

## **ITEM FOR PUBLIC WORKS SUBCOMMITTEE OF FINANCE COMMITTEE**

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

#### **Subventions – Miscellaneous**

#### **21QJ – An upfront endowment to the West Kowloon Cultural District Authority for developing the West Kowloon Cultural District**

Members are invited to recommend to Finance Committee that a one-off upfront endowment of \$21.6 billion (in 2008 Net Present Value which is equivalent to \$21.6 billion in money-of-the-day prices) be given to the West Kowloon Cultural District Authority upon its establishment in 2008 to implement the WKCD project.

### **PROBLEM**

We need to provide adequate resources to the West Kowloon Cultural District Authority (WKCD) to implement the West Kowloon Cultural District (WKCD) project.

### **PROPOSAL**

2. The Secretary for Home Affairs proposes to upgrade **21QJ** to Category A at an estimated cost of \$21.6 billion (in 2008 Net Present Value (NPV) which is equivalent to \$21.6 billion in money-of-the-day (MOD) prices) to provide a one-off upfront endowment to the WKCD to implement the WKCD project. The upfront endowment will cover the capital costs of the WKCD project. **/PROJECT .....**

## PROJECT SCOPE AND NATURE

3. Adopting the recommendations of the Consultative Committee on the Core Arts and Cultural Facilities of the WKCD (Consultative Committee) which was appointed by the Chief Executive in April 2006, and having regard to the results of the Public Engagement (PE) Exercise from September to December 2007, we are planning to develop an integrated arts and cultural district with a specified number and type of core arts and cultural facilities, retail, dining and entertainment facilities, communal and ancillary facilities on a harbourfront site of 40 hectares (ha) in West Kowloon. We would also set up a statutory organization—the WKCDA, subject to the passage of the legislation in the Legislative Council (LegCo) to implement the project. As regards the financial arrangements, we will adopt a prudent and transparent financing approach for the WKCD, as follows –

- (a) finance the capital costs of the WKCD project through an upfront endowment appropriated by the LegCo; and
- (b) vest the retail/dining/entertainment (RDE) part of the commercial sites in the WKCDA to provide a steady source of recurrent income through rental proceeds to meet the operating deficits of the Core Arts and Cultural Facilities (CACF) and related facilities.

The Consultative Committee's Recommendation Report was published in September 2007 and is available on Home Affairs Bureau (HAB)'s web site <http://www.hab.gov.hk/wkcd>.

4. The one-off upfront endowment to the WKCDA, which will be set up subject to the passage of the legislation in the Legislative Council (LegCo) to implement the project, is to cover the capital costs of the following component parts of the WKCD project –

- (a) planning, design and construction of the following facilities –
  - (i) CACF – which comprise 15 performing arts venues to be developed in two phases (12 venues for Phase I and three venues for Phase II), a cultural institution with museum functions

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temporarily called **M+** (or Museum Plus)<sup>1</sup>, focusing on 20<sup>th</sup> to 21<sup>st</sup> century visual culture, an Exhibition Centre with focus on arts and culture and creative industries, and three ha of piazza areas for outdoor performances. Details of the CACF are set out in Enclosure 1;

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- (ii) other arts and cultural facilities (OACF) – which include accommodation space for conferences/events, etc., offices and ancillary facilities for arts and cultural organizations/groups, arts and cultural information centre, as well as the WKCDA;
  - (iii) retail, dining and entertainment (RDE) facilities;
  - (iv) transport facilities which include an automated people mover (“APM”) system (or other passenger transportation system) and public car parking facilities;
  - (v) 23 ha public open space including three ha of piazza areas;
  - (b) major repair and renovation of the facilities mentioned in paragraph 4(a). These cover periodic major repair and renovation of the facilities mentioned in paragraph 4(a) above at different intervals over the 50-year project period;
  - (c) collection, exhibition development, conservation laboratory equipment and library setup for the **M+**, which cover –
    - (i) initial acquisition of collection and annual collection thereafter;
    - (ii) periodic fabrication of the exhibition galleries of the **M+**;

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The **M+** includes the construction and related land acquisition for off-site conservation laboratory and storage facilities. (See paragraph 39)

- (iii) acquisition of conservation laboratory equipment and library setup costs;
- (d) planning of the WKCD and project management which include the following areas –
  - (i) preparation of a development plan for the whole WKCD site. The costs include mainly consultancy, technical studies, public consultations and related expenses; and
  - (ii) project management during the planning and construction stage of Phase I (estimated to be seven years from 2008/9 to 2014/15).

5. The other communal and government facilities and related engineering works, such as roads, drainage, fire station, public pier, etc. which are designed to support the whole WKCD (including residential, commercial and hotel developments) will be undertaken by the Government. Funding approval for such works will be sought separately.

## JUSTIFICATION

6. The WKCD project is a major initiative to implement the Government's policy on arts and culture by meeting the long-term infrastructural and development needs of Hong Kong's arts and culture. It also serves to meet the acute shortage in performing arts venues. It is an important strategic investment in arts and culture for the future of Hong Kong. This kind of investment should be forward looking and vision-driven, and should not be assessed in terms of financial returns. The vision and objectives of the WKCD project are to develop an integrated arts and cultural district with world-class arts and cultural facilities, distinguished talents, iconic architectures, and quality programmes with a must-visit appeal to the local people and tourists.

7. The Financial Matters Advisory Group (FMAG) under the Consultative Committee was tasked to assess the financial implications of developing and operating the proposed arts and cultural facilities and related facilities of the WKCD. The FMAG members consist of individuals with knowledge and experience in finance, business, architecture, as well as arts and cultural background. HAB engaged GHK (Hong Kong) Limited as Financial

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Advisor (FA) to assist in assessing the financial implications of the project. The FA has fielded a strong multi-disciplinary team to work on the consultancy. Its team consists of financial experts, public private partnership (PPP) experts, performing arts venue and museum advisors and architects, engineering experts, quantity surveyors and land and property market specialists.

### *Recommended Financing Approach*

8. The key findings of the FA's financial analysis are as follows –

- (a) None of the proposed arts and cultural facilities is financially self-sustainable (taking both capital and operating costs into account);
- (b) Only two venues might operate with a surplus—the Exhibition Centre and the Mega Performance Venue;
- (c) There would be a significant funding gap (excess of estimated total capital costs and operating deficits over estimated land premium of the commercial and residential sites in WKCD) if we were to take on board all the initial recommendations on the CACF made by the Performing Arts and Tourism Advisory Group (PATAG) and the Museums Advisory Group (MAG) under the Consultative Committee, and fully adhere to the initial development mix; and
- (d) The WKCDA may consider different modes of Public Private Partnership (PPP) in the development and operation of the arts and cultural facilities with reference to their distinctive features. As revealed from the FA's market sentiment testing exercise, there is very limited market interest in participating in life-cycle (i.e. from design and construction to operation and maintenance) Public Private Partnership (PPP) arrangements owing to expected construction and operating risks and deficits. Moreover, there is a lack of competent market players. Instead, Private Sector Involvement (PSI) in operations with operating subsidies would have more potential to attract private sector interest. As a result, most procurement of the facilities should take the form of Design and Build contracts, and separate operation and management contracts.

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The above findings are in line with relevant international experience which indicates that arts and cultural facilities are typically loss-making and require significant public subsidies in both capital and operating costs. There should also be sufficient recurrent income to sustain the long-term operation of the facilities.

9. Taking into account the above findings, the FMAG concluded that there was very limited scope for the WKCD project to pursue PSI scenarios that adopt a life-cycle PPP approach requiring the private sector to finance the development and maintenance of the facilities, and to operate the facilities over a long period of time. There is also limited scope for cross-subsidy between venues. As such, a PSI approach whereby the private sector would design and build the CACF and communal facilities under design and build contracts, while the operation, maintenance and management (OMM) of the completed facilities would be undertaken by different private sector parties to specified levels of performance under OMM contracts let by the public sector or the WKCD as appropriate, was adopted in assessing the financial implications of the WKCD project. There would be no private sector financing involved and no use of land to directly subsidise development and operation of the CACF and infrastructure facilities under this scenario.

10. In drawing up the financing arrangements for WKCD, the FMAG subscribed to the following guiding principles –

- (a) provide funding stability conducive to arts and cultural development;
- (b) preserve maximum flexibility to create a cultural hub of international status;
- (c) ensure early delivery of the project; and
- (d) affordable to the Government and ensure the CACF are financially sustainable.

Having regard to these guiding principles, the Consultative Committee recommended adopting a prudent and transparent financing approach for the WKCD, as follows –

- (a) finance the capital costs of the WKCD project through an upfront endowment appropriated by the LegCo; and

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- (b) vest the RDE part of the commercial sites in the WKCDA to provide a steady source of recurrent income through rental proceeds to meet the operating deficits of the CACF and related facilities. The capital cost for the RDE facilities will also be covered by the one-off upfront endowment.

Under this financing arrangement, the Government would provide a one-off upfront endowment as a long-term commitment towards the long-term development of arts and culture in Hong Kong, whilst the sites for residential, hotel and office within the WKCD would be disposed of separately by the Government through the normal land disposal mechanism at suitable timing in future. The WKCDA will be required to manage the upfront endowment (including investment of funds) to ensure that there would be sufficient funds to cover the cash flow requirements of the capital costs of the WKCD project during the project period. The WKCDA will also be required to ensure the financial sustainability of operating and managing the arts and cultural facilities and related facilities in the WKCD.

11. Having adopted certain measures to bridge the funding gap (including reducing the scale of the M+ by 30%, adjusting the Net Operating Floor Area to Gross Floor Area (GFA) ratios for the CACF, adjusting the ratios between GFA for RDE vis-à-vis hotel and office, and adjusting the funding responsibilities between WKCDA and the Government on the communal and infrastructural facilities), the Consultative Committee recommended that an upfront endowment of \$21.6 billion should be sought from the LegCo for developing and operating the CACF and other communal facilities in a self-sufficient and sustainable manner within the 40-hectare WKCD site. With this upfront endowment and on the basis of financial assessment, the Consultative Committee recommended the following development mix for the WKCD –

<b>Development Mix</b>	<b>GFA (square metres (m<sup>2</sup>))</b>	<b>% of Total GFA</b>
Cultural and related mix		
(A) Arts and cultural/communal facilities		
M+ <sup>2</sup>	61 950	8%
Exhibition Centre (EC)	12 500	2%

/ **Development.....**

<sup>2</sup> This is the on-site portion. An additional GFA of 16 800 m<sup>2</sup> is provided for the offsite storage and conservation laboratory of the M+.

<b>Development Mix</b>	<b>GFA (square metres (m<sup>2</sup>))</b>	<b>% of Total GFA</b>
Performing art venues	188 895	26%
Other arts and cultural uses	15 000	2%
Communal facilities including items to be funded under the public works programme (PWP)	20 000	3%
(B) RDE facilities (to generate rental income to subsidize operating deficits of (A) above except the PWP items)	119 000	16%
<b>Sub-total</b>	<b>417 345</b>	<b>57%</b>
Residential/Commercial mix		
(A) Residential: Villa Houses and Apartments	145 257	20%
(B) Hotel	56 000	8%
(C) Office <sup>3</sup>	107 683	15%
<b>Sub-total</b>	<b>308 940</b>	<b>43%</b>
<b>Total</b>	<b>726 285</b>	<b>100%</b>

12. The actual development mix will be determined after the Development Plan to be prepared by the WKCDA has been agreed by the Town Planning Board and approved by the Chief Executive in Council.

#### *One-off Upfront Endowment*

13. The proposed one-off upfront endowment represents a long-term commitment and determination of the Government towards the development of culture and the arts, such that it would not be subject to the changes in social and economic circumstances. With funding certainty and flexibility, the WKCDA will be able to plan and develop the cultural district together with its facilities and programmes in an integrated manner, in line with the objectives of the WKCD project. A one-off upfront endowment will provide the WKCDA with adequate flexibility to properly manage its own finances, to handle the master planning, facilities design and construction processes, as well as to manage and operate its

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<sup>3</sup> To allow flexibility, 28 000 m<sup>2</sup> of the total GFA may be used for office or hotel developments depending on the prevailing market demand.



facilities and activities in response to changes in the arts and cultural scene and the market conditions. With the provision of the endowment to the WKCD A upfront upon its establishment, the WKCD A would be able to work on the building, design and programming of the facilities in a timely and integrated manner. This is practically necessary since any world-class arts and cultural facilities should be built and designed from the inside out, i.e. with due and adequate account of the user requirements, and the needs of their management and operation. Moreover, every such arts and cultural facility should have in place a host of attractive programmes with good quality at the time of its opening to the public, and any world-class performance or exhibition programmes normally requires a lead preparation period of several years. As such, funding stability is essential to enable the WKCD A to recruit the best talents and engage the best organizations to plan, design and manage the various facilities, as well as to commission and negotiate arrangements for major world-class arts and cultural programmes to be staged in the different facilities in good time. If the proposed endowment of \$21.6 billion (2008 NPV) is not granted to the WKCD A upfront upon its establishment, there is a risk that the timely realization of the vision and objectives of the WKCD project would be unduly compromised.

14. The one-off upfront endowment will be used to cover the capital costs described above over the project period. As around 70% of the upfront endowment would be for the design and construction of the various facilities under the WKCD A's purview, it would start to be expended as soon as the WKCD A is established. Since the amount of upfront endowment is equal to the cash flow requirement expressed in 2008 NPV, the WKCD A would need to invest unused funds of the endowment at any time to generate investment return to help meet the future cash flow requirements of the capital costs. To ensure that the WKCD A will manage its finances prudently, we have included provisions in the WKCD A Bill requiring the WKCD A to manage its finances (including resources) with due care and diligence. On investment, the WKCD A will be required under the Bill to invest in a financially prudent manner. The Bill also provides that the Financial Secretary may specify the classes or descriptions of investment that the WKCD A may undertake. We will also introduce Committee Stage Amendments to set up an Investment Committee under the WKCD A Board to oversee the management and investment of the WKCD A's financial resources including the upfront endowment. The chairman and members of the Investment Committee would be required to possess expertise and experience relevant to the work of the Committee in this field. We are also prepared to put in place arrangements for reporting periodically to LegCo on the use of the upfront endowment by the WKCD A after it has come into operation and has been provided with the funding.

*/Economic.....*

*Economic Impact Assessment*

15. The Economic Impact Assessment on the WKCD conducted by the Government Economist in May 2007 reveals that the development of the WKCD would bring about substantial tangible and intangible economic benefits for Hong Kong in the longer term. The tangible benefits include the cumulative value added to the Hong Kong economy over a period of 46 years which is estimated at \$71 billion in present value terms. Regarding employment opportunities, a total of 9 980 jobs will be created when operation of all Phase 1 core arts and cultural facilities commence, increasing to over 21 000 jobs in year 30. During the construction stage, construction works and related services are expected to bring about 11 000 jobs. The WKCD is also expected to attract 2.4 million tourists upon commencement of the operation of the Phase I facilities. Growing at an average annual rate of 2.2% over the ensuing 30 years, over 4.5 million tourists will visit the WKCD annually by year 30 of the operation of the WKCD, bringing an additional \$3,720 million spending per annum to Hong Kong. The intangible economic impacts include, inter alia, fostering vibrant cultural activities and the development of a creative economy, nurturing local talents, attracting and retaining investors and talents, raising the quality of life, reinforcing economic integration with the Pearl River Delta and branding Hong Kong as a world city. The Report on Economic Impact of Developing the WKCD is available on HAB's web site <http://www.hab.gov.hk/wkcd>.

**FINANCIAL IMPLICATIONS**

16. The one-off upfront endowment of \$21.6 billion in 2008 NPV is the sum total of the estimated capital costs of all the various component parts of the WKCD project compiled on the basis of a detailed financial study conducted by the FA engaged by the Home Affairs Bureau to assist the Consultative Committee to assess the financial requirements for the project. All the underlying assumptions (including the gross floor areas and construction schedules etc.) for each facility or component part were drawn up primarily for the purpose of assessing the **total** funding requirements for the project. The actual capital and operating cost for each facility would have to be computed by the WKCD after it has been established to take on the statutory responsibility of implementing the WKCD project, which includes the preparation of the Development Plan, detailed planning, design and technical feasibility study of each facility, and consultation with the public in the process. The actual time taken to complete all these procedures would have a bearing on the actual capital costs of each of the various facilities, as well as the actual time schedule for building and developing the facilities.

17. The estimated costs of the various component parts of the upfront endowment were compiled by the FA on the basis of a detailed financial study on the development and operation of the WKCD which has been accepted by the Government. In estimating the costs and revenues of developing and operating the CACF, the FA has made reference to relevant local facilities as well as comparable overseas facilities. The FA has worked closely with HAB and relevant bureaux and departments in coming up with very detailed assumptions underlying the estimation of the capital costs and the operating costs and revenue of the various facilities of the WKCD. The FA submitted its findings periodically to the FMAG and attended FMAG meetings to seek FMAG's views and advice on its findings. Details of the methodology of the financial analysis and the major assumptions used by the FA in assessing the financial implications of the WKCD project are given in Enclosure 2.

18. The FA had examined different procurement approaches involving the private sector including overseas experiences and concluded that the most suitable procurement approach was to adopt a design and build approach for most of the facilities. This is one of the modes adopted for delivering public works projects. The WKCD may consider different modes of Public Private Partnership (PPP) in the development and operation of the arts and cultural facilities with reference to their distinctive features. The FA advised that there should not be any significant cost implications if separate design and build contracts (instead of design and build contracts) are adopted. Based on design and build approach, the FA has estimated the capital costs for the WKCD project over the project period, in 2008 NPV. The broad breakdown of the estimated capital costs is set out below, details of which are in Enclosure 3. The actual capital costs amongst the different categories and facilities will have to be computed by the WKCD following detailed planning and budgeting.

	<b>Paragraph reference</b>	<b>\$million (in 2008 NPV)</b>	<b>% share</b>
(a) Design and construction of various facilities	4(a)	15,697	73%
(b) Major Repair and Renovation of the above facilities listed in (a) over the 50-year project period	4(b)	2,891	13%

/Paragraph.....

	Paragraph reference	\$million (in 2008 NPV)	% share
(c) Collection Costs and Related Costs for M+	4(c)	1,717	8%
(d) Planning of the WKCD and project management (costs to be incurred by the WKCDA)	4(d)	1,264	6%
	Total	<u>21,569</u>	100%
		<u>(say 21,600)</u>	

19. Since the project is a long-term investment spanning a long period of time, expressing the financial implications in NPV is the most appropriate way to assess the present day value of the costs of the project and compare the financial implications of developing individual facilities. In estimating the capital costs, the FA has estimated the costs based on the third quarter of 2006 prices and adjusted the estimates with an annual inflation rate of 2%<sup>4</sup> over the project period to arrive at the MOD cash flow estimates for the WKCD project. The MOD estimates for the WKCD project were then discounted to 2008 using a nominal discount rate of 6.1%, which is composed of a 4% real discount rate per annum and a 2% annual inflation rate. The 4% real discount rate has been adopted by the FA having regard to the social discount rate (4%)<sup>5</sup> used by the Government on public sector long-term development projects as advised by Government Economist. The cash flow requirements of the capital costs in MOD prices over the project period are given in Enclosure 4.

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<sup>4</sup> Government Economist's view is that as an advanced economy and under a currency board system with the Hong Kong dollar linked to the US dollar, Hong Kong's inflation over the very long run would tend to be more or less in line with those experienced by economies at a similar stage of development. The implicit or explicit inflation targets set by most major central banks in the advanced economies are around 2%. Thus, the inflation assumptions adopted by the FA for the 50-year period are deemed as broadly acceptable.

<sup>5</sup> Government Economist's view is that the social discount rate for government investment projects purports to reflect the community's desired trade-off in economic benefits against resource costs incurred in acquiring the project in different time periods. Such a rate is not directly observable, and international practice in choosing the value of the social discount rate to be adopted tends to vary among economies and organisations. The 4% real discount rate used in Hong Kong is broadly in line with those in major overseas economies. For example, the social discount rates recommended by the UK Treasury and the European Commission are 3.5% and 5% respectively. The real social discount rate of 4% has also been adopted in the economic assessments for other investment projects in Hong Kong involving the Government. It should be noted that the social discount rate conceptually should be rather stable over time, and not subject to the influences of cyclical economic fluctuations over short periods.

*Design and Construction Costs of the Various Facilities*

20. The estimated design and construction costs of the facilities are a function of the assumed construction floor area and the estimated unit construction costs for individual facilities, professional fees and contract management costs involved in the design, planning and construction process, as well as construction risk or contingency assessed for individual facilities. The FA arrived at the estimated unit construction costs (detailed at Enclosure 5), after taking into account international and local comparators. The Architectural Services Department considers that the unit construction cost estimates for the individual facilities adopted by the FA are within reasonable range, having regard to the need for building world-class arts and cultural facilities for the WKCD. The estimates of professional fees and contract management costs are based on the experience of the FA's technical advisors in their relevant professions, supplemented by reference to the scales of professional charges for the appropriate Hong Kong professional institutes and FA's consultation with major Hong Kong developers. Taking into account the high standards and quality required of the CACF, the need to expend the resources for the construction of the venues and other related works as soon as possible as well as other related factors, which may give rise to construction cost fluctuations exceeding the original estimates, the FA has applied a more sophisticated estimate of contingencies (or risk premium) for these facilities ranging from 23% to 29%, which is higher than the simple approach of adding a fixed percentage to the base cost estimates. For non-CACF, a fixed percentage of 15% has been applied. The base cost estimates at 2006 prices for the design and construction costs of individual facilities and their respective calculations are shown in Enclosure 6(a), with their corresponding costs in 2008 NPV shown in Enclosure 6(b).

21. Taking into account the volatility and cyclical fluctuation of construction costs over the past 25 years, the FA considers it more prudent to adopt an average escalation rate of construction costs which is in line with inflation rate, rather than adopting a high short-term growth rate. The FA's further sensitivity analysis (in response to Sub-Committee members' request) using different growth rates on the basis of a maximum 15% for on-costs and risk premium for core arts and cultural facilities indicates that our proposed upfront endowment of \$21.6 billion (NPV in 2008) can support an annual nominal growth of 3.4% for a period of 8 years from 2007-2014 which is equivalent to a cumulative growth of 31% over this 8-year period, followed by an annual nominal growth of 2%.

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*Major Repair and Renovation Costs of the Various Facilities*

22. Instead of setting aside annual provision for asset depreciation and replacement, periodic major repair and renovation costs are provided in the financial assessment to cover major renovation works including building renovation, fitting out, electrical and mechanical installations of the arts and cultural facilities and related facilities, etc. As regards regular building maintenance, the FA has provided for annual provision in the operating account of individual facilities. The FA estimated that the CACF would require major repair and renovation once every 20 years (excluding piazzas which is 30 years). As for the non-CACF, the cycle would range from 12 years (RDE facilities) to 30 years (piazzas, APM, public open space). The FA included the cost of major repair and renovation at appropriate intervals, in order to ensure that the facilities will continue to be fully functional throughout the 50-year project period. The extent and cycle of periodic major repair and renovation and the total costs involved in each such major overhaul for individual facilities are summarised in Enclosure 7(a). Their respective NPV at 2008 and the projected annual cash flows in MOD prices over the project period are given in Enclosure 7(b).

*Collection Costs and Related Costs for M+*

23. For the M+, the FA has included provisions for acquiring collection, exhibition development, conservation laboratory equipment and library set up costs as capital costs, as the M+ cannot be operational if these are not in place.

24. The FA assumed an initial capital of \$1 billion (in 2006 prices) for building up collections commensurate with M+'s status and attributes upon the opening of the M+ in 2015, and made provision for an annual collection cost of \$20 million (in 2006 prices) thereafter over the project period to 2059. This has taken into account the fact that M+ would not thrive solely on acquisition of collections, but would follow the prevailing practice of comparable world-class museums focusing on contemporary visual culture, i.e. seeking to build up its branding and reputation through a variety of other means, including commissioning art works, loan exhibitions and curating quality programmes. It should be noted that currently, the major museums managed by the Leisure and Cultural Services Department have in place a very rich collection on visual culture which amount to more than 60,000 items of paintings calligraphy, ceramics, prints, photography, sculpture, installations, fashions, packaging, posters, comic books, toys, etc. There should be ample room for M+ to make use of these collections in store. There are also significant and renowned private collections on film, contemporary art and popular culture, which could add further merits to M+. Some renowned overseas museums have also expressed interest in collaborating with the M+ in different ways.

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25. The FA provided for exhibition development costs (i.e., periodic fabrication of the exhibition galleries) of the **M+** at a unit cost \$12,750 per m<sup>2</sup>. (in 2006 prices). The net exhibition area in Phase I of **M+** was assumed to be 16 000 m<sup>2</sup> and a further 10 000 m<sup>2</sup> to be made available upon commissioning of the Phase II. The FA provided for initial exhibition development costs for the exhibition galleries of the respective Phases I and II when they first come into operation, and further exhibition development costs for them at an interval of 15 years thereafter.

26. The FA has also provided for the acquisition of conservation laboratory equipment at a cost of about \$26 million (in 2006 prices) upon commissioning of the Phase I of **M+** and assumed 50% replacement cost (i.e. about \$13 million in 2006 prices) at an interval of 10 years thereafter.

27. The FA has included a one-off sum of \$28 million (in 2006 prices) for library set-up costs upon commissioning of the Phase I **M+**. Recurrent provision for running the library has been provided for in the annual operating costs of the **M+**.

28. The total costs in 2008 NPV and the projected annual cash flows in MOD prices of the above items (i.e. museum collection, exhibition development, conservation laboratory equipment and library set up) for the **M+** over the project period are summarised in Enclosure 8.

*Master Planning of the WKCD and Project Management (costs to be incurred by the WKCDA)*

29. The FA's financial assessment assumed that the WKCDA was responsible for the delivery of all the facilities and infrastructure under its purview. The WKCDA would have (a) a construction and area management role and (b) a role in the subsequent management of the WKCD – an operational management role. The roles and responsibilities and costs of the WKCDA would vary between these two stages. For financial assessment purpose, the operating costs of the WKCDA during the construction and area management stage are distinguished from the operating deficits incurred during the operation period of the WKCD (from 2015 onwards). The construction and area management stage covers the period from 2008-09 till 2014-15 during which the development plan is to be prepared and Phase I CACF are to be designed, built and completed in stages. The FA estimated that the WKCDA would require around 90 full-time

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staff during this stage. In preparing the cost estimates for the WKCDA, (note this is not institutional advice but assumptions for cost estimation) the FA assumed that there would be five divisions: office of the chief executive; planning and development; property; finance, and procurement. The duties include but are not limited to: masterplanning, strategic and business planning, area marketing, cultural and arts policy liaison, property development and management, legal, procurement, contracting and finance. This assumption was adopted with reference to the establishment of comparable local statutory bodies and area-based agencies elsewhere. The annual total cost (including staff costs and other operating expenses) involved will be \$189.4 million a year (in 2006 prices). A breakdown of these costs in NPV at 2008 and the projected annual cash flows (in MOD prices) over the period from 2008 to 2014 are given in Enclosure 9.

### ***Operational Income and Expenditure***

#### Rental income from RDE facilities

30. The FA assumed that the RDE facilities would secure a net monthly rental of \$323 per m<sup>2</sup> GFA (in 2006 prices) for the shops and \$2,500 (in 2006 prices) per car parking space in the RDE facilities. This has taken into account the recommendation of the Consultative Committee that the planning and development of the total gross floor area of about 119 000 m<sup>2</sup> for RDE would not replicate the operation of large scale shopping malls. Instead, the facilities would be scattered throughout the WKCD to integrate with the arts and cultural facilities, so as to create synergy and bring about increase in people flow to maintain the vibrancy of the WKCD at all times. The rental level has thus been pitched at a rather conservative level i.e. monthly rental of \$30 per sq. ft. GFA (in 2006 price), which is relatively lower than the rental of RDE in other districts in Hong Kong. The annual net total rental income in 2006 prices is \$473 million and the net total rental income over the project period to 2059 is \$8.4 billion in 2008 NPV. This is higher than the total operating deficits of the arts and cultural facilities and other facilities under the purview of the WKCDA estimated at \$7.6 billion in 2008 NPV (see paragraph 31 below) by around 10%. The operating surplus from RDE in NPV at 2008 and the projected annual cash flows in MOD prices over the project period are summarised in Enclosure 10.

/Operational .....



Operational surplus/deficits for the CACF, communal facilities and WKCDA

31. The operating surpluses/deficits have been estimated on the assumption that they will be operated by private or non-government bodies under various PSI arrangements taking into account the characteristics of the individual facilities, and not by the WKCDA itself. They include the following -

- (a) operating surpluses/deficits of the CACF, other arts and cultural facilities, APM, public car parks and public open space; and
- (b) operating costs of the WKCDA (mainly in area management).

The total operating deficit is estimated at \$7.6 billion in 2008 NPV. A breakdown of the operating cost recovery rates (at a reference year) and the operating surpluses/deficits for individual facilities (except RDE facilities) is given in Enclosure 11.

32. In preparing the estimates for the operating costs of the WKCDA during the operations stage (i.e. after 2015) (this is not institutional advice but assumptions for cost estimation), the FA assumed that there would be three divisions: office of the chief executive, area management and finance. The duties would include but not limited to: estate management, area marketing and programming, strategic and business planning, cultural and arts policy liaison, legal, contract management, procurement and finance.

**PUBLIC CONSULTATION**

33. The recommendations of the Consultative Committee on CACF and other facilities as well as the financial arrangements which the Government adopted were drawn up after a protracted series of intensive deliberations and consultations for a period of 15 months since April 2006. They represented a broad consensus of the local arts and cultural community.

34. We conducted the PE Exercise during mid September to mid December 2007 on the recommendations of the Consultative Committee. The recommendation report of the Consultative Committee, as well as the entire report on the financial assessment undertaken with the assistance of the FA were made public for the purpose of the PE Exercise. The public engagement work was

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carried out extensively, both in terms of the number of people and variety of sectors involved. Members of the public were encouraged to express their views by taking part in the public forums and sectoral briefing sessions, joining the on-line discussion forums, completing the wish cards available on-line or at the roving exhibitions held in venues of the Leisure and Cultural Services Department, community halls, Government offices and other places. They could also send in their written submissions. We received over 3,800 views from the PE Exercise. The public views received were generally supportive of the recommendations, and the early implementation of the project. While there is general support for the proposed financing approach including the upfront endowment and the recurrent financing arrangement, some expressed concern about the upfront endowment, particularly in the amount and coverage. However, on closer examination, there is considerable convergence of evidence in support of the proposed financing approach. In this connection, it should also be noted that at the meeting of the LegCo Subcommittee on the WKCD Development (the Subcommittee) held on 4 January 2008, about 60% of the deputations supported the proposed financing approach of providing an upfront endowment to the WKCD, as this would give the much-needed certainty and flexibility to the Authority for developing the project. At the meeting with District Council Chairmen and Vice Chairmen of 18 districts on 17 January 2008, all the participants who spoke were in favour of the upfront endowment approach and urged the Government to expedite the project.

## **CONSULTATION WITH LEGCO SUBCOMMITTEE ON WKCD DEVELOPMENT**

35. Since September 2007, we have been consulting the Subcommittee regarding the Consultative Committee's recommendations, the findings of the PE Exercise, the way forward for the WKCD project and the financial implications of the development and operation of the project including the need for an upfront endowment of \$21.6 billion (2008 NPV). In April 2008, the Subcommittee appointed a Specialist Advisor to study the various aspects of the FA's report as well as other relevant information provided by the Government on the financial implications of the project. The FA provided a detailed briefing on the financial assessment of the project and provided detailed responses to the questions raised by the Specialist Advisor on the financial assessment.

36. The Specialist Advisor's report raised a series of questions about our financial study, which include the estimated escalation of the construction costs in the short term, the level of rental income from the RDE facilities, the investment return, the sustainability of the project after 50 years, the use of "design and

/build .....

build” approach, as well as the mode of operation of M+. We have provided detailed responses to these questions at two meetings of the Sub-committee on 30 May and 5 June 2008. Our responses are set out at Enclosures 12 and 13 respectively. The Subcommittee noted that we will submit the request for a one-off upfront endowment of \$21.6 billion (2008 NPV) to the PWSC.

## **ENVIRONMENTAL IMPLICATIONS**

37. Being an urban development project with an area covering more than 20 hectares, the WKCD development constitutes a major designated project which requires the preparation of a Schedule 3 Environmental Impact Assessment Report under the Environmental Impact Assessment (EIA) Ordinance. Future facilities and infrastructures to be built within the WKCD development may also constitute designated projects under Schedule 2 of the EIA Ordinance in which case environmental permits will be required for their construction and operation.

## **HERITAGE IMPACT ASSESSMENT**

38. The project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/buildings, sites of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office.

## **LAND ACQUISITION**

39. The WKCD site is located on the West Kowloon Reclamation. The WKCD site has already been earmarked for the development of an integrated arts and cultural district in the draft South West Kowloon Outline Zoning Plan. The WKCD project does not require land acquisition within the WKCD site. For developing the M+, the WKCD may need to acquire land in other parts of Hong Kong to construct off-site conservation laboratory and storage facilities.

## **BACKGROUND INFORMATION**

40. The WKCD is a waterfront site of about 40 ha located at the southern tip of the West Kowloon Reclamation. The Consultative Committee and its three advisory groups namely FMAG, PATAG and MAG, were appointed by the Chief Executive in April 2006 to re-examine and re-confirm, if appropriate, the need for the CACF of the WKCD and the financial implications of developing

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and operating these facilities. The Consultative Committee submitted its recommendation report on 30 June 2007. The Consultative Committee recommended that a total of 15 performing arts venues (over two phases), at least three ha of piazza areas, a museum type cultural institution temporarily called M+ and an Exhibition Centre as the CACF. The Consultative Committee also recommended a prudent and transparent financing approach for developing and operating the WKCD in a financially sustainable manner, and that the Government should proceed to draw up the requisite legislative proposals for establishing the WKCDA.

41. Taking into account the public views received during the PE Exercise conducted in September- December 2007, the Government adopted the recommendations of the Consultative Committee. In line with the Consultative Committee's recommendations, we have introduced the WKCDA Bill to the LegCo in February 2008 to establish a statutory body, the WKCDA, to take forward the WKCD project. If the Bill can be passed before the end of the current legislative session, we envisage that the WKCDA can be set up in late 2008 to take forward the WKCD project. Under the WKCDA Bill, the WKCDA will be responsible for preparing a development plan for the whole WKCD site for submission to the Town Planning Board (TPB) for consideration. The development plan if considered suitable for publication by the TPB will be deemed to be a draft plan prepared by the TPB for the purposes of the Town Planning Ordinance (TPO) and the provisions of that Ordinance concerning any draft plan are to apply accordingly. In support of the draft development plan, the WKCDA is required to conduct various technical assessments including traffic impact assessment, air ventilation assessment, visual impact assessment, environmental assessment, sewerage impact assessment and drainage impact assessment etc. for the consideration of the TPB.

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Home Affairs Bureau  
June 2008

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## Enclosure 1 to PWSC(2008-09)31

### **West Kowloon Cultural District** **Details of the Core Arts and Cultural Facilities**

#### **(A) Performing Arts Venues:**

<b>Category (Phase I)</b>	<b>Seating Capacity</b>	<b>Main Purposes</b>
Mega Performance Venue	15 000 (max.)	Mega events, large scale entertainment shows, pop concerts
A Great Theatre	2 100 to 2 200 (Total: 2 200) (max.)	Suitable for long-run overseas productions, as well as Chinese and Western opera, drama, ballet, modern dance, musical, children's performances etc.
Two Medium-sized Theatres	500 to 800 each (Total: 1 600) (max.)	Drama, musical, dance, suitable for local productions
Four Blackbox Theatres	150 to 250 each (Total: 1 000) (max.)	Experimental/avant-garde performances, budding artists' production, comedy shows, children shows etc.
A Concert Hall	2 000 (max.)	Orchestral music
A Chamber Music Hall	800 (max.)	Chamber music, jazz, piano or violin recital etc.
A Xiqu Centre (performance venue) (small theatre)	1 400 (max.) 400 (max.)	Cantonese opera, other forms of Chinese opera and musical performances
Piazza Areas	at least 30 000 m <sup>2</sup>	Mega outdoor events, circus, commercial events, concerts
<b>Category (Phase II)</b>	<b>Seating Capacity</b>	<b>Main Purposes</b>
<ul style="list-style-type: none"> <li>• A Great Theatre</li> <li>• Two Medium- sized Theatres</li> </ul>	1 900 (max.) 800 each (Total:1 600) (max.)	

**(B) Museum Facilities and Exhibition Centre:**

Category	Area	Concept
<ul style="list-style-type: none"> <li>A cultural institution with museum functions (temporarily called <b>M+</b>, or <b>Museum Plus</b>) on visual culture of the 20<sup>th</sup> to 21<sup>st</sup> century</li> </ul>	<p>Gross Floor Area (GFA) – 78 750 m<sup>2</sup> comprising</p> <p>On site : 61 950 m<sup>2</sup> Off site : 16 800 m<sup>2</sup></p> <p>The development of <b>M+</b> would be phased – 70% of the on-site GFA (i.e. 43,365 m<sup>2</sup>, giving a net gallery area of 16,000 m<sup>2</sup>) and all the off-site area (storage and conservation laboratory) are to be provided in the first phase and the remaining 30% on-site GFA (i.e. 18,585 m<sup>2</sup>, giving a net gallery area of 10,000 m<sup>2</sup>) to be provided in subsequent phase(s)</p>	<p>A forward looking institution, to present visual culture of the 20<sup>th</sup> and 21<sup>st</sup> century from a Hong Kong perspective, the perspective of now and with a global vision</p>
<ul style="list-style-type: none"> <li>The initial broad groupings include <ul style="list-style-type: none"> <li>- Design</li> <li>- Moving image</li> <li>- Popular culture</li> <li>- Visual art (cover ink art)</li> </ul> </li> </ul>		
An Exhibition Centre	<p>Net Operating Floor Area (NOFA) – 10 000 m<sup>2</sup> equivalent to a GFA of 12,500 m<sup>2</sup>, using a 1:1.25 NOFA/GFA conversion ratio</p>	<p>A self-financed venue with focus on arts, culture, creative industries and WKCD-related activities</p>

**West Kowloon Cultural District**

**Methodology of Financial Analysis and Various Key Assumptions**

*Methodology of Financial Analysis*

Overview

1. The sequence of the major steps involved in undertaking the financial analysis by the FA is as follows:

- (a) The recommendations and requirements of the PATAG and MAG, the October 2005 Package<sup>1</sup> and the Invitation for Proposals (IFP) were used as the basis for the WKCD project. The FA then went on to prepare detailed assumptions and development parameters for each facility as well as the WKCD site as a whole;
- (b) Based on the Public Private Partnership (PPP) analysis and a market sentiment exercise conducted in Hong Kong and elsewhere, alternative appropriate procurement options for each facility were proposed. The facilities were grouped together to form different scenarios for the WKCD as a whole. In this way, three alternative Private Sector Involvement (PSI) scenarios were developed for testing, each reflecting different levels of risk transfer to the private sector. A further scenario which reflected existing Government procurement practices – the Public Sector Comparator (PSC) - was also developed;

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<sup>1</sup> The Government announced in October 2005 that additional parameters would be imposed on the original IFP in order to address the public concerns. These include, inter alia, setting a plot ratio of 1.81 for the WKCD site and limiting the residential development in the site to 20% of the total Gross Floor Area (GFA).



- (c) A set of financial assumptions to be adopted in the financial analysis were developed, drawing on existing Government practice, evidence on financial and economic parameters and the market sentiment exercise;
- (d) The proposed residential and commercial facilities were valued using comparables, based on a generally accepted methodology and the general market situation as at end 2006. This provided an estimate of the residual land value which would be paid as land premiums;
- (e) Estimation of the costs and revenues (before risk and contingency) for each of the facilities. The cost/revenue estimates included-
  - Initial capital costs including master planning, area and project management, construction and associated professional fees and contract management costs;
  - Additional capital costs, including the costs of museum collection, offsite storage and conservation laboratory equipment, library set up and further exhibition development for the **M+**;
  - Periodic major repair and renovation costs (considered as capital costs); and
  - Operating costs and revenues;
- (f) Risk analysis was undertaken to adjust costs and revenues to reflect the relevant procurement option or development package and also adjust for factors such as tax and insurance;
- (g) The annual costs and revenues for the analysis period were estimated, with a project period of 50 years from assumed land sales in 2010 and assuming the master planning occurs in 2008 and 2009;

- (h) A Money of the Day (MOD) annual surplus or deficit for each facility and a 2008 Net Present Value (NPV) equivalent were calculated; and
- (i) The financial results of individual CACF, communal and other facilities including land premiums were combined to provide an overall analysis including annual MOD surplus and deficit, and a resultant NPV for the WKCD project as a whole under the alternative scenarios.

The assumptions, costs and revenues reported in this paper refer to the financial implications of the WKCD project taking into account the recommendations of the Consultative Committee.

#### The Net Present Value (NPV) Approach

2. The NPV approach is adopted in appraising project cash flows over the project period which spans over a long period of time. As part of the estimation process, the capital costs and operating surpluses/deficits have first been estimated in 2006 prices, which were then translated into annual cash flows in MOD prices taking into account the assumed phasing (in %) and timing of the cash flows required as well as inflation. These future annual cash flows in MOD prices are converted at a nominal discount rate into their present day value equivalents at year 2008 using the Discounted Cash Flow Techniques to produce a net cost in NPV terms for the WKCD project as a whole. In other words, the total NPV deficit equates to the present-day value equivalent at year 2008 of the upfront investment required to cover both the capital costs and operating deficits (operating costs minus operating revenues) of the arts and cultural and related facilities over the project period, based on the assumption that the investment return is equal to the nominal discount

rate<sup>2</sup> used in the NPV calculation and that the timing and magnitude of the annual cash flows are realised as assumed in the financial assessment. The NPV approach is considered the most suitable approach for assessing the financial implications of the project and comparing the results between different facilities or procurement options.

### *Key Assumptions*

3. The financial analysis was conducted on the basis of the CACF recommended by the Consultative Committee, the development parameters set out in the October 2005 Package and other relevant requirements set out in the IFP. To conduct the financial analysis, the FA worked out a number of assumptions in consultation with relevant Government bureaux and departments, making use of local and international experience and benchmarks where appropriate. The key assumptions include the following:

- (a) phasing of the arts and cultural facilities;
- (b) operating assumptions of the arts and cultural facilities;
- (c) the financial parameters/assumptions used in the financial assessment; and
- (d) development and operation programme.

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<sup>2</sup> The 6.1% nominal discount rate adopted for WKCD project is based on 4% real discount rate (reflective of the social discount rate) and the 2% inflation rate. Looking at it from investment return perspective, the FA considered it an appropriate reasonable assumption. For reference:

- 1996 to 2006, Moody's yield on seasoned all industries bonds ranged from 5.23% to 7.62% for Moody's AAA, 6.06% to 8.37% for Moody's BAA
- The compound annual growth rate for equities over the period January 1987 to January 2007 was: Hang Seng was 10.9%; S&P 500 8.6%
- the Exchange Fund generated a compound nominal annual investment return of 7% over the 14-year period from 1994 to 2007

Further details of these assumptions are given below.

(a) Phasing of the Arts and Cultural Facilities

4. The PATAG recommended that a few of the performing arts (PA) venues should be stand-alone structures due to their function, iconic design and specific image. These include the Mega Performance Venue (MPV), the Xiqu Centre, the Great Theatre 1 and the Concert Hall and Chamber Music Hall (the last two facilities should be co-located). The PATAG also indicated that the remaining facilities should be suitably clustered to achieve synergy and efficiency gains, but stopped short of making any specific recommendation on the exact clustering pattern. However, the PATAG recommended that the medium-sized theatres and blackbox theatres should be integrated with commercial facilities. Taking into account the PATAG's recommendations, the PA facilities were categorized into several clusters as follows for the purpose of financial assessment–

**Phase 1 facilities :**

- (i) Mega Performance Venue (MPV)
- (ii) Great Theatre 1
- (iii) Concert Hall and Chamber Music Hall
- (iv) Xiqu Centre (consisting of one large and one small theatre)
- (v) Medium-sized Theatre 1
- (vi) Medium-sized Theatre 2 and  
Blackbox Theatre 1
- (vii) Blackbox Theatres 2 and 3
- (viii) Blackbox Theatre 4
- (ix) Piazzas (including a small canopy as recommended by PATAG)

**Phase 2 facilities :**

- (x) Great Theatre 2 and Medium-sized Theatre 3
- (xi) Medium-sized Theatre 4

**(b) Operating Assumptions of the Arts and Cultural Facilities**

5. The operating assumptions adopted by the FA have taken into account the recommendations of the PATAG and the MAG as well as local and international comparators. The key operating assumptions are highlighted below.

**M+**

- Start up collection costs at \$1 billion (in 2006 prices) and annual collection costs at \$20 million (in 2006 prices)
- Programming costs of annual total operating expenditure – 27% for Phase 1 and 35% for Phase 2 (Reference year: Year 5 after commencement of operation)
- Visitor number targeted at 1.2 million per annum initially, reaching 2.0 million per annum upon opening of Phase 2
- Regular admission fee at \$25

**Performing Arts Venues (Reference year: Year 10 after commencement of operation)**

- Utilization rates at 82% - 90%
- Average ticket price at a range of \$100 - \$350 (in 2006 prices)
- Attendance rates at 67% - 72%
- Venue programming costs at 6% to 41% of annual operating expenditure (except MPV which is 0%)

**General**

- All the CACF facilities will be ‘world class’
- Build up of costs and revenue during initial years of operation
- Gradual increase in demand for PA venues and Exhibition

Centre over 30 years

*Area and Project Management*

- Area and project management was assumed to commence in 2008 and cover the whole assessment period to the year 2059. There are 2 phases: (i) 2008 to 2014, which is primarily construction and area management and (ii) 2015 onwards, which is primarily operational management.

*(c) Financial Parameters/Assumptions*

6. The following financial parameters/assumptions have been adopted in the financial assessment–

<u>Parameters</u>	<u>Assumptions</u>
Project period from design/construction to operation	50 years from 2010 to 2059 (assuming that the WKCD Authority would be set up by 2008 and complete the master planning of the WKCD during 2008-2009)
Real Discount Rate	4% per annum <sup>3</sup>
Inflation Rate	2% per annum <sup>4</sup>
Nominal Discount Rate for arriving at the NPV	6.1% [i.e. $(1+4\%) \times (1+2\%) - 1$ ]
Construction Cost Escalation	2% inflation rate per annum
Staff Costs Escalation	2% inflation rate per annum
Land Premium	Land valuation as at the fourth quarter of 2006, but land sale is assumed to take place in 2010

*(d) Development and Operation Programme*

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<sup>3</sup> A real discount rate of 4% p.a. is assumed by making reference to the social discount rate (which is 4% p.a.) adopted by the Government for assessing public investment projects.

<sup>4</sup> As an advanced economy and under a currency board system with the Hong Kong dollar linked to the US dollar, Hong Kong's inflation over the very longer run would tend to be more or less in line with those experienced by economies at a similar stage of development. The implicit or explicit inflation targets set by most major central banks in the advanced economies are around 2%.

7. Estimates of the capital costs and operating deficits by the FA are based on the following assumptions on development and operation programme –

<u>Year(s)</u>	<u>Development/Operation Programme</u>
<b><u>Phase 1:</u></b>	
2008	Establishment of WKCD Authority
2008–2009	Master planning by WKCD Authority
2014–2015	Completion and operation in stages of all Phase 1 CACF
<b><u>Phase 2:</u></b>	
2026	Completion and operation of Phase 2 PA venues
2031	Operation of M+ extension

8. The FA assumed that the design and construction of PA venues (except Concert Hall/Chamber Music Hall and Xiqu Centre) and the EC would take three to four years, and the design and construction of M+, Concert Hall/Chamber Music Hall and Xiqu Centre would take five years, including one year for an architectural design competition by invitation as recommended by the Consultative Committee. As such Phase 1 PA venues (except Concert Hall/Chamber Music Hall and Xiqu Centre) would be operational by 2014 and the M+, Concert Hall/Chamber Music Hall and Xiqu Centre by 2015. Payment for the design and construction works would take one extra year due to withholding of retention money which would be paid in the year following the works completion year.



## Capital Costs Analysed by Cost Elements in 2008 Net Present Value (NPV) (\$Million) (Note 1)

Facilities	Total	Breakdown of Cost Elements			
		Project management and master planning	Design, planning and construction	Periodic major repair and renovation	Museum collection etc. costs
<b>PHASE 1</b>					
<b>1 Management and Masterplanning</b>	<b>(1,264)</b>	<b>(1,264)</b>	<b>0</b>	<b>0</b>	<b>0</b>
1.1 Masterplanning	(34)	(34)	-	-	-
1.2 Area and Project Management	(1,230)	(1,230)	-	-	-
<b>2 Museum and Exhibition Space</b>	<b>(4,801)</b>	<b>0</b>	<b>(2,656)</b>	<b>(514)</b>	<b>(1,630)</b>
2.1 M+	(4,266)	-	(2,215)	(421)	(1,630)
2.2 Exhibition Centre	(535)	-	(441)	(94)	-
<b>3 Performing Arts Facilities (Note 2)</b>	<b>(8,560)</b>	<b>0</b>	<b>(7,059)</b>	<b>(1,502)</b>	<b>0</b>
3.1 Mega Performance Venue	(2,706)	-	(2,218)	(488)	-
3.2 Great Theatre 1	(1,220)	-	(996)	(224)	-
3.3 Concert Hall and Chamber Music Hall	(1,421)	-	(1,177)	(244)	-
3.4 Xiqu Centre	(1,174)	-	(972)	(202)	-
3.5 Medium Theatre 1	(515)	-	(419)	(96)	-
3.6 Medium Theatre 2 and Black Box Theatre 1	(699)	-	(573)	(126)	-
3.7 Black Box Theatres 2 and 3	(320)	-	(263)	(57)	-
3.8 Black Box Theatre 4	(195)	-	(160)	(35)	-
3.9 Piazzas	(310)	-	(280)	(30)	-
<b>4 Other Arts and Cultural Uses</b>	<b>(331)</b>	<b>0</b>	<b>(309)</b>	<b>(21)</b>	<b>0</b>
<b>5 Transport Facilities</b>	<b>(1,049)</b>	<b>0</b>	<b>(934)</b>	<b>(115)</b>	<b>0</b>
5.1 Automated People Mover	(679)	-	(598)	(81)	-
5.2 Car parks	(370)	-	(336)	(35)	-
<b>6 Communal Facilities</b>	<b>(1,027)</b>	<b>0</b>	<b>(925)</b>	<b>(101)</b>	<b>0</b>
6.1 Public Open Space	(1,027)	-	(925)	(101)	-
	<b>(17,032)</b>	<b>(1,264)</b>	<b>(11,883)</b>	<b>(2,254)</b>	<b>(1,630)</b>
<b>7 Retail/Dining/Entertainment Facilities</b>	<b>(2,765)</b>	<b>0</b>	<b>(2,351)</b>	<b>(414)</b>	<b>0</b>
<b>Phase 1 total</b>	<b>(19,796)</b>	<b>(1,264)</b>	<b>(14,234)</b>	<b>(2,668)</b>	<b>(1,630)</b>
<b>PHASE 2</b>					
<b>8 Performing Arts Facilities (Phase 2)</b>	<b>(1,290)</b>	<b>0</b>	<b>(1,117)</b>	<b>(173)</b>	<b>0</b>
8.1 Great Theatre 2 and Medium Theatre 3	(986)	-	(855)	(132)	-
8.2 Medium Theatre 4	(303)	-	(262)	(41)	-
<b>9 M+ (Phase 2)</b>	<b>(483)</b>	<b>0</b>	<b>(346)</b>	<b>(50)</b>	<b>(87)</b>
<b>Phase 2 total</b>	<b>(1,773)</b>	<b>0</b>	<b>(1,463)</b>	<b>(223)</b>	<b>(87)</b>
<b>TOTAL CAPITAL COSTS</b>	<b>(21,569)</b>	<b>(1,264)</b>	<b>(15,697)</b>	<b>(2,891)</b>	<b>(1,717)</b>

( ) = Negative NPV / Value

**Note:**

(1) All numbers are rounded to zero decimal place (i.e. nearest \$Million) for presentation purpose. The table totals presented therefore may not add up due to rounding.

(2) The PATAG recommended that the Concert Hall and Chamber Music Hall should be co-located. The clusters of the theatres are proposed by the Financial Advisor based on PATAG's advice that apart from the free standing facilities (i.e. Xiqu Centre, Great Theatre 1 and Mega Performance Venue), the remaining facilities should be suitably clustered to achieve synergy and efficiency gains.

Capital Costs in 2008 Net Preset Value (NPV) and in Money-of-the-day (MOD) (\$Million)

			MOD																				
			2008 NPV	Total MOD	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
PHASE 1																							
1	Management and Masterplanning		(1,264)	(1,500)	(214)	(219)	(205)	(209)	(213)	(218)	(222)	-	-	-	-	-	-	-	-	-	-	-	-
1.1	Masterplanning		(34)	(35)	(17)	(18)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2	Area and Project Management		(1,230)	(1,465)	(197)	(201)	(205)	(209)	(213)	(218)	(222)	-	-	-	-	-	-	-	-	-	-	-	-
2	Museum and Exhibition Space		(4,801)	(12,156)	-	-	-	(586)	(1,284)	(1,862)	(1,143)	(116)	(24)	(25)	(25)	(26)	(26)	(27)	(27)	(28)	(47)	(29)	(30)
2.1	M+		(4,266)	(10,884)	-	-	-	(547)	(1,023)	(1,607)	(1,125)	(116)	(24)	(25)	(25)	(26)	(26)	(27)	(27)	(28)	(47)	(29)	(30)
2.2	Exhibition Centre		(535)	(1,273)	-	-	-	(39)	(261)	(255)	(18)	-	-	-	-	-	-	-	-	-	-	-	-
3	Performing Arts Facilities		(8,560)	(20,502)	-	-	(345)	(1,503)	(3,309)	(2,925)	(917)	(90)	-	-	-	-	-	-	-	-	-	-	-
3.1	Mega Performance Venue		(2,706)	(6,442)	-	-	(188)	(631)	(1,176)	(714)	(87)	-	-	-	-	-	-	-	-	-	-	-	-
3.2	Great Theatre 1		(1,220)	(2,926)	-	-	(85)	(284)	(528)	(321)	(39)	-	-	-	-	-	-	-	-	-	-	-	-
3.3	Concert Hall and Chamber Music Hall		(1,421)	(3,507)	-	-	-	(106)	(355)	(662)	(402)	(49)	-	-	-	-	-	-	-	-	-	-	-
3.4	Xiqu Centre		(1,174)	(2,903)	-	-	-	(88)	(293)	(547)	(332)	(41)	-	-	-	-	-	-	-	-	-	-	-
3.5	Medium Theatre 1		(515)	(1,261)	-	-	-	(37)	(248)	(242)	(17)	-	-	-	-	-	-	-	-	-	-	-	-
3.6	Medium Theatre 2 and Black Box Theatre 1		(699)	(1,663)	-	-	(49)	(163)	(304)	(184)	(23)	-	-	-	-	-	-	-	-	-	-	-	-
3.7	Black Box Theatres 2 and 3		(320)	(766)	-	-	-	(23)	(156)	(152)	(11)	-	-	-	-	-	-	-	-	-	-	-	-
3.8	Black Box Theatre 4		(195)	(466)	-	-	-	(14)	(95)	(93)	(6)	-	-	-	-	-	-	-	-	-	-	-	-
3.9	Piazzas		(310)	(566)	-	-	(23)	(156)	(153)	(11)	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Other Arts and Cultural Uses		(331)	(561)	-	-	-	(27)	(183)	(179)	(12)	-	-	-	-	-	-	-	-	-	-	-	-
5	Transport Facilities		(1,049)	(2,001)	-	-	(78)	(522)	(509)	(35)	-	-	-	-	-	-	-	-	-	-	-	-	-
5.1	Automated People Mover		(679)	(1,332)	-	-	(50)	(334)	(326)	(23)	-	-	-	-	-	-	-	-	-	-	-	-	-
5.2	Car parks		(370)	(669)	-	-	(28)	(187)	(183)	(13)	-	-	-	-	-	-	-	-	-	-	-	-	-
6	Communal Facilities		(1,027)	(1,886)	-	-	(77)	(516)	(504)	(35)	-	-	-	-	-	-	-	-	-	-	-	-	-
6.1	Public Open Space (at-grade and deck)		(1,027)	(1,886)	-	-	(77)	(516)	(504)	(35)	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal			(17,032)	(38,607)	(214)	(219)	(705)	(3,363)	(6,002)	(5,254)	(2,294)	(206)	(24)	(25)	(25)	(26)	(26)	(27)	(27)	(28)	(47)	(29)	(30)
7	Retail/Dining/Entertainment Facilities		(2,765)	(5,244)	-	-	-	-	(1,475)	(1,504)	(95)	0	-	-	-	-	-	-	-	-	-	(560)	-
Subtotal (Phase 1)			(19,796)	(43,852)	(214)	(219)	(705)	(3,363)	(7,477)	(6,758)	(2,389)	(206)	(24)	(25)	(25)	(26)	(26)	(27)	(27)	(28)	(47)	(589)	(30)
PHASE 2																							
8	Performing Arts Facilities (Phase 2)		(1,290)	(4,415)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(147)	(541)	(1,235)	(866)	(90)
8.1	Great Theatre 2 and Medium Theatre 3		(986)	(3,359)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(147)	(494)	(920)	(559)	(68)
8.2	Medium Theatre 4		(303)	(1,056)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(47)	(315)	(307)	(21)
9	M+ (Phase 2)		(483)	(2,304)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal (Phase 2)			(1,773)	(6,719)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(147)	(541)	(1,235)	(866)	(90)
TOTAL CAPITAL COSTS			(21,569)	(50,571)	(214)	(219)	(705)	(3,363)	(7,477)	(6,758)	(2,389)	(206)	(24)	(25)	(25)	(26)	(26)	(27)	(175)	(569)	(1,282)	(1,455)	(119)

( ) = Negative NPV / Value

**Note:**  
All numbers are rounded to zero decimal place (i.e. nearest \$Million) for presentation purpose. The table totals presented therefore may not add up due to rounding.

Capital Costs in 2008 Net Preset Value (NPV) and in Money-of-the-day (MOD) (\$Million)

		MOD																				
		2008 NPV	Total MOD	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
PHASE 1																						
1	Management and Masterplanning	(1,264)	(1,500)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1	Masterplanning	(34)	(35)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2	Area and Project Management	(1,230)	(1,465)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Museum and Exhibition Space	(4,801)	(12,156)	(30)	(31)	(353)	(32)	(33)	(33)	(315)	(1,398)	(36)	(36)	(37)	(38)	(38)	(39)	(40)	(41)	(42)	(503)	(43)
2.1	M+	(4,266)	(10,884)	(30)	(31)	(353)	(32)	(33)	(33)	(34)	(1,398)	(36)	(36)	(37)	(38)	(38)	(39)	(40)	(41)	(42)	(503)	(43)
2.2	Exhibition Centre	(535)	(1,273)	-	-	-	-	-	-	(281)	-	-	-	-	-	-	-	-	-	-	-	-
3	Performing Arts Facilities	(8,560)	(20,502)	-	-	-	-	-	-	(3,079)	(1,423)	-	-	-	-	-	-	-	(223)	-	-	-
3.1	Mega Performance Venue	(2,706)	(6,442)	-	-	-	-	-	-	(1,466)	-	-	-	-	-	-	-	-	-	-	-	-
3.2	Great Theatre 1	(1,220)	(2,926)	-	-	-	-	-	-	(672)	-	-	-	-	-	-	-	-	-	-	-	-
3.3	Concert Hall and Chamber Music Hall	(1,421)	(3,507)	-	-	-	-	-	-	-	(778)	-	-	-	-	-	-	-	-	-	-	-
3.4	Xiqu Centre	(1,174)	(2,903)	-	-	-	-	-	-	-	(645)	-	-	-	-	-	-	-	-	-	-	-
3.5	Medium Theatre 1	(515)	(1,261)	-	-	-	-	-	-	(288)	-	-	-	-	-	-	-	-	-	-	-	-
3.6	Medium Theatre 2 and Black Box Theatre 1	(699)	(1,663)	-	-	-	-	-	-	(379)	-	-	-	-	-	-	-	-	-	-	-	-
3.7	Black Box Theatres 2 and 3	(320)	(766)	-	-	-	-	-	-	(171)	-	-	-	-	-	-	-	-	-	-	-	-
3.8	Black Box Theatre 4	(195)	(466)	-	-	-	-	-	-	(104)	-	-	-	-	-	-	-	-	-	-	-	-
3.9	Piazzas	(310)	(566)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(223)	-	-	-
4	Other Arts and Cultural Uses	(331)	(561)	-	-	-	-	-	-	(64)	-	-	-	-	-	-	-	-	-	-	-	-
5	Transport Facilities	(1,049)	(2,001)	-	-	-	-	-	-	(104)	-	-	-	-	-	-	-	-	-	(600)	-	-
5.1	Automated People Mover	(679)	(1,332)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(600)	-	-	-
5.2	Car parks	(370)	(669)	-	-	-	-	-	-	(104)	-	-	-	-	-	-	-	-	-	-	-	-
6	Communal Facilities	(1,027)	(1,886)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(754)	-	-	-
6.1	Public Open Space (at-grade and deck)	(1,027)	(1,886)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(754)	-	-	-
Subtotal		(17,032)	(38,607)	(30)	(31)	(353)	(32)	(33)	(33)	(3,563)	(2,820)	(36)	(36)	(37)	(38)	(38)	(39)	(40)	(1,617)	(42)	(503)	(43)
7	Retail/Dining/Entertainment Facilities	(2,765)	(5,244)	-	-	-	-	-	-	-	-	-	-	(710)	-	-	-	-	-	-	-	-
Subtotal (Phase 1)		(19,796)	(43,852)	(30)	(31)	(353)	(32)	(33)	(33)	(3,563)	(2,820)	(36)	(36)	(747)	(38)	(38)	(39)	(40)	(1,617)	(42)	(503)	(43)
PHASE 2																						
8	Performing Arts Facilities (Phase 2)	(1,290)	(4,415)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(1,535)
8.1	Great Theatre 2 and Medium Theatre 3	(986)	(3,359)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(1,170)
8.2	Medium Theatre 4	(303)	(1,056)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(366)
9	M+ (Phase 2)	(483)	(2,304)	-	(83)	(559)	(750)	(38)	-	-	-	-	-	-	-	-	-	-	-	-	-	(276)
Subtotal (Phase 2)		(1,773)	(6,719)	-	(83)	(559)	(750)	(38)	-	-	-	-	-	-	-	-	-	-	-	-	-	(1,811)
TOTAL CAPITAL COSTS		(21,569)	(50,571)	(30)	(114)	(912)	(782)	(71)	(33)	(3,563)	(2,820)	(36)	(36)	(747)	(38)	(38)	(39)	(40)	(1,617)	(42)	(503)	(1,855)

( ) = Negative NPV / Value

**Note:**  
All numbers are rounded to zero decimal place (i.e. nearest \$Million) for presentation purpose. The table totals presented therefore may not add up due to rounding.

Capital Costs in 2008 Net Preset Value (NPV) and in Money-of-the-day (MOD) (\$Million)

			MOD														
		2008 NPV	Total MOD	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059
PHASE 1																	
1	Management and Masterplanning	(1,264)	(1,500)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1	Masterplanning	(34)	(35)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2	Area and Project Management	(1,230)	(1,465)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Museum and Exhibition Space	(4,801)	(12,156)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(469)	(2,077)	(53)	(54)	(55)	(56)	(640)
2.1	M+	(4,266)	(10,884)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(2,077)	(53)	(54)	(55)	(56)	(640)
2.2	Exhibition Centre	(535)	(1,273)	-	-	-	-	-	-	-	(418)	-	-	-	-	-	-
3	Performing Arts Facilities	(8,560)	(20,502)	-	-	-	-	-	-	-	(4,575)	(2,114)	-	-	-	-	-
3.1	Mega Performance Venue	(2,706)	(6,442)	-	-	-	-	-	-	-	(2,179)	-	-	-	-	-	-
3.2	Great Theatre 1	(1,220)	(2,926)	-	-	-	-	-	-	-	(998)	-	-	-	-	-	-
3.3	Concert Hall and Chamber Music Hall	(1,421)	(3,507)	-	-	-	-	-	-	-	-	(1,156)	-	-	-	-	-
3.4	Xiqu Centre	(1,174)	(2,903)	-	-	-	-	-	-	-	-	(958)	-	-	-	-	-
3.5	Medium Theatre 1	(515)	(1,261)	-	-	-	-	-	-	-	(428)	-	-	-	-	-	-
3.6	Medium Theatre 2 and Black Box Theatre 1	(699)	(1,663)	-	-	-	-	-	-	-	(563)	-	-	-	-	-	-
3.7	Black Box Theatres 2 and 3	(320)	(766)	-	-	-	-	-	-	-	(254)	-	-	-	-	-	-
3.8	Black Box Theatre 4	(195)	(466)	-	-	-	-	-	-	-	(154)	-	-	-	-	-	-
3.9	Piazzas	(310)	(566)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Other Arts and Cultural Uses	(331)	(561)	-	-	-	-	-	-	-	(96)	-	-	-	-	-	-
5	Transport Facilities	(1,049)	(2,001)	-	-	-	-	-	-	-	(154)	-	-	-	-	-	-
5.1	Automated People Mover	(679)	(1,332)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.2	Car parks	(370)	(669)	-	-	-	-	-	-	-	(154)	-	-	-	-	-	-
6	Communal Facilities	(1,027)	(1,886)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.1	Public Open Space (at-grade and deck)	(1,027)	(1,886)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal		(17,032)	(38,607)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(5,294)	(4,191)	(53)	(54)	(55)	(56)	(640)
7	Retail/Dining/Entertainment Facilities	(2,765)	(5,244)	-	-	-	(900)	-	-	-	-	-	-	-	-	-	-
Subtotal (Phase 1)		(19,796)	(43,852)	(44)	(45)	(46)	(947)	(48)	(49)	(50)	(5,294)	(4,191)	(53)	(54)	(55)	(56)	(640)
PHASE 2																	
8	Performing Arts Facilities (Phase 2)	(1,290)	(4,415)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.1	Great Theatre 2 and Medium Theatre 3	(986)	(3,359)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.2	Medium Theatre 4	(303)	(1,056)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	M+ (Phase 2)	(483)	(2,304)	-	-	-	-	(598)	-	-	-	-	-	-	-	-	-
Subtotal (Phase 2)		(1,773)	(6,719)	-	-	-	-	(598)	-	-	-	-	-	-	-	-	-
TOTAL CAPITAL COSTS		(21,569)	(50,571)	(44)	(45)	(46)	(947)	(646)	(49)	(50)	(5,294)	(4,191)	(53)	(54)	(55)	(56)	(640)

( ) = Negative NPV / Value

**Note:**  
All numbers are rounded to zero decimal place (i.e. nearest \$Million) for presentation purpose. The table totals presented therefore may not add up due to rounding.

Facilities	WKCD Facilities					International / Local Comparators as Advised by the Financial Advisor				
	Total	Breakdown			Remarks	International Comparators provided by Financial Advisor, GHK (HK) Ltd.			Local Comparators	
		Foundation	Building construction	Fitting out		Institutions	Country	Unit Construction Costs	Type of Development	Unit Construction Costs
	\$/sq. m. Construction Floor Area (CFA)	\$/sq. m. CFA	\$/sq. m. CFA	\$/sq. m. CFA				\$/sq. m. CFA		\$/sq. m. CFA
<b>Museum and Exhibition Centre</b>								<b>(Note)</b>		<b>(Note)</b>
<b>M+</b> (Phase 1) - on-site	<b>24,200</b>	4,200	14,000	6,000 #	# Only covers basic fitting-out of galleries; additional fitting-out costs are provided for under periodic exhibition development capital costs.	Jewish Museum, Berlin Imperial War Museum North, Manchester San Francisco Museum of Modern Art Denver Art Museum Extension Beijing New Capital Museum The Centre Pompidou Tate Modern The Museum of Modern Art, New York	Germany	14,300	<b>Grade A Offices</b> <b>Prestige Shopping Centre</b> <b>5-star Luxury Hotels</b>	<b>11,000 - 14,000</b> <b>13,000 - 16,000</b> <b>17,000 - 19,000</b>
<b>M+</b> (Phase 2) - on-site	<b>22,200</b>	4,200	14,000	4,000 #			UK	23,200		
							USA	23,900		
							USA	24,600		
							China	26,200		
						France	29,600			
Exhibition Centre	<b>22,200</b>	4,200	12,600	5,400		UK	30,300			
						USA	41,100			
						<b>Range of examples above</b>		<b>14,300 - 41,100</b>		
<b>Performing Arts Facilities</b> (Phases 1 & 2)										
Mega Performance Venue	<b>26,200</b>	4,200	14,300	7,700	Milton Keynes Theatre The Lowry, Salford The Esplanade - Theatres on the Bay Wales Millennium Centre, Cardiff Theater am Potsdamer Platz, Berlin The Sage, Gateshead Shanghai Grand Theatre Casa Da Musica, Porto Walt Disney Concert Hall, LA	UK	10,800			
Great Theatre 1	<b>29,200</b>	4,200	16,250	8,750		UK	23,700			
Concert Hall and Chamber Music Hall	<b>29,200</b>	4,200	16,250	8,750		Singapore	23,900			
Xiqu Centre	<b>27,200</b>	4,200	14,950	8,050		UK	25,500			
Medium Theatre 1	<b>27,200</b>	4,200	14,950	8,050		Germany	26,100			
Medium Theatre 2 and Black Box Theatre 1	<b>26,200</b>	4,200	14,300	7,700		UK	28,000			
Black Box Theatres 2 and 3	<b>22,200</b>	4,200	11,700	6,300		PRC	32,600			
Black Box Theatre 4	<b>22,200</b>	4,200	11,700	6,300		Portugal	37,800			
Great Theatre 2 and Medium Theatre 3	<b>29,200</b>	4,200	16,250	8,750		USA	41,500			
Medium Theatre 4	<b>27,200</b>	4,200	14,950	8,050						
					<b>Range of examples above</b>		<b>10,800 - 41,500</b>			

**Note:** Construction cost data have been converted by the Financial Advisor (GHK (HK) Ltd.) to 2006 prices using the published regional Tender Price Index (TPI) in different countries and to local construction cost data by making reference to the published construction costs for different countries worldwide.

West Kowloon Cultural District

Details of Construction Costs (in 2006 Prices)

		(a)	(b)	(c) = (a) x (b)		(d)	(e) = (c) x (d)		(g) = (e) x (f) x 0.000001					(h)	(i) = (g) x (h)		(j)	(k)	(l) = (i) x [(j)+(k)]		(m)	(n) = (i)+(l)+(m)		(o)	(p) = (n)x(o)		(q) = (n)+(p)	
		Floor Area					Initial Construction Cost (Note 4)								Professional Fees and Contract Management Costs (Note 5)			Other Costs	Total Construction Cost (before risk premium)	Construction Risk Premium (Note 6)		Risk Adjusted Total Construction Cost						
		Net Operating Floor Area (NOFA)	NOFA to GFA	Gross Floor Area (GFA)	GFA to CFA	Construction Floor Area (CFA) (Note 2)	Unit Construction Cost	Breakdown of Unit Construction Cost			Unadjusted Total Construction Cost	Construction Period	Inflation Adjustment	Adjusted Total Construction Cost	Professional Fees	Contract Management Costs	Total											
		sq m	ratio (1 to x)	sq m	ratio (1 to x)	sq m	\$/sq m CFA (in 2006 prices)	\$ per sq.m. (in 2006 prices)	\$ per sq.m. (in 2006 prices)	\$ per sq.m. (in 2006 prices)	\$ Million (in 2006 prices) (Note 1)	No of Years	Index (rounded to 2 decimal points)	\$ Million (in 2006 prices) (Note 1)	%	%	\$ Million (in 2006 prices) (Note 1)	\$ Million (in 2006 prices) (Note 1)	\$ Million (in 2006 prices) (Note 1)	%	\$ Million (in 2006 prices) (Note 1)	\$ Million (in 2006 prices) (Note 1)						
PHASE 1																												
2 Museum and Exhibition Space																												
2.1 Museum (Phase 1)																												
M+		28,910	1.5	43,365	1.3	56,375	24,200	4,200	14,000	6,000	1,364	5	0.96	1,313	11.1%	9.0%	264		1,576	29.2%	460	2,037						
Off-site storage and conservation labouratory		14,000	1.2	16,800	1.2	20,160	15,000	2,000	8,000	5,000	302	5	0.96	291	11.1%	9.0%	58	73 (Land Cost)	422	29.2%	123	545						
2.2 Exhibition Centre		10,000	1.25	12,500	1.3	16,250	22,200	4,200	12,600	5,400	361	4	0.97	351	9.0%	8.0%	60		410	23.0%	94	505						
3 Performing Arts Facilities																												
3.1 Mega Performance Venue		36,710	1.4	51,394	1.3	66,812	26,200	4,200	14,300	7,700	1,750	5	0.96	1,684	12.0%	8.0%	337		2,021	23.0%	465	2,486						
3.2 Great Theatre 1		14,800	1.4	20,720	1.3	26,936	29,200	4,200	16,250	8,750	787	5	0.96	757	12.0%	8.0%	151		908	23.0%	209	1,117						
3.3 Concert Hall and Chamber Music Hall		16,800	1.4	23,520	1.3	30,576	29,200	4,200	16,250	8,750	893	5	0.96	859	14.6%	9.0%	203		1,062	29.2%	310	1,372						
3.4 Xiqu Centre		14,955	1.4	20,937	1.3	27,218	27,200	4,200	14,950	8,050	740	5	0.96	712	14.1%	9.0%	165		877	29.2%	256	1,133						
3.5 Medium Theatre 1		6,750	1.4	9,450	1.3	12,285	27,200	4,200	14,950	8,050	334	4	0.97	325	12.0%	8.0%	65		390	23.0%	90	479						
3.6 Medium Theatre 2 and Black Box Theatre 1		9,480	1.4	13,272	1.3	17,254	26,200	4,200	14,300	7,700	452	5	0.96	435	12.0%	8.0%	87		522	23.0%	120	642						
3.7 Black Box Theatres 2 and 3		5,195	1.4	7,273	1.3	9,455	22,200	4,200	11,700	6,300	210	4	0.97	204	12.0%	8.0%	41		245	23.0%	56	301						
3.8 Black Box Theatre 4		3,160	1.4	4,424	1.3	5,751	22,200	4,200	11,700	6,300	128	4	0.97	124	12.0%	8.0%	25		149	23.0%	34	183						
3.9 Piazzas																												
Piazzas						30,000	5,500				165	4	0.97	160	6.5%	8.0%	23		184	23.0%	42	226						
Small canopy						10,000	6,000				60	4	0.97	58	6.5%	8.0%	8		67	23.0%	15	82						
4 Other Arts and Cultural Uses				15,000	1.3	19,500	14,200	4,200	10,000		277	4	0.97	269	6.2%	8.0%	38		307	15.0%	46	353						
5 Transport Facilities																												
5.1 Automated People Mover											504	4	0.97	490	5.8%	11.0%	82		572	15.0%	86	658						
5.2 Car parks																												
Public Car Parks (basement)						9,526	11,200				107	4	0.97	104	3.0%	8.0%	11		115	15.0%	17	132						
Public Car Parks (podium)						19,958	4,000				80	4	0.97	78	3.0%	8.0%	8		86	15.0%	13	99						
Public Car Parks (basement shared foundation)						15,876	7,000				111	4	0.97	108	3.0%	8.0%	12		120	15.0%	18	138						
6 Communal Facilities																												
6.1 Public Open Space																												
Public Open Space (at -grade)						170,000	3,500				595	4	0.97	578	2.1%	8.0%	58		636	15.0%	95	732						
Public Open Space (terraces)						50,000	4,500				225	4	0.97	219	2.1%	8.0%	22		241	15.0%	36	277						
Contingency space (soft landscaping)				3,340	1.0	3,340	2,000				7	4	0.97	6	2.1%	8.0%	1		7	15.0%	1	8						
7 Retail/Dining/Entertainment											2,232				6.0%		134		2,365	15.0%	335	2,700						
PHASE 2																												
8 Performing Arts (Phase 2)																												
8.1 Great Theatre 2 and Medium Theatre 3		20,325	1.4	28,455	1.3	36,992	29,200	4,200	16,250	8,750	1,080	5	0.96	1,039	12.0%	8.0%	208		1,247	23.0%	287	1,534						
8.2 Medium Theatre 4		6,750	1.4	9,450	1.3	12,285	27,200	4,200	14,950	8,050	334	4	0.97	325	12.0%	8.0%	65		390	23.0%	90	479						
9 Museum and Exhibition (Phase 2)																												
9.0 M+ (phase 2)		12,390	1.5	18,585	1.3	24,161	22,200	4,200	14,000	4,000	536	4	0.97	521	11.1%	9.0%	105		626	23.0%	144	770						

**Note:** (1) Figure in 2006 prices, rounded to nearest \$ million.  
(2) Refers to floor area for piazzas and public open space.  
(3) Breakdown of RDE construction costs:

RDE Construction Costs			
	Area (GFA)	Unit Cost (in 2006 prices) (Note 7)	Cost (\$M) (in 2006 prices)
Shops	119,000 sq.m.	\$18,198 / sq.m.	2,166
Car Parking (Podium)	298 spaces	\$140,000 / space	42
Car Parking (Basement)	99 spaces	\$245,000 / space	24
		<b>Sub Total</b>	2,232
Professional Fees (6%)	\$2,232 million x 0.06		134
Contingency (15%)	\$2,232 million x 0.15		335
		<b>Total Construction Cost</b>	<b>2,700</b>

- (4) Please refer to Annexes C (M+ and Exhibition Centre), D (performing arts venues, piazzas and small canopy), E (APM and public car parks) and F (other arts and cultural facilities, and public open space) the Financial Advisor's Final Report dated April 2007 (which is available on Home Affairs Bureau's website www.hab.gov.hk/wkcd) for the unit construction costs / construction costs of respective facilities adopted.
- (5) Annex G of Financial Advisor's Final Report dated April 2007 refers
- (6) Annex J of Financial Advisor's Final Report dated April 2007 refers
- (7) Annex L of Financial Advisor's Final Report dated April 2007 refers

West Kowloon Cultural District

Details of Construction Costs in 2008 NPV and MOD Cash Flows (\$Million)

		Risk Adjusted Total Construction Cost	2008 NPV	Total MOD	MOD																		
					2008	2009	2010	2011	2012	2013	2014	2015	2016-2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
		\$ Million																					
		(in 2006 prices)																					
<b>PHASE 1</b>																							
<b>2 Museum and Exhibition Space</b>																							
2.1	Museum (Phase 1)																						
	M+	2,037	(1,747)	(2,337)	-	-	-	(157)	(528)	(983)	(597)	(73)	-	-	-	-	-	-	-	-	-	-	-
	Off-site storage and conservation laboratory	545	(468)	(626)	-	-	-	(42)	(141)	(263)	(160)	(20)	-	-	-	-	-	-	-	-	-	-	-
	<b>M+ (Phase 1) total</b>		<b>(2,215)</b>	<b>(2,963)</b>	-	-	-	<b>(200)</b>	<b>(669)</b>	<b>(1,246)</b>	<b>(756)</b>	<b>(93)</b>	-	-	-	-	-	-	-	-	-	-	-
2.2	Exhibition Centre	505	(441)	(573)	-	-	-	(39)	(261)	(255)	(18)	-	-	-	-	-	-	-	-	-	-	-	-
<b>3 Performing Arts Facilities</b>																							
3.1	Mega Performance Venue	2,486	(2,218)	(2,797)	-	-	(188)	(631)	(1,176)	(714)	(87)	-	-	-	-	-	-	-	-	-	-	-	-
3.2	Great Theatre 1	1,117	(996)	(1,257)	-	-	(85)	(284)	(528)	(321)	(39)	-	-	-	-	-	-	-	-	-	-	-	-
3.3	Concert Hall and Chamber Music Hall	1,372	(1,177)	(1,574)	-	-	-	(106)	(355)	(662)	(402)	(49)	-	-	-	-	-	-	-	-	-	-	-
3.4	Xiqu Centre	1,133	(972)	(1,300)	-	-	-	(88)	(293)	(547)	(332)	(41)	-	-	-	-	-	-	-	-	-	-	-
3.5	Medium Theatre 1	479	(419)	(545)	-	-	-	(37)	(248)	(242)	(17)	-	-	-	-	-	-	-	-	-	-	-	-
3.6	Medium Theatre 2 and Black Box Theatre 1	642	(573)	(722)	-	-	(49)	(163)	(304)	(184)	(23)	-	-	-	-	-	-	-	-	-	-	-	-
3.7	Black Box Theatres 2 and 3	301	(263)	(342)	-	-	-	(23)	(156)	(152)	(11)	-	-	-	-	-	-	-	-	-	-	-	-
3.8	Black Box Theatre 4	183	(160)	(208)	-	-	-	(14)	(95)	(93)	(6)	-	-	-	-	-	-	-	-	-	-	-	-
3.9	Piazzas				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Piazzas	226	(206)	(252)	-	-	(17)	(115)	(112)	(8)	-	-	-	-	-	-	-	-	-	-	-	-	-
	Small canopy	82	(75)	(91)	-	-	(6)	(42)	(41)	(3)	-	-	-	-	-	-	-	-	-	-	-	-	-
	<i>Piazzas (total)</i>		<i>(280)</i>	<i>(343)</i>	-	-	<i>(23)</i>	<i>(156)</i>	<i>(153)</i>	<i>(11)</i>	-	-	-	-	-	-	-	-	-	-	-	-	-
4	Other Arts and Cultural Uses	353	(309)	(402)	-	-	-	(27)	(183)	(179)	(12)	-	-	-	-	-	-	-	-	-	-	-	-
<b>5 Transport Facilities</b>																							
5.1	Automated People Mover	658	(598)	(732)	-	-	(50)	(334)	(326)	(23)	-	-	-	-	-	-	-	-	-	-	-	-	-
5.2	Car parks				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Public Car Parks (basement)	132	(120)	(147)	-	-	(10)	(67)	(66)	(5)	-	-	-	-	-	-	-	-	-	-	-	-	-
	Public Car Parks (podium)	99	(90)	(110)	-	-	(8)	(50)	(49)	(3)	-	-	-	-	-	-	-	-	-	-	-	-	-
	Public Car Parks (basement shared foundation)	138	(125)	(153)	-	-	(10)	(70)	(68)	(5)	-	-	-	-	-	-	-	-	-	-	-	-	-
	<i>Public Car Park (total)</i>		<i>(336)</i>	<i>(411)</i>	-	-	<i>(28)</i>	<i>(187)</i>	<i>(183)</i>	<i>(13)</i>	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>6 Communal Facilities</b>																							
6.1	Public Open Space				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Public Open Space (at-grade)	732	(666)	(815)	-	-	(55)	(372)	(363)	(25)	-	-	-	-	-	-	-	-	-	-	-	-	-
	Public Open Space (terraces)	277	(252)	(308)	-	-	(21)	(141)	(137)	(10)	-	-	-	-	-	-	-	-	-	-	-	-	-
	Contingency space (soft landscaping)	8	(7)	(9)	-	-	(1)	(4)	(4)	(0)	-	-	-	-	-	-	-	-	-	-	-	-	-
	<i>Public Open Space (total)</i>		<i>(925)</i>	<i>(1,132)</i>	-	-	<i>(77)</i>	<i>(516)</i>	<i>(504)</i>	<i>(35)</i>	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Retail/Dining/Entertainment	2,700	(2,351)	(3,074)	-	-	-	-	(1,475)	(1,504)	(95)	-	-	-	-	-	-	-	-	-	-	-	-
<b>PHASE 2</b>																							
<b>8 Performing Arts (Phase 2)</b>																							
8.1	Great Theatre 2 and Medium Theatre 3	1,534	(855)	(2,189)	-	-	-	-	-	-	-	-	-	(147)	(494)	(920)	(559)	(68)	-	-	-	-	-
8.2	Medium Theatre 4	479	(262)	(691)	-	-	-	-	-	-	-	-	-	-	(47)	(315)	(307)	(21)	-	-	-	-	-
<b>9 Museum and Exhibition (Phase 2)</b>																							
9.0	M+ (phase 2)	770	(346)	(1,225)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(83)	(559)	(545)	(38)
<b>TOTAL</b>			<b>(15,697)</b>	<b>(22,480)</b>	-	-	<b>(500)</b>	<b>(2,806)</b>	<b>(6,909)</b>	<b>(6,179)</b>	<b>(1,798)</b>	<b>(182)</b>	-	<b>(147)</b>	<b>(541)</b>	<b>(1,235)</b>	<b>(866)</b>	<b>(90)</b>	-	<b>(83)</b>	<b>(559)</b>	<b>(545)</b>	<b>(38)</b>

( ) = Negative NPV / Value

**Note:**  
All numbers are rounded to zero decimal place (i.e. nearest \$ million) for presentation purpose. The table totals presented therefore may not add up due to rounding.

## West Kowloon Cultural District

**Major Repair and Renovation Costs (in 2006 Prices)**

	(a)	(b)	(c) = (a) x (b)		
	Initial Construction Cost (excluding professional fees and contract management costs)(Column (i) of Encl. 6(a) refers)	Major Overhaul Costs as % of Initial Construction Cost (Note 2)	Total Costs per Major Overhaul	Major Overhaul Cycle	Year of Major Overhaul Carried Out
	\$ Million (in 2006 prices) - (Note 1)	%	\$ Million (in 2006 prices) - (Note 1)	Carry out every	Year(s)
<b>PHASE 1</b>					
<b>1 Management and Masterplanning</b>					
1.1 Masterplanning					
1.2 Area and Project Management					
<b>2 Museum and Exhibition Space</b>					
2.1 M+ (on-site)	1,313	48%	630	20 years	2034, 2054
(off-site storage and conservatory laboratory)	291	48%	140	20 years	2034, 2054
2.2 Exhibition Centre	351	47%	165	20 years	2033, 2053
<b>3 Performing Arts Facilities</b>					
3.1 Mega Performance Venue	1,684	51%	859	20 years	2033, 2053
3.2 Great Theatre 1	757	52%	394	20 years	2033, 2053
3.3 Concert Hall and Chamber Music Hall	859	52%	447	20 years	2034, 2054
3.4 Xiqu Centre	712	52%	370	20 years	2034, 2054
3.5 Medium Theatre 1	325	52%	169	20 years	2033, 2053
3.6 Medium Theatre 2 and Black Box Theatre 1	435	51%	222	20 years	2033, 2053
3.7 Black Box Theatres 2 and 3	204	49%	100	20 years	2033, 2053
3.8 Black Box Theatre 4	124	49%	61	20 years	2033, 2053
3.9 Piazzas	219	50%	109	30 years	2042
<b>4 Other Arts and Cultural Uses</b>	269	14%	38	20 years	2033, 2053
<b>5 Transport Facilities</b>					
5.1 Automated People Mover	490	60%	294	30 years	2042
5.2 Car parks	289	21%	61	20 years	2033, 2053
<b>6 Communal Facilities</b>					
6.1 Public Open Space	804	46%	370	30 years	2042
<b>7 Retail/Dining/Entertainment Facilities</b>		\$300/sq.ft. GFA (or \$3,229/sq.m.)	384 #	12 years	2025, 2037, 2049
<b>PHASE 2</b>					
<b>8 Performing Arts Facilities (Phase 2)</b>					
8.1 Great Theatre 2 and Medium Theatre 3	1,039	52%	540	20 years	2045
8.2 Medium Theatre 4	325	52%	169	20 years	2045
<b>9 M+ (Phase 2)</b>	521	48%	250	20 years	2050

# Assumed major overhaul costs at \$300/sq.ft. GFA (i.e. 119,000 sq.m. x \$300/sq.ft. x 10.764 x 0.000001)

**Note:** (1) Figure in 2006 prices, rounded to zero decimal point (i.e. nearest \$million)(2) Annexes C to F and L of Financial Advisor's Final Report dated April 2007 (which is available on Home Affairs Bureau's website [www.hab.gov.hk/wkcd](http://www.hab.gov.hk/wkcd)) refer.



West Kowloon Cultural District  
Major Repair and Renovation Costs - in 2008 NPV and MOD Cash Flows (\$Million)

	2008 NPV	Total MOD	MOD																	
			2006 - 2024	2025	2026 - 2032	2033	2034	2035 - 2036	2037	2038 - 2041	2042	2043 - 2044	2045	2046 - 2048	2049	2050	2051 - 2052	2053	2054	2055 - 2059
<b>PHASE 1</b>																				
<b>1 Management and Masterplanning</b>																				
1.1 Masterplanning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2 Area and Project Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>2 Museum and Exhibition Space</b>																				
2.1 M+ (on-site)	(344)	(2,727)	-	-	-	-	(1,097)	-	-	-	-	-	-	-	-	-	-	-	(1,630)	-
M+ (off-site storage and conservation laboratory)	(76)	(604)	-	-	-	-	(243)	-	-	-	-	-	-	-	-	-	-	-	(361)	-
M+ total	(421)	(3,331)	-	-	-	-	(1,340)	-	-	-	-	-	-	-	-	-	-	-	(1,991)	-
2.2 Exhibition Centre	(94)	(699)	-	-	-	(281)	-	-	-	-	-	-	-	-	-	-	-	(418)	-	-
<b>3 Performing Arts Facilities</b>																				
3.1 Mega Performance Venue	(488)	(3,645)	-	-	-	(1,466)	-	-	-	-	-	-	-	-	-	-	-	(2,179)	-	-
3.2 Great Theatre 1	(224)	(1,670)	-	-	-	(672)	-	-	-	-	-	-	-	-	-	-	-	(998)	-	-
3.3 Concert Hall and Chamber Music Hall	(244)	(1,933)	-	-	-	-	(778)	-	-	-	-	-	-	-	-	-	-	-	(1,156)	-
3.4 Xiqu Centre	(202)	(1,603)	-	-	-	-	(645)	-	-	-	-	-	-	-	-	-	-	-	(958)	-
3.5 Medium Theatre 1	(96)	(717)	-	-	-	(288)	-	-	-	-	-	-	-	-	-	-	-	(428)	-	-
3.6 Medium Theatre 2 and Black Box Theatre 1	(126)	(941)	-	-	-	(379)	-	-	-	-	-	-	-	-	-	-	-	(563)	-	-
3.7 Black Box Theatres 2 and 3	(57)	(424)	-	-	-	(171)	-	-	-	-	-	-	-	-	-	-	-	(254)	-	-
3.8 Black Box Theatre 4	(35)	(258)	-	-	-	(104)	-	-	-	-	-	-	-	-	-	-	-	(154)	-	-
3.9 Piazzas	(30)	(223)	-	-	-	-	-	-	-	-	(223)	-	-	-	-	-	-	-	-	-
<b>4 Other Arts and Cultural Uses</b>	(21)	(160)	-	-	-	(64)	-	-	-	-	-	-	-	-	-	-	-	(96)	-	-
<b>5 Transport Facilities</b>																				
5.1 Automated People Mover	(81)	(600)	-	-	-	-	-	-	-	-	(600)	-	-	-	-	-	-	-	-	-
5.2 Car parks	(35)	(258)	-	-	-	(104)	-	-	-	-	-	-	-	-	-	-	-	(154)	-	-
<b>6 Communal Facilities</b>																				
6.1 Public Open Space	(101)	(754)	-	-	-	-	-	-	-	-	(754)	-	-	-	-	-	-	-	-	-
<b>7 Retail/Dining/Entertainment Facilities</b>	(414)	(2,170)	-	(560)	-	-	-	-	(710)	-	-	-	-	-	(900)	-	-	-	-	-
<b>PHASE 2</b>																				
<b>8 Performing Arts Facilities (Phase 2)</b>																				
8.1 Great Theatre 2 and Medium Theatre 3	(132)	(1,170)	-	-	-	-	-	-	-	-	-	-	(1,170)	-	-	-	-	-	-	-
8.2 Medium Theatre 4	(41)	(366)	-	-	-	-	-	-	-	-	-	-	(366)	-	-	-	-	-	-	-
<b>9 M+ (Phase 2)</b>	(50)	(598)	-	-	-	-	-	-	-	-	-	-	-	-	-	(598)	-	-	-	-
<b>Total</b>	(2,891)	(21,520)	-	(560)	-	(3,528)	(2,763)	-	(710)	-	(1,577)	-	(1,535)	-	(900)	(598)	-	(5,243)	(4,105)	-

( ) = Negative NPV / Value

**Note:**  
All numbers are rounded to zero decimal place (i.e. nearest \$ million) for presentation purpose. The table totals presented therefore may not add up due to rounding.

West Kowloon Cultural District

Museum Collection and Other Costs for the M+ - in 2008 NPV and MOD  
Cash Flows (\$Million)

	2008 NPV	Total MOD	MOD																		
			2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<b><u>Phase 1 M+:</u></b>																					
<b>Other capital :-</b>																					
<b>Collection :</b>																					
Initial collection - \$1 billion (in 2006 prices)	(873)	(1,138)	-	-	-	(276)	(282)	(287)	(293)	-	-	-	-	-	-	-	-	-	-	-	-
Annual collection @ \$20m (in 2006 prices) from 2015 onwards)	(341)	(1,718)	-	-	-	-	-	-	-	(24)	(24)	(25)	(25)	(26)	(26)	(27)	(27)	(28)	(29)	(29)	(30)
Total collection costs	(1,214)	(2,856)	-	-	-	(276)	(282)	(287)	(293)	(24)	(24)	(25)	(25)	(26)	(26)	(27)	(27)	(28)	(29)	(29)	(30)
<b>Exhibition development :</b>																					
Initial - \$204 milion (in 2006 prices)	(178)	(232)	-	-	-	(56)	(57)	(59)	(60)	-	-	-	-	-	-	-	-	-	-	-	-
Periodic once every 15 years thereafter (\$204 milion in 2006 prices)	(174)	(1,337)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total exhibition development costs	(352)	(1,569)	-	-	-	(56)	(57)	(59)	(60)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Conservation laboratory equipment :</b>																					
Initial - \$26 million (in 2006 prices)	(23)	(30)	-	-	-	(7)	(7)	(8)	(8)	-	-	-	-	-	-	-	-	-	-	-	-
Periodic once every 10 years thereafter (\$13 milion in 2006 prices)	(18)	(102)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(19)	-	-	-
Total conservation laboratory equipment costs	(41)	(132)	-	-	-	(7)	(7)	(8)	(8)	-	-	-	-	-	-	-	-	(19)	-	-	-
<b>Library set up costs :</b>																					
	(24)	(32)	-	-	-	(8)	(8)	(8)	(8)	-	-	-	-	-	-	-	-	-	-	-	-
Total library set up costs	(24)	(32)	-	-	-	(8)	(8)	(8)	(8)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total museum collection and other costs</b>	<b>(1,630)</b>	<b>(4,590)</b>	-	-	-	<b>(347)</b>	<b>(354)</b>	<b>(361)</b>	<b>(369)</b>	<b>(24)</b>	<b>(24)</b>	<b>(25)</b>	<b>(25)</b>	<b>(26)</b>	<b>(26)</b>	<b>(27)</b>	<b>(27)</b>	<b>(28)</b>	<b>(47)</b>	<b>(29)</b>	<b>(30)</b>
<b><u>Phase 2 M+:</u></b>																					
<b>Other capital :-</b>																					
<b>Exhibition development :</b>																					
Initial - \$128 milion (in 2006 prices)	(56)	(205)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Periodic once every 15 years thereafter (\$128 milion in 2006 prices)	(31)	(276)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total exhibition development costs	(87)	(481)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total (Phases 1 and 2)</b>	<b>(1,717)</b>	<b>(5,071)</b>	-	-	-	<b>(347)</b>	<b>(354)</b>	<b>(361)</b>	<b>(369)</b>	<b>(24)</b>	<b>(24)</b>	<b>(25)</b>	<b>(25)</b>	<b>(26)</b>	<b>(26)</b>	<b>(27)</b>	<b>(27)</b>	<b>(28)</b>	<b>(47)</b>	<b>(29)</b>	<b>(30)</b>

( ) = Negative NPV / Value

**Note:** All numbers are rounded to zero decimal place (i.e. nearest \$ million) for presentation purpose. The table totals presented therefore may not add up due to rounding.

**West Kowloon Cultural District****Museum Collection and Other Costs for the M+ - in 2008 NPV and MOD  
Cash Flows (\$Million)**

	2008 NPV	Total MOD	MOD																		
			2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
<b>Phase 1 M+:</b>																					
<b>Other capital :-</b>																					
<b>Collection :</b>																					
Initial collection - \$1 billion (in 2006 prices)	(873)	(1,138)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual collection @ \$20m (in 2006 prices) from 2015 onwards)	(341)	(1,718)	(30)	(31)	(32)	(32)	(33)	(33)	(34)	(35)	(36)	(36)	(37)	(38)	(38)	(39)	(40)	(41)	(42)	(42)	(43)
<b>Total collection costs</b>	<b>(1,214)</b>	<b>(2,856)</b>	<b>(30)</b>	<b>(31)</b>	<b>(32)</b>	<b>(32)</b>	<b>(33)</b>	<b>(33)</b>	<b>(34)</b>	<b>(35)</b>	<b>(36)</b>	<b>(36)</b>	<b>(37)</b>	<b>(38)</b>	<b>(38)</b>	<b>(39)</b>	<b>(40)</b>	<b>(41)</b>	<b>(42)</b>	<b>(42)</b>	<b>(43)</b>
<b>Exhibition development :</b>																					
Initial - \$204 milion (in 2006 prices)	(178)	(232)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Periodic once every 15 years thereafter (\$204 milion in 2006 prices)	(174)	(1,337)	-	-	(322)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(433)	-
<b>Total exhibition development costs</b>	<b>(352)</b>	<b>(1,569)</b>	<b>-</b>	<b>-</b>	<b>(322)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(433)</b>	<b>-</b>
<b>Conservation laboratory equipment :</b>																					
Initial - \$26 million (in 2006 prices)	(23)	(30)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Periodic once every 10 years thereafter (\$13 milion in 2006 prices)	(18)	(102)	-	-	-	-	-	-	-	(23)	-	-	-	-	-	-	-	-	-	(28)	-
<b>Total conservation laboratory equipment costs</b>	<b>(41)</b>	<b>(132)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(23)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(28)</b>	<b>-</b>
<b>Library set up costs :</b>																					
	(24)	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total library set up costs</b>	<b>(24)</b>	<b>(32)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total museum collection and other costs</b>	<b>(1,630)</b>	<b>(4,590)</b>	<b>(30)</b>	<b>(31)</b>	<b>(353)</b>	<b>(32)</b>	<b>(33)</b>	<b>(33)</b>	<b>(34)</b>	<b>(57)</b>	<b>(36)</b>	<b>(36)</b>	<b>(37)</b>	<b>(38)</b>	<b>(38)</b>	<b>(39)</b>	<b>(40)</b>	<b>(41)</b>	<b>(42)</b>	<b>(503)</b>	<b>(43)</b>
<b>Phase 2 M+:</b>																					
<b>Other capital :-</b>																					
<b>Exhibition development :</b>																					
Initial - \$128 milion (in 2006 prices)	(56)	(205)	-	-	-	(205)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Periodic once every 15 years thereafter (\$128 milion in 2006 prices)	(31)	(276)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(276)
<b>Total exhibition development costs</b>	<b>(87)</b>	<b>(481)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(205)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(276)</b>
<b>Total (Phases 1 and 2)</b>	<b>(1,717)</b>	<b>(5,071)</b>	<b>(30)</b>	<b>(31)</b>	<b>(353)</b>	<b>(237)</b>	<b>(33)</b>	<b>(33)</b>	<b>(34)</b>	<b>(57)</b>	<b>(36)</b>	<b>(36)</b>	<b>(37)</b>	<b>(38)</b>	<b>(38)</b>	<b>(39)</b>	<b>(40)</b>	<b>(41)</b>	<b>(42)</b>	<b>(503)</b>	<b>(319)</b>

( ) = Negative NPV / Value

**Note:** All numbers are rounded to zero decimal place (i.e. nearest \$ million) for presentation purpose. The table totals presented therefore may not add up due to rounding.

West Kowloon Cultural District

Museum Collection and Other Costs for the M+ - in 2008 NPV and MOD  
Cash Flows (\$Million)

	2008 NPV	Total MOD	MOD													
			2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059
<b>Phase 1 M+:</b>																
<b>Other capital :-</b>																
<b>Collection :</b>																
Initial collection - \$1 billion (in 2006 prices)	(873)	(1,138)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual collection @ \$20m (in 2006 prices) from 2015 onwards)	(341)	(1,718)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)
Total collection costs	(1,214)	(2,856)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)
<b>Exhibition development :</b>																
Initial - \$204 milion (in 2006 prices)	(178)	(232)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Periodic once every 15 years thereafter (\$204 million in 2006 prices)	(174)	(1,337)	-	-	-	-	-	-	-	-	-	-	-	-	-	(583)
Total exhibition development costs	(352)	(1,569)	-	-	-	-	-	-	-	-	-	-	-	-	-	(583)
<b>Conservation laboratory equipment :</b>																
Initial - \$26 million (in 2006 prices)	(23)	(30)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Periodic once every 10 years thereafter (\$13 milion in 2006 prices)	(18)	(102)	-	-	-	-	-	-	-	-	(34)	-	-	-	-	-
Total conservation laboratory equipment costs	(41)	(132)	-	-	-	-	-	-	-	-	(34)	-	-	-	-	-
<b>Library set up costs :</b>																
	(24)	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total library set up costs	(24)	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total museum collection and other costs</b>	<b>(1,630)</b>	<b>(4,590)</b>	<b>(44)</b>	<b>(45)</b>	<b>(46)</b>	<b>(47)</b>	<b>(48)</b>	<b>(49)</b>	<b>(50)</b>	<b>(51)</b>	<b>(85)</b>	<b>(53)</b>	<b>(54)</b>	<b>(55)</b>	<b>(56)</b>	<b>(640)</b>
<b>Phase 2 M+:</b>																
<b>Other capital :-</b>																
<b>Exhibition development :</b>																
Initial - \$128 milion (in 2006 prices)	(56)	(205)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Periodic once every 15 years thereafter (\$128 million in 2006 prices)	(31)	(276)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total exhibition development costs	(87)	(481)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total (Phases 1 and 2)</b>	<b>(1,717)</b>	<b>(5,071)</b>	<b>(44)</b>	<b>(45)</b>	<b>(46)</b>	<b>(47)</b>	<b>(48)</b>	<b>(49)</b>	<b>(50)</b>	<b>(51)</b>	<b>(85)</b>	<b>(53)</b>	<b>(54)</b>	<b>(55)</b>	<b>(56)</b>	<b>(640)</b>

( ) = Negative NPV / Value

**Note:** All numbers are rounded to zero decimal place (i.e. nearest \$ million) for presentation purpose. The table totals presented therefore may not add up due to rounding.

West Kowloon Cultural District

Operating Costs of the WKCDA during construction and area management stage from 2008-09 to 2014-15 (including master planning) - in 2008 NPV and MOD Cash Flows (\$Million)

	2008 NPV	Total MOD	MOD						
			2008	2009	2010	2011	2012	2013	2014
<b>Capitalized costs</b>									
Master planning	(34)	(35)	(17)	(18)	-	-	-	-	-
WKCDA costs	(1,230)	(1,465)	(197)	(201)	(205)	(209)	(213)	(218)	(222)
<b>Total</b>	(1,264)	(1,500)	(214)	(219)	(205)	(209)	(213)	(218)	(222)

( ) = Negative NPV / Value

**Note:**

All numbers are rounded to zero decimal place (i.e. nearest \$ million) for presentation purpose. The table totals presented therefore may not add up due to rounding.

Parameters/Assumptions

RDE GFA	119,000	sq.m.
Net Monthly Rental	\$30	per sq.ft. GFA (or \$3,875 per sq.m. per annum) (2006 prices)(Note 3)
Car Parking	397	spaces
Net Monthly Carpark Rental	\$2,500	per space (2006 prices)(Note 3)
Annual Net Rental Income	473	\$ million (2006 prices) (\$3,875 x 119,000 sq.m. + \$2,500 x 397 spaces x 12 months)

	2008 NPV	Total MOD	MOD																																
			2008-2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Net Rental Income	8,448	41,197	-	554	565	577	588	600	612	624	637	649	662	676	689	703	717	731	746	761	776	792	807	824	840	857	874	891	909	927	946	965	984	1,004	1,024

**Note:**  
(1) All numbers are rounded to zero decimal place (i.e. nearest \$ million) for presentation purpose. The table totals presented therefore may not add up due to rounding.  
(2) Rental income is net of rates and Government rents, property / profit tax and other expenses.  
(3) Annex L of Financial Advisor's Final Report dated April 2007 (which is available on Home Affairs Bureau's website [www.hab.gov.hk/wkcd](http://www.hab.gov.hk/wkcd)) refers.

	2008 NPV	Total MOD	MOD													
			2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059
Net Rental Income	8,448	41,197	1,044	1,065	1,087	1,108	1,131	1,153	1,176	1,200	1,224	1,248	1,273	1,299	1,325	1,351

**West Kowloon Cultural District****Operating Surpluses/Deficits (Excl. RDE) in NPV (\$ Million) and  
Operating Cost Recovery Rates by Facility**

	Operating cost recovery rate of CACF (%) (Note 2)	2008 NPV
		\$ Million
<b>PHASE 1</b>		
<b>1 Management and Masterplanning</b>		<b>(1,015)</b>
1.1 Masterplanning		0
1.2 Area and Project Management		(1,015)
<b>2 Museum and Exhibition Space</b>		<b>(5,011)</b>
2.1 M+	18%	(5,292)
2.2 Exhibition Centre	142%	281
<b>3 Performing Arts Facilities</b>		<b>(128)</b>
3.1 Mega Performance Venue	149%	1,014
3.2 Great Theatre 1	101%	(5)
3.3 Concert Hall and Chamber Music Hall	83%	(307)
3.4 Xiqu Centre	82%	(213)
3.5 Medium Theatre 1	66%	(159)
3.6 Medium Theatre 2 and Black Box Theatre 1	64%	(213)
3.7 Black Box Theatres 2 and 3	51%	(140)
3.8 Black Box Theatre 4	41%	(104)
3.9 Piazzas	100%	0
		(assumed breakeven)
<b>4 Other Arts and Cultural Uses</b>		<b>0</b>
		(assumed breakeven)
<b>5 Transport Facilities</b>		<b>179</b>
5.1 Automated People Mover		0
		(assumed breakeven)
5.2 Car parks		179
<b>6 Communal Facilities</b>		<b>(537)</b>
6.1 Public Open Space		(537)
<b>Subtotal</b>		<b>(6,512)</b>
<b>PHASE 2</b>		
<b>8 Performing Arts Facilities (Phase 2)</b>		<b>(446)</b>
8.1 Great Theatre 2 and Medium Theatre 3	74%	(318)
8.2 Medium Theatre 4	59%	(128)
<b>9 M+ (Phase 2)</b>	22%	<b>(625)</b>
<b>Subtotal</b>		<b>(1,070)</b>
<b>Total CACF, Transport and Communal Facilities - Operation Only</b>		<b>(7,582)</b>

( ) = Negative NPV / Value

**Note**

- (1) All numbers are rounded to 0 decimal places (i.e. nearest \$ million) for presentation purpose. The table totals presented therefore may not add up due to rounding.
- (2) This is the operating revenue as a % of operating costs (i.e. excluding depreciation) for a reference year (Year 10 (except for M+ which is Year 5) after commencement of operation).



**Legislative Council Subcommittee on  
West Kowloon Cultural District Development**

**Financial Assessment of the West Kowloon Cultural District Project**

**Purpose**

This paper provides further information on the financial assessment of the West Kowloon Cultural District (WKCD) project conducted by the Financial Advisor (FA) engaged by the Government. It also responds to the comments made by the Specialist Advisor engaged by the Subcommittee on the WKCD Development (the Subcommittee). For Members' easy reference, we have provided a short summary at **Annex 1**. Details are provided in the ensuing paragraphs.

**The Financial Advisor**

2. The Government engaged GHK (Hong Kong) Limited as its FA to assist in assessing the financial implications of the WKCD project in August 2006. The FA has conducted a detailed financial study on the project. The FA's final report was published in September 2007, as part of the large scale public engagement exercise on the recommendations of the Consultative Committee on the Core Arts and Cultural Facilities of the WKCD (Consultative Committee) conducted in September – December 2007. The FA has fielded a strong multi-disciplinary team to work on the consultancy including financial experts, public private partnership experts, performing arts venue and museum advisors and architects, engineering experts, quantity surveyors and land and property market specialists. Such wide range of expertise in particular the expertise in arts and culture are essential to the conduct of a proper and credible financial assessment of an integrated arts and cultural district.

**Modus Operandi of the Financial Assessment**

3. In estimating the costs and revenues of developing the arts and cultural facilities, the FA has made reference to relevant local facilities as well as comparable overseas facilities. The FA has worked closely with Home Affairs Bureau and relevant Government bureaux and departments in

coming up with very detailed assumptions underlying the estimation of the capital costs and operating revenue of the WKCD. The FA submitted its findings periodically to the Financial Matters Advisory Group (FMAG) set up under the Consultative Committee and attended FMAG meetings to seek FMAG members' views and advice on its findings.

### **Assumptions for Estimating the Capital Costs and Operating Cost and Revenue**

4. It should be noted that in the FA's financial assessment, the Core Arts and Cultural Facilities (CACF) to be provided in the WKCD are those recommended by the other two advisory groups set up under the Consultative Committee, namely the Performing Arts and Tourism Group (PATAG) and Museums Advisory Group (MAG). Detailed assumptions were adopted by the FA for conducting the financial assessment. For instance, unit construction costs similar to comparable overseas facilities have been worked out as the basis for estimating the construction cost. The base construction costs are then adjusted with contract and project management on costs and risk premium reflecting the complexity and high quality standard required of the facilities, as well as an inflation rate reflecting the long term inflation trend. Appropriate operating assumptions have been worked out for each facility, including utilization rates, average ticket prices, attendance rates, venue programming costs, visitor numbers etc.

### **Response to the Report by the Specialist Advisor appointed by the Subcommittee**

5. The Specialist Advisor engaged by the Subcommittee has made some comments on the report prepared by the FA and made some recommendations. Our response to these comments is set out below.

#### *Funding proposal*

6. Subcommittee's Specialist Advisor has not disputed the merits of providing a one-off upfront endowment for the WKCD project and requiring the West Kowloon Cultural District Authority (WKCDA) to operate the WKCD in a financially sustainable manner. The Specialist Advisor also noted that this would be most difficult to achieve under a subvention scheme. The Specialist Advisor has advised to put in place measures to ensure that the use of the upfront endowment is transparent and

accountable to the public at all times. We would like to point out that a number of transparency and accountability measures have been included under the WKCD Bill now being scrutinized by the WKCD Bills Committee. For instance, the WKCD is required to submit an annual report on its activities as well as an audited statement of accounts together with the auditor's report to the Financial Secretary who will cause it to be laid before the LegCo. The WKCD is also required to consult the public on matters relating to the development and operation of the arts and cultural facilities and other facilities. Additionally, the LegCo or any committee of the LegCo may request the WKCD Chairman and the Chief Executive Officer to attend its meetings and to answer questions raised by the Members of the LegCo at the meetings.

#### *Financial Sustainability Beyond 50 Years*

7. A 50-year project period was adopted by the FA as the duration for analyzing the financial viability of the long-term development of the WKCD. This is even more stringent than normal professional assessment of long-term projects. The FA's financial assessment indicates that the retail dining and entertainment facilities would generate an estimated income of \$8.4 billion (2008 NPV) over the first 50-year project period which is around 10% higher than the estimated total operating deficit of \$7.6 billion (2008 NPV) of the arts and cultural facilities and other related facilities. The overall financial assessment shows that the WKCD project should be financially sustainable on a long-term basis. Moreover, as the FA's financial assessment has made provision for major overhaul costs at appropriate intervals as well as annual building maintenance costs for each facility, this would effectively mean that all the facilities should be in good condition and fully functional even beyond 50 years. There is no question of having to seek another round of capital funding to re-build all the facilities after 50 years.

#### *Cost and Revenue Estimation*

8. The Financial Advisor's estimation of the construction costs was based on its professional knowledge and experience in these arts and cultural facilities and its knowledge of the local market, as well as the unit construction cost of comparable world-class arts and cultural facilities in the Mainland and overseas. The Architectural Services Department has advised that the FA's estimated unit construction costs are within a reasonable range.

9. The Specialist Advisor has also remarked that the FA's estimation of unit construction costs is reasonable. It has expressed its opinion on possible future escalation of construction cost. We consider that it is professionally sound and prudent for the FA to adopt an average inflation rate for long-term financial assessment, given the year-on-year volatility of construction costs in the local market, as evidenced by the historical ups and downs in cost escalations in the past twenty years which can fluctuate from -13% to +25% for individual years. We should also add that the FA has conducted a very sophisticated risk analysis of the construction of the arts and cultural facilities and has provided for considerable buffer to accommodate unexpected rises in construction cost.

10. Another point raised by the Specialist Advisor is about the rental income estimated to be generated from the retail, dining and entertainment facilities. In assessing the rentals from such facilities, the FA has already taken into account the location factor, the PATAG's preference for such facilities to integrate with the arts and cultural facilities and that they should not replicate large scale shopping malls. We should also take into account the likely increase in visitors in WKCD as a result of the provision of more facilities, improvement in transportation facilities and the impact of the Express Rail Link in the vicinity of WKCD. The FA's estimated rental income from the retail, dining and entertainment facilities is prudent and realistic.

#### *Investment Return*

11. We would like to point out that the estimated annual investment return of 6.1% over the project period falls comfortably within the range of the historical returns of overseas high quality bonds and growth rates of local and overseas equity indices. For instance, from 1996 to 2006, Moody's yield on seasoned all industries bonds ranged from 5.23% to 7.62% for Moody's AAA, 6.06% to 8.37% for Moody's BAA bonds. The compound annual growth rate for equities over the period January 1987 to January 2007 of the Hang Seng Index and the S&P 500 index were 10.9% and 8.6% respectively. Furthermore, the Exchange Fund generated a compound nominal annual investment return of 7% over the 14-year period from 1994 to 2007. To ensure that the investment of the upfront endowment would be managed properly, we are going to include in the WKCD Bill the requirement for setting up an investment committee under the WKCD Board

to advise the WKCD Board on the investment of the upfront endowment as well as monitoring such investment. The investment committee should comprise individuals with relevant expertise and experiences.

### *Design and Build*

12. Under the design and build approach, the client enters into contractual relationship with the contractor to design and construct the project in accordance with performance specifications prepared by the client. The contractor then enters into a series of separate agreements with consultants, specialist sub-contractors and suppliers to deliver the completed project in accordance with the agreed performance specifications. This method intends to encourage more contractor involvement, increase the speed of project delivery, lower the level of responsibility for the client, and increase the use of proprietary systems or modules.

13. The Specialist Advisor has commented on the approach of design and build. The Architectural Services Department who is experienced in executing design and build projects, has given a detailed response to the Specialist Advisor's comments, as set out in **Annex 2**. In brief, the design and build approach offers many advantages to the client over the approach of separating design contracts from building contracts.

### *Staffing Requirement of the WKCDA*

14. The WKCDA will be responsible for the co-ordination of the planning, development and operation of the entire WKCD, including its arts and cultural facilities, communal facilities, transport facilities, commercial facilities, etc. In addition to the arts and cultural venues in WKCD, the whole WKCD site and other communal facilities in it like public open space and the automated people mover system will also be under the overall management of the WKCDA. The WKCDA has to prudently administer the financial resources involved. According to the FA's estimation, WKCDA will require 33 staff members to handle this area of work. This is a very streamlined structure having regard to the responsibility for the overall management of an integrated cultural district of 40 hectares.

15. During the initial development period of the WKCD (i.e. the first 7 years or so), WKCDA will require more staff to prepare a development plan for the whole WKCD site, organise design competitions,

monitor and execute the construction contracts of all the arts and cultural facilities and other facilities, as well as to conduct public consultations. The estimated staffing requirement of 90 people is considered to be not more than necessary. It has been drawn up with reference to comparable local and overseas organizations.

### **Economic Impact Assessment**

16. The Specialist Advisor has made some comments on the Economic Impact Assessment Report prepared by the Government Economist. The Government Economist's response is set out in **Annex 3**.

#### **M+**

17. The Specialist Advisor suggested that should **M+** be run by an international operator, there will be substantial potential savings and **M+** might be operated with substantial surplus. As museums are cultural and educational institutions, they are typically loss making and their value should not be measured purely on financial returns. Development of museums is vision-driven and a long-term commitment in culture, arts and creative education. The **M+** has its mission to focus on 20<sup>th</sup> – 21<sup>st</sup> century “visual culture” (with design, moving image, popular culture and visual art (including ink art) as initial broad grouping). It seeks to present 20<sup>th</sup> – 21<sup>st</sup> century “visual culture” from a Hong Kong perspective, the perspective of now, and with a global vision. The model of engaging an international operator would be difficult to achieve this mission as the unique character and reputation of a world-class museum has to be built up overtime through accumulation of curatorial experience, persistent production of impressive programmes, collection and international networking and co-operations. All these would be difficult to obtain through franchise. Furthermore, curatorial freedom might be restricted under the international franchise model, and the costs involved might also be higher than expected.

18. The estimated capital costs and operating costs for **M+** were compiled with reference to comparable world-class museums. As **M+** is estimated to increase the total public museum space by around 50% in Hong Kong, the estimated annual operating deficit of around \$300 million (Phase I **M+**) as compared to the total recurrent expenditure of around \$500 million for all LCSD museums is prudent and reasonable. It should be noted that our financial assessment for **M+** has provided for about one-third of the

estimated annual operating costs (about \$100 million) for commissioning innovative and creative works from artists.

### **Public Sector Involvement**

19. The three private sector involvement scenarios have been developed by the FA to compare the relative merits of involving the private sectors to differing degrees. These scenarios were used to test the financial implications of the project under these scenarios, taking into account the degree of risk transfer and financing costs to the private sector, as well as potential market interest in participating in the project.

Home Affairs Bureau  
May 2008

Summary of the Report submitted by the Specialist Advisor engaged by the Subcommittee on the West Kowloon Cultural District Development (the Subcommittee)	The Administration's Response
<p>1. This report assumes the principle that the West Kowloon Cultural District (WKCD) should be self sufficient and financially sustainable. Capital and operating deficits would have to be met by land sales and operating income within the 40 hectares of land.</p>	<p><b>1. Only the land for residential, office and hotel uses within the 40-hectare site would be sold. The land would be sold by the Government separately. The land revenue would be paid into the general revenue and will not be used on the WKCD project.</b></p>
<p>2. The method of three comparing scenarios of private sector involvement is questionable. Scenarios 1B and 2 are not sufficiently realistic to be considered as practical options for meaningful comparisons. Moreover, despite greater private sector participation in these two scenarios, no additional efficiency gain has been allowed for.</p>	<p><b>2. The three Private Sector Involvement (PSI) scenarios demonstrate various levels of private sector involvement. In deciding which scenario is more appropriate, the following factors have to be taken into account, namely, the risk and financing costs, market response, the overall costs as well as operating revenue and expenditure. In the light of the operational risk of arts and cultural facilities, the existing PSI model has already balanced various considerations.</b></p>
<p>3. Design and Build contracts may not be a suitable procurement method for M+ and other core arts and cultural facilities.</p>	<p><b>3. The Government and local construction industry have many years of experience in executing design and build contracts. Being an effective model, it can bring about earlier delivery, and the contractor will bear the design and construction risks.</b></p>



<p>4. Arts and Cultural Facilities: unit construction costs range from \$22,200 to \$29,200 are on the high side. If it is of a high quality, it would be considered as falling within reasonable range. On-costs are, however, higher than conventional.</p>	<p><b>4. Agree. In estimating the on-costs, the Financial Advisor (FA) has taken into account the experience of technical consultants in various professional areas, made reference to charging standards of professional services issued by local professional bodies and the costs of some relevant facilities overseas.</b></p>
<p>5. The Financial Advisor (FA) sensitivity analyses have not tested the financial implications of risks in investment returns and in construction costs escalations. These tests should be carried out, and contingency plans should be formulated well in advance.</p>	<p><b>5. Construction costs and operation costs have included prudent risk premium to accommodate cost increase incurred by various risks. Investment return rate is similar to historical returns of high quality bonds overseas and is considered reasonable.</b></p>
<p>6. The FA analysis is confined to 50 years. There is no fund set aside for major renovations or re-constructions after 50 years, beyond which the WKCD may not be financially sustainable. An extra saving of \$3.38 billion on capital and operating costs, equivalent to 16% of the \$21.6 billion seed fund, is needed.</p>	<p><b>6.</b></p> <ul style="list-style-type: none"> <li>• <b>The use of 50-year project period is even more stringent than the professional assessment of other long-term projects.</b></li> <li>• <b>We estimate that the retail, dining and entertainment facilities would generate an estimated rental income of \$8.4 billion (2008 Net Present Value) over the first 50-year project period which is around 10% higher than the estimated total operating deficit of \$7.6 billion (2008 Net Present Value) of the arts and cultural facilities. Arts and cultural facilities could be operated in a financially sustainable manner.</b></li> </ul>

	<ul style="list-style-type: none"> <li>• Provision has already been made for regular major overhaul as well as annual building maintenance during the 50-year project period. All facilities will be in good condition and fully functional beyond 50 years. No question of demolishing or re-building the facilities immediately after 50 years.</li> </ul>
<p>7. Under the FA operating assumptions, M+ would cost \$10.7 billion to construct and operate for 50 years. By 2059, M+ would contribute 89% of the WKCD yearly deficit. M+ might become a long-term financial burden of the WKCD.</p>	<p>7. • The estimated construction cost of M+ is \$2.6 billion.</p> <ul style="list-style-type: none"> <li>• The estimated annual operating deficit of M+ is around \$300 million, which is comparable to the total recurrent expenditure of around \$500 million for all Leisure and Cultural Services Department museums.</li> <li>• The rental income from retail, dining and entertainment (RDE) facilities can fully cover the overall total operating deficit of the arts and cultural facilities (including M+).</li> </ul>
<p>8. According to the information provided by the FA so far, should M+ be run by an international operator, the potential saving, in very crude terms, could be as high as \$4.8 billion (i.e. 22% of the \$21.6 billion seed fund). There is a big difference prima facie and should be studied carefully.</p>	<p>8. Engaging an international operator to operate M+ will not achieve M+'s vision and M+ would lose Hong Kong's unique cultural character and curatorial freedom. It will also restrict M+'s future development and hinder its co-operation with internationally renowned museums on a mutually beneficial basis. This development model may also incur higher costs than expected.</p>

<p>9. Annual deficits of the WKCD would have to be met by RDE rentals. RDE is therefore the life line of the WKCD. Yet compared to the detailed operating assumptions provided for Core Arts and Cultural Facilities (CACF), down to the smallest of theatres, those provided for RDE are clearly insufficient.</p>	<p><b>9. The estimated rental income level for retail/dining/entertainment facilities is considerably conservative, because it has taken into account the need for these facilities to integrate with the arts and cultural facilities and that they are not comparable to the operation of large scale shopping malls. The estimated rental has not taken into account the positive impact on rental of commercial facilities due to the increase in people flow arising from connecting WKCD with the Express Rail Link.</b></p>
<p>10. In considering the funding priority for each individual facility/cost item, factors including uncertainty in financial performance, potential benefits on further investigation and its financial significance, should all be taken into account. To build up the financial strength of the WKCD, considerations in (a) reduction of on-costs; (b) a more efficient operation mode of M+; and (c) an effective business plan for RDE facilities are essential.</p>	<p><b>10. While we have no objection to point (a), points (b) and (c) should be duly considered by the future WKCD Authority. However, WKCD Authority at the same time has to take into account the need for integrated development and the need to be conducive to the objectives of WKCD in promoting arts and cultural development.</b></p>
<p><b>Note 1</b></p> <p>The core team formed by the Legislative Council's Specialist Advisor comprises the following professors and researchers:</p> <ul style="list-style-type: none"> <li>• Associate Professor at the Department of Real Estate and Construction, The University of Hong Kong (HKU)</li> </ul>	<p><b>The multi-disciplinary professional team formed by the Government's FA comprises:</b></p> <ul style="list-style-type: none"> <li>• financial experts</li> <li>• public private partnership experts</li> <li>• performing arts venue and museum</li> </ul>

<ul style="list-style-type: none"> <li>• Chair Professor of Real Estate and Construction, HKU</li> <li>• Assistant Professor of the Department of Real Estate and Construction, HKU</li> <li>• Post-Doctorate Fellow of the Department of Real Estate and Construction, HKU</li> <li>• Associate Dean of Faculty of Business and Economics and Associate Professor of Finance, HKU</li> </ul>	<p><b>advisors</b></p> <ul style="list-style-type: none"> <li>• <b>architects</b></li> <li>• <b>engineering experts</b></li> <li>• <b>quantity surveyors</b></li> <li>• <b>land and property market specialists</b></li> </ul>
<p><b>Note 2</b></p> <ul style="list-style-type: none"> <li>• The report took more than one month to complete.</li> </ul>	<p><b>The report took more than one year to complete.</b></p>

**Annex 2**

**Design and Build Vs Designer Led Contracts – Architectural Services Department's Response to Versitech's Comparison between the "Design and Build" and "Conventional" modes of procurement as outlined in Section 6.2 of their Final Report dated 21 May 2008 (Note – Versitech's Final Report is available in English only.)**

<b>Design and Build</b>	<b>Conventional Design then Build (Designer Led)</b>
Require well-prepared Employer's Requirement (ER) beforehand.  <u>Architectural Services Department (ArchSD)'s Comments</u> Yes	Invite tender after completing detail design.  <u>Architectural Services Department (ArchSD)'s Comments</u> Yes
Difficult to prepare a complete set of Employer's Requirement.  <u>ArchSD's Comments</u> The Government and the local construction industry have over 17 years of experience in preparing ERs for D&B contracts.	Invite tender only after satisfied with the quality and standard of space, level of comfort, aesthetic requirements and architectural details.  <u>ArchSD's Comments</u> Construction cannot commence until the whole project is designed and extra time is required for the sequential activities. No input by the contractor on buildability at early stage and any problem faced later will have to be paid by the client.
How to specify the quality and standard of space, level of comfort, aesthetic requirements and architectural details?  <u>ArchSD's Comments</u> Performance-based specifications are prepared which provide focus on outcomes rather than process.	

Design and Build	Conventional Design then Build (Designer Led)
<p>The objective is to develop a specification that allows bidders to bring their individual expertise, creativity, and resources to the bid process without encumbering them with predetermined methods or details.</p> <p>Writing specifications from this point of view increases alternatives, attracting more design innovations and fostering better competitions.</p> <p>D&amp;B procurement is in fact one form of design competition yet the procurement method is better than standalone design competition since buildability for a D&amp;B proposal is guaranteed. For design competition alone, the project progress may end up not as smooth as anticipated. For D&amp;B procurement, stakeholders in the industry form their own multi-disciplinary team to provide a buildable solution and compete for an integrated design in the one-stage design competition. Architectural, building services, structural and financial merits are being considered during the selection process, achieving value for money and good costs control for Design and Build contracts.</p>	
<p>Contractor may cut corners to save costs to meet minimum standards required.</p> <p><u>ArchSD's Comments</u></p> <p>The ER must be verifiable or measurable and the Supervising Officer (SO) of the D&amp;B contract must be able to determine whether the D&amp;B Contractor will perform as required.</p> <p>The D&amp;B Contractor is required to seek the SO's approvals on all design elements before he could proceed to the next work stage. The SO will have full control to ensure the required standards are met.</p>	<p>With all construction details, tender costs more accurate.</p> <p>The design forms the Contractor tender</p> <p><u>ArchSD's Comments</u></p> <p>Tender costs are based on the design and the Contractor is more certain about costs since he is only responsible for constructing according to the design. In this case, the client bears the risks on buildability.</p>
<p>Lack independent views from the architect</p> <p><u>ArchSD's Comments</u></p> <p>The D&amp;B procurement method was intended to encourage more</p>	<p>Have independent views from the architect.</p>

Design and Build	Conventional Design then Build (Designer Led)
<p>contractor involvement, increase the speed of delivery, lower the level of responsibility of the client and increase the use of proprietary systems or modules.</p> <p>Since the D&amp;B team (contractor and designers) is competing for an integrated design in the one-stage design competition, the contractor must obtain views from all design partners, including the architect, in order to formulate a balanced view.</p>	
<p>Maybe faster and costs less.</p> <p><u>ArchSD's Comments</u></p> <p>Bennett, Potheary and Robinson state: D &amp; B contracting:</p> <ul style="list-style-type: none"> <li>– Is 12% faster than the sequential contracting method and takes 30% less time to deliver a project from the start of design to completion of the works</li> <li>– Is 13% cheaper than sequential methods and</li> <li>– Projects are 50% more likely to finish on time.</li> </ul>	<p>Requires better project management professionals.</p>
<p>Contractor will make claims for scope of works not described in the Employer's Requirement. The sum claimed is more substantial.</p> <p><u>ArchSD's Comments</u></p> <p>It is just fair to pay extra for works not included in the original contract scope, both for D&amp;B or Designer-led contracts.</p> <p>For Designer-led contract, we pay the extra sums separately to the designer and the contractor, whereas for D&amp;B contract we pay an integrated sum to the D&amp;B contractor.</p> <p>There is no evidence to prove that the sum claimed for variation work is usually more substantial for D&amp;B contracts. On the contrary, as long as</p>	<p>May need more time for finalizing the construction details but could achieve better value for money.</p> <p><u>ArchSD's Comments</u></p> <p>Much depends on quality of the design and specifications issued with the tender.</p>

Design and Build	Conventional Design then Build (Designer Led)
<p>no abortive work is involved and the bulk of work remains the same, a D&amp;B contract allows for change of requirements during the design development stage without substantial cost implications.</p> <p>In fact since the contractor becomes solely responsible for all aspects of the project delivery process, most of the risk associated with design and construction are borne by the contractor, therefore giving the client greater protection.</p>	
<p>Suitable for simple, easy-to-specify, easy-to-illustrate projects, such as civil engineering works, simple office buildings.</p> <p><u>ArchSD's Comments</u></p> <p>The Government and the construction industry have accumulated adequate experience in D&amp;B procurement and have successfully awarded and/or delivered a number of projects with highly complex requirements. Examples are the Tamar Development, the ICAC Headquarters, the Customs Headquarters, the Prince of Wales Hospital Extension, the Lo Wu Prison, etc.</p>	<p>More suitable for artistic, creative, complicated buildings such as the M+ and facilities for performing arts.</p>
<p>For both contracts, critical to first appoint the operator before starting the design.</p> <p><u>ArchSD's Comments</u></p> <p>The operator may change after a period of time. Provided the ER could be formulated, the client may decide to work with the D&amp;B contractor direct, or requires the D&amp;B contractor to work with the potential operator as necessary.</p>	



**Final Report of the Specialist Advisor Versitech Ltd.  
to the Subcommittee on West Kowloon Cultural District (WKCD) Development  
for the Study on the Financial Aspects of the WKCD Project  
for the Legislative Council Commission –  
Responses from the Government Economist**

The Final Report provided by Versitech Ltd. (“the Report”) made various comments on the Economic Impact Assessment (“EIA”) prepared by the Economic Analysis and Business Facilitation Unit (Section 9 as well as various other paragraphs of the Final Report). Responses from the Government Economist are set out below:

**Methodology of estimation (cf. section 9.1, p.41 of the Final Report)**

2. The Specialist Advisor suggested that the EIA “must also examine the benefits derived from the alternative uses of the land (i.e. opportunity cost) at the WKCD”. We wish to clarify that the EIA is intended to evaluate the intangible and tangible economic impact brought about by the project on the economy as a whole, which is different from an economic cost-benefit analysis of WKCD as a standalone project. As shown in our EIA report, the development of the West Kowloon Cultural District (WKCD) is expected to bring about not only significant tangible economic impacts to Hong Kong, in terms of value added contributions and employment creation, but also intangible economic impact, as the project serves as an important strategic investment in Hong Kong’s arts and cultural infrastructure that would promote arts and cultural activities and enhance Hong Kong’s status as an international city.

3. From a planning and development perspective, the Government takes into account a wide range of factors, including social aspirations of the community, the holistic developmental needs of Hong Kong, and the spatial distribution of various public facilities such as police stations, schools, parks, etc. As reflected in the public engagement exercise for the WKCD project, the Government received an overwhelming support for the overall vision and strong support for early implementation of the WKCD. Against this backdrop of clear community’s aspiration, it is not meaningful to undertake an assessment of an alternative land use option for the WKCD site. Indeed, it would be wrong to evaluate the cost-benefit of WKCD, (or for that matter other public facilities such as a sports complex or a

university), by evaluating the value of alternative uses of the site.

4. Besides, the Specialist Advisor cast doubt about the scientific basis of the estimated attendance used in both the Financial Advisor (FA)'s assessment and the EIA. As we have explained to the Specialist Advisor, the total attendance deployed in the FA's assessment was compiled on a set of planning parameters, taking into account the objective of developing world-class arts and cultural facilities in the WKCD, local attendance experiences of various facilities in the past from LCSD, and the experiences of various international renowned facilities. All parameters adopted in the assessments are objective and prudent, and went through careful deliberations. In any case, projections about future attendance are NOT an important element in determining the financial viability of WKCD as a whole. Actual attendance in the future will also depend very much on how the future WKCD facilities are managed.

**Interpretation of the impact (cf. section 9.2, p.41-42 of the Final Report)**

5. The Specialist Advisor opined that "a unique feature that differentiates a 'world-class cultural and arts district' from a pure property development is its benefits to tourism". We have reservations about this opinion. The scope of developing WKCD is far wider than a pure tourism project, as highlighted in the various tangible and intangible benefits mentioned in the EIA report.

**Performance indicators (cf. section 9.3, p.42 of the Final Report)**

6. As explained above, the EIA intends to assess the potential macroeconomic impact of the project on the economy as a whole. It is not a suitable process used to identify and devise performance indicators on the operational front. The mode of operation of the proposed WKCD Authority will by and large hinge on the respective legislation which governs the overall institutional design of the Authority. The future Management of WKCD should also be given the responsibility to agree with the relevant authorities what performance indicators should be used.

**The 2% inflation assumption over a 50-year time horizon (cf. pp.15-17, 19 and 35 of the Final Report)**

7. The Specialist Advisor questioned in various parts of the Final Report whether the 2% long-term inflation rate assumption is realistic. It should be noted that inflation assumptions for a 50-year period are subject to much uncertainty. As

an advance economy and under a currency board system with the Hong Kong dollar linked to the US dollar, Hong Kong's inflation over the longer run would be more or less in line with those experienced by economies at a similar stage of development. The implicit or explicit inflation targets set by most major central banks in the advance economies are around 2%. Thus, a long-term inflation rate assumption of 2% is considered acceptable.

8. In any case, the results of the financial analysis done by the financial consultants are not sensitive to inflation assumptions, as both revenues and costs would broadly increase along with the general inflation rate over time. Indeed, the Specialist Advisor also realizes this point, as given in the third paragraph on p.17 of the Final Report, "... instead of inflating prices at 2% per annum, and subsequently discounting them ..., it would be much simpler to use the real rate of interest of 4% per annum to discount future prices".

**Economic Analysis and Business Facilitation Unit**  
**Financial Secretary's Office**  
**28 May 2008**

## **Subcommittee on West Kowloon Cultural District Development**

### **Questions raised and information requested by Members at the meeting on 30 May 2008**

The Administration's response to questions raised and information requested by Members at the meeting on 30 May 2008 is set out below -

- 1. How could the Administration assure Members that the West Kowloon Cultural District (WKCD) project would not end up as a failure? Could the Administration figure out the "worst scenario" of the WKCD project and provide an estimate on any supplementary funding provision required in such a scenario?**

Administration's response :

- The financing arrangement as proposed by the Government has taken into account the recommendations of the Consultative Committee on the Core Arts and Cultural Facilities of the West Kowloon Cultural District (Consultative Committee) as well as the detailed financial assessment made by the Financial Advisor (FA) on the development and operation of the West Kowloon Cultural District (WKCD).
- The financial assessment has undergone a professional and stringent process. The assessment and its revisions which took 15 months to complete, was examined by the Financial Matters Advisory Group (FMAG) led by the Hon Ronald Arculli. The conclusion was that it is a sustainable financing approach to provide a one-off upfront endowment of \$21.6 billion (in 2008 Net Present Value (NPV)) to finance the capital cost and to use the rental proceeds generated from the retail, dining and entertainment (RDE) facilities in the WKCD to meet the operating deficits of the arts and cultural facilities.
- According to the present assessment, we do not think there are sufficient reasons for a "worst scenario" in which any of the proposed venues may not be constructed as planned. If Members insist in figuring out a "worst scenario", and no additional funding is to be provided, we may come up with an assumption whether Phase II of the project would be delayed

until after 2026-31 because of cash flow difficulties i.e. the 1,900-seat great theatre and the two 800-seat theatres had to be built at a later stage and the expansion of M+ would have to be implemented later.

**2. The Administration is requested to conduct further analyses on the investment returns and the inflation of construction costs?**

Administration's response :

- When estimating the capital cost, apart from inflation, consideration have also been given in a prudent manner in respect of the indirect costs and the risk premium so as to provide sufficient leeway to accommodate cost increase due to various factors
- Construction costs of the core arts and cultural facilities included a risk premium of 23% to 29% to guard against price hike due to the risks. The risk premium is conventionally set at 10% to 15%. In view that the need for the construction of the venues and other related works to start as soon as possible and other factors may give rise to construction cost fluctuations exceeding the original estimates, a higher risk premium has been included.
- If we reduce the indirect cost and the risk premium to a maximum of 15%, the one off upfront endowment of \$21.6 billion can accommodate an annual nominal increase of 3.4% in construction cost (an accumulative increase of 31%) between 2007-2014. If we have to support an annual nominal 6% increase in construction cost (an accumulative increase of about 60%) between 2007-14, the one-off upfront endowment has to be increased to \$25.0 billion (the impact of different growth rates of construction cost on the upfront endowment is set out in **Annex 1**). The latter's assumption of an accumulative increase of about 60% is not realistic.
- Details of the construction cost of the various facilities in WKCD are at **Annex 2**.

- 3. As returns from retail, dinning and entertainment facilities make up the lifeline of WKCD, the Administration is requested to provide more details of these facilities such as their layouts, settings, anticipated pedestrian flow, business plans and measures to enhance the viability of these facilities. The Administration should also advise on its plans to strengthen WKCD's connectivity with neighbouring areas.**

Administration's response :

- In the process of consultation on the WKCD project, the public has expressed the view that they were concerned about the connectivity of the WKCD with its neighbouring areas. The preparation of the development plan (DP) for the WKCD is the foremost task of the West Kowloon Cultural District Authority (WKCDA). The WKCDA and the Planning Department in coordination with the WKCD Office which will be set up soon, will work to ensure early formulation of plans to connect the WKCD and its neighbouring areas.
- Regarding the details of the RDE mentioned by Members, we need to point out that these facilities will take up a gross floor area of about 119,000 sq. m., and according to our present planning, the development and operation of these facilities are not comparable to large scale shopping malls. Instead, the facilities will be scattered throughout the WKCD to integrate with the arts and cultural facilities, so as to create synergy and bring about increase in people flow to keep the district in vibrancy at all times. Thus, the rental level is pitched at a rather conservative level i.e. monthly rental of \$30 per sq. ft. Gross Floor Area (at 2006 prices), which is more conservative when comparing to the rental of other districts in Hong Kong (see **Annex 3**).

- 4. Will the Administration consider seeking funding approval only for the Phase I development of WKCD at this stage and conduct a thorough review before moving onto Phase II to ascertain whether any adjustment in the scale of the project is required?**

Administration's response :

- According to the FA's assessment, the recommended one-off upfront endowment and the arrangement to cover operating deficits of arts and cultural facilities by rental proceeds from retail, dining and entertainment facilities would be sufficient for the development and sustainable operation of the facilities in phase I and phase II of WKCD. We have no intention to change the plan.
- The facilities in Phase II are estimated to be completed between 2026-2031, we believe that the WKCDA will certainly conduct a thorough review on the development of WKCD before moving onto Phase II.

**5. The current estimates are worked out by assuming that the "design and build" approach will be adopted for the arts and cultural facilities. Will the Administration consider adopting other approaches such as drawing up the detailed design first and then tender out the construction works under a separate contract for certain facilities such as the M+ and the major performance venues? What will be the impact on the estimated funding requirement if the latter approach is adopted?**

Administration's response :

- The WKCDA will look into different modes of Public Private Partnership (PPP) in the development and operation of the arts and cultural facilities with reference to their distinctive features. We would like to point out that the FA has examined the PPP mode in detail in respect of the operation of the arts and cultural facilities with reference to overseas examples. The FA recommended the design and build model, because the private sector does not express much interest in life-cycle public private sector partnership covering construction, operation and maintenance stages in view of the construction and operation risks involved.
- Even if the design and building of the facilities are included in

two independent contracts, the FA's estimated construction costs have already included a considerable amount of indirect costs and risk premium to accommodate increase in costs due to various factors.

**6. Will the Administration give second thoughts to engaging an international operator to operate M+?**

Administration's response :

- The proposal of commissioning an international operator to operate M+ was not made by the Consultative Committee. Such arrangement is no different from allowing a foreign institution to have complete control of the operation and curatorial work of M+, and restrict cooperation between M+ and other world-class museums in the future. As such, we do not think that commissioning an international single operator to operate M+ will be supported by the cultural sector. However, upon its establishment, M+ can cooperate with world-class museums in the Mainland or abroad. Moreover, the cost of commissioning an international operator could possibly be higher than expected.

**7. On what basis does the Administration consider that the provision of \$1,214 million (covering \$1 billion initial collection cost and an annual collection budget of \$20 million) is enough for acquiring collections of world standards?**

Administration's response :

- Leisure and Cultural Services Department's museums currently possess over 60,000 items of visual culture collection. The collection could not be all displayed due to inadequate venue space. Besides, world famous museums have quite often exhibited their collections in Hong Kong (for example the recent Treasures of the World's Cultures from the British Museum).
- Like other world-class institutions on visual culture around the world, M+ will not establish its own position solely by its



collection. **M+** is itself an innovation. Its curatorial concepts are very different from those of the traditional museums. It is a new platform to incorporate many themes. With a forward-looking, flexible and responsive approach, **M+** encourages collaboration, interaction and cross-discipline ideas. Community participation is essential to breathing life and energy into **M+**. It is under an open-ended format that encourages partnership, interaction and cross-fertilisation of ideas—with the general public, sector professionals and experts worldwide.

- Around one-third of the annual estimated expenditure (around \$100 million) of **M+** would be used to commission artists for creative art works.

#### **8. Is it possible to further downsize M+?**

Administration's response :

- The scale of the **M+** originally recommended by the Museums Advisory Group (MAG) was bigger than that of some of the world-renowned museums. After consulting the MAG and the Financial Matters Advisory Group, the Consultative Committee decided to reduce the scale of **M+** by 30%. It would be necessary to conduct a new round of consultation before a decision can be made to further downsize **M+**. Nevertheless, Members are advised to note that we adopt a step by step approach in the development of **M+**, with 70% of the reduced area to be developed in the first phase and the remaining 30% in the second phase. The scale of **M+** is still comparable to the scale of world-renowned museums. Further downsizing the **M+**, however, will hinder the development of **M+** into a world-class contemporary cultural and arts institution. **M+** will also not be able to realize its vision.

#### **9. The Administration is requested to illustrate the ideas/concepts for M+ using concrete local and/or overseas examples. The Administration is also requested to make use of the existing museum facilities and collections on visual culture to**

**demonstrate to the public on what M+ is like?**

Administration's response :

- The existing museum facilities cannot be compared with M+. Their curatorial concepts and directions are also different from those of M+. The effect will not be good if we make use of these facilities to demonstrate the innovative approach of M+ in the display of visual culture. It may also mislead the public in forming an opinion and impression of M+. Hence, we are not inclined to adopt this approach to illustrate M+.
- We are happy to use concrete examples to illustrate the ideas and concepts for M+, such as using visual representations as far as possible, so that the LegCo and the public will have a better understanding of M+'s future operation.
- The construction costs and operating assumptions of M+ and their comparison with local and overseas museums are set out at **Annex 4** for Members' reference.

**10. The Administration should explain how the costs for major renovation or reconstruction of the aged buildings in WKCD would be financed after 50 years.**

Administration's response :

- The Government's Financial Adviser used a 50-year period for the assessment of the WKCD. It is even more stringent than that used for the professional assessment of other long-term development projects. In the financial analysis, provision has already been made for regular major overhaul and annual maintenance during the 50-year period. All facilities will be in good condition and fully functional beyond 50 years, requiring no immediate allocation of additional funds for demolition, reconstruction or major renovation beyond that period.

**Results of Further Sensitivity Tests, in 2008 Net Present Value (NPV)**

<u>Assumptions</u>  i) <u>On-costs</u> : decrease to a maximum of 15% for CACF  ii) <u>Risk assessment</u> : 15% for CACF and 10% for other items	
<u>Construction cost nominal escalation rate:</u>  (a) 6% every year from 2007 to 2014 (8 years) (i.e. a cumulative nominal increase of 59%), thereafter 2% p.a.  (b) 5% every year from 2007 to 2014 (8 years) (i.e. a cumulative nominal increase of 48%), thereafter 2% p.a.  (c) 4% every year from 2007 to 2014 (8 years) (i.e. a cumulative nominal increase of 37%), thereafter 2% p.a.  (d) 3.4% every year from 2007 to 2014 (8 years) (i.e. a cumulative nominal increase of 31%), thereafter 2% p.a.	<u><b>Total Capital Cost</b></u>  \$ billion  25.0  23.6  22.3  21.6

**Note:**

The above are merely tests to consider the impact of applying different construction cost escalation rates on the upfront endowment of \$21.6 billion (in 2008 NPV). The Financial Advisor, GHK (Hong Kong) Ltd., considers that assuming construction costs to escalate continuously with no correction in the medium to long term is not realistic given the historical construction cost cycle.

West Kowloon Cultural District

Details of Construction Costs (in 2006 Prices)

		(a)	(b)	(c) = (a) x (b)		(d)	(e) = (c) x (d)		(g) = (e) x (f) x 0.000001					(h)	(i) = (g) x (h)		(j)	(k)	(l) = (i) x [(j)+(k)]		(m)	(n) = (i)+(l)+(m)		(o)	(p) = (n)x(o)		(q) = (n)+(p)	
		Floor Area					Initial Construction Cost (Note 4)								Professional Fees and Contract Management Costs (Note 5)			Other Costs	Total Construction Cost (before risk premium)	Construction Risk Premium (Note 6)		Risk Adjusted Total Construction Cost						
		Net Operating Floor Area (NOFA)	NOFA to GFA	Gross Floor Area (GFA)	GFA to CFA	Construction Floor Area (CFA) (Note 2)	Unit Construction Cost	Breakdown of Unit Construction Cost			Unadjusted Total Construction Cost	Construction Period	Inflation Adjustment	Adjusted Total Construction Cost	Professional Fees	Contract Management Costs	Total											
		sq m	ratio (1 to x)	sq m	ratio (1 to x)	sq m	\$/sq m CFA (in 2006 prices)	\$ per sq.m. (in 2006 prices)	\$ per sq.m. (in 2006 prices)	\$ per sq.m. (in 2006 prices)	\$ Million (in 2006 prices) (Note 1)	No of Years	Index (rounded to 2 decimal points)	\$ Million (in 2006 prices) (Note 1)	%	%	\$ Million (in 2006 prices) (Note 1)	\$ Million (in 2006 prices) (Note 1)	\$ Million (in 2006 prices) (Note 1)	%	\$ Million (in 2006 prices) (Note 1)	\$ Million (in 2006 prices) (Note 1)						
PHASE 1																												
2 Museum and Exhibition Space																												
2.1 Museum (Phase 1)																												
M+		28,910	1.5	43,365	1.3	56,375	24,200	4,200	14,000	6,000	1,364	5	0.96	1,313	11.1%	9.0%	264		1,576	29.2%		460	2,037					
Off-site storage and conservation labouratory		14,000	1.2	16,800	1.2	20,160	15,000	2,000	8,000	5,000	302	5	0.96	291	11.1%	9.0%	58	73 (Land Cost)	422	29.2%		123	545					
2.2 Exhibition Centre		10,000	1.25	12,500	1.3	16,250	22,200	4,200	12,600	5,400	361	4	0.97	351	9.0%	8.0%	60		410	23.0%		94	505					
3 Performing Arts Facilities																												
3.1 Mega Performance Venue		36,710	1.4	51,394	1.3	66,812	26,200	4,200	14,300	7,700	1,750	5	0.96	1,684	12.0%	8.0%	337		2,021	23.0%		465	2,486					
3.2 Great Theatre 1		14,800	1.4	20,720	1.3	26,936	29,200	4,200	16,250	8,750	787	5	0.96	757	12.0%	8.0%	151		908	23.0%		209	1,117					
3.3 Concert Hall and Chamber Music Hall		16,800	1.4	23,520	1.3	30,576	29,200	4,200	16,250	8,750	893	5	0.96	859	14.6%	9.0%	203		1,062	29.2%		310	1,372					
3.4 Xiqu Centre		14,955	1.4	20,937	1.3	27,218	27,200	4,200	14,950	8,050	740	5	0.96	712	14.1%	9.0%	165		877	29.2%		256	1,133					
3.5 Medium Theatre 1		6,750	1.4	9,450	1.3	12,285	27,200	4,200	14,950	8,050	334	4	0.97	325	12.0%	8.0%	65		390	23.0%		90	479					
3.6 Medium Theatre 2 and Black Box Theatre 1		9,480	1.4	13,272	1.3	17,254	26,200	4,200	14,300	7,700	452	5	0.96	435	12.0%	8.0%	87		522	23.0%		120	642					
3.7 Black Box Theatres 2 and 3		5,195	1.4	7,273	1.3	9,455	22,200	4,200	11,700	6,300	210	4	0.97	204	12.0%	8.0%	41		245	23.0%		56	301					
3.8 Black Box Theatre 4		3,160	1.4	4,424	1.3	5,751	22,200	4,200	11,700	6,300	128	4	0.97	124	12.0%	8.0%	25		149	23.0%		34	183					
3.9 Piazzas																												
Piazzas						30,000	5,500				165	4	0.97	160	6.5%	8.0%	23		184	23.0%		42	226					
Small canopy						10,000	6,000				60	4	0.97	58	6.5%	8.0%	8		67	23.0%		15	82					
4 Other Arts and Cultural Uses				15,000	1.3	19,500	14,200	4,200	10,000		277	4	0.97	269	6.2%	8.0%	38		307	15.0%		46	353					
5 Transport Facilities																												
5.1 Automated People Mover											504	4	0.97	490	5.8%	11.0%	82		572	15.0%		86	658					
5.2 Car parks																												
Public Car Parks (basement)						9,526	11,200				107	4	0.97	104	3.0%	8.0%	11		115	15.0%		17	132					
Public Car Parks (podium)						19,958	4,000				80	4	0.97	78	3.0%	8.0%	8		86	15.0%		13	99					
Public Car Parks (basement shared foundation)						15,876	7,000				111	4	0.97	108	3.0%	8.0%	12		120	15.0%		18	138					
6 Communal Facilities																												
6.1 Public Open Space																												
Public Open Space (at -grade)						170,000	3,500				595	4	0.97	578	2.1%	8.0%	58		636	15.0%		95	732					
Public Open Space (terraces)						50,000	4,500				225	4	0.97	219	2.1%	8.0%	22		241	15.0%		36	277					
Contingency space (soft landscaping)				3,340	1.0	3,340	2,000				7	4	0.97	6	2.1%	8.0%	1		7	15.0%		1	8					
7 Retail/Dining/Entertainment														2,232	6.0%		134		2,365	15.0%		335	2,700					
PHASE 2																												
8 Performing Arts (Phase 2)																												
8.1 Great Theatre 2 and Medium Theatre 3		20,325	1.4	28,455	1.3	36,992	29,200	4,200	16,250	8,750	1,080	5	0.96	1,039	12.0%	8.0%	208		1,247	23.0%		287	1,534					
8.2 Medium Theatre 4		6,750	1.4	9,450	1.3	12,285	27,200	4,200	14,950	8,050	334	4	0.97	325	12.0%	8.0%	65		390	23.0%		90	479					
9 Museum and Exhibition (Phase 2)																												
9.0 M+ (phase 2)		12,390	1.5	18,585	1.3	24,161	22,200	4,200	14,000	4,000	536	4	0.97	521	11.1%	9.0%	105		626	23.0%		144	770					

**Note:** (1) Figure in 2006 prices, rounded to nearest \$ million.  
(2) Refers to floor area for piazzas and public open space.  
(3) Breakdown of RDE construction costs:

RDE Construction Costs			
	Area (GFA)	Unit Cost (in 2006 prices) (Note 7)	Cost (\$M) (in 2006 prices)
Shops	119,000 sq.m.	\$18,198 / sq.m.	2,166
Car Parking (Podium)	298 spaces	\$140,000 / space	42
Car Parking (Basement)	99 spaces	\$245,000 / space	24
		<b>Sub Total</b>	2,232
Professional Fees (6%)	\$2,232 million x 0.06		134
Contingency (15%)	\$2,232 million x 0.15		335
		<b>Total Construction Cost</b>	<b>2,700</b>

- (4) Please refer to Annexes C (M+ and Exhibition Centre), D (performing arts venues, piazzas and small canopy), E (APM and public car parks) and F (other arts and cultural facilities, and public open space) the Financial Advisor's Final Report dated April 2007 for the unit construction costs / construction costs of respective facilities adopted.
- (5) Annex G of Financial Advisor's Final Report dated April 2007 refers
- (6) Annex J of Financial Advisor's Final Report dated April 2007 refers
- (7) Annex L of Financial Advisor's Final Report dated April 2007 refers

Annex 3

Rental of Retailing, Dining and Entertainment Facilities

Local Comparators

	Monthly rental per sq. ft Gross Floor Area (at 2006 prices)
<b>West Kowloon Cultural District</b>	\$30
<b>Local References :</b>	
(1) Prime and Secondary Shopping Malls (Langham Place, IFC, Plaza Hollywood, Olympian City, etc.)	\$27-\$42
(2) Soho (Central)	\$50-\$80

Note : The above figures are provided by the Government's Financial Advisor, GHK(Hong Kong) Ltd.

M+	Phase 1	Phase 2	Phases 1 and 2 Combined	Local / International References
<div>1 Physical Parameters</div> <div>A free standing structure with iconic architecture. M+ should meet international standards on climate controls and security. A collecting institution, with appropriate storage facilities, conservation laboratories and staffing, and can manage artefact collections representing the full range of materials. Temporary exhibition galleries large enough for M+ to accept most major travelling shows from important museums around the world and to store exhibits to be put on display.</div> <div>(a) On-site floor area</div> <div>On-site Gross Floor Area (GFA)</div> <div>43,365 sq.m.</div> <div>18,585 sq.m.</div> <div>61,950 sq.m.</div> <div>Including:</div> <div>Net Exhibition Area</div> <div>16,000 sq.m.</div> <div>10,000 sq.m.</div> <div>26,000 sq.m.</div> <div>(b) Off-site floor area</div> <div>Off-site Storage and Conservation Laboratory (GFA)</div> <div>16,800 sq.m.</div> <div>- sq.m.</div> <div>16,800 sq.m.</div> <div>Total floor area (on-site and off-site)</div> <div>60,165 sq. m.</div> <div>18,585 sq. m.</div> <div>78,750 sq. m.</div>				Centre Pompidou, Paris - 112,523 sq. m. MOMA, New York - 73,420 sq. m. Tate Modern - 43,000 sq. m.
<div>2 Key Development Assumptions</div> <div>(a) Construction is to take place during</div> <div>Phase 1</div> <div>Phase 2</div> <div>(b) Design and construction</div> <div>5 years (including 1 year for an architectural design competition by invitation)</div> <div>3 years</div> <div>(c) Target opening</div> <div>2015</div> <div>2031</div>				
<div>3 Total Capital Costs (\$Million in 2008 Net Present Value (NPV))</div> <div>(a) Design, planning and construction costs</div> <div>2,215 \$Million in 2008 NPV</div> <div>346 \$Million in 2008 NPV</div> <div>2,561 \$Million in 2008 NPV</div> <div>Base cost estimate = Construction floor area X unit construction cost \$ (at 2006 prices ) per CFA X (1 + on-cost %) X (1 + risk premium %)</div> <div>(a) On-site</div> <div>(i) Construction floor area (CFA) (assumed GFA: CFA = 1:1.3)</div> <div>56,375 sq. m.</div> <div>24,161 sq. m.</div> <div>80,535 sq. m.</div> <div>(ii) Unit construction cost</div> <div>24,200 \$ (at 2006 prices)</div> <div>22,200 \$ (at 2006 prices)</div> <div>- \$ (at 2006 prices)</div> <div>(iii) On-costs (i.e. professional fees + contract management costs)</div> <div>20.1 % (i.e. 11.1% professional fees + 9% contract management costs)</div> <div>20.1 % (i.e. 11.1% professional fees + 9% contract management costs)</div> <div>- %</div> <div>(iv) Risk premium assessed</div> <div>29.2 %</div> <div>23.0 %</div> <div>- %</div> <div>(This is arrived at based on a more sophicated estimate of contingencies than the simple/standard approach of adding a fixed percentage to the base cost estimate)</div> <div>(b) Off-site</div> <div>(i) CFA (assumed GFA:CFA = 1:1.2)</div> <div>20,160 sq. m.</div> <div>- sq. m.</div> <div>20,160 sq. m.</div> <div>(ii) Unit construction cost</div> <div>15,000 \$ (at 2006 prices)</div> <div>- \$ (at 2006 prices)</div> <div>- \$ (at 2006 prices)</div> <div>(iii) On-costs (i.e. professional fees + contract management costs)</div> <div>20.1 % (i.e. 11.1% professional fees + 9% contract management costs)</div> <div>- %</div> <div>- %</div> <div>(iv) Risk premium assessed</div> <div>29.2 %</div> <div>- %</div> <div>- %</div> <div>(b) Other capital costs</div> <div>1,630 \$Million in 2008 NPV</div> <div>87 \$Million in 2008 NPV</div> <div>1,717 \$Million in 2008 NPV</div> <div>Breakdown:</div> <div>(i) Collection</div> <div>1,214 \$Million in 2008 NPV</div> <div>-</div> <div>1,214 \$Million in 2008 NPV</div> <div>(M+ needs to build up sizable and impressive collections commensurating with M+'s status and attributes. The total collection cost covers an initial collection of \$1 Billion (at 2006 prices) upon commissioning of the Phase 1 M+ and an annual collection budget of \$20 Million (at 2006 prices) thereafter.</div> <div>(ii) Exhibition Development</div> <div>352 \$Million in 2008 NPV</div> <div>87 \$Million in 2008 NPV</div> <div>439 \$Million in 2008 NPV</div> <div>(iii) Conservation Laboratory Equipment</div> <div>41 \$Million in 2008 NPV</div> <div>- \$Million in 2008 NPV</div> <div>41 \$Million in 2008 NPV</div> <div>(iv) Library set-up</div> <div>24 \$Million in 2008 NPV</div> <div>- \$Million in 2008 NPV</div> <div>24 \$Million in 2008 NPV</div> <div>(c) Major Repair and Renovation Costs - once every 20 years</div> <div>421 \$Million in 2008 NPV</div> <div>50 \$Million in 2008 NPV</div> <div>471 \$Million in 2008 NPV</div> <div>(d) Total Capital Costs</div> <div>4,266 \$Million in 2008 NPV</div> <div>483 \$Million in 2008 NPV</div> <div>4,749 \$Million in 2008 NPV</div>				Range of comparables - HK\$14,300 (Jewish Museum, Berlin) to HK\$41,100 (MOMA, New York) equivalent per sq. m. CFA.  Standard approach - a fixed percentage of 15%  Very difficult to make comparisons and initial collections need to be built up over long periods. Donations, exhibit loans, partnership arrangements are important as well. Range of comparables on annual acquisition - HK\$11 million (MOMA, San Francisco) to HK\$ 774 million (The Metropolitan Museum of Art, New York) equivalent.

M+	Phase 1	Phase 2	Phases 1 and 2 Combined	Local / International References
4 Total Operating Deficit over the 50-year Project Period to 2059 (\$Million in 2008 NPV)	5,292 \$Million in 2008 NPV	625 \$Million in 2008 NPV	5,917 \$Million in 2008 NPV	
	(The operating deficits of arts and cultural facilities of the WKCD (including that for the M+) over the 50-year project period to 2059 will be fully covered by the estimated rental income generated from retail/dining/entertainment facilities, with an estimated safety margin of about 10%.)			
5 Key Operating Assumptions				
(a) Initial Broad Groupings will be Design, Moving Image, Popular Culture and Visual Art (cover Ink Art). M+ will build a world-class collection relating to each of the four broad groupings. M+ will offer a range of local, regional and international exhibitions and a full range of quality public and educational programmes as per international museum practice. All exhibitions and programmes will be to international standards.				
(b) Operator	Not for Profit Operator	-	Not for Profit Operator	
(c) Attendance	1,200,000 visitors	-	2,000,000 visitors	Range of comparables - 0.8 million (MOMA, San Francisco) to 6.4 million (Tate Gallery (Tate Modern, Tate Britain, Tate Liverpool and Tate St Ives)).
(d) Number of Blockbuster Exhibitions	4 per year	-	7 per year	
(e) Average Admission Fee from Visitors	27.5 \$ per visitor (at 2006 prices)	-	30 \$ per visitor (at 2006 prices)	HK Museum of Art / HK Heritage Museum - \$10 (with premium for blockbuster shows \$10 - \$30) Centre Pompidou - HK\$103 equivalent Guggenheim, New York - HK\$137 equivalent
	(The assumption about ticket prices which includes concessions and blockbusters has been compiled with regard to the recommendations of the Museums Advisory Group (MAG) of the Consultative Committee on the operational requirements of the M+, and admission charges of existing Government museums in Hong Kong. Specifically, MAG required M+ to be affordable to the general public in Hong Kong.)			
(f) Full time equivalent (FTE) employees	320 number	-	336 number	Lower than staffing requirements at international comparable museums: New York MOMA (GFA 73,420 sq. m.) - 590 full-time staff; Centre Pompidou (GFA 112,523 sq. m.) - 918 permanent staff. Range of comparables - 95 (The Solomon R. Guggenheim Museum in New York, Guggenheim Hermitage Museum in Las Vegas and Peggy Guggenheim Collection in Venice) to 1,783 (The Metropolitan Museum of Art, New York) full time staff.
	(employment of temporary staff is covered in annual operating budget)			
6 Snapshot of the Annual Operating Result at Year 5 after commencement of operation (i.e. 2019 for Phase I) when cost and revenues have settled down into their long term trend				
(a) Operational Revenue	67 \$Million (at 2006 prices)	-	105 \$Million (at 2006 prices)	
(b) Operational Expenditure & Adjustments	370 \$Million (at 2006 prices)		488 \$Million (at 2006 prices)	Range of comparables on annual operating costs - HK\$ 249 million (MOMA, San Francisco) to HK\$2,132 million (The Metropolitan Museum of Art, New York)) equivalent.
(c) Annual Operational Surplus / (Deficit)	(303) \$Million (at 2006 prices)	-	(383) \$Million (at 2006 prices)	
				For the 4 comparable LCSD museums (i.e. Museum of Art, Museum of History, Heritage Museum and Science Museum, with an aggregate total GFA 80,530 sq. m.), their total revenue collected and total operating cost (excl. depreciation and collection) incurred in 2006-07 were HK\$16,301,205 and HK\$329,206,459 respectively, and the cost recovery rate was 5%.
Indicative Operational Cost Recovery Rate	18%	-	22%	Cost recovery rates for comparable overseas museums: Centre Pompidou - 27%; Tate Galleries - 54%; New York MOMA - 57%; Guggenheim Museums - 66%.

Note: All numbers are rounded to 0 decimal places for presentational ease. The table totals presented therefore may not add up due to rounding.