

## **ITEM FOR FINANCE COMMITTEE**

### **CAPITAL WORKS RESERVE FUND**

### **HEAD 708 – CAPITAL SUBVENTIONS AND MAJOR SYSTEMS AND EQUIPMENT**

### **Correctional Services Department**

### **New Subhead “Replacement and Enhancement of the Close-circuit Television Systems for Stanley Prison**

Members are invited to approve a new commitment of \$162.68 million for the replacement and enhancement of the close-circuit television systems for Stanley Prison

### **PROBLEM**

The Correctional Services Department (CSD) needs to replace and enhance the existing close-circuit television (CCTV) systems at Stanley Prison so as to meet the security requirements of correctional institutions nowadays.

### **PROPOSAL**

2. The Commissioner of Correctional Services, on the advice of the Director of Electrical and Mechanical Services and with the support of the Secretary for Security, proposes to replace the existing CCTV systems at Stanley Prison with a new digital system at an estimated cost of \$162.68 million for the purpose of strengthening its security and operational efficiency.

### **JUSTIFICATION**

3. We propose replacing and enhancing the existing CCTV systems with a new digital system to improve the security level and operational efficiency of Stanley Prison. The project involves the installation of approximately 2 470 high resolution cameras to cover the institutional areas (except offices and specific

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areas such as shower rooms, toilets and sick bays at Stanley Prison). The cameras to be installed in security sensitive locations such as restricted areas will be equipped with video analytical function. The system will also be installed with server, video storage system network equipment, uninterrupted power supply and other minor parts.

4. The need for, and benefits of the proposed replacement and enhancement are as follows –

- (a) *Enhancing the system configuration, hence improving the quality and storage of video recordings*

The six sub-systems of the existing CCTV systems were separately installed at different times in the past; most of them have been installed for over ten years. They have different installations and modes of operation, recording and storage, comprising both digital systems and analogue systems. As most of the systems and cameras have been in operation for a long time, they cannot meet the latest technological standards. For example, the resolution of the cameras is low and the recorded images are not clear enough; the quality of stored images fades with time; the picture refreshes at a slower rate, resulting in the video not being displayed smoothly; retrieval of image data is inconvenient due to different systems operating at different modes; and most sub-systems have considerable limits in the storage capacity with the recordings retained for 14 days only, etc.

In late-2012<sup>1</sup>, the Coroner's Court recommended that CSD should, without intruding into personal privacy, enhance the coverage of CCTV system within the areas of correctional institutions, improve the image resolution and introduce the use of coloured images. Arising from the investigation of another case<sup>2</sup>, the Office of The Ombudsman also recommended that CSD should retain the video recordings for not less than 30 days.

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<sup>1</sup> In the concerned inquest into the death of a person in custody, the Coroner's Court commented that the video recordings made by the CCTV system at the correctional institutions were not clear enough due to their low resolution and that the coverage was not sufficiently extensive.

<sup>2</sup> Arising from the investigation into a complaint, the Office of The Ombudsman commented that the 14 days retention period for audio or video recording was not adequate and recommended that CSD should review its procedural guideline on retention and disposal of files and records.

The proposed new system can provide better images with a higher resolution and clearer video recordings which will facilitate facial identification of the captured persons. The recordings can be retained for up to 31 days<sup>3</sup>. Moreover, the new CCTV systems will adopt an open digital design, which will be developed upon a modern platform, so that it can accommodate the changing operational needs for further enhancement and development. As the modes of operation, recording and storage will be standardised, the operational efficiency can be enhanced.

(b) *Addressing the maintenance problems arising from the ageing system*

According to the Electrical and Mechanical Services Department, the normal serviceable life of the existing analogue CCTV system and video recording facility is eight to ten years and six years respectively. Most of the CCTV systems at Stanley Prison have been in operation for over ten years. The cameras, video recording equipment and other components have to be replaced from time to time in order to maintain their normal operation. Frequent repair will affect the security level and daily operation of the institution.

With the proposed replacement and enhancement of the systems, the incidence of system malfunctioning due to the ageing problem can be reduced. Moreover, the operation of the new system will be standardised and maintained by a sole contractor to enhance cost-effectiveness and operational efficiency.

(c) *Extending the system coverage and efficiency in surveillance*

Owing to the extensive area of Stanley Prison, the coverage of the existing CCTV systems is considered insufficient.

To enhance surveillance efficiency, the proposed new CCTV system will cover all areas accessible by persons in custody (except toilets, shower rooms and sick bays, etc. in the institution) which is a more comprehensive coverage. Moreover, in security sensitive areas (such as areas in the proximity of the protective walls of the institution), the video recorders installed will be equipped with video analytical function. If any foreign objects enter into those restricted areas, the central system will receive messages directly and trigger the alarm to alert the staff in the institution to take contingency measures. This could further enhance the level of security in restricted areas.

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<sup>3</sup> Regarding the retention of CCTV data, CSD has made reference to the practice adopted by the Hong Kong Police Force in retaining CCTV data obtained at police stations and also the standards stipulated in the guidelines provided by the police of the United Kingdom for users of CCTV systems. In deciding on the retention period of 31 days, CSD has given due consideration to the recommendation made by the Office of The Ombudsman with regard to retaining the recordings for not less than 30 days.

**FINANCIAL IMPLICATIONS****Non-recurrent Cost**

5. The estimated total non-recurrent cost of replacing and enhancing the CCTV systems will be \$162.68 million. A detailed breakdown is as follows –

	<b>\$ million</b>
(a) Construction of a New Server Room	29.00
(b) CCTV Cameras	41.40
(c) Control and Surveillance System	12.54
(d) Storage System	24.35
(e) Network and Cabling System	15.93
(f) Infrastructure and Associated Building Services	10.40
(g) Electrical and Mechanical Services Trading Fund (EMSTF) Project Management Services	15.70
(h) Contingencies	13.36
<b>Total</b>	<b><u>162.68</u></b>

6. On paragraph 5(a) above, the estimate of \$29 million is for the construction of a new server room.

7. On paragraph 5(b) above, the estimate of \$41.4 million is for the procurement of about 2 470 sets of CCTV cameras, and some of them being equipped with video analytical function.

8. On paragraph 5(c) above, the estimate of \$12.54 million is for the procurement of workstation computer, display panel and equipment rack for the project.

9. On paragraph 5(d) above, the estimate of \$24.35 million is for the procurement of storage system for the project.

10. On paragraph 5(e) above, the estimate of \$15.93 million is for the procurement of network equipment, such as core switches, edge switches, network supporting unit, and the carrying out of the associated cabling and builders' works.

11. On paragraph 5(f) above, the estimate of \$10.4 million is for the procurement of support infrastructure facilities, building services works and uninterrupted power supply system.

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12. On paragraph 5(g) above, the estimate of \$15.7 million is for the payment of EMSTF project management services which include preparation of tender documents, tender evaluation, approval of contractor's design submissions, monitoring of contractor's installation, acceptance tests, and co-ordination of work between various government departments and the contractor.

13. On paragraph 5(h) above, the estimate of \$13.36 million represents about 10% contingency on the items set out in paragraph 5(a) to (f).

14. We estimate that the cash flow requirement for replacing and enhancing the systems is as follows –

<b>Financial year</b>	<b>\$ million</b>
2014 – 15	5.925
2015 – 16	18.600
2016 – 17	34.600
2017 – 18	30.900
2018 – 19	28.000
2019 – 20	44.655
<b>Total</b>	<b>162.680</b>

### **Recurrent cost**

15. It is estimated that after replacing and enhancing the CCTV systems for Stanley Prison, the annual recurrent cost involved is about \$9.5 million, including expenses on maintenance, equipment spare parts and electricity charges, etc., which could be partly offset by the recurrent cost of \$1.7 million of the existing systems.

### **IMPLEMENTATION PLAN**

16. If the funding is approved, the installation works will be carried out in accordance with the following schedule –

	<b>Activity</b>	<b>Target Completion Date</b>
(a)	Project planning, system design/tender preparation	January 2015
(b)	Tendering and award of contract	September 2015
(c)	Approval of system design	January 2016
(d)	Manufacturing of equipment, delivery and site work preparation	September 2016
(e)	Installation and building services works	January 2019
(f)	Acceptance test and staff training	April 2019
(g)	System commissioning	May 2019

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**PUBLIC CONSULTATION**

17. We consulted the Legislative Council Panel on Security on 8 April 2014 on the proposal. Members supported the proposal.

**BACKGROUND**

18. The CSD is committed to providing a secure, safe, humane, decent and healthy environment for persons in custody. Most of the facilities of the correctional institutions in Hong Kong have been in use for years, and many of them were converted from buildings originally used for other purposes. As such, the design of these facilities may not be able to meet today's security requirements. To ensure the safety of correctional staff and persons in custody and to maintain institutional security, a reliable and secure CCTV system is necessary for each correctional institution to monitor the behaviour of individual persons in custody, support the operation of the institution and enhance its security.

19. The existing CCTV systems at Stanley Prison comprise six individual sub-systems monitoring different areas in the institution. These sub-systems were installed at different times, and most of them have been installed for over ten years. They require full replacement and comprehensive enhancement in order to meet the modern security requirements and needs for efficient surveillance.

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Security Bureau  
May 2014