ANNEX H: RESIDENTIAL AND COMMERCIAL LAND VALUES

1. Development Mix

1.1 Under the plot ratio of 1.81 and the total GFA of 726,285 sq.m., the FA assumed a total of 377, 866 sq. m. GFA would be available for residential and commercial uses in WKCD. The FA assessed the market land value of residential and commercial developments in WKCD based on the following proposed development mix – see Table H-1. The FA proposed this development mix for the WKCD Base Case with a view to optimizing the revenue to be generated for the sale of land for residential and commercial uses.

Table H-1: GFA of Residential and Commercial Uses

Proposed Uses	Proposed GFA (sq.m.)	Remarks
Residential	145,257	20% of total GFA (max. allowed)
Apartments	135,257	
Villa Houses	10,000	
Commercial	232,609	
Hotel	84,000	
Retail and others	148,609	Total GFA minus arts and cultural, community, residential and hotel uses

1.2 The FA assumed no commercial offices in WKCD given the limited GFA available for commercial development. Instead, priority has been given to retail/dining /entertainment (RDE) facilities and hotels to support cultural facilities in WKCD as suggested by PATAG. If more GFA is available for commercial development, then part of this capacity could be reserved for commercial office development in order to diversify the risk of commercial development in WKCD. Providing prime offices in WKCD will support the growth of Hong Kong as an international finance and commercial centre and help develop the area into a decentralized office node on the Kowloon side – complementing potential office uses at the future terminal of the Guangzhou-Shenzhen-Hong Kong Express Rail Link.

2. Methodology

2.1 For residential apartments, the direct comparison method of valuation was adopted with reference to relevant land transactions.

2.2 For villa houses, hotel and retail and other commercial uses, of which land transaction is rare in the market, residual method of valuation was adopted instead. With the residual method of valuation, the gross development value (GDV, i.e. the potential sale proceeds of the completed development) of the proposed development is assessed. Deducting the development costs and required profits from the GDV gives the residual amount which represents the land value of the proposed development.

3. Valuation Assumptions

3.1 The FA valuation was on a current date basis (July 2005 – November 2006) and is subject to, inter alia, the following key assumptions:

- The development sites are to be sold on a clear site basis
- Height restrictions as proposed by the Planning Department

- A mid-rise luxury private residential development of twelve 16-storey towers is assumed. The quality of the development would be comparable to the Arch at the Kowloon Station nearby
- 20 to 30 luxury villa houses of approximately 333 sq. m. to 500 sq.m. per house
- Three mid-rise hotels of 4 to 5 Stars providing a total of 1,400 rooms with an average room size of about 60 sq.m. in GFA is assumed. The demand and supply of hotels should be the subject of a detailed study at the master planning stage
- Instead of building a single shopping arcade, RDE facilities would be distributed over the whole WKCD site and integrated with various clusters of the arts and cultural facilities. The distribution and integration of cultural and RDE facilities should be considered in detail at the master planning stage
- Construction costs are as advised by the FA team's quantity surveyors
- The developer of the residential development would be required to build noise barrier(s) as mitigation measures. The construction cost of the noise barrier(s) was accounted for in the valuation of the private residential (i.e. apartments) site.
- Interest rate was based on the Prime Rate offered by the HSBC
- Development periods for various uses were as follows:

Villa Houses	3 years
Hotel	4 years
Retail and others	4 years

4. Valuation

Private Residential (Apartments)

4.1 For the purpose of direct comparison, reference was made to the auction site at No. 1 Broadcast Drive (NKIL 6374), which was sold at an Accommodation Value (AV) of HK$106,219 per sq.m. on 28 November 2006. AV stands for land value in dollars per sq.m. of the permitted gross floor area on the site. The lot particulars of NKIL 6374 are summarized at **Exhibit H-1**.

4.2 NKIL 6374 is a private residential site abutting Broadcast Drive, near its junction with Chuk Yuen Road and Junction Road, in Kowloon Tong. The locality is predominantly an exclusive residential area comprising mainly low-rise luxury private residential developments. Development on the lot was expected to be commanding open view southwards over Kowloon Tong.

4.3 The comparable land sale is considered of high similarity to the proposed private residential (i.e. apartments) development in the WKCD, notwithstanding the subject development would have better viewing aspect and larger development scale. As such, No. 1 Broadcast Drive provides recent market evidence on the land value of a medium-rise luxury residential development and direct evidence of the value of a land transaction (unlike for example The Arch at Kowloon Station which, although closer to West Kowloon, provides only property price comparables for use in a residual valuation approach). As advised by KPK, the subject development would be subject to higher construction costs due to the more extensive foundation works required and the requirements of noise mitigation measures.

4.4 Having considered the difference between the subject site and the comparable land sale, the FA is of the opinion that the market value (in terms of AV) of proposed private residential land on a current date basis (July 2005 – November 2006) is in the region of HK$16.23 billion present value assuming the land is put on the market today, which is equivalent to an AV of about HK$120,000 per sq.m.

Villa Houses

4.5 The land value of the proposed villa houses was assessed by the residual method of valuation. Transactions of town houses at Mount Beacon, 20 Cornwall Street, Kowloon Tong, were examined for the assessment of GDV.

4.6 Average price of town houses at Mount Beacon is about HK$240,000 per sq.m. Considering that the proposed villa house development is superior to Mount Beacon in terms of location and potential viewing aspects, the GDV of the proposed villa houses is assessed in the region of HK$300,000 per sq.m. in GFA. Transactions of Mount Beacon are summarized at **Exhibit H-2**.

4.7 By the residual method of valuation, the market value of the proposed house development land is in the region of HK$1.9 billion, which is equivalent to an AV of about HK$190,000 per sq.m., on a current date basis (July 2005 – November 2006).

Hotels

4.8 The room rate of the proposed hotel development is assessed by making reference to the recent hotel transactions (November 2005 – November 2006) as scheduled at **Exhibit H-3**. Amongst the comparable transactions in 2006, Novotel Century Harbourview Hotel is considered the most relevant for evidence of average room rates, although the subject hotel development would be superior to that hotel in terms of age, quality and, in particular, location.

4.9 By the residual valuation method and based on an average room rate of HK$4,150,000 for each of the proposed 1,400 rooms, the residual land value on a current date basis (July 2005 – November 2006) is assessed in the region of HK$1.7 billion, which is equivalent to an AV of about HK$20,238 per sq.m.

Retail

4.10 In assessing the retail GDV, the FA made reference to the rental levels of shopping centres in prime (Langham Place, IFC I&II, and Elements (ICC- under construction), etc) and secondary (Plaza Hollywood, and Olympian City II, etc) locations. The average monthly rent ranges approximately from HK$290 /sq.m. GFA (HK$27 /sq.ft. GFA) to HK$484 /sq.m. GFA (or HK$45 /sq.ft. GFA).

4.11 Having considered that some proposed retail facilities would likely target culture and arts related business, which are less likely to afford high rent, and the scattering design of the proposed retail facilities, we have adopted an average monthly rent of about HK$323 /sq.m. GFA (or $30 /sq.ft. GFA) and assessed the retail GDV at about HK$77,500 /sq.m. GFA at a yield of 5%.

4.12 By the residual method of valuation, the land value of the proposed retail development on a current date basis (July 2005 – November 2006) is assessed in the region of HK$4.62 billion, which is equivalent to an AV of HK$31,088 per sq.m.

4.13 The residential and commercial land values are summarized below and detailed in **Exhibit H-4**.

Table H-2: Land Values of Residential and Commercial Uses (as at 7 December 2006)

User	GFA (sq.m.)	Land Value (billion HK$)	AV (HK$ per sq.m.)
Apartments	135,257	$16.23	$120,000
Houses	10,000	$1.90	$190,000
Residential	145,257	$18.13	$124,813
Hotels	84,000	$1.70	$20,238
Retail & Others	148,609	$4.62	$31,088
Commercial	232,609	$6.32	$27,170

5. Inherent Weakness of Using Land Sales to Subsidise Major Development

5.1 Based on this valuation, the potential value of the land available for commercial and residential development is HK$24.45 billion (December 2006 values). Land disposal is expected to happen in 2010 and the said land revenue proceeds (HK$24.45 billion) are expected to be received in that year (before any inflation adjustment). The land revenue in NPV terms at year 2006 is HK$20.9 billion which is arrived at by discounting the expected land revenue proceeds in 2010 to present day value equivalent at year 2006 by using a real discount rate of 4%. As is set out in Chapter 7 of the main text and Annex L on the options for financing the WKCD development, the value of land on disposal is a potentially important source of income for cross-subsidising the significant capital and/or operating deficits identified in the financial analysis. For this reason, in presenting the results of the financial analysis (see Section 5 of the main text), the FA presents both the total deficit (excluding land sales) and the funding gap (including land sales) such that the reader has a better understanding of the relationship between deficits generated by the CACF and communal facilities and land sales revenues generated by residential and commercial development. The high sensitivity of the funding gap to land premium revenue is considered in the sensitivity tests (see Section 6 of the main text).

5.2 The issue is not in the valuation method but in the risk of the actual outcome being very different from the estimated current value. Although prices have fluctuated at recent successive land sales, the valuation undertaken by the FA makes use of all relevant current transactions to provide an appropriate and up-to-date-estimate. However, a current valuation, by its definition, is a ‘point reference’ and as Figures H-1 and H-2 show, the long term trend in price indices in the past 10 years have shown considerable volatility. For prices the peak was about 3 to 4 times the trough and for rents the peak was about 1.5 to 2 times the trough. It is therefore likely that, at the time at which the commercial and residential land at WKCD is sold, the actual value may differ from the value adopted in the WKCD Base Case financial analysis. The movement could be up or down.

5.3 In view of the importance of the value of land to the to the funding gap and the volatility of the market in Hong Kong, the FA stresses the inherent weakness of using property or land value to directly subsidise major development in Hong Kong. If land value is used as a funding mechanism, this weakness cannot be removed but could be partially mitigated through diversification of funding - i.e. land or property not being the only source or funding - or through Government guarantees.

6. Land Valuation for Packaged Developments

6.1 As set out in Chapter 4, PSI Scenario 2 provides an example of the potential for 'packaging' of some of the cultural facilities into mixed cultural / commercial and cultural / residential developments which may enhance the potential for PSI approaches with a higher level of private sector risk transfer and / or allowing cross subsidy of costs and revenues within individual packages. Consideration was also given to packaging communal facilities with commercial and residential development.

6.2 The overall criteria for packaging and the PSI options recommended are the same as for Scenario 1 and are based on:

- The availability of private sector players with relevant mixed development experience. This includes the ability to utilize the skills of developers and operators who frequently combine uses together such as hotels and visitor destinations
- The formulation of development packages which are coherent in terms of the complementarity and scale of commercial uses with appropriate cultural uses. Packaged developments should seek to combine uses which enhance the use and value of both commercial and cultural elements. This includes, for example, the ability to co-locate complementary commercial uses such as shops and restaurants with cultural uses
- Achieving capital and operating financial viability of any package such that the land premium associated with the commercial or residential parcel can be used to cross subsidise the capital cost of construction and the (usually negative) net present value (NPV) of operating the cultural or communal facility
- Since, at this stage, packaged commercial development costs, cultural revenues and values (particularly land values) are uncertain, the packaging calculation aims to achieving a satisfactory level of financial surplus – or "cushioning" – in the estimated residual land value. In all cases there is a residual land value after the capital and operating costs of the package are estimated which can be paid to the proposed statutory body
- The potential to reduce construction costs by developing integrated use buildings and other combined operating efficiencies such as reduced maintenance and building management costs

6.3 In preparing potential packages, the FA was informed by the capital costs and operations for cultural facilities in the results of the financial analysis and the surveyors land premium valuation for the commercial and residential parcels, as set out in section 4 of this Annex above, in order to identify packages which meet the packaging coherence and viability criteria above.

6.4 Table H-3 identifies three packages which meet the above criteria and package all commercial and residential development with some cultural or communal facilities. An explanation of how the land premium to Government was calculated, is provided in the Text Box H-1.

Text Box H-1: Calculating the Estimated Land Premium to Government under Scenario 2, Packaged Development

Packaged development combines commercial and/or residential elements that are expected to have a positive return with one or more CACF and/or communal facilities, expected to have a negative return. The question is what land premium would a developer be prepared to pay for a combined package that would require him to develop commercial and/or residential and also construct and take over operational responsibility for the CACF and/or communal facilities over the period to 2059? (Note, for ease of explanation here, commercial and/or residential is hereafter referred to as commercial and CACF and/or communal facilities are hereafter referred to as CACF).

The method of calculation endeavours to model the behaviour of the private sector and estimates the land premium that would be offered by the developer for a mixed package including both the commercial and CACF elements. In this way, it approximates how much less the developer would be willing to pay in land premium for a mixed package rather than commercial elements alone i.e. the amount he requires to compensate him for accepting the risk and responsibility of the CACF. The estimated value of the land premium offered by the developer for the package is calculated by setting up a cash flow which includes the estimated value of commercial elements (reflecting their expected expenditure and income) and the annual surplus/deficit generated by the CACF. The land premium of the commercial elements is based on the valuation set out in Section 4 above and included in the total cash flow of the package in 2010. It is important to note that this approach to packaged development approximates how the developer would estimate the residual value for the mixed package and is not directly comparable with the resulting land values if the CACF were undertaken as in Scenarios 1A or 1B and the commercial element undertaken separately. Specifically the mixed package is assumed to be undertaken as a BOO type procurement approach and the total cash flow of the package is discounted over the period 2010-2059 inclusive, using the WACC.

The WACC represents the opportunity cost of the funds to the developer and is estimated at 12.5% (see Annex I). The WACC is applicable because the developer is undertaking a package that yields a positive financial return, taking into account the revenues from land sales and the deficit from developing and operating the CACF. In practice, with the WACC higher than the nominal discount rate of 6.1%, this reflects the private sector's primary concern with shorter term costs and revenues, whether positive or negative. This approach to analysing mixed packaged development best reflects private sector behaviour.

It is important to note that the methodology adopted requires that the overall package of CACF and commercial development must be financially viable – i.e. it must produce a positive NPV. It is only appropriate to use this packaging approach – and therefore to use private sector procurement assumptions including the WACC to discount future cash flows – if and when the overall value of the package is positive. If the overall package yielded a negative return, the developer would not bid for the packaged contract.

For each of the packages, the adopted method calculates the resultant value of the land premium in 2010, based on the cash flow of the package. This value must then be discounted back to 2006 because 2006 is the chosen year for comparison of scenarios. The appropriate discount rate from 2010 to 2006 is the nominal discount rate of 6.1% used in all other calculations to reflect the real discount rate of 4% and assumed 2% inflation. The NPV of Package A at 2006 is $1.6 billion.

Table below shows the values in 2010 and 2006 for Packages A, B and C, using this approach.

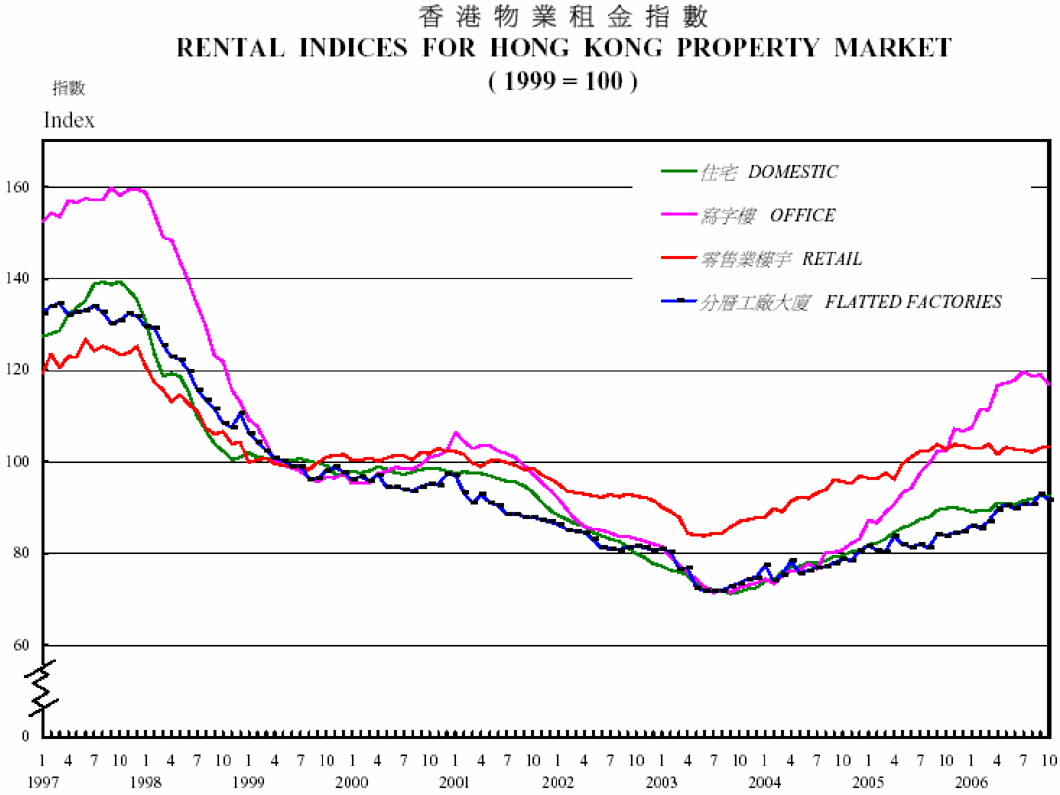
Land Premium Estimates, Packages A, B and C ($ billion)

	Package Value 2006	Package Value 2010
Package A	1.6	2.0
Package B	0.8	1.1
Package C	11.8	14.9
Total	**14.2**	**18.0**

Table H-3 Development Packages for Scenario 2

Package	CACF / Communal Facility	Commercial / Residential Development	Rationale
A	3.1 MPV	C.3 / C4 Hotels 2 + 3 C.5 Commercial 1 (108,609 m2 GFA)	Package combines two 4 star hotels with a total of 44,500 sq. m. GFA and 108,609 sq.m. of commercial GFA with compatible destination venue – MPV. Envisages development and operation by a dedicated international venue developer and operator. Premium for commercial and hotel development and positive operating NPV expected to cover capital costs of construction
B	3.5 Medium Theatre 1 3.7 Blackbox Theatres 2 & 3	C.2 Hotel 1 C.6 Commercial 2 (40,000 m2 GFA)	Package combines 5 star hotel 39.500 sq. m. and 40,000 sq.m. of commercial GFA with two theatre parcels to strengthen “theatreland” concept with compatible commercial uses. Envisages development and maintenance by major commercial developer and separate contract for operation by a dedicated private theatre operator. Premium for commercial and hotel development expected to cover capital costs of construction and operation of theatres.
C	5.2 Road works and pedestrian access 5.3 Public Pier 5.4 Car Parks 6.1 Public Open Space 6.2 Fire Station, Police Post, RCP 6.3 Public Toilets 4.0 OACF	C.1 Residential 1 (All residential GFA)	“Planning Gain” package which utilises part of the high land value of the residential development parcel to cross subsidise the cost of all communal facilities except APM. In this case the developer funds the full cost of communal facilities through reduced premium and transfers them to the proposed statutory body / Govt Departments at no cost.

Figure H-1


香 港 物 業 租 金 指 數
RENTAL INDICES FOR HONG KONG PROPERTY MARKET
(1999 = 100)
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Index
住宅 DOMESTIC
寫字樓 OFFICE
零售業樓宇 RETAIL
分層工廠大廈 FLATTED FACTORIES
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140
120
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80
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1997
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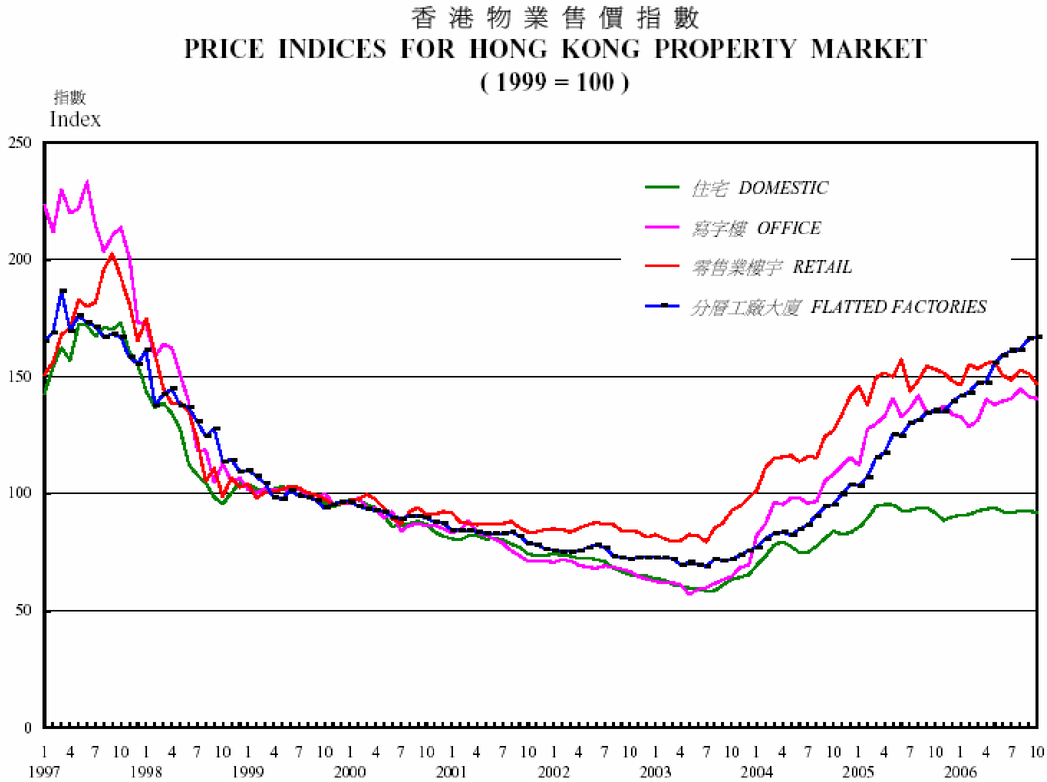
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分層工廠大廈 FLATTED FACTORIES
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1997
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EXHIBIT H-1 NO. 1 BROADCAST DRIVE (NKIL 6374)

Summary of Site Particulars

Location	:	1 Broadcast Drive, Kowloon Tong
Lot No.	:	New Kowloon Inland Lot No. 6374
User	:	Private residential purposes
Date of Auction	:	28 November 2006
Site Area	:	65,531 ft^2 (6,088m^2)
Plot Ratio	:	3
Maximum GFA	:	196,593 ft^2 (18,264m^2)
Maximum no. of storey (under lease)	:	10
Outline Zoning Plan	:	R(C)10 under S/K18/12 Maximum Plot Ratio : 3 Maximum number of storey : 10
Triggered Price Accommodation Value	: :	$1,100,000,000 $5,595 /$ft^2$
Transacted Price Accommodation Value	: :	$1,940,000,000 $9,868 /$ft^2$

EXHIBIT H-2 MOUNT BEACON

Mount Beacon

(20 Cornwall Street, Kowloon Tong)

Item No.	House	Date of transaction	Transacted Price	Saleable Area (m²)	Unit Rate ($/m²)
1	2	17.11.2006	$77,000,000	292.7	$263,068
2	9	6.9.2006	$62,680,000	263.7	$237,694
3	18	28.8.2006	$64,330,000	268.1	$239,948
4	21	7.8.2006	$62,150,000	268.9	$231,127
5	7	3.8.2006	$62,968,000	263.7	$238,786
6	5	31.7.2006	$63,800,000	263.7	$241,942
7	8	2.8.2005	$63,280,000	263.7	$239,970
8	20	20.7.2005	$62,443,000	268.9	$232,216
9	6	18.7.2005	$64,183,000	263.7	$243,394
10	15	18.7.2005	$63,180,000	263.7	$239,590
				Average	**$240,774**

Note

Source from EPRC

EXHIBIT H-3 HOTEL TRANSACTIONS (NOV 2005 TO NOV 2006)

HOTEL TRANSACTIONS (Nov-05 to Nov-06)

Hotel	Address	Consideration	Hotel GFA (m²)	Room	Room Size (m²)	Room Rate	Unit Price ($/m²)	Agreement Date	OP
The Eden	No 148 Wellington Street	$59,000,000	604	25	24	$ 2,360,000	$ 97,704	Oct-06	-
Novotel Century Harbourview Hotel	No 508 Queen's Rd West	$588,380,000	11,625	288	40	$ 2,042,986	$ 50,670	07-Jun-06	1999
Novotel Citygate Hong Kong Hotel	No 43 Man Tung Road	$295,000,000	22,000	440	25	$ 670,455	$ 26,339	01-Nov-05	Jun-05

Sources of information: EPRC / News / Buildings Digests / Building Plans

EXHIBIT H-4 LAND VALUALATION BASED ON RESIDUAL METHOD

Houses

GDV						
Houses	10,000 m² GFA x	$300,000 /m² GFA			$3,000,000,000	
PV	3 years @ 7.75% p.a.		(1)		0.7994	
					$2,398,200,000	
less Mktg Cost	@ 1.5%			x)	0.985	$2,362,227,000
Less Costs						
Houses	10,000 m² GFA x	$22,100 /m² GFA (2)			$221,000,000	
CPS (Podium)	60 nos.(4) x	$140,000 /space (3)			$8,400,000	
					$229,400,000	
Prof. Fee	@ 6%			x)	1.06	
Profit	@ 10%			x)	1.10	
Contingency	@ 15%		(5)	x)	1.15	
					$307,602,460	
PV	1.5 years @ 7.75% p.a.				0.8941	$275,027,359
						$2,087,199,641
Less Profit	@ 10%				divided by	1.10
						$1,897,454,219
					Land Value, say	**$1,900,000,000**
					House AV ($/m²)	**$190,000**

Notes
(1) Prime rate based on the HSBC offering rate
(2) Construction cost of high quality villa houses as advised by KPK
(3) Construciton cost of podium carpark as advised by KPK
(4) Assumed 2 CPS per house
(5) 15% contingency on costs as advised by KPK

Retail

Annual Rent (per sq m GFA) (1)					$3,875	(based on monthly rent at $30 /sq.ft. GFA)
Yield	@ 5% p.a.			divided by	0.05	
					$77,500	
GDV						
Shop	148,609 m² GFA x	$77,500 /m² GFA			$11,517,197,500	
CPS (Podium)	372 nos.(2) x	$600,000 /space			$223,200,000	
CPS (Basement)	124 nos.(2) x	$600,000 /space			$74,400,000	
					$11,814,797,500	
PV	4 years @ 7.75% p.a.		(3)		0.7419	
					$8,765,398,265	
less Mktg Cost	@ 1%			x)	0.99	$8,677,744,282
Less Costs						
Shop	148,609 m² GFA x	$18,198 /m² GFA (4)			$2,704,386,582	
CPS (Podium)	372 nos.(2) x	$140,000 /space (4)			$52,080,000	
CPS (Basement)	124 nos.(2) x	$245,000 /space (4)			$30,380,000	
					$2,786,846,582	
Prof. Fee	@ 6%			x)	1.06	
Profit	@ 15%			x)	1.15	
Contingency	@ 15%		(5)	x)	1.15	
					$3,906,740,881	
PV	2 years @ 7.75% p.a.				0.8613	$3,364,875,921
						$5,312,868,361
Less Profit	@ 15%				divided by	1.15
						$4,619,885,531
Total car park spac	496				**Land Value, say**	**$4,620,000,000**
					Retail AV ($/m²)	**$31,088**

Notes
(1) Retail rental is taken as $30/ft² GFA/mth
(2) Total 474 CPS; 75% of the total no. of CPS is assumed as podium carpark and 25% as basement carpark
Loading/Unloading spaces are assumed at costs
(3) Prime rate based on the HSBC offered rate
(4) Construction cost as advised by KPK
(5) 15% contingency on costs as advised by KPK

Hotel

GDV							
Hotel	1,400	nos.[1] x	$4,150,000	/room		$5,810,000,000	
PV	4 years	@ 7.75% p.a.	[2]			0.7419	
						$4,310,439,000	
less Mktg Cost		@ 1%			x)	0.99	$4,267,334,610
Less Costs							
Hotel	84,000	m² GFA x	$22,750	/m² GFA [3]		$1,911,000,000	
CPS (Podium)	14	nos. x	$140,000	/space [4]		$1,960,000	
L/UL (Podium)	14	nos. x	$280,000	/space [4]		$3,920,000	
						$1,916,880,000	
Prof. Fee		@ 6%			x)	1.06	
Profit		@ 15%			x)	1.15	
Contingency		@ 15%	[5]		x)	1.15	
						$2,687,178,228	
PV	2 years	@ 7.75% p.a.				0.8613	$2,314,466,608
							$1,952,868,002
Less Profit		@ 15%				divided by	1.15
							$1,698,146,089
						Land Value, say	**$1,700,000,000**
						Hotel AV ($/m²)	**$20,238**

Notes

(1) Assume 60m² GFA per hotel room
(2) Prime rate based on the HSBC offered rate
(3) Hotel construction cost, including costs of back-of-house areas, as advised by KPK
(4) Podium carpark and loading/unloading spaces construction costs as advised by KPK
(5) 15% contingency on costs as advised by KPK