

(Final Report)



Agreement No. CE29/2014 (GE) -

Pilot Study on Underground Space Development in **Selected Strategic Urban Areas - Feasibility Study**



Table of Contents

1.	INTRODUCTION	3
2.	STAGE 2 PUBLIC ENGAGEMENT ACTIVITIES	3
2.1.	Overview of Stage 2 Public Engagement Activities	3
2.2.	Study Website	3
2.3.	Social Media	3
2.4.	Roving Exhibitions, Questionnaire Survey Booths and Weekend Public Events	4
2.5.	Meetings with Advisory and Statutory Bodies, Focus Group Meetings and Other Consulta Meetings	
2.6.	Written Comments from View Collection Forms, Individuals and Organisations and Med Coverage	
3.	SUMMARY OF KEY COMMENTS	4
3.1.	Overview	4
3.2.	Pedestrian Connections and Walking Experience	5
3.3.	Development Scale and Footprint	5
3.4.	Proposed Uses & Facilities and Ratio of Uses	<i>6</i>
3.5.	Enhancement Opportunities	8
3.6.	Potential Impacts and Mitigation Measures	9
3.7.	Construction Matters	10
4.	RESPONSES TO KEY COMMENTS	11
4.1.	Pedestrian Connections and Walking Experience	11
4.2.	Development Scale and Footprint	12
4.3.	Proposed Uses & Facilities and Ratio of Uses	12
4.4.	Enhancement Opportunities	14
4.5.	Potential Impacts and Mitigation Measures	14
4.6.	Construction Matters	16
5.	CONCLUSION AND WAY FORWARD	16

Stage 2 Public Engagement Report (Final Report)

APPENDICES

Appendix	I	Schedule of Roving Exhibition, Questionnaire Survey Booths and Weekend Public
		Events
Appendix	II	List of Meetings with Advisory and Statutory Bodies, Focus Group Meetings and
		Other Consultation Meetings

1. INTRODUCTION

- 1.1 The Pilot Study on Underground Space Development in Selected Strategic Urban Areas Feasibility Study (the Study) commissioned in June 2015 aimed to explore the potential for underground space development (USD) in four selected Strategic Urban Areas (SUAs), namely Tsim Sha Tsui (TST) West, Causeway Bay, Happy Valley and Admiralty/Wan Chai; evaluate the overall feasibility and identify the key issues of USD in these SUAs; and propose suitable priority project(s) for possible future implementation.
- 1.2 A two-stage Public Engagement (PE) programme was developed as an integral part of the Study process. The Stage 1 PE was carried out between 7 November 2016 and 6 February 2017. During Stage 1 PE, a Study Website was established and a series of public engagement activities including consultation meetings, public planning workshops and roving exhibition were organised.
- 1.3 Based on the public views received during Stage 1 PE, conceptual USD schemes were formulated and assessed. Among these schemes, the conceptual scheme of USD for Kowloon Park at TST West (the Kowloon Park Scheme) was given priority in view of its merits in addressing the local community needs. As such, the Kowloon Park Scheme was presented to the public via the three-month Stage 2 PE period between 22 May and 21 August 2019 for soliciting public views on the Scheme.

2. STAGE 2 PUBLIC ENGAGEMENT ACTIVITIES

2.1. Overview of Stage 2 Public Engagement Activities

2.1.1. Various activities were held during the three-month Stage 2 PE period, including online publications (like Study Website and Facebook Page), and publicity events (including roving exhibitions, booths, weekend public events and various consultation meetings). The Stage 2 PE attracted many written comments via various channels, including the standard View Collection Forms (VCF) distributed, as well as comments from individuals and organisations via emails, mails and faxes. Stage 2 PE also attracted newspapers and online media, as well as multi-media coverage. They are summarised below.

2.2. Study Website

- 2.2.1. The Study Website provided information with regard to the Study to the public. The Study Website recorded 105383 hits during the Stage 2 PE period.
- 2.2.2. The website included information on the Study, such as the objectives, overseas examples, key considerations and key features on the Kowloon Park Scheme. Together with the launch of Stage 2 PE, the Stage 2 PE Digest and other information, including the leaflet, activities and schedules, were made available on the Study Website.

2.3. Social Media

2.3.1. The Facebook Page 'urbanundergroundhk' was the social media platform to engage the online community. Updates on the Stage 2 PE activities, such as roving exhibitions, questionnaire

survey booths, as well as the public events at Kowloon Park were periodically posted on the Facebook Page.

2.4. Roving Exhibitions, Questionnaire Survey Booths and Weekend Public Events

- 2.4.1. Throughout the Stage 2 PE period, a total of six roving exhibitions were organised, of which, two were held in conjunction with the "Let's Talk and Walk" activities and three were held in conjunction with the questionnaire survey booths. The schedule of Roving Exhibition, Questionnaire Survey Booths and Weekend Public Events is at **Appendix I**.
- 2.4.2. In the exhibitions, display panels and Stage 2 PE leaflets and posters were made available for the public. Where space was permitted, a physical model, a video and a series of Virtual Reality (VR) for better visualising the Kowloon Park Scheme were provided. Interested members of the public were also encouraged to complete and return a VCF for expressing their comments, suggestions, and/or concerns on the proposals.
- 2.5. Meetings with Advisory and Statutory Bodies, Focus Group Meetings and Other Consultation Meetings
- 2.5.1. Throughout the Stage 2 PE period, a total of ten meetings, including four meetings with advisory and statutory bodies, three focus group meetings (FGMs) and three consultation meetings with different stakeholders, were held. A list of these meetings is at **Appendix II**.
- 2.6. Written Comments from View Collection Forms, Individuals and Organisations and Media Coverage
- 2.6.1. After sorting out duplicate submissions (same submission method with identical contents by the same organisation or individual), a total of 11668 VCFs were received.
- 2.6.2. In addition to VCFs, a total of 24007 comments submitted by individuals were received during the Stage 2 PE period. In particular, 23692 were made by individuals in the form of standard letters/emails. 28 written comments were received from various organisations, including professional institutes, owners' committees, community groups, green groups and concern groups.
- 2.6.3. A total of 73 articles, including 47 newspapers reports/articles/columns, 24 online media reports/articles/columns and 2 multi-media reports, were identified during the Stage 2 PE period.

3. SUMMARY OF KEY COMMENTS

3.1. Overview

- 3.1.1. The written comments received from the Stage 2 PE and the views collected in the public events and meetings with advisory and statutory bodies, FGMs and consultation meetings were analysed.
- 3.1.2. The comments received were categorised into six aspects, namely (i) Pedestrian Connections and Walking Experience; (ii) Development Scale and Footprint; (iii) Proposed Uses & Facilities and Ratio of Uses; (iv) Enhancement Opportunities; (v) Potential Impacts and

Mitigation Measures; and (vi) Construction Matters. A summary of each aspect of comments is provided in Sections 3.2 to 3.7.

3.2. Pedestrian Connections and Walking Experience

(A) Overall Effectiveness

- 3.2.1. Mixed views were received on the proposed pedestrian connections. On one hand, supportive views were received that the proposed pedestrian connections could alleviate the overcrowded street environment while enhancing pedestrian connectivity and walkability in the area by diverting the pedestrian flow to the underground. On the other hand, there were views that the current proposal might not be an effective solution for improving the walkability and accessibility of the area as it would not solve all connectivity issues.
- 3.2.2. Some commented that the additional pedestrians and visitors attracted into the area due to the proposed USD might add pressure to the overcrowded conditions. They opined that despite being able to solve part of the over-crowding issue at the pedestrian walkways nearby Kowloon Park, the proposed USD might introduce additional vehicular and pedestrian traffic and worsen the congestion.
- 3.2.3. Some suggested first implement other pedestrian-friendly and at-grade alternatives (e.g. restoring the pedestrian crossings at the three junctions of Kowloon Park Drive with Peking Road, Middle Road, and Salisbury Road; provision of travellators, escalators and elevators to existing entrances/exits to Kowloon Park, such as at Park Lane Shoppers' Boulevard and Nathan Road, etc.) to address the overcrowded situation in the area.

(B) Connections and Extensiveness of the Proposed Pedestrian Networks

3.2.4. There were suggestions to extend the proposed pedestrian network towards nearby neighbourhoods and activity nodes, particularly towards West Kowloon Cultural District (WKCD), China Hong Kong City, Harbour City, Hankow Road, Nathan Road, Austin Road, Chatham Road, Middle Road subway, Hong Kong Cultural Centre, etc. Particularly, there were suggestions on adding more pedestrian entrances/exits of the proposed USD to areas near the existing MTR stations, including Jordan, Austin, and TST Stations. There were suggestions to further connect the proposed underground network to those existing and/or future private commercial developments nearby for achieving better synergy. It was also suggested the proposed USD be extended to TST East/Jordan/Yau Ma Tei/Mong Kok areas.

3.3. Development Scale and Footprint

- 3.3.1. Among those supported the Kowloon Park Scheme, mixed views were received with regard to the proposed development scale and footprint. Some suggested the USD be maximised to integrate the entire TST and peripheral areas, so as to enhance the whole district with a well thought-through placemaking approach.
- 3.3.2. Some suggested consolidating and upgrading the existing facilities (e.g. Kowloon Park Sports Centre and Swimming Pool which had been in operation for over 30 years) so that the face-lifting plan of the Kowloon Park Scheme could be undertaken more holistically. Some suggested including the piazza next to the outdoor swimming pools and some other under-

utilised areas in the development. This would help provide more underground space for provision of more suitable facilities.

3.3.3. On the other hand, some considered that although the proposed USD footprint occupied only 25% of Kowloon Park's existing park surface, it would affect the existing vegetation and wildlife in the areas. There were views requesting no changes to the outdoor swimming pools, pond areas and Maze Garden. Some raised concern on the reduction of at-grade park space for accommodating the above-ground ventilation shafts, emergency access entrances and other structures of the USD.

3.4. Proposed Uses & Facilities and Ratio of Uses

(A) Proposed Community Uses

- 3.4.1. The Kowloon Park Scheme could create space for additional community facilities for public enjoyment. While a Community Hub is proposed in the Kowloon Park Scheme, there were comments on how provision of Government, institution and community (GIC) uses and facilities would be considered comprehensively. Some suggested conducting a review of the existing GIC facilities for the Kowloon Park and TST areas to identify deficits of such facilities. Some suggested better utilising the "Government, Institution or Community" (G/IC) sites, identifying possible discrepancies and taking necessary actions to release the valuable at-grade land for other community facilities. Relocating some existing at-grade GIC facilities, such as the Haiphong Road Temporary Market cum Cooked Food Hawker Bazaar, to the proposed underground space was also suggested.
- 3.4.2. Besides, there were suggestions that the proposed USD should provide more variety of community facilities, including public space, creative market, co-working space for start-ups, sports facility, art and cultural venue, community hall, post office, clinic, children facility, elderly centre, and environmental education facility.

(B) Proposed Retail/Food and Beverage (F&B) Facilities

- 3.4.3. While some supported the provision of suitable retail/F&B facilities, some considered that there were already plenty of retail/F&B facilities in existing commercial developments in the TST area. The proposed retail/F&B uses would deviate from the planning intention of the "Open Space" zone for Kowloon Park which is intended to provide public space for the residents and public. Furthermore, concerns were raised on the ownership of the proposed retail/F&B space and privatisation of public asset. The proposed development would inflict view on trading off the ecological, social and amenity value of Kowloon Park for commercial benefits. On the other hand, some welcomed the potential income generated from the tenancy of the retail/ F&B facilities and the convenience brought to the users.
- 3.4.4. There were comments on the environmental hygiene, fire safety, handling of food wastes, oily fumes from cooking, and relevant issues brought by the retail/F&B facilities. Careful review of building requirements, such as adopting smoke extraction systems, oil trap facilities, planning of emergency exit routes, and other fire prevention measures, etc. would be needed. In addition, it was urged that air ventilation shafts for such F&B uses should not cause nuisance to the existing residential buildings nearby.

(C) Comments on the Proposed Car Parking Facilities

- 3.4.5. While the car parking facilities were proposed in the Kowloon Park Scheme in accordance with the Hong Kong Planning Standards and Guidelines to serve the project, public views on the provision of car parking spaces were diverse. Those who supported mainly expressed that carparks in TST were always full. It was suggested that alternatives should be considered, including (i) automated parking system; (ii) "Park and Ride Schemes" adjacent to the MTR stations; (iii) provision of taxi/private car laybys near the entrances of Kowloon Park; and (iv) provision of loading/unloading (L/UL) bays at the Kowloon Park entrances with less traffic (e.g. Kowloon Park Drive). To address the shortage of coach parking for the area, it was suggested providing coach parking at the proposed USD.
- 3.4.6. On the other hand, some questioned the necessity and the scale of proposed car parking facilities, and whether Traffic Impact Assessment (TIA) had been conducted for justifying the proposed car parking facilities. Comments were also raised that the proposed car parking facilities would bring more pedestrian and vehicular traffic to the core TST area and against the principle of smart and low carbon city. If the proposed car parking facilities would need to be introduced, the number of spaces should be limited.
- 3.4.7. Some were concerned about the cost-effectiveness of providing car parking facilities at the Kowloon Park Scheme given the stringent requirements on fire engineering. Alternative traffic management measures including introducing Electronic Road Pricing System, or a car free zone at the core TST area were suggested for alleviating the pedestrian and vehicular conflicts, and improving the overall pedestrian walkability and environmental quality.

(D) On the Proposed Ratio of Uses

- 3.4.8. While the multi-use approach adopted in the Kowloon Park Scheme was generally supported by the public, diverse views were received with regard to the use mix. Some opined that a higher proportion should be given for community facilities. Some favoured a higher proportion of retail/F&B facilities. There were also suggestions that Non-Government Organisations (NGOs) and/or local organisations should be involved to manage the retail/F&B facilities. For those preferring a higher proportion of community facilities, there were suggestions to include art and cultural spaces such as multi-activities room and library in the development, as retail uses would affect the tranquillity of the park. There were objections to the proposed ratio for retail/F&B uses (at 30%) being too high, considering that such floor space should be released for other uses, e.g. facilities for sports and culture, children and elderly, and ethnic minorities, to address community needs.
- 3.4.9. Other suggested uses include start-up offices for young entrepreneurs, shops with more local characteristics and Hong Kong identity (e.g. local brands). For management of the proposed retail/F&B facilities, it was suggested involving private entities and/or NGOs to enhance the effectiveness and efficiency of the overall management. On the other hand, some opined that the USD should not be managed by NGOs nor the Government.

3.5. Enhancement Opportunities

- Feasibility Study

(A) <u>Design of Kowloon Park Upon Completion</u>

- 3.5.1. Besides considering that the vibrancy of on-street activities in the vicinity of Kowloon Park should be maintained, it was opined that the underground and street activities should be integrated and complementary to each other. The park space and different levels of the USD should be well-connected by lifts, escalators, ramps, staircases, etc. Suggestions on enhancing walking experience were received, including providing adequate ancillary facilities (e.g. public convenience, signage, seating areas, greening, etc.) alongside the underground pedestrian passageways, and wider pedestrian passageways to allow small shops, street performance area, heritage elements and art displays.
- 3.5.2. Among those supporting the Kowloon Park Scheme, there were suggestions that the design should allow the penetration of natural light into the underground space through provision of sunken plazas, skylights, glass panels, etc. It was also recommended incorporating, as far as practicable, energy saving, natural and open-air elements into the underground space, such as attractive and spacious public realm, piazza, vertical greening, water element, and open-air F&B. Some suggested that the piazza could be redesigned in a semi-enclosed manner for better utilisation.
- 3.5.3. Thematic design and facilities, such as the Dongdaemun Design Plaza in Seoul, could be considered in the design for the proposed USD. It was suggested relocating the Kowloon Park Sports Centre to the park area abutting Austin Road and using its original location for a multi-purpose community facility featuring green architecture and design to blend in with the park setting. Design elements featuring WKCD could be established as a visual experience/connection with WKCD.
- 3.5.4. With regard to the design of the necessary ventilation shafts and other entrances/exits for the proposed USD, comments were made on the permanent loss of park space and that the design for such structures might affect the aesthetic values of the park. Careful design for blending those structures into the park face-lifting design would be required. It was also suggested that those structures should not obstruct the views of any existing developments adjacent to the park, so as to avoid potential nuisance, noise and air pollution to the residents/tenants nearby.

(B) <u>Landscape Plan</u>

3.5.5. Some suggested that the overall landscape design should be well incorporated with the existing/unaffected facilities of the park. Some opined that there was insufficient information on the design of the proposed Great Lawn. There were suggestions on incorporating walking paths in the proposed Great Lawn for leisure walking and public enjoyment, replanting/transplanting the affected trees in the reinstated park surface and providing additional ornamental planting. The function of Kowloon Park in alleviating the urban heat island effect and its aesthetic, leisure, recreation and sport functions to improve the living quality of the area, should be considered in designing the new park surface.

(C) Considerations for Weekend Users

3.5.6. Given that Kowloon Park is a popular location for domestic helpers to gather during their rest days, particularly near the areas of the Kowloon Masjid and Islamic Centre (the Mosque) next to Exit A of the MTR TST Station, it was suggested that measures for accommodating weekend users during the implementation/construction period(s) should be carefully considered. Comments were also made with regard to the crowded pedestrian environment near the bus stops outside of the Mosque, and attention should be given to improve the street environment at that location when implementing the proposed Scheme.

(D) Other Opportunities

3.5.7. Some considered the disused air-raid tunnels under Kowloon Park should be revitalised and opened to the public for cultural conservation and public education purposes, while some concerned its integrity during the construction/operation stage of the USD.

3.6. Potential Impacts and Mitigation Measures

(A) Ecology and Environment

- 3.6.1. While the Kowloon Park Scheme has minimised encroaching into the sensitive ecological areas such as the Bird Lake, Old and Valuable Trees (OVTs) and other densely vegetated areas, a number of comments were received on the potential impacts on the overall ecology and environment brought about by the Kowloon Park Scheme, mainly on the existing flora and fauna, the direct and indirect impacts on the trees' canopy and root systems, roosting and foraging grounds for various kinds of birds; and the unfavourable effects on the underground water systems/water table in the park and surrounding areas. Other related concerns included the potential effects on the tranquillity and ambiance of the park because of the increasing visitors in the operation stage of the USD.
- 3.6.2. There were views that it would take decades for trees to grow to their current size and to reestablish a similar ecosystem. As many trees within Kowloon Park had a long history and constituted valuable habitats for many birds and wildlife, the loss of them and possibly the associated habitats and biodiversity would have significant impact on the urban ecology. The transplanted/replanted trees might not have the same biodiversity/ecological values as before the development. As there was no guarantee that the ecology and environment values of Kowloon Park would be fully recovered after development, some did not support the Kowloon Park Scheme.
- 3.6.3. With regard to the extent and number of trees to be affected, there were views on the potential disturbances, such as lighting, human activities and noise, to the existing microclimate and ecology particularly the egretry during construction phase of the USD. There were also views on the potential disturbances to the habitat quality and the breeding environment of different bird species found at the park. Some suggested that trees should be retained on site as far as possible for maintaining their environmental, microclimate moderation, ecological, aesthetics, recreational, educational and cultural functions. The percentage of tree canopy to be removed should also be reviewed.

(B) Root Systems of Old and Valuable Trees

3.6.4. A number of comments with regard to the trees/vegetation affected by the proposed USD were received, particularly on the number of trees that would be affected, their root system(s), depth of soil retention, backfilling materials, protective measures, because the USD would not only affect the aesthetics of the park, but also the flora and fauna associated with the affected tree clusters especially the OVTs. There were views on whether the proposed depth of soil retention of 3m would be enough for supporting the affected OVTs. The historical and botanical values of the OVTs were considered an invaluable asset of Kowloon Park which should be enhanced, rather than undermined by developing the site. There were also suggestions on thorough investigation of the root systems of all OVTs (including the spread and depth) on site and adopting appropriate protective measures to protect the OVTs.

(C) Conservation of Heritage Buildings and Disused Air-raid Tunnels

3.6.5. Some commented that the construction works of the proposed USD might affect the existing heritage buildings on site (e.g. the remaining Whitfield Barracks buildings, masonry walls, canons, boundary stones, etc.) as well as other cultural heritage resources (e.g. the disused air-raid tunnels). There were comments on whether the proposed construction method would have potential impacts on the structural stability of these structures and whether preservation and/or protection measures could address the concerns. Adaptive use of heritage buildings and/or structures, e.g. using the masonry walls at the Kowloon Park entrance at Austin Road as the façade of the above-ground structure, was suggested.

3.7. Construction Matters

(A) Construction Method

- 3.7.1. Some considered that the proposed "top-down" construction method should be elaborated as regards to tree removal, site clearance, erection of hoarding, etc. More detailed information regarding the protective measures adopted during construction (actual procedures, extent of buffer zones, etc.) and replanting measures for the existing park facilities (Colour Garden, Garden of Life, the Tenth Anniversary Memorial Garden, Water Garden, Lily Pond, etc.) should be provided.
- 3.7.2. There were different views on the proposed "top-down" construction method. For the supportive side, it was agreed that the "top-down" construction method would be a pragmatic strategy to enable an early re-opening of the affected parts of the park to the public. On the other hand, some commented that the proposed method would still affect the existing vegetation extensively, and hence inflict devastating effects, destroying the park environment and causing serious disruptions to the ecosystem; and that in-situ conservation of existing flora and fauna should be regarded as the top priority whereas transplantation/migration should be considered as a last resort only. On the construction method for the proposed underground pedestrian passageways, it was agreed that trenchless excavation should be adopted as far as practicable.
- 3.7.3. On the implementation issues, there were comments that cost-benefit analysis should be conducted for comparing different construction methods and phasing. Estimation of the quantity of construction and demolition (C&D) materials generated from the proposed

AECOM March 2025

development and associated disposal methods were essential for further discussion. Regarding handling of C&D materials, it was suggested that disposal through marine transportation should be considered. To minimise the potential on-site impacts and to speed up the construction period, off-site construction planning, such as adopting precast and modular pre-fabrication methods, was suggested.

(B) Construction Phasing

- 3.7.4. Those supporting the proposed "top-down" construction method considered that a phased development approach would allow early re-opening of the relatively smaller affected portion of the park, and provide more flexibility for refining the scheme design during implementation to meet the latest public aspiration. Some considered that the phased approach could be supported if the concerned information and arrangements, such as the detailed construction sequence and access to the remaining sections of Kowloon Park during construction, were provided for agreement by the concerned stakeholders.
- 3.7.5. Those preferring a single development approach considered that this could (i) shorten the overall development time; (ii) allow better budget control by minimising the programme uncertainty and hence additional funding for project delay; and (iii) minimise the duration of nuisances caused to various parties during construction.
- 3.7.6. Some concerned on the prolonged construction nuisances and impacts on Kowloon Park, in particular the park environment, under phased development. It was suggested that various forms of mitigation measures should be considered to minimise the disturbances to the park users and other structures nearby.

4. RESPONSES TO KEY COMMENTS

4.1. Pedestrian Connections and Walking Experience

- 4.1.1. The proposed underground connections would link up different parts of TST. It would attract and divert some pedestrian flow between MTR TST Station and Canton Road/Austin Road/Nathan Road/Haiphong Road to underground level as the travelling time may be shortened between some destinations, especially from the core business areas of TST (e.g. Kimberly Road and Carnarvon Road) to Canton Road. The proposed conceptual scheme would not only enhance the connectivity and walking environment by providing an alternative underground pedestrian network, but also create space for various beneficial uses.
- 4.1.2. Regarding the concern on the additional vehicular and pedestrian traffic brought about by the USD, a preliminary traffic impact assessment (TIA) has been conducted. Please refer to paragraph 4.3.5 below.
- 4.1.3. In addition, proper and user-friendly guiding system (e.g. signages, interacting information panels, concierge/information centre) would be provided. To fulfil the Barrier Free Access requirements, escalators and elevators would be provided at the existing entrances/exits of Kowloon Park at street level where appropriate. Travellators could also be considered in the next stage should the Kowloon Park Scheme be taken forward.

- 4.1.4. In regard to the proposal of other at-grade alternatives, the Transport Department (TD) had reviewed the suggestions from technical point of view and opened an additional pedestrian crossing at the junction of Kowloon Park Drive and Middle Road. TD will continue to keep in view the pedestrian movement conditions in the vicinity.
- 4.1.5. Feasibility of possible connections to WKCD and Peking Road and other underground pedestrian connections suggested would be further studied in the next stage, should the Kowloon Park Scheme be taken forward.

4.2. Development Scale and Footprint

- 4.2.1. The Kowloon Park Scheme aimed to integrate underground space with the above-ground street/park environment to enhance pedestrian connectivity and create space to meet community needs. The USD would not only serve the connectivity purpose, but also provide a vibrant and high quality space to accommodate community facilities, resting area, public space, cultural activity, artworks display, etc., as well as retail and F&B facilities to serve the community. Regarding the concern of the impact of the Kowloon Park Scheme on the park surface, existing trees and wildlife, please refer to paragraphs 4.4.3 to 4.4.6 and 4.5.1 to 4.5.5.
- 4.2.2. The government will follow the principle of "single site, multiple uses" in considering the development scale and footprint of the USD, which could be further adjusted should the Kowloon Park Scheme be taken forward, including the exploration of possible underground space beneath the outdoor swimming pools and Piazza, relocation of the Haiphong Road Temporary Market Cum Cooked Food Hawker Bazaar and the Haiphong Road Temporary Refuse Collection Point and redevelopment of the concerned "G/IC" sites, taking into account the views of the public and relevant stakeholders.
- 4.2.3. The overall USD design and implementation would comply with the relevant legislations, regulations and guidelines to ensure acceptability of the USD in terms of structural safety, fire safety, drainage, environmental hygiene, sewerage discharge, and traffic impact, etc. Leisure and Cultural Services Department and other relevant departments/organisations of interest would be consulted with respect to the reprovisioning of the affected Sports and Recreational (S&R) facilities should the USD be expanded to the area beneath these facilities. The impacts on temporary closure of the S&R facilities would also be carefully considered.

4.3. Proposed Uses & Facilities and Ratio of Uses

- 4.3.1. The existing provision and usage of GIC facilities in TST have been reviewed. Currently, the "G/IC" sites in TST have been developed/reserved for GIC uses. The Government will follow the principle of "single site, multiple uses" in considering development/redevelopment of GIC facilities.
- 4.3.2. The potential uses in the Community Hub had taken into account the suggestions received in Stage 1 PE. Should the Scheme be taken forward, the suggested uses received during Stage 2 PE, such as public space, sports facilities, art and cultural venue, community hall, post office, clinic, children/ elderly facilities and environmental education facilities, will be duly considered in reviewing the Scheme, subject to the prevailing health and safety requirements and the agreement of relevant departments.

- 4.3.3. In considering the ratio of different uses, it is necessary to strike a balance between meeting community needs and maintaining financial viability of the development. With reference to overseas USDs, certain amount of retail/F&B space was proposed with a view to providing a comfortable and attractive underground space environment. An "underground street" approach could be considered with retail/F&B facilities modestly provided alongside the underground passageways that connect with the MTR TST Station, the park surface and surrounding streets. The park surface would still be an open space intended for the provision of outdoor public open-air space for active and/or passive recreational uses serving the local residents as well as the general public. The overall open space function of Kowloon Park would remain unaffected. The Scheme, if taken forward, will need to be submitted to the Town Planning Board for consideration. Implementation of the USD would comply with the relevant legislation, regulations and guidelines in respect of structural safety, fire safety, drainage, environmental hygiene, sewage discharge, etc.
- 4.3.4. Different implementation mechanisms including Government Project Approach, Public Private Partnership Approach (such as "Design-Build-Finance-Operate", "Joint Venture" or "Build-Operate-Transfer"), or Private Development Approach (such as conventional land sale or private treaty grant) will be considered in the next stage, should the USD be taken forward.
- 4.3.5. Parking and L/UL facilities for goods vehicle in the USD had been proposed in accordance with the Hong Kong Planning Standards and Guidelines. In the preliminary TIA, a traffic model was established to evaluate the junction capacity of existing nearby traffic load and the anticipated traffic load generated by the proposed USD with due consideration given to the planned and committed developments within or adjacent to the study area. The results showed that the operating performance of all junctions studied would be within capacity. The vehicular traffic impact of the proposed development was considered insignificant during both construction and operational stages. In view of additional pedestrian flow, pedestrian demand forecasts and pedestrian Level of Service (LOS) assessment had been carried out. The results revealed that the pedestrian LOS would be either maintained or improved on all footpaths with the proposed pedestrian connections in the Scheme. The proposed connectivity layout would contribute to an overall improvement in the pedestrian LOS on the footpaths in the study area, even with the additional pedestrian flow generated by the proposed USD. With the proposed "East-West Connection" and the "North-South Connection" linking up Nathan Road, Canton Road, Austin Road, Haiphong Road and the MTR TST Station, some pedestrians would be diverted to use the underground connections. As such, the pedestrian LOS at the footpaths of Haiphong Road, Nathan Road and Peking Road could be improved after implementation of the proposed USD.
- 4.3.6. In the Kowloon Park Scheme, vehicles would use the proposed vehicular access at the southbound direction of Kowloon Park Drive to reach the proposed car parking, passenger pick-up/drop-off and L/UL facilities at the southern part of the USD. Use of automated parking system could be considered as necessary. However, provision of coach parking in the USD was considered not preferred as the higher headroom requirement for coach parking would necessitate longer access ramp which would occupy more space in the park.

4.4. Enhancement Opportunities

- 4.4.1. The Kowloon Park Scheme would offer an opportunity to enhance and upgrade the existing leisure facilities, and to create a vibrant and attractive public realm for public enjoyment. It would not only serve the connectivity purpose, but also bring in various functions, e.g. public space for exhibitions, cultural activities and artworks display. Different levels of the USD would be connected by lifts, escalators, ramps and staircases. The proposed connections could improve the accessibility between the park and the surrounding streets.
- 4.4.2. Design to allow penetration of sunlight has been explored under the Kowloon Park Scheme, e.g. glass walls at ground level have been proposed in the design of the Community Hub to effectively direct sunlight into the underground and indoor spaces. Other energy saving approaches have also been considered, e.g. renewable energy, energy efficient features, green materials and water conservation. Refinement will be further considered in the next stage should the Scheme be taken forward.
- 4.4.3. To meet building and fire safety requirements, certain essential and small-scale ancillary structures, mainly ventilation shafts and entrances/exits would need to be provided at-grade. The size and number of ventilation shafts and means of access/escape had been minimised by adopting a fire engineering approach. Aesthetical pleasing design had been proposed to ensure the design and appearance of such structures would blend in with the lush green park setting. Design of these facilities will be further considered in the detailed design stage, should the USD be taken forward.
- 4.4.4. In the Kowloon Park facelifting design, a comprehensive landscape design had been proposed to blend in the reinstated park surface facilities with the unaffected park area. On the greening design, a balance between tree planting and other soft/hard landscape, such as aesthetically pleasing ancillary structures, buffer planting, green roof, would be struck. Thematic design and incorporation of WKCD elements could be further considered in the detailed design stage, should the proposal be taken forward.
- 4.4.5. Besides a well-established underground connection network, walking paths would be provided at the park level, offering pleasant and relaxing environment for public enjoyment in the park reinstatement works associated with the proposed USD.
- 4.4.6. Regarding the crowded pedestrian environment near the Mosque, pedestrian demand forecast and pedestrian LOS assessment had been carried out, paragraph 4.3.5 is relevant.
- 4.4.7. Regarding revitalisation of the disused air-raid tunnels, the response at paragraph 4.5.6 below is relevant.

4.5. Potential Impacts and Mitigation Measures

- 4.5.1. Based on the preliminary technical assessments, including those on ecology and environment aspects, the proposed USD was technically feasible.
- 4.5.2. To assess the direct or indirect impacts to the ecology condition, a preliminary tree and avifauna study had been carried out to stock-take the sensitive ecological/environmental elements, such as presence of OVTs, rare tree species, mature tree groups, egretry, active bird

- Feasibility Study

nests. About 45 OVTs and 50 bird species (including active bird nests) were recorded within the Kowloon Park. These were considered as development constraints and the OVTs had been excluded from the development boundary as far as practicable. Similarly, the Bird Lake had also been excluded from the USD boundary to avoid tree removal works near the Bird Lake and potential impacts to the avifauna.

- 4.5.3. According to the preliminary environmental review, it was anticipated that the underground development involving open excavation would result in potential ecological impacts to some avifauna and their habitats in Kowloon Park during construction. Besides, the alteration of park features and visitor flow might change the habitat characteristics and wildlife usage during construction and operation phase. Should the Scheme be taken forward, a precautionary check would be conducted to confirm no active nests are present within or near the works areas prior to the commencement of construction works.
- 4.5.4. The preliminary environmental review conducted also identified the potential disturbance and nuisance that might be brought by the construction works which would require further assessment and consideration of appropriate mitigation measures should the Scheme be taken forward, such as:
 - more detailed baseline survey for trees, avifauna and other wildlife should be carried
 out prior to the commencement of works and the construction methodologies should
 be reviewed if there is a change in circumstances;
 - regular monitoring of tree health condition and ground water level should be carried out by qualified personnel during construction stage;
 - noise and dust generating activities should be avoided during the breeding seasons;
 - noise and vibration reduction measures should be adopted for construction works; and
 - re-provisioning of native plant species as far as practicable to enhance the ecological value of Kowloon Park and compensate the loss of plantation.
- 4.5.5. According to the prevailing Development Bureau's guideline, a zone encompassing the tree along its dripline projecting vertically from the tree canopy and extending 2m below the ground level and 2m above the top of an OVT should be designated as a protection zone. For an OVT growing on a retaining structure/wall, the tree protection zone should encompass the body of the tree itself and 2m above the tree crown as well as the vertical and horizontal surfaces of the retaining structure/wall, covered by the tree roots together with the space up to 2m behind those surfaces. Within the protection zone of OVTs, construction works such as excavation, trenching, piling and landfilling, should be avoided as far as possible.
- 4.5.6. The disused air-raid tunnels are currently defined as confined space and with limited headroom, the opening of disused tunnels would be subject to technical feasibility and further consideration and liaison with relevant stakeholders and departments including the Antiquities and Monuments Office. To protect the built heritage and other cultural heritage resources, all built heritage and the air-raid tunnels underneath the Park would be excluded from the development boundary. Should the Scheme be taken forward, detailed condition survey would be carried out to record the baseline conditions of these built heritage prior to the commencement of construction and regular monitoring measures would be implemented during the construction period to ensure that there would be no potential impact to their structural stability.

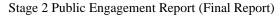
4.6. Construction Matters

- 4.6.1. Innovative and advanced construction technology would be adopted to speed up the works and minimise the potential impacts to the park, park users as well as the surrounding environment. Details of works, e.g. site layout plan, construction sequence/phasing drawings, temporary access plan, interface details with the park reinstatement and other projects, and compensatory plantings, would be worked out in the next stage should the proposal be taken forward.
- 4.6.2. Preliminary broad financial assessments had been carried out to estimate the potential construction and operation costs and evaluate the cost-effectiveness of the proposed Scheme. Both single and phased development approaches had their pros and cons in term of cost-effectiveness and construction duration. In view of the diverse views received, further consultation on the construction phasing would be arranged should the Scheme be taken forward. Potential impacts and nuisances would be identified to facilitate an informed decision on the construction method and phasing. Possible mitigation measures would also be implemented to minimise the impacts and the mitigation plan would be reviewed from time to time in the course of construction.
- 4.6.3. With respect to handling of solid waste, C&D materials would be sorted on-site and separated as inert and non-inert C&D materials. The inert nature of most of the C&D materials generated would unlikely cause environmental concerns. Appropriate mitigation measures would be adopted to minimise the impact resulting from generation, collection and transportation of C&D materials.

5. CONCLUSION AND WAY FORWARD

- 5.1 Comments and views collected during Stage 2 PE had been duly considered and assessed in revising the Kowloon Park Scheme, including expansion and better utilisation of underground space in the area of Kowloon Park, with a view to further providing multi-purpose space and increasing its distribution ratio, and connecting to adjacent developments; and further reducing the impact on trees and the ecology of the park, etc.
- USD is one of the feasible medium to long term land supply options to create and increase urban development capacity. In the course of the Study, the situations of the tourism industry and retail market as well as the economy of Hong Kong have changed due to the outbreak of the epidemic since early 2020. In 2023, our society resumed normalcy in full after the epidemic. However, the commercial and retail market in TST still takes time to adjust, and construction works of underground space development at Kowloon Park would inevitably pose impact to park operation and enjoyment of park users. Also, the Government should exercise control over the pace of public expenditure through re-prioritisation of works. Considering the above, it is not the right time now to proceed with the project. We can consider taking forward the project on the basis of the Study at a suitable juncture in future.

Agreement No. CE 29/2014 (GE)
Pilot Study on Underground Space Development in Selected Strategic Urban Areas
- Feasibility Study



Appendix I Schedule of Roving Exhibition, Questionnaire Survey Booths and Weekend Public Events

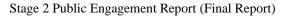


	-	Feasil	bility	Study
--	---	--------	--------	-------

Date	Venue			
Roving Exhibition				
5 – 12 June 2019	3/F, Meeting Room, City Gallery, Central			
18 – 23 June 2019	Near Park Lane Shopper's Boulevard Sculpture, Tsim Sha Tsui			
2 – 6 July 2019	1/F, Immigration Tower, Wan Chai			
8 – 18 July 2019	G/F, North Point Government Offices, North Point			
21 – 27 July 2019	Kowloon Park Swimming Pool Foyer, Tsim Sha Tsui			
3 – 11 August 2019	Kowloon Park Swimming Pool Arcade, Tsim Sha Tsui			
Questionnaire Survey Booths				
19 – 21 June 2019	Haiphong Road, Tsim Sha Tsui			
21 – 22 July 2019	Outside BP International House (8 Austin Road), Jordan			
25 – 27 July 2019	Haiphong Road, Tsim Sha Tsui			
2 August 2019	Ferry Street in between Man Wui Street and Jordan Road, Jordan			
9 – 11 August 2019	Haiphong Road, Tsim Sha Tsui			
Weekend Public Events				
27 July 2019	Let's Talk and Walk (1) – Kowloon Park Swimming Pool Foyer			
11 August 2019	Let's Talk and Walk (2) – Kowloon Park Swimming Pool Arcade			



Agreement No. CE 29/2014 (GE)
Pilot Study on Underground Space Development in Selected Strategic Urban Areas
Fassibility Study



Appendix II List of Meetings with Advisory and Statutory Bodies, Focus Group Meetings and Other Consultation Meetings

Date	Meetings				
Meetings with Advisory a	Meetings with Advisory and Statutory Bodies				
30 May 2019	Yau Tsim Mong District Council				
25 June 2019	Panel on Development of the Legislative Council				
28 June 2019	Town Planning Board				
4 July 2019	Planning Sub-Committee of Land and Development Advisory Committee				
Focus Group Meetings					
5 June 2019	Professional Institutes and Academics				
6 June 2019	Green Groups and Think Tanks				
19 June 2019	Community and Concern Groups				
Other Consultation Meetings					
6 July 2019	Residents of The Victoria Towers				
8 July 2019	The Hong Kong Institute of Planners				
10 August 2019	The Institution of Civil Engineers, Hong Kong Association				



