

#### THE HONG KONG HOUSING AUTHORITY

Memorandum for the Building Committee

Proposed Master Layout Plan, Scheme Design and Project Development Budget for Redevelopment of Tai Wo Hau Estate Phase 6

#### **PURPOSE**

To seek Members' approval to the proposed Master Layout Plan, Scheme Design and Project Development Budget for Redevelopment of Tai Wo Hau Estate Phase 6.

#### BACKGROUND

- 2. Tai Wo Hau Estate Redevelopment was identified for public housing by the then Development Progress Committee in June 1976. The whole redevelopment process consists of six phases. Phases 1 to 5 were completed in 1979-1993. Phase 6, the last phase, was occupied by a Mark IV Block and was cleared for redevelopment in June 1999.
- 3. Phase 6 was originally included in the PHDP Programme and HOUSCOM's Control Lists, with committed flat production of 480 rental flats for completion in March 2004. In view of the latest agreement with Transport Department (TD) that the bus terminus originally reserved in Phase 6 could be provided in Kwai Chung Estate Redevelopment, more flexibility in the choice of housing block types is possible and hence, there is the opportunity to consider the site for HOS development with increased development potential. Subsequent to SPC approval on the transfer from Rental to Home Ownership Scheme in September 1999, Phase 6 has been included in the current September 1999 PHDP with committed flat production of 512 HOS flats completing in August 2003.

4. Past events relevant to the project are as follows –

	Date	Events
(a)	21.6.1976	Planning Brief for the whole redevelopment approved by the then Development Progress Committee (DPC).
(b)	30.4.1988	Revised Planning Brief approved by the DPC.
(c)	23.3.1989	Layout Plan for Phase 4 approved by the Building Committee (BC) (Paper No. BC 41/89 refers). Phase 6 adjacent to Phase 4 was also included in the layout to allow a comprehensive design to be undertaken.
(d)	22.9.1999	Strategic Planning Committee (SPC) approved the transfer from Rental to Home Ownership Scheme and endorsed the Development Cost Ceilings (Paper No. SPC 32/99 refers).
(e)	3.11.1999	Revised Planning Brief endorsed by District Planning Conference (TKS DipCon) by circulation.

#### SCHEME DESIGN PROPOSAL

The proposed Master Layout and Scheme Design of Phase 6 at Part I and Part II of the attached Annex generally complies with the latest approved Planning Brief. Due to site area constraint and the carparking requirement, standard blocks cannot be accommodated and truncated Concord Blocks are adopted. The design is to take advantage of the existing level difference of the adjoining grounds to accommodate the carpark podium so that the podium roof can form a smooth connection to the landscaped deck at the completed Phase 4 development while the carpark entrance and emergency vehicular access (EVA) are conveniently provided via the adjoining Shek Tau Street at the lower level. A vehicular free pedestrian precinct is thus created on the podium roof serving as the main entrance level to the domestic blocks.

- 6. The proposed redevelopment comprises of -
  - (a) 2 nos. truncated and linked Concord Blocks on podium, both are of Concord 1 Option 1 design with 32 domestic storeys providing a total of 512 HOS flats.
  - (b) A single-storey carpark podium providing 64 private carparking spaces and 6 motorcycle parking spaces.
  - (c) Taxi/Public Light Bus (PLB) Loading/Unloading Area at the South-western corner of the site.
  - (d) 1 no. of basketball shooting court on podium.
  - (e) 3 nos. of covered Light Goods Vehicle (LGV) parking and 2 nos. of semi-open loading/unloading bays located on ground floor.
  - (f) 1 no. of Refuse Collection Point located on ground floor.
  - (g) Associated External Works and Estate Facilities.
- Automated Refuse Collection System (ARCS) will NOT be provided as such system has not been provided in other earlier Phases and also due to site constraint. 1 no. of existing mature tree at the Southeastern corner of the site will be preserved.
- 8. Details of the Master Layout Plan and Scheme Design are listed out in **Part I** of the **Annex**.
- 9. The domestic portion will provide a total of 512 HOS flats of which 256 nos. are 2-Bedroom and 256 nos. are 3-Bedroom units. The design population is 1640 which complies with the SPC brief.
- 10. The Plot Ratio (PR) of the proposed redevelopment is 8 and in compliance with Planning Department's administrative PR of 5-8.

### PROJECT DEVELOPMENT BUDGET

Based on the proposed Master Layout Plan and Scheme Design, the proposed Project Development Budget for Phase 6 is estimated to be \$439.464M. Breakdown of the budget calculations is given in Part IV of the Annex and the key elements are tabulated as follows -

·			Project Development Budget (\$M)
(a)	Site Development Co	st	3.517
(b)	Construction Cost	Foundation	Included in building
		Building	340.337
		Soft Landscape & others	0.554
		Sub-total (b)	340.891
(c)	Project Management (a+b) x 14%	Cost	48.217
(d)	Other Project Cost (a+b) x 2%		6.888
(e)	Development Conting (a+b+c+d) x 10%	gency	39.951
	tal Project Developmen (b) + (c) + (d) + (e)	t Budget	439.464

12. The Unit Cost of Proposed Project Development Budget as compared with SPC's Approved Project Development Unit Cost Ceiling is as follows -

	(a)	(b)	(c)	(d)
	Unit Cost of Proposed Project	SPC's Approved Project Development	Overall Unit Cost of Construction Included in (a)	June 1999 Cost Yardsticks Adjusted to
	Development Budget  (\$/m² CFA)	Unit Cost Ceiling (Paper No. SPC 32/99) (\$/m² CFA)	(Excluding external Works and Others) (\$/m² CFA)	Tender-In- Date (S/m² CFA)
Domestic	10,040	10,166	7,523	6,763
Carpark (PC)	11,897	12,022	9,910	5,618
Carpark (LGV)	9,749	11,076	9,256	6,117
Unallocable	17,400	95	15,265	

The proposed Unit Development Cost Budget is within the SPC's Approved Unit Development Cost Ceiling.

The difference between the Overall Unit Cost of Construction (excluding external works and others) and the June 1999 Cost Yardsticks Adjusted to Tender-In-Date are attributable to the following -

- (a) Demolition cost.
- (b) Congested site.
- (c) Non-standard design, namely, truncated blocks, linked lobby and transfer structure.
- 13. The proposed Project Development Cost for the Domestic portion can be further broken down into the cost per flat as follows -

Flat Type	(a) Proposed Development Cost per Flat	(b) Overall Construction Cost per Flat Included in (a) (Excluding External Works and Others)	(c) June 1999 Cost Yardstick Adjusted to Tender-in- Date
	(\$)	(\$)	(\$)
2B	678,643	650,877	444,460
3B	870,770	835,144	569,933

#### AVAILABILITY OF FUNDS

14. The estimated yearly expenditure of the proposed Budget is shown below and would be included in the next capital budget updating of the Authority -

	Estimated Expenditure (\$M)				
	1999/2000	2000/2001	Post 31.3.2001	Total	
Estimate	3.517	76.092	359.855	439.464	
Allowed in FC 65/98	0.000	4.480	260.065	264.545	

15. There is no provision in the Housing Authority's Capital Budget for the year 1999/2000 (Paper No. FC 65/98 refers) and is not adequate to meet the estimated expenditure due to the advancement of the demolition contract. Virement of funds from other projects under departmental delegated authority has been sought.

#### **DEVELOPMENT PROGRAMME**

16. Details of the proposed development programme are in **PART III** of the attached **Annex**. The key dates are as follows -

(a)	Master Layout Plan, Scheme Design & Project Development Budget	Endorsement by PDRC	11/1999
		Approved by BC	01/2000
(b)	Detailed Design	Approved by DDRP	03/2000
(c)	Demolition	Commencement Completion	10/1999 03/2000
(d)	Combined Foundation and Building	Commencement	09/2000
	Contract	Completion	08/2003

#### RECOMMENDATION

17. The Proposed Master Layout Plan, Scheme Design and Project Development Budget of \$439.464M for Redevelopment of Tai Wo Hau Estate Phase 6 as described in paragraphs 5 to 16 above and in the Annex to this paper be approved.

#### **DISCUSSION**

18. At the next meeting of the Building Committee to be held on 20 January 2000, Members will be invited to approve the recommendation in paragraph 17 above.

File Ref.: HD(AR)55/104/6

Date: 17 January 2000

#### REDEVELOPMENT AT TAI WO HAU ESTATE PHASE 6

PROPOSED MASTER LAYOUT, SCHEME DESIGN
PROJECT DEVELOPMENT BUDGET
AND
PROJECT DEVELOPMENT COSTS
ISSUE NO. 2

## BUILDING COMMITTEE SUBMISSION JANUARY 2000

REF.HD(AR)55/104/6

DEVELOPMENT AND CONSTRUCTION BRANCH HOUSING DEPARTMENT HONG KONG



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### AMENDMENT RECORD SHEET

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				DATE OF ISSUE
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		YEAR	99	00
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Part	I : IVIASI	ter Layout	1	2
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A.	Intro	duction		
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1	B1.	Site Particulars	1	2
		1) Location	1	2
		2) Site Topography	1	2
	B2.	Infrastructure	1	1
		1) Water Supply	1	1
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		3) Electricity, Telephone & Gas	1	2
		4) Traffic Improvement	1	2
	В3.	Environmental Mitigations	1	2
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}	B4	Zoning Consideration		2
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C.	Accor	mmodation and Facilities		
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	C2.	Development Ratio and Plot Ratio	1	2
	C3.	Open Space and Recreational Facilities	1	2 2
	C4.	Commercial Facilities	1	2
	C5.	Education Facilities	1	2
	C6.	Social Welfare and Community Facilities	1	2
	C0.	Management Accommodation	1	1
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	C8.	Other Facilities	_	1
	C9.	Car Parking Provision	1	1
	C10.	Public Transport Facilities	1	2
D.	Desig	n Consideration		
		-		
	D1.	Building Form	1	1
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	D3.	Pedestrian Circulation	1	2
1	D3.	Vehicular Access	1	2 2
	D5.	Open Space	1	1
	<i>D</i> 3.	Open opace	-	
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BC - Issue 1

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This document has been reviewed and approved for design adequacy.			
Signature : Date : <u>Jan 7, 2000</u> Mr. D.K.C. KO (CA/1) DESIGN TEAM LEADER			

B	ed	eve	op	men	of	<u>Tai</u>	<u> Wo</u>	Hau	Estate	P	iase	6

### PART I MASTER LAYOUT

Appr	oved Development Parameter	Proposed Master Layout	Remarks				
A.	Introduction	Introduction					
(1)	The redevelopment of Tai Wo Hau Estate coadjacent to Shek Tau Street. Demolition v completed by March 2000.	onsists of six phases. Phase 6, the last phase, works of the existing Mark IV block commen	is situated at the South of Tai Wo Hau Estate need in October 1999 and is scheduled to be				
(2)	Planning Brief of the redevelopment was end Brief was endorsed by DPC in April 1988.	orsed by the then Development Porgress Comr	nittee (DPC) in June 1976. Revised Planning				
(3)	Development Parameters, Conceptual Layout	and Project Estimate for HOS development w	ras endorsed by PDRC(1) on 23.7.1999.				
(4)	Conceptual layout for the transfer from Renta	d to HOS scheme was approved by SPC on 22.	.9.1999.				
(5)	Revised Planning Brief in the form of a revise on 3.11.1999.	ed schedule of accommodation was endorsed b	y District Planning Conference (TKS DipCon)				
(6)	Master Layout Plan, Scheme Design and Proj	ect Development Budget was approved by PD	RC(2) on 26.11.1999.				
(7)	A location plan Drawing No. TW12/6/SITE/A	A/DLO-02 is attached in Part II of the Annex.					
(8)		TW12/6/SITE/A/DLO-03/D is attached in Par	t V of the Annex.				
	ite Analysis and Evaluations						
B.1 S	ite Particulars						
(1) L	ocation						
1	Chung District of Tsuen Wan. The Layout Plan for Phase 4 approved by Housing Authority's Building Committee was circulated to other government departments on 6.4.1989. Phase 6, being adjacent to Phase 4, was also included into the Layout Plan to allow a comprehensive design. Phase 6 is surrounded by Shek Tau Street to the East and South, existing commercial centre of Phase 4 to the North and existing Harmony 1 Block (Fu Tai	As per Approved Development Parameter.					

Ap	proved Development Parameter	Proposed Master Layout	Remarks
В.	Site Analysis and Evaluations (Cont'd)		
B.1	Site Particulars (Cont'd)		
(2)	<ul><li>1.2 The gross site area of the existing site is about 0.43ha.</li><li>Site Topography</li></ul>	Gross site area: 0.46ha	As commented by PDRC (1) at Appendix III in Part V of the Annex, the basketball shooting area will be included into Phase 6 HOS development area in order to maximize the development potential. The gross site area does not include the layby for Public Light Buses (PLBs) & Taxis and it will be subject to minor adjustment upon detailed site survey on the existing adjoining buildings/features.
	The site is generally level at + 36.6m. The adjoining ground varies in level from + 35.9m to + 40.1m. To the West is an existing slope with a ramp which connects the upper and lower platforms. To the South is an existing retaining wall abutting the Vesting Order Boundary which supports the adjoining public road (Shek Tau Street) and is maintained by Highways Department.	back and a new retaining wall will be constructed in order to fully utilize the site.	

App	proved Development Parameter	Proposed Master Layout	Remarks
B.2	Infrastructure		
(1)	Water Supply		
	Watermain diversion/reprovision scheme will be required to divert existing rental supplies away from the HOS boundary.	Details of watermain diversion/connection will be examined in the detailed design stage.	WSD commented that the diversion cost for the existing watermains should be borne by the project proponent.
(2)	Drainage and Sewage		8
	No adverse comment received from DSD and EPD.	Details of drainage diversion will be examined in the detailed design stage.	
	Drainage diversion in the vicinity of the new site boundary will be required to divert existing rental facilities away from the HOS boundary.		
(3)	Electricity, Telephone & Gas		
	No adverse comment received from utility companies.	As per Approved Development Parameter.	
(4)	Traffic Improvement		
	No significant impacts on the existing infrastructure are likely to be caused by the proposed development. No traffic improvement measures are required by TD.	As per Approved Development Parameter.	
<b>B.3</b>	Environmental Mitigation Measures		
	Any air sensitive uses on the site to be set back 5m from Shek Tau Street.	As per Approved Development Parameter.	

Approved Development Parameter	Proposed Master Layout	Remarks
B. Site Analysis and Evaluations (Cont'd)		
B.4 Zoning Consideration		
The site is zoned R(A) on the Kwai Chung outline zoning plan no.: S/KC/13.	As per Approved Development Parameter.	
B.5 Land Matters		
(1) Agreement was reached with TD that a bus terminus originally reserved in Tai Wo Hau Estate redevelopment could be provided in Kwai Chung Estate redevelopment which would serve both estates.	As per Approved Development Parameter.	HAD/DO(K&T) reminded in their approval memo to the Revised Planning Brief (reference KC D/3/2C Pt. V dated 20.10.99) that Kwai Chung West Area Committee (AC) members have previously requested a bus terminus at Tai Wo Hau Estate. They might re-visit the issue again. Concerned departments would be invited to brief members if necessary.
(2) A lay-by for PLBs and taxis shall be provided in Phase 6 redevelopment.	As per Approved Development Parameter.	The lay-by for PLBs and taxis is planned to be carved out as part of Shek Tau Street. Minor amendment to the existing V.O. boundary will be required. (Approved Conceptual Plan Drawing No. TW12/6/SITE/A/DLO-03/D at Part V of the Annex refers). Details will be resolved with the Estate Surveyor at the detailed design stage.

Ap	proved Development Parameter	Proposed Master Layout	Remarks
В.	Site Analysis and Evaluations (Cont'd)		
B.6	Site Constraints		
(1)	An existing mature tree at the east corner of the site.	The existing mature tree will be preserved.	
(2)	An existing retaining wall running along the southern site boundary (GEO Slope Feature No. 7SW-C/R108) also serves to support an elevated public road, Shek Tau Street, both of them fall outside the Vesting Order boundary.	some minor modification to the retaining	*:
(3)	Servicing access for an existing Refuse Room and Junk Collection Point (JCP) to the North-West of the site to be maintained.	A 3m wide service lane along the northern HOS boundary will be provided.	The provision of service lane shall be highlighted in future lease documents.
(4)	Access to an existing culvert to the west slope of the site to be maintained. Otherwise, diversion works will be required.	The culvert is proposed to be decked over while suitable maintenance access will be provided.	

Approved Development Parameter	Proposed Master Layout	Remarks
C. Accommodation and Facilities		
C.1 Type of Public housing  Home Ownership Scheme  - Population = 1640  - Flat nos. = 512  - Flat mix = 256 (2 Bedroom)  256 (3 Bedroom)  - Site area = 0.46 ha	As per Approved Development Parameter.	
C.2 Development Ratio and Plot Ratio		
(1) DR is not applicable to HOS development.	N.A.	
(2) Maximum administrative PR of 8 for Phase 6 only.	As per Approved Development Parameter.	
C.3 Open Space and Recreational Facilities		
Facilities Local Open space: About 0.2 ha (1 ha/10,000 persons)	0.19 ha	
Basketball Court : 1 (shooting court)	1	The shooting court in lieu of a full-sized basketball court has been approved in the Revised Planning Brief. It has been included in the HOS development area to
Children Playground : 140m²	As per Approved Development Parameter.	included in the HOS development area to increase the development potential. The shooting court will be reserved for exclusive use by the HOS development at Phase 6.

Approved Development Parameter	Proposed Master Layout	Remarks
C.4 Commercial Facilities		
Catered for by existing provision	As per Approved Development Parameter.	
C.5 Education Facilities		
Catered for by existing provision	As per Approved Development Parameter.	=1
C.6 Social Welfare and Community Facilities		
Catered for by existing provision	As per Approved Development Parameter.	
C.7 Management Accommodation		
No special requirement.  HOS  EMO @70-90m² IFA	Complied	
C.8 Other Facilities		
HOS Office for Owner's Corporation 18-40m <sup>2</sup> IFA Office for Cleansing Contractor 6-10m <sup>2</sup> IFA Artisan Workshop 10m <sup>2</sup>	Complied	
Refuse Refuse Collection Point 1 No. Junk Collection Point 1 No. @20m²		

Approved	Approved Development Parameter		Proposed Master Layout	Remarks
C.9 Cars Parking Provision		n		
(1)	Private Cars			
	HKPSG Standard	Theoretical Range Provision		
	HOS 1/5-8 flats	64-103	64 Nos. (i.e. 1:8 flats)	
(2)	Motorcycles			
	The parking spaces for motorcycles would be provided to upper range of 5-10% of total provision for private cars.		6 Nos. (i.e. 9% of private car parking spaces)	
(3)	Light Goods	Vehicles		
	HKPSG Standard	Theoretical Minimum Provision		
	HOS			
	1/200 flats (in mixed ren	3 tal/HOS estate)	3 Nos.	
(4)Res	idential Loading	/Unloading		
	HKPSG Theoretical Standard Minimum Provision		One bay for each block = 2 Nos.	
	1 bay for each	block 2		

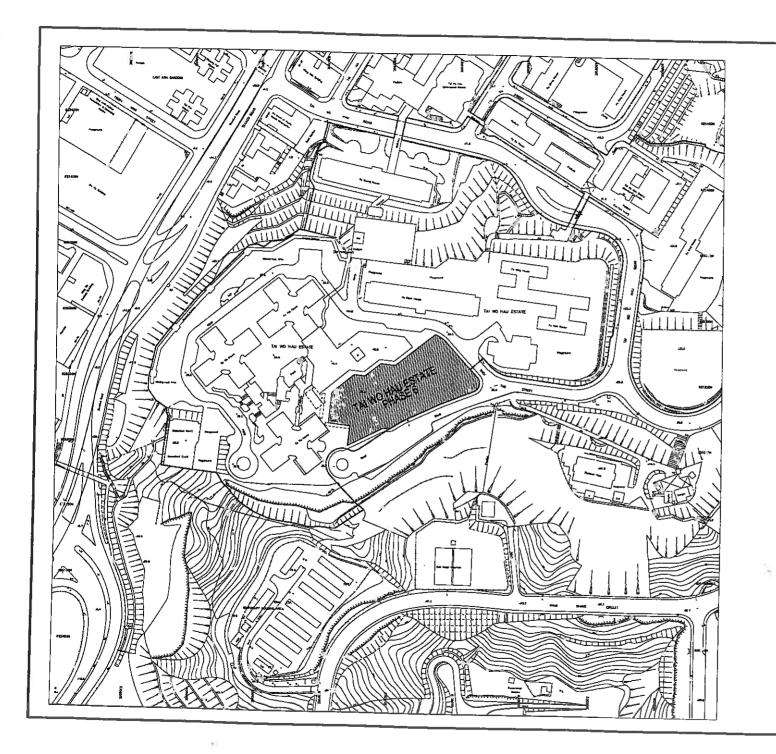
Appr	oved Development Parameter	Proposed Master Layout	Remarks
C10.	Public Transport Facilities A lay-by for PLBs & Taxis	As per Approved Development Parameter.	The lay-by for PLBs and Taxis is planned to be carved out as part of Shak Tau Street. The existing V.O. boundary will have minor amendment. Details will be resolved with the Estate Surveyor at the detailed design stage.
D.	Design Consideration		
D.1	Building Form		
	No specific requirement.	The physical width of the site limited the choice of the domestic blocks to 2 nos. truncated Concord 1 Option 1 blocks for this HOS development due to constraints by Prescribed Window requirement under Building (Planning) Regulation.  The minimum carparking and open space requirements are met by the provision of a single-storey carpark podium.	
D.2	Site Topography	Carpark podium has been designed to make use of the site profile. Being accommodated between the upper and lower levels, the podium roof connects to the landscape plaza of Phase 4 and the vehicular access and EVA are provided via Shek Tau Street, thus creating a clear segregation of traffic from pedestrian circulation.	

Approved Development Parameter	Proposed Master Layout	Remarks
D. Design Consideration (Cont'd)		
D.3 Pedestrian Circulation		
(1) Based on the existing pedestrian network as shown on the Pedestrian Traffic Diagram in <b>Part II</b> of <b>Annex</b> , pedestrian flow is generated from the North-eastern corner of Phase 6.	Pedestrian access to main entrance level (podium roof) is provided at the North-eastern corner of Phase 6.	
(2) The proposed PLBs & Taxis Loading/ Unloading bay at the South-western corner will also generate pedestrian traffic.	Direct Access from the drop-off area to podium roof is provided.	
(3) Covered walkway is to be provided to link all domestic block with all major facilities within the estate where possible.	Covered walkway/ramp is provided to link the domestic blocks to the Commercial Centre and existing Harmony Blocks of Phase 4.	
D.4 Vehicular Access		
Separate entrances are best to be provided for loading/unloading/refuse collection/carparking as far as practicable to avoid conflict of traffic flow.	A combined ingress/egress for different types of vehicles is provided via Shek Tau Street due to the lack of space available. This vehicular route also serves as the EVA. Such arrangement enables total segregation of the pedestrian circulation at podium roof from the vehicular traffic at Shek Tau Street.	Department. [Ref. (8) in FP8/10493(D) dated 5.11.99]

Approved Development Parameter	Proposed Master Layout	Remarks
D. Design Consideration (Cont'd)		
D.5 Open Space		
1 ha/10,000 persons : about 0.2ha	The podium roof which serves as the main entrance level will be provided with a mix of both passive landscape area and active open space, namely, a basketball shooting court and children's play areas.	

KC/fc (A/2) [pdrc-a2.doc]

# PART II MASTER LAYOUT DRAWINGS





NOTES

1: 2000

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	NAME AND DESIGNATION	NITIAL DATE
AUTHORISED	CA/1 D.C.W. KO	UM 19/0/
	SA/8 VERA CHOI	10 19/11/2
CHECKED	A/2 KITTY CHAN	(De 18/11/8)
	STOA/3 Y.C.CHAN	Sl. 17/1/9
DRAWN	CTA O. LUI	12/11/99

PROJECT

#### TAI WO HAU PHASE 6

DRAWING TITLE

LOCATION PLAN

SCALE 1: 2000

DRAWING NO

TW12/6/SITE/A/DLO-02

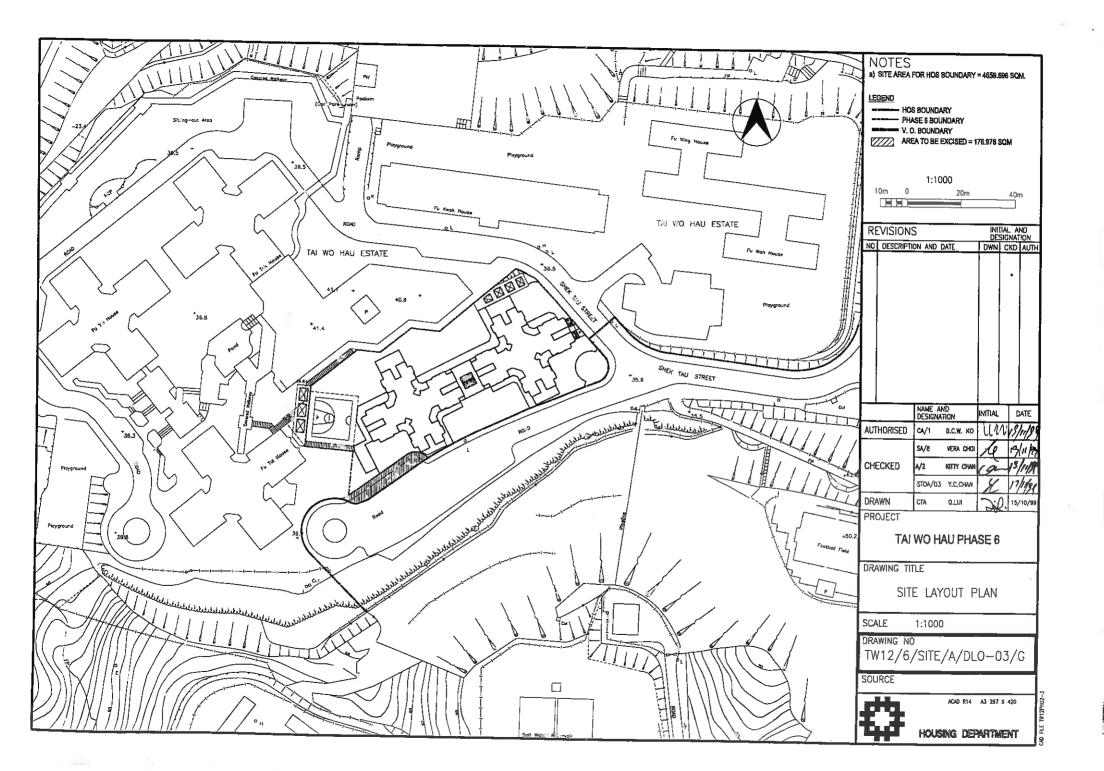
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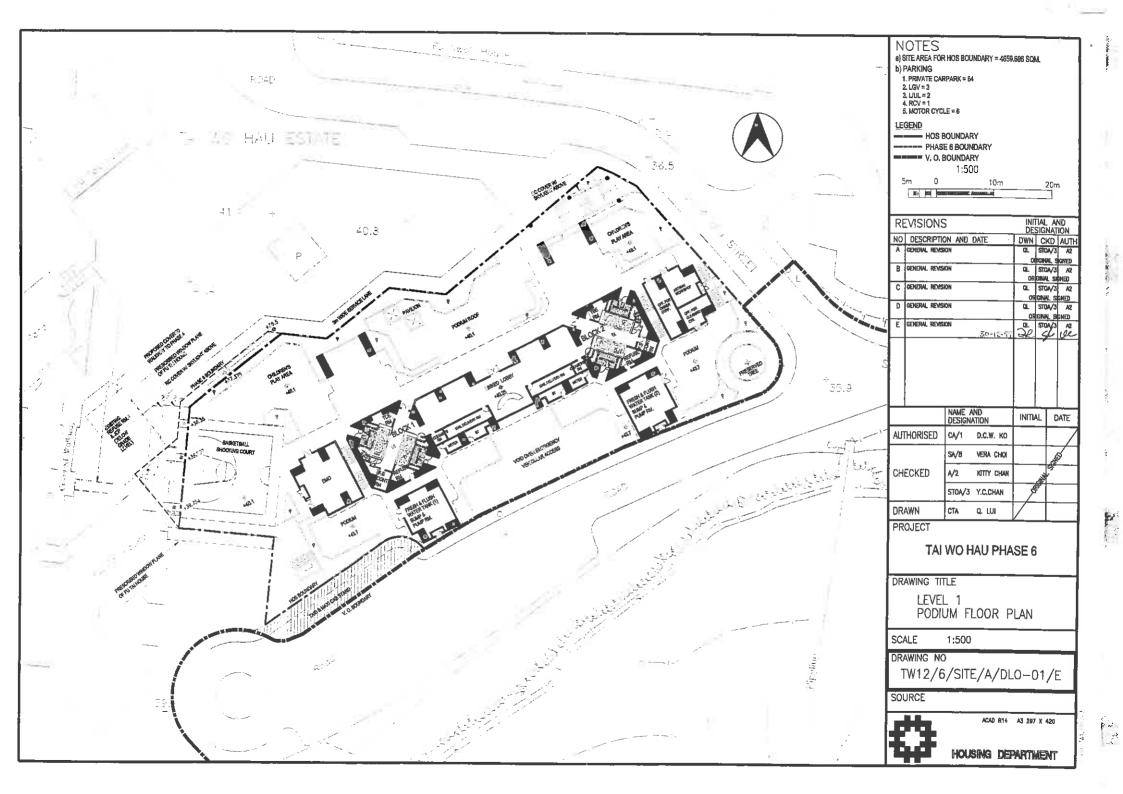
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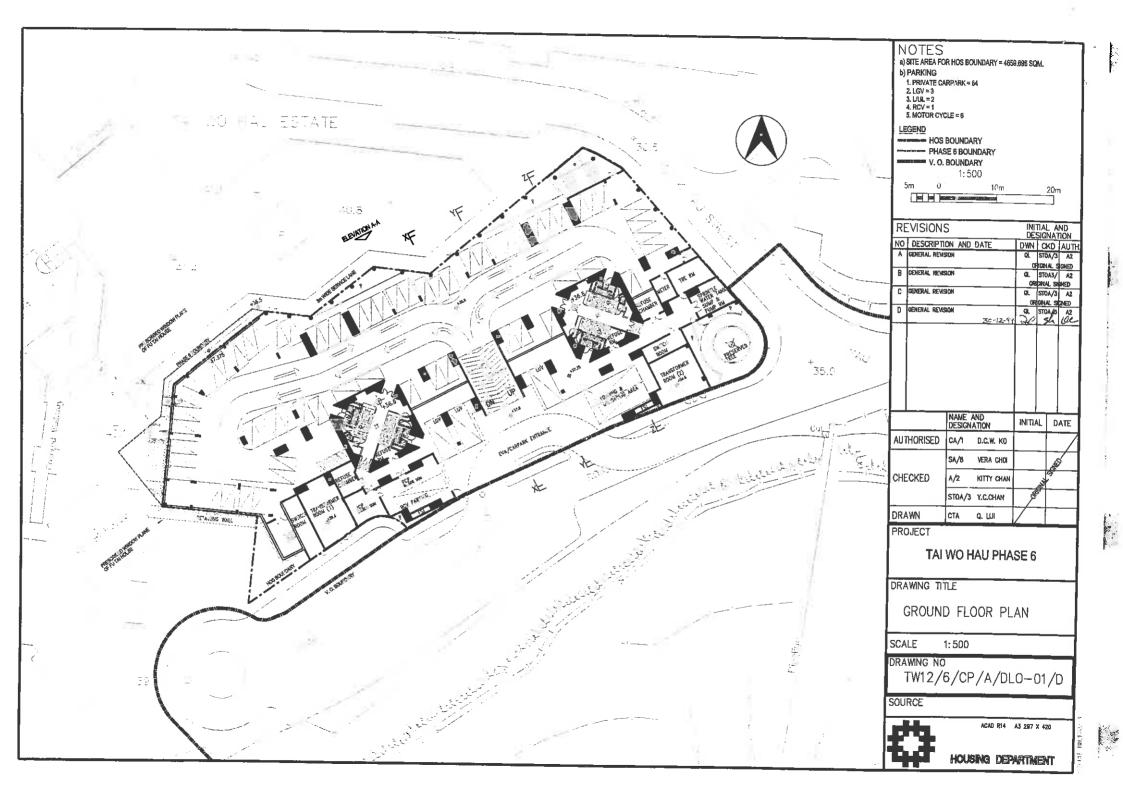
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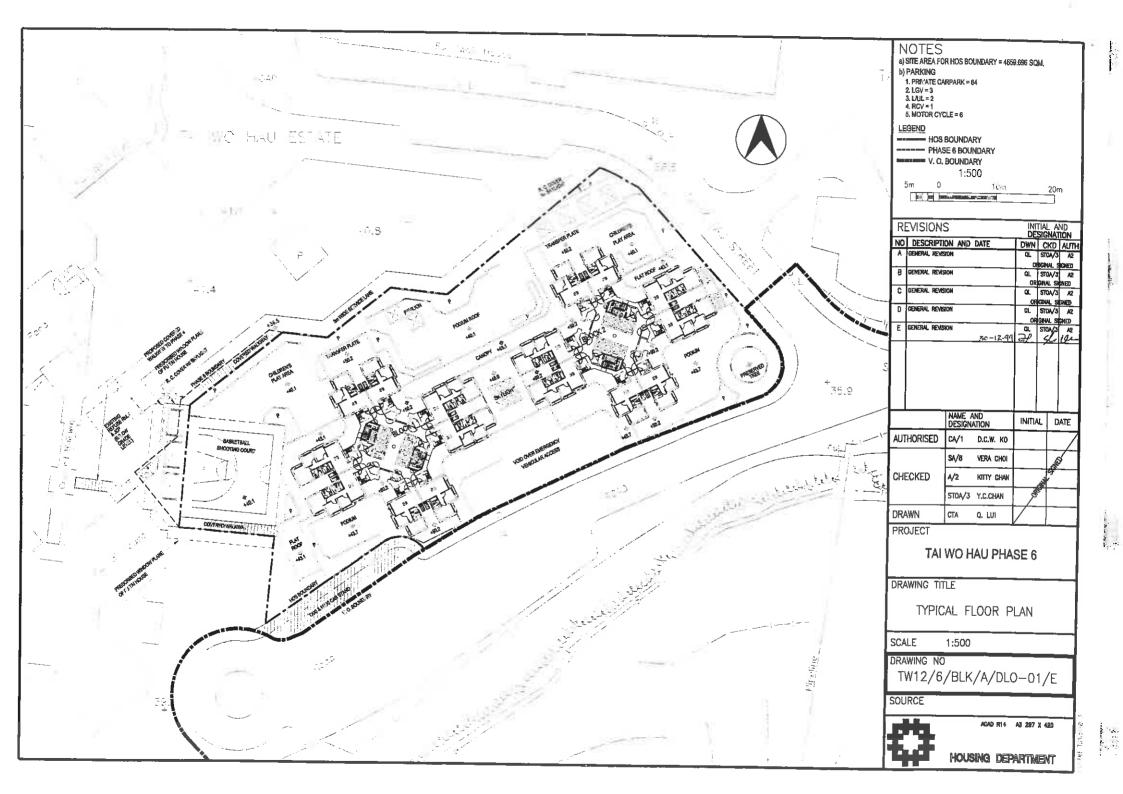
HOUSING DEPARTMENT

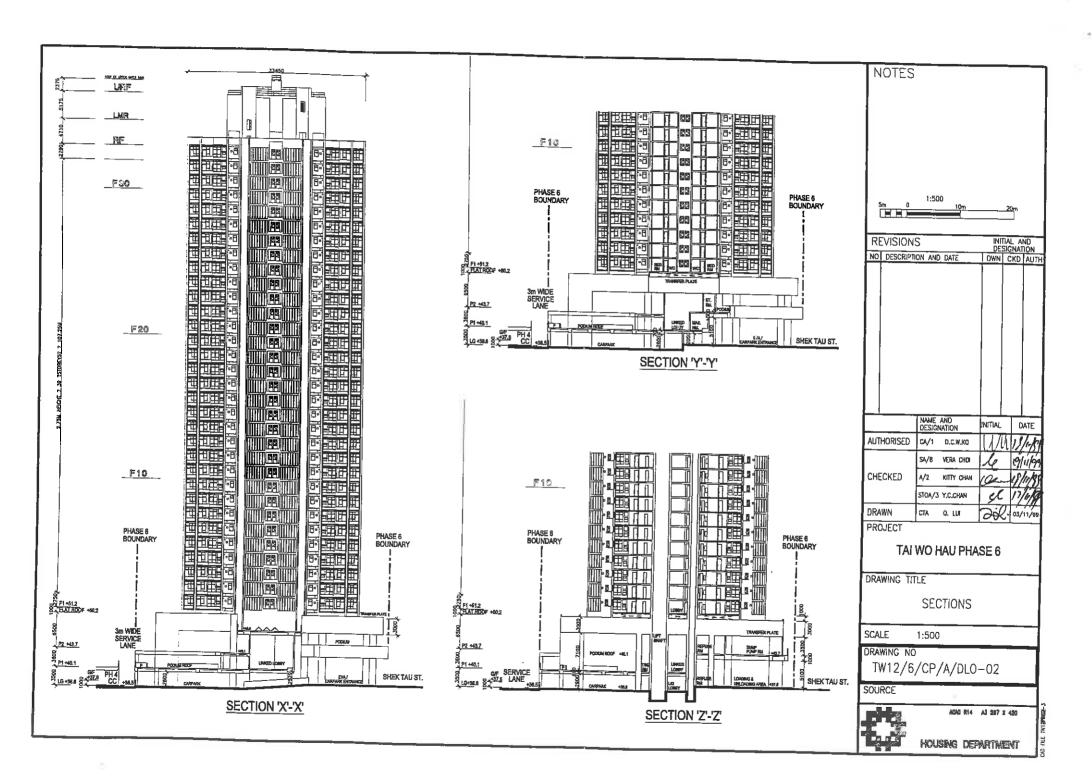
CAO FILE TWITZPRO2~3







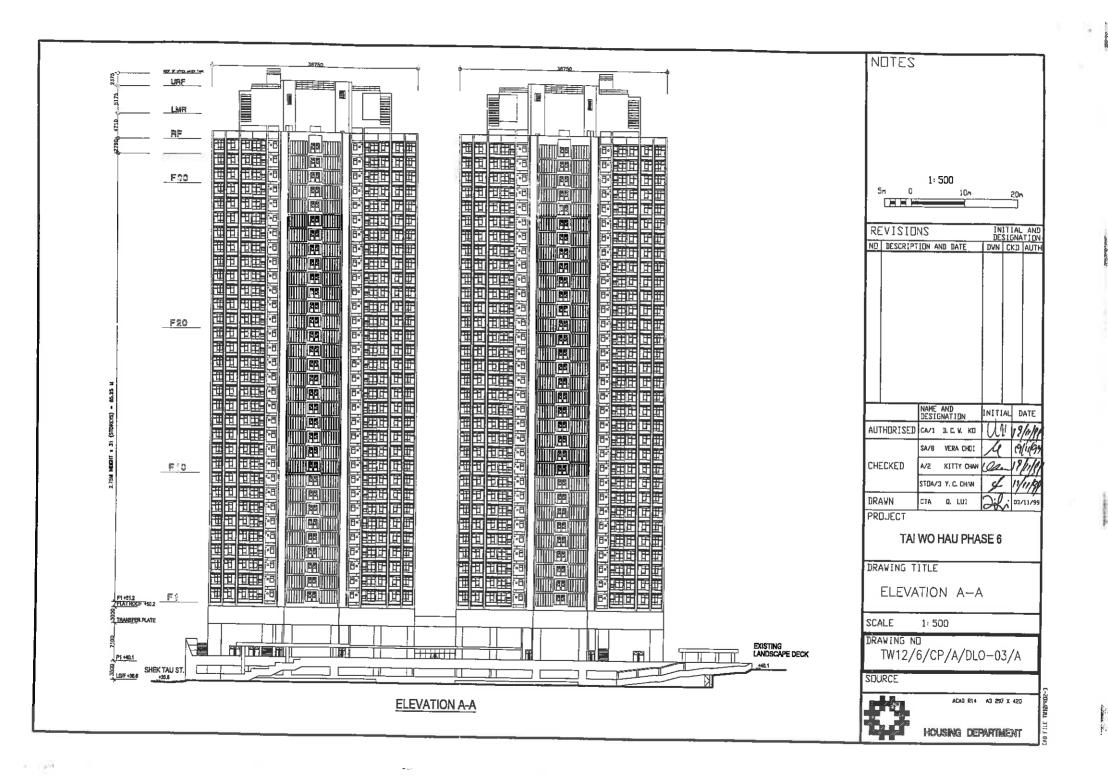


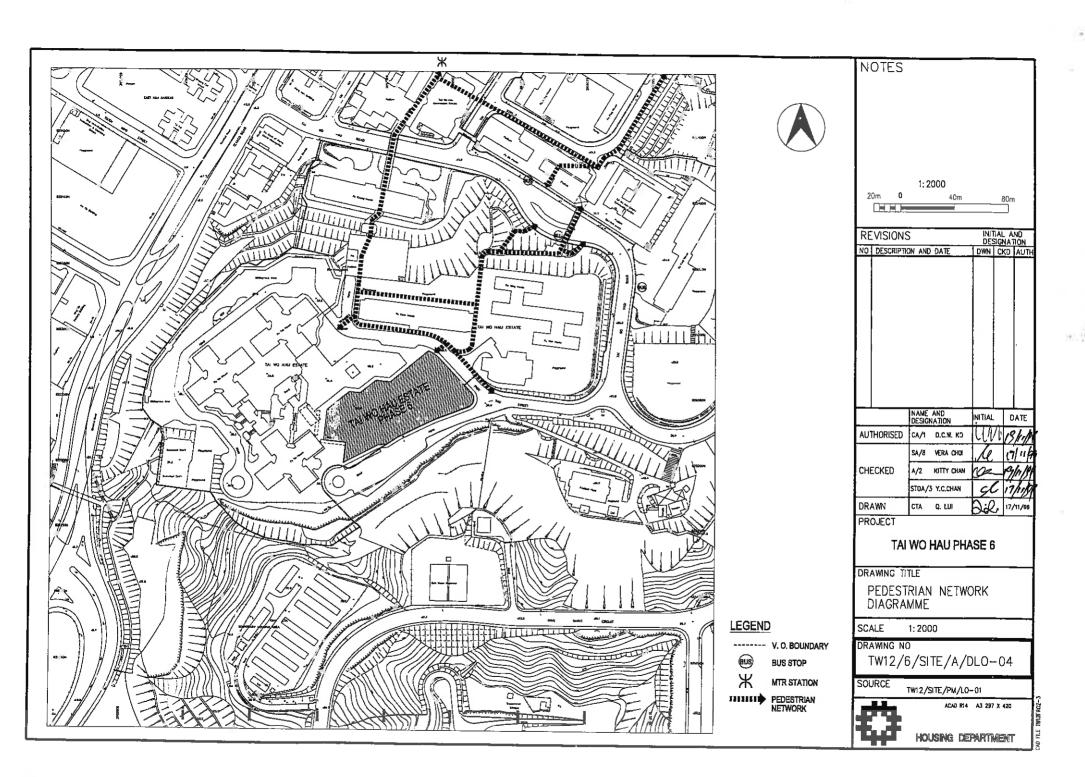


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# PART III DEVELOPMENT PROGRAMME

PROPOSED PROJECT DEVELOPMENT PROGRAMME - TAI WO HAU ESTATE PHASE 6
HOS DEVELOPMENT (AS AT 30/9/99)

HOS DEVELOPINENT ( AS	741 00/0/00 J					<del></del>
Activity	1998	1999	2000	2001 2002	2003	Remarks
Activity	1 2 3 4 5 6 7 8 8 10 11	12 1 2 3 4 5 6 7 8 9 10 11	2 1 2 3 4 5 6 7 1 9 10 11 12	2 1 2 3 4 5 8 7 1 9 10 11 12 1 2 3 4 5 6 7 8 9	10 11 12 1 2 3 4 5 6 7 8 9 10 11 1	12
1. DEVELOPMENT PARAMETER, CONCEPTUAL LAYOUT, FINANCIAL VIABILITY STUDIES & SCHEME DESIGN		7/99 9/99 11/99	1/00 3/00			
2. SITE CLEARANCE		6/99 10/99    Interpretation   10/99				CLEARANCE IN 6/99
3. DEMOLITION		7/99 10/99	3/00 8/00 			
4. PILING + BUILDING HOS			5/00 9/00   Y   TENDER OUT	HOS(33 + 2 MONTHS)	8/03	COMBINED PILING AND BUILDING CONTRACT BASED ON GEOTECHNICAL REPORT ASSUMED.

NOTE: 1. Two truncaled Concord blocks(32 Domestic floor) on carpark podium.

File name: TWHPH6-3 Date: 30-9-99

# PART IV DEVELOPMENT COST BUDGET

# ANALYSIS OF SITE DEVELOPMENT & CONSTRUCTION COST BUDGET No. 1 (For Financial Viability Assessment Purpose)

PROJECT: Redevelopment of Tai Wo Hau

PHASE: 6

PHDP Code: TW12RR

Estin	nated Costs (incl. common elements				COS	T PORTI	ONS				1
	rtioned across all phases within the Whole	PRH	HOS	RCHE	CC	CP(PC)	CP(LGV)	UN	MAC	PTI	Total
Deve	lopment Site)					!					(incl. fluctuation
		m²	m²	m²	m²	m <sup>2</sup>	m²	m²	m²	m²	m²
	CFA of Cost Portions (m2)	-	39,631		-	3,272	86	151	-		43,140
1.0	Site Development Costs		<			Cos	tin (\$'000	) ——ˈ		· · · · · · · · · · · · · · · · · · ·	>
	1.1 Demolition	-	3,232	-	-	266	7	12	-	-	3,517
	1.2 Site Formation		-	-	-	-	-	-	-	-	- 6
2.0	Construction Costs (incl. fluctuations)								;		
	2.1 Foundation (incl. caps)	-	-	- 1	-	-	•	-	-	-	-
	2.2 Building (incl. building services)	-	284,604	- !	-	28,340	601	1,959	-	331	315,835
	2.3 Transfer Structures	-	10,300	- 1	-	851	22	39	-	-	11,212
	2.4 External Works	-	12,209	-	-	1,008	26	47	-	-	13,290
	2.5 Others	-	509	-	-	42	1	2	-	-	554
Cost	Estimate										
Proj	ected to Date of Tenders (A)	-	310,854	-	-	30,507	657	2,059	-	331	344,408
/I Init	Cost in terms of \$/m2 CFA) :-	_	7,844	_	-	9,324	7,640	13,636	_	_	7,983
	I Split % pro-rata on cost values) :-	-	90.25%	-	-	8.86%	0.19%	0.60%	-	0.10%	100.00%

Legend for Cost Portions:

PRH - Public Rental Housing CP(PC) - Private Car Carpark

HOS - Home Ownership Scheme CP(LGV) - Light Goods Vehicle parking RCHE - Residential Care Home for the Elderly OCP(LGV) - Open Space LGV Carpark

CC - Commercial (Shopping) Centre UN - Unallocable

MAC MAC Office PTI - Public Transport Interchange

#### Notes:

- (1) All prices are at June 99 price level and adjusted for tender price inflation to tender in dates of contracts based on 3.5 % per annum.
- (2) Apportionment of the Site Development and Construction Costs are in accordance with the existing cost apportionment guidelines set out in the Contract and Tender Procedures Manual (BCT).

#### **Exclusions:**

- (1) Project Management Costs, e.g. professional services & overheads, consultant fees, etc.
- (2) Other Project Costs, e.g. traffic and environmental studies, land surveying studies, site potential and other engineering studies, site investigation, geotechnical advisory services, construction material tests, piling test carried out by direct testing contractor, etc.

### Assumptions:

(1)

### Basis of the Estimate:

- (1) Awarded Contract Sum for Demolition Contract.
- (2) GE/S3's memo dated 4/11/1999 advising expected bedrock level at 32.00 MPD
- (3) SE/21's memo dated 8/11/1999 providing structural and foundation design for CP
- (4) SE/21's revised steel ratio dated 15/11/1999
- (5) BSE/C1's memo dated 8/11/1999 advising BS costs for CP
- (6) A/2's memo dated 3/11/1999 enclosing layout plans
- (7) Carpark external wall finishing as acrylic paint as advised by A/2 on 16/11/1999
- (8) Mass concrete filling under foundations to expected bedrock level as advised by SE/21
- (9) Existing ground level at 36.60 MPD
- (10) Top of foundation raft at 1.50m below top of G/F slab as advised by SE/21
- (11) Internal finishing of lift lobby in CP same as typical floor lift lobby as advised by A/2 on 16/11/1999
- (12) This estimate of superstructure of domestic blocks is based on Yardsticks

Prepared by: YS CHO QS/C11

Date: 19/11/1999

#### SUMMARY OF SITE DEVELOPMENT & CONSTRUCTION COST BUDGET NO. 1

Project Redevelopment of Tai Wo Hau Estate Phase 6 (PHDP Code: TW12RR)

			COST PORTIONS Common item								
			HOS	CP (PC)	CP (LGV)	PTI	UN	TS	EW	Total	
CFA of Cost Portions (m2)			39,631	3,272	86	·	151			43,140	
COST ITEMS			<			Estimate	ed Cost in \$,0	00		>	Fluctuation Provsions
Site Development & Construction Cost Budget At June 99 (Excluding Fluctuations & Tender Price Inflation)			. "							<u> </u>	
.0 Site Development Costs 1.1 Site Formation Contract 1.2 Demolition Contract		1	3,213	265	7	-	- 12	<u>-</u> .	-	- 3,497	
.0 Construction Costs 2.1 Foundation Contract 2.2 Building Contract			-	-	-	-	-		•	<del>-</del>	
2.21 Building (excl. building services) 2.22 Building Services 2.23 External Works for commonly shared elements		1	220,957 39,590 -	24,190 2,000	500 49	:	1,752 86	- - -	12,083	247,399 41,725 12,083	15,71
<ul> <li>2.24 External Works for Specific Businesses</li> <li>2.25 Public Transport Interchange</li> <li>2.26 Transfer Structures</li> <li>2.3 Other Separate Contracts (incl. Soft Landscape)</li> </ul>		×	-	-	-	300	-	10,194	- - 535	300 10,194 535	1 <b>63</b>
ost Budget At June 99 Price Level		(A)	263,760	26,455	556	300	1,850	10,194	12,618	315,733	17,12
Site Development & Construction Cost Budget At June 99 (Incl. Tender Price Inflation) (Cost in Item (A) plus Cost x (v), (w), (y) or (z))		Contract									
6 Site Development Costs 1.1 Site Formation Contract 1.2 Demolition Contract		s3.517	3,232	266	7		12	:	:	3,517	
0 Construction Costs 2.1 Foundation Contract 2.2 Building Contract 2.2.1 Building (excl. building services) 2.2.2 Building Services	s	340,337	228,690 ; 40,976	25,036 2,070	518 51		1,813 89		- : - :	256,057 43,186	16,26
2.23 External Works for commonly shared elements 2.24 External Works for Specific Businesses 2.25 Public Transport Interchange 2.26 Transfer Structures			- - -	- -	-	311	- - - -	10,551	12,506 - -	12,506 311 10,551	78 2 66
2.3 Other Separate Contracts (incl. Sofitlandscape)	\$	0.554		-	-		-	-	. 554	554	
ost Budget To Proposed Dates Of Tenders	\$	344.408 (B)	272,898	27,372	576	311	1,914	10,551	13,060	326,682	17,72
ypes of Contract ite Formation emolition			Tender-in Date				x #%/12= 3.5%/12=	0.000000		(v) (w)	
oundation uilding ( for inflation adjustment, "External Works", "Others", etc.,			08/99	2			3.5% / 12 =	0.005833		(w) (y)	
ender-In Dates to be taken the same as "Building") or the basis, exclusions and notes of this Cost Budget, please refer to inform	ation shown	on Page 2.	06/00	12		Months x	3.5 % / 12 =	0.035000		(z)	

#### SUMMARY OF CONSTRUCTION COST BUDGET NO. 1 (cont'd)

Project Redevelopment of Tai Wo Hau Estate Phase 6 (PHDP Code: TW12RR)

#### **Legend for Cost Portions:**

HOS - Home Ownership Scheme (CP)LGV - Light Goods Vehicles Parking

CP (PC) - Private Car Carpark UA - Unallocable
PTI - Public Transport Interchange TS - Transfer Structure

#### **Exclusions:**

- (1) Project Management Costs, e.g. professional services & overheads, consultant fees, etc.
- (2) Other Project Costs, e.g. traffic and environmental studies, land surveying studies, site potential and other engineering studies, site investigation, geotechnical advisory services, construction material tests, piling test carried out by direct testing contractor, etc.

#### Basis of the Budget:

Project information included in:

- (1) Awarded Contract Sum for Demolition Contract.
- (2) GE/S3's memo dated 4/11/1999 advising expected bedrock level at 32.00 MPD
- (3) SE/21's memo dated 8/11/1999 providing structural and foundation design for CP
- (4) SE/21's revised steel ratio dated 15/11/1999
- (5) BSE/C1's memo dated 8/11/1999 advising BS costs for CP
- (6) A/2's memo dated 3/11/1999 enclosing layout plans
- (7) Carpark external wall finishing as acrylic paint as advised by A/2 on 16/11/1999
- (8) Mass concrete filling under foundations to expected bedrock level as advised by SE/21
- (9) Existing ground level at 36.60 MPD
- (10) Top of foundaion raft at 1.50m below top of G/F slab as advised by SE/21
- (11) Internal finishing of lift lobby in CP same as typical floor lift lobby as advised by A/2 on 16/11/1999

Prepared by: (Y.S. Cho) (QS/C11) Date: 19/11/1999

Construction Cost Budget No. 1 (Domestic Blocks: HOS Portion)

Project: Redevelopment of Tai Wo Hau Estate Phase 6 (PHDP Code: TW12RR)

		Cost pe		
Cost at June 99 Price Level	No. of Flats	Foundation (Incl. Caps)	Building (Incl. Caps)	TOTAL
1.0 Standard Blocks				
(a) Concord Block (Type 1, Option 1, Block No. 1 and 2, 32 Storeys) 2B Flat 3B Flat	256 256	29,510 37,840	384,210 492,680	413,720 530,520
Cost per Flat x Total No. of Flat = Sub-Total (Total CFA = 38,908 m2)	(A)	17,242	\$'000 224,484	241,726 (\$ 6,213/m2 CFA
2.0 Adjustments to Item 1.0 Above		<		
<ul> <li>(a) Adjust for inclusion of raft foundation in building contract</li> <li>(b) Extra for low rise (33 storeys)</li> <li>(c) Add for Link to form combined lobby</li> <li>(d) Add for fitting out works to Owners, Corp. Office (34m2)</li> <li>(e) Deduct basic carcass of ancillary/welfare facilities in domestic blocks (CFA= 148 m2)</li> </ul>	-	(17,242)	15,856 18,889 2,871 95 (1,648)	(1,386) 18,889 2,871 95 (1,648)
Sub-Total (B)		(17,242)	36,063	18,821 (\$ 484/m2 CFA) (\$ 36,760 per flat)
3.0 Non-standard Blocks		<	\$'000	
(a) Block (Type, Block No, Storeys)  (GN: Separate calculations for Different block types are required)  Flat/Unit (## m2 CFA per Flat/Unit)				
- Flat/Unit (## m2 CFA per Flat/Unit)  (GN: Separate the cost for Builders Works and B.S. Works)	)			
Sub-Total (C)				(\$/m2 CFA) (\$per flat)
Total Cost of Domestic Block - Public Rental Housing Portion at June 99 Price Level = (A) + (B) + (C) (excluding Provisions for Contract Fluctuations)		Ħ	260,547	260,547 (\$ 6,696/m2 CFA) (\$ 508,881 per flat)

Notes on Non-standard Adjustment

# Construction Cost Budget No. 1 (Carpark Portion -Private Car)

# Project: Redevelopment of Tai Wo Hau Estate Phase 6 (PHDP Code: TW12RR)

Cost at June 99 Price Level	Space (No.)	Estimate Foundation (Incl. Caps)	d Cost Building ( Incl. Caps)	TOTAL
1.0 Carpark Building  (a) Carpark Portion Private  (b) Building Services	64	.79	24,190 2,000	24,190 2,000
Sub-Total (A):- (excluding provision for contract fluctuations)  (Total CFA based on Actual Design = 3,200 & Average CFA per carparking space = 50.00	m2 m2)	< <del>-</del>	\$'000 26,190	26,190 (\$ 8,184/m2 CFA)

Construction Cost Budget No. \_\_\_\_1\_\_(Carpark Portion - Light Goods Vehicle Parking)

Project: Redevelopment of Tai Wo Hau Estate Phase (PHDP Code: TW12RR)

		nated Cost	
Cost at June 99 Price Level Space (No.)		Building (Incl. Cap)	TOTAL
1.0 Light Goods Vehicle Parking Spaces based on actual design	Caps		
(a) Carpark Portion - Lorry - LGV 84 m2 3	-	515	515
	<	\$,000.00	>
Sub-total (A)	-	515	515
			(\$ 6,131/m2 CFA) (\$ 171,667 / space)
2.0 Adjustments to Item 1.0 Above	<	\$,000.00	>
(a) Adjust for inclusion of raft foundation in building contract	-	34	34
Sub-Total (B)	-	34	34
			(\$ 405/m2 CFA) (\$ 11,333 / space)
Total Cost of Carpark Portion at June 99 Price Level = (A) + (B)	<	\$,000.00 549	549 (\$ 6,536/m2 CFA)

Remarks:

% of Avg. Total Cost per Car Space Over that calculated based on standard yardsticks ((Sub-Total B/Sub-Total A)x100)

6.60%

# Construction Cost Budget No. 1 (Unallocable Portion)

Project: Redevelopment of Tai Wo Hau Estate Phase 6 (PHDP Code: TW12RR)

Cost at June 00 Price Level	CFA	Estimate Foundation	d Cost  Building	ТОт 4 т
Cost at June 99 Price Level	(m2)	(Incl. Caps)	( Excl. Caps)	TOTAL
=	()			
		<	\$'000	>
1.0 Ancillary Facilities (in Domestic Block)				
(In Domestic Block)				
	1.40			
(a) Ancillary facilities (no fitting out included)	148	67	1,362	1,429
(b) Fitting Out for Ancillary/Welfare Facilities		150	415	415
(Total area to be fitted out = 148 m2 CFA)				
2.0 Other Adjustments for Item 1.0 Above				
		((7)	(1)	(6)
(a) Adjust for inclusion of raft foundation in building contract		(67)	61	(6)
		k.		,
		ļ		
		ŀ		
Total Cost of Unallocable Portion at June 99		54	1,838	1,838
Price Level = Total of Items in 1.0 to 2.0			-,000	1,000
(excluding Provisions for Contract Fluctuations)			(\$	12,419/m2 CFA)

-			
к	em	าดา	°ks

		m2 CFA	Location
1.	Unallocable Portion includes the following:	_	
	Office for Cleansing Contractor	21	Podium Floor of Domestic Block
	Artisan workshop	35	Podium Floor of Domestic Block
	EMO	92	Podium Floor of Domestic Block
		148	

Page 6 of 9

Construction Cost Estimate No.	1	_( Transfer Structures - Commonly Shared Across
		Phases of the Development and Amongst Various
		HA Businesses)

Project: Redevelopment of Tai Wo Hau Estate Phase 6 (PHDP Code: TW12RR)

	Estimated Co		
Cost at June 99 Price Level	Building	Others	TOTAL
1.0 Transfer Structures			
(a) Transfer structure below Concord Blocks	10,194	-	10,194
Sub-Total (A)	10,194	-	10,194
2.0 Adjustments			
	-	2	
Sub-Total (B)	-	-	
Total Cost of Commonly Shared Transfer Structures at June <u>99</u> Price Level = (A) + (B)	10,194	-	10,194

### Remarks:

Project: Redevelopment of Tai Wo Hau Estate Phase 6 (PHDP Code: TW12RR)

Total GEA = 4,660 m2; Total CFA= 43,140 m2; Total LAA = 2,915 m2

		Estimate		
; ;	Cost at June 99 Price Level	Foundation (Incl Caps)	Building (Excl Caps)	TOTAL
1.0	External Works based on Actual Design (excl. Contract Price Fluctuation)	<	\$,000.00	>
(a) (b)	Hard Landscape Works (Amenities) Underground Drainage	35	5,741 2,330	5,741 2,330
	Sub-total (A)	-	8,071	8,071 (\$ 187/m2 CFA) (\$ 1,732/m2 GEA)
2.0	Special External Works based on Actual Design (excl. Contract Price Fluctua	< tion)	\$,000.00	>
(a) (b) (c) (d)	Allowance for diversion of utilities services Allowance for tree preservation Allowance for extra cost for adopting new type of surface channel cover Allowance for retaining wall at Western boundary of the carpark podium	물 일 일 절	1,560 200 200 2,052	1,560 200 200 2,052
	Sub-total (B)	-	4,012	4,012 (\$ 93/m2 CFA) (\$ 861/m2 GEA)
	Total Cost of Commonly Shared External Works at June 99 Price Level = (A) + (B) (excluding Provisions for Contract Fluctuations)	-	12,083	12,083 (\$ 280/m2 CFA) (\$ 2,593/m2 GEA)
	Cost of Automated Refuse Collection System at June 99 Price Level (excluding Provisions for Contract Fluctuations)	<	\$,000.00	-
	Cost at June 99 Price Level	Estimate Soft Landscape	d Cost Fees & Others	TOTAL
	Cost of Other Separate Contracts (incl. Softlandscaping Work) at June 99 Price Level (excluding Provisions for Contract Fluctuations)	265	270	535 (\$ 12/m2 CFA) (\$ 115/m2 GEA)

## Construction Cost Budget No. 1 (Public Transport Interchange Portion)

Project: Redevelopment of Tai Wo Hau Estate Phase 6 (PHDP Code: TW12RR)

	Estima	ited Cost (in	\$,000)	
Cost at June 99 Price Level	Foundation		(Incl Caps)	TOTAL
	(Incl/ Excl *	Builder's Works	Building Services	
	Caps)			
1.0 Public Transport Interchange (Open Area = 200 m2)  (a) Public Transport Interchange in Open Area 200 m2	-	300	-	300
Sub-total (A)	•	300	- ,	300
				(\$ 1,500/m2)
2.0 Adjustments to Item 1.0 Above				
Sub-total (B)				
Total Cost of PTI Portion at Jun <u>e</u> 99 Price Level = (A) + (B)	-	300	-	300
A. Dalata an arrange late				(\$ 1,500/m2)

Delete as appropriate

### Remarks:

# PART V APPENDICES

