



民航處  
CIVIL AVIATION  
DEPARTMENT

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

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香港中區  
立法會道一號  
立法會綜合大樓  
立法會政府帳目委員會  
(經辦人：朱漢儒先生)

[譯本]

朱先生：

**政府帳目委員會  
審議審計署署長第六十三號報告書第三章  
民航處新總部**

謝謝閣下二零一四年十二月十二日致民航處處長羅崇文的信件。

就信件內所提出的問題，本處現隨函附上詳細回覆以供參考。由於附錄的附件F涉及民航處總部大樓及系統的保安佈置，因此煩請將有關資料只供政府帳目委員會審閱。

民航處處長

( 李天柱 代行 )

附件

副本送：  
運輸及房屋局局長（經辦人：陳美嘉女士）  
建築署署長  
政府產業署署長

2014年12月31日

致力於安全、有效率及可持續發展的航空運輸系統  
*Committed to a Safe, Efficient and Sustainable Air Transport System*

**\*委員會秘書附註：附件F並無在此隨附。**

**政府帳目委員會  
審議審計署署長第六十三號報告書第三章  
民航處新總部**

本處提供下列資料以方便委員審議審計署署長第六十三號報告書第三章，而與第三章關連的分段編號，亦有在下文相關部份顯示，以便參照。

提供日後擴展所需的預留地方

**(a) 及(b)** 民航處根據甚麼資料及原因認為 1,500 平方米地方的建築費不高(第 2.16 段)及為什麼當局於 2008 年 1 月提交財務委員會的文件沒有提及額外預留 1,500 平方米地方 (第 2.17 段)

2. 由於民航處在準備文件提交立法會時，當時的理解是在大樓的地基及設計上作出安排，以預留彈性供日後擴展，這樣不會令建築費大增。就此及因為該擴展地方尚未有指定用途，亦未涉及日後預定進行活動的核准人手安排，所以在提交予立法會經濟事務委員會及立法會財務委員會的文件中，只提到已在大樓額外預留地方，以應付日後航空交通增長而進一步擴展的需要。

**(c) 全面檢討民航處辦公地方的使用情況的進度及時間表(第 2.26(c)及 2.30 段)**

3. 民航處現正就辦公地方的使用情況進行全面檢討，預計可於 2015 年 1 月底前完成。檢討結果會提交予政府產業署批准。

**(d) 民航處向政府產業署、運輸及房屋局(運房局)以及產業檢審委員會(產審會)要求預留額外 1,500 平方米擴展地方以應付 2025 年以後航空交通增長的所有相關記錄及他們的回應(第 2.5 段)**

4. 在立法會經濟事務委員會 2007 年 2 月的會議中，委員大致上支持民航處新總部大樓的計劃，並強調民航處的新總部大樓須預留足夠地方，以應付未來航空交通的預測增長。民航處其後與政府產業署會面及重申預留足夠地方以供日後擴展的重要性，以顧及業界快

速增長及在建築時沒有預留足夠地方會局限日後擴展。當時民航處與政府產業署的討論沒有記錄，只有於附件 A 的相關文書。有關的討論亦曾於「民航處新總部大樓計劃督導委員會」在 2007 年 6 月 28 日的內部會議上報告，相關的會議記錄節錄在附件 B。一份由民航處草擬予運房局提交產審會的便箋在附件 C。

(e) 民航處向建築署要求興建額外 1,500 平方米擴展地方的所有有關記錄。(第 2.6 段)

5. 民航處於 2007 年 10 月 3 日向建築署提供《僱主要求》，有關節錄可參閱附件 D。

(f) 民航處如何計算出 3,239.3 平方米及 1,500 平方米擴展地方？請提供有關指引或準則以及預計使用這些地方的時間表( 第 2.9 段及表二)

6. 民航處考慮到要應付日後由於航空交通的預測增長而引致的辦公地方需求，至少到 2025 年，另外亦需要額外地方，供日後原址更換運作中心設備之用，因此擬定需要 3,239.3 平方米的擴展地方。

7. 審計報告表二顯示，這 3,239.3 平方米的擴展地方涵蓋 7 個不同設施項目，即空管中心(540 平方米)、空管中心相關輔助設備、系統和設施(1,200 平方米)、飛機搜救協調中心(100 平方米)、航空通訊網中心(160 平方米)、訓練和考試設施(464 平方米)、運作評估、研究及發展設施(400 平方米)及附屬設施(375.3 平方米)。相同資料亦載於工務小組委員會參考文件內的補充資料，現夾附於附件 E 以作參考。部份上述的擴展地方已被用作擬定的用途。民航處亦有將相關地方暫時存放新空管系統項目第二階段的設備。

8. 有關 1,500 平方米的地方，是以建議面積分配列表 25,380 平方米的 6% 作出估算。而採用 6% 作估算，是基於 2000 年代初飛機升降次數的增長總趨勢所得。

9. 產審會於 2014 年 10 月 24 日批准民航處的申請，使用 1,500 平方米預留地方之中的 926 平方米，以容納 119 名額外員工。至於餘下的 574 平方米，民航處已向政府產業署要求協助尋找其他暫時用家。

## 對偏離核准面積分配列表的監管

### (g) 為什麼民航處隨後未有與政府產業署跟進民航處處長辦公室淋浴設施的要求(第 3.4 段)

10. 於 2007 年 10 月 3 日向建築署呈交《僱主要求》後，民航處專責小組專注於處理撥款申請。加上缺乏恰當的協調和內部溝通，以及需要應付相關的繁重工作，民航處專責小組沒有注意要就此事與政府產業署採取跟進行動。

### (h) 民航處是如何決定把原計劃用作觀景廊的 70 平方米地方改變為多用途室(第 3.6 及 3.17 段)

11. 如審計報告第 3.7 段所述，沿教育徑的一個房間原先計劃作控制塔模擬機觀景廊之用，讓訪客觀看在控制塔模擬機內進行的空管培訓。在控制塔模擬機及觀景廊處於詳細設計階段期間，即 2010 年底時，發現由於新模擬機採用不同技術，訪客不能透過玻璃在原先規劃位於模擬機上一層的觀景廊實時觀看培訓過程。民航處、建築署和「設計與建造」承辦商討論觀景廊的設計時，民航處專責小組提議優化該地方的功能，且在運用時更加靈活，最後得出多用途室的構思。除了接待訪客並播放在控制塔模擬機內進行空管培訓的錄影片段和舉行會議外，多用途室也安裝了鏡面、百葉簾和木地板，以便職員進行康樂活動。決定採納這些改動，是因為其不涉及額外成本。事後看來，此優化工程實屬改變地方用途，民航處應首先向政府產業署申請。

### (i) 為什麼民航處於 2007 年 11 月修改樓房裝修規格表令意外調查員的面積分配列表由 6 間休息室組成(第 3.10(c)及(d)段)

12. 樓房裝修規格表在 2007 年 11 月修改，然而民航處專責小組當時專注於處理撥款申請，加上缺乏恰當的協調和內部溝通，小組沒有注意要就此事與政府產業署採取跟進行動。

## 提供家具及設備

(j) 為什麼在尋求財經事務及庫務局批准採購保安及電子系統時出現 21 個月延誤(第 4.4 段)

13. 民航處認為由於民航處(作為用戶部門)與建築署(作為管制人員及民航處新總部大樓計劃的項目經理)缺乏溝通而導致有關延誤。

14. 將該保安及電子系統項目納入設計及建造合約工程要求之內，是為了系統設計與大樓整體設計互相更加融合，更能掌握所需工程費用，及更有把握總部大樓能準時完工及啟用。根據建築署的意見，民航處明白到按設計及建造的合約要求，承建商須分兩階段提交設計，以採納民航處意見和得到建築署批准。第一階段為原則性批准 (AIP stage)，承建商在這階段要作出整體設計概念和佈局去達到民航處的用家要求以配合未來大樓運作。及後在細節設計批准階段 (DDA stage)，承建商需根據民航處的運作要求及意見繼續深化設計細節，如不同設備、裝置及位置等之設計細節以達到民航處的實際運作需要。因此，所需的設計細節需要在完成細節設計批准階段後才能提交財經事務及庫務局(財庫局)審批。民航處總部之工程非常複雜，細節設計批准階段約在 20 個月內完成。民航處已儘快提交申請。

(k) 有關採購保安及電子系統標書的節錄(第 4.4 段)

15. 相關的標書節錄載於附件 F。

(l) 2012 年 9 月獲財庫局批准的多媒體播放系統設備表(第 4.8 段)

16. 在 2012 年 9 月獲財庫局批准的多媒體播放系統設備表如下-

- 民航處 2009 年 11 月 30 日致財庫局的便箋 - 3075KA 民航處新總部大樓 - 家具及設備採購項目 - 電子系統的申請 (附件 G)
- 民航處提交財庫局審批有關於多媒體播放系統的設備列表 (附件 H)
- 財庫局 2010 年 9 月 3 日致民航處的便箋 - 家具及設備申請的批準 - 3075KA 民航處新總部大樓 - 非標準的家具及設備-電子系統 (附件 I)

\*委員會秘書附註：附件 F 並無在此隨附。

(m) 決定採購多媒體播放系統中 79 部液晶體顯示器的過程及最終批核當局 (第 4.8(a) 及(b)段)

17. 有關液晶體顯示器的採購及相關要求，民航處委託機電工程營運基金作項目執行代理，其亦為民航處的電氣，機械及電子設備的內部技術服務提供者。該營運基金根據民航處專責小組綜合各民航處分部的運作要求，以及民航處總部大樓樓房裝修規格表，作出初步設計。機電工程營運基金於 2011 年初將初步設計介紹給民航處各分部用家，進一步收集意見。液晶體顯示器和放映機的數量及要求經與機電工程營運基金檢討後作出調整，並將其納入"民航處總部大樓影音設備"的標書內。機電工程營運基金諮詢民航處專責小組有關標書內容是否符合用家要求及確認撥款後，依照政府物料供應及採購規例進行招標及批出合約。工程合約於 2011 年 10 月批出。

(n) 檢討多媒體播放系統中液晶體顯示器的運作需要時所採用的準則 (第 4.8(c)段)

18. 檢討多媒體播放系統中的液晶體顯示器的運作需求準則，是根據包括民航處各分部的運作要求、房間佈局及大小、機電工程營運基金的專業意見等，而定出採購液晶體顯示器的數量及相關要求。就會議室內的需要，民航處大致上認為小型會議室可設置 1 台液晶體顯示器或 1 台放映機；視乎房間佈局及大小，座位安排和運作需要，中型會議室適合設置 1 台液晶體顯示器及 1 台放映機，而大型會議室適合設置多台液晶體顯示器及多台放映機的組合。

(o) 提升設備用途的 7 部液晶體顯示器的尺寸 (第 4.2 段)

19. 7 台用作提升設備用途的液晶體顯示器包括 5 台 46 吋及 2 台 55 吋液晶體顯示器。

### 提供及使用停車位

(p) 民航處如何把使用率偏低的停車位得以善用(第 5.15 及 5.18 段)

20. 民航處已向政府產業署尋求協助，把停車位讓其他政府部

門暫時使用。此外，如有需要，部份停車地方可改作貯物用途，以方便政府產業署選定暫時用家。這兩項措施，應可把使用率偏低的停車位予以善用。民航處會與政府產業署就此繼續努力。而且，民航處預期當新航空交通管制(空管)中心開始運作，民航處空管人員及相關的服務提供者遷入民航處總部大樓後，新民航處總部的停車位使用率將會進一步提高。

## 其他

### **(q) 專責小組的成員及該小組對籌備及執行民航處新總部大樓工程項目，有否履行職責作有效監管**

21. 為確保民航處新總部工程項目能夠暢順及如期完成，民航處於 2007 年 5 月獲得立法會財務委員會批准設立一個民航處助理處長職位後，在 2007 年 10 月 1 日成立了一個專責小組，由該名助理處長領導。該名助理處長職位在 2007 至 2013 年設立，而 21 位小組成員的公務員職位，經由政府內部資源分配工作調撥資源，屬有時限性質，當中包括 19 位航空交通管制主任以及兩位電子工程師。其他小組成員是在不同時段於民航處內部暫時調配的現職人員或以非公務員合約條款聘用的人員。此外，分別從建築署及機電工程署暫時借調高級建築師及高級機電工程師各一名，為專責小組提供專業意見。

22. 對於民航處職員來說，民航處新總部是一項嶄新的樓宇建造項目。我們知悉及同意審計報告指出的一些違規情況，並會採取相應的改善措施。然而，民航處新總部大樓工程項目能夠如期完成及工程費用亦在批准撥款之內，而且部門自 2012 年總部搬遷後的過去兩年一直運作暢順，實有賴於整個專責小組的共同努力，盡責地監管及協調整個工程項目每一個工作的籌備及執行。

23. 該名助理處長的有時限職位由 2007 年 10 月 1 日開設，直至 2013 年 3 月 31 日為止。在這 5 年 6 個月期間，擔任該職位的人員執行了在經濟事務委員會討論文件(R63/4/INFO3 附件 D)所包括的職務，詳列如下 -

- (i) 該名助理處長領導專責小組，負責監察和統籌民航處新總部樓宇工程項目。因應項目的規模及複雜性，民航處成立了 16 個工作小組處理工程项目的重要範疇，確保工程能順利推行。該 16 個工作小組的詳細名單可參閱附件 J。

- (ii) 該名助理處長就工程項目的推行情況與有關政策局/部門及非政府機構保持緊密聯繫。審計報告指出，如果民航處能及早與相關政策局/部門釐清不確定的事情，部分不足之處是有可能避免的。這方面有可待改善的地方。
- (iii) 該名助理處長統籌民航處各分部的意見及與有關政策局/部門緊密聯繫，確保興建民航處總部所需的招標工作(例如擬備招標文件、評審標書和批出合約)能夠如期進行。然而審計報告所指出的部分不足之處，是由於專責小組統籌各分部的意見及擬備最後面積分配列表時的疏忽所導致。此外，在核對擬議項目與最終獲批准項目之處，亦有改進的空間。
- (iv) 該名助理處長協調各分部的工作，確保民航處新總部大樓的新空管中心有合適的辦公地方及保安。由於新空管中心延期啟用，該名助理處長未能在該職位於 2013 年 3 月 31 日完結前，完成規劃及執行現時空管系統的過渡計劃。
- (v) 該名助理處長監察民航處總部的建築過程，務求盡早發現並糾正任何工程延誤、設計與《僱主要求》不符及建築紕漏，確保建築工程如期完工，達到部門的要求。
- (vi) 該名助理處長就新大樓管理合約的內容，包括大樓管理、保養及保安方面，提供意見及指導。該名助理處長亦擔任有關服務供應商遴選委員會主席。
- (vii) 該名助理處長定期就民航處新總部大樓工程提供報告予民航處處長、民航處副處長及所隸屬的政策局。
- (viii) 該名助理處長舉辦簡介會，與業界(如國際航空運輸協會、香港航空公司代表協會，及本地的航空公司和飛機維修公司等)匯報大樓工程及新空管系統進展情況，致力回應他們關注的問題。

M E M O

<u>From</u>	Government Property Administrator	<u>To</u>	Director-General of Civil Aviation
<u>Ref.</u>	(13) in MS/SPB/6870/5/6 Pt.2	<u>(Attn.:</u>	Miss Priscilla LAM
<u>Tel. No.</u>	2594 7665		
<u>Fax No.</u>	2877 7607		
<u>Email</u>	Wilson Y CHAN/GPA/HKSARG	<u>Your ref.:</u>	WKS/146
<u>Date</u>	20 August 2007	<u>Fax No.</u>	2326 3654
		<u>Dated</u>	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	No. of staff shown in your proposed SoA	No. of staff shown in your proposed SoA with “*”	Total staff on Day 1 (According to your proposal, “*” means new post/ requirement on Day 1)	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

\*委員會秘書附註：附件 A-I 只備英文本。

<b>Item</b>	<b>Rank</b>	<b>Estab. As at 1.9.2013 as shown in your Estab. table</b>	<b>No. of staff shown in your proposed SoA</b>	<b>No. of staff shown in your proposed SoA with “*”</b>	<b>Total staff on Day 1 (According to your proposal, “*” means new post/ requirement on Day 1)</b>	<b>GPA's Remarks (as at 20.8.2007)</b>
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.

## 附件 C

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       Encr

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

<i>From</i> Secretary for Transport and Housing	<i>To</i> Chair, Property Vetting Committee (Attn: Mr. Eddy CHEUNG)
<i>Ref.</i> ( ) in	<i>Your Ref.</i> ( ) in
<i>Tel. No.</i> _____	<i>Fax. No.</i> _____
<i>Date</i> XX September 2007	<i>dated</i> _____  <i>Your Fax. No.</i> 2801 4706 <i>TOTAL PAGES</i> 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 DArchS	(Attn: Mr. Leo YIM (Attn: Mr. Ian DICKINSON & (Attn: Mr. M. O. CHONG	Fax: 2147 5237) Fax: 2804 6805) Fax: 2804 6805)
	GPA	(Attn: Mr. K. K. HO & (Attn: Mr. Wilson CHAN	Fax: 2877 7607) Fax: 2877 7607)
	DGCA	(Attn: Miss Priscilla LAM	Fax: 2326 3654)

**DRAFT**

## 附件 D

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,  
Cc: chowwfj@archsd.gov.hk, fungsmm...

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  
fungsmm@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 subdivided 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 PWSCI(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> )
<b>(A) Offices (for staff)</b>	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	
Sub-total	3 422.0	8 922.5	2 000.0	10 922.5
<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		

	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.

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

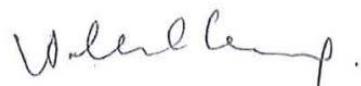
	\$M
(a) Multi-media Presentation System.	16.985
(b) Simultaneous Interpretation System	3.981
(c) Radio Frequency Identification Library Management System	1.005
(d) Integrated Information Display System	1.989
Total :	23.960

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.

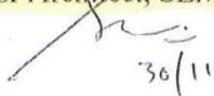
7. If you need further information, please feel free to contact me or our Senior Engineer, Mr. Ronald Tang at 2867 4278.



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

Encl.

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

  
36(1)

## Appendix I (a)

### (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

Equipment/Facilities	Unit Rate \$'000	Qty	Subtotal \$'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>16,985</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.

**Appendix I(b)****(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**

Equipment/Facilities	Unit Rate \$'000	Qty	Subtotal \$'000
(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>3,981</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.

**Appendix I(c)**

**(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> \$'000	<b>Qty</b>	<b>Subtotal</b> \$'000
(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
Total (i) to (viii)			<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</b> \$'000	<b>Qty</b>	<b>Subtotal</b> \$'000
(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.

## 附件 H

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

To Iris PY HO/TSYR/HKSARG@TSYR  
cc Kay KR KWOK/TI/IR/HKSARG@TID  
Ronald WH Tang/CAD/HKSARC@CAD  
Helen MN Ng/CAD/HKSARC@CAD  
Subject: 30/5KA New CAD Hqs building - Procurement of F&E  
Cc: Items-Electronic Systems

Dear Iris,

We spoke regarding CAD's submission in the attached () and should be grateful if you would expedite action on 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 AW Nuy DS - Full version.xls

Extract from the file of "Budget Estimate for CAD HQ AV Nov 09 - Full version"  
 節錄自"Budget Estimate for CAD HQ AV Nov 09 - Full version"的檔案

## **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
Total (Item 1 to 7)				<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. Multi-media Presentation System (at Large 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	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. Mutli-media Presentation System (at Medium 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	2,500	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. Multi-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)**

	Equipment/Facilities	Unit ate [A]	Qty [B]	EMSTF Charges [C]	Subtotal [A]*[B] + [C]
<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)**

	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	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

<u>M E M O</u>	
<i>From</i>	Secretary for Financial Services and the Treasury
<i>Ref.</i>	12 in 25/41/152 Pt.2
<i>Tel. No.</i>	2810 2820
<i>Fax No.</i>	2541 9873
<i>Date</i>	3 September 2010
<i>To</i>	Director – General of Civil Aviation
<i>Attn. :</i>	Mr Ronald TANG )
<i>Your Ref.</i>	in CAD FD F/4-45/6
<i>Dated</i>	30.11.2009 <i>Fax No.</i> 2973 0690

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 -
- (a) 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;
  - (b) the proper procedures in accordance with the Stores and Procurement Regulations are followed; and
  - (c) 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  
空域管理和飛行程序
- 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