

# 立法會 *Legislative Council*

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## **Panel on Education**

**Updated background brief prepared by the Legislative Council Secretariat  
for the meeting on 9 November 2009**

### **Capital works projects for the implementation of four-year undergraduate programmes in the University Grants Committee-funded institutions**

#### **Purpose**

This paper sets out the concerns of members regarding the capital works projects for the University Grants Committee (UGC)-funded institutions to implement the new four-year undergraduate programmes under the new academic structure for higher education.

#### **Background**

2. Under the new academic structure for senior secondary and higher education implemented in the 2009-2010 school year, there are three-year senior secondary education and four-year undergraduate programmes (the 334 structure). As the overall undergraduate enrolment will increase, the UGC-funded institutions will need to expand their campus facilities correspondingly. In the first consultation document entitled "*Reforming the Academic Structure for Senior Secondary Education and Higher Education*" published on 20 October 2004, the Administration estimated that about \$3.4 billion would be required for the construction of additional complexes and facilities to accommodate undergraduate students pursuing an extra year of undergraduate programmes. In the Report entitled "*The New Academic Structure for Senior Secondary Education and Higher Education - Action Plan for Investing in the Future of Hong Kong*" published in May 2005, the Administration indicated that the original estimate of \$3.4 billion for carrying out the necessary capital works projects for the UGC-funded institutions was on the low side having regard to site constraints in some institutions and complexities of large-scale campus developments. Taking into account the modification works required for some schools and some training centres of vocational training institutions, the Administration revised the estimated

capital works expenditure for the 334 structure from \$3.4 billion to \$3.5 billion.

3. In the context of the 2008-2009 Policy Briefing, the Administration advised that 12 capital works projects related to the 334 structure were needed for the UGC-funded institutions with earmarked funding of about \$6 billion. A list of the 12 projects is in **Appendix I**.

### **Members' concerns**

4. The Panel on Education had discussed the following capital works projects for the implementation of the four-year undergraduate programmes in the UGC funded institutions -

- (a) the Baptist University Road campus development for the Hong Kong Baptist University;
- (b) development of Centennial Campus, Phases 1 and 2 by the University of Hong Kong;
- (c) phase 8 development by the Hong Kong Polytechnic University;
- (d) development of a new academic building by the Hong Kong University of Science and Technology;
- (e) development of an academic and administration building by the City University of Hong Kong; and
- (f) development of a centralized general research laboratory complex (Block 1) and extension to the existing University Library at Central Campus by the Chinese University of Hong Kong (CUHK).

5. The Panel noted the information papers on four other projects provided by the Administration before their submission to the Public Works Subcommittee (PWSC) and the Finance Committee (FC) for funding approval. They were the projects for the extension to the Academic Building of the Hong Kong University of Science and Technology, the Student Amenity Centre of CUHK, and the Academic Block and Student Hostel for the Lingnan University.

6. In the course of discussions on individual projects, members had raised concern relevant to all 334-related capital works projects for the UGC-funded institutions. These concerns are summarized in the following paragraphs.

### Funding for the capital works projects

7. Noting the earmarked funding of about \$6 billion for the 12 projects, members

were concerned whether an estimated budget had been set for each of the UGC-funded institutions for carrying out capital works projects for the implementation of the new four-year undergraduate programmes. They sought information on the original and latest estimates of the 12 projects.

8. The Administration advised that based on the latest forecast, the total estimated cost of the 12 projects would increase from the original estimate of about \$3.4 billion in 2004-2005 prices to around \$4.9 billion in 2008 prices. The original estimated costs were made in 2004 and 2005 by the UGC-funded institutions based on the prevailing market price at the time for planning purpose. The projected costs were updated from time to time during the detailed design process of the projects, as and when updated information was available. When compared with the original estimated costs, the latest projected costs/estimates of the 12 projects had increased by about 70%. The original and latest estimated costs of the projects are in **Appendix II**.

9. Members sought information on the reasons for the increased estimated costs and the parties concerned for shouldering the additional costs. The Administration explained that the adjustments were mainly attributed to the significant increases in construction material prices and changes in market sentiments from the date of the original estimated costs in 2004 and 2005. There were steady increases in construction material prices since 2004, but the increase had accelerated from mid-2007 onwards. For example, the Architectural Services Tender Prices Index for the third quarter of 2008 had increased by almost 100% compared to the third quarter of 2004. In some cases, the project costs might need to be adjusted after site investigation data was available and with the completion of detailed design. For instance, additional site formation works including slope upgrading works, or deep foundation requiring longer piles might be required to meet the site constraints. The UGC-funded institutions would in such cases give careful consideration at the detailed design stage to ensure that the increase in projected costs was genuinely necessary and reasonable.

10. The Administration stressed that the provision of campus space for the UGC-funded institutions was calculated on the basis of student number in accordance with the prescribed accommodation standards. The funding for the capital works projects for the UGC-funded institutions was based on the provision of standard facilities as laid down in the established formula. The institutions would have to shoulder the costs for the construction of any additional/enhanced facilities.

#### Provision for price adjustment

11. Members noted that under the existing Government practice, monthly payments to contractors for Government civil engineering and building contracts were adjusted to cover market fluctuations in labour and material costs, which were known as contract price fluctuation (CPF) payment. The CPF payment was calculated based on the difference between the indices of costs of construction labour and materials at

the time of tendering and the current values of these indices at the time of payment in accordance with a predetermined relative proportion of each cost index. Given the prevailing economic downturns, members were of the view that the costs of construction materials and labour would probably decline in the foreseeable future. They were concerned about the provision for price adjustment in the 334-related projects.

12. The Administration explained that it had agreed with the UGC-funded institutions to adopt CPF payments for their capital works projects to ensure cost-effective use of public funds in the light of the prevailing economic downturns. The CPF payment allowed for upward/downward adjustment to contract payments in accordance with movements in the cost of labour and materials in Government civil engineering and building contracts. The objective of this system was for equitable risk sharing between the Government as an employer and the contractor. However, in the event of a rapid increase in labour and material costs in future, the actual costs of the capital works projects for implementing the 334 structure might exceed the approved project estimates. In such circumstances, the Administration would propose additional provision for the institutions concerned. The institutions concerned would have to bear the additional costs should the additional provision not be approved by FC.

#### Monitoring of works

13. Members queried how UGC with its existing manpower resources could closely monitor the concurrent implementation of a large number of capital works projects for the UGC sector. There was a view that if UGC could not oversee these capital works projects, a third party should be appointed to closely monitor the use of public resources.

14. UGC acknowledged that it could not actively monitor the implementation of the capital works projects for the UGC sector. In its view, the responsibility rested with the institutions concerned which would appoint a project manager for each project to oversee its completion within the estimated timeframe. As at January 2009, all capital works projects for the 334 structure were almost ready for tendering. Barring unforeseen problems, these projects would be completed in time to tie in with the implementation of the 334 structure. UGC would receive quarterly progress reports of individual projects and requests for payments. UGC would arrange for payment to the institutions concerned taking account of the progress of the project.

#### Land sites for the projects

15. Members also expressed concern about the availability of suitable land sites for the construction of additional campus buildings and facilities to support the implementation of the 334 structure and the policy commitment to develop Hong Kong into a regional education hub. As a number of the UGC-funded institutions were located in the urban areas, members urged the Administration to consider

providing land sites outside the campuses of the institutions for the construction of additional buildings and student hostels.

16. The Administration assured members that it would continue to search and identify appropriate sites for the construction of buildings and hostels for use by the higher education sector. One of the potential sites was the Lok Ma Chau Loop. At the request of the Panel, the Administration provided information on the locations of the land sites for the 12 capital works projects in **Appendix III**. Members noted that seven projects were within campus and five were located at sites outside campus.

#### Environmental measures for the projects

17. In considering the funding application for the project for the extension to the Academic Building of the Hong Kong University of Science and Technology at the PWSC meeting on 21 December 2007, members sought information on the environmental friendly and energy conservation measures adopted. They in general considered that energy conservation design was worth-pursuing even at a higher capital cost given the potential benefits to the environment and the savings in energy consumption in the longer run. Members were of the view that information on the financial implications of implementing environmental friendly and energy conservation measures in capital works projects should be provided by the Administration when seeking funding approval.

18. Of the various projects, members noted in particular the environmental concerns about the extension to the existing University Library at Central Campus of CUHK. Some staff members were concerned about the in-situ preservation of the Beacon and protection of house swifts nesting on the facades of the existing University Library. Members were given to understand that CUHK had adjusted the footprint and would provide new nests at the other side of the University Library for house swifts to migrate before commencement of works. In response to members' request, CUHK provided detailed written information on facilities in relation to conservation, environmental protection and natural lighting about the project.

#### Schedule for implementing the projects

19. Given the implementation of the four-year undergraduate programmes in the 2012-2013 academic year, members urged the Administration to expedite the funding approval process of the 334-related projects. Members pointed out that early commencement of the projects would create employment opportunities and their early completion would allow the institutions sufficient time to make preparation. They enquired about the feasibility of setting a deadline for the submission of the remaining 334-related capital works projects to the Panel for consideration.

20. The Administration advised that the capital works projects would be submitted to the Panel, PWSC and FC for funding approval at the earliest possible dates. To expedite the commencement of these projects, the institutions concerned might apply

to the Secretary for Education for approval to start the works-related tendering and selection of consultant procedures after endorsement of the projects by PWSC but before obtaining funding approval by FC. This would expedite the tendering process by four to five weeks. The Administration had been working closely with UGC and relevant departments to expedite the submission of proposals to the Panel for consideration. As there were other aspects of consideration such as preservation of heritage and rare species of trees that needed to be tackled before submission of a proposal, the Administration considered it inappropriate to set a deadline for the submission of the funding proposals for the 334-related projects.

#### Matching grants for private donations for campus developments

21. In discussing the Second Matching Grant Scheme for the UGC-funded institutions at the Panel meeting on 20 June 2005, members noted that donations for the construction of buildings on campus could be matched provided that the matching grants were used on activities within the ambit of UGC recurrent grants or scholarships. Members were concerned whether the relaxation was intended to supplement the need for additional buildings and facilities for the implementation of four-year undergraduate programmes.

22. According to the Administration, the relaxation aimed to facilitate campus development of the institutions, having regard to their long-term plans which might go beyond the basic requirements in support of the new academic structure for higher education.

#### **Relevant papers**

23. A list of the relevant papers on the Legislative Council website is in **Appendix IV**.

## List of the 334-related capital works projects for the UGC-funded institutions

<b>Institution</b>	<b>Project name</b>
CityU	Academic and Administration Building
HKBU	Baptist University Road Campus Development, Phase I
LU	New Academic Block
	New Student Hostel
PolyU	Phase 8 Development
CUHK	An Integrated Teaching Building
	Centralized General Research Lab Complex (Block 1) at Area 39
	Extension to the existing University Library
	Student Amenity Centre
HKUST	New Academic Building
	Extension to the existing Academic Building
HKU	Centennial Campus Phase I

Abbreviation

- CityU - City University of Hong Kong  
 HKBU - The Hong Kong Baptist University  
 LU - Lingnan University  
 PolyU - The Hong Kong Polytechnic University  
 CUHK - The Chinese University of Hong Kong  
 HKUST - The Hong Kong University of Science and Technology  
 HKU - The University of Hong Kong

Source : Extracted from LC Paper No. CB(2)434/08-09(01) provided by the Education Bureau on 5 December 2008.

## Original and latest estimated costs of the 334-related capital works projects for the UGC-funded institutions

(\$ million)

Institution	Project name	Original Estimated Cost	Projected Cost <sup>a</sup>	Latest Project Estimate <sup>b</sup>	
		(in Sept. 2004 or 2005 prices <sup>c</sup> )	(in Sept. 2008 prices)	(in Sept.2008 prices)	(in MOD prices) <sup>b</sup>
CityU	Academic and Administration Building <sup>d</sup>	571.0	978.9	824.9	888.5
HKBU	Baptist University Road Campus Development, Phase I	239.7	410.9	380.9 <sup>e</sup>	425.5 <sup>e</sup>
LU	New Academic Block <sup>f</sup>	122.0	214.5	204.5	216.0
	New Student Hostel <sup>d,f</sup>				
PolyU	Phase 8 Development <sup>d</sup>	760.4	1,303.6	1,256.4	1,337.4
CUHK	An Integrated Teaching Building	114.5	199.4	172.3 <sup>g</sup>	179.2
	Centralized General Research Lab Complex (Block 1)	255.6	445.2	429.8	455.8
	Extension to the existing University Library	161.6	281.5	234.8	251.7
	Student Amenity Centre	107.7	187.6	188.9	206.5

Abbreviations

CityU - City University of Hong Kong; HKBU - The Hong Kong Baptist University; LU - Lingnan University; PolyU - The Hong Kong Polytechnic University; CUHK - The Chinese University of Hong Kong; HKUST - The Hong Kong University of Science and Technology; HKU - The University of Hong Kong

<sup>a</sup> Estimation of the projected costs has taken into account the changes in market prices and sentiments from the date of the original cost estimates in 2004 and 2005, as well as new development from the detailed design process. The estimated costs are presented in September 2008 prices such that the project costs can be readily compared at the same price level. The cost estimates of these projects will be reviewed and updated to reflect the latest market rates before funding applications are submitted to the Legislative Council.

<sup>b</sup> The latest project estimates listed here have taken into account the current economic situation and prevailing construction prices, and have been submitted to the Panel on Education or Public Works Subcommittee (PWSC). The funding submissions to the PWSC will be converted to the money-of-the-day (MOD) prices using Government's latest forecast of trend rate of change in the prices of public sector building and construction output.

<sup>c</sup> The projects of CityU, HKBU and PolyU are shown in September 2005 prices according to the revised proposals submitted by the institutions.

<sup>d</sup> Apart from meeting the additional needs arising from "3+3+4" in 2012/13, the projects of CityU, LU (hostel) and PolyU also include provision for meeting their immediate shortfall and hence the project estimates are shown according to the proposals of the expanded scope.

<sup>e</sup> The project was combined with Baptist University Road Campus Development Phase II project, which is for meeting the existing space shortfall, in October 2008. The total latest project estimate of the two phases is \$945.1 million in MOD prices.

<sup>f</sup> LU's New Academic Block and New Student Hostel projects were combined in January 2008.

<sup>g</sup> The latest project estimate of CUHK's An Integrated Teaching Building is in September 2009 prices.

Institution	Project name	Original Estimated Cost	Projected Cost	Latest Project Estimate	
		(in Sept. 2004 or 2005 prices )	(in Sept. 2008 prices)	(in Sept.2008 prices)	(in MOD prices)
HKUST	New Academic Building	384.2	669.2	627.6	668.5
	Extension to the existing Academic Building	80.4	90.8 <sup>h</sup>	110.7	116.1
HKU	Centennial Campus Phase I	630.0	1,097.4	1,027.9	1,099.8 <sup>i</sup>
Total		3,427.1 <sup>j</sup>	5,879.0 <sup>j</sup>	- <sup>k</sup>	-

#### Abbreviations

CityU - City University of Hong Kong; HKBU - The Hong Kong Baptist University; LU - Lingnan University; PolyU - The Hong Kong Polytechnic University; CUHK - The Chinese University of Hong Kong; HKUST - The Hong Kong University of Science and Technology; HKU - The University of Hong Kong

<sup>h</sup> The extension to the existing Academic Building of HKUST was approved by the Finance Committee in January 2008. The projected cost above was expressed in September 2007 prices.

<sup>i</sup> This project will be carried out at the same time with the Centennial Campus Phase II project, which aims to relieve the existing space shortfall. The latest estimate of total funding provided by the Government for the two projects is \$2,003.72 million (in MOD prices).

<sup>j</sup> The total amount also includes the funding required for meeting the existing shortfall of CityU, LU (hostel) and PolyU. If we take into account those provisions for “3+3+4” purpose only, the original and latest projected costs are around \$2.9 billion (in 2004/2005 prices) and \$4.9 billion (in 2008 prices) respectively.

<sup>k</sup> Except CHUK’s An Integrated Teaching Building, the other 11 projects have been submitted to the Panel on Education, the PWSC and the FC. The total of the latest project estimates of these 11 projects is around \$5.29 billion (in September 2008 prices) or \$56.5 billion (in MOD prices).

## Land sites of the capital works projects

<b>Institution</b>	<b>Project name</b>	<b>Location</b>
CityU	Academic and Administration Building	Within campus
HKBU	Baptist University Road Campus Development, Phase I	Within campus
LU	New Academic Block	Outside campus ^
	New Student Hostel	Outside campus ^
PolyU	Phase 8 Development	Outside campus #
CUHK	An Integrated Teaching Building	Within campus
	Centralized General Research Lab Complex (Block 1) at Area 39	Outside campus *
	Extension to the existing University Library	Within campus
	Student Amenity Centre	Within campus
HKUST	New Academic Building	Within campus
	Extension to the existing Academic Building	Within campus
HKU	Centennial Campus Phase I	Outside campus @

^ The site is at Tuen Kwai Road adjacent to the University campus.

# The site is at the junction of Chatham Road South and Princess Margaret Road.

\* The site is at Area 39, Pak Shek Kok.

@ The site is at the western side of the campus.

Source : Extracted from LC Paper No. CB(2)434/08-09(01) provided by the Education Bureau on 5 December 2008.

**Relevant papers on capital works projects for the implementation  
of four-year undergraduate programmes in the  
University Grants Committee-funded institutions**

<b>Meeting</b>	<b>Date of meeting</b>	<b>Paper</b>
Panel on Education	20.6.2005 (Item I)	<a href="#">Minutes</a> <a href="#">Agenda</a>
Public Works Subcommittee	21.12.2007	<a href="#">Minutes</a> <a href="#">Agenda</a>  [LC Paper No. PWSC44/07-08] <a href="#">Supplementary information on 11EL - Extension to the existing Academic Building, The Hong Kong University of Science and Technology</a>
Finance Committee	11.1.2008	<a href="#">Minutes</a> <a href="#">Agenda</a>
Panel on Education	23.10.2008	<a href="#">Minutes</a> <a href="#">Agenda</a>
Panel on Education	10.11.2008 (Item VI)	<a href="#">Minutes</a> <a href="#">Agenda</a>  [LC Paper No. CB(2)434/08-09(01)] <a href="#">Administration's paper on capital works projects for the University Grants Committee-funded institutions dated 5 December 2008</a>
Public Works Subcommittee	15.12.2008	<a href="#">Agenda</a> <a href="#">PWSC(2008-09)53</a>
Panel on Education	12.1.2009 (Item IV)	<a href="#">Minutes</a> <a href="#">Agenda</a>
Panel on Education	9.2.2009 (Item IV)	<a href="#">Minutes</a> <a href="#">Agenda</a>

<b>Meeting</b>	<b>Date of meeting</b>	<b>Paper</b>
Public Works Subcommittee	11.2.2009	<a href="#">Minutes</a> <a href="#">Agenda</a>
Panel on Education	9.3.2009 (Item V)	<a href="#">Minutes</a> <a href="#">Agenda</a>
Public Works Subcommittee	8.4.2009	<a href="#">Agenda</a>
Finance Committee	24.4.2009	<a href="#">Agenda</a> <a href="#">FCR(2009-10)2</a>
Panel on Education	11.5.2009 (Item IV)	<a href="#">Minutes</a> <a href="#">Agenda</a>
Public Works Subcommittee	3.6.2009	<a href="#">Minutes</a> <a href="#">PWSC(2009-10)38</a> <a href="#">PWSC(2009-10)39</a>
Public Works Subcommittee	15.6.2009	<a href="#">Minutes</a> <a href="#">PWSC(2009-10)62</a>
Finance Committee	19.6.2009	Minutes <a href="#">FCR(2009-10)25</a>
Finance Committee	3.7.2009	Minutes <a href="#">FCR(2009-10)31</a>

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