

For discussion on
7 January 2020

Legislative Council Panel on Security
Installation of Electric Locks Security System
in Shek Pik Prison

PURPOSE

This paper consults the Panel on the proposal to install the electric locks security system (“ELSS”) in the Shek Pik Prison¹ (“SPP”).

BACKGROUND

2. The Correctional Services Department (“CSD”) is committed to providing a secure, safe, humane, decent and healthy environment for persons in custody (“PICs”). Most of the correctional facilities in Hong Kong are either aged or converted from buildings originally used for other purposes. CSD has been implementing measures to improve and convert existing facilities to better cater for the custodial and rehabilitation needs of PICs.

3. The manually-operated mechanical locks at the gates of correctional institutions are one of the facilities that require improvement. These gates have to be locked and unlocked by keys manually, and involve complicated and extensive procedures of safe keeping, collection, return and distribution of keys etc. due to security reason. Moreover, the manual locking or unlocking processes are more time-consuming.

4. To address the problems associated with the locking/unlocking processes of the old system of manually-operated mechanical locks, CSD completed a study in 2012 and decided to replace the existing manually-operated locks with ELSS in various institutions by phases in accordance with the respective security and actual operational needs. CSD completed the installation of ELSS in Lo Wu Correctional Institution and Tai Lam Centre for Women (the redeveloped parts) in 2014 and 2016 respectively. The project for installation of ELSS in Stanley Prison, which commenced in 2018, is expected to complete by 2025, while the installation works of ELSS in Pik Uk Correctional Institution is expected to commence in 2022.

¹ Shek Pik Prison, established in 1984, is a maximum security prison for 426 male adult prisoners.

5. CSD proposes to install ELSS in SPP, with facial recognition function to verify the identity of staff², with a view to enhancing the efficiency of prison management and level of security.

PROPOSED INSTALLATION OF ELSS

6. The ELSS proposed to be installed in SPP is an electro-mechanical locking system operating in conjunction with closed-circuit television (“CCTV”) cameras, facial recognition function, intercoms and call buttons. When a CSD staff member presses a call button to request the unlocking of a gate operated under ELSS, the facial recognition function of the CCTV will verify the identity of the staff and transmit the call button signals to the control room. After receiving the relevant visual and audio signals, the staff in the control room will confirm the identity of the requesting staff through the intercom and CCTV system before unlocking the gate. Institutional security is thus enhanced by such dual identity-verification arrangement.

7. CSD proposes to install the abovementioned ELSS in most of the passageways, cells and facilities in SPP in order to enhance the security level and operational efficiency of the penal institution. The installation works will be carried out by the Electrical and Mechanical Services Trading Fund (“EMSTF”) under the Electrical and Mechanical Services Department. The works project will involve modification of server rooms and installation of about 700 gates with electric locks, about 1 400 CCTV cameras (some of which will be equipped with facial recognition function), around 700 intercoms, electro-mechanical locking devices, server and associated parts, uninterrupted power supply system and charging devices, etc.

JUSTIFICATIONS FOR INSTALLING THE PROPOSED ELSS

8. CSD proposes to install ELSS in SPP to replace the old system of manually-operated locks with the following justifications –

(a) Speeding up emergency support

For security reason, all keys of the gates with manually-operated mechanical locks are kept in specific locations which are relatively far away from the custodial

² As announced in the 2018 Policy Address, the Government would make use of innovation and technology to enhance the capabilities of law enforcement agencies, including developing smart prisons. CSD plans to introduce smart elements in prisons to modernise correctional facilities, with a view to enhancing the efficiency of prison management and level of security. The introduction of facial recognition function in ELSS is in line with the policy direction in the Policy Address.

areas of PICs. In case of emergency (such as self-harm acts by PICs), it takes time for CSD staff to collect the keys from the concerned locations and rush to the scene to unlock the relevant gates.

After installing the ELSS, the locking/unlocking of gates will be centrally processed and controlled by the control room. The staff at the scene will only have to press the call button and the staff in the control room will unlock the gates according to the standard procedures. This can save the time required for staff to collect the keys and get to the scene in case of emergency, and will hence allow prompt rescue and support actions.

(b) Strengthening institutional security

The ELSS can strengthen institutional security and enhance the operation and efficiency of the penal institution. Upon the implementation of ELSS, the staff in the control room will only unlock the gates after verifying the identity of the requesting staff through the CCTV cameras of the system. With the support of the facial recognition technology, the staff in the control room can promptly confirm the identity of the staff pressing the call button, and unauthorised access to restricted areas or leaving of designated areas can be prevented. Moreover, the security system will automatically record the time whenever someone enters or leaves a gate, the number of people involved, and information regarding the entering/leaving staff. As such, in case of emergency, the staff in the control room can quickly establish the identity of the staff present at the scene of the incident. Such enhancement in the level of security suits the need of SPP as a maximum security prison.

(c) Enhancing management efficiency

Upon the implementation of ELSS, procedures can be streamlined by removing the need for disposal, transaction as well as recording the collection and return of keys. Moreover, staff will no longer have to keep keys to prison cells while on duty, and gates will no longer need to be unlocked manually by staff, thus saving time spent on waiting for staff on gate-keeping duty to arrive at the scene to unlock the gate. After the application of the system, institutional management can deploy human resources more

effectively by rearranging staff originally performing gate-keeping duty to other posts, which could help enhance operational and management efficiency.

FINANCIAL IMPLICATIONS

9. The estimated total non-recurrent cost of installing ELSS in SPP is \$449.5 million. The detailed breakdown is as follows –

	\$ million
(a) Security system ³	196.9
(b) Builder and building services works ⁴	139.3
(c) Builder and building services consultancy ⁵	22.3
(d) EMSTF project management services ⁶	57.4
(e) Contingencies (about 10% of (a) and (b) above)	33.6
Total	449.5
	(in money-of-the-day prices)

10. The estimated cash flow requirement is as follows –

Year	\$ million
2020 - 21	22.5
2021 - 22	35.9
2022 - 23	53.9
2023 - 24	67.4
2024 - 25	90.0
2025 - 26	179.8
Total	449.5

³ The security system includes electric locks, electro-mechanical locking devices, server and associated parts, CCTV cameras (some of which will be equipped with facial recognition function), uninterrupted power supply system and charging devices, etc.

⁴ The builder and building services works include modification of around 10 Local Equipment Rooms, installation and modification of relevant gates and grille partitions, and associated builder's works.

⁵ The builder and building services consultancy includes the consultancy services for builder and building services works.

⁶ The EMSTF project management services include preparation of tender documents, tender evaluation, approval of contractors' design submissions, monitoring of contractors' installation, acceptance tests, and co-ordination with various government departments and contractors.

11. We estimate that the annual recurrent cost after implementing the ELSS, including expenses on corrective maintenance and equipment spare parts, will be around \$56 million.

IMPLEMENTATION PLAN

12. The implementation timetable as planned will be as follows –

Activity	Expected Completion Date
(a) Engagement of builder/building services consultant	July 2021
(b) Project planning, system design/tender preparation	June 2022
(c) Tendering and award of contract	January 2023
(d) Approval of system design	April 2023
(e) Equipment manufacturing, delivery and site work preparation	July 2023
(f) Installation and building services works ⁷	
(i) Stage 1 works (Hall A and Hall B)	August 2024
(ii) Stage 2 works (Hall C and Hall D)	August 2025
(iii) Stage 3 works (Hall E, Hall F, Reception Office, Hospital, Dining Hall, Workshop and other gates)	August 2026
(g) Acceptance test and training	October 2026
(h) System commissioning	December 2026

⁷ The order of relevant installation and building services works may be suitably adjusted taking into account the actual operation of the institution.

13. The above schedule was drawn up with reference to previous experience and the advice of the EMSTF. As SPP has been in operation for over 35 years (since 1984), some facilities will need to be refurbished and/or modified before the ELSS can be installed. Moreover, the works will cover the whole institution which will remain in normal operation during the period, hence the whole project is expected to take longer, requiring around 5.5 years to complete. To expedite the progress of the project, installation and modification works will be carried out by phases, while works in a number of areas will be taken forward concurrently.

ADVICE SOUGHT

14. Members are invited to comment on the proposal. Subject to the views of the Panel, we will seek funding for the proposal from the Legislative Council according to the established mechanism.

**Security Bureau
Correctional Services Department
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