

**For discussion  
on 24 May 2013**

**Legislative Council Panel on Transport**

**Construction of Additional Floors at Central Piers Nos. 4, 5 and 6**

**Purpose**

This paper seeks Members' views on a proposal to upgrade **49TF "Construction of Additional Floors at Central Piers Nos. 4, 5 and 6"** ("the Project") to Category A at an estimated cost of about \$609.7 million in money-of-the-day ("MOD") prices.

**Project Scope**

2. The scope of the Project comprises the construction of one-and-a-half additional floors at and improvement of the existing facilities for each of Central Piers Nos. 4, 5 and 6 for dining, retail and other waterfront related uses, in addition to their original function to support ferry operation. The following works items are included:

- (a) building works for the additional floors and the existing floors to provide 12 600 square metres (m<sup>2</sup>) of commercial gross floor area;
- (b) building service provisions for the additional floors and retrofitting/modifying works on the existing floors;
- (c) improvement of accessibility for people with disabilities within the piers;
- (d) improvement of the existing pier facade and rooftop to integrate with the design of the additional floors; and

(e) landscaping works and upgrading of external roads, sewerage and electricity supply systems.

3. The site plan of the proposed works is at **Enclosure 1**. An artist's impression showing the piers concerned after completion of the proposed works is at **Enclosure 2**, and the overall view of the piers and Central Harbourfront is at **Enclosure 3**.

4. The detailed design of the Project has recently been completed. Subject to funding support by the Finance Committee, we plan to commence the construction works in November 2013 for phased completion between 2015 and 2018 (Pier No. 5 works would be completed first, followed by those for Pier No. 4 and Pier No. 6).

### **Justification**

5. The Project is one of the recommendations endorsed under the Urban Design Study ("UDS") for the new Central Harbourfront in November 2009. Amongst other things, the UDS recommends the construction of one-and-a-half additional floors at Central Piers Nos. 4, 5 and 6 with a maximum height of +25mPD for dining, retail and other waterfront related uses with half of the new rooftop serving as open space for public enjoyment. We anticipate that the improvement works on these piers can further enhance the vibrancy of the harbourfront.

6. The Project is also a longer-term helping measure to further improve the financial viability of the six major outlying island ferry routes<sup>1</sup> on a sustained basis. (Other helping measures for these ferry routes are the subject of another Panel paper, to be discussed also on 24 May 2013.) These ferry services are unique in that they are the most essential and indeed, in most cases, the only means of public transport for the outlying islands<sup>2</sup>. Given low patronage and high operating costs

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<sup>1</sup> They are: "Central – Cheung Chau", "Inter-Islands" serving Peng Chau, Mui Wo, Chi Ma Wan and Cheung Chau, "Central – Mui Wo", "Central – Peng Chau", "Central – Yung Shue Wan" and "Central – Sok Kwu Wan".

<sup>2</sup> Only Lantau Island is also linked by a road network, but its cross-district land-based public transport services are limited.

of these services, there is a need to provide assistance to the ferry operators to sustain the financial viability of the ferry services and to maintain fare stability. The additional floors on the piers, which will be used for commercial activities, will provide an additional source of non-fare box revenue which will be used to cross-subsidise the operation of these ferry services.

7. A retail feasibility study was carried out in late 2011 to ascertain the market positioning and retail trade mix of the additional commercial areas. Assuming that there would be a 3% rental increase per year, it is estimated that the Economic Internal Rate of Return (EIRR)<sup>3</sup> of the Project will be in the range of 5.8% to 14.0% over a period of 30 years, depending on the mode of operation and business mix of the piers, as well as the progress of the further development of Central Harbourfront.

8. The design of the Project has taken into account the majority of the public views collected during public engagement that a more translucent and green design be adopted. It also aims to be modern and simple with a streamlined feature in order to be in harmony with its surrounding area as endorsed under the UDS. Open space will be provided for on different levels of the piers for public enjoyment and for carrying out various activities to enhance the vibrancy of the harbourfront. Improvements to the existing facilities, including provision of barrier-free access for people with disabilities and enhancement of the facilities in ferry passenger waiting areas, etc., will also be made.

9. The piers will be modified one at a time. The existing vacant berths at Central Piers Nos. 2 and 8 will be used for temporary relocation of the ferry services during construction. It is expected that the impact on the ferry services will be minimal.

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<sup>3</sup> The EIRR is the discounted rate used in capital budgeting that makes the net present value of all cash flows from a particular project equal to zero. Generally speaking, the higher a project's EIRR, the more desirable it is to undertake the project.

## Financial Implications

10. We estimate that the cost of the Project is around \$609.7 million in MOD prices, with breakdown as follows –

	<b>\$ million</b>
(a) Building works	240.9
(b) Building services	116.0
(c) Local traffic improvement and sewerage upgrading works	3.0
(d) Furniture and equipment <sup>4</sup>	3.7
(e) Landscaping works	12.2
(f) Upgrading of electricity supply system	8.8
(g) Additional energy conservation measures	8.9
(h) Temporary relocation of existing ferry services <sup>5</sup>	13.9
(i) Consultants' fees for	4.6
(i) contract administration	3.5
(ii) management of resident site staff	1.1
(j) Remuneration of resident site staff	38.5
(k) Contingencies	45.1

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<sup>4</sup> The cost item includes general provision for pier operation such as retrofitting of turnstile system with associated ducting and cabling works, seating and furniture at waiting areas, security and telecommunication systems, and general office furniture.

<sup>5</sup> The cost item includes refurbishment of vacant berths at eastern side of Central Pier No. 2 and western side of Central Pier No. 8 for reprovisioning of ferry services during construction.



## **Environmental Implications**

14. While the Project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499), we nonetheless conducted a Preliminary Environmental Review (“PER”) in June 2011. The PER Report indicated that the Project would not cause any long-term adverse environmental impact with implementation of mitigation measures. We have subsequently included in the project estimate the cost for implementation of the environmental mitigation measures recommended in the PER Report.

15. Environmental mitigation measures include the use of quiet construction plant and temporary noise barriers to mitigate noise generated from construction activities, frequent cleaning and watering of the site, as well as covering of materials on trucks and barges.

16. We have considered various construction methods for the proposed works in the planning and design stages to reduce generation of construction waste wherever possible. In addition, we will require the contractor to reuse inert construction waste (e.g. excavated soil) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste at public fill reception facilities. We will also encourage the contractor to maximise use of recycled/recyclable inert construction waste, as well as use of non-timber formwork to further minimise generation of construction waste.

17. We estimate that the Project will generate about 10 000 tonnes of construction waste in total. Of these, we will reuse about 4 200 tonnes (42%) of inert construction waste on site and deliver 5 320 tonnes (53%) of inert construction waste at public fill reception facilities for subsequent reuse. We will dispose of the remaining 480 tonnes (5%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be \$0.2 million for the Project (based on a unit cost of \$27 per tonne for disposal at public fill reception facilities and \$125 per tonne at landfills).

18. The proposed works will not involve any tree removal. We will incorporate planting proposal as part of the Project, including estimated quantities of 17 540 nos. of shrubs and 250 m<sup>2</sup> of grassed area.

### **Energy Conservation, Green and Recycled Features**

19. This Project will adopt various forms of energy efficient features and renewable energy technologies, in particular –

(a) seawater cooling system for air-conditioning appliances;

(b) automatic demand control of chilled water circulation system;

(c) demand control of fresh air supply with carbon dioxide sensors;

(d) high efficiency direct current fan coil units in common area air conditioning system; and

(e) building integrated photovoltaic system.

20. For greening features, there will be greening on appropriate roof areas.

21. The total estimated additional cost for adoption of the above features is around \$8.9 million (including \$5.4 million for energy efficient features), which has been included in the cost estimate of the Project. The energy efficient features will achieve 9% energy savings in the annual energy consumption with a payback period of about 4.2 years.

### **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 Project does not require any land acquisition.

### **Background**

24. We upgraded the Project to Category B in October 2009.

25. Subsequently, we engaged consultants in July 2010 to undertake the detailed design of the Project at an estimated cost of \$14.9 million in MOD prices under Subhead 7100CX “New towns and urban area works, studies and investigations for items in Category D of the Public Works Programme”. We have recently completed the detailed design of the Project.

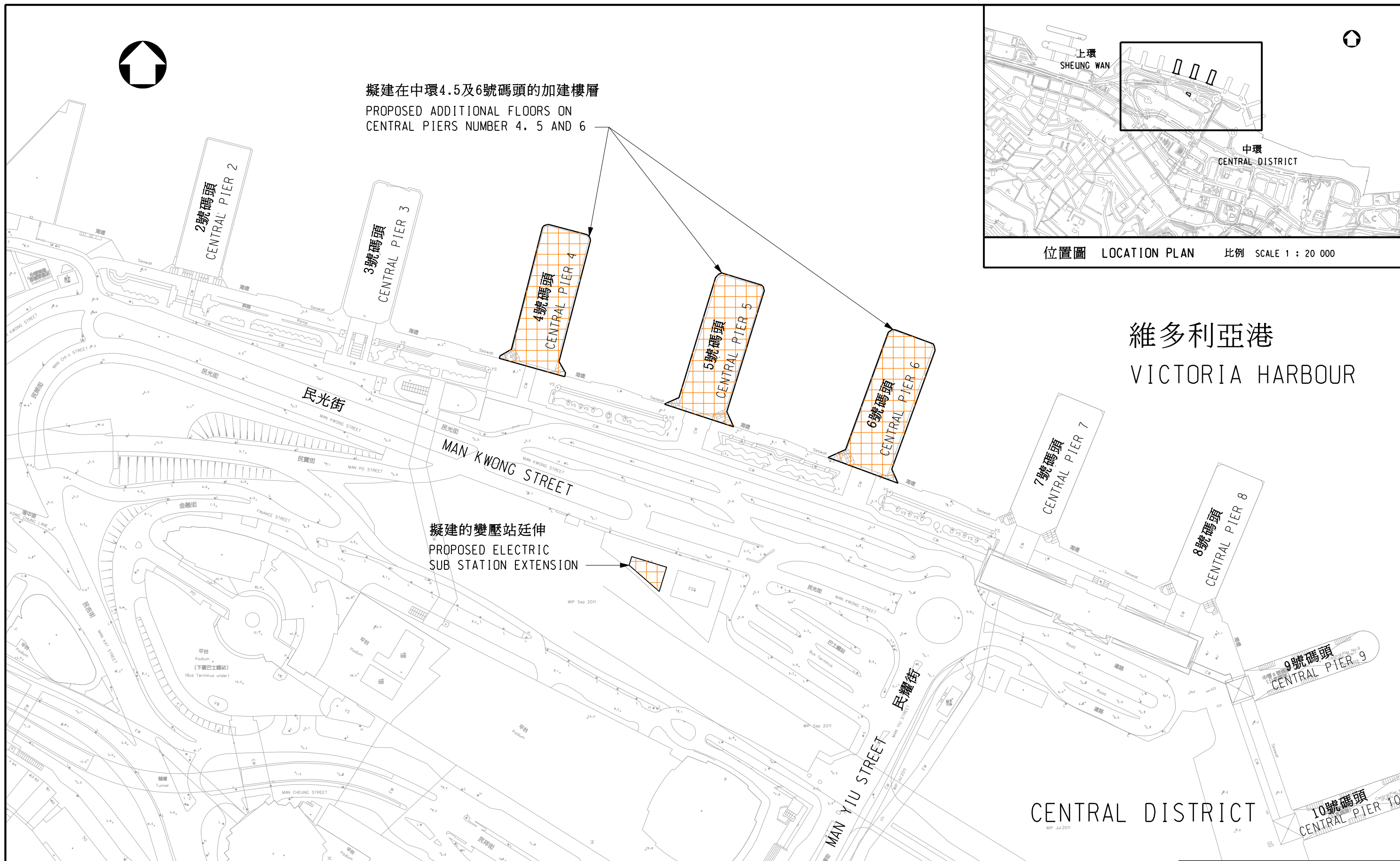
26. We estimate that the proposed works will create about 130 jobs (113 for labourers and another 17 for professional/technical staff), providing a total employment of 4 840 man-months.

### **Way forward**

27. Subject to Members’ views, we plan to seek the Public Works Subcommittee’s endorsement on 11 June 2013 for upgrading the Project to Category A with a view to seeking funding approval from the Finance Committee on 5 July 2013.

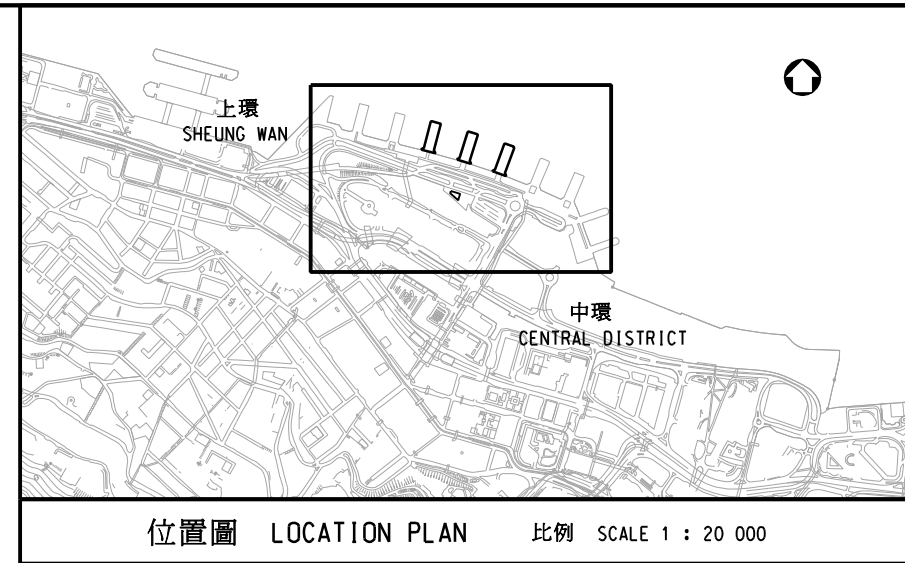
**Transport and Housing Bureau**  
**Transport Department**  
**Civil Engineering and Development Department**  
**May 2013**





擬建在中環4.5及6號碼頭的加建樓層  
 PROPOSED ADDITIONAL FLOORS ON  
 CENTRAL PIERS NUMBER 4, 5 AND 6

擬建的變壓站延伸  
 PROPOSED ELECTRIC  
 SUB STATION EXTENSION



位置圖 LOCATION PLAN 比例 SCALE 1 : 20 000

維多利亞港  
 VICTORIA HARBOUR

圖則名稱 drawing title

加建樓層計劃平面圖

GENERAL LAYOUT FOR CONSTRUCTION OF ADDITIONAL FLOOR PROJECT

繪圖 drawn

W.F. LEE

簽署 initial

日期 date

06.02.12

項目編號 item no.

7049TF

核對 checked

K.S. CHAN

簽署 initial

日期 date

06.02.12

比例 scale

1 : 200

核准 approved

簽署 initial

日期 date

圖則編號 drawing no.

HKI-Z1863

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港島及離島拓展處  
 HONG KONG ISLAND AND ISLANDS  
 DEVELOPMENT OFFICE

**CEDD** 土木工程拓展署  
 CIVIL ENGINEERING AND  
 DEVELOPMENT DEPARTMENT





圖則名稱 drawing title

碼頭外觀設計(構思圖)

PIER OUTLOOK (ARTIST IMPRESSION)

繪圖 drawn

W.M. AU-YEUNG

簽署 initial

簽署 initial

簽署 initial

日期 date

28.02.13

日期 date

28.02.13

日期 date

項目編號 item no.

7049TF

比例 scale

N.T.S.

圖則編號 drawing no.

HK I-Z1864

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 土木工程拓展署  
CIVIL ENGINEERING AND  
DEVELOPMENT DEPARTMENT





圖則名稱 drawing title

碼頭及中環海濱綜覽 (構思圖)

OVERALL VIEW OF THE PIERS AND CENTRAL HARBOURFRONT (ARTIST IMPRESSION)

繪圖 drawn

W.M. AU-YEUNG

簽署 initial

簽署 initial

簽署 initial

日期 date

日期 date

日期 date

項目編號 item no.

7049TF

比例 scale

N.T.S.

圖則編號 drawing no.

HK I-Z1882

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