



香港特別行政區政府  
The Government of the Hong Kong Special Administrative Region

## APPENDIX 33

香港大嶼山香港國際機場  
東輝路1號民航處總部  
Civil Aviation Department Headquarters  
1 Tung Fai Road, Hong Kong International Airport,  
Lantau, Hong Kong

電話 Tel: 2910 6328  
圖文傳真 Fax: 2910 6384  
檔案編號 Our ref: Audit/2C – Part VI  
來函編號 Your ref: CB4/PAC/R63

31 December 2014

Mr Anthony CHU  
Clerk to Public Accounts Committee  
Legislative Council Secretariat  
Legislative Council Complex  
1 Legislative Council Road  
Central, Hong Kong

Dear Mr CHU,


### Public Accounts Committee

#### Consideration of Chapter 3 of the Director of Audit's Report No. 63 New Civil Aviation Department Headquarters

Thank you for your letter to Mr Norman Lo, Director-General of Civil Aviation on 12 December 2014.

I enclose, in a self-contained **Appendix**, our detailed reply to the questions raised in your letter for your kind reference. As regards Attachment F of the Appendix which contains details regarding the security arrangements of the CAD Headquarter building and systems, we should be grateful if the information could be restricted for the consumption of the Public Accounts Committee only.

Yours sincerely,



( Simon Li )

for Director-General of Civil Aviation

**\*Note by Clerk, PAC:** Attachment F not attached.

#### Encl.

c.c. Secretary for Transport and Housing (Attn : Miss Monica CHEN)  
Director of Architectural Services  
Government Property Administrator

**Public Accounts Committee**  
**Consideration of Chapter 3 of the Director of Audit's Report No. 63**  
**New Civil Aviation Department Headquarters**

The following information was provided to facilitate the Committee's consideration of Chapter 3 of the Director of Audit's Report No. 63. The relevant paragraph numbers of Chapter 3 are indicated in the corresponding part for easy reference.

Provision of reserve space for future expansion

*(a) and (b) based on what information and reasons CAD considered that the cost of building the 1,500 m<sup>2</sup> was insignificant (Paragraph 2.16) and the reasons why the additional expansion area of the 1,500 m<sup>2</sup> was not mentioned in the Administration's paper for the Finance Committee in January 2008 (Paragraph 2.17)*

2. Given that, at the time in preparing the Legislative Council (LegCo) submissions, the understanding was that provision should be included in the building's foundation and design to provide flexibility for future expansion, the Civil Aviation Department (CAD) considered that the provision would not incur significant costs. As such, and since the provision was an undesignated expansion area not correlated to any approved future manpower provision for carrying out intended activities at the time, the submission to the LegCo Panel on Economic Services and the LegCo Finance Committee had only mentioned that additional space had been earmarked in the building to cater for further expansion requirements arising from the growth in air traffic.

*(c) the progress and timeframe of the overall review of the space utilisation of the CAD premises (Paragraph 2.26 (c) and 2.30)*

3. The overall review of the space utilization of the CAD premises is under way and is anticipated to be completed by end January 2015. The review results will be submitted to the Government Property Agency (GPA) for approval.

*(d) all relevant records on the request made by CAD to the GPA, THB and the PVC for an additional reserve area of the 1,500 m<sup>2</sup> for expansion in the new CAD HQ to cater for air traffic growth beyond 2025 (Paragraph 2.5), and their replies*

4. At the LegCo Economic Services Panel meeting held in February 2007, Members expressed general support to the project, and urged that sufficient space be provided in the new CAD Headquarters (HQ) building to cater for future expansion commensurate with the forecast air traffic growth. CAD had subsequently met with GPA and reiterated the importance that sufficient space be reserved for future expansion taking into consideration the industry's fast pace of growth and the inherent limitations if sufficient reserve was not provided during construction. While there were no records of discussions between GPA and CAD, the relevant correspondence is at **Attachment A**. The discussions were also reported at an internal meeting, namely the Steering Committee of the New CAD Building Project, held on 28 June 2007 (extract of the relevant minutes is at **Attachment B**). A draft memo for THB was prepared by CAD to be submitted to the Property Vetting Committee (at **Attachment C**).

*(e) all relevant records relating to the request made by CAD to ArchSD for building the extra the 1,500 m<sup>2</sup> area for future expansion (Paragraph 2.6)*

5. The relevant extracts of the Employer's Requirements (ER) provided by CAD to ArchSD on 3 October 2007 is in **Attachment D**.

*(f) how did CAD work out the 3,239.3 m<sup>2</sup> and the 1,500 m<sup>2</sup> areas provided for future expansion? Please provide relevant guidelines or criteria and the estimated timeframe for utilisation of these areas (Paragraph 2.9 and Table 2)*

6. The expansion areas of 3,239.3 m<sup>2</sup> were worked out having due regard to the future accommodation requirement arising from the projected growth in air traffic up to at least 2025 as well as the additional area required to cater for the future in-situ equipment replacement for our operational centres.

7. As stated in Table 2 of the Audit Report, the 3,239.3 m<sup>2</sup> expansion area consist of a total of seven different items, namely ATC Centre (540 m<sup>2</sup>), Supporting equipment, systems and facilities of the ATC Centre (1,200 m<sup>2</sup>), Aircraft Search and Rescue Coordination Centre (100 m<sup>2</sup>), Aeronautical Network Centre (160 m<sup>2</sup>), Training and Examination Facilities (464 m<sup>2</sup>), Operational Evaluation, Research and Development Facilities (400 m<sup>2</sup>) and Ancillary Facilities (375.3 m<sup>2</sup>). The same information had been set out in the Supplementary Information included as “Note For Public Works Subcommittee”. For ease of reference, it is included as **Attachment E**. Part of the above expansion area has already been utilized for its intended purpose. We have also made use of the relevant area as temporary storage for Phase 2 equipment of the new ATC system project.

8. For the 1,500 m<sup>2</sup>, it was an estimate of expansion requirement based on 6% of the proposed SoA of 25,380 m<sup>2</sup>. The 6% estimate was adopted on the basis of the general trend of growth in aircraft movement in early 2000’s.

9. On 24 October 2014, the PVC approved the CAD’s request to use 926 m<sup>2</sup> of the 1,500 m<sup>2</sup> reserve area for accommodating 119 additional staff. As for the remaining 574 m<sup>2</sup>, the CAD has requested the assistance from GPA to identify other interim users.

#### Control over deviation from approved schedule of accommodation

##### ***(g) why had CAD not subsequently followed up the request for shower facilities in the DGCA’s Office with GPA (Paragraph 3.4)***

10. After submitting the Employer’s Requirement to ArchSD on 3 October 2007, the CAD Project Team had focused on the funding application processes. Coupled with the lack of proper coordination and internal communication and the related heavy workload, the CAD Project Team had overlooked its follow-up action with GPA on this issue.

***(h) how did CAD determine the converted use of the space of 70 m<sup>2</sup> originally planned for use as a viewing gallery to a multi-function room (Paragraph 3.6 and 3.17)***

11. As stated at para 3.7 of the Audit Report, a room along the education path was planned to serve as a tower simulator viewing gallery to enable visitors to view the air traffic control training in progress inside the simulator. During the detailed design stage of the tower simulator and the viewing gallery in late 2010, it was noted that due to a different technology adopted for the new simulator, visitors would not be able to view through a glass panel the training sessions in the originally planned viewing gallery which was one floor above the tower simulator. In discussing the design of the viewing gallery among CAD, ArchSD and the Design and Build (D&B) Contractor, the CAD Project Team initiated to enhance the overall functions of the area and to introduce more flexibilities in its utilization, hence the multi-function room concept. Apart from entertaining visitors for screen presentation of ATC tower simulator training and holding meetings, mirrors with retractable blinds and timber floor were adopted to facilitate staff recreational activities. Such changes were concluded on the basis that no additional cost would be incurred. CAD recognizes that such enhancement was in fact a change of usage of the area and CAD should have applied to GPA for approval in the first place.

***(i) the reasons by CAD in November 2007 amended the room data sheet such that the schedule of accommodation for accident investigators consisted of six rest rooms (Paragraph 3.10(c) and (d))***

12. The room data sheet (RDS) was amended in November 2007. However, as the CAD Project Team had focused on the funding application processes, and coupled with the lack of proper coordination and internal communication, the Team had overlooked its follow-up action with GPA on this issue.

Provision of furniture and equipment

*(j) the reasons for the delay of 21 months in seeking approval from FSTB for the purchase of security and electronic systems (Paragraph 4.4)*

13. CAD considered that the delay was due to lack of communication between CAD (as user department) and ArchSD (as Controlling Officer and Project Manager of the new CAD HQ Project).

14. The security and electronic systems were included in the scope of works of the D&B contract in order to enable better design integration between the building and the systems, better cost control, and more assurance on the timely completion of the building for occupation. Based on the advice from ArchSD, CAD was given to understand that the contractor was required to submit the design to CAD for comment and then to the ArchSD for approval in two stages, in accordance with the requirements of D&B contract. The first stage is “Approval In Principle” (AIP), in which the contractor prepared the overall design concepts and layouts to meet the user requirements of CAD for future operation of the building. After AIP stage, the contractor further developed the design in more details, e.g. detailed design of different systems, device and location, etc. in accordance with the CAD's operational requirements and comments during “Detail Design Approval” (DDA) stage to meet CAD's operational need. Therefore sufficient design details could only be available at the end of the DDA stage for F&E vetting by FSTB. The New CAD HQ was a complicated project and the DDA stage took about 20 months after contract award to complete. CAD had endeavoured to submit the application as soon as possible.

*(k) the relevant extracts of the tender documents relating to the procurement of the security and electronic systems (Paragraph 4.4)*

15. Relevant extracts of the tender documents is at **Attachment F**.

\*Note by Clerk, PAC: Attachment F not attached.

*(l) the equipment list for the multi-media presentation system which was approved by FSTB in September 2010 (Paragraph 4.8)*

16. The equipment list for the multi-media presentation system which was approved by the FSTB in September 2010 as follows –

- 30 November 2009 – Memo to FSTB – 3075KA New CAD Headquarters Building – Procurement of Furniture and Equipment Items – Electronic Systems (**Attachment G**)
- Equipment list for the multi-media presentation system submitted to the FSTB for approval (**Attachment H**)
- 3 September 2010 – Memo from FSTB – Approval of F&E Application – 3075KA New CAD Headquarters Building – Non-standard Furniture and Equipment – Electronic Systems (**Attachment I**)

*(m) the process which led to the decision to purchase 79 LCD video display units for the multi-media presentation system and the final approving authority (Paragraph 4.8(a) and (b))*

17. In regard to the procurement of LCD video display units and concerned requirements, the CAD has entrusted the Electrical and Mechanical Services Trading Fund (EMSTF) to be the project implementation agent, which was also our in-house technical service provider for electrical, mechanical and electronic equipment. Based on the divisional operational requirements consolidated by the CAD project team and the CAD HQ room data sheets, the EMSTF prepared the preliminary design in early 2011, and conducted several briefing sessions to various user divisions of the CAD to collect their feedback. The quantities and requirements of the LCD video display units and projectors were reviewed and adjusted in consultation with EMSTF before incorporating into the tender document “Provision of AV Facilities for the New CAD Headquarters Building”. After consulting the CAD project team on whether the tender document could satisfy the user requirements and upon confirming of funding, the EMSTF followed the Government “Stores and Procurement Regulations” (SPR) to invite tenders and approve the award of contract. The works contract was awarded in October 2011.

***(n) the criteria adopted by CAD to review the operational needs for LCD video display units purchased for the multi-media presentation system (Paragraph 4.8(c))***

18. The criteria adopted by CAD project team to review the operational needs for LCD video display units for the multi-media presentation system included divisional operational requirements, room layout and size, professional advice from the EMSTF, etc, for coming up with procurement quantities and concerned requirements. For the needs of the conference rooms, CAD generally considered that for each of the small conference room should have either 1 LCD video display unit or 1 projector. For medium conference room, depending on the room layout, seating arrangements and operational needs, 1 LCD video display unit and 1 projector were appropriate. For each of the large conference room, depending on the room layout, seating arrangements and operational needs, a combination of multiple LCD video display units and/or multiple projectors were appropriate.

***(o) the size of the seven LCD video display units purchased for upgrading purpose (Paragraph 4.2)***

19. The size of the seven LCD video display units purchased for upgrading purpose included five numbers of 46” LCD video display units and two numbers of 55” LCD video display units.

Provision and utilization of car parking spaces

***(p) the measures that CAD would take to put the under-utilised parking spaces into gainful use (Paragraphs 5.15 and 5.18)***

20. The CAD has requested the assistance from GPA to identify other government users to make use of our car parking spaces. In addition, part of the parking area could be converted for storage purpose if necessary to facilitate their identification of interim users. Both measures should be able to put the under-utilised parking spaces into gainful use. At present, progress has been made, and potential users are considering the feasibility of taking up the spaces. CAD will continue to work with GPA on this. Furthermore, CAD expected



that the utilization of the parking spaces in the new CAD HQ will increase further after the new Air Traffic Control (ATC) Centre commences operation when the CAD ATC staff and related service providers have moved into the CAD HQ building.

### Others

***(q) composition of the dedicated project team and whether the team had fulfilled its duties in overseeing the preparation and implementation of the new CAD HQ project effectively***

21. To ensure the smooth and timely implementation of the New CAD HQ Project, a dedicated Project Team headed by an Assistant Director-General of Civil Aviation (ADGCA) was established on 1 October 2007, following the approval obtained for the ADGCA post from the Finance Committee of the Legislative Council in May 2007. The ADGCA post was created between 2007 and 2013, while 21 team members' civil service posts, including 19 Air Traffic Control Officers and 2 Electronics Engineers, were created on a time-limited basis with resources allocated through the internal resource allocation exercise of the Government. Other team members were serving civil service staff temporarily redeployed within the CAD or appointed on non-civil service contract terms for various periods. In addition, a Senior Architect and a Senior Electrical and Mechanical Engineer were temporarily seconded from the Architectural Services Department and the Electrical and Mechanical Services Department respectively to support the Project Team with their professional advice.

22. For CAD staff, the new CAD HQ is an unprecedented building project. We note and agree that there are areas of non-compliance as revealed in the Audit Report and will take corresponding improvement measures. However, the fact that the new CAD HQ Building Project was completed as scheduled and within the approved budget, and the Department has been operating smoothly in the past two years since the office relocation in 2012, should also be attributed to the concerted efforts of the whole Project Team to dutifully oversee and coordinate the preparation and implementation of every task of the project.

23. The time-limited ADGCA post was created from 1 October 2007 to 31 March 2013. During the 5 years 6 months period, the post holder had undertaken duties in accordance with the Job Description in the discussion paper to the Panel on Economic Services (Annex D of R63/4/INFO3), as highlighted below –

- 
- (i) The ADGCA was the head of the Project Team to oversee and co-ordinate implementation of the new CAD HQ Building Project. In view of the scale and complexity of the Project, 16 functional task forces were established to take care of significant aspects of the Project in order to ensure its smooth implementation. A full list is at **Attachment J**.
  - (ii) The ADGCA kept close contacts with all relevant bureaux/departments and non-government organizations for implementation of the project. As revealed in the Audit Report, some of the deficiencies might have been avoided if areas of uncertainties would be sorted out with relevant bureaux/departments in a timely manner. In this aspect, there was room for improvement.
  - (iii) The ADGCA coordinated divisional inputs and liaised closely with relevant bureaux/departments to ensure timely preparation of the various tender documents, assessment of bids received and award of the tenders for the project. However, some of the deficiencies mentioned in the audit report were due to the oversight of the Project Team in the course of coordinating divisional inputs for preparing and finalising the SoA. Besides, there were rooms for improvement in the checking process of our proposed items against the final approval granted.
  - (iv) The ADGCA coordinated divisional efforts to ensure proper accommodation and security for the new Air Traffic Control Centre (ATCC) in the new CAD HQ. Due to the postponement of the operation of the new ATCC, the ADGCA could not complete the formulation and implementation of the transition plan for the existing ATC system before the post lapsed on 31 March 2013.

- (v) The ADGCA monitored throughout the entire stage of building construction for early detection and rectification of any slippage, whether the design was consistent with the Employer's Requirement and any building defects to ensure that the building was completed on time and to the satisfaction of the Department.
- (vi) The ADGCA provided inputs and steer in formulating the building management contract which covered building management, maintenance and security aspects. The ADGCA was also the Chairperson of the selection board of service providers.
- (vii) The ADGCA provided periodic reports on the progress of the project to the Director-General of Civil Aviation and Deputy Director-General of Civil Aviation, as well as the housekeeping bureau.
- (viii) The ADGCA conducted briefing sessions with the industry players like International Air Transport Association, Board of Airline Representatives, and the Hong Kong-based airlines and aircraft engineering companies so as to keep them informed of the progress of the Project and the new ATC system, and seek to address their concerns thereof.

**MEMO**

<i>From</i>	Government Property Administrator	<i>To</i>	Director-General of Civil Aviation
<i>Ref.</i>	(13) in MS/SPB/6870/5/6 Pt.2	<i>(Attn.:</i>	Miss Priscilla LAM
<i>Tel. No.</i>	2594 7665		
<i>Fax No.</i>	2877 7607	<i>Your ref.</i>	WKS/146
<i>Email</i>	Wilson Y CHAN/GPA/HKSARG	<i>Fax No.</i>	2326 3654
<i>Date</i>	20 August 2007	<i>Dated</i>	7.8.2007

**Schedule of Accommodation (SoA)  
3075KA New Civil Aviation Department Headquarters**

**Staffing Analysis**

Thank you for your memo of 7 August 2007 regarding the captioned subject.

2. I have studied your clarifications and revised SoA items (for those staff with office space requirements, i.e. Attachment 2). My observations on your submitted establishment table (on 30.5.2007) and staff in SoA items (Attachment 2 to your MUR) are as follows –

Item	Rank	Estab. As at 1.9.2013 as shown in your Estab. table (a)	No. of staff shown in your proposed SoA (b)	No. of staff shown in your proposed SoA with “*” (c)	Total staff on Day 1 (According to your proposal, “*” means new post/ requirement on Day 1) (d)	GPA's Remarks (as at 20.8.2007)
1	SOO	36	36	8	44	- 5 SOOs have been approved in 2006 RAE making the establishment change from 31 to 36; - According to your MUR, the no. of SOO on day 1 should be 45. Please give me the breakdown. In doing this, please be advised not to include NCSC staff in this calculation. Based on your MUR, the no. of SOO included should be 40 (31+5+4 (2007 RAE). This is still not tally with column (d) on the left. Please show me the details in the format of Appendix II.
2	OO	36	33	16	49	- Please let me have the breakdown a the format of Appendix II

Item	Rank	Estab As at 1.9.2013 as shown in your Estab. table (a)	No. of staff shown in your proposed SoA (b)	No. of staff shown in your proposed SoA with “*” (c)	Total staff on Day 1 (According to your proposal, “*” means new post/ requirement on Day 1) (d)	GPA's Remarks (as at 20.8.2007)
3	AOO	2	2	2	4	- Ditto
4	SEE	5	5	1	6	- Ditto
5	EE	16	16	4	20	- Ditto
6	EO II	1	1	2	3	- Ditto
7	ACO	23	23	1	24	- Ditto
8	CA	21	21	1	22	- Ditto
9	Technical Officers (TO) (Item 4.7)	0	0	7	7	- Please clarify whether these are new posts to be created in your departmental E&S Table for 2013
10	Analyst Programmer (Item 9.14a)	0	0	1	1	- Please clarify whether this is a new post to be created in your departmental E&S Table for 2013; - Please specify whether this is AP I or AP II
11	Statistical Officer II (SO II) (Item 9.10a)	0	0	2	2	- As advised in your MUR, they will be created in 2008 RAE
12	OLO (Item 10.8)	0	0	1	1	- Please clarify whether this is a new post to be created in your departmental E&S Table for 2013
13	AIO (Item 10.13a)	0	0	1	1	- Please clarify whether this is a new post to be created in your departmental E&S Table for 2013

3. Summary of staff appear in your proposed SoA items is at Appendix I. My general comments are -

- (a). In your submitted staff establishment table on 30.5.2007, there is a column for establishment as at 1.9.2013. If we can assume that the commissioning date for CAD HQs is in 2013, the no. of staff shown in the establishment table (for 2013) will be the establishment as at today plus the new posts approved in 2006 plus the new posts

submitted/to be submitted from 2007 to 2012. To facilitate my further processing, I have prepared a table to illustrate the change in establishment. Please see Appendix II for details and fill in/verify the information as far as possible;

- (b). For existing staff (not affected by the deletion of posts arising from putting all divisions under one roof) and those approved in 2006 RAE, I have no further comment. For the posts not yet approved (including the ones you have submitted/to be submitted in coming RAE exercises, i.e. with "\*" and "#"), I will regard them as planned staff only. According to you, certain spaces should be reserved to cope with future workload of CAD because it will not be possible to building new block after the commissioning of the CAD HQs. In view of this, I think you should consult your policy Bureau for their views/comments on your plan. I will take into account their views/comments in further processing of your SoA proposal;
- (c). For all NCSC staff (both existing ones and new ones to be created), you have to (1) confirm to me that there will be continuous need for the posts concerned after the commissioning the new building (please note that time limited posts should be dealt with separately); (2) the employment of NCSC staff will fully satisfy the requirements as set out by CSB; and (3) Management endorsement and funding can be secured for the employment of those NCSC staff appear in your proposed SoA.

4. If you have any question, please call me to discuss.



(Wilson Y CHAN)

For Government Property Administrator

c.c.

External

Chairman, PVC (Attn.: Mr. Lawrence LAI	Fax: 2801 4706)
SFST (Attn.: Mr. Leo YIM	Fax: 2147 5237)
D Arch S (Attn.: Mr. Michael CHONG	Fax: 2804 6805)
D Arch S (Attn.: Mr. Ian DICKINSON	Fax: 2804 6805)

Internal

Mr. C M LAM, S(AD)O&SD - for information

**Steering Committee of the New CAD Building Project (SCNCP)****Notes of 7<sup>th</sup> Meeting**

Date: 28 June 2007  
 Time: 09:30 – 11:30  
 Venue: Conference Room, CAD HQs

## Attendance:

Norman LO DGCA

EDLB

Francis CHENG PAS(THB)

Miss Fiona LI AS(THB)

SCNCP

Anthony TAM Chair

Miss Priscilla LAM Vice-Chair

Jeffrey LAW

Stephen YU

Peter YEUNG

Ms Louisa YANG

Albert CHOW

Victor TAI

CAD Project Task Force Leaders

Simon LI

Y P TSANG

CT WONG

Manuel SUM

Victor LIU

Peter LEUNG

Richard WU

Raymond TSE

PC CHAN

Joseph HO

Eric WONG

Secretary

Absent with apology

PF WONG

David TSE

I. Adoption of notes of meeting

1. The notes of meeting for the 6<sup>th</sup> SCNCP was adopted with no amendment.

II. Project Updates

2. Capital works items

- 2.1 SA reported that all 6 batches of first round comments were received from GPA and response for the last batch was being coordinated and expected to be submitted within the week. The Vice-Chair reported that a meeting with GPA was held on 23 May, during which CAD reiterated the importance of sufficient space being reserved for future expansion taking into consideration the industry's fast pace of growth and the inherent limitations if sufficient reserve was not provided during construction. To alleviate GPA's concern of idle space, CAD assured that future expansion space acquired will be put to good use by various short term projects in the interim. PAS(THB) expressed his support for acquisition of sufficient expansion space quoting in support the same request from a number of LegCo members in previous LegCo meetings. He was more than happy to offer firm support in negotiations with GPA if required.



Priscilla WS  
Lam/CAD/HKSARG  
17/09/2007 19:13

To: Fiona WS LI/EDB/EDLB/HKSARG@EDLB  
cc  
bcc  
Subject: Draft memo -- New CAD HQs SoA

High importance

Return receipt

Sign

Encry

We spoke this morning.

As discussed and reported at the Steering Committee, GPA would like to see in writing THB's support in principle the space which was reserved for CAD's future expansion. We have attempted a draft memo below for the purpose.

I have sounded out GPA's colleagues. Whilst we would try our best to defend the NOFA of 25,380 sq.m. , I am expecting some minor downward adjustment after the final round of negotiation with them this Friday. As for the overall expansion of 6%, I sense that they do not see too much difficulties on endorsing it.

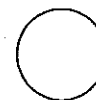
I'll call you tomorrow to discuss the way forward.



14.09.07 GPA (draft for THB).doc

DRAFT

MEMO



From Secretary for Transport and Housing

To Chair, Property Vetting Committee  
(Attn: Mr. Eddy CHEUNG)

Ref. ( ) in \_\_\_\_\_

Your Ref. ( ) in \_\_\_\_\_

Tel. No. \_\_\_\_\_ Fax. No. \_\_\_\_\_

dated \_\_\_\_\_

Date XX September 2007

Your Fax. No. 2801 4706 TOTAL PAGES 2

**New CAD Headquarters Project**  
**Schedule of Accommodation**

As I understand from CAD and GPA that they are about to finalise the proposed schedule of accommodation (SoA) in respect of the above project, I would like to offer our support in principle for CAD's proposal to reserve sufficient space for future expansion to meet the demand of the aviation industry.

2. The CAD project is a long term investment for the economic well-being of Hong Kong. The new building and facilities are committed to support air traffic growth up to year 2025, by which time the number of aircraft movements is forecasted to almost double that of today's. Such growth, together with the anticipated increase in the number of locally registered airlines and aircraft, maintenance service providers and other ancillary support services, presents an unprecedented challenge to CAD both in terms of service provision and regulatory functions.

3. Currently, one of the major constraints facing CAD is the lack of expansion space for existing facilities. The dilemma has grown over the year in proportion to the rapid growth of air traffic and expansion of the industry. Despite CAD's strive to maintain quality service, this inherent constraint has seriously hampered their development and impeded on their provision of efficient and quality service that the thriving industry rightfully demands and deserves. This has aroused concern from the legislators and a number of them had advised that in the proposed new CAD Headquarters, additional space should be earmarked to cater for future expansion arising from the growth of air traffic. In this connection, the Administration had assured LegCo members that this would be taken care of in the above project.

4. Notwithstanding the allocation of land on the airport island by AA for the project, the site itself is not without limitations. Its close proximity to the approach and departure path of the runway limits the potential for future extension to the building itself. Furthermore, the site is at a secluded area on airport island bounded by the main access highway to the airport on the north and the west, a coastal protection zone on the east and the Dragonair House/CNAC building to the south. There is no usable land in the adjoining area for new development in the future.

DRAFT

## DRAFT

5. CAD has adopted a prudent and pragmatic approach in proposing their SoA all along. The total net operational floor area (NOFA) has been trimmed to (25,380m<sup>2</sup>). Out of the (25,380m<sup>2</sup>), (525m<sup>2</sup>) was reserved for accommodation of the anticipated expansion in the establishment and (3,534m<sup>2</sup>) was reserved to facilitate future upgrades and expansion of ATC systems and other supporting facilities after commissioning of the building. We are of the view that the proposed SoA is reasonable and the reserved space is necessary to sustain CAD's operations and medium-term expansion up to 2025. We therefore would like to support CAD's proposed SoA.

6. Furthermore, to ensure CAD will have sufficient space for upgrades/expansions beyond 2025 taking into consideration the site's constraints and the high growth rate of the industry, we would like to support CAD's proposal for a further 6% (approximately 1,500m<sup>2</sup>) reserve in expansion space to cater for the growth beyond 2025. This could be met by either constructing the area now or make provisions in the building's foundation for future construction of the area as expansion to the building. Such provision will not only ensure the sustainability of CAD's growth beyond 2025 but also maximise the use of the allocated land and achieve economy of scale. There will be no change to the originally planned construction floor area of 65,000m<sup>2</sup> since it was based on the earlier proposed NOFA of 27,000m<sup>2</sup>. The additional recurrent consequence is expected to be minimal and could be absorbed from the existing budget. CAD has promised to endeavour to put the reserved expansion areas to good use before their intended purposes. Request from other Government departments for short term occupation could also be considered.


7. Given the tight time-frame for proposed SoA to be endorsed prior to our LegCo meetings in October, your consideration and prompt endorsement of the proposed reserve area for expansion would be much appreciated.

( )  
for Secretary for Transport and Housing

c.c.	SFTA	(Attn: Mr. Leo YIM	Fax: 2147 5237)
	DArchS	(Attn: Mr. Ian DICKINSON &	Fax: 2804 6805)
		(Attn: Mr. M. O. CHONG	Fax: 2804 6805)
	GPA	(Attn: Mr. K. K. HO &	Fax: 2877 7607)
		(Attn: Mr. Wilson CHAN	Fax: 2877 7607)
	DGCA	(Attn: Miss Priscilla LAM	Fax: 2326 3654)

## DRAFT

Urgent     Return receipt     Sign     Encrypt     Mark Subject Restricted     Expand person

**{In Archive} Re: CAD-Updated User Requirement, RDS and Aproved Sof A** 

Victor SS Tai    to: chakwpd@archsd.gov.hk

03/10/2007 08:39

Cc: chankh2@ab.archsd.gov.hk, chingsls@archsd.gov.hk,  
chowwfj@archsd.gov.hk, funksmm...

Archive:    This message is being viewed in an archive.

Dear All,

A CD-R with all the updated documents and drawings (those with soft copies) will be sent to you before noon today.

Victor Tai  
Senior Architect, Civil Aviation Department  
Tel: 2867 4214  
chakwpd@archsd.gov.hk



chakwpd@archsd.gov.hk

03/10/2007 08:13

To vsstai@cad.gov.hk

cc ngck2@archsd.gov.hk  
wongmh@archsd.gov.hk  
chowwfj@archsd.gov.hk  
kongms@archsd.gov.hk  
chankh2@ab.archsd.gov.hk  
funksmm@ab.archsd.gov.hk  
leecmt@archsd.gov.hk  
chingsls@archsd.gov.hk

Subject CAD-Updated User Requirement, RDS and Aproved Sof A

Dear Victor,

We are still waiting for your updated user requirement(full set), the Room Data Sheets and the approved SofA for our preparation of the tender documents. As the time is running short, please forward these information to us a.s.a.p. I want to stick to the original programme. Thanks!

David Chak

Extract from Employer's Requirement provided by CAD to ArchSD  
節錄自民航處向建築署提供的《僱主要求》

2.4.3 Provision of spaces with the capability to convert into future expansion

Other than the expansion spaces specified as items in the Schedule of Accommodation, provision shall be made in the building foundation and design to allow a further expansion in net operational floor area of up to 1,500m<sup>2</sup> to cater for air traffic growth beyond 2025. These areas shall be designed as spaces with the capability to convert into future expansion in the forms of common pocket spaces from corridors, green spaces or detachable spaces forming part of the lobbies or common spaces. All these future expansion spaces shall be easily partitioned into offices or operational areas with great flexibility. The requirements for these spaces are as follow:

- a) Approximately 650m<sup>2</sup> of these spaces shall be detached spaces being a part or a sub-divided part of the established offices in the form of common spaces that could be eventually converted into offices. To allow for greatest flexibility in use and in line with the theme to promote synergy, these spaces are best positioned in between Divisions, sections, units or groups. The projected usage for different Divisions are as follows:
  - ATMD 120m<sup>2</sup>
  - E&SD 102m<sup>2</sup>
  - APSD 30m<sup>2</sup>
  - FSAD 316m<sup>2</sup>
  - ASD 30m<sup>2</sup>
  - AD 34m<sup>2</sup>
  - FD 18m<sup>2</sup>
- b) The rest of these future expansion spaces shall connect to circulation spaces at any level, such as corridors (which may be internal, floor, common or public ones), lobbies, common areas or enclosed space on the roof garden.
- c) At least 20% in area of these future expansion spaces shall be distributed to each of the floors with offices as pocket spaces for informal gathering or meeting, such as a sitting space outside the open pantry, off the middle or at the end of a common corridor, or a semi-enclosed space partitioned by glazing on two or three sides for small group meeting next to Divisional receptions from the lobbies, etc. The rest of these spaces may be grouped as larger green spaces or common pocket spaces off the lift lobbies or internal circulation staircase void attached to one or a few floors of each building or annex.
- d) Any of these spaces in the form of pocket spaces detached to offices shall be provided with the building services installation as if they were open-plan offices, i.e. provide raised floor, sufficient lighting, air-conditioning, fire services installation and integral conceal floor boxes.
- e) Any of these spaces in the form of green spaces or common spaces connected to lobbies or other non-office/non-operational areas shall be fitted with removable planters and provided with appropriate lighting, air-conditioning and fire services installation. Provision shall be made to enable these spaces being easily converted into offices by the installation of a raised floor system in the future, i.e. provide reserved trunking connections for power supply, telephone and LAN at floor level.

Enclosure 1 to PWSC1(2007-08)18

Comparison between NOFA of CAD's Functional Divisions  
(including the ATC System) and NOFA of New CAD Headquarters

	Existing	New CAD headquarters		
	Existing Area (m <sup>2</sup> )	Area Required (m <sup>2</sup> )	Area provided for future expansion (m <sup>2</sup> )	Total area (m <sup>2</sup> )
(A) Offices (for staff)	3 068.1	3 428.1	0.0	3 428.1
<b>(B) ATC facilities</b>				
(i) ATC Centre	545.0	900.0	540.0	
(ii) Supporting equipment, systems and facilities of the ATC Centre	2 162.0	7 207.5	1 200.0	
(iii) Aeronautical Information Centre	400.0	315.0	0.0	
(iv) Aircraft Search and Rescue Coordination Centre	200.0	300.0	100.0	
(v) Aeronautical Network Centre	115.0	200.0	160.0	
<b>Sub-total</b>	<b>3 422.0</b>	<b>8 922.5</b>	<b>2 000.0</b>	<b>10 922.5</b>
<b>(C) Other facilities</b>				
(i) Aircraft Accident Investigation Facilities	0.0	700.5	0.0	
(ii) Training and Examination Facilities	665.0	1,827.2	464.0	
(iii) Operational Evaluation, Research and Development Facilities	100.0	350.0	400.0	
(iv) Multi-purpose auditorium	0.0	675.0	0.0	
(v) Conference facilities	335.0	564.0	0.0	
(vi) Library cum resource centre	100.0	338.0	0.0	
(vii) ATC Tour Presentation Room and Educational Path	0.0	368.0	0.0	
(viii) Ancillary Facilities	1 501.5	2 361.8	375.3	
(xi) Staff canteen	85 seats	200 seats		
(x) Car parking spaces	209 nos	178 nos		

	Existing	New CAD headquarters		
	Existing Area (m <sup>2</sup> )	Area Required (m <sup>2</sup> )	Area provided for future expansion (m <sup>2</sup> )	Total area (m <sup>2</sup> )
Sub-total	2 701.5	7 184.5	1 239.3	8 423.8
Total NOFA (m <sup>2</sup> )	9 191.6	19 535.1	3 239.3	22 774.4

### Explanatory Notes

Item (A) – Now located in the ATC Complex, Airport Freight Forwarding Centre, Passenger Terminal Building of HKIA and Queensway Government Offices. The increase in the area required is to cater for expansion in various divisions of CAD as a result of increased staff establishment and activities relating to regulatory functions.

Item (B)(i) – Now located in the ATC Complex. The increase in the area required is to cater for the increase in the number of control positions from the existing 22 to 56 within the next decade to cope with the growth in air traffic; to allow the corresponding expansion in the scale of the supporting equipment, systems and facilities; and to implement the new design concept of ATC control console and equipment accommodation, which focuses on human ergonomics, user comfort and industrial safety. Additional space has been reserved for future expansion.

Item (B)(ii) – Ditto

Item (B)(iii) – Now located in the ATC Complex, with a sub-office on the land side of HKIA. The decrease in the area required is due to the relocation and combination of the two offices into one in the new headquarters on the land side of the HKIA.

Item (B)(iv) – Now located in the ATC Complex. During search and rescue operations, participating units (mainly aircrew) are required to attend a briefing on the necessary technical information such as search datum, proposed search patterns and meteorological information with reference to computer data and the satellite-based distress signal tracking system. Experience from annual search and rescue exercises indicates that a larger area is required. Additional space has been reserved for future expansion and in-situ system replacement (as the centre must be available at all times).

Item (B)(v) – Now located in the ATC Complex. The increase in the area required is due to the need to accommodate new communication systems and provide a broadcast room. The number of operator positions will increase from 9 to 14 by 2012 to handle the growth in air traffic. The centre needs to be operational around the clock and cannot afford any disruption. Additional space has been reserved for future in-situ equipment replacement.

Item (C)(i) – New facilities. Aircraft accident investigation is one of CAD's major responsibilities. It is specialised and time-critical, requiring close coordination and extensive technical support among different professions in the collection and analysis of evidence.

Reassembling the critical parts of recovered wreckage to its original shape can greatly facilitate the necessary examination, surveying and testing.

Item (C)(ii) – Now mainly located in the ATC Complex. The increase in the area required is due to the need to install larger simulators with more training positions, in response to the heavy commitments in ATC training. Some 120 controllers will need to be trained up locally in the next 10 years for meeting the new service demand and filling up anticipated vacant posts due to staff retirement. To promote safety standards, refresher training using the simulators is required for controllers so that they can handle exceptionally busy traffic and emergencies that may be encountered in daily operations.

Item (C)(iii) – Now located in a small office in the ATC Complex. The increase in the area required is due to the need to strengthen the facilities to cope with the anticipated heavy workload in exploring the future procedures such as those in the Pearl River Delta operations and regional air traffic flow management. Such work will involve the use of specialized tools, such as the fast-time simulator, mock-up of new equipment and other visual aids.

Item (C)(iv) – A new facility. It will be primarily used to provide a venue for group briefings for industry partners and staff, and for international and regional aviation conferences and meetings.

Item (C)(v) – Now located in various divisions of CAD. The increase in the area required is due to the anticipated increase in work related activities as a result of traffic growth and the expansion of the aviation industry, which will require more internal meetings and external meetings with the aviation industry.

Item (C)(vi) – A new facility. At present, small library facilities are provided at individual divisions of CAD at various locations. Because of a lack of space, a large volume of books, reports and other aviation related documents are kept in stores. We intend to group them into a library cum resource centre, which will enable CAD to better use such information and resources. Part of the reading materials will be made available to the industry and, where warranted, individual members of the public.

Item (C)(vii) – A new facility. To promote understanding and cultivate interest in aviation among the general public, CAD organises tours of its ATC facilities from time to time. The new facilities will allow the display of interesting elements such as aircraft models, photos and small antique aircraft/engines parts to enhance the attractiveness and effect of these tours.

Item (C)(viii) – Now located at various divisions of CAD. These include storerooms, confidential registries, computer rooms, rest rooms, locker areas for shift duty staff etc. The increase in the area required is due to the increase in staff numbers and work commitments both on the operational and regulatory fronts as a result of the expansion of the aviation industry. Additional space has been reserved for future expansion.

Item (C)(ix) – Now located in the Backup ATC Complex. More seats are required to cater for more staff to be accommodated in the new CAD headquarters.

Item (C)(x) – Now located at various office locations. Site constraints limit the number of car parking spaces to be provided.



**MEMO****Urgent By FAX only***From* Director-General of Civil Aviation*To* Secretary for Financial Services and the  
Treasury (Attn.: Miss Iris HO, W Division)*Ref.* \_\_\_\_\_ *in* CAD FD F/4-45/6*Your Ref.* \_\_\_\_\_ *in* \_\_\_\_\_*Tel. No.* 2867 4290 *Fax. No.* 2526 1634*dated* \_\_\_\_\_*Date* 30 November 2009*Your Fax. No.* 2147 5240 *Total pages* 1+Appendix I(a)-(d)

**3075KA New CAD Headquarters Building**  
**Procurement of Furniture and Equipment Items -Electronic Systems**

Your agreement is sought under para. 12 of Financial Circular No. 23/82 for CAD to procure the Electronic Systems as Furniture and Equipment Items for the New CAD Headquarters project as mentioned in para. 8 item (h) of the PWSC(2007-08)63.

2. The design and construction contract of New CAD Headquarters commenced on 20 May 2009 and is targeted for completion in the first quarter of 2012. In order to meet the opening of New CAD Headquarters, the installation of Electronic Systems should also be completed in early 2012. Taking into account the time required for specification preparation, tendering period, equipment delivery lead time, installation, testing & commissioning and training, procurement work of the Electronic Systems should start no later than end of 2009. The tentative procurement schedule is shown below:-

<u>Activities</u>	<u>Tentative Schedule</u>
(a) Users' requirements collection and specifications preparation	Nov 2009 - Aug 2010
(b) Tender invitation, evaluation and contract award	Sep 2010 - Feb 2011
(c) Equipment delivery, installation and testing & commissioning	Mar 2011 - Feb 2012

3. The Electronic Systems to be procured are listed below :

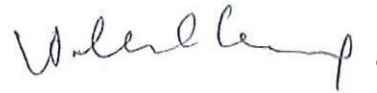
	\$M
(a) Multi-media Presentation System.	16.985
(b) Simultaneous Interpretation System	3.981
(c) Radio Frequency Identification Library Management System	1.005
(d) Integrated Information Display System	1.989
Total :	<u>23.960</u>

4. These systems are essential for the completion of project and their details, estimated costs and justifications for procurement are enclosed in Appendix I (a) to (d) for your perusal.

5. The procurement work will be carried out by EMSTF on the advice of relevant tender board. There are similar precedent cases of using this mechanism including New ICAC Headquarters Building, New Customs Headquarters building and TAMAR Development Project.

6. I should be grateful if you would endorse our proposed list as soon as possible.

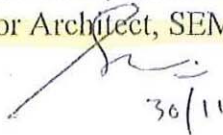
7. If you need further information, please feel free to contact me or our Senior Engineer, Mr. Ronald Tang at 2867 4278.



(Mrs. Helen CHEUNG)  
for Director-General of Civil Aviation

Encl.

c.c. DArchS (Attn: Mr. David Chak, SPM223)  
Internal: ADG(P), Senior Architect, SEME



**(a) Multi-media Presentation System (MMPS)****(I) System Description**

The MMPS will be provided at various venues in the New CAD Headquarters Buildings such as multi-purpose auditorium, conference rooms, lecture rooms, workshop facilities, etc. It will facilitate high quality presentation, interactive training, holding of meetings and conferences with information technology.

Depending on the functional needs for each venue where the systems are installed, the MMPS will have different configurations. Typical MMPS can include different combinations of the following subsystems and equipment:-

- (i) Video projector and projection screen;
- (ii) Electronic interactive white board;
- (iii) Visualizer for document or object image capturing;
- (iv) Public address system (e.g. wired/wireless microphones, amplifiers, speakers, etc.);
- (v) Desktop conference system (e.g. chairman unit, delegate unit, control equipment, etc.);
- (vi) Tele-conference system;
- (vii) Video conferencing system; and
- (viii) Audio and video playback and recording systems.

All subsystems and equipment of the MMPS are dedicated electronic equipment. With proper operation and maintenance, the service life can be 10 years or more.

**(II) Estimated Cost of each type of equipment**

	<b>Equipment/Facilities</b>	<b>Unit Rate</b> \$'000	<b>Qty</b>	<b>Subtotal</b> \$'000
(i)	Auditorium	4,070	1 no	4,070
(ii)	Large Conference Room	1,182	1 no	1,182
(iii)	Medium Conference Room	1,073	4 no	4,292
(iv)	Small Conference Room	647	3 no	1,941
(v)	Lecture Rooms	477	7 no	3,339
(vi)	Workshop	477	3 no	1,431
(vii)	ATC Tour Presentation Room	730	1 no	730
			<b>Total (i) to (vii)</b>	<b><u>16,985</u></b>

(III) Justification for the procurement

The MMPS will enable the record and playback of high quality photo images with mega pixels resolution and high definition video media up to 1920 x 1080p during meeting and presentation. The electronic interactive whiteboard can be connected to computer for retrieval of information and editing working document or marking-up on sketch for facilitating discussions with information technology during meetings. The visualizer will capture the live image of document or objects for showing to large group of audience effectively. Public address systems are essential for mass lecture and forum. Desktop conference system, tele-conference system and video conference system can facilitate the attendees to participate meetings with no limitation of working locations.

All the above equipment is essential systems for CAD because there are frequent meetings with representatives from overseas authorities, international organizations and airline operators. Nowadays, it is common for the presentation materials from aviation industry prepared with high definition digital media. Besides, the high definition compatibility and interactive functions of MMPS can also enhance the quality and efficiency of training and presentation. Moreover, the MMPS is essential to maintain the professional image of CAD and to ensure competitive edge to other regional hubs with respect to its ability in hosting international events.

**(b) Simultaneous Interpretation System (SIS)****(I) System Description**

The SIS will be provided in the auditorium with 200 seating capacity to facilitate holding international conferences or meetings with attendees from overseas. It comprises the following equipments.

- (i) Chairman unit;
- (ii) Delegate units;
- (iii) Interpreter units;
- (iv) Central control equipment;
- (v) Infra-red wireless language distribution system; and
- (vi) Headphones with Infra-red wireless receivers.

Speech collected from the chairman's unit and delegates' units will be broadcasted to the audiences inside the auditorium through the public address system. At the same time, the speech will be delivered to the interpreters' units where the interpreters will translate the messages to other languages for attendees who require interpretation services with their delegates' units or infra-red wireless language distribution systems from which attendees can select their preferred language with the headphones and infra-red wireless receivers.

All the subsystem and equipment of SIS are dedicated proprietary electronic equipment. With proper operation and maintenance, the service life of the SIS can be more than 10 years.

**(II) Estimated Cost of each type of equipment**

	<b>Equipment/Facilities</b>	<b>Unit Rate</b>	<b>Qty</b>	<b>Subtotal</b>
		<b>\$'000</b>		<b>\$'000</b>
(i)	Chairman's Unit	5	1 no	5
(ii)	Delegate's Unit	5	200 no	1,000
(iii)	Interpreter's Unit	15	4 no	60
(iv)	Central Control System	600	1 no	600
(v)	Headphone	2	400 set	800
(vi)	Batteries and chargers	100	1 set	100
(vii)	Infra-red wireless distribution system	180	2 lot	360
(viii)	Mixer control panel	70	1 set	70
(ix)	Video camera and recorder	240	2 set	480
(x)	Cables	60	1 lot	60
(xi)	Equipment cabinets	6	1 no	6
(xii)	Mounting brackets and accessories	1	200 set	200
(xiii)	Installation, test & commissioning	240	1 lot	240
<b>Total (i) to (xiii)</b>				<b><u>3,981</u></b>

(III) Justification for the procurement

The SIS will be provided in auditorium to facilitate holding international conferences with overseas delegates. The simultaneous interpretation service is the essential requirements from ICAO and other international organizations for hosting international conferences. There are several international conferences held by CAD in Hong Kong. Without this SIS, the organizer may convene the international conferences in other neighbouring countries.

Moreover, the language distribution system with language selectable features can also facilitate playing of multi-language media for training or presentation purposes.

**(c) Radio Frequency Identification Library Management System (RFIDLMS)****(I) System Description**

The RFIDLMS will be provided in main library for self-service electronic library management system for registration, tracking and inventory control of library items including books, audio & video media, etc.

All library items will be stuck with RFID tags to allow easy identification by the RFIDLMS. The RFIDLMS comprises an electronic library computer server and software linked with self-service kiosks, handheld readers, reader antennas and security gate.

The self-service kiosk will read the information in RFID tag on the library items and allow users to borrow or return the library items by self-service easily. Handheld readers are provided for locating the required library items and taking stock by quick scanning. The reader antennas and security gate will be installed at the entrance of main library to alert user to complete the borrowing procedure before leaving the library.

The RFIDLMS can also be connected to the intranet to provide on-line library service including borrowed items renewal, searching for library directory, checking library information, etc.

All the subsystem and equipment of the RFIDLMS are dedicated proprietary electronic equipment. With proper operation and maintenance, the service life of RFIDLMS can be more than 10 years.

**(II) Estimated Cost of each type of equipment**

<b>Equipment/Facilities</b>	<b>Unit Rate</b>	<b>Qty</b>	<b>Subtotal</b>
	<b>\$'000</b>		<b>\$'000</b>
(i) RFID System Server	126	1 no	126
(ii) System software	440	1 lot	440
(iii) LAN hub/switching equipment	100	1 no	100
(iv) Security gate (reader antenna)	6	2 lot	12
(v) Self-service kiosk	108	2 set	216
(vi) Hand held RFID reader	10	2 no	20
(vii) RFID tag	0.0015	10,000 no	15
(viii) Installation, test & commissioning	76	1 lot	76
	<b>Total (i) to (viii)</b>		<b>1,005</b>

(III) Justification for the procurement

At present, the library operation is managed solely by a librarian. She is fully occupied by the daily library activities as well as routine administration. Because of the large number of users, maintaining the book inventory and library security becomes a heavy pressure on her. Library users always queue up for library service of all kinds. There is no time for her to explore new books and enhance the library service.

After moving to the new CAD headquarters, all the library collections from all the divisions of CAD will be centralized and kept in the main library. Thus, the total volumes of books will be greatly increased. The Main Library will also be open for the general public, schools, organizations and overseas visitors, the people circulation will be greatly increased as well. All these are new requirements which will be beyond the capacity of the existing library management system. The proposed RFIDLMS for the main library in the new CAD headquarters building will relief the librarian's workload on library items borrowing and returning routine procedures. The self-service feature can also improve the operational efficiency during office hours and enable the library operation after office hours.

With the RFID tag on every library items, the reader antennas and security gate will automatically screen all the users to avoid books being taken away without completion of borrowing procedure. Thus, the inventory management and security control can be enhanced. Besides, the RFID Library Management System will automatically inform the user by email system if any borrowed item is overdue. Moreover, the RFIDLMS can provide additional online services such as book searching, new book announcement, book reservation, interactive activity, library service promotion campaign, etc.

With all these enhanced features, the RFIDLMS will not only improve the quality of library service but also minimize the pressure of increasing the manning manpower of the main library. In the long term, the future expansion feature of the RFIDLMS will enable the smooth operation and sustainable development of the main library.



**(d) Integrated Information Display System (IIDS)****(I) System Description**

The IIDS will be provided in common areas of the New CAD Headquarters buildings including main entrance, lift lobby, tour presentation room, visit lounge, viewing gallery, auditorium, canteen, conference and meeting rooms, training and examination rooms, etc. The display panel of IIDS will provide simultaneous display of latest information.

The IIDS will be a computer based system where a central server will link up to all display units for broadcast scheduling and content management. The IIDS will also be connected to the intranet for room booking application software which allows user to reserve meeting rooms online. The latest room booking schedule and details can be automatically displayed on the video display unit at the corresponding venue.

All the subsystem and equipment of the IIDS are dedicated electronic equipment. With proper operation and maintenance, the service life of IIDS can be more than 10 years.

**(II) Estimated Cost of each type of equipment**

	<b>Equipment/Facilities</b>	<b>Unit Rate \$'000</b>	<b>Qty</b>	<b>Subtotal \$'000</b>
(i)	Central Control Server & software	504	1 no	504
(ii)	Ethernet network & structured cabling system	126	1 lot	126
(iii)	User workstation for information editing	50	1 no	50
(iv)	LCD video display unit	15	50 set	750
(v)	Display Server	7	50 no	350
(vi)	DVD recorder/player	7	1 no	7
(vii)	DAT, cassette tape player, MD and MP3 player	13	1 no	13
(viii)	AV matrix switch, mixer and amplifier	63	1 lot	63
(ix)	Equipment cabinets, brackets and accessories	26	1 set	26
(x)	Installation, test & commissioning	100	1 lot	100
<b>Total (i) to (x)</b>				<b>1,989</b>

**(III) Justification for the procurement**

The IIDS will disseminate various types of electronic information to CAD staff through the LCD display units in common areas including but not limited to departmental announcement, latest events, departmental news, news headlines, safety promotion information, weather report, etc.

The IIDS will have a web-based centralized room booking function to allow users to reserve room for meeting or event through intranet. The IIDS system will facilitate the resources

management and planning so that the facilities in various CAD venues will be best utilized. Moreover, the routine workload and paperwork of the administration unit will be minimized.

The IIDS will also automatically display the details of the meeting or event to be held or being held in the corresponding venue. The information is useful for users and especially essential for visitors who are not familiar with the CAD venues. For multi-session event, the system can also provide instant activity progress and logistic arrangement for each session.

As CAD has many venues and offices scattered in various locations in the buildings, the IIDS can integrate all the display systems and centralize all the important information to be disseminated to various locations of the buildings instantaneously. This is essential for CAD to enhance the communication with staff at all levels. Moreover, the IIDS can disseminate the information in electronic format which will minimize the paper consumption.

Attachment H  
附件 H

Anita YF  
Cheng/CAD/HKSARG@CAD  
30/12/2009 11:01

To Iris PY HO/TSYB/HKSARG@TSYB  
cc Kay KB KWOK/THB/HKSARG@THB  
Ronald WH Tang/CAD/HKSARG@CAD  
Helen MN Ng/CAD/HKSARG@CAD  
Subje 3075KA New CAD Hqs building - Procurement of F&E  
ct items-Electronic Systems

Dear Iris,

We spoke regarding CAD's submission in the attached ()and should be grateful if you would expedite vetting action of it as the related procurement work was planned to commence no later than end of 2009. Your early action on the subject matter is appreciated.

Regards,  
Anita



Budget Estimate for CAD HQ AV Nov 09 - Full version.xls

**Equipment List for Multi-media Presentation System Approved by the FSTB in September 2010**

**1 Multi-media Presentation System (MMPS)**

	<b>Equipment/Facilities</b>	<b>Unit Rate</b>	<b>Qty</b>	<b>Subtotal</b>
1	Auditorium	4,070,295	1 no	4,070,295
2	Large Conference Room	1,182,156	1 no	1,182,156
3	Medium Conference Room	1,072,884	4 no	4,291,536
4	Small Conference Room	646,932	3 no	1,940,796
5	Lecture Rooms	477,050	7 no	3,339,350
6	Workshop	477,050	3 no	1,431,150
7	ATC Tour Presentation Room	729,550	1 no	729,550
<b>Total (Item 1 to 7)</b>				<b>16,984,833</b>

**1a. Mutli-media Presentation System (at Auditorium)**

	<b>Equipment/Facilities</b>	<b>Unit Rate [A]</b>	<b>Qty [B]</b>	<b>EMSTF Charges [C]</b>	<b>Subtotal [A]*[B] + [C]</b>
<b>1</b>	<b>Video Projection System</b>				
1.1	Motorized Screen	200,000	1 no	32,000	232,000
1.2	Full HD DLP projector	1,200,000	1 no	192,000	1,392,000
1.3	Lens, lamps and accessories	200,000	1 no	32,000	232,000
1.3	DVD recorder/player	5,625	1 no	900	6,525
1.4	VHS recorder/player	3,750	1 no	600	4,350
1.5	Management workstation	50,000	1 no	8,000	58,000
1.6	AV matrix	43,750	1 no	7,000	50,750
<b>2</b>	<b>Sound System</b>				
2.1	DAT, cassette tape player, MD and MP3 player	22,500	1 set	3,600	26,100
2.2	Audio matrix	43,750	1 no	7,000	50,750
2.3	Amplifiers, equalizer, feedback eliminator	37,500	1 set	6,000	43,500
2.4	Wireless microphone with receiver and antenna	7,500	6 no	7,200	52,200
2.5	Floor stand microphone	3,000	2 no	960	6,960
2.6	Ceiling mounted microphones	1,875	24 no	7,200	52,200
2.7	Digital Mixer	25,000	1 no	4,000	29,000
2.8	Speaker system	62,500	1 set	10,000	72,500

<b>3</b>	<b>Video Recording System</b>					
3.1	Robotic pan-tilt-zoom cameras	80,000	4	set	51,200	371,200
3.2	Multi-camera control system	300,000	1	no	48,000	348,000
3.3	Optical disc recorder	20,000	1	no	3,200	23,200
3.4	Management workstation	50,000	1	no	8,000	58,000
<b>4</b>	<b>Video Conference System</b>					
4.1	Video conferencing infrastructure	300,000	1	set	48,000	348,000
<b>5</b>	<b>Misc</b>					
5.1	Central control system equipment	50,000	1	set	8,000	58,000
5.2	Matrix colour touch panel	11,250	2	no	3,600	26,100
5.3	Control workstation	50,000	1	no	8,000	58,000
5.4	AV outlet boxes	2,500	4	no	1,600	11,600
5.5	AV and power cables	6,000	1	no	960	6,960
5.6	2000-mm equipment cabinets	10,000	3	no	4,800	34,800
5.7	Mounting brackets and accessories	60,000	1	lot	9,600	69,600
5.8	Trunkings, conduits and outlet boxes	50,000	1	lot	8,000	58,000
5.9	Installation, test & commissioning	250,000	1	lot	40,000	290,000
					<b>Total</b>	<b>4,070,295</b>

Note:

- [1] CCTV system quality is assumed for video recording, instead of the professional broadcasting standard.
- [2] The projection system is assumed based on the size of Auditorium (25m x 6m) with 300 seats in 15 rows
- [3] EMSTF charges at 16% of the system estimate

**1b. Mutli-media Presentation System (at Large Conference Room)**

	<b>Equipment/Facilities</b>	<b>Unit Rate [A]</b>	<b>Qty [B]</b>	<b>EMSTF Charges [C]</b>	<b>Subtotal [A]*[B] + [C]</b>
<b>1</b>	<b>Video Projection System</b>				
1.1	Motorized Screen	12,500	1 no	2,000	14,500
1.2	LCD Projector	100,000	1 no	16,000	116,000
1.3	Projector lift	12,500	1 no	2,000	14,500
1.4	DVD recorder/player	7,500	1 no	1,200	8,700
1.5	VHS recorder/player	2,500	1 no	400	2,900
1.6	DAT, cassette tape player, MD and MP3 player	22,500	1 set	3,600	26,100
1.7	Amplifiers, equalizer, feedback eliminator and speakers	37,500	1 set	6,000	43,500
1.8	Wireless microphone with receiver	3,750	2 no	1,200	8,700
1.9	AV matrix	1,875	1 no	300	2,175
1.10	Touch screen remote control panel	87,500	1 no	14,000	101,500
1.11	Pan-tilt-zoom camera	10,000	1 no	1,600	11,600
1.12	Remote pan-tilt-zoom control unit	3,750	1 no	600	4,350
1.13	Video distribution amplifier	1,875	1 no	300	2,175
1.14	Digital video recorder	7,500	1 no	1,200	8,700
1.15	AV outlet	3,750	1 lot	600	4,350
1.16	Cables	2,500	1 lot	400	2,900
1.17	Equipment cabinets	6,250	1 no	1,000	7,250
1.18	Mounting brackets and accessories	6,250	1 lot	1,000	7,250
1.19	Trunkings, conduits and outlet boxes	12,500	1 lot	2,000	14,500

<b>2</b>	<b>Audio Conference System</b>					
2.1	Chairman unit	5,220	1	no	835	6,055
2.2	Delegate unit	5,220	29	no	24,221	175,601
2.3	Headphone	625	30	no	3,000	21,750
2.4	Central equipment	100,000	1	no	16,000	116,000
2.5	MP3 recorder	12,500	1	no	2,000	14,500
2.6	Workstations	25,000	1	no	4,000	29,000
2.7	Amplifiers, equalizer, feedback eliminator and speakers	37,500	1	set	6,000	43,500
2.8	Audio outlets	750	30	no	3,600	26,100
2.9	Cables	12,500	1	lot	2,000	14,500
2.10	Equipment cabinets	6,250	1	no	1,000	7,250
2.11	Mounting brackets and accessories	6,250	1	lot	1,000	7,250
2.12	Trunkings, conduits and outlet boxes	10,000	1	lot	1,600	11,600
2.13	Installation, test & commissioning	25,000	1	lot	4,000	29,000
<b>3</b>	<b>Misc</b>					
3.1	Interactive digital whiteboard system	50,000	1	no	8,000	58,000
3.2	Phone line conference system	5,000	1	no	800	5,800
3.3	Visualizer	10,000	1	no	1,600	11,600
3.4	Video conferencing system	150,000	1	no	24,000	174,000
3.5	Installation, test & commissioning	25,000	1	lot	4,000	29,000
					<b>Total</b>	<b>1,182,156</b>

Note:

[1] EMSTF charges at 16% of the system estimate

**1c. Multi-media Presentation System (at Medium Conference Room)**

	<b>Equipment/Facilities</b>	<b>Unit Rate [A]</b>	<b>Qty [B]</b>	<b>EMSTF Charges [C]</b>	<b>Subtotal [A]*[B] + [C]</b>
<b>1</b>	<b>Video Projection System</b>				
1.1	Motorized Screen	6,000	1 no	960	6,960
1.2	LCD Projector	100,000	1 no	16,000	116,000
1.3	Projector lift	12,500	1 no	2,000	14,500
1.4	DVD recorder/player	7,500	1 no	1,200	8,700
1.5	VHS recorder/player	2,500	1 no	400	2,900
1.6	DAT, cassette tape player, MD and MP3 player	22,500	1 set	3,600	26,100
1.7	Amplifiers, equalizer, feedback eliminator and speakers	37,500	1 set	6,000	43,500
1.8	Wireless microphone with receiver	3,750	2 no	1,200	8,700
1.9	AV matrix	1,875	1 no	300	2,175
1.10	Touch screen remote control panel	87,500	1 no	14,000	101,500
1.11	Video distribution amplifier	1,875	1 no	300	2,175
1.12	AV outlet	3,750	1 lot	600	4,350
1.13	Cables	2,500	1 lot	400	2,900
1.14	Equipment cabinets	6,250	1 no	1,000	7,250
1.15	Mounting brackets and accessories	6,250	1 lot	1,000	7,250
1.16	Trunkings, conduits and outlet boxes	12,500	1 lot	2,000	14,500
<b>2</b>	<b>Audio Conference System</b>				
2.1	Chairman unit	5,220	1 no	835	6,055
2.2	Delegate unit	5,220	19 no	15,869	115,049
2.3	Headphone	625	20 no	2,000	14,500
2.4	Central equipment	100,000	1 no	16,000	116,000
2.5	MP3 recorder	12,500	1 no	2,000	14,500
2.6	Workstations	25,000	1 no	4,000	29,000
2.7	Amplifiers, equalizer, feedback eliminator and speakers	37,500	1 set	6,000	43,500
2.8	Audio outlets	750	20 no	2,400	17,400
2.9	Cables	12,000	1 lot	1,920	13,920
2.10	Equipment cabinets	6,250	1 no	1,000	7,250
2.11	Mounting brackets and accessories	6,250	1 lot	1,000	7,250
2.12	Trunkings, conduits and outlet boxes	10,000	1 lot	1,600	11,600
2.13	Installation, test & commissioning	25,000	1 lot	4,000	29,000



<b>3</b>	<b>Misc</b>					
3.1	Interactive digital whiteboard system	50,000	1	no	8,000	58,000
3.2	Phone line conference system	5,000	1	no	800	5,800
3.3	Visualizer	10,000	1	no	1,600	11,600
3.4	Video conferencing system	150,000	1	no	24,000	174,000
3.5	Installation, test & commissioning	25,000	1	lot	4,000	29,000
<b>Total</b>						<b>1,072,884</b>

Note:

[1] EMSTF charges at 16% of the system estimate

**1d. Mutli-media Presentation System (at Small Conference Room)**

	Equipment/Facilities	Unit Rate [A]	Qty [B]	EMSTF Charges [C]	Subtotal [A]*[B] + [C]
<b>1</b>	<b>Video Projection System</b>				
1.1	Motorized Screen	6,000	1 no	960	6,960
1.2	LCD Projector	100,000	1 no	16,000	116,000
1.3	Projector lift	12,500	1 no	2,000	14,500
1.4	DVD recorder/player	7,500	1 no	1,200	8,700
1.5	VHS recorder/player	2,500	1 no	400	2,900
1.6	DAT, cassette tape player, MD and MP3 player	22,500	1 set	3,600	26,100
1.7	Amplifiers, equalizer, feedback eliminator and speakers	37,500	1 set	6,000	43,500
1.8	Wireless microphone with receiver	3,750	2 no	1,200	8,700
1.9	AV matrix	1,875	1 no	300	2,175
1.10	Touch screen remote control panel	87,500	1 no	14,000	101,500
1.11	Video distribution amplifier	1,875	1 no	300	2,175
1.12	AV outlet	3,750	1 lot	600	4,350
1.13	Cables	2,200	1 lot	352	2,552
1.14	Equipment cabinets	6,250	1 no	1,000	7,250
1.15	Mounting brackets and accessories	6,250	1 lot	1,000	7,250
1.16	Trunkings, conduits and outlet boxes	12,000	1 lot	1,920	13,920
<b>2</b>	<b>Misc</b>				
2.1	Interactive digital whiteboard system	50,000	1 no	8,000	58,000
2.2	Phone line conference system	5,000	1 no	800	5,800
2.3	Visualizer	10,000	1 no	1,600	11,600
2.4	Video conferencing system	150,000	1 no	24,000	174,000
2.5	Installation, test & commissioning	25,000	1 lot	4,000	29,000
				<b>Total</b>	<b>646,932</b>

Note:

[1] EMSTF charges at 16% of the system estimate

**1e. Mutli-media Presentation System (Lecture Rooms & Workshops)**

	<b>Equipment/Facilities</b>	<b>Unit ate [A]</b>	<b>Qty [B]</b>	<b>EMSTF Charges [C]</b>	<b>Subtotal [A]*[B] + [C]</b>
<b>1</b>	<b>Video Projection System</b>				
1.1	Motorized Screen	12,500	1 no	2,000	14,500
1.2	LCD Projector	100,000	1 no	16,000	116,000
1.3	Projector lift	12,500	1 no	2,000	14,500
1.4	DVD recorder/player	7,500	1 no	1,200	8,700
1.5	VHS recorder/player	2,500	1 no	400	2,900
1.6	DAT, cassette tape player, MD and MP3 player	22,500	1 set	3,600	26,100
1.7	Amplifiers, equalizer, feedback eliminator and speakers	37,500	1 set	6,000	43,500
1.8	Wireless microphone with receiver	3,750	2 no	1,200	8,700
1.9	AV matrix	1,875	1 no	300	2,175
1.10	Touch screen remote control panel	87,500	1 no	14,000	101,500
1.11	Pan-tilt-zoom camera	10,000	1 no	1,600	11,600
1.12	Remote pan-tilt-zoom control unit	3,750	1 no	600	4,350
1.13	Video distribution amplifier	1,875	1 no	300	2,175
1.14	Digital video recorder	7,500	1 no	1,200	8,700
1.15	AV outlet	3,750	1 lot	600	4,350
1.16	Cables	2,500	1 lot	400	2,900
1.17	Equipment cabinets	6,250	1 no	1,000	7,250
1.18	Mounting brackets and accessories	6,250	1 lot	1,000	7,250
1.19	Trunkings, conduits and outlet boxes	12,500	1 lot	2,000	14,500
<b>2</b>	<b>Misc</b>				
2.1	Interactive digital whiteboard system	50,000	1 no	8,000	58,000
2.2	Visualizer	10,000	1 no	1,600	11,600
2.3	Installation, test & commissioning	5,000	1 lot	800	5,800
				<b>Total</b>	<b>477,050</b>

Note:

[1] EMSTF charges at 16% of the system estimate

**1f. Mutli-media Presentation System (ATC Tour Presentation Room)**

	<b>Equipment/Facilities</b>	<b>Unit Rate [A]</b>	<b>Qty [B]</b>	<b>EMSTF Charges [C]</b>	<b>Subtotal [A]*[B] + [C]</b>
<b>1</b>	<b>Video Projection System</b>				
1.1	Motorized Screen	12,500	1 no	2,000	14,500
1.2	LCD Projector	100,000	1 no	16,000	116,000
1.3	Projector lift	12,500	1 no	2,000	14,500
1.4	DVD recorder/player	7,500	1 no	1,200	8,700
1.5	VHS recorder/player	2,500	1 no	400	2,900
1.6	DAT, cassette tape player, MD and MP3 player	22,500	1 set	3,600	26,100
1.7	Amplifiers, equalizer, feedback eliminator and speakers	37,500	1 set	6,000	43,500
1.8	Wireless microphone with receiver	3,750	5 no	3,000	21,750
1.9	AV matrix	1,875	1 no	300	2,175
1.10	Touch screen remote control panel	87,500	1 no	14,000	101,500
1.11	Video distribution amplifier	1,875	1 no	300	2,175
1.12	AV outlet	3,750	1 lot	600	4,350
1.13	Cables	2,500	1 lot	400	2,900
1.14	Equipment cabinets	6,250	1 no	1,000	7,250
1.15	Mounting brackets and accessories	6,250	1 lot	1,000	7,250
1.16	Trunkings, conduits and outlet boxes	10,000	1 lot	1,600	11,600
<b>2</b>	<b>Misc</b>				
2.1	Interactive digital whiteboard system	50,000	2 no	16,000	116,000
2.2	LCD display unit	30,862	6 no	29,628	214,800
2.3	Installation, test & commissioning	10,000	1 lot	1,600	11,600
<b>Total</b>					<b>729,550</b>

Note:

[1] EMSTF charges at 16% of the system estimate



MEMO

<i>From</i>	Secretary for Financial Services and the Treasury	<i>To</i>	Director – General of Civil Aviation
<i>Ref.</i>	12 in 25/11/152 Pt.2	<i>(Att. :)</i>	Mr Ronald TANG
<i>Tel. No.</i>	2810 2820	<i>Your Ref.</i>	in CAD FD F/4-45/6
<i>Fax No.</i>	2541 9873	<i>Dated</i>	30.11.2009 <i>Fax No.</i> 2973 0690
<i>Date</i>	3 September 2010		

3075KA – New Civil Aviation Department Headquarters Building  
Non-standard Furniture and Equipment – Electronic Systems

I refer to above application on 30.11.2009 and our subsequent notes mail correspondences.

2. Approval is given for the deployment of funds under 3075KA for the procurement of non-standard furniture and equipment (electronic systems) at an estimated cost of \$23.96 million on the understanding that they are essential and integral to the project –

3. In procuring the above approved items, please ensure that -
- both the Approved Project Estimate (\$1,997 million in MOD prices) and the F&E vote (\$140 million) under 3075KA would not be exceeded in any event;
  - the proper procedures in accordance with the Stores and Procurement Regulations are followed; and
  - the recurrent cost arising from the items will be catered for.

(Ms Brenda CHOW)  
for Secretary for Financial Services  
and the Treasury

**A List of 16 Task Forces**  
**16 個工作小組名單**

- 1 **Project Coordination**  
計劃協調
- 2 **Air Traffic Control Working Environment**  
空管的工作環境
- 3 **Air Traffic Control Systems and Facilities**  
空管系統和設施
- 4 **Air Traffic Control Training and Manpower Plan**  
空管培訓和人力資源計劃
- 5 **Airspace Management and Flight Procedures**  
空域管理和飛程序
- 6 **Environment and Synergy**  
環境和協同作用
- 7 **Design & Infrastructure**  
設計和基礎設施
- 8 **Security and Safety**  
保安和安全
- 9 **IT and Application of Advanced Technology**  
資訊科技和先進技術的應用
- 10 **Conference, Training Facilities and Accommodation**  
會議，培訓設施和辦公地方
- 11 **Transition and Relocation Arrangement**  
過渡和搬遷安排
- 12 **Resource Allocation**  
資源分配
- 13 **Administration and Staff Establishment**  
行政和人員編制
- 14 **Accident Investigation**  
意外事故調查
- 15 **Corporate Relations**  
機構公關
- 16 **Integration and Coordination on Operational Requirements**  
運作要求的整合及協調