18
	5.10 Fisheries.....	19
	5.11 Sewerage and Sewage Treatment Implications	20
	5.12 Environmental Monitoring and Audit	20
	5.13 Environmental Outcomes	20
6	CONCLUSION	41

Lists of Tables

Table 5.1 Summary of Environmental Impacts Associated with the Project

Lists of Figures

Figure 1.1a Recommended Outline Development Plan (dated May 2008)

1 INTRODUCTION

1.1 Project Background

- 1.1.1 The Project is located in the south-eastern part of Kowloon Peninsula, comprising the apron and runway areas of the former Kai Tak Airport and existing waterfront areas at To Kwa Wan, Ma Tau Kok, Kowloon Bay, Kwun Tong and Cha Kwo Ling. It covers a land area of about 328 hectares. The Project also covers Kowloon Bay and Kwun Tong Typhoon Shelters and the adjacent water bodies.
- 1.1.2 The Kai Tak Airport was the international airport of Hong Kong until 6 July 1998, which was replaced by the new Hong Kong International Airport at Chek Lap Kok. After closure, the airport site has been occupied by various temporarily uses such as public fill banks, bus depots, car sales exhibitions, and recreational grounds. Besides, most of the original buildings and structures within the former airport site have been cleared and the ground contamination identified at the north apron had been decontaminated.
- 1.1.3 In 2002, the Chief Executive in Council approved the Kai Tak Outline Zoning Plans (No. S/K19/3 and S/K21/3) to provide the statutory framework to proceed with the South East Kowloon Development at the former Kai Tak Airport. However, following the judgment of the Court of Final Appeal in January 2004 regarding the Harbour reclamation, the originally proposed development which involved reclamation has to be reviewed. The Kai Tak Planning Review (KTPR) has resulted a Preliminary Outline Development Plan (PODP) for Kai Tak in October 2006.
- 1.1.4 Based on the PODP, Planning Department have prepared the Draft Kai Tak Outline Zoning Plan (OZP) No. S/K22/1 and was submitted to the Town Planning Board for consideration on 10 November 2006 and was gazetted under the Town Planning Ordinance on 24 November 2006 and the OZP No. S/K22/2 was approved by CE in C on 6 November 2007.
- 1.1.5 A Recommended Outline Development Plan (RODP) of Kai Tak Development (KTD) has been prepared by resembling the changes to the PODP and the Kai Tak Outline Zoning Plan (OZP). The RODP (dated May 2008) becomes the basis for conducting the EIA study for the feasibility study of the Kai Tak Development. A copy of the RODP (dated May 2008) is shown in **Figure 1.1a**.

1.2 Objectives of the Environmental Impact Assessment

- 1.2.1 According to the EIA Study Brief (No. ESB-152/2006), the scope of this EIA Study shall cover all the developments proposed within the boundary of KTD. The EIA Study shall address the key issues described below, together with any other key issues identified during the course of the EIA Study and the cumulative environmental impacts of the Project, through interaction or in combination with other existing, committed, and planned and known potential developments in the vicinity of the Project:
- (i) The overall acceptability of any adverse environmental consequences that are likely to arise as a result of the Project and associated works, and their related stage implementation;
 - (ii) The conditions and requirements for mitigating environmental nuisances associated with introducing the Project as a new urban development in the existing environs close to an embayed area with known pollution problems;
 - (iii) The conditions and requirements for the detailed design, construction and operation of the Project to mitigate against adverse environmental consequences wherever practicable; and
 - (iv) The acceptability of residual impacts after the staged as well as the full implementation of the Project, the associated works and the related proposed mitigation measures.

1.3 The Need of Project and Scenario without the Project

- 1.3.1 During various stages of the public participation process conducted under the KTPR, the general public aspiration is in favour of the early implementation of the KTD. It is therefore needed to implement the construction of infrastructure as well as the land disposal recommended in the RODP so as to materialize the full development of the vacant land in Kai Tak and its benefits to the hinterland.
- 1.3.2 According to the consultancy studies on Hong Kong's cruise market and cruise terminal facilities development conducted by the Tourism Commission, Hong Kong will require an additional berth between 2009 and 2015, and one to two further berths beyond 2015 to sustain its development as a regional cruise hub. On this basis, timely development of the Cruise Terminal is crucial to bring wider economic benefits to Hong Kong. In the absence of the Project, the loss of economic benefits contributed from the cruise industry and the employment opportunities generated by the co-related supporting facilities is not affordable.
- 1.3.3 Besides, Hong Kong should achieve a competitive and prosperous market-based economy which provides the resources to meet the needs and aspirations of the population in the next decades. Under the current policy, the land revenue to the Government will be obtained from the disposal of land in Kai Tak for implementation by the private sector of the proposed developments through sale of government land. Land revenue will also be obtained from lease modification of the redevelopment of a few existing developments within and in close proximity of KTD. In general speaking, the land revenue generated from the development at Kai Tak is not coverable by other means if the Project will not proceed.
- 1.3.4 The RODP has incorporated the two committed public housing projects at the North Apron. Without the timely implementation of the committed public housing projects in Kai Tak, the public rental housing waiting time is expected to be adversely affected. Meanwhile, the housing development in Kai Tak is expected to alleviate the territorial demand of residential housing in long term.

2 PROJECT DESCRIPTION

2.1 Site Location and Study Area

2.1.1 The Project is located in the south-eastern part of Kowloon Peninsula, comprising the apron and runway areas of the former Kai Tak Airport and existing waterfront areas at To Kwa Wan, Ma Tau Kok, Kowloon Bay, Kwun Tong and Cha Kwo Ling. It covers a land area of about 328 hectares. The Project also covers Kowloon Bay and Kwun Tong Typhoon Shelter and the adjacent water bodies.

2.2 Nature, Scope and Benefits of the Project

Nature of the Project

2.2.1 The Project is to redevelop the former Kai Tak Airport Area.

Project Scope

2.2.2 The scope of the Project comprises the demolition of the remaining structures at the former Kai Tak Airport and the construction of key infrastructures to serve KTD for development of key components such as the Cruise Terminal, Tourism Node, Runway Park, Metro Park, Stadium Complex, public and private housing sites, commercial office and hotel sites and other community facilities. The infrastructure needs to be provided are not exhaustive to roads, vehicular bridges, footbridges, subways, railway, environmental friendly transport system, drainage culverts and drains, rising mains and sewers, pumping stations, fresh and salt water supply mains, district cooling system, electricity substations and utilities, landscape softworks and hardworks.

Project Benefits

2.2.3 With the vision to create a distinguished, vibrant, attractive and people-oriented Kai Tak by Victoria Harbour, the key components of KTD shown on the ROPD has adopted the principle to achieve economic, social and environmental sustainability in its preparation.

2.2.4 The provision of Cruise Terminal, Tourism Node, Stadium Complex and other attractions in Kai Tak are expected to strengthen the tourism attractiveness of Hong Kong and to enhance the overall image of Hong Kong as a “must-see” city for tourists.

2.2.5 In terms of society and social infrastructure, the residential neighbourhood at KTD is proposed to enhance living space and meeting the housing demand of the territory. In the meantime, the public rental housing waiting time is expected to get worse without the timely implementation of the committed public housing projects in Kai Tak to tally with the housing provision programme. Overall speaking, through considerable housing provision, the draft ROPD is expected to strengthen the social infrastructure of Hong Kong.

2.2.6 The proposed KTD is expected to act as a catalyst for urban regeneration of the surrounding districts such as Kowloon City, San Po Kong, Kowloon Bay and Kwun Tong. It would also improve the landscape and urban design quality of the area, provide numerous community facilities to meet the needs of a diversity of user groups, preserve and promote the cultural heritage and identity of the place, promote a vibrant and accessible harbour front, and promote sports and cultural development in Hong Kong. All these positive impacts are coherent to the rising public requests for the early development of Kai Tak.

3 CONSIDERATION OF ALTERNATIVES

3.1.1 To satisfy the PHO, it is necessary to establish any proposed works to be carried out within the Harbour for the proposed development would fall within the meaning of reclamation under PHO.

3.1.2 Under KTD with no reclamation as a starting point, the study area was significantly reduced. As revealed in the 3-stage public participation exercise conducted for the Project, the community is supportive of a “no-reclamation” approach provided that the environmental problems of the Kai Tak Approach Channel, in particular the odour problem, can be resolved.

Alternative Development Options

3.1.3 To foster community support and general consensus to the key issues and study proposals, a 3-stage public participation exercise was conducted to enable more structured public engagement activities in the development of Kai Tak.

3.1.4 The planning principles raised by the public from the Stage 1 Public Participation were mostly consistent with the Harbour Planning Principles promulgated by the HEC in January 2005 and most of which had also been incorporated into the previous Kai Tak studies.

3.1.5 There was a general concern in the community on the interface and connectivity issues with the surrounding districts. Many perceived the development of the ex-airport site as an opportunity to improve the living quality of the surrounding districts, e.g. provision of open space. There were also concerns that KTD should not introduce new problems to the neighbouring districts, particularly traffic problem. Most of the public considered that KTD should facilitate redevelopment and revitalization of these areas.

3.1.6 These community aspirations expressed were seriously taken into account in formulating the three Outline Concept Plans.

3.1.7 Concept Plan 1 seeks to fully capture the unique configuration of Kai Tak to create two distinct areas of pleasant living: A high-density and high-rise residential/stadium district is planned at the heart of North Apron Area to optimize the provision of two railway stations. Mid-rise and medium density residential developments are planned on the distinctive runway island, overlooking Kai Tak Approach Channel as well as Victoria Harbour. Similar to other concepts, a 600-m gap is planned beneath the runway to enhance water circulation at Kai Tak Approach Channel.

3.1.8 Concept Plan 2 seeks to regenerate and further manifest the glamour of Kai Tak by promoting an iconic and vibrant waterfront metropolitan district, which exhibits the energy and dynamism of Hong Kong. The linear former-runway provides the platform along which a series of activities are planned: from the high-rise landmark office/stadium developments in North Apron, to the characteristic residential runway island, to a cruise terminal/tourism node at the runway end. An animated Kai Tak Promenade, waterfront fountain shows and water curtain film show at Kai Tak Approach Channel will altogether celebrate the glamour of Kai Tak.

3.1.9 Concept Plan 3 seeks to create residential neighbourhoods of human scale around recreation facilities to reinforce an image of a green and lively urban district. Establishing wider connections via the open space network to surrounding districts will reinforce Kai Tak as a major recreational centre. A lower development density is adopted to achieve a leisurely atmosphere.

3.1.10 Preliminary technical assessments and preliminary sustainability assessment on these OCPs have been conducted. Overall speaking these technical assessments have confirmed the general feasibility of the OCPs, but they have also pointed out areas for improvements.

3.1.11 Generally speaking Concept Plan 1 performs weaker than the other two Concept Plans. While it contributes the highest housing provision, it has drawbacks such as traffic noise concern, inferior urban design qualities and comparatively less landscaping merits. These aspects should be critically reviewed in preparing the PODP. Concept Plan 2, on the other hand, by its high commercial space provision, shows merits in creating employment opportunities and addressing the existing traffic noise problem. These merits, together with the strategic estimated demand for commercial spaces, should be taken due consideration in PODP formulation.

3.1.12 The Stage 2 Public Participation was launched in November 2005. The above three OCPs were presented for public comments. Their comments generally echoed the findings of the preliminary technical assessments and preliminary sustainability assessment.

Development of Preferred Option

3.1.13 The Stage 3 Public Participation of the Kai Tak Planning Review on the Preliminary Outline Development Plan was conducted from June to August 2006 to invite public discussion on the draft PODP before it is finalized. There is general acceptance of the development vision, planning principles and key development components, e.g. Cruise Terminal, Multi-purpose Stadium Complex and Metro Park as proposed in the draft PODP.

3.1.14 Taking into consideration the public views received from Stage 3 Public Participation and the assessment findings on the draft PODP, the draft PODP was subsequently consolidated as the final PODP. The key features of the final PODP are summarized as below.

3.1.15 Sports-oriented – Kai Tak will be a hub for sports and leisure activities. A modern multi-purpose stadium complex will be its anchor, complemented by a comprehensive network of open spaces including a Metro Park, two indoor recreation centres and extensive cycle tracks and jogging trails along the promenade.

3.1.16 People-oriented – Kai Tak is planned to serve the public. The waterfront areas are reserved mainly for public enjoyment as parks and promenades. Convenient and comfortable pedestrian connections between the hinterland and Kai Tak, and between the SCL Kai Tak Station and the various activity nodes are emphasized.

3.1.17 Sustainable – Residential, office, retail and hotel provisions are planned to mix with the sports and leisure activity nodes to ensure vibrancy in different times of the day and different days of the week. The history of Hong Kong and in particular the aviation history of Kai Tak will be manifested throughout Kai Tak and the heritage resources in the adjacent areas will also be promoted.

3.1.18 Environmental-friendly – The formulation of solutions to the water pollution and soil contamination problems at KTAC without resorting to reclamation is to uphold the environmental-friendly and sustainable development principles. Besides, land reservation for roadside greening, green roof and district cooling system, and planning for mass transit, minimizing noise impact, and better air ventilation are all built into the planning framework.

3.1.19 Distinguished and Attractive Urban Form – Emphasis has been made to create a unique town centre juxtaposed with high-rise office development and unique residential neighbourhood. Traversing the Multi-purpose Stadium Complex and Metro Park, the developments at the Runway will outline a townscape that would be uplifted at the landmark development in the cruise terminal cum tourism node area.

3.1.20 As a whole, the final PODP for Kai Tak is an outcome of a continuous and reiterative process of public participation, planning and design as well as technical studies. This plan, which is the preferred development option, forms the basis of the engineering feasibility study for further development of the RODP.

4 WORKS PROGRAMME

- 4.1.1 The Project construction works are anticipated to commence on site in early 2009, with completion of the project beyond 2020.

5 KEY FINDINGS OF THE ENVIRONMENTAL IMPACT ASSESSMENT

5.1 Air Quality Impact

Construction Phase

- 5.1.1 The major potential air quality impact during the construction phase of the Project will be dust arising from various construction activities including haul road emissions, open site erosion, excavation and filling activities. Civil works related to the demolition of existing structures and construction of infrastructure will also cause dust emissions.
- 5.1.2 The findings of the construction phase air quality assessment indicate that exceedance of the 1-hour and 24-hour average total suspended particulates (TSP) criteria and Air Quality Objectives (AQOs) would not be expected at the air sensitive receivers (ASRs) in the vicinity of the construction sites. In order to ensure compliance with the TSP criteria at the ASRs at all times, the dust suppression measures and requirements of the *Air Pollution Control (Construction Dust) Regulation* should be adhered to during the construction period. In addition, a comprehensive dust monitoring and audit programme is recommended to ensure the effective implementation of dust suppression measures.
- 5.1.3 Biopiling and solidification / stabilization would be conducted at the proposed decontamination works area located at the ex-GFS and Radar Station. As the volume of soil requiring treatment would be small and that carbon absorber with 99% removal efficiency would be installed at the biopile facilities to treat off-gas prior to discharge, adverse air quality impact from the decontamination works is therefore not anticipated.

Operational Phase

- 5.1.4 The pollutant concentrations associated with the vehicular emissions from distributor road, ventilation building emissions from tunnels, portal emissions from proposed Road L1 tunnel and the decked section of Road D2 have been assessed. Air quality impacts due to the vehicular emission during the operational phase are therefore not expected.
- 5.1.5 The operational phase cumulative air quality impacts associated with a number of emission sources including vehicular emissions from road traffic, cruise ship emissions from the proposed cruise terminal at Kai Tak, industrial chimney emissions from San Po Kong, To Kwa Wan and Kwun Tong industrial areas, emission from the planned hospital and the planned heliport at Kai Tak and emission from the nearby typhoon shelters were assessed in the EIA. The assessment results show that the predicted air quality at all the existing and planned residential ASRs would comply with the AQOs.
- 5.1.6 Exceedances of the AQOs are predicted at the middle to upper level of the proposed Tourism Node fronting the proposed cruise terminal at Kai Tak. In order to alleviate the potential air quality impacts on the Tourism Node due to direct impingement of the cruise emissions, it is recommended that the fresh air intakes of the central air-conditioning system of the Tourism Node should be located at lower level (below 40m above ground) with acceptable air quality. With the incorporation of this design measure, adverse air quality impact at the proposed Tourism Node would not be expected. For ASR at Site 3D4 which is an industrial building in the South Apron area under construction, exceedances of the 1-hour average AQO for SO₂ are predicted at its outdoor environment. Since the building will be centrally air-conditioned and the air quality inside the building is predicted to be within AQO, no residual impact is anticipated.
- 5.1.7 The air quality inside the decked section of Road D2 and Road L1 tunnel would comply with EPD in-tunnel air quality standards.
- 5.1.8 Apart from the above potential air quality impacts, odour nuisance associated with the Kai Tak Approach Channel (KTAC) is an existing environmental problem. In order to improve the environment, this Project will take the opportunity to mitigate the potential sources of odour nuisance within the Project area so as to alleviate this existing environmental problem, as well as to provide an acceptable environment for the future land uses within the project area.

- 5.1.9 Mitigation measures have been formulated to alleviate this existing odour problem. These include reconstruction or decking of Kai Tak Nullah (KTN) within the former apron area, full mitigation of the potential odour emissions from the headspace of KTN and Jordan Valley Box Culvert (JVBC) near the existing discharge locations, localised maintenance dredging within KTAC, 600m gap opening at the northern section of the former runway to improve the water circulation in KTAC, and the implementation of in-situ bioremediation to treat the sediment accumulated at KTAC and Kwun Tong Typhoon Shelter (KTTS). With the implementation of these odour mitigation measures, the predicted odour levels in the vicinity of KTAC would be reduced significantly. In other words, this Project will alleviate the existing odour problems in the vicinity of KTAC to a large extent by implementing the proposed mitigation measures. However, some exceedances of the odour criterion are still predicted at some of the ASRs under the worst case conditions. Nevertheless, the residual odour levels are predicted to be very low and adverse health effects on ASRs are not expected. Hence, with the implementation of the proposed odour mitigation measures, adverse odour impact is not expected at the existing and planned ASRs in the vicinity of the Kai Tak Development.
- 5.1.10 Operational odour impacts from sewage pumping stations can be effectively mitigated by fully covered of the odour sources and installation of deodorization system at the exhaust of ventilation system. Adverse odour impact arising from the SPS is not anticipated.

5.2 Noise Impact

Construction Phase

- 5.2.1 This EIA has examined the construction noise impacts of the Project during normal daytime working hours, taking into account other expected concurrent projects. The predicted unmitigated noise levels would range from 45 to 92 dB(A) at the representative noise sensitive receivers (NSRs). With the use of quiet powered mechanical equipment (PME), movable barriers and temporary barriers, the noise levels at most of the NSRs selected for construction noise impact assessment would comply with the construction noise standard.
- 5.2.2 Exceedances of the construction noise standard are predicted at a number of NSRs including Buddhist Chi King Primary School, S.K.H Kowloon Bay Kei Lok Primary School, Cognitio College, Lee Kau Yan Memorial School, Holly Carpenter Primary School, CCC Kei To Secondary School, Po Leung Kuk Ngan Po Ling College, South Mansion, HK Society for Blind hostel, Grand Waterfront, Hang Chien Court and the planned Site 1A1. Some of these affected NSRs are schools and they all have been noise insulated with air conditioners. By keeping the windows closed during the construction activities, noise impacts at the indoor environment of these school NSRs can be avoided. Notwithstanding this, it is recommended that the particularly noisy construction activities should be scheduled to avoid the examination periods of these NSRs as far as practicable.
- 5.2.3 Whilst this impact assessment does indicate some noise exceedances for limited periods of time, as much as practically possible should be done to reduce the construction noise during the actual construction period. Besides, on-going liaison with all concerned parties and site monitoring should also be conducted during the course of the construction period.
- 5.2.4 A construction noise environmental monitoring and audit (EM&A) programme is recommended to check the compliance of the noise criteria during normal daytime working hours.

Operational Phase

- 5.2.5 The potential road traffic noise impacts have been assessed based on the worst case traffic flows in 2031. Without any noise mitigation measures in place, the predicted noise levels at the NSRs would range from 42 to 87 dB(A). Practicable traffic noise mitigation measures are therefore formulated for the planned NSRs with predicted noise levels exceeding the EIAO-TM traffic noise criteria.
- 5.2.6 Mitigation measures in the form of structure fins, low noise surfacing, special building design and building setback are proposed to mitigate the traffic noise impacts at Sites 1B1, 1I1, 1L2, 1L3, 2B6 & 5A4 and ex-San Po Kong Flatted Factory. The potential traffic noise impact at these sites are contributed by both existing and 'New' roads. With the proposed noise mitigation measures, the predicted overall noise levels at these NSRs would comply with the noise criterion.
- 5.2.7 For those noise sensitive uses located within the planned commercial site, it is recommended that the noise sensitive uses should either be located away from the traffic-noise affecting facades of the site or, as the last resort, the sensitive uses should be noise insulated with air-conditioners to avoid unacceptable traffic noise impacts from the surrounding road network.
- 5.2.8 For school sites 1A2, 1A3, 1A4, 1B2, 1B3 & 1B4, the layout of these planned schools should be arranged in a way to avoid the sensitive facades of the classrooms facing Roads L2, L3 and L4, or as the last resort all the classrooms should be noise insulated with air-conditioners to avoid unacceptable traffic noise impacts from the surrounding road network.
- 5.2.9 For those affected existing NSRs, the 'New' road noise contributions to the overall noise levels would be less than 1.0 dB(A) and the 'New' road noise levels would all be below the relevant noise criteria, although the overall noise levels would still exceed the relevant noise criteria. However, it should be noted that such noise exceedances at the representative NSRs are due to the existing roads. Hence, direct mitigation measures on 'New' roads are not required as they would not be effective in improving the noise environment at the sensitive receivers.
- 5.2.10 Operational noise impacts from fixed plant noise can be effectively mitigated by implementing noise control treatment at source during the design stage and residual operational noise impacts are not anticipated. The need for noise measurement during commissioning of fixed noise sources should be included in the Contract Document.
- 5.2.11 Noise impacts from Open Air Entertainment Activities, namely those at the proposed Main Stadium, can be effectively mitigated by installation of retractable roof or the stadium could consider a fixed roof design. The noise impact due to the activities to be held in the Main Stadium is not likely to be significant.
- 5.2.12 The distance between the proposed helipad and the nearest planned residential NSR at Site 4B5 is about 700 m with an estimated L_{max} level of 80dB(A) at this NSR. Therefore, it is considered that the proposed helipad locations would comply with the helicopter noise criteria at the nearest NSRs and adverse helicopter noise impact would not be anticipated.
- 5.2.13 With the implementation of practicable noise mitigation measures and a buffer distance of not less than 10m between the proposed Environmental Friendly Transportation Link (EFTS) (if decided to be a railway form in the future) and the nearby NSRs, adverse rail noise impacts at the NSRs would not be anticipated. Example of practicable noise mitigation measures including those adopted in Ma On San (MOS) Rail namely the use of multi-plenum system and vertical noise barrier at the all elevated sections of the alignment on viaduct.

- 5.2.14 The operation activities of the marine traffic noise (include noise from typhoon shelters) may vary with the composition and type of the vessels. The potential noise impact is likely coming from the engine noise and operation activities of individual vessel in operation. It is similar to noise from public place which vessels are free to move around and implementation control measures are not possible. Nevertheless, given the large separation distance between the typhoon shelters and the nearby NSRs, the noise level from the marine traffic noise (include noise from typhoon shelters) at the NSRs would be minimal.

5.3 Water Quality Impact

Construction Phase

Marine-based Impact

- 5.3.1 The cumulative water quality impact from the marine construction works proposed under KTD has been assessed under the approved EIA for Dredging Works for Proposed Cruise Terminal at Kai Tak (EIAO Register No. AEIAR-115/2007). Suspended sediment is identified as the most significant water quality parameter during the marine works. However, the water quality impacts could be effectively minimized with the implementation of the proposed mitigation measures including deployment of silt curtains at appropriate dredging areas, and installation of silt screens at selected seawater intakes. There would be no unacceptable residual water quality impact due to the proposed marine works. An environmental monitoring and audit programme is required to ensure the effectiveness of the proposed water quality mitigation measures.

Land-based Impact

- 5.3.2 Water quality impacts from land-based construction, including road works, waterfront facilities and public utilities, are associated with the surface runoff, effluent discharge from the site, and sewage from on-site construction workers. Impacts can be controlled to comply with the Water Pollution Control Ordinance (WPCO) standards by implementing the recommended mitigation measures including those stipulated in EPD's *Practice Note for Professional Persons, Construction Site Drainage* (ProPECC PN1/94). No unacceptable residual impacts on water quality are anticipated.

Sediment Treatment

- 5.3.3 No unacceptable impact would be expected from the proposed *in-situ* bioremediation for the sediment accumulated in KTAC and KTTS to mitigate odour nuisance. Water quality monitoring and audit is recommended to be carried out during and after the treatment operation to ensure that the proposed sediment treatment work would not result in unacceptable water quality impact.

Operational Phase

Use of KTAC and KTTS as an Area of General Amenity Value

- 5.3.4 No unacceptable water quality impact is predicted for the proposed general amenity use at KTAC and KTTS provided that a 600 m wide opening will be provided at the northern end of the runway (north of taxiway bridge) to improve the water circulation and flushing effect at KTAC and KTTS. Cleansing contractor will provide scavenging service (floating refuse) in the accessible water area surrounding the ex-Kai Tak Airport runway. The assessment results also indicated that the proposed 600 m opening at the runway would not adversely affect the overall water quality impact in the Victoria Harbour and its adjacent water. No further water quality mitigation is considered necessary. A water quality monitoring and audit programme will be implemented before and after opening a 600 m gap at the runway to ascertain the runway opening would not result in unacceptable impact marine water quality as well as the WSD flushing water intakes and to confirm the water quality impacts predicted under operational phase of the Project. An algal bloom / red tide monitoring programme and action plan will also be implemented to ascertain the runway opening and bioremediation for the sediment at KTAC and KTTS would not result in unacceptable impact.

Overflow Bypass of Proposed Sewage Pumping Stations at Kai Tak

- 5.3.5 Provision of standby pumping facilities and dual power supply would minimize the occurrence of emergency discharge event. With the implementation of suitable design measure, there would not be any insurmountable water quality impacts associated with the operation of the proposed sewage pumping stations at Kai Tak.

Spent Cooling Water Discharge

- 5.3.6 The thermal impact from the DCS discharge on the harbour water is predicted to be localized and minor as the general flushing capacity in Victoria Harbour is high. As the chlorine would be subject to decay, the impact from any residual chlorine discharge from the DCS is also predicted to be localized and confined in area close to the outfall. No unacceptable water quality impacts are expected from the DCS.

Road Runoff

- 5.3.7 Surface runoff from new roads proposed under this Project may be contaminated by oils leaked from passing vehicles. It is considered that impacts upon water quality will be acceptable provided that the road works are designed with adequate drainage systems and appropriate oil interceptors, as required.

5.4 Waste Management Implications

- 5.4.1 Wastes generated by the Project are likely to include dredged marine sediment from marine works and construction and demolition (C&D) material generated from 600m runway opening, site formation and various civil works for the construction of buildings and infrastructure within the Project boundary, as well as general refuse from the workforce and chemical waste from the maintenance of construction plant and equipment and from the soil remediation process. During operational phase of the Project, the major solid wastes are municipal wastes generated from different land uses within the development.

- 5.4.2 The total volume of dredged sediment generated from the dredging of the seabed to provide the manoeuvring basin for the cruise terminal is estimated to be approximately 1.38 Mm³ during construction phase. Based on the results of the chemical and biological screening, approximately 430,000 m³ was classified as contaminated dredged sediment (Category M and H) requiring Type 1 – Open Sea Disposal (Dedicated Sites) or Type 2 - Confined Marine Disposal, and approximately 950,000 m³ was classified as Category L sediment suitable for Type 1 - Open Sea Disposal in accordance with ETWB TCW No. 34/2002.

- 5.4.3 The total volume of dredged sediment generated from maintenance dredging for the cruise terminal is estimated to be approximately 350,000 m³ every 5 to 10 years. Prior to any maintenance dredging, sediment sampling and testing will be carried out in accordance with the ETWB TCW No. 34/2002 to determine the contamination level of the dredged sediment.
- 5.4.4 The total volume of dredged sediment generated from 600m runway opening, localized maintenance dredging at KTAC, and immersed tunnel sections of Road T2 and Central Kowloon Route (CKR) are estimated to be approximately 3,200m³, 120,000m³ and 2,260,000 m³ respectively which are subject to the actual construction method to be adopted. With reference to the sediment chemical testing results presented in the SEKDCFS EIA for locations around the proposed dredging areas, the dredged sediment is likely to be highly contaminated and classified as Category H materials, that would require confined marine disposal (Type 2 contaminated sediment) and special treatment (Type 3 contaminated sediment) according to the future sediment biological testing responsible by the contractor prior to disposal. The contaminated sediment must be dredged and transported with great care in accordance with ETWB TCW No. 34/2002. Subject to the final allocation of the disposal sites by Marine Fill Committee, the dredged contaminated sediment must be effectively isolated from the environment and disposed properly at the designated disposal site.
- 5.4.5 The total volume of dredged sediment generated from the existing seawall to be re-constructed for the proposed public landing step cum fireboat berth is estimated to be approximately 600m³. From the results of recent site investigation around the proposed marine works area, the dredged sediment is likely to be classified as Category L material. The materials must be dredged, transported and disposed of in a manner, which minimizes the loss of contaminants either into solution or by resuspension.
- 5.4.6 The total volume of C&D material generated from the major construction activities of the Project are estimated to be approximately 5,946,000 m³ and 2,728,200 m³ is estimated to be reused during construction phase. The inert materials would be re-used on-site or in other projects as far as possible and delivered to the public fill reception facilities or other designated sites as advised by the Secretary of Public Fill Committee as the last resort. Other wastes generated from the Project are likely to include chemical waste from the maintenance of construction plant and equipment and general refuse from the construction workforce.
- 5.4.7 Mitigation measures are recommended in this EIA to minimise potential environmental impacts associated with handling and disposal of different wastes arising from the Project. Provided that the recommended mitigation measures are properly followed, adverse environmental impacts would not be expected from the Project.

5.5 Land Contamination

- 5.5.1 The former Kai Tak Airport site is identified as a potential contaminated area. Based on the findings of the approved EIA Report for Kai Tak Airport North Apron Decommissioning (EIAO Register No.: AEIAR-002/1998), land contamination identified in the North Apron area had already been cleaned up. Besides, in accordance with the approved EIA Report for Decommissioning of the former Kai Tak Airport other than the North Apron (EIAO Register No.: AEIAR-114/2007), no land contamination was identified in the Runway area and the land contamination identified near the Kai Tak Tunnel, South Apron and the ex-Government Flying Service (GFS) apron area were found relatively confined and localized. Soils with elevated concentration of semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), metals and free product (observed at ex-GFS apron area only) would be remediated according to the approved EIA Report.
- 5.5.2 For areas surrounding the KTD, various existing industrial activities in the Ma Tau Kok, Kowloon Bay and Kwun Tong areas are identified with potential land contamination issues. It is recommended that the future developers of those identified land contamination hotspots should carry out detailed land contamination investigations prior to any redevelopment. If land contamination is confirmed, proper remedial measures should be formulated and implemented prior to the redevelopment of the respective site.
- 5.5.3 For the remaining sites within the former Kai Tak Airport yet to be decommissioned including the ex-GFS building and the Radar Station in the South Apron area, and the Hong Kong Aviation Club (HKAC) and the Electrical and Mechanical Services Department (EMSD) Headquarters in the North Apron area, the potential land contamination concern may be mainly arisen from (1) hangar area, (2) fuel storage and injection facilities, (3) dangerous goods and waste chemical storage, (4) generator, transformer and battery rooms and (5) plant and equipment storage. Meanwhile, the site of EMSD Headquarters is currently occupied by EMSD for the operation as headquarter. This use will continue for the near future and no decommissioning programme is anticipated at the moment.
- 5.5.4 Land contamination assessments have been conducted for the ex-GFS building, Radar Station and HKAC area. The assessment results indicated no contamination at the Radar Station and HKAC area while some areas of the ex-GFS building were identified to be contaminated with heavy metals, TPH or SVOCs including Phenanthrene, Benzo(a)pyrene, Fluoranthene and Pyrene. The volumes of soil contaminated by different types of contaminants at the ex-GFS building are estimated to be (i) 316.8 m³ of heavy metal contaminated soils and (ii) 72 m³ of TPH/SVOCs contamination soils.
- 5.5.5 The proposed implementation options for heavy metal and organic contaminated soil are solidification / stabilization and biopiling respectively. During remediation, the contaminated soils should be excavated from the excavation zones and then transported to preferably a centralized decontamination works area on site for treatment by biopiling or solidification / stabilization.
- 5.5.6 Various environmental mitigation measures and health and safety measures have been proposed for the decontamination activities. With the incorporation of these measures during excavation and operation of the remediation system, as well as the provision of safety measures to site workers, no residual impact arising from land contamination would be expected.

5.6 Hazard to Life

- 5.6.1 Based on the results of the Quantitative Risk Assessments (QRAs) for the operations of the Mau Tau Kok Gas Works North Plant (MTKGWWNP) and its associated facilities, the Kwun Tong DG Vehicular Ferry Pier (DGVFP), and the Kerry DG Godown, the risk levels at the assessment year of 2012, 2016 and 2021 to the future occupants of the Project are considered to be in compliance with the risk guidelines and no adverse impact is expected.
- 5.6.2 With regards to the existing petrol cum LPG filling stations / dedicated LPG filling stations in the proximity of the KTD, the results of the QRAs indicated that the risk levels at the assessment year of 2012, 2016 and 2021 to the future occupants of the Project are also considered to be in compliance with the risk guidelines.

5.7 Cultural Heritage

- 5.7.1 A desk-based study and a built heritage field survey have been conducted and revealed several heritage resources associated with the former Kai Tak Airport, which include two wind poles, the airport pier, Fire Station A, Fire Station B (and associated pier), Fire Station C, seawall and the runway, the Old Far East Flying Training School, Sung Wong Toi Inscription Rock, Fish Tail Rock, and Kowloon Rock. The heritage significance of the Old Far East Flying Training School and Fish Tail Rock are moderate. The heritage significance of the Sung Wong Toi Inscription Rock is high. The heritage significance of the other examined heritage resources are low. No mitigation is required for the examined heritage resources except appropriate protective measures for the structures within the site of Old Far East Flying Training School during any laying of services in its vicinity and protective measures for the Sung Wong Toi Inscription Rock in case of relocation.
- 5.7.2 The KTD will directly impact on the archaeological sites and areas of archaeological potential in the North Apron area of the former Kai Tak Airport. Archaeological investigation has been undertaken in this EIA. The remains of the Longjin Pier and sherds from Sung Dynasty were recovered at two locations in the North Apron area. Further archaeological investigation and rescue excavation will be undertaken at the location with sherds from Sung Dynasty. Whereas for Longjin Pier, it is recommended to preserve the Longjin Pier *in-situ* as part of the KTD after the completion of further archaeological investigation.
- 5.7.3 Marine archaeological resources may be impacted during the proposed dredging works for KTD and it has been recommended that monitoring of the dredged material be undertaken as outlined in the EIA report. With the implementation of the above stated measures, no significant impacts to cultural heritage resources are anticipated.

5.8 Landscape and Visual Impact

- 5.8.1 The scale of Kai Tak Development, particularly in a waterfront location, will inevitably result in some landscape and visual impacts. These have been minimized through careful consideration of the layout plans for the development incorporate design mitigation measures such as creation of sub-districts, creation of new open space framework, creation of visual connections and breezeways, retention of views to ridgelines at strategic locations, preservation of Victoria Harbour, preservation of cultural and heritage assets, aesthetic design of roads and streetscapes and provision of compensatory planting proposals in the development. It is considered that the overall KTD is appropriate to the planned context of the area and in the long term with beneficial landscape impact.
- 5.8.2 Based on a very broad brush estimate, approximate 2,250 existing trees will be affected by Kai Tak Development, of which approximately 1,363 no. of trees will be felled and 887 no. of trees will be transplanted. Approximate 5,000 nos. of trees will be planted within new open spaces and approximate 1,000 nos. of trees will be planted for new distributor roads to compensate for the loss of existing trees. The overall residual impact on trees is considered acceptable with mitigation measures and in the longer term beneficial.
- 5.8.3 A series of interconnected open space system that accommodate a number of leisure, recreation and civic activities are proposed in the development layout. A total of approximately 89.5 ha of open space will be provided within the development to compensate loss of approximately 1.4ha within the adjacent districts. Key major open space provided include Metro Park, Station Square, Sung Wong Toi Park, Runway Park, North Apron District Park, Hoi Sham Park, Kowloon Bay Square, Cha Kwo Ling Park and Kwun Tong Plaza. These open spaces are well connected within the development and to the adjacent surrounding districts. The overall residual impact on open space system is considered acceptable with mitigation measures.
- 5.8.4 A new urban waterfront will be created under the Kai Tak Development. The overall landscape character of the area will be dramatically changed from a flat open area with various temporary uses to a high-rise contemporary development with sports and entertainment nodes. The overall residual impact on LCAs within and adjacent to the KTD and is considered some beneficial in the long term with all soft landscape elements proposed in new parks, waterfront promenade and amenity areas become mature.
- 5.8.5 The scale and the extent of high-rise development is likely to significantly alter the visual context of area, particularly due to partially or fully loss of open sea view, enclosure and blocking or reduction of depth of current view. There will unavoidably be moderate to substantial residual impact on the residential VSRs at high rise buildings in To Kwa Wan, Kowloon City and Kowloon Bay and Kwun Tong. However, under the KTD, there will be new open spaces and visual resources. These visual resources will bring beneficial visual impact to the adjacent VSRs.
- 5.8.6 Overall, the landscape and visual impacts due to the Kai Tak Development are considered to be acceptable with the implementation of the appropriate mitigation measures (including incorporation of all design measures in the layout plan) and in the long term be beneficial in respect of landscape and visual impacts..

5.9 Ecology

Terrestrial Ecology

- 5.9.1 Literature review and recent reconnaissance surveys identified five habitat types within the Assessment Areas of this Project, including developed area, wasteland, plantation / grassland mosaic, watercourse and artificial coastline. Considering their highly artificial and disturbed nature, all the identified habitats are considered of very low to low in ecological values.
- 5.9.2 No area of conservation importance is located within the Assessment Area. However, nine bird species of conservation importance, including Little Egret, Great Egret, Cattle Egret, Grey Heron, Black-crowned Night Heron, Chinese Pond Heron, Great Cormorant, Black Kite and Greater Coucal were recorded in the Assessment Areas during the recent surveys. All the recorded species of conservation importance are common and widespread in Hong Kong.
- 5.9.3 Permanent loss of 202.7 ha of wasteland, 15.8 ha of plantation / grassland mosaic and 0.7 km artificial coastline in the former Kai Tak Airport would be resulted under the Project. These habitats were ranked as very low to low in ecological values and supported floral and faunal communities of low diversity with common and widespread species. In addition, provision of about 127 ha open space area, including a 24 ha Metro Park, with planting of native tree and vegetation species after the construction of the Project would provide more diverse and suitable habitats for the uses of existing fauna assemblages. The impact of habitat loss under this Project is therefore considered as very minor in nature.
- 5.9.4 Other impact of the Project would be the removal of about 2250 existing trees within the Project area. However, as all of the affected trees are common and widespread species of low ecological importance, potential impact to the vegetation was considered low. No protected species or other flora of conservation importance would be affected under this Project. To mitigate such impact, it is recommended that, as far as possible, compensatory planting should be provided in a ratio of not less than 1:1 in terms of quality and quantity after the construction works.
- 5.9.5 Other potential impacts arising from the Project would be mostly temporary and recovered after the completion of the Project. Overall, no significant and unacceptable impact on terrestrial ecological resources would be expected under this Project.

Marine Ecology

- 5.9.6 Literature reviews of existing information with supplement findings from recent field surveys indicated that identified marine habitats within the Project area are of generally very low ecological value. There are no ecological sensitive receivers, such as Sites of Specific Scientific Interest (SSSIs), Fish Culture Zones and Marine Parks and / or Reserves and other areas of ecological importance or conservation interest, in and within the immediate vicinity of the Project area.
- 5.9.7 Marine habitats within the Project area include soft bottom seabed, artificial seawalls and subtidal habitats. All the identified habitats are considered to have a generally very low ecological value due to their highly artificial and disturbed nature. Species diversity and abundance in these habitats were low and no rare or restricted species was recorded. The species of conservation importance recorded within the Project area only include a single species of common hard coral (*Oulastrea crispata*) (but all colonies found are small in size, sparsely distributed and in very low coverage). All these species of conservation importance recorded within the Project area are common and widespread in other Hong Kong waters.

- 5.9.8 Direct and indirect ecological impacts arising from the Project were identified and evaluated. The Project will result in the temporary loss of approximately 74.4 hectares of soft bottom benthic and subtidal habitats, temporary loss of about 1.6 km long of artificial intertidal habitat and permanent loss of about 0.7 km long of artificial intertidal habitat. Considering that the benthic and intertidal habitats within the proposed marine works areas are of very low ecological value and direct impact on some isolated coral colonies would largely be mitigated by translocation, no significant adverse impact is expected.
- 5.9.9 Other indirect impacts arising from the Project would be temporary and minimised with implementation of proper mitigation measures. Overall, no significant and unacceptable ecological impact on marine resource is anticipated in this assessment.

5.10 Fisheries

- 5.10.1 Literature reviews of existing information indicated that identified fishing area in Kowloon Bay, eastern Victoria Harbour and KTTS are of moderate to high fisheries values while that in To Kwa Wan Typhoon Shelter and KTAC are of relatively low value. There are no fish culture zones (FCZs) and important spawning or nursery grounds identified in and within the immediate vicinity of the Project area. The nearest mariculture areas are FCZs at Tung Lung Chau and Ma Wan which are 8 km and over 10 km away, respectively, of the Project area.
- 5.10.2 Direct and indirect impacts on fisheries resources arising from the Project were identified and evaluated. The Project will result in the temporary loss of approximately 74.4 hectares of fishing area due to dredging works associated with the Project. In view of the small size of affected areas, temporary and insignificant loss of fisheries production and low impact on fishing activities, fisheries impacts due to loss of fishing area within the dredging areas is considered as minor and acceptable.
- 5.10.3 Indirect impacts of change of water quality arising from the Project would be temporary and insignificant based on the predictions from water quality modelling. Mitigation measures suggested in the water quality impact assessment to control water quality would also serve to protect fisheries resources from indirect impacts. No significant adverse impact on fisheries resources would be expected from the Project and therefore no necessary fisheries-specific mitigation measures would be required. No cumulative impacts on fisheries resources are expected.
- 5.10.4 No operational phase impacts on fisheries resources are expected to result from operation of the Project as fishing activity will not be restricted in the sea area (turning area) off the proposed cruise terminal and public landing steps cum fireboat berth. If cruise ships or other vessels are manoeuvring in these areas, then they would not be accessible to fishing vessels but this is no different from the other areas of the harbour where other vessel traffic would impose similar restriction on fishing activities. No permanent impact is expected. Additionally, all construction works would take place within the existing land limits of the Kai Tak Development site and no structures would extend beyond these land limits. Thus, no loss of fishing ground is expected to result from operation of the Project.

5.11 Sewerage and Sewage Treatment Implications

- 5.11.1 The sewage generated from northwest portion of KTD will be conveyed to the existing To Kwa Wan Preliminary Treatment Works (TKWPTW); while the sewage generated from the southeast portion of KTD will be conveyed to the existing Kwun Tong Preliminary Treatment Works (KTPTW) via the trunk sewers along Hoi Bun Road and Kai Tak Intermediate Pumping Station (KTIPS). The sewage flows from KTD will eventually be collected by the existing HATS conveyance tunnels to Stonecutters Island Sewage Treatment Works (SCISTW).
- 5.11.2 Hydraulic analysis has been conducted to assess the hydraulic capacities of the trunk sewers along Hoi Bun Road, KTIPS, KTPTW, TKWPTW and HATS conveyance tunnels. The assessment results reveal that the above-mentioned existing sewerage facilities are able to handle the additional sewage flows from KTD for Year 2016 Scenario in general.
- 5.11.3 For the long-term impact, Year 2030 and Ultimate Scenarios are used and the assessment results show that the capacity of KTPTW would be exceeded only because of the potential population increase in KTPTW catchments in 2030 and beyond. It is understood that the project of investigation for the upgrading of Kwun Tong Preliminary Treatment Works by EPD will commence in June/July 2008 and will last for 17 months. The details of the upgrading of KTPTW will be determined under that project.
- 5.11.4 Since no adverse sewerage impact due to KTD is identified, no proposed mitigation measures nor upgrading works on the existing sewerage system are required based on the sewage flow estimated from the latest population data.

5.12 Environmental Monitoring and Audit

- 5.12.1 Environmental monitoring and audit (EM&A) requirements for the Project have been specified in an EM&A Manual. The EM&A Manual contains details of proposed baseline and compliance monitoring programmes, implementation schedule of the environmental protection / mitigation measures, EM&A reporting procedures and complaint handling procedures.

5.13 Environmental Outcomes

- 5.13.1 A summary of the environmental impacts associated with the Project is given in **Table 5.1**.

Table 5.1 Summary of Environmental Impacts Associated with the Project

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Air Quality Impact					
Construction Phase					
85 assessment points	Cumulative 1-hour Average TSP Conc.: 152-481 $\mu\text{g}/\text{m}^3$ Cumulative 24-hour Average TSP Conc.: 100-220 $\mu\text{g}/\text{m}^3$	EIAO-TM and Air Quality Objective 1-hour Average TSP Conc.: 500 $\mu\text{g}/\text{m}^3$ 24-hour Average TSP Conc.: 260 $\mu\text{g}/\text{m}^3$	Nil	Eight times daily watering with complete coverage of active dust emitting area(s) or other alternative equivalent effective dust suppression measures. Requirements of the Air Pollution Control (Construction Dust) Regulation The following mitigation measures, good site practices and a comprehensive dust monitoring and audit programme are recommended to minimise cumulative dust impacts. <ul style="list-style-type: none"> • Stockpiling site(s) should be lined with impermeable sheeting and banded. Stockpiles should be fully covered by impermeable sheeting to reduce dust emission. • Misting for the dusty material should be carried out before being loaded into the vehicle. • Any vehicle with an open load carrying area should have properly fitted side and tail boards. • Material having the potential to create dust should not be loaded from a level higher than the side and tail boards and should be dampened and covered by a clean tarpaulin. • The tarpaulin should be properly secured and should extend at least 300 mm over the edges of the sides and tailboards. The material should also be dampened if necessary before transportation. • The vehicles should be restricted to maximum speed of 10 km per hour and confined haulage and delivery vehicle to designated roadways insider the site. On-site unpaved roads should be compacted and kept free of lose materials. 	Nil

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
				<ul style="list-style-type: none"> • Vehicle washing facilities should be provided at every vehicle exit point. • The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores. • Every main haul road should be scaled with concrete and kept clear of dusty materials or sprayed with water so as to maintain the entire road surface wet. • Every stock of more than 20 bags of cement should be covered entirely by impervious sheeting placed in an area sheltered on the top and the three sides. • Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites. 	
Construction Phase (Decommissioning works)					
9 assessment points	No adverse construction dust impacts arising from demolition works, excavation works, transportation, loading and unloading of contaminated soils, and mixing process in solidification expected at the representative ASRs	EIAO-TM and Air Quality Objective 1-hour Average TSP Conc.: 500 µg/m ³ 24-hour Average TSP Conc.: 260 µg/m ³	Not Applicable	Eight times daily watering with complete coverage of active dust emitting area(s) or other alternative equivalent effective dust suppression measures. Requirements of the Air Pollution Control (Construction Dust) Regulation The following mitigation measures, good site practices and a comprehensive dust monitoring and audit programme are recommended to minimise cumulative dust impacts. <ul style="list-style-type: none"> • Stockpiling site(s) should be lined with impermeable sheeting and bunded. Stockpiles should be fully covered by impermeable sheeting to reduce dust emission. • Misting for the dusty material should be carried out before being loaded into the vehicle. 	Nil

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
				<ul style="list-style-type: none"> • Any vehicle with an open load carrying area should have properly fitted side and tail boards. • Material having the potential to create dust should not be loaded from a level higher than the side and tail boards and should be dampened and covered by a clean tarpaulin. • The tarpaulin should be properly secured and should extent at least 300 mm over the edges of the sides and tailboards. The material should also be dampened if necessary before transportation. • The vehicles should be restricted to maximum speed of 10 km per hour and confined haulage and delivery vehicle to designated roadways insider the site. On-site unpaved roads should be compacted and kept free of lose materials. • Vehicle washing facilities should be provided at every vehicle exit point. • The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores. • Every main haul road should be scaled with concrete and kept clear of dusty materials or sprayed with water so as to maintain the entire road surface wet. • Every stock of more than 20 bags of cement should be covered entirely by impervious sheeting placed in an area sheltered on the top and the three sides. • Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites. 	

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
				<p><u>Solidification</u></p> <ul style="list-style-type: none"> • The solidification pit/area should be provided with dust suppression measures. • Handling and mixing of cement shall follow Air Pollution Control (Construction Dust) Regulation to limit cement emission. • The bin should be covered during residence period after mixing process. <p><u>Biopiling</u></p> <ul style="list-style-type: none"> • During the course of biopile formation, the stockpiled soils at the biopiles should be covered by tarpaulin or low permeable sheet to avoid fugitive emissions of dust or any air pollutants from the biopiles affecting the surrounding environment and to minimise runoff from the stockpiled soils. Biopile(s) should be covered by impermeable sheeting (such that no longer than 5m of a biopile should be exposed to open air) to avoid fugitive emissions of dust or any pollutants from the biopile(s). • Upon formation of a biopile, the biopile should be covered by low permeable geotextiles to prevent dust emission and runoff. • During the operation of biopile, the biopiles should be fully covered to control the extraction of VOCs. 	

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
				<ul style="list-style-type: none"> The vented air from the biopile(s) should be connected to blower and carbon adsorption system with 99% control efficiency for treatment before release to the atmosphere. Exhaust air from the blower and carbon adsorption system should be monitored for TVOC bi-weekly to check the performance of the carbon filter. The frequency of monitoring might be adjusted subject to review on site. The location of the exhaust of the carbon filter should be sited as far away as possible from the nearby ASRs. Spent activated carbon of the carbon adsorption system should be replaced at appropriate intervals such that the TVOC emission concentration from the system is acceptable (i.e. the measured TVOC concentration is below 20ppm). 	
Operational Phase (Vehicular Emission)					
175 assessment points	1-hour Average NO ₂ Conc.: 72 - 190 µg/m ³ 24-hour Average NO ₂ Conc.: 68 - 106µg/m ³ 24-hour Average RSP Conc.: 57-70µg/m ³	Air Quality Objective 1-hour Average NO ₂ Conc.: 300 µg/m ³ 24-hour Average NO ₂ Conc.: 150µg/m ³ 24-hour Average RSP Conc.: 180µg/m ³	Nil	Not Applicable	Nil
Air quality inside deckover for planned landscape deck for Road D2 and Road L1 tunnel.	Achieve EPD recommended standard of 1 ppm NO ₂ concentration	EPD Tunnel Air Quality Guidelines 1 ppm NO ₂ concentration	Nil	Not Applicable	Nil
Operational Phase (Sewage Pumping Stations)					
139 assessment points	No adverse odour impacts arising sewage pumping stations	EIAO-TM Meet 5 odour units based on an averaging time of 5 seconds for odour prediction assessment.	Nil	Provision of deodorization system and odour sources being enclosed.	Nil

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Operational Phase (Cumulative)					
175 assessment points	Cumulative 1-hour Average NO ₂ Conc.: 114-835 µg/m ³ Cumulative 24-hour Average NO ₂ Conc.: 77 -384µg/m ³ Cumulative 1-hour Average SO ₂ Conc.: 125-4075µg/m ³ Cumulative 24-hour Average SO ₂ Conc.: 52-1698µg/m ³ Cumulative 24-hour Average RSP Conc.: 61-229µg/m ³	Air Quality Objective 1-hour Average NO ₂ Conc.: 300 µg/m ³ 24-hour Average NO ₂ Conc.: 150µg/m ³ 1-hour Average SO ₂ Conc.: 800µg/m ³ 24-hour Average SO ₂ Conc.: 350µg/m ³ 24-hour Average RSP Conc.: 180µg/m ³	Exceed 1-hour Average NO ₂ Conc. by up to 535 µg/m ³ Exceed 24-hour Average NO ₂ Conc. by up to 234µg/m ³ Exceed 1-hour Average SO ₂ Conc. by up to 3274µg/m ³ Exceed 24-hour Average SO ₂ Conc. by up to 1348µg/m ³ Exceed 24-hour Average RSP Conc. by up to 49µg/m ³	The only affected planned ASR is the proposed Tourism Node and would be provided with central air conditioning, no adverse air quality impact would be expected with the provision of appropriate fresh air intake locations for this ASR.	Nil
42 assessment points	The predicted odour concentrations range from 1.9 to 32.2 ou/m ³ over averaging time of 5 seconds under worst case condition.	EIAO-TM Meet 5 odour units based on an averaging time of 5 seconds for odour prediction assessment.	Exceed the odour criterion up to 27 ou/m ³	Odour nuisance associated with the KTAC and the KTN is an existing environmental problem. In order to improve the environment, this Project will take the opportunity to mitigate the potential sources of odour nuisance within the Project area so as to alleviate this existing environmental problem, as well as to provide an acceptable environment for the future land uses within the project area. Mitigation measures have been formulated to alleviate this existing odour problem. These include reconstruction or decking of KTN within the former apron area, full mitigation of the potential odour emissions from the headspace of KTN and JVBC near the existing discharge locations, localised maintenance dredging within KTAC, 600m gap opening at the northern section of the former runway to improve the water circulation in KTAC, and the implementation of in-situ bioremediation to treat the sediment accumulated at KTAC and KTTS.	Residual odour impact is predicted at the planned ASRs. Nevertheless, the residual odour levels are predicted to be very low and no adverse health effect on human is expected. Hence, with the implementation of the proposed odour mitigation measures, adverse odour impact is not expected at the existing and planned ASRs in the vicinity of the Kai Tak Development.

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Noise Impact					
Construction Phase					
36 assessment points	Predicted noise levels would be in the range of 45 to 92 dB(A)	Domestic premises: 75dB(A) Educational institutions: 70 dB (A) during normal teaching periods & 65 dB(A) during examinations	Domestic premises: Exceed the noise standard by up to 16dB(A). Educational institutions: Exceed the noise standard by 19 dB(A) during normal teaching period and up to 24dB(A) during examination period.	Use of quiet equipment and movable/temporary noise barriers grouping to minimise construction noise impact	For N4 (Buddhist Chi King Primary School), the predicted noise level would exceed the noise standard of 65 dB(A) by up to 3 dB(A) during examination periods from Jul 2010 to Dec 2015. For N5 (S.K.H Kowloon Bay Kei Lok Primary School), the predicted noise level would exceed the noise standard of 65 dB(A) by up to 5 dB(A) during examination periods from Jul 2010 to Dec 2015. For N11 (Cognitio College), the predicted noise level would exceed the noise standard of 65 dB(A) by up to 10 dB(A) during examination periods from Sept 2009 to Apr 2010 and Jul 2010 to Dec 2015. The noise level also exceed the noise standard of 70dB(A) by up to 5 dB(A) during normal teaching period from Jul 2010 to Dec 2015. For N13 (Lee Kau Yan Memorial School), the predicted noise level would exceed the noise standard of 65 dB(A) by up to 9 dB(A) during examination periods from Sept 2009 to Apr 2010 and Jul 2010 to Dec 2015. The noise level also exceed the noise standard of 70dB(A) by up to 4 dB(A) during normal teaching period from Jul 2010 to Dec 2015.

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
					<p>For N23 (Holly Carpenter Primary School), the predicted noise level would exceed the noise standard of 20 dB(A) by up to 15 dB(A) during examination periods from Jan 2008 to Dec 2016. The noise level also exceed the noise standard of 70dB(A) by up to 4 dB(A) during normal teaching period from Jan 2015 to Dec 2016.</p> <p>For N27 (CCC Kei To Secondary School), the predicted noise level would exceed the noise standard of 65 dB(A) by up to 3 dB(A) during examination periods from Jan 2015 to Dec 2016.</p> <p>For N28 (Po Leung Kuk Ngan Po Ling College), the predicted noise level would exceed the noise standard of 65 dB(A) by up to 5 dB(A) during examination periods from Jan 2012 to Dec 2016.</p> <p>For N14 (South Mansion), the predicted noise level would exceed the noise standard of 75 dB(A) by up to 2 dB(A) from Jan 2015 to Dec 2015.</p> <p>For N18 (HK Society for Blind hostel), the predicted noise level would exceed the noise standard of 75 dB(A) by up to 1 dB(A) from Jan 2015 to July 2015.</p> <p>For N20B (Grand Waterfront), the predicted noise level would exceed the noise standard of 75 dB(A) by up to 3 dB(A) from Jan 2012 to Dec 2016.</p> <p>For N21 (Hang Chien Court), the predicted noise level would exceed the noise standard of 75 dB(A) by up to 3 dB(A) from Jan 2012 to Dec 2016</p>

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
					For PN2 (Site 1A1 (Planned)), the predicted noise level would exceed the noise standard of 75 dB(A) by up to 11 dB(A) from Oct 2012 to Dec 2015.
Operational Phase (Traffic Noise)					
158 assessment points	L ₁₀ : 42 to 87 dB(A)	Domestic premises: 70 dB(A) Educational institutions and all others where unaided voice communication is required: 65dB(A)	Domestic premises: Exceed the noise standard by up to 17dB(A). Education institution: Exceed the noise standard by up to 22dB(A)	Low noise surfacing at (i) Road L2 (ii) Road L3 (for through road option) (iii) Road L4 Building setback about 5m at site 111, 5m at 1L2 & 35m at 1L3. Building setback at site 2B6 and no openable window facing to the Road L16 or section of existing roads in Kowloon City area. For site 5A4, (i) avoid any sensitive facades with openable window facing the existing To Kwa Wan Road or (ii) provision of 17.5m high noise tolerant building fronting To Kwa Wan Road and restrict the height of the residential block(s) located at less than 55m away from To Kwa Wan Road to no more than 25m above ground. For ex-San Po Kong Flatted Factory, avoid any sensitive facades with openable window facing the slip road connecting Prince Edward Road East and San Po Kong or other alternative mitigation measures to minimise the potential traffic noise impacts from the slip road.	With the proposed noise mitigation measures in place, the 'New' road noise contributions to the overall noise levels at all representative NSRs would be less than 1.0 dB(A) and the 'New' road noise levels would all be below the relevant noise criteria. No adverse noise impacts arising from the 'New' roads are predicted at representative NSRs. Noise exceedances at the representative NSRs, if any, would be due to the existing roads.

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Operational (Fixed Plant Noise)					
23 assessment points	All predicted Noise levels are within NCO criteria	ASR B Daytime & Evening: 60 dB(A) Nighttime: 50dB(A) ASR C: Daytime & Evening: 65 dB(A) Nighttime: 55dB(A)	Nil	<ul style="list-style-type: none"> The exhaust of the ventilation system and any opening of the building should be located facing away from any NSRs; and Louver or other acoustic treatment equipment could also be applied to the exhaust exit of the building. 	Nil
Noise impacts from Open Air Entertainment Activities					
1 assessment point	The predicted Noise level is within criteria	Noise Control Guidelines for Holding Open Air Entertainment Activities	Nil	<ul style="list-style-type: none"> Installation of retractable roof or the main stadium could consider a fixed roof design. 	Nil
Helipad Noise					
1 assessment point	The predicted Noise level is within NCO criteria	EIAO-TM	Nil	<ul style="list-style-type: none"> Nil 	Nil
Noise from EFTS					
1 assessment point	All predicted Noise levels are within NCO criteria	NCO	Nil	<ul style="list-style-type: none"> Multi-plenum system and vertical noise barrier at the all elevated sections of the alignment on viaduct would be considered. 	Nil
Marine traffic noise (include noise from typhoon shelters)					
2 assessment points	Nil	Nil	Nil	<ul style="list-style-type: none"> Nil 	Nil

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Construction Phase Water Quality Impact					
Seawater intakes along the waterfront of Victoria Harbour and far field coral sites identified in Junk Bay, Green Island and Cape Collinson	The model results indicate exceedances of WSD water quality (SS) criterion at 6 flushing water intakes along the water front of Victoria Harbour.	1. WSD flushing water quality intake criterion for SS: < 10 mg/l 2. Target water quality objectives at coral sites for SS elevations: < 30 % of the background ambient levels 3. Sedimentation rate at corals: <100g/m ² /day	Full compliance would be achieved with implementation of all the recommended mitigation measures	Use of closed grab dredger during dredging and filling operations. Deployment of silt curtains at appropriate dredging areas, and installation of silt screens at selected seawater intakes during dredging. Avoid maintenance dredging for cruise terminal in wet season (April to September).	None
Operational Phase Water Quality Impact					
Seawater intakes along the waterfront of Victoria Harbour and far field coral sites identified in Junk Bay, Green Island and Cape Collinson	Operation of KTD would not cause unacceptable impacts upon the water quality in Victoria Harbour	Relevant WQO for marine water stipulated under the WPCO	No WQO exceedance is induced by the Project	Cleansing contractor will provide scavenging service (floating refuse) in the accessible water area surrounding the ex-Kai Tak Airport runway. Monitoring and audit programme will be implemented to ascertain the runway opening and bioremediation for the sediment at KTAC and KTTS would not result in unacceptable impact.	None
Waste Management Implications					
Water quality, air, and noise sensitive receivers at or near the Project site, the waste transportation routes and the waste disposal site.	Main waste: dredged marine sediment with a total volume of approximately 4.57 Mm ³ from capital dredging and 0.35 Mm ³ once every 5 to 10 years from maintenance dredging Of the sediment to be generated from capital dredging, approximately 3,615,000 m ³ was classified as contaminated dredged sediment (Category M and H) and approximately 950,600 m ³ was classified as Category L sediment	<ul style="list-style-type: none"> Waste Disposal Ordinance (Cap. 354) Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354) Land (Miscellaneous Provisions) Ordinance (Cap. 28) Public Health and Municipal Services Ordinance (Cap. 132) - Public Cleansing and Prevention of Nuisances Regulation Annexes 7 & 15 of EIAO TM 	Not applicable	<ul style="list-style-type: none"> Contaminated dredged sediment (Category M and H) would require either Type 1 = Open Sea Disposal (Dedicated Sites) or Type 2 - Confined Marine Disposal at contaminated mud pit allocated by MFC. Category L sediment is suitable for Type 1 - Open Sea Disposal at gazetted marine disposal ground allocated by MFC. Mitigation measures and good site practices recommended in the EIA report on waste management should be incorporated into the contract document to control potential environmental impact from handling of the identified wastes arising from the Project 	None

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
	<p>The total volume of dredged sediment generated from 600m runway opening, localized maintenance dredging at KTAC, and immersed tunnel sections of Road T2 and Central Kowloon Route (CKR) are estimated to be approximately 3,200m³, 120,000m³ and 2,260,000 m³ respectively. Sediment to be tested and disposed in accordance with the ETWB TCW No. 34/2002</p> <p>Other wastes: Chemical waste from plant and equipment maintenance during capital and maintenance dredging; and</p> <p>Total volume of 5,946,000 m³ of C&D material from construction activities such as site clearance, excavation works, demolition of 600m runway opening, site formation and various civil works for the construction of buildings and infrastructure within the Project boundary.</p>				
Land Contamination					
<p>Construction workers during the construction and decommissioning stages.</p>	<ul style="list-style-type: none"> Land contaminations impacts were identified by carrying out land contamination assessment/ comprehensive review of the historical/ current land uses of potential contaminative areas. Specific hotspots within the KTD study area were recognized. Soil contamination identified was mainly organics (TPH, VOCs and SVOCs) and heavy metals (lead, copper, zinc, cadmium, nickel cobalt and arsenic) Free product was observed in 3 groundwater monitoring wells at ex-GFS apron area. 	<ul style="list-style-type: none"> EIAO TM; Practice Note for Professional Persons ProPECC PN3/94 "Contaminated Land Assessment and Remediation"; Guidance Notes for Investigation and Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards and Car Repair /Dismantling Workshop; 	<ul style="list-style-type: none"> South Apron of the former Kai Tak Airport, Ex-GFS apron area; Localised spot near Kai Tak Tunnel; Ex-GFS building 	<ul style="list-style-type: none"> The contaminated soil identified should be excavated and treated on-site by biopiling and/or solidification / stabilization. Free product should be treated by skimming as recommended in KTA Decommissioning EIA. The recommended environmental mitigation and safety measures, progress monitoring and/or confirmation sampling / testing recommended during the course of remedial works should be implemented. 	<p>None</p>

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
		<ul style="list-style-type: none"> Guidance Note for Contaminated Land Assessment and Remediation; and Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management. 			
Hazard to Life					
Population near the hazardous installations	<ul style="list-style-type: none"> The risk levels of the examined hazardous installations at the assessment year of 2012, 2016 and 2021 to the future occupants of the Project are considered to be in compliance with the risk guidelines and no adverse impact is expected. 	<ul style="list-style-type: none"> Annex 4 of EIAO TM 	Not applicable	Not applicable	Not applicable

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Cultural Heritage					
Built Heritage Resources	A desk-based study and a built heritage field survey have been conducted and revealed several heritage resources associated with the former Kai Tak Airport, which include two wind poles, the airport pier, Fire Station A, Fire Station B (and associated pier), Fire Station C, seawall and the runway, the Old Far East Flying Training School, Sung Wong Toi Inscription Rock, Fish Tail Rock, and Kowloon Rock. The heritage significance of the Old Far East Flying Training School and Fish Tail Rock are moderate. The heritage significance of the Sung Wong Toi Inscription Rock is high. The heritage significance of the other examined heritage resources are low. No mitigation is required for the examined heritage resources except appropriate protective measures for the structures within the site of Old Far East Flying Training School during any laying of services in its vicinity and protective measures for the Sung Wong Toi Inscription Rock in case of relocation.	<ul style="list-style-type: none"> Criteria for Cultural Heritage Impact Assessment 	Not applicable	Not applicable	Not applicable
Terrestrial Archaeological Resources	The remains of the Longjin Pier and sherds from Sung Dynasty were recovered at two locations in the North Apron area.	<ul style="list-style-type: none"> Criteria for Cultural Heritage Impact Assessment Guidelines for Handling of Archaeological Finds and Archives 	Not applicable	<ul style="list-style-type: none"> Further archaeological investigation and rescue excavation will be undertaken at location with sherds from Sung Dynasty. Whereas for Longjin Pier, preservation in situ of all identified sections of the Longjin Pier as part of the KTD is recommended after the completion of further archaeological investigation. 	<p>Once further archaeological investigation at location with sherds from Song dynasty and subsequent rescue excavation have been completed, there will be no residual impacts from terrestrial archaeology.</p> <p>Once further archaeological investigation for Longjin Pier has been completed and all identified sections of the Longjin Pier have been preserved in-situ there will be no residual impacts from terrestrial archaeology.</p>

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
Marine Archaeological Resources	Destruction of marine archaeological resources by dredging	<ul style="list-style-type: none"> Guidelines for Marine Archaeological investigation 	Not applicable	<ul style="list-style-type: none"> Monitoring of dredged material 	None
Landscape and Visual Impacts					
Landscape Resources, Landscape Character Areas, Visual Sensitive Receivers	<ul style="list-style-type: none"> Based on a very broad brush estimate, approximate 2,250 existing trees will be affected by Kai Tak Development, of which approximately 1,363 no. of trees will be felled and 887 no. of trees will be transplanted. Approximate 5,000 nos. of trees will be planted within new open spaces and approximate 1,000 nos. of trees will be planted for new distributor roads to compensate for the loss of existing trees. . A total of approximately 89.5 ha of open space will be provided within the development to compensate loss of approximately 1.4ha within the adjacent districts. The overall residual impact on open space system is considered acceptable with mitigation measures. The overall landscape character of the area will be dramatically changed from a flat open area with various temporary uses to a high-rise contemporary development with sports and entertainment nodes. The overall residual impact on LCAs within and adjacent to the KTD and is considered some beneficial in the long term with all soft landscape elements proposed in new parks, waterfront promenade and amenity areas become mature. 	<ul style="list-style-type: none"> Environmental Impact Assessment Ordinance (EIAO) (Cap. 499). EIAO Technical Memorandum on EIA Process (EIAO-TM) Annex 10 and Annex 18 ETWB 2/2004 ETWB 3/2006 	Not applicable	<p>Construction Phase</p> <ul style="list-style-type: none"> All existing trees shall be carefully protected during construction. Trees unavoidably affected by the works shall be transplanted where practical. Detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBC 2/2004 and 3/2006. Final locations of transplanted trees shall be agreed prior to commencement of the work. Control of night-time lighting Erection of decorative screen hoarding. <p>Operation Phase</p> <ul style="list-style-type: none"> Compensatory tree planting should be incorporated into the proposed projects where trees are affected. Tall buffer screen tree / shrub / climber planting, vertical green and roof greening where appropriate should be incorporated to soften hard engineering structures and facilities. Sensitive streetscape design should be incorporated along all new roads to reflect the new urban development in Kai Tak. Structure and ornamental tree planting should be provided along roadside amenity strips and central dividers to enhance the townscape quality, where space is available. 	None

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
	<ul style="list-style-type: none"> There will unavoidably be moderate to substantial residual impact on the residential VSRs at high rise buildings in To Kwa Wan, Kowloon City, San Po Kong and Kowloon Bay and Kwun Tong. However, under the KTD, there will be new open spaces and visual resources. These visual resources will bring beneficial visual impact to the adjacent VSRs. Overall, the landscape and visual impacts due to the Kai Tak Development are considered to be acceptable with the implementation of the appropriate mitigation measures (including incorporation of all design measures in the layout plan) and in the long term be beneficial in respect of landscape and visual impacts. 			<ul style="list-style-type: none"> Aesthetically pleasing design as regard to the form, material and finishes shall be incorporated to all engineering structures and infrastructure facility buildings. Control of Operation Night-time Glare 	
Ecological Impact					
Ecological resources at and near the Project area	<p><u>Terrestrial Ecology</u></p> <ul style="list-style-type: none"> Permanent loss of 202.7 ha of wasteland, 15.8 ha of plantation/grassland mosaic in the former Kai Tak Airport. These affected habitats are considered of very low ecological values. Permanent and temporary loss of 0.7 km and 1.6 km artificial coastline at the KTAC and part of the runway area. With provision of new artificial coastline after the construction phase, permanent loss of short length (~4%) of this habitat is not expected to cause significant adverse impact to the existing waterbird population under the Project. 	<ul style="list-style-type: none"> Environmental Impact Assessment Ordinance (EIAO) (Cap. 499). EIAO Technical Memorandum on EIA Process (EIAO-TM) Annex 8 and Annex 16 EIAO Guidance Note No. 3/2002 EIAO Guidance Note No. 6/2002 EIAO Guidance Note No. 11/2004 Wild Animals Protection Ordinance (Cap. 170) 	Not applicable	<ul style="list-style-type: none"> As far as possible, implementation of compensatory planting of similar composition of native trees and vegetation within the Project area should be provided at a ratio not less than 1:1 in terms of quality and quantity after the construction works Coral translocation of directly affected colonies, as far as practicable, to avoid and minimize direct loss of this fauna of conservation interest Water quality control measures such as installation of silt curtains around dredger(s) and use of closed grab dredger to minimise indirect impact on marine life due to change of water quality. 	<ul style="list-style-type: none"> Permanent loss of 202.7 ha wasteland, 15.8 ha plantation/grassland mosaic habitats of very low ecological values Permanent loss of 0.7km of artificial coastline / seawall habitat of low ecological value.

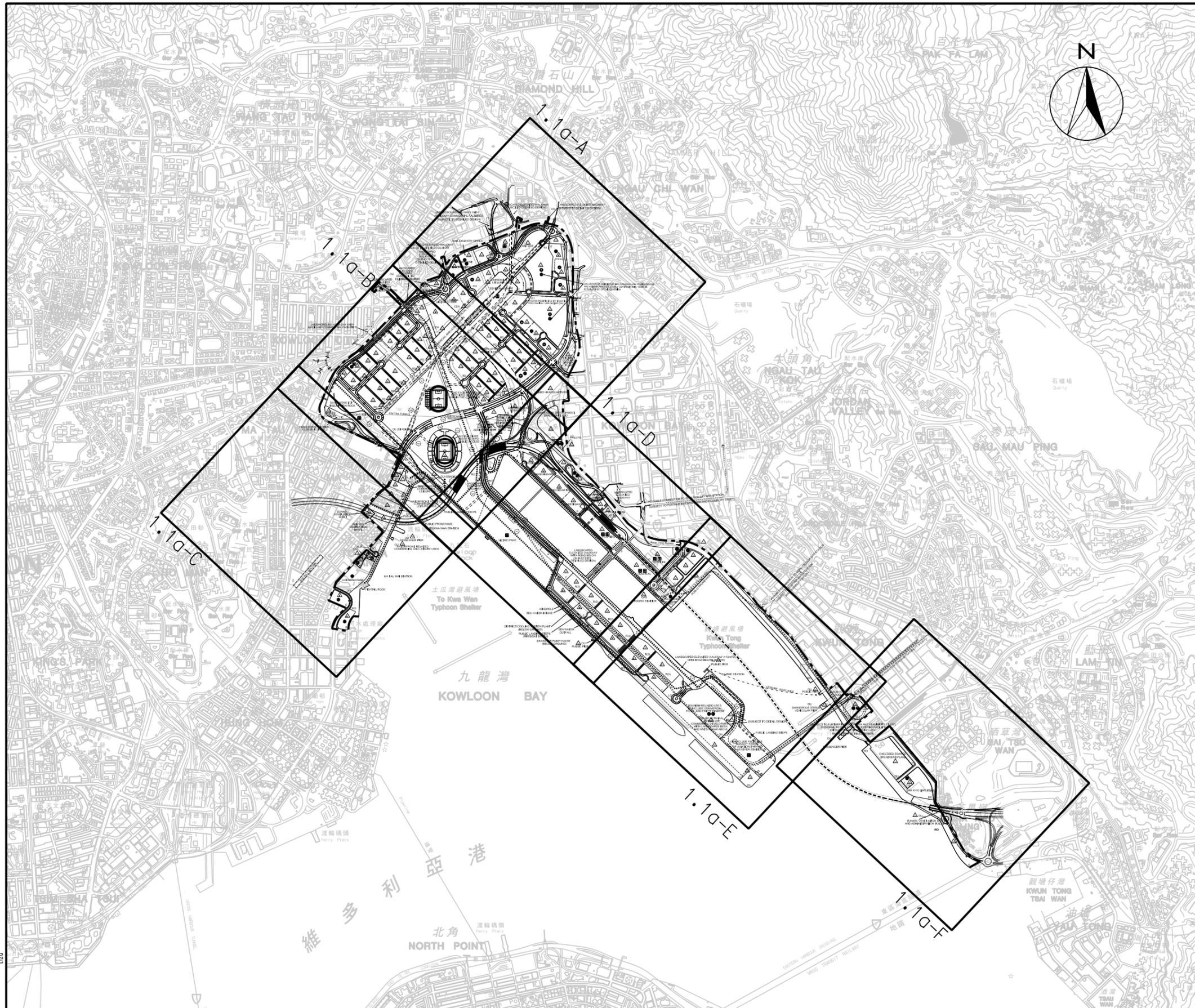
Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
	<ul style="list-style-type: none"> • Direct removal of about 2250 existing trees of common species within the Project area. • Indirect disturbance impact to nearby highly disturbed developed area and associated wildlife during construction and operation phases. • Potential secondary impact on waterbirds due to reduction of food available by deterioration of marine water quality during the construction works. Such impact is considered as minor and acceptable in view of its temporary nature and presence of similar alternative feeding area in the vicinity of Assessment Area. 	<ul style="list-style-type: none"> • Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586) • Town Planning Ordinance (Cap.131) • The Marine Parks Ordinance (Cap.476) and Subsidiary Legislation • The Country Parks Ordinance (Cap. 208) • The Forests and Countryside Ordinance (Cap. 96) • The Marine Fish Culture Ordinance (Cap.353) 		<ul style="list-style-type: none"> • Re-construction of new seawalls to provide large area of hard substrate for re-colonization of existing intertidal and subtidal assemblages after the construction works. 	
	<p><u>Marine Ecology</u></p> <ul style="list-style-type: none"> • Direct impacts to the marine ecological resources would include temporary loss of approximately 74.4 hectares of soft bottom and subtidal habitat and about 1.6km of artificial intertidal habitat as well as permanent loss of about 0.7 km long of artificial intertidal habitat. All the marine habitats and associated marine life that would be directly lost are all of very low ecological values and taking into account of all the mitigation measures proposed including coral translocation and provision of newly constructed seawalls, such impact is considered as minor. • Indirect impacts on the marine ecology would be associated with changes of water quality due to dredging activities. 	<ul style="list-style-type: none"> • The Protection of the Harbour Ordinance (Cap.531) • The Water Pollution Control Ordinance (Cap.358) • International Union for Conservation of Nature and Natural Resources (IUCN) 2006 Red Data Books • The PRC National Protection Lists of Important Wild Animals and Plants 			

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
	<ul style="list-style-type: none"> Considering that the benthic, intertidal and subtidal communities identified in the Project area are of generally very low ecological value and in view of the temporary nature of such impact, only minor indirect impact on marine resources is anticipated. 				
Fisheries Impact					
Fisheries resources at and near the Project area	<ul style="list-style-type: none"> The Project will result in the temporary loss of about 74.4 hectares of fishing area. In view of the small size of affected area, temporary and insignificant loss of fisheries production and low impact on fishing activities, fisheries impacts due to direct loss of fishing area within the dredging area is considered as minor and acceptable. Indirect impacts on fisheries resources would be associated with changes of water quality due to dredging activities. In view of the temporary and localised nature of such impact, only minor impact on capture fisheries resources is anticipated. No impact on culture fisheries resources is anticipated as the nearest FCZs Tung Lung Chau and Ma Wan are over 8km and 10km away from the project area respectively. 	<ul style="list-style-type: none"> EIAO-TM Annex 9 and Annex 17 Fisheries Protection Ordinance (Cap. 171) Marine Fish Culture Ordinance (Cap. 353) The Water Pollution Control Ordinance (Cap.358) 	Not Applicable	No necessary fisheries-specific mitigation measures would be required.	<ul style="list-style-type: none"> Temporary loss of 74.4 hectares of fishing area.

Sensitive Receivers / Assessment Points	Impact Prediction Results	Relevant Standards / Criteria	Extents of Exceedances	Impact Avoidance Measures / Mitigation Measures	Residual Impacts (After Implementation of Mitigation Measures)
	<ul style="list-style-type: none"> No operational phase impact on fisheries resources are expected to result from operation of the project as all construction works would take place within the existing land limits of the Kai Tak Development site and no structures would extend beyond these land limits. In addition, fishing activity will not be restricted in the sea area (turning area) off the cruise ship terminal and public landing steps cum fireboat berth during the operation of the project. 				
Sewerage and Sewage Treatment Implications					
Existing and planned sewerage system, sewage treatment and disposal facilities.	No adverse impact on the existing and planned sewerage system, sewage treatment and disposal facilities by the project are identified.	EIAO Technical Memorandum on EIA Process (EIAO-TM) Annex 14	Not Applicable	No necessary mitigation measures would be required.	None

6 CONCLUSION

- 6.1.1 The EIA has determined the likely nature and extent of environmental impacts predicted to arise from the Project. Where necessary and practicable, the EIA has specified mitigation and control measures to reduce the environmental impacts to acceptable levels.
- 6.1.2 With the recommended mitigation measures applied, the Project would be environmentally acceptable. The schedule of implementation of the recommended mitigation measures has been provided in the EIA report. Monitoring requirements have also been specified in a separate EM&A Manual to ensure proper implementation of the recommended mitigation measures.



NOTATION

- GOVERNMENT OFFICES
- POLICE HEADQUARTERS
- DIVISIONAL POLICE STATION
- SUB-DIVISIONAL FIRE STATION
- AMBULANCE DEPOT
- POST OFFICE
- LIBRARY
- COMMUNITY HALL
- SOCIAL WELFARE FACILITY
- SECONDARY SCHOOL
- PRIMARY SCHOOL
- KINDERGARTEN
- HOSPITAL
- POLYCLINIC / SPECIALIST CLINIC
- GENERAL CLINIC
- REGIONAL PARK
- TOWN PARK
- INDOOR RECREATION CENTRE
- CAR PARK
- BUS TERMINUS
- GREEN MINI BUS TERMINUS / PUBLIC LIGHT BUS TERMINUS
- PETROL FILLING STATION
- LIQUEFIED PETROLEUM GAS FILLING STATION
- RESERVE FOR RAILWAY AND STATION (UNDERGROUND) (SUBJECT TO FURTHER INVESTIGATION)
- POSSIBLE RESERVE FOR MONORAIL AND STATIONS (SUBJECT TO FURTHER INVESTIGATION AND FEASIBILITY STUDY)
- DRAINAGE RESERVE
- UTILITY RESERVE
- WATERWORK RESERVE
- MAXIMUM BUILDING HEIGHT (IN M ABOVE PD)
- PROPOSED LEVEL (IN M ABOVE PD)
- PEDESTRIAN CROSSING
- AMC ANIMAL MANAGEMENT CENTRE
- ESS ELECTRICITY SUBSTATION
- FB FOOTBRIDGE
- LPG LIQUEFIED PETROLEUM GAS FILLING STATION
- MVTS MARINE VESSEL TRACKING SYSTEM
- NBA NON-BUILDING AREA
- PFS PETROL FILLING STATION
- PTI PUBLIC TRANSPORT INTERCHANGE
- RCP REFUSE COLLECTION POINT
- SPS SEWAGE PUMPING STATION
- SW SUBWAY

SCHEDULE OF USES AND AREAS

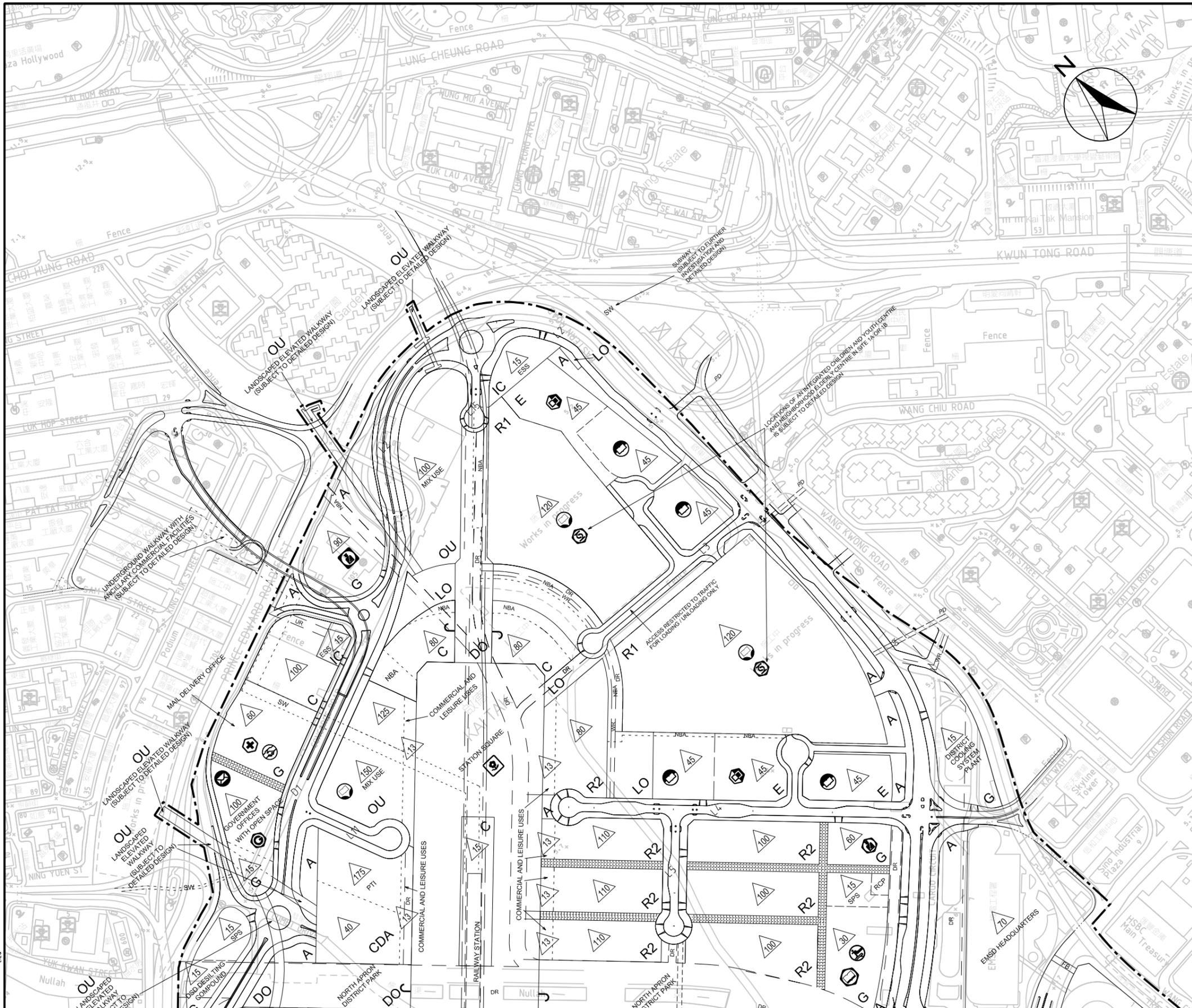
USES	NET SITE AREA & %	
	HECTARES	%
COMMERCIAL		
SPECIAL RESIDENTIAL		
RESIDENTIAL - ZONE 1		
RESIDENTIAL - ZONE 2		
RESIDENTIAL - ZONE 3		
GOVERNMENT		
INSTITUTION OR COMMUNITY		
EDUCATION		
REGIONAL OPEN SPACE		
DISTRICT OPEN SPACE		
LOCAL OPEN SPACE		
AMENITY		
OTHER SPECIFIED USES		
COMPREHENSIVE DEVELOPMENT AREA		
ROADS, JUNCTIONS, ETC.		
TOTAL DEVELOPMENT AREA	328.00	100.00
TOTAL AREA OF PLANNING AREA	328.00	100.00

NOTE:
 1. THE ALIGNMENTS OF THE KWUN TONG TRANSPORTATION LINK AND THE PEDESTRIAN CROSSINGS ACROSS THE KTAC ARE INDICATIVE ONLY AND WILL BE SUBJECT TO PROTECTION OF HARBOUR ORDINANCE.

MAUNSELL | AECOM
 Maunsell Consultants Asia Ltd

AGREEMENT NO. CE 35/2006 (CE)
 KAI TAK DEVELOPMENT ENGINEERING STUDY CUM DESIGN AND CONSTRUCTION OF ADVANCE WORKS-INVESTIGATION, DESIGN AND CONSTRUCTION IMPLEMENTATION REPORT
RECOMMENDED OUTLINE DEVELOPMENT PLAN (DATED MAY 2008)

SCALE	A3 1:25000	DATE	JUN 2008
CHECK	-	DRAWN	TLF
JOB No.	60022408	DRAWING No.	1.1a
		REV	-



NOTATION

- | | | | |
|--|-----------------------------|--|---|
| | GOVERNMENT OFFICES | | HOSPITAL |
| | POLICE HEADQUARTERS | | POLYCLINIC / SPECIALIST CLINIC |
| | DIVISIONAL POLICE STATION | | GENERAL CLINIC |
| | SUB-DIVISIONAL FIRE STATION | | REGIONAL PARK |
| | AMBULANCE DEPOT | | TOWN PARK |
| | POST OFFICE | | INDOOR RECREATION CENTRE |
| | LIBRARY | | CAR PARK |
| | COMMUNITY HALL | | BUS TERMINUS |
| | SOCIAL WELFARE FACILITY | | GREEN MINI BUS TERMINUS / PUBLIC LIGHT BUS TERMINUS |
| | SECONDARY SCHOOL | | PETROL FILLING STATION |
| | PRIMARY SCHOOL | | LIQUEFIED PETROLEUM GAS FILLING STATION |
| | KINDERGARTEN | | RESERVE FOR RAILWAY AND STATION (UNDERGROUND) (SUBJECT TO FURTHER INVESTIGATION) |
| | PLANNING BOUNDARY | | POSSIBLE RESERVE FOR MONORAIL AND STATIONS (SUBJECT TO FURTHER INVESTIGATION AND FEASIBILITY STUDY) |
| | ZONING BOUNDARY | | DRAINAGE RESERVE |
| | ELEVATED ROAD | | UTILITY RESERVE |
| | DEPRESSED ROAD | | WATERWORK RESERVE |
| | TUNNEL | | MAXIMUM BUILDING HEIGHT (IN M ABOVE PD) |
| | PEDESTRIAN STREET | | PROPOSED LEVEL (IN M ABOVE PD) |
| | CYCLE TRACK | | PEDESTRIAN CROSSING |
| | HERITAGE TRAIL | | |
-
- | | | | |
|------|---|-----|------------------------------|
| AMC | ANIMAL MANAGEMENT CENTRE | PFS | PETROL FILLING STATION |
| ESS | ELECTRICITY SUBSTATION | PTI | PUBLIC TRANSPORT INTERCHANGE |
| FB | FOOTBRIDGE | | |
| LPG | LIQUEFIED PETROLEUM GAS FILLING STATION | RCP | REFUSE COLLECTION POINT |
| MVTS | MARINE VESSEL TRACKING SYSTEM | SPS | SEWAGE PUMPING STATION |
| NBA | NON-BUILDING AREA | SW | SUBWAY |

SCHEDULE OF USES AND AREAS

USES	NET SITE AREA & %	
	HECTARES	%
C COMMERCIAL		
RS SPECIAL RESIDENTIAL		
R1 RESIDENTIAL - ZONE 1		
R2 RESIDENTIAL - ZONE 2		
R3 RESIDENTIAL - ZONE 3		
G GOVERNMENT		
IC INSTITUTION OR COMMUNITY		
E EDUCATION		
RO REGIONAL OPEN SPACE		
DO DISTRICT OPEN SPACE		
LO LOCAL OPEN SPACE		
A AMENITY		
OU OTHER SPECIFIED USES		
CDA COMPREHENSIVE DEVELOPMENT AREA		
ROADS, JUNCTIONS, ETC.		
TOTAL DEVELOPMENT AREA	328.00	100.00
TOTAL AREA OF PLANNING AREA	328.00	100.00

NOTE:
 1. THE ALIGNMENTS OF THE KWUN TONG TRANSPORTATION LINK AND THE PEDESTRIAN CROSSINGS ACROSS THE KTAC ARE INDICATIVE ONLY AND WILL BE SUBJECT TO PROTECTION OF HARBOUR ORDINANCE

MAUNSELL | AECOM
 Maunsell Consultants Asia Ltd

AGREEMENT NO. CE 35/2006 (CE)
 KAI TAK DEVELOPMENT ENGINEERING STUDY CUM DESIGN AND CONSTRUCTION OF ADVANCE WORKS-INVESTIGATION, DESIGN AND CONSTRUCTION

RECOMMENDED OUTLINE DEVELOPMENT PLAN (DATED MAY 2008)

(SHEET 1 OF 7)

SCALE	A3 1:5000	DATE	JUN. 2008
CHECK	-	DRAWN	TLF
JOB NO.	60022408	DRAWING NO.	1.1a-A
		REV	-



NOTATION

	GOVERNMENT OFFICES		HOSPITAL
	POLICE HEADQUARTERS		POLYCLINIC / SPECIALIST CLINIC
	DIVISIONAL POLICE STATION		GENERAL CLINIC
	SUB-DIVISIONAL FIRE STATION		REGIONAL PARK
	AMBULANCE DEPOT		TOWN PARK
	POST OFFICE		INDOOR RECREATION CENTRE
	LIBRARY		CAR PARK
	COMMUNITY HALL		BUS TERMINUS
	SOCIAL WELFARE FACILITY		GREEN MINI BUS TERMINUS / PUBLIC LIGHT BUS TERMINUS
	SECONDARY SCHOOL		PETROL FILLING STATION
	PRIMARY SCHOOL		LIQUEFIED PETROLEUM GAS FILLING STATION
	KINDERGARTEN		RESERVE FOR RAILWAY AND STATION (UNDERGROUND) (SUBJECT TO FURTHER INVESTIGATION)
	PLANNING BOUNDARY		POSSIBLE RESERVE FOR MONORAIL AND STATIONS (SUBJECT TO FURTHER INVESTIGATION AND FEASIBILITY STUDY)
	ZONING BOUNDARY		DRAINAGE RESERVE
	ELEVATED ROAD		UTILITY RESERVE
	DEPRESSED ROAD		WATERWORK RESERVE
	TUNNEL		MAXIMUM BUILDING HEIGHT (IN M ABOVE PD)
	PEDESTRIAN STREET		PROPOSED LEVEL (IN M ABOVE PD)
	CYCLE TRACK		PEDESTRIAN CROSSING
	HERITAGE TRAIL		

AMC	ANIMAL MANAGEMENT CENTRE	PFS	PETROL FILLING STATION
ESS	ELECTRICITY SUBSTATION	PTI	PUBLIC TRANSPORT INTERCHANGE
FB	FOOTBRIDGE		
LPG	LIQUEFIED PETROLEUM GAS FILLING STATION	RCP	REFUSE COLLECTION POINT
MVTS	MARINE VESSEL TRACKING SYSTEM	SPS	SEWAGE PUMPING STATION
NBA	NON-BUILDING AREA	SW	SUBWAY

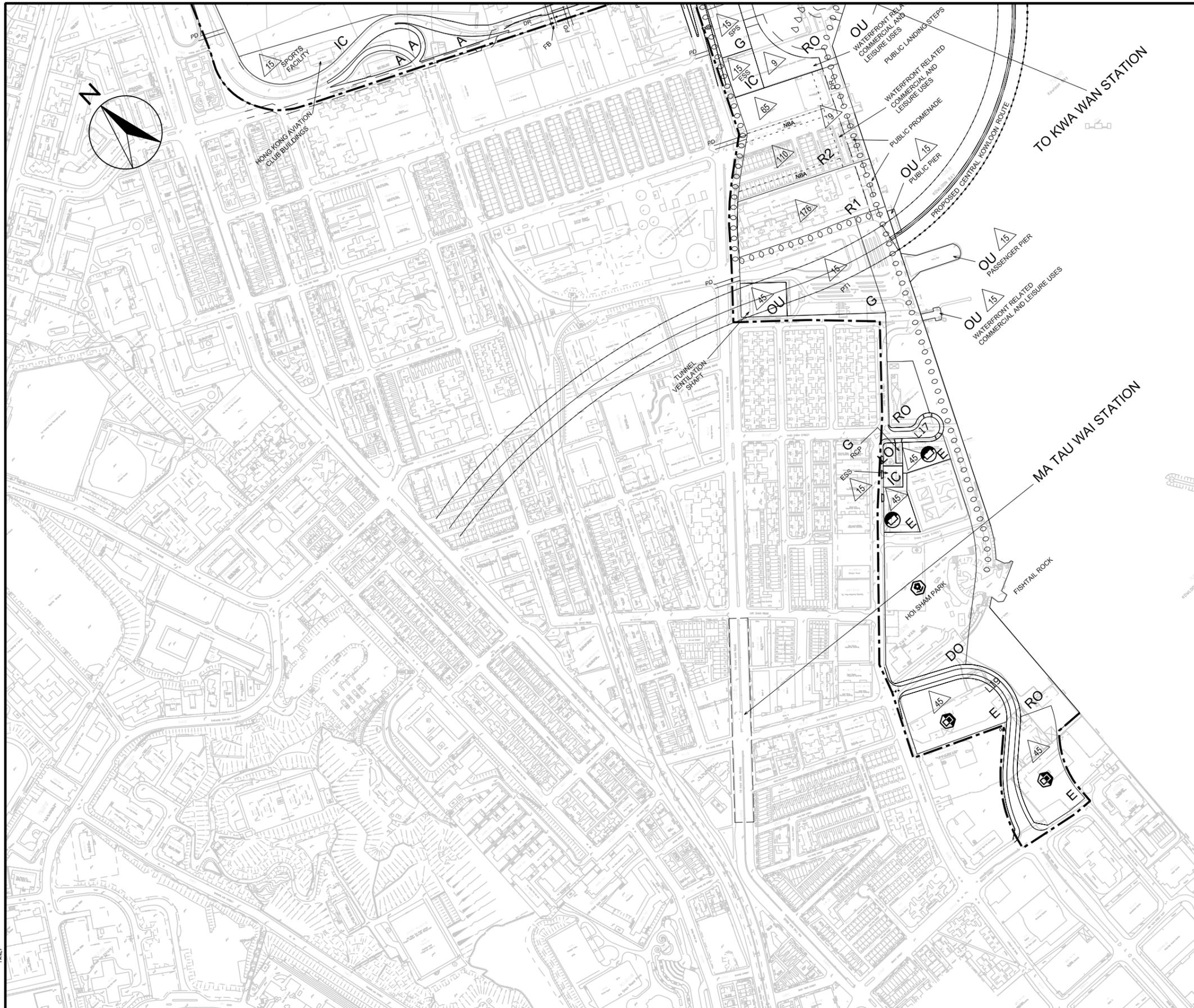
SCHEDULE OF USES AND AREAS

USES	NET SITE AREA & %	
	HECTARES	%
C COMMERCIAL		
RS SPECIAL RESIDENTIAL		
R1 RESIDENTIAL - ZONE 1		
R2 RESIDENTIAL - ZONE 2		
R3 RESIDENTIAL - ZONE 3		
G GOVERNMENT		
IC INSTITUTION OR COMMUNITY		
E EDUCATION		
RO REGIONAL OPEN SPACE		
DO DISTRICT OPEN SPACE		
LO LOCAL OPEN SPACE		
A AMENITY		
OU OTHER SPECIFIED USES		
CDA COMPREHENSIVE DEVELOPMENT AREA		
ROADS, JUNCTIONS, ETC.		
TOTAL DEVELOPMENT AREA	328.00	100.00
TOTAL AREA OF PLANNING AREA	328.00	100.00

NOTE:
 1. THE ALIGNMENTS OF THE KWUN TONG TRANSPORTATION LINK AND THE PEDESTRIAN CROSSINGS ACROSS THE KTAC ARE INDICATIVE ONLY AND WILL BE SUBJECT TO PROTECTION OF HARBOUR ORDINANCE

MAUNSELL AECOM Maunsell Consultants Asia Ltd	AGREEMENT NO. CE 35/2006 (CE) KAI TAK DEVELOPMENT ENGINEERING STUDY CUM DESIGN AND CONSTRUCTION OF ADVANCE WORKS-INVESTIGATION, DESIGN AND CONSTRUCTION		SCALE A3 1:5000	DATE JUN. 2008
	RECOMMENDED OUTLINE DEVELOPMENT PLAN (DATED MAY 2008)		CHECK -	DRAWN TLF
			JOB No. 60022408	DRAWING No. 1.1a-B
				REV -

(SHEET 2 OF 7)



NOTATION

- | | |
|---|---|
| <ul style="list-style-type: none"> ⊙ GOVERNMENT OFFICES Ⓜ POLICE HEADQUARTERS Ⓜ DIVISIONAL POLICE STATION Ⓜ SUB-DIVISIONAL FIRE STATION Ⓜ AMBULANCE DEPOT Ⓜ POST OFFICE Ⓜ LIBRARY Ⓜ COMMUNITY HALL Ⓜ SOCIAL WELFARE FACILITY Ⓜ SECONDARY SCHOOL Ⓜ PRIMARY SCHOOL Ⓜ KINDERGARTEN | <ul style="list-style-type: none"> Ⓜ HOSPITAL Ⓜ POLYCLINIC / SPECIALIST CLINIC Ⓜ GENERAL CLINIC Ⓜ REGIONAL PARK Ⓜ TOWN PARK Ⓜ INDOOR RECREATION CENTRE Ⓜ CAR PARK Ⓜ BUS TERMINUS Ⓜ GREEN MINI BUS TERMINUS / PUBLIC LIGHT BUS TERMINUS Ⓜ PETROL FILLING STATION Ⓜ LIQUEFIED PETROLEUM GAS FILLING STATION |
| <ul style="list-style-type: none"> --- PLANNING BOUNDARY --- ZONING BOUNDARY ▭ ELEVATED ROAD ▨ DEPRESSED ROAD --- TUNNEL --- PEDESTRIAN STREET △△△△△△ CYCLE TRACK ○ ○ ○ ○ ○ ○ HERITAGE TRAIL | <ul style="list-style-type: none"> --- RESERVE FOR RAILWAY AND STATION (UNDERGROUND) (SUBJECT TO FURTHER INVESTIGATION) --- POSSIBLE RESERVE FOR MONORAIL AND STATIONS (SUBJECT TO FURTHER INVESTIGATION AND FEASIBILITY STUDY) --- DRAINAGE RESERVE --- UTILITY RESERVE --- WATERWORK RESERVE △ MAXIMUM BUILDING HEIGHT (IN M ABOVE PD) Ⓜ PROPOSED LEVEL (IN M ABOVE PD) --- PEDESTRIAN CROSSING |
| <ul style="list-style-type: none"> AMC ANIMAL MANAGEMENT CENTRE ESS ELECTRICITY SUBSTATION FB FOOTBRIDGE LPG LIQUEFIED PETROLEUM GAS FILLING STATION MVTS MARINE VESSEL TRACKING SYSTEM NBA NON-BUILDING AREA | <ul style="list-style-type: none"> PFS PETROL FILLING STATION PTI PUBLIC TRANSPORT INTERCHANGE RCP REFUSE COLLECTION POINT SPS SEWAGE PUMPING STATION SW SUBWAY |

SCHEDULE OF USES AND AREAS

USES	NET SITE AREA & %	
	HECTARES	%
C COMMERCIAL		
RS SPECIAL RESIDENTIAL		
R1 RESIDENTIAL - ZONE 1		
R2 RESIDENTIAL - ZONE 2		
R3 RESIDENTIAL - ZONE 3		
G GOVERNMENT		
IC INSTITUTION OR COMMUNITY		
E EDUCATION		
RO REGIONAL OPEN SPACE		
DO DISTRICT OPEN SPACE		
LO LOCAL OPEN SPACE		
A AMENITY		
OU OTHER SPECIFIED USES		
CDA COMPREHENSIVE DEVELOPMENT AREA		
ROADS, JUNCTIONS, ETC.		
TOTAL DEVELOPMENT AREA	328.00	100.00
TOTAL AREA OF PLANNING AREA	328.00	100.00

NOTE:
 1. THE ALIGNMENTS OF THE KWUN TONG TRANSPORTATION LINK AND THE PEDESTRIAN CROSSINGS ACROSS THE KTAC ARE INDICATIVE ONLY AND WILL BE SUBJECT TO PROTECTION OF HARBOUR ORDINANCE

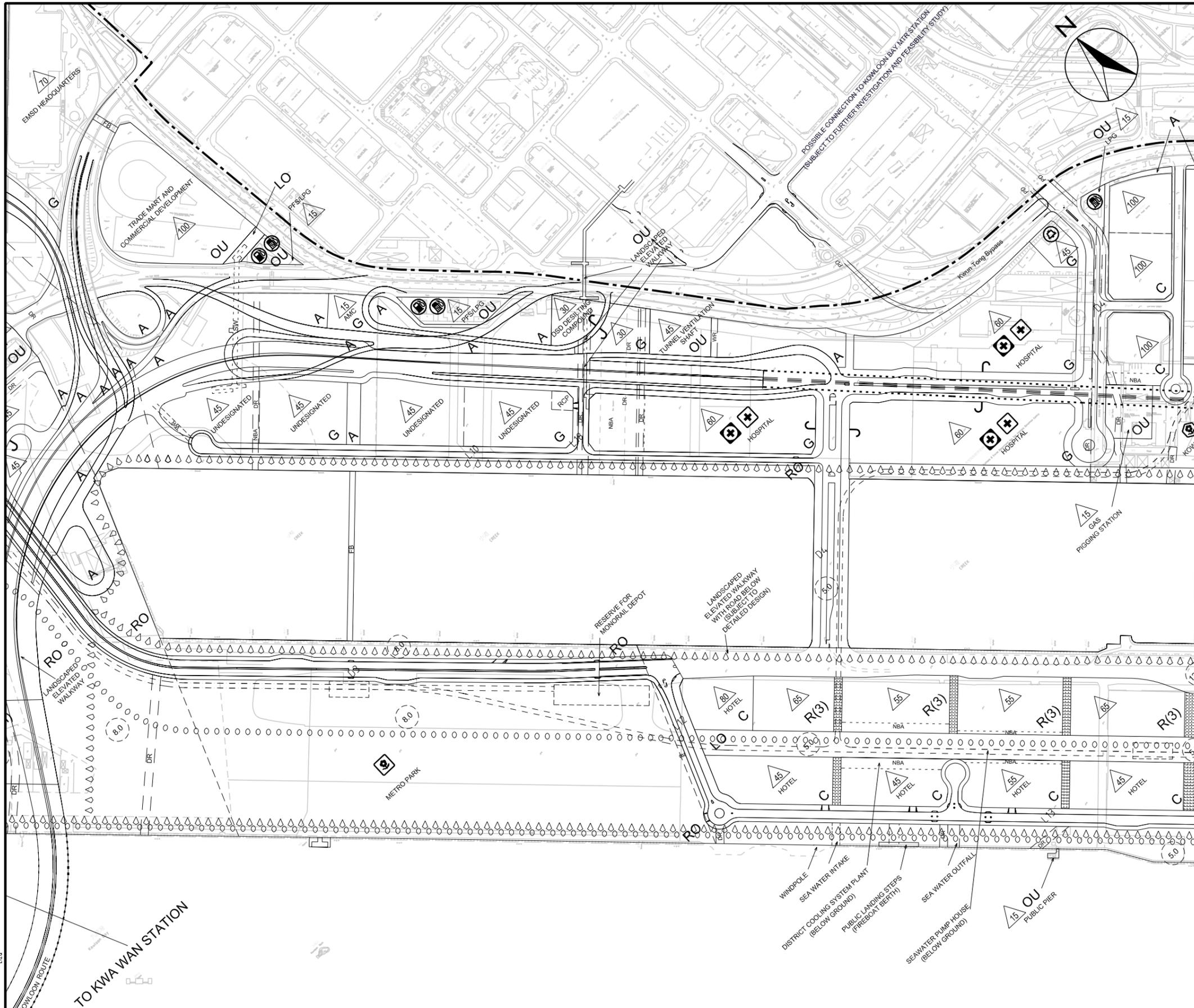
MAUNSELL | AECOM
 Maunsell Consultants Asia Ltd

AGREEMENT NO. CE 35/2006 (CE)
 KAI TAK DEVELOPMENT ENGINEERING STUDY CUM DESIGN AND CONSTRUCTION OF ADVANCE WORKS-INVESTIGATION, DESIGN AND CONSTRUCTION

RECOMMENDED OUTLINE DEVELOPMENT PLAN (DATED MAY 2008)

(SHEET 3 OF 7)

SCALE	A3 1:5000	DATE	JUN. 2008
CHECK	-	DRAWN	TLF
JOB NO.	60022408	DRAWING No.	1.1a-C
		REV	-



NOTATION

	GOVERNMENT OFFICES		HOSPITAL
	POLICE HEADQUARTERS		POLYCLINIC / SPECIALIST CLINIC
	DIVISIONAL POLICE STATION		GENERAL CLINIC
	SUB-DIVISIONAL FIRE STATION		REGIONAL PARK
	AMBULANCE DEPOT		TOWN PARK
	POST OFFICE		INDOOR RECREATION CENTRE
	LIBRARY		CAR PARK
	COMMUNITY HALL		BUS TERMINUS
	SOCIAL WELFARE FACILITY		GREEN MINI BUS TERMINUS / PUBLIC LIGHT BUS TERMINUS
	SECONDARY SCHOOL		PETROL FILLING STATION
	PRIMARY SCHOOL		LIQUEFIED PETROLEUM GAS FILLING STATION
	KINDERGARTEN		RESERVE FOR RAILWAY AND STATION (UNDERGROUND) (SUBJECT TO FURTHER INVESTIGATION)
	PLANNING BOUNDARY		POSSIBLE RESERVE FOR MONORAIL AND STATIONS (SUBJECT TO FURTHER INVESTIGATION AND FEASIBILITY STUDY)
	ZONING BOUNDARY		DRAINAGE RESERVE
	ELEVATED ROAD		UTILITY RESERVE
	DEPRESSED ROAD		WATERWORK RESERVE
	TUNNEL		MAXIMUM BUILDING HEIGHT (IN M ABOVE PD)
	PEDESTRIAN STREET		PROPOSED LEVEL (IN M ABOVE PD)
	CYCLE TRACK		PEDESTRIAN CROSSING
	HERITAGE TRAIL		
	AMC ANIMAL MANAGEMENT CENTRE		PFS PETROL FILLING STATION
	ESS ELECTRICITY SUBSTATION		PTI PUBLIC TRANSPORT INTERCHANGE
	FB FOOTBRIDGE		RCP REFUSE COLLECTION POINT
	LPG LIQUEFIED PETROLEUM GAS FILLING STATION		SPS SEWAGE PUMPING STATION
	MVT MARINE VESSEL TRACKING SYSTEM		SW SUBWAY
	NBA NON-BUILDING AREA		

SCHEDULE OF USES AND AREAS

USES	NET SITE AREA & %	
	HECTARES	%
C COMMERCIAL		
RS SPECIAL RESIDENTIAL		
R1 RESIDENTIAL - ZONE 1		
R2 RESIDENTIAL - ZONE 2		
R3 RESIDENTIAL - ZONE 3		
G GOVERNMENT		
IC INSTITUTION OR COMMUNITY		
E EDUCATION		
RO REGIONAL OPEN SPACE		
DO DISTRICT OPEN SPACE		
LO LOCAL OPEN SPACE		
A AMENITY		
OU OTHER SPECIFIED USES		
CDA COMPREHENSIVE DEVELOPMENT AREA		
ROADS, JUNCTIONS, ETC.		
TOTAL DEVELOPMENT AREA	328.00	100.00
TOTAL AREA OF PLANNING AREA	328.00	100.00

NOTE:
 1. THE ALIGNMENTS OF THE KWUN TONG TRANSPORTATION LINK AND THE PEDESTRIAN CROSSINGS ACROSS THE KTAC ARE INDICATIVE ONLY AND WILL BE SUBJECT TO PROTECTION OF HARBOUR ORDINANCE

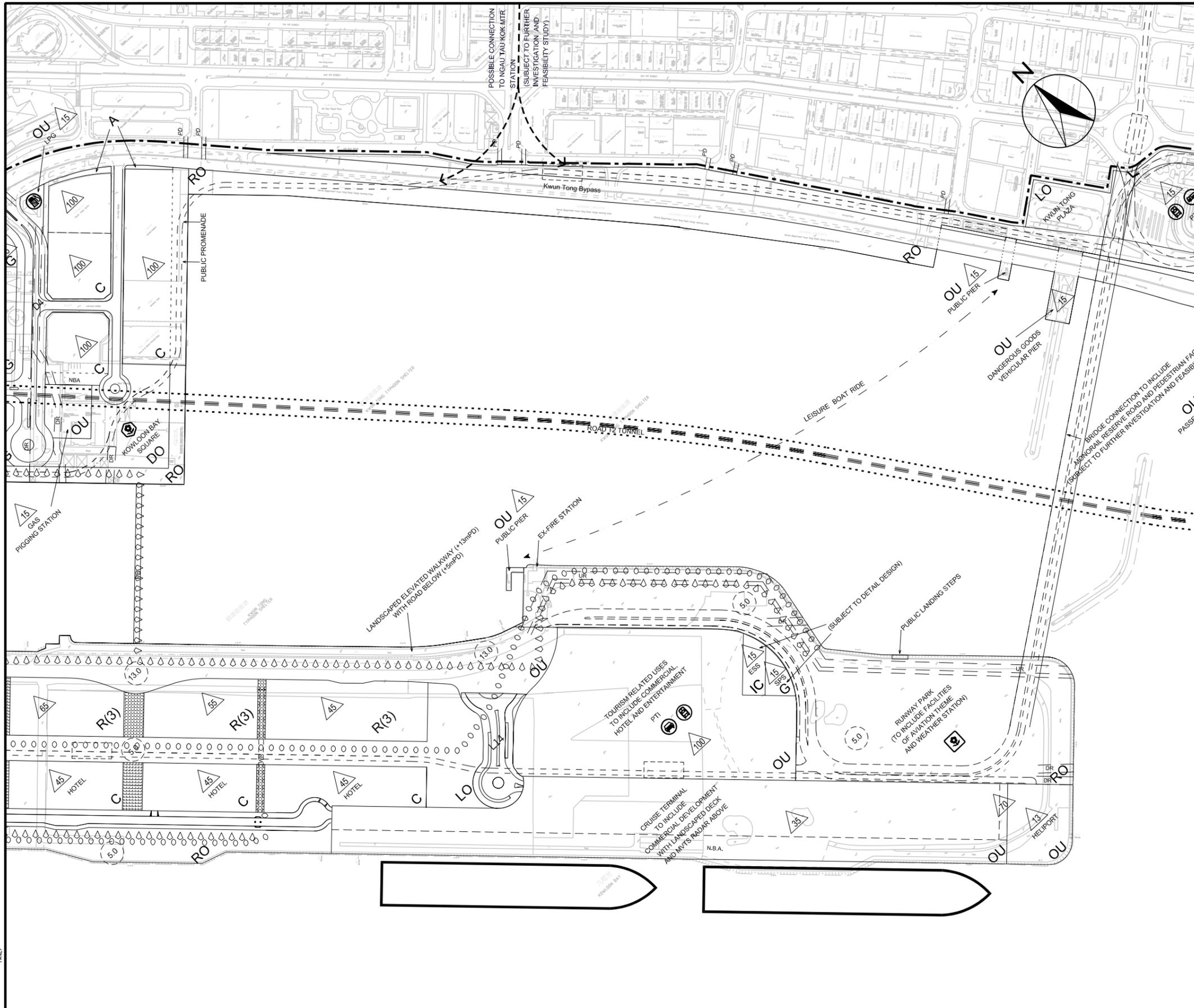
MAUNSELL | AECOM
 Maunsell Consultants Asia Ltd

AGREEMENT NO. CE 35/2006 (CE)
 KAI TAK DEVELOPMENT ENGINEERING STUDY CUM DESIGN AND CONSTRUCTION OF ADVANCE WORKS-INVESTIGATION, DESIGN AND CONSTRUCTION

RECOMMENDED OUTLINE DEVELOPMENT PLAN (DATED MAY 2008)

(SHEET 4 OF 7)

SCALE	A3 1:5000	DATE	JUN. 2008
CHECK	-	DRAWN	TLF
JOB NO.	60022408	DRAWING No.	1.1a-D
		REV	-



NOTATION

	GOVERNMENT OFFICES		HOSPITAL
	POLICE HEADQUARTERS		POLYCLINIC / SPECIALIST CLINIC
	DIVISIONAL POLICE STATION		GENERAL CLINIC
	SUB-DIVISIONAL FIRE STATION		REGIONAL PARK
	AMBULANCE DEPOT		TOWN PARK
	POST OFFICE		INDOOR RECREATION CENTRE
	LIBRARY		CAR PARK
	COMMUNITY HALL		BUS TERMINUS
	SOCIAL WELFARE FACILITY		GREEN MINI BUS TERMINUS / PUBLIC LIGHT BUS TERMINUS
	SECONDARY SCHOOL		PETROL FILLING STATION
	PRIMARY SCHOOL		LIQUEFIED PETROLEUM GAS FILLING STATION
	KINDERGARTEN		RESERVE FOR RAILWAY AND STATION (UNDERGROUND) (SUBJECT TO FURTHER INVESTIGATION)
	PLANNING BOUNDARY		POSSIBLE RESERVE FOR MONORAIL AND STATIONS (SUBJECT TO FURTHER INVESTIGATION AND FEASIBILITY STUDY)
	ZONING BOUNDARY		DRAINAGE RESERVE
	ELEVATED ROAD		UTILITY RESERVE
	DEPRESSED ROAD		WATERWORK RESERVE
	TUNNEL		MAXIMUM BUILDING HEIGHT (IN M ABOVE PD)
	PEDESTRIAN STREET		PROPOSED LEVEL (IN M ABOVE PD)
	CYCLE TRACK		PEDESTRIAN CROSSING
	HERITAGE TRAIL		

AMC	ANIMAL MANAGEMENT CENTRE	PFS	PETROL FILLING STATION
ESS	ELECTRICITY SUBSTATION	PTI	PUBLIC TRANSPORT INTERCHANGE
FB	FOOTBRIDGE		
LPG	LIQUEFIED PETROLEUM GAS FILLING STATION	RCP	REFUSE COLLECTION POINT
MVTS	MARINE VESSEL TRACKING SYSTEM	SPS	SEWAGE PUMPING STATION
NBA	NON-BUILDING AREA	SW	SUBWAY

SCHEDULE OF USES AND AREAS

USES	NET SITE AREA & %	
	HECTARES	%
C COMMERCIAL		
RS SPECIAL RESIDENTIAL		
R1 RESIDENTIAL - ZONE 1		
R2 RESIDENTIAL - ZONE 2		
R3 RESIDENTIAL - ZONE 3		
G GOVERNMENT		
IC INSTITUTION OR COMMUNITY		
E EDUCATION		
RO REGIONAL OPEN SPACE		
DO DISTRICT OPEN SPACE		
LO LOCAL OPEN SPACE		
A AMENITY		
OU OTHER SPECIFIED USES		
CDA COMPREHENSIVE DEVELOPMENT AREA		
ROADS, JUNCTIONS, ETC.		
TOTAL DEVELOPMENT AREA	328.00	100.00
TOTAL AREA OF PLANNING AREA	328.00	100.00

NOTE:

1. THE ALIGNMENTS OF THE KWUN TONG TRANSPORTATION LINK AND THE PEDESTRIAN CROSSINGS ACROSS THE KTAC ARE INDICATIVE ONLY AND WILL BE SUBJECT TO PROTECTION OF HARBOUR ORDINANCE

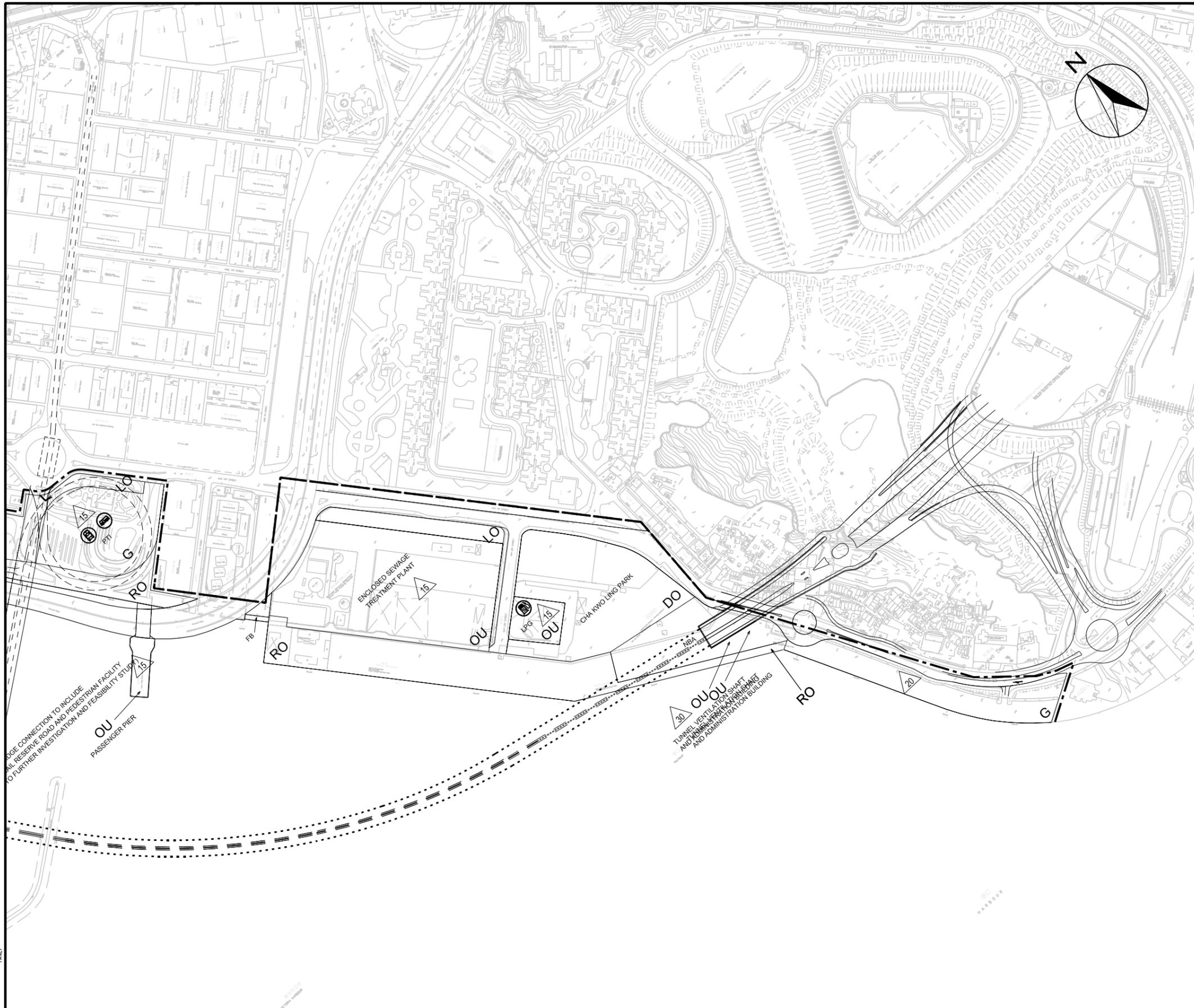
MAUNSELL | AECOM
Maunsell Consultants Asia Ltd

AGREEMENT NO. CE 35/2006 (CE)
KAI TAK DEVELOPMENT ENGINEERING STUDY CUM DESIGN AND CONSTRUCTION OF ADVANCE WORKS-INVESTIGATION, DESIGN AND CONSTRUCTION

RECOMMENDED OUTLINE DEVELOPMENT PLAN (DATED MAY 2008)

(SHEET 5 OF 7)

SCALE	A3 1:5000	DATE	JUN. 2008
CHECK	-	DRAWN	TLF
JOB NO.	60022408	DRAWING No.	1.1a-E
		REV	-



NOTATION

- GOVERNMENT OFFICES
- POLICE HEADQUARTERS
- DIVISIONAL POLICE STATION
- SUB-DIVISIONAL FIRE STATION
- AMBULANCE DEPOT
- POST OFFICE
- LIBRARY
- COMMUNITY HALL
- SOCIAL WELFARE FACILITY
- SECONDARY SCHOOL
- PRIMARY SCHOOL
- KINDERGARTEN
- HOSPITAL
- POLYCLINIC / SPECIALIST CLINIC
- GENERAL CLINIC
- REGIONAL PARK
- TOWN PARK
- INDOOR RECREATION CENTRE
- CAR PARK
- BUS TERMINUS
- GREEN MINI BUS TERMINUS / PUBLIC LIGHT BUS TERMINUS
- PETROL FILLING STATION
- LIQUEFIED PETROLEUM GAS FILLING STATION
- PLANNING BOUNDARY
- ZONING BOUNDARY
- ELEVATED ROAD
- DEPRESSED ROAD
- TUNNEL
- PEDESTRIAN STREET
- CYCLE TRACK
- HERITAGE TRAIL
- RESERVE FOR RAILWAY AND STATION (UNDERGROUND) (SUBJECT TO FURTHER INVESTIGATION)
- POSSIBLE RESERVE FOR MONORAIL AND STATIONS (SUBJECT TO FURTHER INVESTIGATION AND FEASIBILITY STUDY)
- DRAINAGE RESERVE
- UTILITY RESERVE
- WATERWORK RESERVE
- MAXIMUM BUILDING HEIGHT (IN M ABOVE PD)
- PROPOSED LEVEL (IN M ABOVE PD)
- PEDESTRIAN CROSSING
- AMC ANIMAL MANAGEMENT CENTRE
- ESS ELECTRICITY SUBSTATION
- FB FOOTBRIDGE
- LPG LIQUEFIED PETROLEUM GAS FILLING STATION
- MVTS MARINE VESSEL TRACKING SYSTEM
- NBA NON-BUILDING AREA
- PFS PETROL FILLING STATION
- PTI PUBLIC TRANSPORT INTERCHANGE
- RCP REFUSE COLLECTION POINT
- SPS SEWAGE PUMPING STATION
- SW SUBWAY

SCHEDULE OF USES AND AREAS

USES	NET SITE	AREA &
	HECTARES	%
C COMMERCIAL		
RS SPECIAL RESIDENTIAL		
R1 RESIDENTIAL - ZONE 1		
R2 RESIDENTIAL - ZONE 2		
R3 RESIDENTIAL - ZONE 3		
G GOVERNMENT		
IC INSTITUTION OR COMMUNITY		
E EDUCATION		
RO REGIONAL OPEN SPACE		
DO DISTRICT OPEN SPACE		
LO LOCAL OPEN SPACE		
A AMENITY		
OU OTHER SPECIFIED USES		
CDA COMPREHENSIVE DEVELOPMENT AREA		
ROADS, JUNCTIONS, ETC.		
TOTAL DEVELOPMENT AREA	328.00	100.00
TOTAL AREA OF PLANNING AREA	328.00	100.00

NOTE:
 THE ALIGNMENTS OF THE KWUN TONG TRANSPORTATION LINK AND THE PEDESTRIAN CROSSINGS ACROSS THE KTAC ARE INDICATIVE ONLY AND WILL BE SUBJECT TO PROTECTION OF HARBOUR ORDINANCE

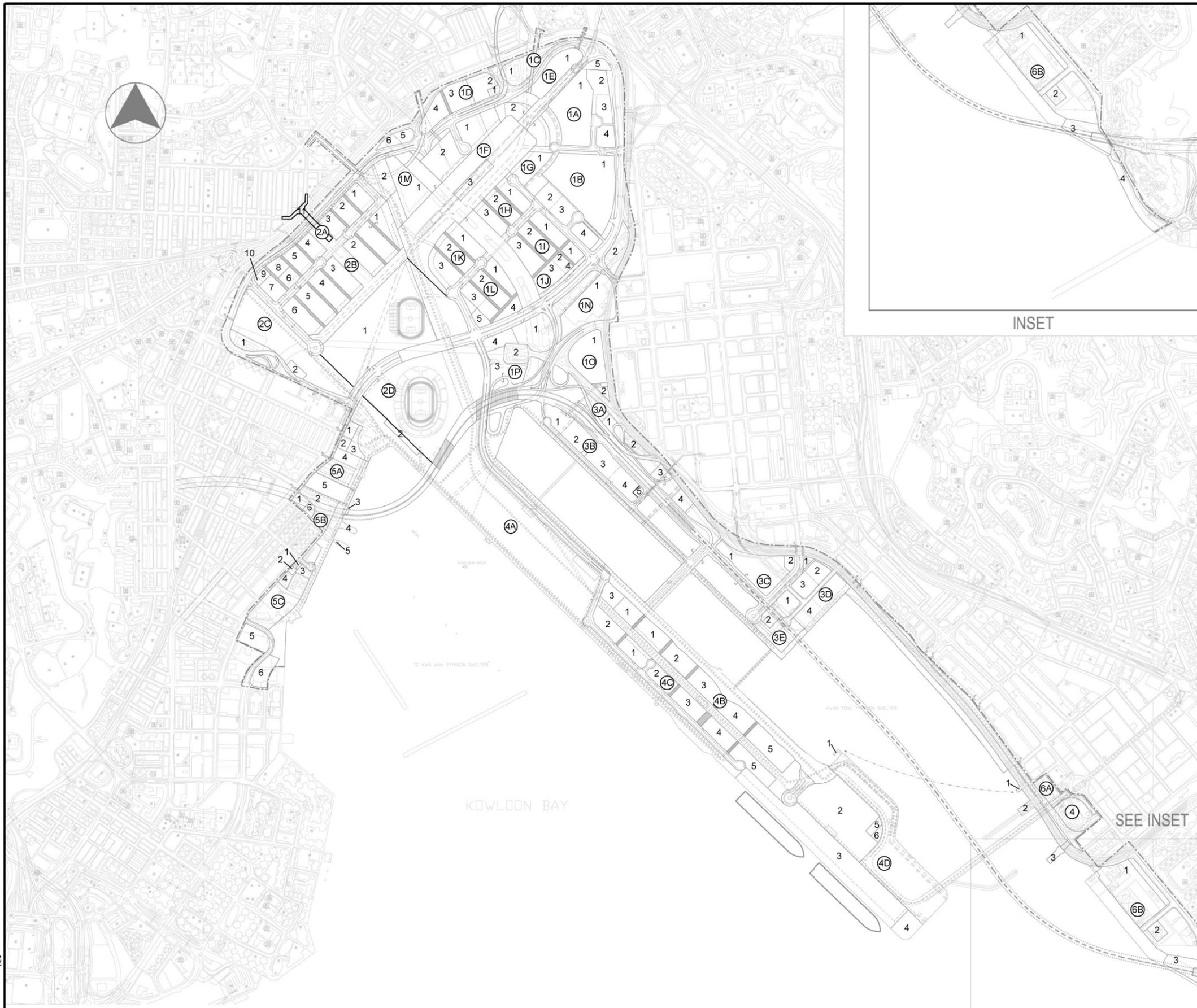
MAUNSELL | AECOM
 Maunsell Consultants Asia Ltd

AGREEMENT NO. CE 35/2006 (CE)
 KAI TAK DEVELOPMENT ENGINEERING STUDY CUM DESIGN AND CONSTRUCTION OF ADVANCE WORKS-INVESTIGATION, DESIGN AND CONSTRUCTION

RECOMMENDED OUTLINE DEVELOPMENT PLAN (DATED MAY 2008)

(SHEET 6 OF 7)

SCALE	A3 1:5000	DATE	JUN. 2008
CHECK	-	DRAWN	TLF
JOB NO.	60022408	DRAWING No.	1.1a-F
		REV	-



NOTATION

- | | | | |
|--|-----------------------------|--|---|
| | GOVERNMENT OFFICES | | HOSPITAL |
| | POLICE HEADQUARTERS | | POLYCLINIC / SPECIALIST CLINIC |
| | DIVISIONAL POLICE STATION | | GENERAL CLINIC |
| | SUB-DIVISIONAL FIRE STATION | | REGIONAL PARK |
| | AMBULANCE DEPOT | | TOWN PARK |
| | POST OFFICE | | INDOOR RECREATION CENTRE |
| | LIBRARY | | CAR PARK |
| | COMMUNITY HALL | | BUS TERMINUS |
| | SOCIAL WELFARE FACILITY | | GREEN MINI BUS TERMINUS / PUBLIC LIGHT BUS TERMINUS |
| | SECONDARY SCHOOL | | PETROL FILLING STATION |
| | PRIMARY SCHOOL | | LIQUEFIED PETROLEUM GAS FILLING STATION |
| | KINDERGARTEN | | RESERVE FOR RAILWAY AND STATION (UNDERGROUND) (SUBJECT TO FURTHER INVESTIGATION) |
| | PLANNING BOUNDARY | | POSSIBLE RESERVE FOR MONORAIL AND STATIONS (SUBJECT TO FURTHER INVESTIGATION AND FEASIBILITY STUDY) |
| | ZONING BOUNDARY | | DRAINAGE RESERVE |
| | ELEVATED ROAD | | UTILITY RESERVE |
| | DEPRESSED ROAD | | WATERWORK RESERVE |
| | TUNNEL | | MAXIMUM BUILDING HEIGHT (IN M ABOVE PD) |
| | PEDESTRIAN STREET | | PROPOSED LEVEL (IN M ABOVE PD) |
| | CYCLE TRACK | | PEDESTRIAN CROSSING |
| | HERITAGE TRAIL | | |
-
- | | | | |
|------|---|-----|------------------------------|
| AMC | ANIMAL MANAGEMENT CENTRE | PFS | PETROL FILLING STATION |
| ESS | ELECTRICITY SUBSTATION | PTI | PUBLIC TRANSPORT INTERCHANGE |
| FB | FOOTBRIDGE | RCP | REFUSE COLLECTION POINT |
| LPG | LIQUEFIED PETROLEUM GAS FILLING STATION | SPS | SEWAGE PUMPING STATION |
| MVTS | MARINE VESSEL TRACKING SYSTEM | SW | SUBWAY |
| NBA | NON-BUILDING AREA | | |

SCHEDULE OF USES AND AREAS

USES	NET SITE AREA & %	
	HECTARES	%
C COMMERCIAL		
RS SPECIAL RESIDENTIAL		
R1 RESIDENTIAL - ZONE 1		
R2 RESIDENTIAL - ZONE 2		
R3 RESIDENTIAL - ZONE 3		
G GOVERNMENT		
IC INSTITUTION OR COMMUNITY		
E EDUCATION		
RO REGIONAL OPEN SPACE		
DO DISTRICT OPEN SPACE		
LO LOCAL OPEN SPACE		
A AMENITY		
OU OTHER SPECIFIED USES		
CDA COMPREHENSIVE DEVELOPMENT AREA		
ROADS, JUNCTIONS, ETC.		
TOTAL DEVELOPMENT AREA	328.00	100.00
TOTAL AREA OF PLANNING AREA	328.00	100.00

NOTE:
 1. THE ALIGNMENTS OF THE KWUN TONG TRANSPORTATION LINK AND THE PEDESTRIAN CROSSINGS ACROSS THE KTAC ARE INDICATIVE ONLY AND WILL BE SUBJECT TO PROTECTION OF HARBOUR ORDINANCE

MAUNSELL | AECOM
 Maunsell Consultants Asia Ltd

AGREEMENT NO. CE 35/2006 (CE)
 KAI TAK DEVELOPMENT ENGINEERING STUDY CUM DESIGN AND CONSTRUCTION OF ADVANCE WORKS-INVESTIGATION, DESIGN AND CONSTRUCTION
RECOMMENDED OUTLINE DEVELOPMENT PLAN (DATED MAY 2008)

SCALE	A3 1:20000	DATE	JUN 2008
CHECK	-	DRAWN	TLF
JOB No.	60022408	DRAWING No.	1.1a-G
		REV	-