

# LCQ19: Development of underground space

Following is a question by the Hon Chan Hoi-yan and a written reply by the Secretary for Development, Mr Michael Wong, in the Legislative Council today (November 20):

Question:

Regarding the development of underground space, will the Government inform this Council:

(1) of the total length of the pedestrian passageways situated below the ground at public places at present, with a breakdown by District Council (DC) district;

(2) of the respective total floor areas and percentages of the commercial space situated below the ground at Government properties and private properties at present, with a breakdown by DC district;

(3) of the respective total floor areas of the car parks situated (i) above the ground at Government sites, (ii) below the ground at Government sites, (iii) above the ground at private sites and (iv) below the ground at private sites, as well as the respective numbers of the various types of car parking spaces provided in such car parks, in each of the past five years, with a breakdown by DC district;

(4) whether it has plans to construct underground passageways to link various MTR stations which are situated underground for the provision of pedestrian and commercial facilities; if so, of the details; if not, whether it will consider expeditiously commencing a relevant study and formulating an implementation timetable; and

(5) whether it has plans to, by drawing reference from the experience of overseas countries, formulate a comprehensive blueprint for underground space development to put below the ground as far as possible communal facilities such as sewage and waste treatment; if so, of the details (including the locations); if not, whether it will consider expeditiously commencing a relevant study?

Reply:

President,

Hong Kong has been using underground space for commercial purpose and provision of community and transport facilities for many years. Most existing use of underground space have been developed under individual projects such as basement car parks, shopping arcades, pedestrian subways, railway stations

and tunnels. There lacks a holistic planning strategy from a macro and multi-level perspectives, such as comprehensive consideration of underground space creation and connection with the neighbouring developments. From overseas examples, planning and effective use of underground space could enhance connectivity with the surroundings, improve the urban environment at street level, create space for various commercial and public facilities, and optimise the development potential of our scarce land resources in a long term.

Underground space is a viable source of land supply, which can provide solution space for a broad variety of land uses. Utilising these hidden land resources may provide opportunities for the planning and development of Hong Kong, address the needs for community and commercial facilities, and tackle the traffic and environmental issues due to the lack of space in urban areas. In its report submitted to the Government on December 31, 2018, the Task Force on Land Supply recognised the multiple benefits of underground space development (USD) and recommended it as one of the medium-to-long term land supply options for priority studies and implementation.

Our responses to the various parts of the question raised by the Hon Chan, having taken into account the inputs of relevant bureaux and departments, are as follows:

(1) According to the record of the Highways Department, the total length of pedestrian subways maintained by that department in various districts is currently around 32.9 kilometres. Please refer to Annex 1 for more details.

(2) Information on the floor area and percentage of commercial space situated below the ground at individual Government and private properties are recorded in their respective files. Relevant Government departments do not compile the concerned statistics on the total floor areas and percentages of commercial space situated below the ground at Government and private properties by districts.

(3) According to the information provided by the Transport Department, the numbers of car parking spaces by vehicle types and by districts in the past five years are provided in Annex 2. With respect to the total floor areas of the car parks situated above and below the ground at Government and private sites, relevant Government departments do not compile the concerned statistics.

(4) According to the Transport and Housing Bureau, generally speaking, the Government will invite the MTR Corporation Limited (MTRCL) to provide suitable accesses and pedestrian walkways during the planning and design of railway stations to facilitate the use of railway services. Depending on relevant factors including projected pedestrian flow, pedestrian connectivity, linkage with nearby buildings, impact on ground level shops, engineering technical feasibility, and impact on underground public utilities, etc., MTRCL will extend the accesses of railway stations to nearby areas and buildings through passageways where feasible. At some existing stations (e.g. Tsim Sha Tsui Station and Central Station) and stations under

construction (e.g. Kai Tak Station and Sung Wong Toi Station), there are underground pedestrian walkways linking the stations with nearby streets and buildings. Apart from providing convenient passageways to and from railway stations, this could also make better use of underground space. However, for elevated or at-grade railway stations such as the existing Tsuen Wan Station and the Hin Keng Station under construction, it may not be appropriate to provide underground pedestrian walkways.

(5) To exploit the potential of systematic use of underground space resources in a comprehensive manner, the Civil Engineering and Development Department (CEDD) undertook a study entitled Territory-wide Study on Underground Space Development in the Urban Areas of Hong Kong – Feasibility Study (the Territory-wide Study) which was substantially completed in 2017. The findings of the Territory-wide Study revealed that there may be fewer constraints on developing underground space in new development areas and large-scale comprehensive development/redevelopment areas. Advanced and holistic planning for underground space development, particularly at the early planning stage, may be worthy of pursuance. The study findings also revealed that there is a potential and opportunity for developing underground space in new development projects and existing public open space from the technical perspective, which could help meet the district needs and enhance connectivity with the surroundings. As regards new development projects, the Government has planned on the approved Kai Tak Outline Zoning Plan the development of an underground shopping street in the Kai Tak Development for providing connections with the San Po Kong and Kowloon City areas respectively, thus enhancing integration between the new and old districts.

For USD in urban areas, the Territory-wide Study findings also indicated that the development potential of individual areas may be subject to various constraints in the existing urban context (e.g. land ownership issues and obstruction by underground structures). It would be comparatively difficult to develop underground space within existing private lots or build underground connections within its close proximity. To further assess the feasibility in a holistic manner and identify the key issues of USD in urban areas, the CEDD and the Planning Department jointly commenced a Pilot Study on Underground Space Development in Selected Strategic Urban Areas (the Pilot Study) in June 2015 to explore the potential of USD in four densely developed urban areas, and propose, having regard to the study findings, feasible conceptual development schemes for future implementation. The two departments completed the Stage Two Public Engagement activities of the Pilot Study from May to August this year, and collected views of relevant stakeholders and the public on holistic planning and design strategies of the proposed conceptual scheme for USD at the Kowloon Park, which was accorded development priority. Relevant Government departments are analysing the views and suggestions collected in the public engagement for refining the conceptual scheme and studying its technical feasibility and implementation modes in greater detail.