CHAPTER 4

Housing Bureau Transport and Logistics Bureau Hong Kong Housing Authority Housing Department Highways Department

Provision of barrier-free facilities in public rental housing estates

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PROVISION OF BARRIER-FREE FACILITIES IN PUBLIC RENTAL HOUSING ESTATES

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PROVISION OF BARRIER-FREE FACILITIES IN PUBLIC RENTAL HOUSING ESTATES

Executive Summary

- 1. The Hong Kong Housing Authority (HA) is responsible for developing and implementing a public housing programme to meet the housing needs of low-income families that cannot afford private accommodation. One of the missions of HA is to provide an age-friendly and barrier-free estate environment to address the needs of residents of different ages and physical ability. As at 30 June 2023, the Housing Department (HD), as the executive arm of HA, managed 818,468 public rental housing (PRH) flats for 2.1 million residents, which were located in 237 housing estates (comprising 193 PRH estates, 39 Tenants Purchase Scheme (TPS) estates and 5 estates under other subsidised housing schemes, i.e. the Home Ownership Scheme, the Buy or Rent Option (BRO) Scheme and the Green Form Subisidised Home Ownership Scheme). As at 30 June 2023, HD had 4,741 staff in its Estate Management Division (EMD) which was responsible for the management and maintenance of PRH estates.
- 2. It is the established policy of HA to comply with the prevailing requirements in the "Design Manual: Barrier Free Access" (DM) on the provision of barrier-free access and facilities, wherever practicable. HA implemented improvement programmes in 2001 and 2010 to tally with the launch of DM 1997 and DM 2008 respectively. Since 2008, HA has implemented the Lift Addition Programme (LAP) in existing PRH estates as lifts constitute a major part of barrier-free facilities. In addition, the Highways Department (HyD) also implements projects to retrofit lifts to walkways in estates under TPS and BRO Scheme, and PRH estates with properties divested under HA in the Special Scheme of the Universal Accessibility Programme (UAP). The Universal Accessibility Project Team under the Major Works Project Management Office of HyD is responsible for overseeing the implementation of UAP. The Audit Commission (Audit) has recently conducted a review to examine the provision of barrier-free access and facilities in PRH estates.

Barrier-free access and facility improvement programmes

- 3. Need to enhance the monitoring of submission of results of regular checks on provision and maintenance of barrier-free access and facilities. HA nominated Access Officers on individual site basis to provide assistance to persons with disabilities (PWDs) in accessing premises and using services and facilities therein, and handling complaints regarding accessibility issues for the venues. According to HD's departmental general circular, Access Officers should conduct regular checks of the facilities available to PWDs on each premises to ensure adequate provision of barrier-free facilities/services, proper maintenance of the facilities, and addition of such facilities. Quarterly Returns would be called from Access Officers. Audit analysed the submission of results of regular checks by Access Officers covering the period from April 2022 to March 2023 and found that for 97 (41%) of the 237 housing estates, not all the required results had been submitted. In particular, no results had been submitted for 25 (11%) estates (paras. 1.9, 2.3 and 2.4).
- 4. Audit's site inspections on barrier-free access and facilities. In addition to the regular checks conducted by the Access Officers, barrier-free access and facilities are subject to daily patrols by the estate staff to ensure their proper functioning as they are considered as part of estate facilities. From June to August 2023, Audit conducted site inspections to 4 PRH estates, focusing on the major improvement works of the improvement programmes implemented in 2001 and 2010. Audit's site inspections found deviations from DM 2008 and HD's technical guide, and defects in all the 4 estates. For example, tactile warning strips were not provided in front of a door, at head and foot of a ramp or at staircases in 3 estates and the audible signal and indication of the stopping floor in lift cars was out of order in 2 estates. None of the deviations and defects identified by Audit had been identified during the regular checks/daily patrols conducted by HD (paras. 2.5 to 2.8).
- 5. Room for improvement in provision of multi-sensory maps. In 2006, HD developed a multi-sensory map with a PWDs group to provide directions by visual, tactile and voice messages for all people, regardless of their age and quality of vision. As at 30 June 2023, multi-sensory maps were installed in 72 (37%) of the 193 PRH estates. From June to August 2023, Audit conducted two site inspections on the conditions of each of the 36 multi-sensory maps in 10 PRH estates and found that 27 (75%) maps (in 8 estates) were defective in both site inspections (paras. 2.9 to 2.11).

- 6. Room for improvement in processing applications for adaptation works. HA provides free adaptation works in PRH flats upon applications from elderly or disabled tenants. EMD has promulgated an instruction "Adaptation Works in Flats Occupied by Disabled and Elderly Persons" setting out the processing of such applications by estate staff. Audit examination found that:
 - in 15 applications for adaptation works in 5 estates from 1 January 2022 to 30 June 2023, long time had been taken from receiving applications to issuing works orders (76 days on average, ranging from 26 to 140 days). In particular, estate staff took more than 50 days before asking the District Maintenance Offices to process the applications in 2 cases; and
 - (b) in 4 complaint cases received from 1 January 2020 to 30 June 2023 about adaptation works not being processed/being declined:
 - (i) in 3 cases, the tenants requested estate staff to conduct adaptation works to their flats without referrals or recommendations from professionals. In 1 of the 3 cases, while acknowledging the request, the estate staff did not inform the tenant that referral or recommendation from professionals was required and the request had not been proceeded. HA had not promulgated detailed application procedures and the required supporting documents (i.e. referrals or recommendations from professionals) for adaptation works; and
 - (ii) in the remaining case, despite that recommendation from an occupational therapist had been submitted, the estate staff declined the tenant's request for conducting non-standard adaptation works without referring the case to their supervisor nor informing the tenant the refusal reason(s), at variance with EMD's instruction (paras. 2.15 and 2.16).
- 7. Need to step up efforts to obtain consent for the installation of Visual Fire Alarm (VFA) systems. In October 2019, with consent from the Fire Services Department and the positive outcome of a trial run in a domestic flat, HA endorsed the installation of VFA systems to PRH flats with hearing-impaired tenants free of charge, subject to their requests. As of 30 June 2023, there were 1,558 PRH flats with hearing-impaired tenants, of which 94 (6%) flats were located in the 42 estates under TPS, BRO Scheme and Home Ownership Scheme, where written consent from

the respective Incorporated Owners for the connection of VFA to their communal fire service systems is required. Audit noted that up to 30 June 2023, written consent was not yet obtained from 20 (48%) estates, of which 18 estates were with hearing-impaired tenants (involving 42 PRH flats) (paras. 2.20 and 2.21).

8. Room for improvement in the appointment and training of Access Officers. As at 30 June 2023, 229 estate staff were appointed as Access Officers to cover estates with PRH flats. Some Access Officers are responsible for more than 1 estate. Audit examination revealed that of the 237 housing estates, 6 estates had not appointed Access Officers for a long period of time since the implementation of the Access Co-ordinator and Access Officer Scheme in April 2011 (e.g. no Access Officer had been appointed as at 30 June 2023 in 1 estate). Moreover, HD arranges training for Access Officers every year but it has not stipulated requirements for them to attend training. Audit analysed the attendance of the training sessions conducted from 1 January 2018 to 31 July 2023 and found that of the 229 Access Officers, 105 (46%) did not attend any training (paras. 2.24 and 2.25).

Lift Addition Programme

- 9. In 2008, HA implemented a centralised LAP with a holistic and consistent approach on evaluation, prioritisation, shortlisting, execution and monitoring of lift addition projects. Two stages of programme, namely LAP Stage 1 and LAP Stage 2, were implemented in 2008 and 2013 respectively. From 2015-16 onwards, LAP was changed from a multi-year rolling programme to an annual on-going programme and two annual exercises (i.e. LAP 2015-16 and LAP 2016-17) had been conducted. According to HD, after LAP 2016-17, as the anticipated number of future lift addition proposals would be very small, annual exercises were no longer conducted (paras. 3.2 to 3.7).
- 10. Need to keep in view implementation of lift addition proposals. According to HD, the Regional Management Offices (RMOs) consider lift addition proposals and the proposals are submitted to the Maintenance Planning and Review Committee (MPRC) for its consideration. As at 31 March 2023, there were 24 proposals in the list of potential future lift addition projects submitted to MPRC which had not been shortlisted for implementation. Among the 24 proposals, the agreement from the co-owners were still pending in 7 proposals while the needs for lift installation were being monitored by respective RMOs in 6 proposals. According to HD,

circumstances (such as change of co-ownership) might change which render these proposals feasible to be implemented. Audit considers that HD should continue to keep in view the need and feasibility of implementing the potential lift addition proposals (paras. 3.8 and 3.9).

- Need to expedite implementation of shortlisted projects. Seven lift addition proposals shortlisted in the annual exercises (5 in LAP 2015-16 and 2 in LAP 2016-17) had not been implemented as of September 2023. Of the 7 proposals, 1 proposal was not recommended for implementation as the vertical distance between the platforms of different levels was small. Audit examination revealed that, while RMOs had sought agreement on the project details and cost sharing on the lift addition proposals with the co-owners, of the remaining 6 proposals in divested estates: (a) agreement from the co-owners could not be obtained in 4 proposals; and (b) for the remaining 2 proposals, the preliminary feasibility studies were completed in January 2016 and February 2018 respectively and the detailed feasibility studies were still in progress as of June 2023 (para. 3.10).
- 12. Domestic blocks not provided with lifts. As of June 2023, there were 30 blocks located in three PRH estates (i.e. Cheung Kwai Estate in Cheung Chau, Lung Tin Estate in Tai O and Model Housing Estate in North Point) not provided with lifts. According to HD, its study in 2006 revealed that it was technically not feasible to provide lifts in the lower blocks of 5 to 6 storeys in Model Housing Estate. For Lung Tin Estate and Cheung Kwai Estate, lift services were not provided because the domestic blocks were all of 3 to 4 storeys. Despite this, HD would continue making use of the current transfer arrangements in order to cater for the needs of the elderly and disabled persons concerned. As at 30 June 2023, about 30% of tenants in the three estates were elderly. According to the 2022 Policy Address, the Government would provide better public space, facilities and estate environment for public housing residents. In Audit's view, there is a need to explore measures to further enhance the living environment of the elderly residing in the domestic blocks not provided with lift services in the three PRH estates (paras. 3.11 to 3.13, 3.15 and 3.16).

Retrofitting lifts at walkways relating to housing estates under Universal Accessibility Programme

- 13. In August 2012, the Government promulgated a new policy on universal accessibility and would consider installing lifts for walkways even when standard ramps had already been installed. Since then, the Government has progressively launched various phases of UAP with expanded scope to cover more walkways. In the 2019 Policy Address, the Government announced that the ambit of UAP would be further expanded to retrofit lifts to walkways in estates under the Special Scheme (see para. 2). According to HyD, as at 31 August 2023, 191 lift retrofitting items had been completed under various phases of UAP and there were 33 items under the Special Scheme (paras. 1.13 to 1.16).
- 14. Need to enhance consultation with District Councils. From 2020 to 2021, HyD conducted consultation with the relevant District Councils on implementation of the Special Scheme. Audit examination revealed that of the 39 walkways selected as priority or replacement items for implementation under the Special Scheme, 8 were not included in the lists of walkways provided to the relevant District Councils during the first stage of consultation. In 4 (50%) of the 8 excluded items, they were considered to be of low priority according to HyD's preliminary assessment taking into account various factors (e.g. presence of nearby existing at-grade pedestrian crossing, existing lifts in adjacent shopping malls, pedestrian flow, etc.). For the remaining 4 (50%) items, they were not included in the information provided by HD (paras. 4.6 and 4.7).
- 15. Need to take measures to minimise extension of time required for handling underground utilities. Audit examination found that there were extensions of time for completing the construction works of two lifts, which were mainly caused by the long time taken in handling underground utilities, as follows:
 - (a) Lift A. According to the works contract which commenced on 22 May 2015, the lift retrofitting works for Lift A were scheduled for completion within 730 days with completion date on 20 May 2017. However, the actual completion date of the retrofitting works was 8 May 2020. According to HyD, an overall extension of time of 1,084 days was granted for completing the works of this lift, including 715 days for handling underground utilities; and

- (b) **Lift B.** According to the works contract which commenced on 22 May 2015, the lift retrofitting works for Lift B were scheduled for completion within 912 days with completion date on 18 November 2017. However, the actual completion date of the retrofitting works was 16 October 2019. According to HyD, an overall extension of time of 697 days would be granted for completing the works of this lift, including 418 days for handling underground utilities (para. 4.19).
- 16. Need to make continued efforts in expediting the completion of outstanding lift retrofitting works. Audit examination found that while the relevant works contract commenced in October 2019, as at 31 August 2023, the construction of three lifts had not yet been completed. Audit analysed their original completion dates stipulated in the works contract and their completion dates forecasted by HyD, and noted that there would be delays in completing the works, ranging from 406 to 620 days. According to HyD, this was mainly attributable to the slow progress of the works contractor and site idling. In view of the continued unsatisfactory performance of the works contractor in meeting the progress of lift retrofitting works stipulated in the works contract, HyD had taken various follow-up actions (e.g. in June 2023, HyD issued an Adverse Report to the works contractor, and conducted an interview with the senior management of the works contractor). Audit notes the follow-up actions taken by HyD and considers that HyD needs to make continued efforts in expediting the completion of outstanding lift retrofitting works (paras. 4.22 and 4.24).
- 17. Need to conduct review on applying Modular Integrated Construction (MiC) and Early Contractor Involvement in works contracts under UAP. According to HyD, the overall construction period of typical lift retrofitting works can take around 3.5 years. In order to expedite the construction of lifts under UAP, HyD has been piloting two new initiatives since late 2021, namely MiC and Early Contractor Involvement. With a view to evaluating the suitability and effectiveness of applying MiC and Early Contractor Involvement in its future works contracts under UAP, HyD should conduct a review after gaining more experience on applying the two new initiatives (paras. 4.27 and 4.32).

Audit recommendations

18. 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 the Director of Housing should:

Barrier-free access and facility improvement programmes

- (a) take measures to enhance the monitoring of the submission of the results of regular checks conducted by Access Officers (para. 2.13(a));
- (b) enhance the regular checks/daily patrols on barrier-free access and facilities, and take actions to rectify the defects and deviations from DM 2008/technical guide of barrier-free access and facilities identified by Audit as far as practicable (para. 2.13(b));
- (c) remind HD staff to regularly check the conditions of multi-sensory maps in PRH estates and upkeep the maps in good working conditions (para. 2.13(c));
- (d) explore measures to enhance the durability of the multi-sensory maps and reduce the occurrence of defects as far as practicable (para. 2.13(d));
- (e) review the application process for adaptation works with a view to shortening the processing time as far as practicable (para. 2.22(a));
- (f) enhance the promulgation of application procedures for adaptation works and remind estate staff to follow the instruction "Adaptation Works in Flats Occupied by Disabled and Elderly Persons" when handling applications for adaptation works (para. 2.22(b));
- (g) step up efforts in obtaining consent for the installation of VFA systems from Incorporated Owners of the estates under TPS, BRO Scheme and Home Ownership Scheme (para. 2.22(d));
- (h) take measures to monitor the appointment of Access Officers for all housing estates (para. 2.27(a));
- (i) take measures to enhance the training attendance by Access Officers (e.g. by stipulating requirements on their attendance of training) (para. 2.27(b));

Lift Addition Programme

- (j) continue to keep in view the need and feasibility of implementing the potential lift addition proposals (para. 3.17(a));
- (k) closely monitor the progress of the detailed feasibility studies with a view to further expediting the implementation of the two lift addition proposals mentioned in paragraph 3.10(c) (para. 3.17(b)); and
- (1) explore measures to further enhance the living environment of the elderly residing in the domestic blocks not provided with lift services in the three PRH estates (i.e. Cheung Kwai Estate, Lung Tin Estate and Model Housing Estate) (para. 3.17(c)).
- 19. Audit has also recommended that the Director of Highways should:

Retrofitting lifts at walkways relating to housing estates under Universal Accessibility Programme

- (a) consider providing more comprehensive information in conducting consultation with the District Councils in future (para. 4.15(b));
- (b) in implementing lift retrofitting works, continue to take measures to minimise the extension of time required for handling underground utilities as far as practicable (para. 4.25(a));
- (c) make continued efforts in expediting the completion of outstanding lift retrofitting works (para. 4.25(b)); and
- (d) conduct a review, after gaining more experience on applying MiC and Early Contractor Involvement, with a view to evaluating the suitability and effectiveness of applying the two new initiatives in HyD's future works contracts under UAP (para. 4.33).

Response from the Government

20. The Director of Housing and the Director of Highways agree with the audit recommendations.

PART 1: INTRODUCTION

1.1 This PART describes the background to the audit and outlines the audit objectives and scope.

Background

- 1.2 The Hong Kong Housing Authority (HA Note 1) is a statutory body established in April 1973 under the Housing Ordinance (Cap. 283). It is responsible for developing and implementing a public housing programme to meet the housing needs of low-income families that cannot afford private accommodation. Six standing committees have been formed under HA to formulate, administer and oversee policies in specified areas (see Appendix A).
- 1.3 The Housing Department (HD), as the executive arm of HA, provides secretarial and executive support for HA. HD also supports the Housing Bureau in dealing with all housing related policies and matters. The Secretary for Housing and the Director of Housing assume the offices of the Chairman and the Vice-chairman of HA respectively.
- 1.4 As at 30 June 2023, HD managed 818,468 public rental housing (PRH) flats for 2.1 million residents, which were located in 237 housing estates (see Table 1):
 - (a) **PRH estates.** HD is responsible for the overall management of PRH estates and ancillary facilities. Given the magnitude of PRH stock, HD has outsourced the property management of some PRH estates to property services agents (PSAs) in a bid to enhance service quality and cost effectiveness. According to HD, the day-to-day management of about 60%

Note 1: As at 30 June 2023, HA had 4 official members and 19 non-official members, who were appointed by the Chief Executive of the Hong Kong Special Administrative Region. The 4 official members comprise the Secretary for Housing, the Director of Housing, the Permanent Secretary for Financial Services and the Treasury (Treasury) and the Director of Lands.

of PRH estates has been outsourced to PSAs, and that of the rest are directly managed by HD;

- (b) Tenants Purchase Scheme (TPS) estates. TPS was launched in 1998 to assist PRH tenants to buy the flats they currently rented at an affordable price. While TPS ceased to roll out new estates in 2005-06, sitting tenants in TPS estates can still opt to purchase their flats. The 2019 Policy Address proposed HA to make active preparations to accelerate the sale of the existing unsold flats in TPS estates. In July 2020, HA endorsed arrangements to freeze the letting of rental flats recovered from TPS estates and to put up those recovered TPS flats for sale (Note 2). Since June 2023, such arrangements have been regularised. As at 30 June 2023, there were about 34,200 unsold flats in 39 TPS estates. All the 39 estates have formed their Incorporated Owners (IOs) under the Building Management Ordinance (Cap. 344), which undertake the management and maintenance of their estates; and
- (c) Other subsidised housing schemes with PRH flats. Apart from PRH and TPS estates, there are also some blocks of PRH flats in five estates completed under various subsidised housing schemes, i.e. the Home Ownership Scheme, the Buy or Rent Option (BRO) Scheme, and the Green Form Subsidised Home Ownership Scheme. With both PRH tenants and private owners residing in these estates, the daily management is administered by their IOs or Owners' Committees. As at 30 June 2023, there were about 9,700 PRH flats in the five estates.

Note 2: In July 2020, HA endorsed to extend the target buyers of vacant flats recovered from existing TPS estates to potential buyers with Green Form status. These flats are put up for sale under the sale exercises of the Home Ownership Scheme and the Green Form Subsidised Home Ownership Scheme.

Table 1

PRH flats located in 237 housing estates (30 June 2023)

Type of estate	Number of estates	Number of PRH flats	
PRH	193 (Note)	774,534 (95%)	
TPS	39	34,247 (4%)	
Other subsidised housing schemes	5	9,687 (1%)	
Total	237	818,468 (100%)	

Source: HD records

Note:

The figure includes three transferred PRH estates under the Private Sector Participation Scheme, in which all domestic flats are owned by HA. The common areas in these three estates are co-owned by HA and the private owners of non-domestic portion, and are managed by their Owners' Committees. For simplicity, these three estates are grouped under PRH estates in this Audit Report.

Remarks: In 2005, HA divested 180 non-domestic properties (such as retail and carparking facilities) located in 127 housing estates to a private corporation. In these divested estates, the titles of the common areas are co-owned by the owners (including HA, owners of non-domestic properties, and owners of individual domestic flats in cases of estates under TPS and BRO Scheme, etc.) in accordance with Deeds of Mutual Covenant (DMCs). The responsibility for the management and maintenance of these common areas shall, in accordance with the provisions of the respective DMCs, be borne by all owners.

Government's policy on providing barrier-free access and facilities

1.5 It is the Government's established policy objective to provide barrier-free access and facilities for people in need (including persons with disabilities (PWDs) and the elderly) with a view to enabling them to access premises and make use of the facilities and services therein on an equal basis with others, thereby facilitating them to live independently, participate in full in various social activities and integrate into the community.

The Building (Planning) Regulations (B(P)R — Cap. 123F) under the Buildings Ordinance (Cap. 123) prescribes design requirements on barrier-free access and facilities to ensure that suitable barrier-free access and facilities are provided in buildings to meet the needs of PWDs. The Buildings Department also issued the "Design Manual: Barrier Free Access" (DM) which provides guidelines on barrier-free access and facilities to supplement the provisions of B(P)R (Note 3). DM was first published in 1984 and updated in 1997 (i.e. DM 1997) and 2008 (i.e. DM 2008 — Note 4) in light of the advancement in building technology and social development. Except for buildings belonging to the Government or HA, all newly constructed buildings and any alterations, modifications or additions to existing buildings are required to comply with the latest barrier-free design standards as stated in the prevailing B(P)R and DM.

Barrier-free access and facility improvement programmes

One of the missions of HA is to provide an age-friendly and barrier-free estate environment to address the needs of residents of different ages and physical ability. While B(P)R is in general not applicable to buildings belonging to the Government or HA, it is the established policy of the Government and HA to comply with the prevailing requirements in DM, wherever practicable, achieving standards beyond the statutory requirements. All new HA buildings and alterations and additions to existing HA buildings with construction commencing after 1 December 2008 will have to meet the mandatory requirements in DM 2008, wherever practicable. In addition, HD, with due consideration of the "Universal Design" concept and the requirements in DM 2008, issued internal technical guides to provide more detailed requirements on the design and provision of barrier-free access and facilities. According to HA, barrier-free access and facilities provided for PRH tenants mainly included:

Note 3: DM sets out the mandatory requirements under B(P)R for the barrier-free access and facilities provisions. Requirements which are desirable have been included as recommended requirements.

Note 4: Since its first publication in 2008, DM 2008 was amended in November 2012, September 2015, April 2017, June 2019, October 2020 and December 2021. The latest version is DM 2008 (2021 Edition).

- (a) barrier-free facilities in common areas of estates (Note 5) and inside flats (Note 6); and
- (b) lift, escalators and footbridges at common areas.
- 1.8 *Improvement programmes for existing premises.* HA implemented improvement programmes in 2001 and 2010 to tally with the launch of DM 1997 and DM 2008 respectively:
 - in 2001, HA commenced improvement works in public facilities and pedestrian ways in about 150 existing PRH estates to follow the requirements laid down in DM 1997. The improvement works were completed in 2010 with total expenditure amounting to \$140 million; and
 - (b) for premises with construction commencing on or before 1 December 2008, HA commenced a barrier-free access and facility improvement programme in 2010 for about 240 premises (Note 7) under its purview to follow the requirements laid down in DM 2008 as far as practicable. In consideration of the inherent complexity, particularly for properties built before 1997, a committee, namely the Estate Management Division Barrier Free Access Improvement Steering Committee, had been established to coordinate accessibility issues in a holistic manner. The improvement works were completed in March 2017 with total expenditure amounting to \$313.5 million.
- 1.9 Access Co-ordinator and Access Officer Scheme. HA has implemented the Access Co-ordinator and Access Officer Scheme since 1 April 2011. The Assistant Director (Administration) is appointed as the Departmental Access
- Note 5: Examples include handrails in staircases, ramps in major footpaths and entrances, dropped kerbs in major carriageway intersections and tactile guide paths connecting domestic blocks and major facilities within estates.
- **Note 6:** Examples include non-slip floor tiles on suitable floor surfaces, lever type mixers for water basin/shower and door handles, larger switches and doorbell buttons at a height easier to access.
- **Note 7:** These premises included domestic blocks, external common areas, public transport interchanges, commercial centres and carparks, etc.

Introduction

Co-ordinator to serve as the departmental focal point, who is assisted by a Deputy Departmental Access Co-ordinator and three Divisional Access Co-ordinators. Access Officers are nominated on individual site basis to provide assistance to PWDs in accessing premises and using services and facilities therein, and handling complaints regarding accessibility issues for the venues. Access Officers are also required to conduct regular checks and take timely follow-up actions as required to ensure the provision of suitable barrier-free facilities and that the barrier-free access is free from undue alterations or obstructions.

In addition to the provision of barrier-free facilities in the common areas, HA also undertakes adaptation works in PRH flats upon elderly or disabled tenant's application. Examples include providing a ramp at the entrance of the flat, widening the doorway of bathroom and laying non-slip floor tiles on suitable floor surfaces. HA is responsible for the full cost of adaptation works to cater for the needs of the tenants. To ensure that the works meet the actual needs of individual tenants, for some adaptation works, HA will seek advice from professionals, such as medical officers, physiotherapists, occupational therapists or medical social workers with the tenant's consent.

Lift Addition Programme

- 1.11 Since 2008, HA has implemented the Lift Addition Programme (LAP) in existing PRH estates as lifts constitute a major part of barrier-free facilities. Two stages were implemented:
 - (a) **Stage 1.** It included the provision of new lifts, escalators and footbridges in common areas within PRH estate boundaries to connect platforms with large-level differences and new lifts to PRH blocks built without lift services. A total of 70 lifts, 6 escalators and 18 footbridges were added in 29 PRH estates. It was completed in 2014; and
 - (b) **Stage 2.** It involved the additions of lifts to connect elevated platforms in external areas and existing footbridges within PRH estates. A total of 13 lifts and 9 footbridges were added in 8 PRH estates. It was completed in 2017.

In 2012, LAP became a rolling programme to continue enhancing the pedestrian access for tenants. In 2015, LAP has turned from a multi-year rolling programme to an annual on-going programme. Since then, 2 lifts and 1 footbridge were added in 2 PRH estates with a total construction cost of \$40 million. According to HA, it will consider the public's suggestions for lift addition proposals within the boundaries of PRH estates and evaluate them where necessary.

As at 30 June 2023, HD comprised four divisions, each managed by a Deputy Director. The Estate Management Division (EMD), with 4,741 staff, was responsible for the management and maintenance of PRH estates. There were 3 Assistant Directors in EMD overseeing 7 Regional Management Offices (RMOs) and 5 Support Services Sections, each headed by a Chief Manager. Under each RMO, there were a number of Estate Management Offices (EMOs) and District Maintenance Offices (DMOs) responsible for providing management, maintenance and other housing related services, including the provision and maintenance of barrier-free facilities. Under each RMO, there was also a Property Service Administration Unit (PSAU — headed by a Senior Property Service Manager) responsible for monitoring the work of PSAs in the Region. An extract of the organisation chart of HD as at 30 June 2023 is at Appendix B.

Retrofitting lifts at walkways relating to housing estates under Universal Accessibility Programme

In September 2000, the then Transport Bureau (now the Transport and Logistics Bureau) stipulated in a circular that access for PWDs had to be provided for all grade-separated walkways either by the provision of ramps or lifts. In December 2001, the then Transport Bureau informed the Legislative Council (LegCo) that the Government would retrofit ramps or lifts for existing public footbridges according to an order of priorities. In August 2012, in order to bring further convenience to the elderly, PWDs and the general public in using public grade-separated walkways, the Government promulgated a new policy on universal accessibility, stating that, as long as site conditions permitted, it would consider installing lifts for walkways even when standard ramps had already been installed. Since then, the Government has progressively launched various phases of the Universal Accessibility Programme (UAP) with expanded scope to cover more walkways.

- In the 2019 Policy Address, the Government announced that the ambit of 1.14 UAP would be further expanded to retrofit lifts to walkways in estates under TPS and BRO Scheme, and PRH estates with properties divested under HA (i.e. the Special Scheme — Note 8). According to the Highways Department (HyD), in expanding the ambit of UAP to cover the three types of housing estates mentioned above, the Government mainly took into account the fact that although part of the ownership of these estates had been disposed of, many of their residents were still tenants who were unable to benefit fully from UAP or LAP. As these tenants were no different from those in regular public housing estates, the Government considered that it should facilitate the residents in these housing estates in using barrier-free access facilities and hence decided to launch the Special Scheme for retrofitting lifts at the walkways in or connecting to the common areas of these three types of housing estates. From 2020 to 2021, HyD invited relevant District Councils to suggest lift retrofitting items under the Special Scheme for inclusion in the preliminary study, after which the relevant District Councils were invited to each select not more than three existing walkways as priority items for implementation based on the findings of the preliminary study. A total of 35 items (Note 9) were selected by the relevant District Councils.
- 1.15 According to HyD, after subsequent dropping of selected items (Note 10) and addition of replacement items, as at 31 August 2023, there were 33 items under the Special Scheme. Among the 33 items, while the responsible parties of 1 item had yet to provide their replies, HyD had obtained the agreement in principle on the subsequent cooperation for the lift retrofitting works for 32 items from relevant owners or parties responsible for the management of the land/walkways concerned.
- Note 8: Lift retrofitting items under the Special Scheme can only be taken forward provided that the relevant owners or parties responsible for the management of the concerned land/walkways agree to such lift retrofitting proposals and are willing to cooperate with the Government in subsequent management and maintenance of the lifts, and that no land resumption will be involved.
- Note 9: According to HyD, eligible walkways under the Special Scheme were only identified in 14 districts. Out of those 14 districts, some districts had less than three eligible walkways while some District Councils selected fewer than three walkways in their districts.
- **Note 10:** According to HyD, up to 31 August 2023, there were 5 dropped items and 3 replacement items. For the 5 dropped items, 4 were dropped because agreement was not granted by the relevant owners or parties responsible for the management of the concerned land/walkways and 1 was found technically not feasible after detailed investigation.

Of the 32 items, implementation of 13 items had been included in three works contracts, which commenced in December 2021, January 2023 and July 2023 respectively. HyD was carrying out the investigation and design works for the remaining 19 items.

1.16 According to HyD, as at 31 August 2023, 191 lift retrofitting items had been completed under various phases of UAP. The Universal Accessibility Project Team under the Major Works Project Management Office of HyD is responsible for overseeing the implementation of UAP. As at 31 August 2023, there were 24 staff in the Project Team. An extract of the organisation chart of HyD is at Appendix C. Table 2 shows the expenditure incurred in the investigation, design and construction of the items under the Special Scheme in the period from 2021-22 to 2023-24 (up to 31 August 2023).

Table 2

Expenditure of items under Special Scheme (2021-22 to 2023-24 (up to 31 August 2023))

	Expenditure (\$'000)		
Description	2021-22	2022-23	2023-24 (up to 31 August 2023)
Investigation and design	3,131	3,934	705
Construction	1,852	13,410	8,314
Total	4,983	17,344	9,019

Source: HyD records

Audit review

1.17 In May 2023, the Audit Commission (Audit) commenced a review to examine the lift safety and barrier-free access in PRH estates. The audit findings are contained in two Audit Reports, namely provision of barrier-free facilities in PRH estates (the subject matter of this review) and maintenance and modernisation of lifts and escalators in PRH estates (Chapter 3 of the Director of Audit's Report No. 81).

Introduction

- 1.18 This Audit Report focuses on the following areas:
 - (a) barrier-free access and facility improvement programmes (PART 2);
 - (b) Lift Addition Programme (PART 3); and
 - (c) retrofitting lifts at walkways relating to housing estates under Universal Accessibility Programme (PART 4).

Audit has found room for improvement in the above areas and has made a number of recommendations to address the issues.

General response from the Government

- 1.19 The Director of Housing agrees with the observations and recommendations in this Audit Report. She has said that the audit review has been of great value to HD.
- 1.20 The Director of Highways agrees with the audit recommendations.

Acknowledgement

1.21 Audit would like to acknowledge with gratitude the full cooperation of the staff of HD and HyD during the course of the audit review.

PART 2: BARRIER-FREE ACCESS AND FACILITY IMPROVEMENT PROGRAMMES

- 2.1 This PART examines the work of HD in implementing barrier-free access and facility improvement programmes, focusing on:
 - (a) monitoring of improvement programmes (paras. 2.2 to 2.14);
 - (b) implementation of adaptation works in public rental housing flats (paras. 2.15 to 2.23); and
 - (c) appointment and training of Access Officers (paras. 2.24 to 2.28).

Monitoring of improvement programmes

Need to enhance the monitoring of submission of results of regular checks on provision and maintenance of barrier-free access and facilities

- 2.2 The Buildings Department issued DM 1997 and DM 2008 to provide guidelines on barrier-free access and facilities. As mentioned in paragraphs 1.7 and 1.8, HA implemented improvement programmes in 2001 and 2010 to tally with the launch of DM 1997 and DM 2008 respectively. For all new buildings, and alterations and additions to existing buildings with construction commencing after 1 December 2008, the mandatory requirements in DM 2008 are met, wherever practicable.
- 2.3 According to HD's departmental general circular, Access Officers (see para. 1.9) should conduct regular checks of the facilities available to PWDs on each premises to ensure adequate provision of barrier-free facilities/services, proper maintenance of the facilities, and addition of such facilities. Records of regular checks should be kept properly for monitoring and statistical purpose. Quarterly Returns (in the form of a standard proforma) would be called from Access Officers for the following information:

Barrier-free access and facility improvement programmes

- (a) date of regular check(s);
- (b) outcome of regular checks(s), including:
 - (i) if deficiencies were identified, details of improvements or remedial measures carried out with relevant completion date(s); or
 - (ii) if no deficiencies were identified, conditions of the premises/facilities being in order;
- (c) complaints/suggestions received from PWDs; and
- (d) other feedback and suggestions.

According to HD, where there were no deficiencies or no complaints/suggestions, a "nil return" by email without completion of the proforma was considered to be acceptable for indicating that the outcome of the regular check was in order.

Audit analysed the submission of the results of regular checks (including Quarterly Returns and "nil return" email replies) by Access Officers covering the period from April 2022 to March 2023 and found that for 97 (41%) of the 237 housing estates, not all the required results had been submitted. In particular, no results had been submitted for 25 (11%) estates (see Table 3). Audit considers that HD needs to take measures to enhance the monitoring of the submission of the results of regular checks conducted by Access Officers, with a view to ensuring compliance with the requirements laid down in the departmental general circular regarding the submission of the results of regular checks conducted by Access Officers.

Table 3
Submission of results of regular checks by Access Officers (April 2022 to March 2023)

Number of results submitted	Number of estates	
None	25 (11%)	
1	17 (7%)	- 97 (41%)
2	24 (10%) (Note 1)	F 97 (41%)
3	31 (13%)	
4	139 (59%)	
Total	236 (100%) (Note 2)	

Source: Audit analysis of HD records

Note 1: This includes one estate newly built in June 2022, of which only 2 of 3 required results were submitted during the period.

Note 2: This excludes one estate newly built in June 2022, of which all three required results were submitted during the period.

Audit's site inspections on barrier-free access and facilities

- 2.5 According to HD, in addition to the regular checks conducted by the Access Officers, barrier-free access and facilities are subject to daily patrols by the staff of EMOs and PSAs (hereinafter referred to as estate staff) to ensure their proper functioning as they are considered as part of estate facilities. Findings of daily patrols (including damages and malfunctioning of barrier-free access and facilities) should be recorded in the Daily Patrol Forms.
- 2.6 To ascertain HD's effort on the provision and management of barrier-free access and facilities, from June to August 2023, Audit conducted site inspections to 4 PRH estates with construction commencing on or before 1 December 2008 (hence were subject to the improvement programmes):
 - (a) Kwai Chung Estate, a non-divested PRH estate under the Kwai Chung Region directly managed by HD;

Barrier-free access and facility improvement programmes

- (b) Shek Kip Mei Estate, a non-divested PRH estate under the Kowloon West and Sai Kung Region partly directly managed by HD and partly managed by a PSA;
- (c) Siu Sai Wan Estate, a divested PRH estate under the Hong Kong Island and Islands Region managed by a PSA; and
- (d) Yau Oi Estate, a divested PRH estate under the Tuen Mun and Yuen Long Region directly managed by HD.
- 2.7 Audit's site inspections covered parts of the external common areas, non-divested shopping centres and carparks, and certain common areas inside selected domestic blocks, focusing on the major improvement works of the improvement programmes implemented in 2001 and 2010. Audit found:
 - (a) deviations from DM 2008:
 - (i) on provision of ramps, in 1 estate, no kerbs or rails were provided on both sides of a ramp;
 - (ii) in 3 estates, tactile warning strips were not provided in front of a door, at head and foot of a ramp or at staircases (see Photograph 1(a) for an example); and
 - (iii) in 1 estate, nosing of a staircase was not provided in contrasting colour (see Photograph 1(a));
 - (b) deviations from the technical guide:
 - (i) in 2 estates, tactile guide paths were not provided from main entrances of the estates to major common facilities including a PSA office and a market; and
 - (ii) in 2 estates, tactile guide paths provided were not under cover (see Photograph 1(b) for an example); and

Barrier-free access and facility improvement programmes

- (c) defects:
 - (i) in 2 estates, tactile guide paths or tactile warning strips were damaged (see Photographs 1(c) and (d));
 - (ii) in 3 estates, part of the tactile guide paths were obstructed by objects, e.g. a bicycle, making them not easily identifiable for persons with visual impairment (see Photograph 1(d) for an example); and
 - (iii) in 2 estates, the audible signal and indication of the stopping floor in lift cars was out of order.

Photographs 1(a) to (d)

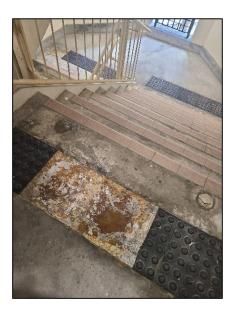
Yau Oi Estate

(a) Tactile warning strips not provided and nosing of a staircase not in contrasting color



Kwai Chung Estate

(c) Tactile warning strip at head of a staircase damaged



Siu Sai Wan Estate

(b) Tactile guide path not under cover



Shek Kip Mei Estate

(d) Tactile guide path not kept free from obstruction and easily identifiable for persons with visual impairment





Tactile guide path damaged

Source: Photographs taken by Audit staff on 5 July, and 8, 11 and 15 August 2023

According to HD, it does not maintain a separate centralised record for barrier-free access and facilities in PRH estates as they are part of the estate facilities and being monitored by estate staff. Audit noted that none of the deviations and defects identified by Audit had been identified during the regular checks/daily patrols conducted by HD (as evidenced by the inspection records). Audit considers that HD needs to enhance the regular checks/daily patrols on barrier-free access and facilities, and take actions to rectify the defects and deviations from DM 2008/technical guide of barrier-free access and facilities identified by Audit as far as practicable.

Room for improvement in provision of multi-sensory maps

To assist visually-impaired persons to travel independently in PRH estates, HD provides tactile guide paths to connect the main estate entrances to the entrances of domestic blocks, EMOs and major estate facilities. In 2006, HD developed a multi-sensory map (see Photographs 2(a) to (d)) with a PWDs group to provide directions by visual, tactile and voice messages for all people, regardless of their age and quality of vision. Since August 2006, HD have installed multi-sensory maps at strategic locations (e.g. public transport interchanges) in new PRH estates.

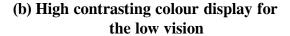
Photographs 2(a) to (d)

Multi-sensory map

(a) Conventional map layout easily read by people with normal vision



(c) Tactile and Braille message for people with no vision





(d) Voice messages activated by pressing the button to indicate the route of tactile guide path to major estate facilities for people who cannot read Braille



Source: HD records



- 2.10 In 2010, HD decided to extend the provision of multi-sensory maps to existing PRH estates, taking into account factors such as regional needs, availability of suitable locations, ownership of land rights, feasibility of infrastructure distribution and the scale of the housing (Note 11). As at 30 June 2023, multi-sensory maps were installed in 72 (37%) of the 193 PRH estates.
- 2.11 From June to August 2023, Audit conducted two site inspections on the conditions of each of the 36 multi-sensory maps in 10 PRH estates. Audit found that:
 - (a) 9 (25%) maps (in 5 estates) were found in good conditions in both site inspections; and
 - (b) 27 (75%) maps (in 8 estates) were defective in both site inspections:
 - (i) for 1 map (in 1 estate), the defect was indicated by a repair note in both site inspections;
 - (ii) for 13 maps (in 3 estates), the defects were indicated by repair notes in the second site inspections only; and
 - (iii) for the remaining 13 maps (in 5 estates), the defects were not indicated in both site inspections (see Table 4).

Note 11: According to HD, the estimated cost to install map(s) in an existing estate was about \$80,000. This was a preliminary indication, assuming on average installation of 1 to 2 maps in each estate.

Table 4

Audit's site inspections on multi-sensory maps in 10 PRH estates
(June to August 2023)

No.	Location of maps	Number of maps inspected by Audit	Number of maps with defects	HD's indication of defects
1	Kai Ching Estate	2	2	None
2	Kwai Chung Estate	1	1	Note 1
3	Lower Ngau Tau Kok Estate	5	2	None
4	Mun Tung Estate	2	2	Note 2
5	On Tai Estate	1	-	N/A
6	Queens Hill Estate	3	_	N/A
7	Shek Kip Mei Estate	11	10	Note 1
8	Shui Chuen O Estate	7	6	None
9	Yau Oi Estate	2	2	Note 1
10	Ying Tung Estate	2	2	None
	Total	36	27	

Source: Audit's site inspections

Note 1: Defects were indicated by repair notes in the second site inspections only.

Note 2: The defect of one map was indicated with a repair note in both site inspections, and the defect of the another map was not indicated in both site inspections.

2.12 Audit considers that HD needs to:

- (a) take actions to rectify the defective maps;
- (b) remind HD staff to regularly check the conditions of multi-sensory maps in PRH estates and upkeep the maps in good working conditions; and

(c) explore measures to enhance the durability of the multi-sensory maps and reduce the occurrence of defects as far as practicable.

Audit recommendations

- 2.13 Audit has recommended that the Director of Housing should:
 - (a) take measures to enhance the monitoring of the submission of the results of regular checks conducted by Access Officers;
 - (b) enhance the regular checks/daily patrols on barrier-free access and facilities, and take actions to rectify the defects and deviations from DM 2008/technical guide of barrier-free access and facilities identified by Audit as far as practicable;
 - (c) remind HD staff to regularly check the conditions of multi-sensory maps in PRH estates and upkeep the maps in good working conditions; and
 - (d) explore measures to enhance the durability of the multi-sensory maps and reduce the occurrence of defects as far as practicable.

Response from the Government

- 2.14 The Director of Housing agrees with the audit recommendations. She has said that:
 - (a) HD will revise the wording of the call email in future to request Access Officers explicitly that they must submit a duly completed proforma, irrespective of whether there are defects identified or complaints/suggestions received;
 - (b) in 2001 and 2010, HD implemented barrier-free access and facility improvement programmes for all existing PRH estates to tally with the requirements of DM 1997 and DM 2008 as far as practicable. HD will review the guidelines concerning regular checks/daily patrols on

barrier-free access and facilities, aiming to further enhance the inspections and follow-up actions for defects or deviations identified by Audit as far as practicable;

- (c) HD will remind staff to regularly inspect the multi-sensory maps in PRH estates, and take rectification promptly if any defects are identified in order to maintain the maps in proper working conditions; and
- (d) HD will review the design of the multi-sensory maps and explore measures to enhance their durability.

Implementation of adaptation works in public rental housing flats

- 2.15 HA provides free adaptation works in PRH flats upon applications from elderly or disabled tenants (see para. 1.10). EMD has promulgated an instruction "Adaptation Works in Flats Occupied by Disabled and Elderly Persons", setting out the processing of such applications by estate staff. According to the instruction:
 - (a) adaptation works are carried out to suit individual needs. Estate staff should, in consultation with professionals, such as medical officers, physiotherapists, occupational therapists or medical social workers, decide the type of works to be undertaken (Note 12);
 - (b) typical in-flat adaptation works (e.g. provision of ramps at flat entrance for wheelchair bound and senile) are listed out and the applications of such works are approved by estate staff. If non-standard alteration is considered essential, the application should be referred to the District Senior Housing Manager of RMO (for HD direct-managed estates) or Senior Property Service Manager of PSAU (for PSA-managed estates) via senior works professional for approval. For substantial alteration or alteration having read-across implications, Regional Chief Manager's approval should be sought;

Note 12: For requests for installation of grab bars or conversion of shower area in the bathroom, HD arranges relevant works directly without discussion with professionals.

- (c) if the required adaptation works is not acceptable, the tenant, the welfare agency (if involved) and the concerned professionals should be informed of the refusal reason(s) and the proposed alternative(s) (if any);
- (d) after finalisation of the scope of works, estate staff should arrange for the provisions with DMOs as appropriate; and
- (e) estate staff should process applications for adaptation works expeditiously to minimise inconvenience caused to the disabled tenants.

Audit notes that HA promulgates the provision of adaptation works through posting notices in lift lobbies of domestic blocks as well as in its website.

Room for improvement in processing applications for adaptation works

- 2.16 According to HA, it does not maintain consolidated statistics or central records of applications for adaptation works until September 2022 when a new works category for adaptation works was introduced (see para. 2.19). To select relevant cases for examination:
 - Audit examined the applications for adaptation works in 5 estates from 1 January 2022 to 30 June 2023 and noted that there were some applications which HD took long time to process. Audit took samples of 15 such applications for detailed examination and found that long time had been taken from receiving applications to issuing works orders (76 days on average, ranging from 26 to 140 days). In particular, EMOs took more than 30 days before the hard-copy requests were dispatched to DMOs in 4 HD direct-managed estates cases (see para. 2.15(d)) and PSAs took more than 50 days before asking DMOs to process the applications in 2 PSA-managed estates cases. According to HD:
 - (i) it would contact tenants for flat inspections to confirm whether the proposed adaptation works were feasible before issuing works orders. However, access for flat inspection were often unsuccessful, due to reasons including the outbreak of the coronavirus disease (COVID-19) epidemic, tenants not at home despite prior appointment or being hospitalised, etc. Besides, if the proposed adaptation works were found not feasible, advices from

professionals on modified design were required, which might cause further delay; and

- (ii) the processing time of certain applications was significantly affected by the COVID-19 epidemic, during which HD and PSA colleagues had been actively participating in anti-epidemic operations; and
- (b) Audit sample checked 4 complaint cases received from 1 January 2020 to 30 June 2023 about adaptation works not being processed/being declined and found that:
 - (i) in 3 cases, the tenants requested estate staff to conduct adaptation works (e.g. provision of a ramp) to their flats without referrals or recommendations from professionals. In 2 of the 3 cases, the estate staff advised the tenants to seek referrals from professionals. In 1 of the 3 cases, while acknowledging the request, the estate staff did not inform the tenant that referral or recommendation from professionals was required (see para. 2.15(a)). Subsequently, when the tenant enquired about the progress of the adaptation works, HD replied that the request had not been proceeded because no formal application (with referral or recommendation from professionals) had been received. HA had not promulgated detailed application procedures and the required supporting documents (i.e. referrals or recommendations from professionals) for adaptation works; and
 - (ii) in the remaining case, the tenant requested estate staff to conduct non-standard adaptation works to his flat. Despite that recommendation from an occupational therapist had been submitted, the estate staff, at variance with EMD's instruction, declined the application without referring the case to their supervisor nor informing the tenant the refusal reason(s) (see para. 2.15(b) and (c)). After further requests and explanations from the occupational therapist, adaptation works were subsequently provided to the tenant.

2.17 Audit considers that HD needs to:

(a) review the application process for adaptation works with a view to shortening the processing time as far as practicable; and

(b) enhance the promulgation of application procedures for adaptation works and remind estate staff to follow the instruction "Adaptation Works in Flats Occupied by Disabled and Elderly Persons" when handling applications for adaptation works.

Need to use new function in computer system when issuing works orders for adaptation works

- 2.18 After approval of applications and finalisation of the scope of works, DMOs (for HD direct-managed estates) and PSAs (for PSA-managed estates) will issue works orders through a computer system to the term contractors (Note 13) to carry out relevant building works. DMOs oversee the term contractors' works and report to the respective EMOs or PSAs upon completion.
- 2.19 In September 2022, HD introduced a new function to its computer system for identification of works orders related to adaptation works in PRH flats to strengthen its monitoring. Upon request, in September 2023, HD provided Audit with a list showing information of relevant works orders issued for the 237 housing estates from 1 January to 31 July 2023. Audit found that:
 - (a) no works orders were found on the list for 40 (17%) of the 237 housing estates. Audit selected 5 from the 40 estates for further examination and found that more than 10 works orders had been issued for each of the 5 estates during the period but none was included on the list. This indicated that the new function might not be used in all estates; and
 - (b) 2,874 works orders related to adaptation work were issued for the remaining 197 estates (Note 14).
- **Note 13:** As of June 2023, contractors were engaged under 20 term contracts to conduct building works under the monitoring of DMOs.
- Note 14: According to EMD's instruction "Implementation of Responsive In-flat Maintenance Services", a target of 70% of works orders issued in each month should be completed by the term contractors within 14 days from the issuance date. Up to 23 August 2023, 2,860 of the 2,874 works orders were completed, of which 2,179 (76% of 2,874) works orders were completed within 14 days.

Barrier-free access and facility improvement programmes

In Audit's view, to facilitate monitoring of works orders related to adaptation works, HD needs to remind staff to use the new function for identification of adaptation works when issuing works orders in the computer system.

Need to step up efforts to obtain consent for the installation of Visual Fire Alarm systems

- 2.20 In October 2019, with consent from the Fire Services Department and the positive outcome of a trial run in a domestic flat, HA endorsed the installation of the Visual Fire Alarm (VFA) systems (Note 15) to PRH flats with hearing-impaired tenants free of charge, subject to their requests. As of 30 June 2023, there were 1,558 PRH flats with hearing-impaired tenants and VFA systems had been installed in 89 (6%) flats at a total cost of \$583,000 (Note 16).
- Among the 1,558 PRH flats, 94 (6%) flats are located in the 42 estates under TPS, BRO Scheme and Home Ownership Scheme (Note 17). For these 94 flats, written consent from the respective IOs for the connection of VFA to their communal fire service systems is required. Since March 2020, HD had discussed with all IOs of the 42 estates regarding the installation of in-flat VFA systems connecting to their communal fire service systems. Audit noted that up to 30 June 2023, written consent was not yet obtained from 20 (48%) estates, of which 18 estates were with hearing-impaired tenants (involving 42 PRH flats). Audit considers that HD needs to step up efforts in obtaining consent for the installation of VFA systems from IOs of the estates under TPS, BRO Scheme and Home Ownership Scheme.
- **Note 15:** VFA system installed in a domestic flat is connected to the communal fire service system so as to enable the simultaneous actuation of VFA and fire alarm bells when the fire alarm system is triggered.
- **Note 16:** According to HD, to promote this new provision, HA had issued letters to all households with hearing-impaired tenants according to the list of disabled tenants and displayed notices at the ground floor lift lobby of domestic blocks.
- Note 17: According to HD, for PRH flats located in estates under the Green Form Subsidised Home Ownership Scheme, as those flats are located in PRH blocks of which the communal fire service systems are managed and maintained by HD, written consent for the installation of VFA systems is not necessary.

Audit recommendations

- 2.22 Audit has *recommended* that the Director of Housing should:
 - (a) review the application process for adaptation works with a view to shortening the processing time as far as practicable;
 - (b) enhance the promulgation of application procedures for adaptation works and remind estate staff to follow the instruction "Adaptation Works in Flats Occupied by Disabled and Elderly Persons" when handling applications for adaptation works;
 - (c) remind staff to use the new function for identification of adaptation works when issuing works orders in the computer system; and
 - (d) step up efforts in obtaining consent for the installation of VFA systems from IOs of the estates under TPS, BRO Scheme and Home Ownership Scheme.

Response from the Government

- 2.23 The Director of Housing agrees with the audit recommendations. She has said that:
 - (a) HD receives over 5,000 applications for adaptation works every year. Each application is handled on individual basis including making appointment with tenants for flat inspection and confirming the feasibility of adaptation works. Despite the outbreak of COVID-19 had affected the schedule of gaining access for inspection (e.g. tenants contracted with COVID-19, being hospitalised or quarantined), the average completion time of adaptation works was about 10 days after gaining access for inspection. Nonetheless, HD will review the procedures for adaptation works, with the goal of minimising the processing time as far as practicable;
 - (b) HD will further enhance the promulgation procedures for adaptation works through various channels, including posting notices and updating the website, and remind estate staff to follow the instruction "Adaptation

Works in Flats Occupied by Disabled and Elderly Persons" when handling applications for adaptation works;

- (c) HD has already issued reminders to all relevant colleagues through email and meetings to utilise the new function of the computer system when issuing works orders for adaptation works. On the other hand, HD will keep in view the appropriate use of such new function for identification of adaptation works; and
- (d) HD will continue to:
 - (i) persuade IOs of the remaining estates under TPS, BRO Scheme and Home Ownership Scheme to obtain their consent on the connection of VFA systems to the communal fire services systems; and
 - (ii) offer IOs professional advice on the maintenance and repair arrangements for the related facilities if required.

Appointment and training of Access Officers

- 2.24 Room for improvement in the appointment of Access Officers. As at 30 June 2023, 229 estate staff (comprising 65 HD staff and 164 PSA staff) were appointed as Access Officers to cover estates with PRH flats. Some Access Officers are responsible for more than 1 estate. Audit examination revealed that of the 237 housing estates, 6 estates had not appointed Access Officers for a long period of time since the implementation of the Access Co-ordinator and Access Officer Scheme in April 2011. Of the 6 estates:
 - (a) in 1 estate, no Access Officer had been appointed as at 30 June 2023;
 - (b) in another estate, the Access Officer was not appointed until June 2023; and
 - (c) in 4 estates, the Access Officers were not appointed until the period from October to December 2022.

Audit considers that HD needs to take measures to monitor the appointment of Access Officers for all housing estates.

- 2.25 Room for improvement in the training of Access Officers. HD arranges training for Access Officers every year on legal requirements on the provision of barrier-free facilities. HD had not stipulated requirements for Access Officers to attend training. Audit analysed the attendance of the training sessions conducted from 1 January 2018 to 31 July 2023 and found that of the 229 Access Officers, 105 (46%) did not attend any training.
- In September 2023, HD informed Audit that the attendance had been significantly affected by the COVID-19 epidemic over the past three years due to the need for social distancing and additional efforts on anti-epidemic measures. While an additional training session was arranged on 18 July 2023, a significant number of Access Officers were unable to attend as they were engaged in special tasks that arose from the aftermath of the typhoon occurred on the day before. Audit considers that HD needs to take measures to enhance the training attendance by Access Officers (e.g. by stipulating requirements on their attendance of training).

Audit recommendations

- 2.27 Audit has *recommended* that the Director of Housing should take measures to:
 - (a) monitor the appointment of Access Officers for all housing estates; and
 - (b) enhance the training attendance by Access Officers (e.g. by stipulating requirements on their attendance of training).

Response from the Government

2.28 The Director of Housing agrees with the audit recommendations. She has said that:

Barrier-free access and facility improvement programmes

- (a) HD has already re-appointed Access Officers for those estates that had not appointed Access Officers previously and will regularly update the information in future; and
- (b) HD has conducted additional training sessions for Access Officers who had not previously attended. Following the training session held on 6 October 2023, 71% of Access Officers had participated in the training organised by HD. HD will continue to hold the training programme regularly to further increase the attendance rate.

PART 3: LIFT ADDITION PROGRAMME

3.1 This PART examines the work of HD in implementing LAP.

Background

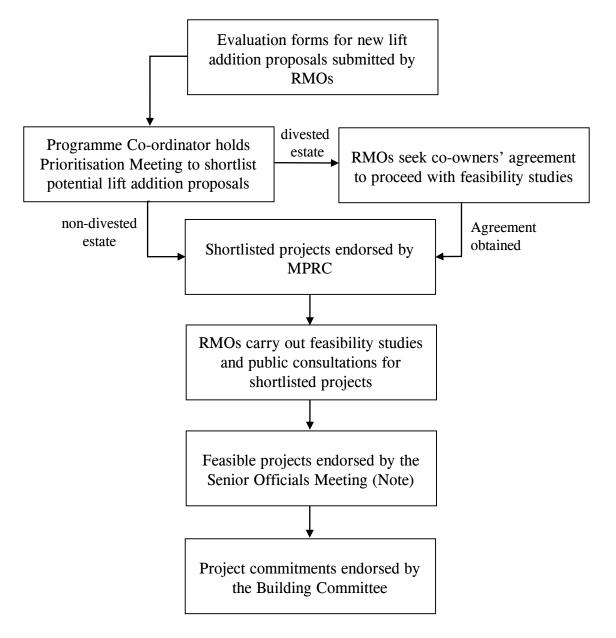
- 3.2 Prior to 2008, lift addition projects were handled by RMOs to meet local needs. In 2008, in view of an increasing need to provide lift services to tenants of different ages and abilities, HA implemented a centralised LAP with a holistic and consistent approach on the evaluation, prioritisation, shortlisting, execution and monitoring of lift addition projects (see Figure 1 for a workflow on shortlisting and approving projects). A Programme Review Meeting on Lift Addition Projects chaired by the Programme Coordinator (Note 18) was held every two months to:
 - (a) monitor and report to senior management the progress of lift addition projects;
 - (b) advise appropriate follow-up actions on problematic/delayed projects; and
 - (c) formulate procedures/guidelines to enhance the smooth progress of lift addition projects.

Progress reports on lift addition projects are submitted to the Maintenance Planning and Review Committee (MPRC — Note 19) regularly.

Note 18: The Chief Manager, Support Services Section 5, was assigned as the Programme Coordinator to oversee the progress of LAP.

Note 19: MPRC is co-chaired by the three Assistant Directors of EMD. Meetings are held regularly to, among others, review individual maintenance and improvement proposals and progress of maintenance and improvement programmes.

Figure 1
Workflow on shortlisting and approving lift addition projects



Source: Audit analysis of HD records

Note: Senior Officials Meeting is an in-house meeting chaired by the Director of Housing with members including Deputy Directors and Assistant Directors. It meets weekly to discuss major policy issues and issues of public relations or district concerns. It also acts as the clearing house for submission of papers to HA and its committees which have policy, public relations, political or financial implications.

- 3.3 **LAP Stage 1.** LAP commenced in 2008 as a five-year programme (subsequently referred to as Stage 1) for the following two categories of works:
 - (a) Addition of lifts, escalators and footbridges at external areas in PRH estates. PRH estates constructed on hillsides were normally provided with staircases for connecting different platforms within the estate or with the adjacent estates/public roads. The addition of escalators or lifts with footbridges were considered a more effective means for the pedestrians to overcome level differences. HA conducted a survey among existing PRH estates to evaluate the need and priority on the provision of lifts/escalators at external areas within the estate boundary based on certain prioritisation factors (Note 20), and formulated a work programme; and
 - (b) Addition of lifts in existing PRH blocks without lift service. Some of the PRH blocks were built without lifts. The provision of lift would comprise the construction of a lift tower adjacent to the block with connections to the block on every floor.

Stage 1 comprised 28 works contracts with a total construction cost of \$719 million. A total of 70 lifts, 6 escalators and 18 footbridges were added in 29 PRH estates (see Photographs 3(a) and (b) for examples) and all the projects were completed by 2014 (see Appendix D).

Note 20: *The prioritisation factors adopted in Stage 1 were:*

- (a) vertical distance between the platforms at different levels;
- (b) number of residents benefited;
- (c) age group and physical condition of residents;
- (d) land status; and
- (e) technical and economical feasibilities.

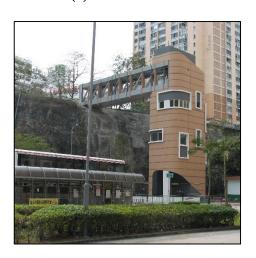
Photographs 3(a) and (b)

Examples of completed LAP Stage 1 projects

(a) Ping Shek Estate



(b) Lai Yiu Estate



Source: HD records

3.4 **LAP Stage 2.** In 2012, in order to further enhance the pedestrian access for tenants, LAP became a multi-year rolling programme. Moreover, in support of the Government's initiative to promote "Universal Accessibility" (see para. 1.13), LAP would include, where appropriate, the addition of lifts beside existing footbridges within PRH estates. Thus, the prioritisation factors for potential lift addition proposals were also adjusted (Note 21). A new stage (referred to as Stage 2) was implemented in 2013 as a three-year programme. It comprised 5 works contracts with a total construction cost of \$247.7 million. A total of 13 lifts and

Note 21: *The prioritisation factors adopted in Stage 2 were:*

- (a) topographical factors (vertical distance between the platforms at different levels);
- (b) existing accessibility of footbridges;
- (c) community needs;
- (d) technical feasibility;
- (e) effectiveness on spending public resource; and
- (f) redevelopment potential.

9 footbridges were added in 8 PRH estates (see Photograph 4 for an example) and all the projects were completed by 2017 (see Appendix E).

Photograph 4

Example of a completed LAP Stage 2 project





Source: HD records

- 3.5 According to HA, as the most-needy lift addition projects had already been included in LAP Stages 1 and 2, there would be fewer new proposed projects. It was decided that from 2015-16 onwards, LAP would be changed from a multi-year rolling programme to an annual on-going programme and lift addition proposals would be prioritised, shortlisted, reviewed and proceeded in the form of annual exercises.
- 3.6 Audit noted that two annual exercises had been conducted under LAP:
 - (a) *LAP 2015-16.* In October 2014, an annual exercise (subsequently referred to as LAP 2015-16) was carried out and 7 proposals (2 in non-divested estates and 5 in estate common areas (ECA) of divested estates) were shortlisted for further consideration. Among the 7 shortlisted proposals:

- (i) a project to add two lifts and a footbridge in the 2 non-divested estates (i.e. Wu King Estate and Cheung Ching Estate) was launched. The project was completed in 2019 at a cost of \$40 million; and
- (ii) agreement from co-owners were required for the implementation of the 5 shortlisted proposals in divested estates, which had not been implemented as of September 2023; and
- (b) *LAP 2016-17*. In October 2015, an annual exercise was carried out for LAP 2016-17 and 1 proposal in the area owned by HA of a divested estate and 1 proposal in ECA of another divested estate were shortlisted. However, the former proposal was not recommended because it did not fulfil the guiding principle of vertical distance between platforms of different levels. Agreement from the co-owner was required for the latter proposal, which had not been implemented as of September 2023.
- 3.7 According to HD, in December 2015, as the anticipated number of future lift addition proposals would be very small, a centralised LAP with holistic consideration was no longer necessary. As such, annual exercises to shortlist lift addition proposals were no longer conducted after LAP 2016-17.

Need to keep in view implementation of lift addition proposals

- According to HD, RMOs consider lift addition proposals based on the same set of prioritisation factors (see Note 21 to para. 3.4) and the proposals are submitted to MPRC for its consideration. As at 31 March 2023, excluding those 7 proposals shortlisted in LAP 2015-16 and LAP 2016-17 (see para. 3.10 for details), there were 24 proposals in the list of potential future lift addition projects. Audit noted that the list was circulated to members of MPRC quarterly during the period from December 2015 to March 2023 but none of the proposals in the list had been shortlisted for implementation.
- 3.9 In April 2023, Members of the Panel on Housing of LegCo expressed concern that barrier-free access for tenants living in PRH estates built on hillsides were insufficient and urged HA to expedite the implementation of LAP. As shown

in the list of potential future lift addition projects as at 31 March 2023 submitted to MPRC, there were 24 proposals, as follows:

- (a) in 7 proposals, the agreement from the co-owners were still pending;
- (b) in 6 proposals, the needs for lift installation were being monitored by respective RMOs; and
- (c) in the remaining 11 proposals, they were considered to be of low priorities (see Note 21 to para. 3.4) or agreement from co-owners could not be obtained.

According to HD, circumstances (such as change of co-ownership) might change which render these proposals feasible to be implemented. Audit considers that HD should continue to keep in view the need and feasibility of implementing the potential lift addition proposals.

Need to expedite implementation of shortlisted projects

- 3.10 Audit noted that 7 lift addition proposals shortlisted in the annual exercises (5 in LAP 2015-16 and 2 in LAP 2016-17 see para. 3.6) had not been implemented as of September 2023. Of the 7 proposals, 1 proposal was not recommended for implementation as the vertical distance between the platforms of different levels was small. Audit examination of the remaining 6 proposals in divested estates revealed that while RMOs had sought agreement on the project details and cost sharing (Note 22) on the lift addition proposals with the co-owners:
 - (a) for 3 proposals, the co-owners disagreed to proceed with the feasibility studies in their divested estates. In the event, a stairlift had been provided in one of the three divested estates:
 - (b) for 1 proposal, the co-owners had agreed to proceed with the feasibility study, which was completed in January 2016. However, in February 2017, the co-ownership of the estate changed. In February 2018, HD was

Note 22: The cost would be shared between HA and the co-owners according to the management shares in the respective DMCs and funded through their contributions to ECA management fee.

informed that the new co-owner was unwilling to proceed with the proposal; and

- (c) for the remaining 2 proposals:
 - (i) **Proposal A.** Preliminary feasibility study (Note 23) was completed in January 2016. In December 2021, the co-owner agreed to conduct a detailed feasibility study (Note 24) in 2022-23. In July 2022, a professional service provider was engaged to carry out the detailed feasibility study; and
 - (ii) **Proposal B.** Preliminary feasibility study was completed in February 2018 (Note 25). In December 2020, the co-owner agreed to conduct a detailed feasibility study in 2022-23. In June 2022, MPRC approved the appointment of a professional service provider to conduct the detailed feasibility study.

As of June 2023, the two detailed feasibility studies were still in progress. According to HD, RMOs would consult the co-owners when the results of the detailed feasibility studies were available.

- Note 23: The scope of preliminary feasibility study include matters relating to project details, construction cost and programme, and associated land issues. Based on the findings of the preliminary feasibility study, HA and the co-owner would decide whether or not to proceed to subsequent stages of design and construction.
- Note 24: The scope of detailed feasibility study include matters relating to permissible gross floor area, terms of lease modification, amount of land premium, detailed design and drawing for submissions to obtain approval from the Independent Checking Unit and to seek consent under lease from the Lands Department, etc.
- Note 25: Escalators and a stairlift (for wheelchair users) are provided to connect the two platforms located at different levels within the estate. According to HD, escalators are not suitable for wheelchair users while the stairlift have been heavily used. From 2019 to 2021, on average the stairlift broke down twice a month. From December 2019 to June 2020, stairlift service was suspended for seven months due to the manufacturing and shipment of a major replacement part. Overall, RMO concerned considered that the tenants' demand was high.

Audit considers that HD needs to closely monitor the progress of the detailed feasibility studies with a view to further expediting the implementation of the two LAP proposals.

Domestic blocks not provided with lifts

3.11 As of June 2023, there were 39 PRH domestic blocks not provided with lifts. Excluding the 9 blocks with lift services provided in their adjoining blocks, there were 30 blocks located in three PRH estates (i.e. Cheung Kwai Estate in Cheung Chau, Lung Tin Estate in Tai O and Model Housing Estate in North Point (see Photographs 5 to 7)) not provided with lifts (see Table 5).

Photograph 5

Cheung Kwai Estate



Source: HD records

Photograph 6

Lung Tin Estate



Source: HD records

Photograph 7

Model Housing Estate



Source: Photograph taken by Audit staff on 11 August 2023

Table 5

PRH domestic blocks not provided with lifts (30 June 2023)

Particulars	Cheung Kwai Estate	Lung Tin Estate	Model Housing Estate	Overall
Location	Cheung Chau	Tai O	North Point	
Year of completion	1984	1980	1954	
Block type	Rural housing	Rural housing	Old slab	
Number of blocks not provided with lifts	18 (Note 1)	7 (Note 2)	5 (Note 3)	30
Number of flats not provided with lifts	472	172	245	889
Authorised population of occupied flats	1,297	362	763	2,422
Number of vacant flats	9	14	10	33
Vacancy rate	2%	8%	4%	4%

Source: Audit analysis of HD records

Note 1: There are 17 blocks of 4-storey and 1 block of 3-storey, for which all are not provided with lifts.

Note 2: There are 7 blocks of 3-storey not provided with lifts and 1 block of 12-storey with lift service.

Note 3: There are 2 blocks of 6-storey and 3 blocks of 5-storey not provided with lifts, as well as 1 block of 20-storey (completed in 1979) with lift service.

3.12 In December 2006, regarding the provision of lifts in Model Housing Estate, HD informed the LegCo Panel on Housing that:

Lift Addition Programme

- (a) the Comprehensive Structural Investigation Programme (CSIP Note 26) of Model Housing Estate was completed in August 2006. The investigation revealed that all the building blocks were structurally safe. Only local repair works were required to sustain the buildings for 15 years or more; and
- (b) the study revealed that it was technically not feasible to provide lifts in the lower blocks of 5 to 6 storeys.
- 3.13 In August 2014, regarding the provision of lifts in Lung Tin Estate and Cheung Kwai Estate, HD informed the LegCo Panel on Housing that lift services were not provided because the domestic blocks (see para. 3.11) in Lung Tin Estate and Cheung Kwai Estate were all of 3 to 4 storeys.
- 3.14 Following HA's Refined Policy on Redevelopment of Aged PRH Estates in 2011, CSIP and repair and improvement programmes (including LAP) for aged estates should be desirably rolled out in a coordinated manner with the redevelopment potential of the estates. The following conditions shall be considered in implementing future lift addition proposals:
 - (a) when the estate has completed CSIP and it is decided not to redevelop the estate; and
 - (b) the need of providing lifts is justified.

Note 26: In September 2005, HD launched a CSIP covering ten PRH estates aged about or over 40. The objective was to ascertain whether these aged housing blocks were structurally safe and whether it was more cost-effective to keep these buildings or to demolish them. The investigation would also identify the extent and costs of the repair/strengthening works required to sustain these buildings for at least 15 years.

3.15 According to HD:

- (a) the provision of lifts in the three estates had not been included in LAP nor in the Estate Improvement Programme (Note 27);
- (b) it had looked into the feasibility of adding lifts to these blocks in order to improve service to the tenants and considered that the need of adding lifts in these three estates were not imminent, taking into account that:
 - (i) Lung Tin Estate and Cheung Kwai Estate were rural housing estates;
 - (ii) Model Housing Estate had no common corridor connecting each unit on the same storey. Without such common corridor, some tenants cannot access the lift even though it was provided;
 - (iii) the substantial alterations to the existing structures; and
 - (iv) the adverse impacts and nuisance to sitting tenants during course of works in the three estates; and
- (c) to ensure rational utilisation of public fund and having regard to cost effectiveness, instead of providing lifts in the three estates, HD would continue making use of the current transfer arrangements (internal transfer of the tenants to another block in the same estate or special transfer to another estate with lift provision) in order to cater for the needs of the elderly and disabled persons concerned.

As at 30 June 2023, about 30% of tenants in the three estates were elderly. Under the "Ageing in Place" policy (Note 28), HA takes into account the needs of the elderly and other residents with impaired mobility in the design, management and

Note 27: In order to ensure the sustainability of the PRH estates retain after CSIP assessment, HD implements the Estate Improvement Programme to these estates in phases to upgrade the recreational facilities, renovate the building exteriors and common areas as well as enhance the landscaping and greening coverage.

Note 28: "Ageing in Place" is based on the idea that elderly people who live in a familiar environment can lead to healthier and happier lives.

maintenance of PRH estates, with a view to providing a safe and convenient living environment.

3.16 According to the 2022 Policy Address, the Government would provide better public space, facilities and estate environment for public housing residents. In Audit's view, there is a need to continue improving the situation of aged PRH estates where lift services have not been provided. For example, barrier-free access and facilities leading to the building entrances should be enhanced where practicable. In order to create a living environment with a greater sense of well-being, Audit considers that HD needs to explore measures to further enhance the living environment of the elderly residing in the domestic blocks not provided with lift services in the three PRH estates.

Audit recommendations

- 3.17 Audit has recommended that the Director of Housing should:
 - (a) continue to keep in view the need and feasibility of implementing the potential lift addition proposals;
 - (b) closely monitor the progress of the detailed feasibility studies with a view to further expediting the implementation of the two lift addition proposals mentioned in paragraph 3.10(c); and
 - (c) explore measures to further enhance the living environment of the elderly residing in the domestic blocks not provided with lift services in the three PRH estates (i.e. Cheung Kwai Estate, Lung Tin Estate and Model Housing Estate).

Response from the Government

3.18 The Director of Housing agrees with the audit recommendations. She has said that:

- (a) HD will keep in view the need and feasibility of implementing the potential lift addition proposals whenever the circumstances changed, which might render these proposals feasible to be implemented;
- (b) HD will closely monitor the progress of the two lift addition proposals mentioned in paragraph 3.10(c). HD is resolving technical details of the two proposals with relevant authorities. After that, HD would seek agreement from stakeholders to proceed the subsequent works; and
- (c) HD has carried out a feasibility study on provision of lifts services to the low rise building blocks of the three PRH estates. The study concluded that there was no acceptable solution for it. HD will review the need of elderly and explore alternative measures to improve the living environment for the three low rise estates not provided with lift services. In fact, there are successful cases of implementing tenants transfer arrangement (internal transfer of the tenants to another block in the same estate or special transfer to another estate with lift provision).

PART 4: RETROFITTING LIFTS AT WALKWAYS RELATING TO HOUSING ESTATES UNDER UNIVERSAL ACCESSIBILITY PROGRAMME

- 4.1 This PART examines HyD's work in retrofitting lifts at walkways relating to housing estates, focusing on:
 - (a) retrofitting lifts at walkways in/connecting to housing estates (paras. 4.2 to 4.16);
 - (b) retrofitting lifts at walkways close to housing estates (paras. 4.17 to 4.26); and
 - (c) new initiatives in expediting lift construction (paras. 4.27 to 4.34).

Retrofitting lifts at walkways in/connecting to housing estates

Lift retrofitting items disagreed by relevant parties not reported to District Councils in a timely manner

- As mentioned in Note 8 to paragraph 1.14, lift retrofitting items under the Special Scheme under UAP can only be taken forward provided that, among others, the relevant owners or parties responsible for the management of the concerned land/walkways agree to such lift retrofitting proposals and are willing to cooperate with the Government in subsequent management and maintenance of the lifts. For lift retrofitting items with agreement not granted by the relevant parties, HyD will report the status to the relevant District Councils and invite them to propose replacement items.
- 4.3 Audit noted that of the first round of 35 priority lift retrofitting items selected by the relevant District Councils, up to 31 July 2023, HyD could not obtain the agreement from relevant parties of 3 items. Audit examination revealed that after receiving the replies of not granting agreement from the relevant parties, HyD took an average of 17.5 months (ranging from 13.2 to 20 months) to report those 3 items to the relevant District Councils (see Table 6).

Table 6

Time taken for reporting to District Councils lift retrofitting items with agreement not granted by relevant parties

Item	Date of final reply from relevant party	Date of reporting to District Council	Time elapsed (Month)
A	20 May 2021	19 January 2023	20.0
В	24 May 2021	6 January 2023	19.4
С	29 November 2021	6 January 2023	13.2

Source: Audit analysis of HyD records

4.4 In October 2023, HyD informed Audit that:

- (a) in November 2021, about 134 items (including items under the Special Scheme) were under planning for different phases of UAP (see para. 1.13). Taking into account available resources, HyD would package the items in batches for implementation under different contracts. HyD would invite tenders for implementing the items as soon as there were sufficient number of items in the batch to enable their timely implementation;
- (b) HyD had kept monitoring the number of items with agreement from relevant parties. For items under the Special Scheme, the final replies of relevant parties about whether agreement was given to lift retrofitting proposals were received by HyD at different times. For items of which agreement could not be obtained, HyD had planned to conduct another round of District Council consultation for nomination of replacement of walkways. In late 2022, the total number of items under the Special Scheme (i.e. 32 items) could generally be confirmed except for one item, to which relevant parties could only confirm their objections in August 2023. As the status of agreement and/or objection of all items was relatively clear near the end of 2022, HyD had seized the earliest juncture to commence the round of consultation with relevant District Councils on item replacement in January 2023; and

- (c) after obtaining agreement from owners and relevant parties, HyD would proceed to carrying out design for the items and conducting public consultation including consultation with relevant District Councils, nearby housing estates and stakeholders on the detailed design of the items. Up to 2021, 13 items under the Special Scheme which had obtained the agreement from relevant parties would be included in the final batch of walkways for works commencement in 2024. For the three items without agreement of relevant parties (items A, B and C in Table 6), their replacement items agreed by the relevant District Councils would also be included in the final batch under the current planning. Therefore, under the current planning timeframe, even if the time lapse in Table 6 could be shortened, the replacement items for items A, B and C would only commence in 2024.
- 4.5 With a view to improving the transparency of the Special Scheme, Audit considers that HyD needs to report to the District Councils in a more timely manner lift retrofitting items with agreement not granted by relevant parties for their consideration and proposal of replacement items.

Need to enhance consultation with District Councils

- 4.6 As mentioned in paragraph 1.14, from 2020 to 2021, HyD conducted consultation with the relevant District Councils on implementation of the Special Scheme. According to HyD, the consultation was conducted in two stages:
 - (a) *First stage.* With a view to facilitating members' consideration and selection of lift retrofitting items for inclusion in the preliminary study, at the meetings of the Traffic and Transport Committee of each of the relevant District Councils, HyD provided a list of walkways (Note 29) meeting the ambit (see para. 1.14) of the Special Scheme. After collecting the

Note 29: According to HyD, such lists of walkways were prepared with reference to the information provided by HD (in the form of location maps) and the results of site visits. The lists had been endorsed by the then Transport and Housing Bureau before passing to the relevant District Councils, and they contained some basic information of the concerned walkways (e.g. availability of barrier-free access facilities or alternative crossing nearby, number of residents and senior citizens in the respective housing estates, etc.).

- suggestions from the District Councils, HyD carried out a preliminary study (Note 30) on those lift retrofitting items; and
- (b) **Second stage.** After completing the preliminary study, HyD reported the findings to the Traffic and Transport Committees of the relevant District Councils and invited the members to select not more than three walkways as priority items for implementation.
- 4.7 Audit examination revealed that of the 39 walkways (Note 31) selected as priority or replacement items for implementation under the Special Scheme, 8 were not included in the lists of walkways provided to the relevant District Councils during the first stage of consultation. Audit noted that the reasons for not including them in the lists were as follows:
 - (a) 4 (50%) were considered to be of low priority according to HyD's preliminary assessment taking into account various factors (e.g. presence of nearby existing at-grade pedestrian crossing, existing lifts in adjacent shopping malls, pedestrian flow, etc.); and
 - (b) 4 (50%) were not included in the information provided by HD. According to HD, the 4 items were not included because they did not fulfil the selection criteria established at that time.
- 4.8 In October 2023, HyD informed Audit that:
 - (a) in a consultation with a District Council earlier, members requested HyD to conduct preliminary studies for all 20 eligible walkways in that district;
- **Note 30:** According to HyD, the preliminary study assessed a number of aspects of the lift retrofitting items, including the pedestrian flow, preliminary technical feasibility, factors likely affecting future pedestrian flow, presence of other facilities nearby for the elderly and PWDs, etc.
- **Note 31:** According to HyD, the 39 walkways included 35 walkways from the first round of priority items selected by the relevant District Councils and 4 replacement items (including 3 replacement items and 1 further replaced item of a replacement item due to no agreement granted for it).

- (b) if low priority items were taken into consideration, the number of items to be included in the preliminary study would be much greater (possibly up to 191) with most of them not eventually be implemented; and
- in order to allow a better use of resources and ensure the timely completion of the preliminary study to proceed to the second stage of project planning (i.e. selection of not more than three walkways as priority items by each District Council), with the experience gained in (a), the lists of walkways submitted to the District Councils for selection of items had excluded low priority items. However, members might still nominate eligible walkways even if they were not included in the lists.
- 4.9 As shown in paragraph 4.7(a), local needs for retrofitting lifts at walkways in different districts may be better determined by the relevant District Councils. In this connection, with a view to facilitating members of the District Councils in making informed decisions, in conducting consultation with the District Councils in future, Audit considers that HyD needs to:
 - (a) consider providing more comprehensive information (e.g. assessment on the needs for retrofitting lifts at walkways conducted by the Government and the corresponding justifications); and
 - (b) enhance the communication with HD with a view to ensuring that all eligible walkways are covered for consideration under the Special Scheme.

Need to take measures to ensure that variations to consultancy agreements are properly approved

4.10 In November 2021 and January 2022, HyD entered into agreements with two consultants for the retrofitting of 14 lifts at 10 walkways in four districts (at a sum of about \$9.7 million) and 33 lifts at 21 walkways in nine districts (at a sum of about \$17.2 million) respectively. According to the agreements, the services were implemented through four phases, namely the investigation, design, tender and construction (Note 32) phases.

Note 32: According to the agreements, in the construction phase, the consultants are required, among others, to administer, manage and supervise the works contracts according to the planned programme.

- 4.11 According to HyD records, Audit noted that at a meeting held in June 2022, with a view to enhancing the overall effectiveness of contract management, HyD and the two consultants agreed to adjust the services between their agreements by transferring the services to be provided at the construction phase (except for issues related to design) for five walkways from one agreement to another.
- 4.12 Audit noted that the construction phase of the five walkways had commenced in February 2023. However, up to August 2023, for such variations to consultancy agreements, HyD had not obtained any approval as required by the Stores and Procurement Regulations (Note 33).
- 4.13 In October 2023, HyD informed Audit that:
 - (a) from June 2022 to October 2023 it had been conducting negotiations with these two consultants with a view to finalising the amount of additional fee under one consultancy agreement and the fee reduction under the other, and the approval was pending during the time of negotiation; and
 - (b) upon completion of the negotiations with the two consultants on finalising the amounts of additional fee and fee reduction under the two consultancy agreements respectively in October 2023, approval on the variations to the two consultancy agreements in accordance with the Stores and Procurement Regulations was obtained in the same month.
- 4.14 In Audit's view, HyD needs to remind its staff to ensure compliance with the Stores and Procurement Regulations in handling future variations to consultancy agreements on a timely basis.

Note 33: According to the Stores and Procurement Regulation 520, any variations to a contract have to be approved by the appropriate authority stipulated in the Regulations.

Audit recommendations

- 4.15 Audit has *recommended* that the Director of Highways should:
 - (a) report to the District Councils in a more timely manner lift retrofitting items with agreement not granted by relevant parties for their consideration and proposal of replacement items;
 - (b) consider providing more comprehensive information in conducting consultation with the District Councils in future;
 - (c) enhance the communication with HD with a view to ensuring that all eligible walkways are covered for consideration under the Special Scheme; and
 - (d) remind the staff of HyD to ensure compliance with the Stores and Procurement Regulations in handling future variations to consultancy agreements on a timely basis.

Response from the Government

- 4.16 The Director of Highways agrees with the audit recommendations. He has said that:
 - (a) HyD will in future report to the District Councils in a more timely manner lift retrofitting items with agreement not granted by relevant parties for their consideration and proposal of replacement items;
 - (b) HyD will consider providing more comprehensive information (e.g. assessment on the needs for retrofitting lifts at walkways conducted by the Government and the corresponding justifications) on determining priority of lift retrofitting proposals in conducting consultation with the District Councils in future;
 - (c) HyD will enhance communication with HD with a view to ensuring that all eligible walkways are covered for consideration under the Special Scheme; and

(d) HyD will issue internal memorandum to remind its staff to ensure compliance with the Stores and Procurement Regulations in handling future variations to consultancy agreements on a timely basis.

Retrofitting lifts at walkways close to housing estates

- 4.17 As at 31 August 2023, under UAP (other than the Special Scheme):
 - (a) the construction of 136 lifts had been completed on or after 1 January 2019; and
 - (b) the works contracts of 256 lifts had commenced but not yet been completed.

Audit sample check of the construction of five lifts at walkways close to housing estates revealed scope for improvement in implementing lift retrofitting works under works contracts administered by HyD, as elaborated in paragraphs 4.18 to 4.24.

Need to take measures to minimise extension of time required for handling underground utilities

- 4.18 According to HyD:
 - (a) *Investigation in design stage*. The consultant of HyD carries out desktop studies to identify underground utilities and where possible, carries out pre-construction investigation of underground utilities at locations of the proposed lifts;
 - (b) Site investigation works in construction stage. Prior to the construction of lifts, the following site investigation works should be carried out by the works contractor:
 - (i) *Inspection pit/trial trench excavation*. The works contractor conducts inspection pit/trial trench excavation with a view to detecting underground utilities. Underground utilities not previously identified by the consultant engaged by HyD during the investigation phase may be detected; and

- (ii) *Ground investigation*. The works contractor conducts ground investigation (i.e. pre-drilling works) with a view to verifying the underground conditions; and
- (c) Underground utility diversion. After conducting the site investigation works, the contractor will liaise with the relevant underground utility undertakers to perform utility diversions before the construction of lifts. For a typical site, the underground utility diversions may take between 6 to 12 months. For a site involving a large number of major utilities, the process may take more than 12 months to complete.
- 4.19 Audit examination found that there were extensions of time for completing the construction works of two lifts, which were mainly caused by the long time taken in handling underground utilities, as follows:
 - (a) Lift A. According to the works contract which commenced on 22 May 2015, the lift retrofitting works for Lift A were scheduled for completion within 730 days with completion date on 20 May 2017. However, the actual completion date of the retrofitting works was 8 May 2020. According to the assessment report, due to the identification of congested underground cables, extra time was required for the works contractor to arrange cable diversions with the utility undertakers, search for other feasible pre-drilling locations, and carry out a design review for the alternative location of the lift after confirming the infeasibility of cable diversions during the diversion works. According to HyD, an overall extension of time (Note 34) of 1,084 days was granted for completing the works of this lift, including 715 days for handling underground utilities; and
 - (b) *Lift B.* According to the works contract which commenced on 22 May 2015, the lift retrofitting works for Lift B were scheduled for completion within 912 days with completion date on 18 November 2017. However, the actual completion date of the retrofitting works was 16 October 2019. According to the assessment report, during the inspection pit excavation, a large number of underground utilities were found to be in

Note 34 According to HyD, common reasons for granting extension of time for works under UAP are inclement weather, unforeseen ground conditions, underground utilities, design changes to incorporate new requirements from stakeholders, etc.

conflict with the proposed pile cap for column of the elevated platform. As a result, the works contractor had taken time to identify and liaise with different utility undertakers to arrange utility diversions in phases. According to HyD, an overall extension of time of 697 days would be granted for completing the works of this lift, including 418 days for handling underground utilities.

4.20 In October 2023, HyD informed Audit that:

- (a) the substantial extensions of time for Lifts A and B mentioned in paragraph 4.19 were mainly due to the prolonged time needed by the contractor for handling underground utilities by different utility undertakers. Such extensions of time were unavoidable in light of the underground conditions revealed in the construction stage, as follows:
 - (i) Lift A. While the as-built records only showed a set of 6-ways trunk cables of the concerned utility undertaker, a set of 28-ways main trunk cables of the concerned utility undertaker and an uncharted drain in very poor condition were found in the construction stage. These underground utilities were found to be in conflict with the proposed location of Lift A and had to be diverted from the foundation of the proposed lift. However, due to the technical infeasibility to divert such underground utilities, a design review to revise the proposed lift location was therefore necessary; and
 - (ii) *Lift B.* A large number of underground utilities including water mains and cables were identified as compared with the as-built underground utilities records and rendered the site situation very complicated. Extra time was taken to explore feasible alignments for diversion of utilities which were in conflict with the proposed lift and to carry out the diversion works in stages;
- (b) in March 2018, HyD introduced pre-construction inspection of underground utilities prior to the start of the main contracts with a view to better understanding the situation of underground utilities on site. Such arrangement, which was not in place during the time Lifts A and B were implemented in 2015, would help identify underground utilities more accurately at an early stage and ascertain the feasibility of the underground utilities diversion in future; and

- (c) following the trial application of Early Contractor Involvement (see paras. 4.27 and 4.29), the contractor had demonstrated more initiatives in dealing with underground utility problems by more active involvement in resolving underground utility problems at an early possible stage. Therefore, it was expected that the time required for handling underground utilities could be minimised in future.
- 4.21 Audit notes HyD's efforts in handling underground utility problems. In Audit's view, in implementing lift retrofitting works, HyD needs to continue to take measures to minimise the extension of time required for handling underground utilities as far as practicable.

Need to make continued efforts in expediting the completion of outstanding lift retrofitting works

- 4.22 Audit examination found that while the relevant works contract commenced in October 2019, as at 31 August 2023, the construction of three lifts had not yet been completed. Audit analysed their original completion dates stipulated in the works contract and their completion dates forecasted by HyD, and noted that there would be delays in completing the works, ranging from 406 to 620 days. According to HyD records, Audit noted the following:
 - (a) in the period from July 2020 to June 2023, for the construction of the three lifts, HyD's consultant responsible for such works contract had issued 41 warning letters to the works contractor about slow works progress and site idling issue;
 - (b) in the eight quarterly reports on contractor's performance issued by HyD to the works contractor covering the period from June 2021 to May 2023, the performance of the works contractor in respect of "adherence to programme" were all rated "poor" or "very poor"; and
 - in view of the continued unsatisfactory performance of the works contractor in meeting the progress of lift retrofitting works stipulated in the works contract, HyD had taken various follow-up actions, including:

- (i) since August 2022, HyD had been arranging weekly meetings with the consultant and the works contractor to follow up the works progress;
- (ii) in February 2023, with a view to assisting the works contractor in catching up with the delays, HyD and the consultant had set a list of 9-month targets (e.g. completing lift shaft construction by February 2023 and completing glazing/louver installation by March 2023 for one of the lifts) for the works contractor; and
- (iii) in June 2023, as the works contractor still lagged behind the 9-month targets and the site idling issue persisted (Note 35), HyD issued an Adverse Report to the works contractor, and conducted an interview with the senior management of the works contractor to discuss the shortcomings in the performance of the works contract, the seriousness of the situation and the possible ways for improvement.

4.23 In October 2023, HyD informed Audit that:

- (a) HyD was greatly concerned about the delays encountered and had taken further measures to drive the contractor to complete the remaining works without further delay. The measures included convening weekly meetings attended by senior staff of the contractor, the consultant and HyD to discuss works progress and resolve problems encountered on site promptly;
- (b) HyD had pressed the contractor to allocate more resources to each works item in order to expedite the progress, taken measures to facilitate the planning of works sequence, and reminded the contractor to arrange early procurement of required construction materials; and
- (c) since May 2023, Project Manager/Major Works of HyD had chaired interviews/meetings with the contractor's top management to closely steer the work implementation.

Note 35: For example, in the period from March to May 2023, the three sites had been idle for 58, 36 and 27 days.

4.24 Audit notes the follow-up actions taken by HyD and considers that HyD needs to make continued efforts in expediting the completion of outstanding lift retrofitting works.

Audit recommendations

- 4.25 Audit has recommended that the Director of Highways should:
 - (a) in implementing lift retrofitting works, continue to take measures to minimise the extension of time required for handling underground utilities as far as practicable; and
 - (b) make continued efforts in expediting the completion of outstanding lift retrofitting works mentioned in paragraph 4.22.

Response from the Government

- 4.26 The Director of Highways agrees with the audit recommendations. He has said that:
 - (a) in implementing lift retrofitting works, HyD will continue to take measures to minimise the extension of time required for handling underground utilities as far as practicable; and
 - (b) HyD will make continued efforts in expediting the completion of outstanding lift retrofitting works mentioned in paragraph 4.22.

New initiatives in expediting lift construction

4.27 *New initiatives.* According to HyD, the overall construction period of typical lift retrofitting works can take around 3.5 years. In order to expedite the construction of lifts under UAP, HyD has been piloting two new initiatives since late 2021, namely the Modular Integrated Construction (MiC) and Early Contractor Involvement.

- 4.28 *MiC.* According to HyD, details of MiC are as follows:
 - (a) Approach. Unlike the traditional construction method by which the lift tower and relevant lift components are constructed and assembled on-site, the assembly of the lift tower and the lift components under MiC can be completed in the production yard off-site in advance, after which they will be delivered to the construction site for overall installation; and
 - (b) **Benefits.** Examples of the key benefits of applying MiC include:
 - (i) reducing construction time due to a number of reasons, including uplifting productivity by off-site assembly and reducing extent of on-site scaffolding works;
 - (ii) enhancing site safety by reducing the necessity to work at height as the assembly works are carried out at the assembly yard horizontally;
 - (iii) minimising the impacts due to inclement weather as the assembly of lift tower and its associated lift components are carried out in the sheltered assembly yard; and
 - (iv) minimising the adverse impacts on the nearby residents and pedestrians (e.g. noise pollution and air pollution) due to off-site assembly works.
- 4.29 *Early Contractor Involvement*. According to HyD, details of Early Contractor Involvement are as follows:
 - (a) Approach. With the introduction of Early Contractor Involvement in works contracts, the works contractors will be engaged in the design work and liaise with underground utility undertakers at an earlier stage of the project. Early Contractor Involvement will be implemented in the following two stages:
 - (i) **Stage 1.** The first stage mainly covers design works, site investigation works, procurement of subcontractors, etc.; and

- (ii) Stage 2. The second stage mainly covers the remaining design works and site investigation works (if any), construction works, etc.; and
- (b) **Benefits.** Examples of the key benefits of applying Early Contractor Involvement include:
 - (i) utilising the contractor's expertise for developing optimised scheme to mitigate the impact resulting from foreseeable risks and speed up the project delivery;
 - (ii) deploying the contractor's resources for conducting comprehensive site investigation works to ascertain the buildability of the design;
 - (iii) planning and liaising with relevant underground utility undertakers to ascertain the utility diversion scheme at an earlier stage to minimise programme impact; and
 - (iv) completing subcontracting procedures at an earlier stage to ensure timely commencement of construction works.

Need to conduct review on applying MiC and Early Contractor Involvement in works contracts under UAP

4.30 Audit noted that under UAP, the first works contract applying MiC and Early Contractor Involvement was awarded in late 2021. Such works contract involved the retrofitting of 16 lifts at 13 walkways.

4.31 According to HyD:

(a) In 2022, HyD conducted an interim review on the pilot application of MiC and Early Contractor Involvement following the completion of Stage 1 under the first works contract applying MiC and Early Contractor Involvement. The preliminary findings on the anticipated time saving in construction duration were encouraging;

- (b) up to 31 August 2023, one lift under the first works contract was completed and it has been opened for public use since late May 2023. While there were other lifts still in the pipeline, it was revealed that the construction time of lifts applying MiC could be compressed by six months or more; and
- (c) with the experience gained from the first works contract, in July 2023, HyD awarded another works contract of a larger scale (involving the retrofitting of 47 lifts at 31 walkways) for implementing the second trial application of MiC and Early Contractor Involvement.
- 4.32 Audit notes HyD's efforts in piloting the application of MiC and Early Contractor Involvement in works contracts of retrofitting lifts under UAP and the benefits that can be brought by the two new initiatives, in particular reducing the construction time of lifts. With a view to evaluating the suitability and effectiveness of applying MiC and Early Contractor Involvement in its future works contracts under UAP, HyD should conduct a review after gaining more experience on applying the two new initiatives.

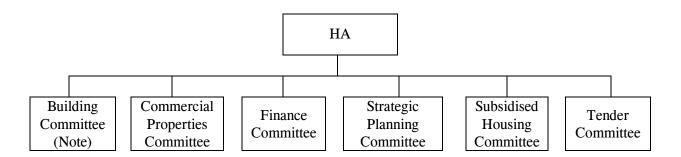
Audit recommendation

4.33 Audit has *recommended* that the Director of Highways should conduct a review, after gaining more experience on applying MiC and Early Contractor Involvement, with a view to evaluating the suitability and effectiveness of applying the two new initiatives in HyD's future works contracts under UAP.

Response from the Government

4.34 The Director of Highways agrees with the audit recommendation. He has said that HyD will conduct a review, after gaining more experience on applying MiC and Early Contractor Involvement, with a view to evaluating the suitability and effectiveness of applying the two new initiatives in more of HyD's future works contracts under UAP.

Committees of the Hong Kong Housing Authority (30 June 2023)

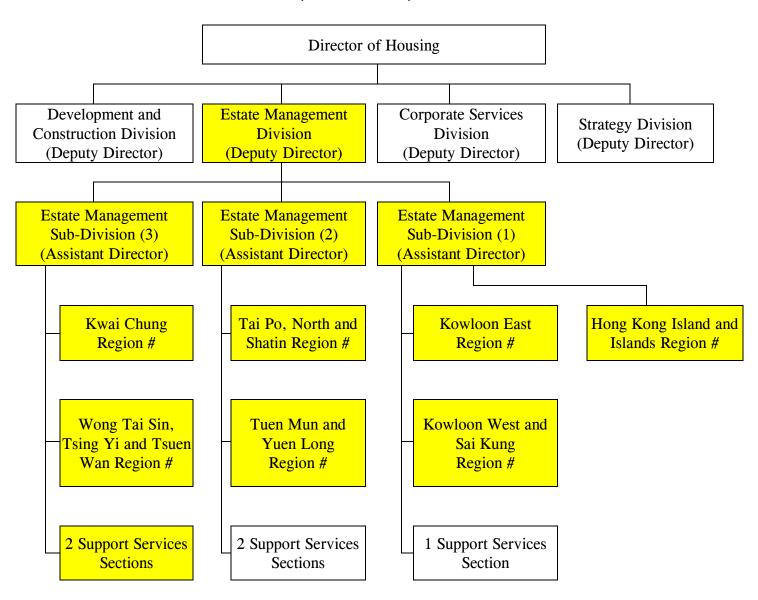


Source: Housing Department records

Note: The terms of reference of the Building Committee are:

- (a) to advise HA on policies related to the implementation of the construction and major improvement, renovation and rehabilitation programmes, and to monitor progress on these programmes; and
- (b) to exercise the powers and functions of HA in accordance with the relevant prevailing policies:
 - (i) to endorse programmes of activities and monitor their performance, and to approve the financial targets, service standards and performance measures within the policies and objectives set by HA for submission to HA for approval; and
 - (ii) to approve project budget, master layout plans and scheme designs for public housing projects and projects under subsidised home ownership schemes.

Housing Department: Organisation chart (extract) (30 June 2023)



Legend: Divisions/offices covered in this Audit Report

There are a number of EMOs, DMOs and a PSAU under each Region.

Source: HD records

Highways Department: Organisation chart (extract) (31 August 2023)

Director of Highways						
Project Manager/Major Works, Major Works Project Management Office						
	Unive	rsal Accessib	pility Project Team			
Legend:		The Project Report	Team covered in this Audit			
Source:	НуД	records				

Lift addition projects under Lift Addition Programme Stage 1 (30 June 2023)

Contract/Estate		Completion date	Number of			Final contract
			Footbridge	Lift	Escalator	sum (\$ million)
1	Shun Tin	Sep 2012	1	1	=	12.4
	Ping Tin	Dec 2012	1	2	-	24.6
2	Choi Hung	Dec 2010	_	9	-	61.0
3	Ping Shek	Nov 2012	_	4	-	28.9
4	Shun On	Oct 2012	_	1	=	12.5
5	Wo Lok	Nov 2012	_	9	-	50.9
6	Oi Man	Feb 2013	1	1	=	23.5
	Lai Yiu	Jul 2013	1	1	-	32.0
7	Yiu Tung	Nov 2013	1	1	-	30.7
8	Wah Fu (I)	Feb 2013	2	2	=	31.0
9	Wah Fu (II)	Feb 2013	1	2	_	33.8
10	Sai Wan	Jul 2009	_	1	_	5.4
11	Pak Tin	Aug 2012	_	4	_	32.1
12	Yue Wan	Jun 2010	_	2	_	22.9
13	Lai King	Sep 2012	1	1	_	14.9
	Shek Lei (II)	Aug 2012	1	1	_	16.5
14	Kwai Chung	Apr 2012	_	_	2	1.7
	Shek Lei (II)	Apr 2012	1	1	4	3.9
15	Kwai Shing East	Jun 2009	_	1	_	5.7
16	Kwai Chung	Sep 2008	1	3	_	44.3
17	Kwai Shing West	Dec 2012	_	4	_	33.3
				(Note 1)		
18	Tsz Lok	Sep 2012	1	1	_	8.8
19	Cheung Ching	May 2012	1	1	=	13.3
	Cheung Hong	Apr 2012	1	1	_	8.6
	Cheung Hang	Jul 2012	2	1	_	12.8
20	Lei Muk Shue (II)	Nov 2012	1	2	_	7.0
21	Lei Muk Shue (II)	Sep 2012	_	1	-	5.6
22	Lei Muk Shue (II)	Dec 2010	_	1	_	10.5
23	Fuk Loi	Sep 2012	_	2	_	26.6

Contract/Estate		Completion date	Number of			Final contract
			Footbridge	Lift	Escalator	sum (\$ million)
24	Fuk Loi	Feb 2013	-	3	-	37.7
25	Lek Yuen	Jan 2014	-	2	-	40.0
26	Tin Wah	Sep 2012	-	1	-	9.8
				(Note 2)		
27	Tai Hing	Dec 2008	-	2	-	8.4
28	Shui Pin Wai	Dec 2010	-	1	_	7.9
Total		18	70	6	719.0	

Source: Audit analysis of HD records

Note 1: It included addition of a lift to the shopping centre.

Note 2: It included a lift connecting carpark to the Light Rail Transit.

Lift addition projects under Lift Addition Programme Stage 2 (30 June 2023)

		Completion	Numbe	Final contract	
Contract/Estate		date Footbridge		Lift	sum (\$ million)
1	Kwai Shing West	Apr 2016	1	1	14.7
2	Lai King	Jun 2015	2	2	37.3
3	Wo Lok	Apr 2016	1	1	22.9
4	Kwong Tin	Nov 2016	1	2	57.0
	Oi Man	Feb 2017	1	2	
	Hing Tung	Nov 2016	_	1	
5	Cheung Ching	Apr 2017	1	1	115.8
	Choi Wan (II)	Nov 2017	2	3	(Note)
		Total	9	13	247.7

Source: Audit analysis of HD records

Note: As of June 2023, the final contract sum was not yet finalised. The original contract sum

of \$115.8 million was used in computing the table.

Appendix F

Acronyms and abbreviations

Audit Audit Commission

B(P)R Building (Planning) Regulations

BRO Buy or Rent Option

CSIP Comprehensive Structural Investigation Programme

DM Design Manual: Barrier Free Access

DMCs Deeds of Mutual Covenant

DMO District Maintenance Office

ECA Estate common areas

EMD Estate Management Division

EMO Estate Management Office

HA Hong Kong Housing Authority

HD Housing Department

HyD Highways Department

IOs Incorporated Owners

LAP Lift Addition Programme

LegCo Legislative Council

MiC Modular Integrated Construction

MPRC Maintenance Planning and Review Committee

PRH Public rental housing

PSAs Property services agents

PSAU Property Service Administration Unit

PWDs Persons with disabilities

Appendix F (Cont'd)

Acronyms and abbreviations

RMO Regional Management Office

TPS Tenants Purchase Scheme

UAP Universal Accessibility Programme

VFA Visual Fire Alarm