

PLANNING, PROVISION AND MANAGEMENT OF PUBLIC PARKING SPACES

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1. With a transport policy which centres on the use of public transport, the Government's parking policy is to accord priority to considering and meeting the parking demand of commercial vehicles and to provide an appropriate number of parking spaces for private cars if overall development permits. Under the policy directives of the Transport and Housing Bureau, the Transport Department (TD) is responsible for parking-related matters for licensed vehicles. According to the Hong Kong Planning Standards and Guidelines (HKPSG), parking spaces in a development are generally divided into ancillary parking spaces (restricted to owners and authorised users) and public parking spaces (for use by the general public). Public parking spaces are mainly provided through: (a) incorporation of parking spaces in private, public housing and Government, Institution or Community (G/IC) developments, and open space projects; (b) short-term tenancy (STT) car parks administered by the Lands Department (LandsD); and (c) government multi-storey car parks and on-street parking spaces managed by TD. As at 31 December 2018, 756,909 parking spaces (including 238,320 public parking spaces) were provided to meet the parking needs of 744,191 licensed private cars, commercial vehicles and motorcycles (see para. 2). In 2018, the revenue from 11 government multi-storey car parks and metered parking spaces amounted to \$220 million and \$287 million respectively. The Audit Commission (Audit) has recently conducted a review to examine the Government's work in planning, provision and management of public parking spaces with a view to identifying areas for improvement.

Planning and provision of public parking spaces

2. *Ratio of parking spaces to vehicles.* From December 2006 to December 2018, the total number of licensed vehicles (private cars, commercial vehicles and motorcycles) increased by 44.4% from 515,341 to 744,191 while that of parking spaces only increased by 11.6% from 678,230 to 756,909. As a result, the overall ratio of parking spaces to vehicles (parking space ratio) dropped from 1.32 to 1.02. Audit analysis showed that during the same period, the parking space ratio for commercial vehicles increased by 4.9% from 0.61 to 0.64 and that for private cars

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dropped significantly by 27.2% from 1.51 to 1.10 due to the substantial growth in the number of private cars by 53.4% from 401,692 to 616,220 (para. 2.3).

3. ***Need to closely monitor parking space ratio for private cars.*** According to the Second Parking Demand Study Final Report (2002 Study Report) issued in November 2002, there were surplus parking facilities for private cars up to 2011. Subsequently, in 2003 and 2014, the parking space standards of HKPSG for private housing developments were substantially revised, resulting in a reduction in the number of such parking spaces. However, since 2006, there have been changing circumstances on the demand and supply of private car parking spaces (i.e. the private car parking space ratio decreasing to 1.10 in 2018 (see para. 2) and further to a projected ratio of less than 1 in the coming years). The decreasing ratio revealing a shortfall of private car parking spaces has become a cause for concern (paras. 2.6 and 2.7).

4. ***Need to review planning standards of parking spaces in housing developments.*** Following the 2002 Study Report which predicted a surplus of private car parking spaces, from 2002 to 2018, HKPSG planning standards of ancillary private car parking spaces in housing developments were revised seven times. However, there was a significant increase in the demand for private car parking spaces in recent years. In view of the changing circumstances, TD needs to examine the need for refining the planning standards of parking spaces in housing developments promulgated in HKPSG (paras. 2.3, 2.8 and 2.9).

5. ***Need to consider promulgating new guidelines on provision of public parking spaces in G/IC and private developments.*** Unlike ancillary parking spaces, HKPSG does not promulgate guidelines for provision of public parking spaces. As a result, TD will decide on a case-by-case basis the incorporation of public parking spaces in G/IC and private developments, taking into account factors such as the demand and supply of parking spaces, and the illegal parking situation in the locality. TD needs to consider issuing internal guidelines for establishing the requirements for public parking spaces in new development and redevelopment proposals (para. 2.10).

6. ***Need to improve planning and provision of public parking spaces in G/IC and private developments.*** According to the 2018 Policy Address, the Government would follow the principle of “single site, multiple uses” to provide public car parking spaces in suitable G/IC facilities and public open space projects. With the support of

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the Development Bureau, TD will identify suitable sites and liaise with relevant departments to incorporate public parking spaces into such facilities at the planning stage. Apart from providing parking spaces in G/IC developments and open space projects, the Government might require developers to provide parking spaces for public use in suitable projects (paras. 2.11 to 2.13). Audit examination has revealed room for improvement in planning and providing public parking spaces in G/IC developments (see Case 1) and private developments (see Cases 2 and 3):

- (a) **Case 1.** In March 2011, the Sai Kung District Council (SKDC) supported the Leisure and Cultural Services Department (LCSD)'s proposed project scope for Town Park in Area 66 and 68 in Tseung Kwan O. Since February 2013, a portion in Area 66 has been used as a temporary car park under an STT. In the event, TD only proposed to split the Town Park project into two separate projects in November 2018, namely a Town Park project in Area 68 by LCSD as the project proponent and a Town Park with an underground car park project in Area 66 (providing 395 parking spaces) by TD as the project proponent. As at March 2019, while SKDC had indicated support to the Town Park project in Area 68, it had not endorsed the proposed Town Park with an underground car park project in Area 66. Audit noted that, upon the termination of the STT car park in Area 66, there would be a shortfall of about 380 parking spaces for meeting the estimated requirement of 880 parking spaces in the area (para. 2.12);
- (b) **Case 2.** In December 1999, a public lorry park with 155 light goods vehicle (LGV) parking spaces was approved for inclusion as a special condition in the land lease of Development A. From October 2016 to August 2018, LandsD conducted seven inspections to check the owner's compliance with the land lease condition and found no lorry was parked in the lorry park. However, TD's survey on illegal parking in the area suggested that there was a demand for LGV parking spaces. TD needs to ascertain the reasons for under-utilisation of these LGV parking spaces (para. 2.13); and
- (c) **Case 3.** In February 1999, LandsD included the provision of public parking spaces (not less than 200 for LGVs and not less than 178 for private cars) as a special condition in the land lease of Development B. LandsD's inspections in August and October 2018 found that some LGV parking spaces were occupied by private cars and letters were issued to the owner requiring rectification. In response, the car park operator informed LandsD that since cordoning-off of LGV parking spaces was not permitted, all LGV parking spaces were open to use by private cars which made it difficult to

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manage. Audit's site visit in January 2019 revealed that some LGV parking spaces were still occupied by private cars and the non-compliance with land lease condition remained unrectified (para. 2.13).

7. ***Need to provide more long-term public parking spaces to meet the shortfall arising from termination of STT car parks.*** From 2011 to 2018, the number of STT parking spaces for commercial vehicles decreased by 3,235 (24%) from 13,344 to 10,109 and that for private cars by 1,626 (7%) from 23,055 to 21,429. According to TD, as at 30 September 2018, 41 STT car parks (providing 6,187 parking spaces for private cars and 2,115 for commercial vehicles) would be terminated for long-term developments in the coming years. TD needs to formulate a strategy for providing more long-term public parking spaces to meet the shortfall arising from the termination of STT car parks (paras. 2.15 and 2.16).

Management of government multi-storey car parks

8. ***Need to give due consideration to various factors in reviewing parking fees.*** As at 31 December 2018, TD managed 11 government multi-storey car parks providing a total of 5,547 parking spaces. To cater for different parking demands in different districts, parking fees are charged at different rates based on the parking duration. According to TD, parking fees should be reviewed every year taking into account: (i) the Government's policy objective to maintain the parking space availability rate of 15% during peak hours (i.e. a utilisation rate of 85%); (ii) parking fees to be comparable with fees charged by nearby public car parks; (iii) impact of fee revision on utilisation and the Government's policy objective of maximising government revenue; and (iv) public acceptability. Audit examination has revealed that there is a need to take into consideration the following audit observations in future parking fee review exercises (paras. 3.2, 3.3 and 3.5):

- (a) ***Parking space average daily peak-hour utilisation rates exceeding 85%.*** According to TD, the average daily peak-hour utilisation rate of parking spaces in the 11 government multi-storey car parks for private cars, van-type LGVs and taxis increased from 66% in 2013 to 90% in 2018 (the utilisation rates had exceeded TD's target utilisation rate of 85% since 2015). In 2018, the average daily peak-hour utilisation rates in 10 of the 11 car parks ranged from 89% to 95% (paras. 3.4 and 3.6);

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- (b) ***Parking fees below average market rate.*** According to a market research conducted by TD in July 2018, the monthly parking fees of non-reserved parking spaces for private cars and van-type LGVs in all the government multi-storey car parks (ranging from \$1,800 to \$4,300) were the lowest as compared with nearby public car parks (i.e. within 15 minutes walking distance). In general, the monthly parking fees were 15% to 34% lower than the average market rates of nearby public car parks (para. 3.7); and
- (c) ***Concessionary parking fees for taxis.*** In 1999, TD launched a scheme to sell monthly parking tickets for taxis at a concessionary rate. The monthly parking fees for taxis in 10 government multi-storey car parks had increased by 16% from \$500 in 1999 to \$580 in 2018. Audit's research revealed that the granting of concessionary rate was not common (e.g. in the Hong Kong Housing Authority's car parks, the monthly parking fees for taxis and private cars were the same) (para. 3.8).
9. ***Need to improve sale arrangements of parking tickets.*** As at 31 December 2018, there were 3,811 (69% of 5,547 parking spaces) monthly and quarterly parking tickets made available for sale in the 11 government multi-storey car parks. Monthly parking tickets were sold on a first-come-first-served basis and quarterly parking tickets were sold by balloting. Audit found that monthly parking tickets for private cars and van-type LGVs had been sold out on the first day in four car parks (i.e. Tin Hau, Shau Kei Wan, Aberdeen and Kwai Fong Car Parks) for 5 to 6 consecutive months from July to December 2018. Audit's site visits in November 2018 and January 2019 also revealed that overnight queues existed in the four car parks. Since December 2018, TD has changed the sale arrangements of parking tickets in Sheung Fung Street Car Park from a first-come-first-served basis to a balloting arrangement. The balloting arrangement would also be extended to Rumsey Street and Yau Ma Tei Car Parks in March 2019. In Audit's view, apart from considering the extension of balloting arrangement to other car parks, TD also needs to explore the use of information technology (e.g. online application) to streamline the application process (paras. 3.9 to 3.11).
10. ***Need to put the rooftop parking spaces at Kwai Fong Car Park into effective use expeditiously.*** Audit found that the rooftop of Kwai Fong Car Park had been closed since October 2013 after the completion of the works to enhance the security of the Car Park. All the 75 parking spaces on the rooftop had not been open for public use. Upon enquiry, TD informed Audit that: (a) the surface of the rooftop

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was subsequently found not suitable for parking and the repair works were completed in October 2018; and (b) TD planned to re-open the rooftop parking spaces as a temporary vehicle detention centre and afterwards for general parking purpose. In Audit's view, the prolonged closure of rooftop parking spaces at Kwai Fong Car Park was unsatisfactory because there was a great demand for parking spaces in Kwai Fong (paras. 3.16 to 3.18).

11. ***Need to remove abandoned vehicles to release occupied parking spaces expeditiously.*** As at 12 November 2018, there were 13 abandoned vehicles in 5 government multi-storey car parks. Of the 13 vehicles, 10 had been abandoned for more than one year to 11 years up to 31 December 2018. Audit found that the inadequacies in TD's follow-up actions on removing the abandoned vehicles had resulted in prolonged occupation of parking spaces in the car parks (paras. 3.20 and 3.21).

12. ***Need to review adequacy of closed-circuit television (CCTV) security systems.*** In 2018, 37 incidents (e.g. vehicle theft) in government multi-storey car parks were reported to the Hong Kong Police Force. Audit found that: (a) in 30 of the 37 incidents, no image was captured by the CCTV footage or the scene was not under the coverage of CCTV security systems during the occurrence of the incidents and thus no record could be provided to the Hong Kong Police Force for investigation; and (b) the number of CCTV cameras varied from 4 to 43 in each of the 11 government multi-storey car parks. In Audit's view, TD needs to review the adequacy of CCTV security systems (paras. 3.25 and 3.26).

13. ***Need to expedite the replacement work of car park management system (CPMS).*** CPMS is a critical car park system installed in each government multi-storey car park to control and monitor the entry and exit of vehicles. Up to early 2016, CPMS had been in use for more than 10 years and had already reached the end of its planned serviceable life. Audit found that the number of breakdowns had significantly increased by 110% from 197 in 2016 to 414 in 2018. According to TD, the replacement work for CPMS was planned to be completed by mid-2019. TD needs to expedite the replacement work and avoid recurrence of similar problem in future (paras. 3.27 and 3.28).

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Management of on-street parking spaces

14. Under the existing Government's policy, on-street parking spaces are provided to meet drivers' short-term parking needs. On-street parking spaces should be metered and charged to ensure that about 15% of the spaces are maintained empty. As at 31 December 2018, there were 34,565 on-street parking spaces, of which 17,898 were metered. Having regard to the traffic situation and parking demand in the area where the parking spaces are located, parking fees (i.e. either \$2 per 15 minutes (the high rate) or \$2 per 30 minutes (the low rate)), types of "longest parking period" for each transaction and operating periods vary among different districts. In January 2018, the Government announced its plan to install a new generation of parking meter system, which would replace about 10,250 existing meters from early 2020 for completion by early 2022 (paras. 4.2, 4.3, 4.5 and 4.7).

15. ***Parking space availability objective not always met.*** According to TD, the territory-wide availability rate of on-street metered parking spaces decreased from 27% in 2015 to 19% in 2018. Audit analysis revealed that, from 2015 to 2018, on average, the objective of maintaining the 15% parking space availability rate was not met in 15 (40%) of 37 districts (paras. 4.8 and 4.9). TD needs to formulate measures to achieve the "15% availability rate" objective, taking into account the following observations:

- (a) ***Need to review parking fees for meters charging the low rate.*** The Government's policy is to revise parking fees regularly to maintain a "15% availability rate". Audit noted that, of the 10 districts which had availability rates of lower than 15% persistently since 2015, there were metered parking spaces in 9 districts charging the low rate (i.e. \$2 per 30 minutes). According to TD's 2018 surveys, most of the parking spaces which charged the low rate in the 9 districts recorded availability rates of less than 15%. Audit also noted that the parking fees at some meter locations were different from those at very close meter locations. TD needs to review the parking fees for meters charging the low rate (paras. 4.10 to 4.12);
- (b) ***Need to review "longest parking period" for each transaction of 2-hour meters in core commercial areas.*** According to TD, parking meters for private cars and van-type LGVs should be of 30-minute duration in core commercial areas, and 2-hour duration at the outskirts. However, "core commercial areas" were not defined. Audit noted that for many parking meters which might be located in core commercial areas (e.g. Causeway

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Bay), the “longest parking period” for each transaction was set at 2 hours. To encourage vehicle turnover of on-street metered parking spaces, TD needs to review the “longest parking period” for each transaction of the 2-hour meters installed at parking spaces in core commercial areas (paras. 4.13 and 4.14); and

- (c) ***Need to consider extending meter operating periods of metered parking spaces with high utilisation.*** As at 31 October 2018, there were 10 types of operating periods for 17,869 on-street metered parking spaces. Most of them operated from 8:00 a.m. to midnight on weekdays, and from 10:00 a.m. to 10:00 p.m. on general holidays. Audit found that in some parking places, there were different meter operating periods, despite the fact that the parking spaces were provided for the same vehicle type and the demand should be the same. Audit’s site visits of 10 parking places (covering 274 metered parking spaces that were free-of-charge after 8:00 p.m.) from December 2018 to January 2019 between 8:00 p.m. and midnight found that most of the parking spaces were occupied. TD needs to consider extending the meter operating periods of metered parking spaces with high utilisation (para. 4.15).

16. ***Need to optimise deployment of parking meters.*** The new generation of parking meter system would be installed by early 2022 (see para. 14). Therefore, the existing parking meters which have been put in use since 2003-04 would need to operate for a total of about 17 years, which is much longer than their normal serviceable life of 7 to 10 years. Since the production of current model of parking meters had ceased, there were only limited spare parking meters for installation at new parking places. In this connection, TD has been redeploying parking meters from low-utilised parking places for implementation of metering at other parking places. Audit however found that: (a) 212 parking meters covering 399 parking spaces with persistent low utilisation from 2016 to 2018 were not redeployed; and (b) some requests for installation of parking meters were not accepted due to insufficient spare parking meters (paras. 4.16 and 4.17).

17. ***Need to take measures to improve on-street motorcycle parking.*** As at 31 December 2018, 10,404 (62%) of 16,667 non-metered parking spaces were for motorcycles. In 2017, TD conducted a territory-wide survey on on-street motorcycle parking spaces and found that the overall utilisation rate was 102%, and 618 motorcycles considered not roadworthy were found in 278 (47%) parking places.

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Audit surveyed 100 parking places (covering 1,644 parking spaces) from November 2018 to January 2019 and found that: (a) the high demand had persisted (utilisation rate was over 100% in 88 parking places); (b) motorcycles considered not roadworthy were found in 28 parking places; and (c) some motorcycles were parked on pavements nearby, jeopardising pedestrians' safety. TD needs to take measures to ensure that on-street motorcycle parking spaces are utilised effectively (paras. 4.21 and 4.25 to 4.27).

18. ***Need to take measures to improve on-street non-metered parking spaces for other vehicle types.*** As at 31 December 2018, 6,263 (38%) of 16,667 non-metered parking spaces were for vehicles other than motorcycles. Audit's site visits from November 2018 to January 2019 to 10 parking places where such non-metered parking spaces were located found that: (a) most of the non-metered parking spaces were occupied and the target of maintaining 15% parking space availability rate was not achieved; (b) parking spaces in some locations (such as those near beaches) were provided for meeting longer-term parking demand (e.g. for whole day) and kept as non-metered despite the high demand in holiday seasons; (c) there were cases where both metered and non-metered parking spaces were provided in the same location; and (d) there were cases of non-metered parking spaces occupied by abandoned vehicles or other objects. TD needs to take measures to ensure that on-street non-metered parking spaces are utilised effectively (para. 4.28).

19. ***Need to ensure accuracy of list of non-metered parking spaces.*** A comparison of the results of Audit's site visits with TD's inventory list of on-street non-metered parking spaces as at 31 December 2018 revealed discrepancies between the list and the actual number of parking spaces available. To provide accurate parking information to the public, TD needs to ensure the accuracy of the inventory list of on-street non-metered parking spaces (para. 4.29).

Implementation of parking-related technology initiatives

20. ***Need to enhance the dissemination of parking information.*** Since July 2016, TD has been providing locations of on-street parking spaces, entrances and exits of off-street car parks, and real-time parking vacancies at some car parks via its dedicated website and mobile application. Since June 2017, TD has also uploaded parking vacancy data and information of the 11 government multi-storey car parks onto the one-stop Public Sector Information (PSI) Portal for free use by the public

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and the industry to develop mobile applications (paras. 5.2 and 5.3). Audit examination has revealed the following major areas for improvement:

- (a) ***Car park location and parking vacancy information.*** As at 31 December 2018, there were 2,071 car parks providing public parking spaces. However, TD's mobile application only showed locations of 1,546 (75%) car parks and parking vacancy information of only 263 (17%) of the 1,546 car parks. Moreover, of the 19 public car parks in government venues with location information in the mobile application, parking vacancy information of only 7 (37%) car parks was made available (paras. 5.6 to 5.8);
- (b) ***Supplementary information of car parks.*** Audit's sample check of 30 car parks revealed that supplementary information (e.g. information about charging services for electric vehicles (EVs)) was rarely provided in TD's mobile application (para. 5.9); and
- (c) ***Further opening up of parking data in PSI Portal.*** As at 31 December 2018, while parking vacancy information of 263 car parks was made available in TD's mobile application, parking vacancy data of only 27 (10%) of these car parks were uploaded onto the PSI Portal (para. 5.11).

21. ***Need to improve the provision and management of EV charging facilities.*** Since 2012, the Environmental Protection Department has been responsible for providing EV charging facilities in some of the existing government car parks. As at 30 September 2018, 321 EV chargers in 275 parking spaces were provided in 8 of the 11 government multi-storey car parks. In view of the significant increase in the number of licensed electric private cars from 314 in December 2013 to 10,660 in September 2018, there is merit to explore the need and feasibility of installing EV chargers in the remaining 3 car parks. Moreover, Audit's site visits to the 8 car parks in November and December 2018 found that: (a) 168 (69%) of 242 parking spaces equipped with EV chargers were occupied by non-EVs (the remaining 33 (275 minus 242) parking spaces were vacant); and (b) EV chargers were mainly located on lower floors and near the entrance. Coupled with the lack of a display and guidance system to show the availability of parking spaces on higher floors, non-EV drivers might prefer to park their vehicles at parking spaces with EV chargers on the lower floors for convenience sake. There is merit to consider introducing administrative measures

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to ensure that parking spaces equipped with EV chargers are available for use by EVs (paras. 5.15 and 5.16).

22. *Need to step up efforts in implementing automated parking systems.* According to the 2002 Study Report (see para. 3), one of the measures to address the parking problems in the long-term was the use of automated parking systems. However, it was not until some 16 years later in 2018 that TD commissioned a consultant to conduct a pilot study with a view to establishing the feasibility on developing public car parks with automated parking systems. As another few years would be required to proceed with the design and construction of public car parks with such systems after the completion of the study, there is a need to step up efforts in implementing automated parking systems (paras. 5.20 and 5.22).

Audit recommendations

23. **Audit recommendations are made in the respective sections of this Audit Report. Only the key ones are highlighted in this Executive Summary. Audit has *recommended* that:**

- (a) **the Commissioner for Transport should:**
 - (i) **closely monitor the parking space ratio for private cars and review the planning standards of parking spaces in the housing developments promulgated in HKPSG (para. 2.17(a) and (b));**
 - (ii) **critically review the demand for parking spaces in reprovisioning of car parks, improve the planning and provision of public car parks in private developments and formulate a strategy for providing more long-term public parking spaces (para. 2.17(e), (f) and (i));**
 - (iii) **take into due consideration the high utilisation rates of parking spaces, the lower-than-market parking fees for private cars and van-type LGVs, and the concessionary parking fees for taxis in TD's future parking fee review exercises (para. 3.12(a));**

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- (iv) **take further actions to improve the sale arrangements of parking tickets in the government multi-storey car parks (para. 3.12(b));**
 - (v) **put the 75 rooftop parking spaces at Kwai Fong Car Park into effective use and explore feasible ways to remove abandoned vehicles in the government multi-storey car parks expeditiously (para. 3.23(a) and (b));**
 - (vi) **review the fee charging arrangements of on-street metered parking spaces and take measures to ensure that on-street non-metered parking spaces are utilised effectively (paras. 4.19(a) and 4.30(a)); and**
 - (vii) **take measures to improve the dissemination of parking information via TD's mobile application and website, and step up efforts in implementing automated parking systems in government car parks (paras. 5.13(a) and 5.23);**
- (b) **the Secretary for Transport and Housing should, in consultation with relevant government bureaux and departments, promulgate a circular setting out the criteria for considering whether and how public parking spaces should be provided under individual G/IC developments and open space projects (para. 2.19); and**
- (c) **the Director of Environmental Protection should explore the need and feasibility of installing EV chargers in the three government multi-storey car parks without EV chargers (para. 5.17(a)).**

Response from the Government

24. The Government generally agrees with the audit recommendations.