

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

### **HEAD 707 – NEW TOWNS AND URBAN AREA DEVELOPMENT**

#### **Civil Engineering – Land development**

#### **711CL – Kai Tak development - advance infrastructure works for developments at the southern part of the former runway**

Members are invited to recommend to Finance  
Committee –

- (a) the upgrading of part of **711CL**, entitled “Kai Tak development – decommissioning and decontamination works at the south apron of the former Kai Tak Airport and installation of supplementary radar at North Point Government Offices”, to Category A at an estimated cost of \$120.1 million in money-of-the-day prices; and
- (b) retention of the remainder of **711CL** in Category B.

**/PROBLEM .....**

## PROBLEM

We need to carry out decommissioning and decontamination works to remove and treat underground contaminants at the south apron of the former Kai Tak Airport, prior to construction of advance infrastructure works to serve the new cruise terminal<sup>1</sup> and other planned developments at the southern part of the former runway. We also need to install a supplementary radar on the rooftop of North Point Government Offices (NPGO) to maintain the surveillance coverage of the existing Marine Vessel Traffic Services (MVTS) radar of Marine Department as the new cruise terminal building will block part of the surveillance coverage of the existing radar.

## PROPOSAL

2. The Director of Civil Engineering and Development, with the support of the Secretary for Development and the Secretary for Commerce and Economic Development, proposes to upgrade part of **711CL** to Category A at an estimated cost of \$120.1 million in money-of-the-day (MOD) prices for the decommissioning and decontamination works at the south apron of the former Kai Tak Airport and installation of a supplementary radar on the rooftop of NPGO.

## PROJECT SCOPE AND NATURE

3. The part of **711CL** which we propose to upgrade to Category A comprises –

- (a) decommissioning and decontamination of about 12 600 square metres of land at the south apron of the former Kai Tak Airport;
- (b) procurement and installation of a supplementary radar and associated signal processing and relaying equipment on the rooftop of NPGO, including integration into the existing MVTS system of Marine Department;
- (c) construction of a radar support and an equipment room on the rooftop of NPGO, provision of building services and other associated works; and

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<sup>1</sup> Land tender for the cruise terminal was invited on 9 November 2007.

- (d) implementation of necessary environmental mitigation measures, monitoring and auditing work.

Site plans of the proposed works are at Enclosure 1.

4. We plan to start the proposed works in April 2008 for completion in March 2010.

## JUSTIFICATION

5. Site investigations and laboratory testing have revealed patches of contaminants in the soil underlying the south apron of the former Kai Tak Airport. The contaminants include total petroleum hydrocarbons, ethylbenzene, xylenes and heavy metals such as lead, arsenic and copper. The major contaminated area is in front of the building previously occupied by the Government Flying Services (GFS). Apart from this area, there are also a few isolated contaminated spots scattering around the south apron. At present, the contaminants are covered and prevented from release by the existing concrete apron slabs. We need to carry out the proposed decommissioning and decontamination works<sup>2</sup> to remove and treat these contaminants, prior to construction of advance infrastructure works to serve the new cruise terminal and other planned developments at the southern part of the former runway.

6. Separately, an existing radar located near the ex-GFS building is an important part of the MVTS system used by Marine Department to maintain, guide and direct safe operation of vessels in the waters of eastern Victoria Harbour. Hong Kong Police Force also uses the radar for the purpose of maintaining law and order in the same waters. The new cruise terminal building will block part of the surveillance coverage of the existing radar. To maintain the required surveillance coverage, we need to install a supplementary radar on the rooftop of NPGO. The design and operation of the proposed supplementary radar will comply with the "Guideline for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (Up to 300GHz)" recommended by the Office of the Telecommunications Authority.

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<sup>2</sup> The decommissioning and decontamination works include a combination of excavation of contaminated soils for biopiling treatment and cement solidification/stabilisation at the south apron. The same method was adopted previously in the treatment of contaminated soils at the north apron of the former Kai Tak Airport under 708CL "South East Kowloon development – site preparation and drainage works at north apron area of Kai Tak Airport". All the soils, after decontamination, will be stockpiled for subsequent use in Kai Tak development.

7. Due to insufficient in-house resources, we propose to engage consultants to supervise construction of the proposed works. We also propose to engage the Electrical and Mechanical Services Trading Fund (EMSTF) to provide specialist services in supervising the installation, testing and commissioning of the supplementary radar and system integration work.

## FINANCIAL IMPLICATIONS

8. We estimate the cost of the proposed works to be \$120.1 million in MOD prices (see paragraph 9 below), made up as follows –

	<b>\$ million</b>	
(a) Decommissioning and decontamination works at south apron	47.5	
(b) Procurement, installation and integration of radar and associated equipment	41.4	
(c) Radar support, equipment room, building services and other associated works	5.1	
(d) Environmental mitigation measures, monitoring and auditing work	1.2	
(e) EMSTF project management charges	5.3	
(f) Consultants' fees for	6.6	
(i) contract administration		
(ii) construction supervision	:	
(g) Contingencies	10.8	
Sub-total	117.9	(in September 2007 prices)
(h) Provision for price adjustment	2.2	
Total	120.1	(in MOD prices)

A breakdown by man-months of the estimate for consultants' fees is at Enclosure 2.

9. Subject to approval, we will phase the expenditure as follows –

<b>Year</b>	<b>\$ million (Sept 2007)</b>	<b>Price adjustment factor</b>	<b>\$ million (MOD)</b>
2008 – 2009	23.0	1.00750	23.2
2009 – 2010	70.0	1.01758	71.2
2010 – 2011	13.9	1.02775	14.3
2011 - 2012	11.0	1.03803	11.4
	117.9		120.1

10. We have derived the MOD estimates on the basis of the Government's latest forecast of the trend rate of change in the prices of public sector building and construction output for the period from 2008 to 2012. We will tender the proposed decommissioning and decontamination works under a remeasurement contract and the proposed supplementary radar under a separate lump sum contract. Since the contract period of each contract will not exceed 21 months, we will not provide for price adjustments in the contracts.

11. We estimate the annual recurrent expenditure arising from this project to be about \$1.5 million.

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## **PUBLIC CONSULTATION**

12. The planning of Kai Tak development has adopted an extensive public participatory approach<sup>3</sup>. During the consultation process, the relevant District Councils and the general public are supportive of early implementation of the Kai Tak development. There are also requests in particular for early development of the new cruise terminal. We will continue to keep the relevant District Councils informed of the progress of the Kai Tak development project.

13. On 19 April 2007, we submitted a planning permission application under section 16 of the Town Planning Ordinance for installing the supplementary radar and equipment room on the rooftop of NPGO. Having considered public views, Town Planning Board approved the application on 8 June 2007. We consulted the Works and Development Committee of the Eastern District Council on the proposed supplementary radar by circulation of an information paper on 23 July 2007. Members raised no objection to the proposal.

14. We consulted the Legislative Council Panel on Development on the proposed works by circulation of an information paper on 11 December 2007. Members raised no objection to the proposed works.

## **ENVIRONMENTAL IMPLICATIONS**

15. The decommissioning of the former Kai Tak Airport is a designated project under the Environmental Impact Assessment (EIA) Ordinance. We completed an EIA study for decommissioning of the south apron and the runway and the Director of Environmental Protection approved the EIA report on 19 December 2007. The EIA study identified contaminants at the south apron only and concluded that the environmental impacts arising from the proposed works could be mitigated within established standards and guidelines with full implementation of the recommended mitigation measures. We will implement the mitigation measures as recommended.

16. The installation of the proposed supplementary radar is not a designated project under the EIA Ordinance. There will not be any long-term adverse environmental impacts arising from the proposed works.

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<sup>3</sup> The stage 1 public participation to engage the public on the community vision on Kai Tak was completed in November 2004. The stage 2 public participation to gauge the public views on the outline concept plans was completed in January 2006. The stage 3 public participation on the draft preliminary outline development plan was completed in August 2006.

17. For short-term environmental impacts during construction, we will control noise, dust and site run-off nuisances to within established standards and guidelines through implementation of mitigation measures under the contracts. These measures include off-site prefabrication and the use of temporary noise barriers and silenced construction plant to reduce noise generation, water spraying to reduce emission of fugitive dust and temporary drains to dispose of site run-off.

18. We have included \$1.2 million (in September 2007 prices) in the project estimates for implementation of the environmental mitigation measures, monitoring and auditing work.

19. In the project planning and design stages, we have considered on-site sorting to facilitate recovery of reusable and recyclable materials in the decommissioning and decontamination works, and using structural steel and off-site prefabrication of the supplementary radar support to reduce the generation of construction waste where possible. In addition, we will require the contractors to reuse inert construction waste (e.g. concrete debris arising from demolition of apron slabs) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste to public fill reception facilities<sup>4</sup>. We will encourage the contractors to maximise the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimise the generation of construction waste.

20. We will also require the contractors to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will require the contractors to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste to public fill reception facilities and landfills respectively through a trip-ticket system.

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<sup>4</sup> Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste in public fill reception facilities requires a licence issued by the Director of Civil Engineering and Development.

21. We estimate that the project will generate in total about 27 000 tonnes of construction waste. Of these, we will reuse about 22 800 tonnes (84%) of inert construction waste on site and dispose of 4 200 tonnes (16%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at landfill sites is estimated to be \$525,000 (based on a unit cost of \$125/tonne<sup>5</sup> at landfills) for this project.

## HERITAGE IMPLICATIONS

22. 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

23. The proposed works do not require any land acquisition.

## BACKGROUND INFORMATION

24. We included **711CL** in Category B in December 2004.

25. In January 2007, we upgraded part of **711CL** to Category A as **724CL** “Kai Tak development – investigation and detailed design for advance infrastructure works for developments at the southern part of the former runway”, at an estimated cost of \$38.0 million in MOD prices, for engaging consultants to undertake the investigation and detailed design for advance infrastructure works to serve the planned developments at the southern part of the former runway.

26. We have substantially completed the design of the proposed works mentioned in paragraph 3 above. We will continue with the detailed design of the advance infrastructure works.

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<sup>5</sup> This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90/m<sup>3</sup>), nor the cost to provide new landfills, (which is likely to be more expensive) when the existing ones are filled.



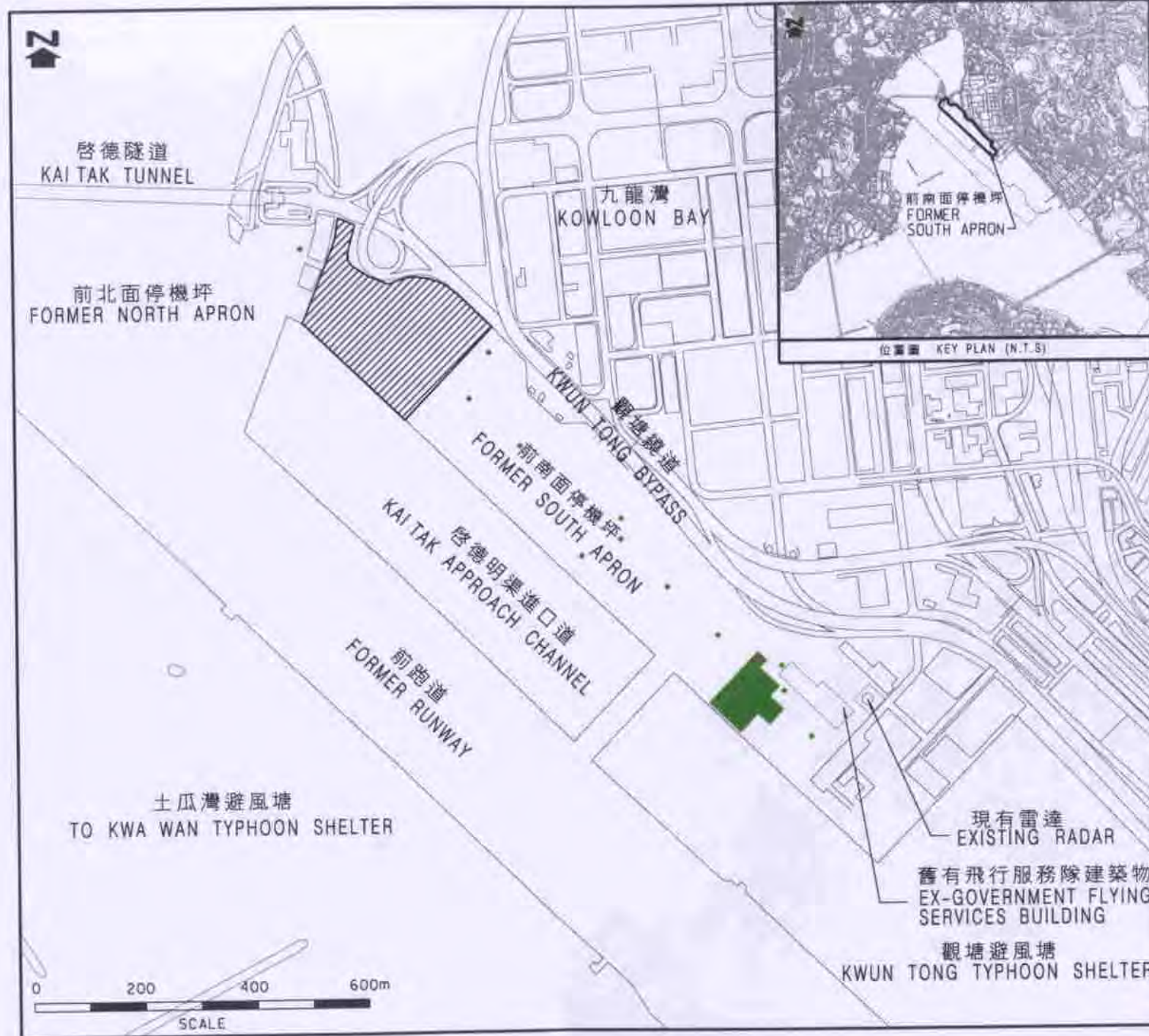
27. At the Public Works Subcommittee (PWSC) meeting on 31 October 2001, some Members suggested and the Administration agreed to include information on the progress, scope and approved project estimates of all the Kai Tak development (formerly known as South East Kowloon development) Public Works Programme items in future PWSC submissions relating to Kai Tak development. The information is at Enclosure 3.

28. The proposed works will not involve any tree removal and planting proposal.

29. We estimate that the proposed works will create about 100 jobs (80 for labourers and another 20 for professional/technical staff) providing a total employment of 1 730 man-months.

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**Development Bureau**  
**January 2008**



圖例 LEGEND :

- 擬淨化土地的位置  
AREAS PROPOSED TO BE DECONTAMINATED
- 擬進行處理受污染泥土的工地  
PROPOSED WORKS AREA FOR TREATMENT OF CONTAMINATED SOIL

編號 No.	日期 Date	內容摘要 Description	核對 checked	核准 approved
修訂 REVISION				

繪圖 drawn	姓名 Name	簽署 Signed	日期 Date
繪圖 drawn	W.L. Lau	signed	07 Dec 2007
核對 checked	Tommy Wing	signed	07 Dec 2007
核准 approved	Peter Choi	signed	07 Dec 2007

2007年至2008年年度工程小組委員會文件  
PWSC Submission 2007 - 2008

項目編號 Item no.	711CL
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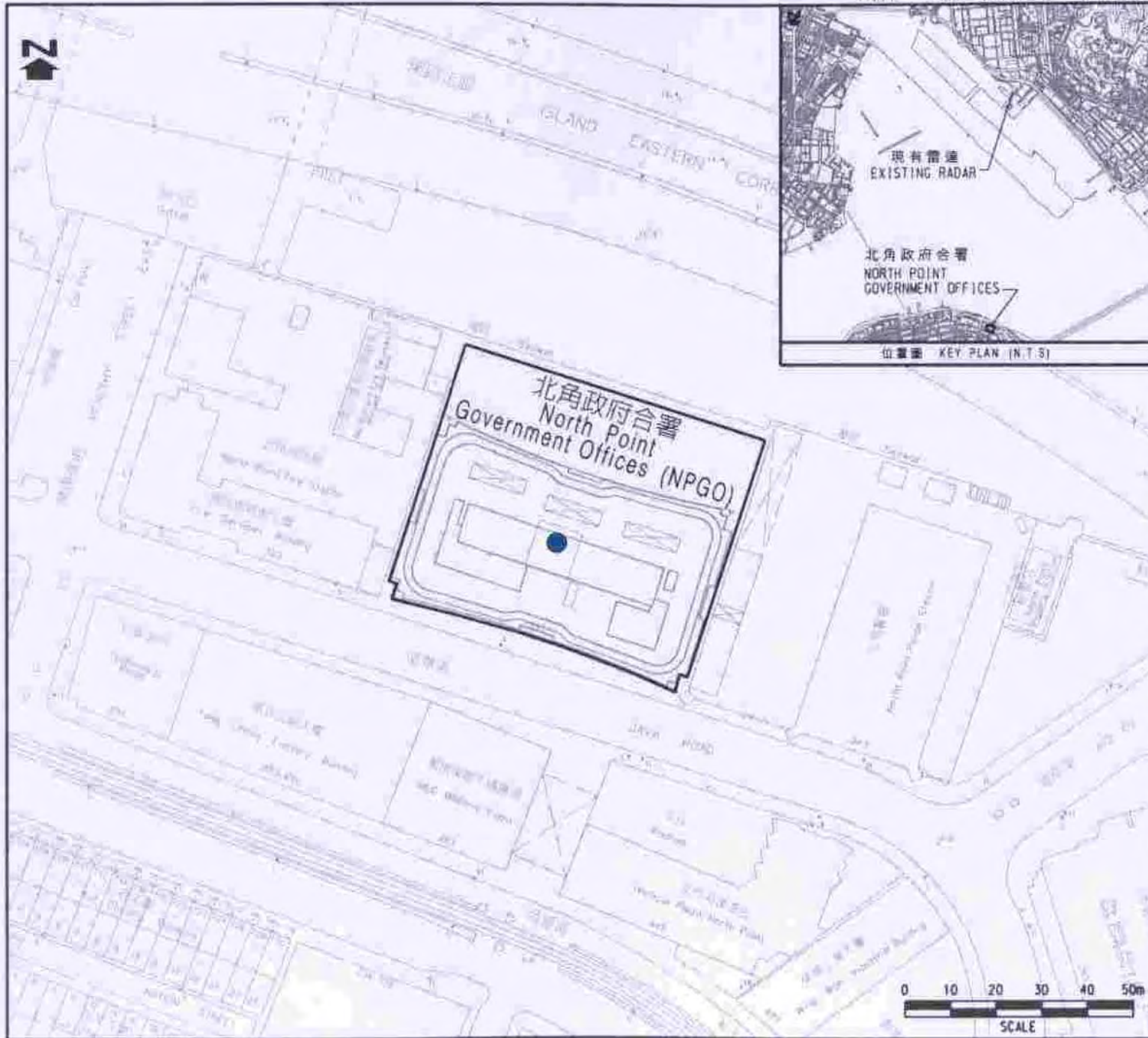
圖則名稱 drawing title  
啟德發展計劃 - 前跑道南面發展項目的前期基礎設施工程  
KAI TAK DEVELOPMENT - ADVANCE INFRASTRUCTURE WORKS FOR DEVELOPMENTS AT THE SOUTHERN PART OF THE FORMER RUNWAY

圖則編號 drawing no.	比例 scale
KZ 510	AS SHOWN

辦事處 office  
九龍拓展處  
KOWLOON DEVELOPMENT OFFICE

土木工程拓展署  
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT





**圖例 LEGEND :**

- 擬建的輔助雷達及其附件  
PROPOSED SUPPLEMENTARY  
RADAR AND ACCESSORIES



編號 no.	日期 date	內容摘要 description	核對 checked	批准 approved
修訂 REVISION				
	姓名 name	簽署/核對 signed	日期 date	
繪圖 drawn	W.L. Luking	signed	07. Dec 2007	
核對 checked	Tommy Wong	signed	07. Dec 2007	
批准 approved	Peter Chau	signed	07. Dec 2007	

編號 no.	日期 date	內容摘要 description	核對 checked	批准 approved
修訂 REVISION				
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繪圖 drawn	W.L. Luking	signed	07. Dec 2007	
核對 checked	Tommy Wong	signed	07. Dec 2007	
批准 approved	Peter Chau	signed	07. Dec 2007	

2007年至2008年年度工程小組委員會文件  
PWSC Submission 2007 - 2008

項目編號 item no.	711CL
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圖則名稱 drawing title  
 啟備發展計劃 -  
 前跑道南面發展項目的前期  
 基礎設施工程  
 KAI TAK DEVELOPMENT -  
 ADVANCE INFRASTRUCTURE  
 WORKS FOR DEVELOPMENTS  
 AT THE SOUTHERN PART OF  
 THE FORMER RUNWAY

圖則編號 drawing no.	比例 scale
KZ 511	AS SHOWN

辦事處 office  
 九龍拓展處  
 KOWLOON DEVELOPMENT OFFICE



**711CL – Kai Tak development - advance infrastructure works  
for developments at the southern part of the former  
runway**

**Breakdown of the estimate for consultants' fees (in September 2007 prices)**

<b>Consultants' staff costs</b>			<b>Estimated man- months</b>	<b>Average MPS* salary point</b>	<b>Multiplier (Note 1)</b>	<b>Estimated fees (\$ million)</b>
(a) Consultants' fees for construction stage (Note 2)						
(i)	contract	Professional	7.6	38	2.0	0.87
	administration	Technical	7.6	14	2.0	0.29
(ii)	construction	Professional	20.0	38	1.6	1.82
	supervision	Technical	121.0	14	1.6	3.65
						<hr/>
					<b>Total consultants' staff costs</b>	6.63
					Say	<hr/> 6.6

\* MPS = Master Pay Scale

**Notes**

1. Multiplying factors of 2.0 and 1.6 are applied to the average MPS point for the staff employed in the consultants' office and the resident site staff supplied by the consultants respectively. (As at 1 April 2007, MPS pt. 38 = \$56,945 per month and MPS pt. 14 = \$18,840 per month)
2. The consultants' fees for contract administration are based on the lump sum fees calculated in accordance with the consultancy agreement which the Director of Civil Engineering and Development has agreed with the consultants undertaking the design and construction of the project. The construction phase of the assignment for the proposed works will only be executed upon Finance Committee's approval to upgrade the proposed works to Category A.

**List of PWP items in Category A relating to Kai Tak Development**

PWP Item No.	<b>440CL</b>
Project title:	South East Kowloon development – comprehensive feasibility study
Date of upgrading to Category A:	April 1995
Approved project estimate:	\$220.0 million
Project scope:	The project comprises a comprehensive feasibility study for the whole South East Kowloon area, as well as associated laboratory testing and site investigation works.
Brief account of progress:	(a) The feasibility study has been completed. The land use proposals recommended in the study have been translated into the amended Kai Tak (North) and Kai Tak (South) Outline Zoning Plans which were gazetted in August 2001. Several amendments were subsequently made to meet some of the objections received. The Chief Executive in Council approved the OZPs on 25 June 2002 and notification of the approval was gazetted on 5 July 2002.  (b) The project account has been finalised.
	* * *
PWP Item No.	<b>494CL</b> (part upgraded from <b>469CL</b> )
Project title:	South East Kowloon development at Kai Tak Airport – decontamination and site preparation
Date of upgrading to Category A:	February 1998
Approved project estimate:	\$316.9 million

Project scope: (a) ground decontamination at the north apron of Kai Tak Airport (NAKTA);

(b) demolition of existing buildings and structures in the northern part of NAKTA; and

(c) breaking up of the existing apron slab and land formation at NAKTA for housing development.

Brief account of progress: (a) The civil engineering contract covering the above works was completed in April 2002.

(b) Post-decontamination monitoring works were completed in December 2003.

(c) The project account has been finalised.

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PWP Item No. **694CL** (part upgraded from **469CL**)

Project title: South East Kowloon development at Kai Tak Airport – consultants' fees and site investigation

Date of upgrading to Category A: November 2001

Approved project estimate: \$115.9 million

Project scope: Site investigation works and detailed design for –

(a) about 6 kilometres box culverts;

(b) new roads including flyovers and pedestrian streets, and upgrading of existing roads and associated drainage, sewerage and watermains;

(c) five sewage pumping stations and rising mains to convey sewage to the existing To Kwa Wan sewage treatment plant;

- (d) drainage maintenance depots along with provision of plant and equipment for servicing the drainage culverts in NAKTA;
- (e) open space development and landscaping works;
- (f) demolition of remaining ex-airport facilities, including the passenger terminal building and Kai Tak car-parking building and decontamination of land underneath the buildings; and
- (g) provision of necessary environmental mitigation measures and implementation of an environmental monitoring and audit (EM&A) programme.

Brief account of progress:

- (a) Consultancy started in January 2002.
- (b) Detailed design for demolition of the passenger terminal building and associated structures remaining in NAKTA has been completed.
- (c) Detailed design for roads and drainage works to be finalized after completion of the engineering review under **719CL**.

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PWP Item No.	<b>693CL</b> (part upgraded from <b>465CL</b> )
Project title:	South East Kowloon development – consultants’ fees and site investigation for Kai Tak Approach Channel reclamation
Date of upgrading to Category A:	November 2001
Approved project estimate:	\$63.8 million

Project scope:	Site investigation works and detailed design for –  (a) treatment of the contaminated sediments (including pilot tests and post-treatment monitoring) in Kai Tak Approach Channel (KTAC);  (b) reclamation works in KTAC;  (c) new drainage systems (including widening and extension of Kai Tak Nullah and Jordan Valley box culvert, advance work for future road tunnels underneath the box culverts) and improvements to existing drainage systems necessitated by the proposed reclamation in KTAC;  (d) demolition of the existing airport taxiway bridge across KTAC;  (e) provision of necessary environmental mitigation measures and implementation of an EM&A programme; and  (f) field surveys and environmental studies for different scenarios of Kai Tak development.
Brief account of progress:	(a) Consultancy started in January 2002.  (b) In the light of the Court of Final Appeal's ruling on harbour reclamation under the Protection of the Harbour Ordinance, the consultancy had been suspended since December 2003 and was terminated in July 2006.
	* * *
PWP Item No.	<b>699CL</b> (part upgraded from <b>482CL</b> )
Project title:	South East Kowloon development – consultants' fees and site investigation for Kowloon Bay reclamation and engineering works
Date of upgrading to Category A:	July 2002



Approved project estimate:

\$105.7 million

Project scope:

Site investigation works and detailed design for –

- (a) treatment of contaminated sediments (including post-treatment monitoring) at the seabed of Kowloon Bay;
- (b) reclamation for about 61 hectares of land in Kowloon Bay;
- (c) construction of a new seawall, breakwater, and marine facilities including public landing steps;
- (d) demolition of existing breakwaters and marine facilities including Kowloon City vehicular ferry pier, passenger ferry pier and public pier;
- (e) construction of new drainage culverts and improvements to existing hinterland drainage systems necessitated by the proposed reclamation in Kowloon Bay;
- (f) upgrading of existing roads and construction of new roads, a road tunnel, pedestrian streets, footbridges and pedestrian subways with associated drainage, sewerage and water works;
- (g) construction of public transport facilities;
- (h) construction of sewage holding facilities adjacent to the existing To Kwa Wan sewage treatment works and sewage pumping stations;
- (i) relocation of the existing Eastern Quarantine and Immigration Anchorage and mooring buoys within Kowloon Bay;
- (j) provision of landscaping works at the proposed reclamation area;
- (k) provision of environmental protection measures; and
- (l) implementation of an EM&A programme.

- Brief account of progress:
- (a) Consultancy started in December 2002.
  - (b) In the light of the Court of Final Appeal's ruling on harbour reclamation under the Protection of the Harbour Ordinance, the consultancy had been suspended since December 2003 and was terminated in July 2006.
  - (c) The project account has been finalised.

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- PWP Item No. **708CL** (part upgraded from **469CL**)
- Project title: South East Kowloon development – site preparation and drainage works at north apron area of Kai Tak Airport
- Date of upgrading to Category A: February 2004
- Approved project estimate: \$131.6 million
- Project scope:
- (a) construction of about 600 metres of a twin-cell box culvert and decommissioning of an existing culvert;
  - (b) demolition of the passenger terminal building, the Kai Tak car-parking building and associated structures, along with related land decontamination; and
  - (c) implementation of an EM&A programme for the works mentioned in items (a) to (b) above.
- Brief account of progress:
- (a) Works contract commenced in April 2004.
  - (b) The works were substantially completed in September 2006.

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PWP Item No. **719CL**

Project title: Kai Tak development - engineering review

Date of upgrading to Category A: December 2006

Approved project estimate: \$87.5 million

Project scope: (a) a study to confirm the detailed engineering feasibility of the revised Preliminary Outline Development Plan of Kai Tak development;

(b) preliminary preparatory work for the early development of the cruise terminal in Kai Tak; and

(c) associated site investigation and supervision.

Brief account of progress: (a) Consultancy commenced in January 2007.

(b) Engineering review is in progress.

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PWP Item No. **724CL** (part upgraded from **711CL**)

Project title: Kai Tak development – investigation and detailed design for advance infrastructure works for developments at the southern part of the former runway

Date of upgrading to Category A: December 2006

Approved project estimate: \$38.0 million

Project scope: (a) detailed design of the works described below including the associated Schedule 2 environmental impact assessments (EIAs):

- construction of approximately 2 kilometres of a dual 2-lane district distributor including associated pedestrian deck;

- provision of a sewage pumping station and rising mains;
- improvements to related existing bridge, roads and junctions;
- construction of associated local roads, transport facilities, drainage, sewerage, watermains and landscaping works;
- relocation and reprovisioning of existing facilities including the Marine Vessel Traffic Services radar and fireboat berthing facilities; and
- an environmental monitoring and audit work for works mentioned above,

all for serving the proposed developments at the southern part of the former runway in Kai Tak.

- (b) associated site investigation and supervision; and
  - (c) preparation of tender documents and assessment of tenders.
- Brief account of progress:
- (a) Consultancy commenced in January 2007.
  - (b) Detailed design for decommissioning and decontamination works at the south apron of the former Kai Tak Airport and installation of supplementary radar at North Point Government Offices has been completed.
  - (c) Detailed design for the remainder of the advance works is in progress.

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