

## ITEM FOR ESTABLISHMENT SUBCOMMITTEE OF FINANCE COMMITTEE

### HEAD 60 – HIGHWAYS DEPARTMENT Subhead 000 Operational expenses

Members are invited to recommend to Finance Committee the following proposals relating to the Highways Department –

- (a) the retention of the following three supernumerary posts –

1 Chief Engineer  
(D1) (\$115,050 - \$125,800)

for a period of three years and nine months  
from 1 April 2014 to 31 December 2017

1 Principal Government Engineer  
(D3) (\$158,850 - \$173,350)

1 Chief Engineer  
(D1) (\$115,050 - \$125,800)

for a period of three years and six months from  
1 July 2014 to 31 December 2017

- (b) the extension of the redeployment of the following permanent post –

/1 Chief .....

1 Chief Engineer  
(D1) (\$115,050 - \$125,800)

for a period of three years and six months from  
1 July 2014 to 31 December 2017

## **PROBLEM**

Highways Department (HyD) needs dedicated staffing support at the related directorate level to continue to take forward the Hong Kong-Zhuhai-Macao Bridge (HZMB) and its related highway infrastructure projects<sup>1</sup>.

## **PROPOSAL**

2. We propose the HZMB Hong Kong Project Management Office (HKPMO) of HyD to –

- (a) retain the three supernumerary posts, namely, one Chief Engineer (CE) (D1) post for a period of three years and nine months from 1 April 2014 to 31 December 2017; and one Principal Government Engineer (PGE) (D3) and one CE (D1) posts for a period of three years and six months from 1 July 2014 to 31 December 2017, in HZMB HKPMO; and
- (b) extend the redeployment of one permanent CE (D1) post from the Major Works Project Management Office (MWPMO) for a period of three years and six months with effect from 1 July 2014 to 31 December 2017.

**/JUSTIFICATION .....**

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<sup>1</sup> The projects include the HZMB Main Bridge, Hong Kong Link Road (HKLR), Hong Kong Boundary Crossing Facilities (HKBCF), Tuen Mun-Chek Lap Kok Link (TM-CLKL) and Tuen Mun Western Bypass (TMWB). HKBCF will be a multi-modal transportation hub integrating passenger and cargo facilities, connecting HKLR and Hong Kong International Airport (HKIA). HKLR will be the part of HZMB in Hong Kong waters, linking the HZMB Main Bridge within the Mainland waters to HKBCF. TM-CLKL and TMWB are planned to provide a direct route between Northwest New Territories (NWNT) and Lantau, linking Kong Sham Western Highway, port back-up areas in NWNT, Tuen Mun River Trade Terminal, Ecopark, HZMB Main Bridge (via HKBCF and HKLR), HKIA and various North Lantau developments.

## JUSTIFICATION

### Existing Directorate Staffing in HZMB HKPMO and Recent Developments of HZMB and its Related Highway Infrastructure Projects

3. There are four directorate posts (one PGE and three CEs) in HZMB HKPMO. The supernumerary PGE post, designated as Project Manager/Hong Kong-Zhuhai-Macao Bridge (PM/HZMB), heads HZMB HKPMO and is underpinned by the three CEs described in paragraph 2 above. The three CEs are responsible for the following projects respectively –

- (a) CE/HZMB (HK), to be re-designated as CE/Hong Kong Link Road (CE/HKLR), is responsible for HKLR<sup>2</sup>;
- (b) CE/HKBCF<sup>3</sup> is responsible for HKBCF; and
- (c) CE/NWNT<sup>4</sup> is responsible for TM-CLKL and TMWB and the planning for NWNT highway infrastructures.

The existing organisation chart of the HZMB HKPMO, as well as the recent developments of HZMB and its related highway infrastructure projects are at Encl. 1 & 2 Enclosure 1 and Enclosure 2 respectively.

### Justification for Retention of Directorate Establishment in HZMB HKPMO

4. Upon review of the directorate complement of HZMB HKPMO in the light of the recent developments and progress of HZMB and its related highway infrastructure projects, we consider it critical to retain these posts in order to maintain operational continuity and adequate supervision for the projects.

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<sup>2</sup> As stated in EC(2010-11)2, CE/HZMB (HK) was responsible for the HZMB Main Bridge and HKLR projects. The area of work for overseeing the HZMB Main Bridge is now taken up by the Cross Boundary Unit, which was established on 1 March 2013 and is directly supervised by PM/HZMB. This paper proposes to retain this supernumerary CE post, and will re-designate the title of the post as CE/HKLR.

<sup>3</sup> As stated in EC(2008-09)16, the supernumerary CE post was created for five years up to 31 March 2014. This paper proposes to retain this supernumerary CE post.

<sup>4</sup> This paper proposes to extend the redeployment of the permanent CE post.

5. In view of the fact that the float-time for HZMB and its related highway infrastructure projects has been compressed by the legal proceedings of a judicial review (JR)<sup>5</sup> case from early 2010 to September 2011, the works programme of the projects has become extremely demanding and tight. In order to ensure smooth handling and timely completion, HyD has made adjustment in the construction method to accelerate the works concerned through increased labour resources, arrangement of overtime work and increased plant resources for completion on time by end 2016. To further compress the programme, HyD has revised the works procedures of the HKBCF project by completing the reclamation of the artificial island for accommodating HKBCF in phases, so that construction of the superstructure works can proceed in parallel with the reclamation works. This revised works arrangement will help shorten the overall construction period of the HKBCF project, but will require a dedicated CE to oversee all the complicated interface issues and monitor the overall works programme closely. Similarly, it is necessary to compress the construction schedule of HKLR. In order to ensure completion of the works within this compressed schedule, CE/HZMB (HK) (to be re-designated as CE/HKLR) is required to carry out intensive supervision of works progress and timely resolve contractual and interface issues with other projects. For TM-CLKL, the superstructures on the northern landfall will also be constructed simultaneously with the reclamation works. Apart from revision of works procedures and addition of manpower and equipment, adequate supervision at the directorate level is of utmost importance.

6. Since the HZMB project and its related highway infrastructure projects have already entered into a full-fledged implementation stage, and given the mega scale, complexity and volume of works involved in taking forward these projects, we consider it necessary to maintain adequate supervision at the directorate level on the works by retaining the three supernumerary posts and extending the redeployment of the permanent post. Detailed justifications for the continued requirement for these four directorate posts are given in the following paragraphs.

/PM/HZMB .....

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<sup>5</sup> On 22 January 2010, a Tung Chung resident filed an application for leave for JR against the decisions of the Director of Environmental Protection (DEP) as regards the approval of the Environmental Impact Assessment (EIA) Reports and the granting of Environmental Permits relating to the HKBCF and HKLR projects. The High Court handed down its judgment on 18 April 2011. The court judgment quashed the Environmental Permits of the HZMB local projects and therefore the associated works could not commence. DEP then appealed against the court's judgment. The Court of Appeal handed down its judgment on 27 September 2011, allowing DEP's appeal and therefore the EIA reports and Environmental Permits of the HKBCF and HKLR projects are maintained valid.

PM/HZMB (PGE)

7. PM/HZMB will continue to lead HZMB HKPMO and oversee HZMB and its related highway infrastructure projects. He has to take full charge of all professional, technical, contractual and interface issues, steer the resolution of a whole range of matters related to the smooth and timely implementation of these projects, and provide professional advice and support to the Transport and Housing Bureau (THB) in overseeing the delivery of the projects from a policy perspective.

8. PM/HZMB has to attend high-level inter-governmental meetings with representatives of the Mainland Government (at both the Central People's Government as well as provincial levels) and the Macao Special Administrative Region Government (SARG) frequently, and provide strategic views as well as impetus to the projects. With the establishment of the HZMB Authority (the Authority), PM/HZMB will continue to play an important role in steering and monitoring the work of the Authority through regular meetings with the key staff of the Authority, and providing strong professional support to THB in the Joint Works Committee composed of the representatives of the three Governments for vetting and approval of the Authority's submissions, particularly those concerning the Authority's financial management, personnel management and tendering and contract management; engineering and technical standards, quality and safety of the works concerned; as well as the actual operation of the HZMB Main Bridge. As the Main Bridge is targeted for commissioning by end 2016, the three Governments have started to conduct more frequent meetings on cross-boundary issues as well as future management, operation and maintenance of the Main Bridge, all of which will require heavy and dedicated inputs from PM/HZMB. The dedicated handling by a senior directorate officer with strong professional expertise, as well as sound management skills, is especially important given the scale of the HZMB project, technical complications of the works anticipated and the high level of coordination between the three Governments required for taking forward the construction of this mega cross-boundary project.

9. PM/HZMB will continue to play a pivotal role in spearheading and supervising the implementation of HZMB-related local highway infrastructure projects. The major works programmes under these various HZMB-related projects have to be taken forward at the same time under a tight timeline. Hence, PM/HZMB has to closely supervise and prudently coordinate the delivery of each project at a high level to ensure smooth implementation and timely completion. The tendering of at least nine mega and complex works contracts has commenced from mid-2013 and the whole process would straddle till mid-2015. PM/HZMB will provide steer on the contract strategies to be adopted in these procurement exercises, and serve as the chairman of the tender assessment panels for selection of the most suitable contractors to carry out the works.

10. Taking into account the scale, complexity and importance of the various local projects undertaken by HZMB HKPMO, and the construction of the HZMB project and local related projects undertaken by the three Governments, as well as the frequent high-level contacts with the Mainland, Macao SARG officials and the key staff of the Authority, we consider it essential to maintain the Office Head of HZMB HKPMO at D3 level on a full-time basis.

CE/HZMB (HK) (to be re-designated as CE/HKLR)

11. CE/HZMB (HK) was originally responsible for the supervision of all technical, design, construction and environmental issues of the HKLR project, as well as the coordination work of the HZMB Main Bridge project within the Mainland waters. With regard to the HKLR project, it is planned to be completed by end 2016 to tie in with the commissioning of the HZMB Main Bridge. The HKLR project consists of a 12-km long dual three-lane carriageway connecting the Main Bridge at the Hong Kong Special Administrative Region (HKSAR) boundary with HKBCF, and the associated ancillary works<sup>6</sup>. The total sum of the two HKLR construction contracts is about HK\$22 billion, and they are amongst the largest-ever highways works contracts executed by HyD. Since the project was affected by the JR case earlier on, the construction schedule of these two contracts is very tight. In view of the fact that the construction of such a large-scale marine viaduct in the open sea is unprecedented in Hong Kong, and given the importance of environmental protection and site safety, CE/HZMB (HK)'s work to administer the two HKLR construction contracts is extremely demanding and heavy, and requires high-level professional and management skills.

12. In view of the significant increase in the workload of CE/HZMB (HK) in implementing the HKLR project, we have, on 1 March 2013, established the Cross Boundary Unit through internal redeployment. The Unit is headed by a senior professional officer working directly under PM/HZMB in HZMB HKPMO to handle the coordination work of the HZMB Main Bridge project within the Mainland waters and manage more effectively all cross-boundary issues concerning the construction and operation of the Main Bridge. In order to better reflect the present responsibilities of the CE post, the post will be re-designated as CE/HKLR.

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<sup>6</sup> Ancillary works include civil, structural, geotechnical, marine, environmental protection, landscaping and drainage works as well as street lighting, traffic aids (including sign gantries), water mains, fire hydrants, traffic control and surveillance system and electrical & mechanical (E&M) works. There is also a tunnel section which will pass under Scenic Hill and Airport Railway, and connect to the proposed at-grade road along the eastern coast of Airport Island so as to reduce the environmental and visual impact to Tung Chung.

13. Since the HKLR project has progressed from the planning stage into the construction stage, we consider that there is a need to retain the post of CE/HKLR. CE/HKLR needs to conduct intensive contact with various policy bureaux and departments, Airport Authority Hong Kong (AAHK), MTR Corporation Limited and other stakeholders to resolve complicated interface matters among different parties. The negotiation with AAHK will involve a lot of complex interface issues between the existing airport infrastructure and the project works. CE/HKLR has to ensure that the HKLR works can be implemented timely without disrupting the smooth operation of Hong Kong International Airport (HKIA). For instance, HKLR involves the construction of numerous new roads linking to the existing airport road network. This requires a large-scale temporary diversion of existing highways, including Airport Road, the trunk road leading to HKIA. CE/HKLR needs to maintain frequent and close liaison with AAHK, the Hong Kong Police Force and the Transport Department to monitor and ensure that after temporary road diversions, the capacity of the roads would be similar to that of the existing roads (i.e. ensuring sufficient traffic capacity while maintaining the safe passage of vehicles through these diverted routes). Besides, HKLR involves the construction of a shallow tunnel passing closely underneath Airport Road and Airport Express Line, both of which need to continue operation during tunnel construction. As a result, extreme care and proper monitoring are required throughout the works to ensure that these important road and rail link connecting HKIA are not affected. Apart from the supervision of tunnel construction, CE/HKLR needs to carry out intensive liaison, coordination and monitoring in order to ensure that the sensitive facilities, including fuel tanks and aeronautical lights, on the Airport Island as well as the aforementioned Airport Road and Airport Express Line will not be affected.

14. CE/HKLR also needs to work with the consultants and contractors to overcome major challenges envisaged, including marine foundation works and bridge deck installation works for the construction of a marine viaduct measuring over 7 km in open sea at Pearl River Estuary, the scale and difficulty of which are unprecedented for Hong Kong. These challenges include the challenges to carry out the works safely and efficiently under the difficult working environment in open seas, the logistics of mobilising and delivery of plant and materials to offshore and remote work sites, and the transport arrangements for workers and supervisory staff each day travelling to and from these sites. These tasks require CE/HKLR to conduct intensive liaison and monitoring to ensure that the works are carried out safely and orderly under the tight construction schedule. As this 7-km long viaduct will connect with the Main Bridge at the HKSAR boundary, CE/HKLR will also need to maintain close liaison with the Mainland counterpart to ensure proper and timely connection between HKLR and the Main Bridge which is being constructed in the Mainland waters.

15. In respect of environmental protection, CE/HKLR is required to closely monitor the air quality, noise, shorelines and preservation of Chinese White Dolphins, and to ensure that appropriate measures specified in the Environmental Permits are in place so as to respond to the concerns of environmental concern groups, Islands District Council and nearby residents.

#### CE/HKBCF

16. CE/HKBCF has to be heavily engaged in taking forward the tendering work and construction of HKBCF. This mega and complex project involves the formation of an artificial island of about 130 hectares at the northeast of HKIA and the construction of superstructures for accommodating the necessary Customs, Immigration and Quarantine facilities. These facilities include the Passenger Clearance Building, about 13 clearance and examination facilities, provision of ten offices and facilities for Government departments providing services in connection with the HKBCF, together with clearance areas for coaches/private cars/goods vehicles, public transport interchanges as well as necessary internal and peripheral road systems linking up HKLR and TM-CLKL and leading to and from HKIA.

17. Apart from handling challenges on the technical and engineering aspects of the project due to the very tight timeframe for completing the reclamation works before the superstructures works can commence, CE/HKBCF also needs to consolidate multi-disciplinary professional inputs and maintain close high-level liaison and coordination with the relevant parties during both the tendering and construction stages. In particular, as there will be about ten user departments and ten maintenance and utility agents involved in the construction, operation and maintenance of the various facilities, HyD needs to maintain close liaison with the consultants, contractors and various stakeholders, as well as to make arrangements over complex interface and coordination matters, so as to ensure timely completion of different facilities under the tight programme.

18. In terms of works progress, CE/HKBCF is currently involved in pressing ahead with the reclamation works and tendering exercises for the construction of the HKBCF superstructures. From now until the commissioning of the HZMB Main Bridge (and HKBCF), CE/HKBCF has to be heavily and fully engaged in taking forward all construction contracts under the HKBCF project, including the tendering exercises for six contracts for superstructure works with a total estimated value of about \$20 billion with a view to commencing construction in stages in early 2014; liaising with the various users and stakeholders as well as the Mainland and Macao authorities on the requirement and future operation of various HKBCF facilities; and supervising various construction works on HKBCF covering reclamation, roads and bridges, buildings, E&M works, sewerage, etc.



19. Furthermore, CE/HKBCF has to strive to monitor and address environmental issues during the construction stage, and respond timely to possible environmental concerns from the public. As HKBCF is located in the vicinity of HKIA, close collaboration with AAHK and the Civil Aviation Department by a sufficiently experienced officer is required to provide efficient road connections that enhance the synergy between the two major infrastructures (i.e. HKBCF and HKIA) and at the same time prevent the works from possibly affecting the safe and efficient operation of HKIA.

20. Having regard to the complexity of the tasks to be undertaken, and the fact that CE/HKBCF has to carry out contract finalisation work for the reclamation contracts as well as the other superstructure and infrastructure contracts in the first year after the commissioning of HKBCF in 2016, the dedicated support of CE/HKBCF on a full-time basis is still required in taking forward the project.

#### CE/NWNT

21. The post of CE/NWNT is an internal redeployment from MWPMO. The incumbent is mainly responsible for TM-CLKL and TMWB. The two highway projects involve the construction of two longest road tunnels, one undersea and one on land, in Hong Kong. There is a wide spectrum of both complicated and challenging administrative and engineering issues associated with the construction of these tunnels.

22. The TM-CLKL project has now entered the construction stage. The estimated cost of the proposed works for the whole project is around \$44.8 billion, and the works are of a very large scale and complicated. The northern part of TM-CLKL is a sub-sea tunnel which will be constructed by two tunnel boring machines (TBMs). This will be the first-time for Hong Kong to deploy such tunnelling technique for constructing a sub-sea tunnel, and the fact that the sizes of the TBMs will be the largest ever in the city's history would present an engineering challenge. The deepest part of the proposed sub-sea tunnel is located at about 52 metres below sea level, and the construction of the tunnel will require working under an environment of 5.2 times the atmospheric pressure. Maintenance work for the cutter discs of the TBMs has also to be conducted in a compressed air environment. In order to enhance the efficiency of the maintenance work, we will deploy operations which will be new in Hong Kong, including the saturation diving, for the replacement of worn-out cutter discs of the TBMs. Besides, approximately 40 cross passages will be constructed between the two tunnel tubes for emergency evacuation and rescue purpose. We need to use the technique of

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ground freezing under the deep sea to construct these cross passages, and the scale of the ground freezing works will be unprecedented in Hong Kong. Moreover, the reclamation works for the tunnel project will require careful handling to minimise the impact on Urmston Road, a very busy marine navigation channel in Hong Kong, and nearby marine life.

23. The southern part of TM-CLKL is composed of a 3-km sea and land viaduct. The construction of the sea viaduct involves many technical challenges including a long-span bridge over a navigation channel in Tung Chung, and is under the maximum building height restrictions due to its proximity to HKIA, as well as having heavy foundation to overcome deep bedrock level. The land viaduct will cross over important and strategic infrastructures such as the railway and highways connecting the urban area and HKIA, while Cheung Tung Road and various existing and important utilities will have to be realigned and diverted respectively. The southern part of TM-CLKL involves a variety of complicated and difficult works including civil, geotechnical, structural, marine, traffic and E&M works. In order to ensure that public safety and public facilities would not be affected by the construction, the works and concerns from the stakeholders will have to be handled and coordinated prudently and properly.

24. As for TMWB, since appropriate measures must be taken to address the comments received from the local community, and advance technologies are needed to tackle the technical issues and environmental concerns associated with tunnel design and operation, the engineering design will involve various complicated considerations. In order to achieve the anticipated benefits of TMWB, we must strive to formulate a road scheme which would strike a balance in terms of technical feasibility, environmental concerns, traffic performance and economic benefits, as well as responding to environmental concerns of the local community. The attention of a seasoned officer would be necessary for spearheading the multi-party public consultation exercise involving local residents, relevant District Councils, Rural Committees, Heung Yee Kuk and environmental concern groups, such that an option generally acceptable to all parties concerned could be reached.

25. To take forward these projects smoothly, the personal and dedicated attention of a chief professional officer is required to develop innovative engineering design options, devise traffic and incident management schemes related to the works, resolve sensitive environmental issues, and liaise with and consult the local community.

**/Duration .....**

### **Duration of Proposed Retention**

26. HZMB is planned to be commissioned by end 2016. Owing to the mega scale of the HKLR, TM-CLKL and HKBCF projects, it is anticipated that the contract finalisation process will be lengthy and complicated, and would probably still be on-going for at least a year after the opening of HZMB. Various contractual issues require the steer and supervision of high-level officers as well as their liaison and negotiation with the various parties concerned for resolution. Henceforth, we propose to retain all these four directorate posts at least until 31 December 2017. For CE/NWNT, as TM-CLKL will be completed in two phases until end 2018 and the implementation of the TMWB project will not be completed by 2017, we anticipate that the redeployment of this post would need to be further extended after December 2017. We will review the continued need of these four posts in the second half of 2016, taking into account the progress of claims resolution and contract finalisation work, the management, operation and maintenance of HZMB and its related local infrastructure projects, the progress of the TM-CLKL and TMWB projects as well as the overall staffing situation in HyD by that time. The updated job descriptions of PM/HZMB and the three CEs are at Enclosure 3(a) to (d).

Encl.  
3(a)-(d)

### **Alternatives Considered**

27. We have critically examined the possible redeployment of the other existing directorate officers within HyD to take on the work of the proposed posts. As other incumbents are already fully engaged in their respective work schedules, it is operationally not possible for them to take up the tasks without adversely affecting the discharge of their current duties. The key portfolio of the existing PGE and CE posts and our assessment on the possibility for them to take up additional responsibilities are detailed at Enclosure 4.

Encl. 4

28. In the light of the upcoming workload in different divisions of HyD, we consider that the proposed retention of the three supernumerary posts (PM/HZMB, CE/HKLR and CE/HKBCF) and extension of redeployment of the one permanent post (CE/NWNT) up to 31 December 2017 is the only viable arrangement to sustain the implementation of HZMB and its related highway infrastructure projects. The existing organisation charts of HyD are at Enclosure 5.

Encl. 5

### **FINANCIAL IMPLICATIONS**

29. The proposed retention of the three supernumerary directorate posts will bring about an additional notional annual salary cost at mid-point of \$4,949,400 as follows –

**/Rank .....**

<b>Rank</b>	<b>Notional annual salary cost at mid-point (\$)</b>	<b>No. of Posts</b>
<b>Supernumerary Posts</b>		
PGE (D3)	2,019,000	1
CE (D1)	2,930,400	2
<b>Total</b>	4,949,400	3

The additional cost expressed in terms of full annual average staff cost, including salaries and staff on-costs, amounts to \$7,289,000. The proposed extension arrangement of the redeployed CE post within HyD is cost neutral. The proposed retention of posts and extension of redeployment will not give rise to any increase in the team of supporting staff in HZMB HKPMO. We will include the necessary provision in the 2014-15 draft Estimates to meet the cost of this proposal and reflect the resources required in the Estimates of subsequent years.

## **PUBLIC CONSULTATION**

30. We consulted the Legislative Council Panel on Transport on 15 November 2013. Members were generally supportive of the above staffing proposal.

## **BACKGROUND**

31. The Finance Committee (FC) approved on 14 May 2004 vide EC(2004-05)4 the creation of one PGE and one CE supernumerary posts and the redeployment of one permanent CE post in HyD with effect from 1 July 2004 for a period of six years for establishing HZMB HKPMO dedicated to oversee the planning and implementation of HZMB and its related highway infrastructure projects. Also on 14 May 2010, FC approved vide EC(2010-11)2 the retention of these two supernumerary posts and the extension of the redeployed permanent post for a period of four years up to 30 June 2014. Besides, on 13 February 2009, FC also approved vide EC(2008-09)16 the creation of one supernumerary CE post to lead a new division in HZMB HKPMO to undertake the planning and implementation of HZMB HKBCF with effect from 1 April 2009 for a period of five years up to 31 March 2014.

## **ESTABLISHMENT CHANGES**

32. The establishment changes in HyD for the past two years are as follows –

/Establishment .....

Establishment (Note)	Number of posts			
	As at 1 November 2013	As at 1 April 2013	As at 1 April 2012	As at 1 April 2011
<b>A</b>	31 + (5)#	31 + (5)	31 + (5)	31 + (5)
<b>B</b>	523	515	511	502
<b>C</b>	1 559	1 556	1 553	1 545
<b>Total</b>	<b>2 113 + (5)</b>	<b>2 102 + (5)</b>	<b>2 095 + (5)</b>	<b>2 078+ (5)</b>

Note :

- A - ranks in the directorate pay scale or equivalent
- B - non-directorate ranks, the maximum pay point of which is above MPS Point 33 or equivalent
- C - non-directorate ranks, the maximum pay point of which is at or below MPS Point 33 or equivalent
- ( ) - number of supernumerary directorate posts
- # - as at 1 November 2013, there is no unfilled directorate post in HyD

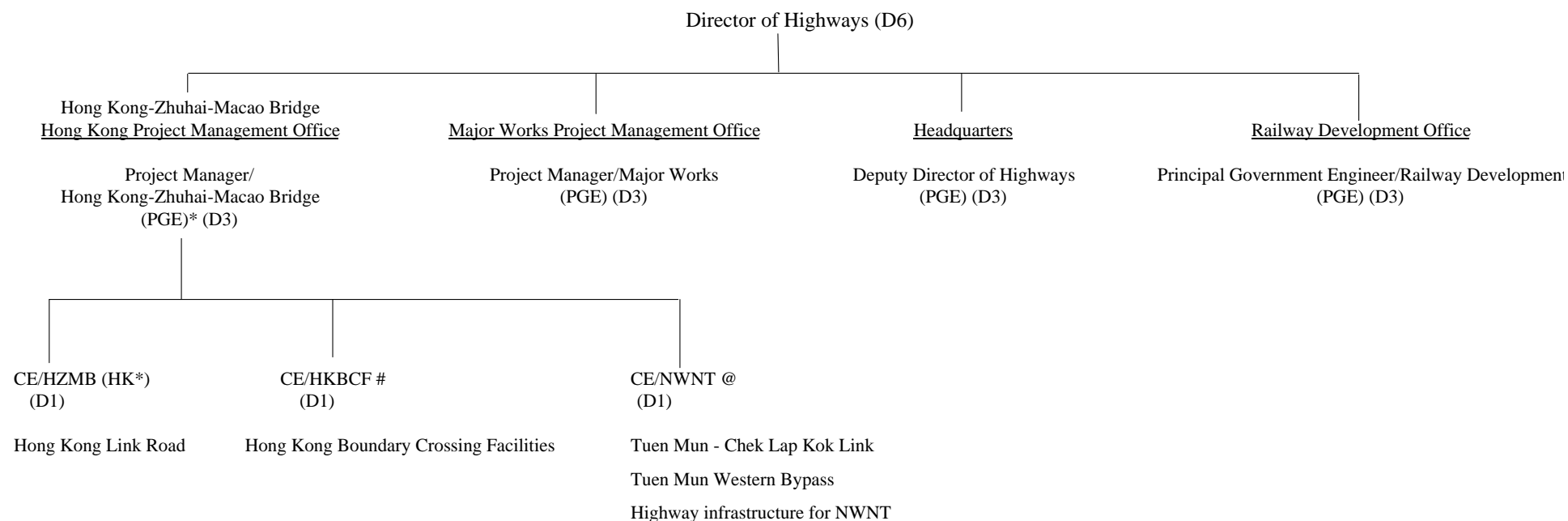
### **CIVIL SERVICE BUREAU COMMENTS**

33. The Civil Service Bureau is satisfied that the proposed retention of the supernumerary PGE and CE posts as well as extension of redeployment of the CE post up to 31 December 2017 to sustain the implementation of the HZMB and related highway infrastructure projects is justified from the operational and functional point of view. The grading and ranking of the posts are considered appropriate having regard to the level and scope of the responsibilities and the professional input required.

### **ADVICE OF THE STANDING COMMITTEE ON DIRECTORATE SALARIES AND CONDITIONS OF SERVICE**

34. As the posts are proposed on a supernumerary basis, their retention, if approved, will be reported to the Standing Committee on Directorate Salaries and Conditions of Service in accordance with the agreed procedure.

**Existing Organisation Chart of Hong Kong-Zhuhai-Macao Bridge Hong Kong Project Management Office  
of Highways Department**



**Legend**

CE - Chief Engineer  
 HK - Hong Kong  
 HKBCF - Hong Kong Boundary Crossing Facilities  
 HZMB - Hong Kong-Zhuhai-Macao Bridge  
 NWNT - North West New Territories  
 PGE - Principal Government Engineer

\* - Supernumerary posts (1 PGE and 1 CE) to lapse on 1 July 2014. This paper proposes to retain these two supernumerary posts.  
 @ - 1 CE post redeployed from Major Works Project Management Office to Hong Kong-Zhuhai-Macao Bridge Hong Kong Project Management Office on a time-limited basis up to 30 June 2014. This paper proposes to extend the redeployment of this permanent post  
 # - Supernumerary CE post to lapse on 1 April 2014. This paper proposes to retain this supernumerary post.

**Recent Developments of Hong Kong-Zhuhai-Macao Bridge  
Main Bridge and Related Highway Infrastructure Projects**

The Hong Kong-Zhuhai-Macao Bridge (HZMB) is a cross-boundary cross-sea road infrastructure project providing direct land transport connection between the two shores of the Pearl River Delta, linking Hong Kong in the east and Macao and Zhuhai in the west. Structurally, the HZMB and related infrastructure works comprise two parts: (i) the HZMB Main Bridge; and (ii) the respective link roads and boundary crossing facilities of the three areas including the Hong Kong Link Road (HKLR), Tuen Mun-Chek Lap Kok Link (TM-CLKL), Tuen Mun Western Bypass (TMWB) and Hong Kong Boundary Crossing Facilities (HKBCF).

**HZMB Main Bridge**

2. The HZMB Main Bridge will be in the form of a bridge-cum-tunnel structure with a total length of about 30 km, traversing several major navigation channels in the Pearl River Delta. The Governments of the Mainland, the Hong Kong Special Administrative Region (HKSAR), and the Macao SAR (the three Governments) have established the HZMB Authority in the Mainland in accordance with Mainland laws to take forward the construction, operation, maintenance and management of the Main Bridge. The three Governments play a supervisory role over the HZMB Authority through the establishment of a Joint Works Committee. The construction works of the HZMB Main Bridge and the Zhuhai Macao Boundary Crossing Facilities within the Mainland waters commenced in end 2009 for completion by end 2016. The works of the tunnel section and artificial islands in the Mainland waters for the Main Bridge commenced in December 2010, while the eastern and western artificial islands were formed in end 2011. The construction of the immersed tunnel and superstructures on the artificial islands as well as bridges are in progress with a view to completing the HZMB Main Bridge project in 2016.

**HKLR and HKBCF**

3. With the funding approval from the Finance Committee (FC) in November 2011, the reclamation works for forming an artificial island to provide land for the development of the HKBCF commenced in the same month. The Highways Department (HyD) has started inviting tenders for the construction

of the superstructures of the HKBCF by phases from September 2013 to early 2014. Following the funding approval from the FC, the works of the HKLR project also commenced in May 2012. The completion of the projects will need to tie in with the planned commissioning of the Main Bridge in 2016.

### **TM-CLKL and TMWB**

4. The advance reclamation works and detailed design for the TM-CLKL commenced in November 2011. With the funding approval from the FC, the construction works of the TM-CLKL commenced in June 2013. HyD will invite tenders for the remaining works contracts by phases starting from end 2013. It is targeted to complete the Southern Connection between the HKBCF and North Lantau Highway substantially by end 2016 in tandem with the commissioning of the HZMB Main Bridge, and the Northern Connection between the HKBCF and Tuen Mun by end 2018 to satisfy the local traffic demand timely.

5. In view of public concerns over the proposed alignment of the TMWB, we have reviewed the implementation schedule of the project. With reference to the latest traffic statistics, the traffic conditions of the existing road networks in Tuen Mun will remain manageable in the next few years. Therefore, we will take this opportunity to further investigate the possible scope of changes to the currently proposed road scheme with a view to striking a balance in terms of technical feasibility, environmental concerns, traffic performance and economic benefits. In the process, we will also make reference to the various recent proposals and planning of developments in Tuen Mun and the Northwest New Territories.

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**Job Description for  
Project Manager/Hong Kong-Zhuhai-Macao Bridge**

**Rank** : Principal Government Engineer (D3)

**Responsible to** : Director of Highways (D6)

**Main Duties and Responsibilities –**

1. Planning, administering and directing the work of the Hong Kong-Zhuhai-Macao Bridge (HZMB) Hong Kong Project Management Office to ensure that the HZMB and related highway infrastructure projects are completed on time and within budget.
2. Providing expert advice and professional support to the policy bureau on the implementation of the HZMB and related highway infrastructure projects, including the pre-construction planning and technical studies, negotiations for various agreements among the three Governments, and the monitoring of technical standards and expenditure during construction for the HZMB Main Bridge in the Mainland.
3. Engaging in high-level discussion and liaison with the Governments of the Mainland and the Macao Special Administration Region (SAR), including liaison with the Mainland and Macao authorities and consultants engaged on matters relating to the planning, design, implementation and actual operation of the HZMB project, and leading the Hong Kong SAR (HKSAR) team in any technical groups to be formed with the Mainland and Macao authorities for the HZMB project.
4. Giving support to and, where necessary, deputising for the Director of Highways in inter-governmental committees (e.g. the Joint Works Committee) and those committees within the HKSAR Government (e.g. the Steering Committee on the HZMB and Related Hong Kong Infrastructure Projects and Works Progress Sub-committee).
5. Implementing the planning, design, tender and construction of the related infrastructure within Hong Kong to support the HZMB (including the Hong Kong Boundary Crossing Facilities (HKBCF) and Hong Kong Link Road (HKLR)), and the Tuen Mun-Chek Lap Kok Link (TM-CLKL) and Tuen Mun Western Bypass (TMWB) projects to meet the traffic growth in Northwest New Territories, including the public engagements for the projects.

6. Formulating strategies and procedures in respect of the HZMB and related highway infrastructure projects.
7. Recommending the selection of consultants, overseeing the consultants engaged in the project studies, evaluating and advising on the selection of schemes for the HZMB related highway infrastructure projects and acting as the Director's Representative under the consultancy agreements.
8. Chairing the technical assessment panels on tender submissions and the assessment panels for consultants selection, and recommending the tenders for construction of projects.
9. Overseeing the construction contracts and acting as the Employer's Representative under the contracts.

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**Job Description for  
Chief Engineer/Hong Kong Link Road**

**Rank** : Chief Engineer (D1)

**Responsible to** : Project Manager/Hong Kong-Zhuhai-Macao Bridge  
(PM/HZMB) (D3)

**Main Duties and Responsibilities –**

1. Executing the strategies and procedures as formulated by the PM/HZMB in respect of the HKLR project.
  2. Leading and directing his/her subordinates in providing technical support and professional advice relating to the planning, feasibility studies, Environmental Impact Assessment studies, design, construction, financial and legal matters for the implementation of the HKLR project, including the public engagement and consultation exercises.
  3. Handling statutory process in respect of the environmental impact assessment study and carrying out the required statutory procedures under Environmental Impact Assessment Ordinance and Roads (Works, Use and Compensation) Ordinance.
  4. Consulting and coordinating with the policy bureau and other departments in preparing the project briefs for studies as well as the documents for the construction contracts in connection with the HKLR project.
  5. Procuring and administering consultancies and construction contracts for the delivery of the HKLR project, including the resolution of interface matters, and the resolution of claims and disputes raised by the contractors. Assuming overall responsibility for the control of project scope, cost and programme for the HKLR project.
  6. Leading and directing his/her subordinates to provide contract advisory services, and carry out technical audits on the contracts of all the HZMB related local highway infrastructure projects.
  7. Managing the professional and technical staff in the project team and the contract advisory team.
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**Job Description**  
**Chief Engineer/Hong Kong Boundary Crossing Facilities**

**Rank** : Chief Engineer (D1)

**Responsible to** : Project Manager/Hong Kong-Zhuhai-Macao Bridge  
(PM/HZMB) (D3)

**Major Duties and Responsibilities –**

1. Executing the strategies and procedures as formulated by PM/HZMB in respect of the HKBCF project.
2. Leading and directing his/her subordinates in providing technical support and professional advice relating to the design, construction, financial and legal matters for the implementation of the HKBCF project as well as the traffic control and surveillance system for the HKBCF, HKLR and the southern section of TM-CLKL.
3. Managing the consultants/contractors engaged in all consultancy services and contract works for the site formation/reclamation, civil and building works of HKBCF, award of construction contracts and the subsequent contract administration, including the resolving of claims and disputes raised by the contractors. Assuming overall responsibility for the control of project scope, cost and programme of the HKBCF project.
4. Handling statutory process in respect of the environmental impact assessment study and carrying out the required statutory procedures under Environmental Impact Assessment Ordinance, Roads (Works, Use and Compensation) Ordinance, Foreshore and Seabed (Reclamations) Ordinance and Town Planning Ordinance.
5. Consulting and coordinating with policy bureaux/departments, the Airport Authority Hong Kong, the Mainland and Macao Special Administration Region authorities and any other relevant stakeholders to resolve cross-boundary and interface issues in regard to the design, construction and commissioning of the HKBCF project as well as the traffic control and surveillance system for the HKBCF, HKLR and the southern section of TM-CLKL.
6. Consulting and coordinating with the policy bureau and other departments in preparing the tender documents for the construction contracts in connection with the HKBCF project.
7. Managing the professional and technical staff in the project team.

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**Job Description for  
Chief Engineer/North West New Territories**

**Rank** : Chief Engineer (D1)

**Responsible to** : Project Manager/Hong Kong-Zhuhai-Macao Bridge  
(PM/HZMB) (D3)

**Main Duties and Responsibilities –**

1. Executing the strategies and procedures as formulated by the PM/HZMB in respect of the TM-CLKL and TMWB projects and highway infrastructure projects identified in the North West New Territories Traffic and Infrastructure Review (the projects).
2. Leading and directing his/her subordinates in providing technical support and professional advice relating to the planning, feasibility studies, Environmental Impact Assessment studies, design, construction, financial and legal matters for the implementation of the above projects, including the public engagement and consultation exercises for the TM-CLKL and TMWB projects.
3. Handling statutory process in respect of the environmental impact assessment study and carrying out the required statutory procedures under Environmental Impact Assessment Ordinance and Roads (Works, Use and Compensation) Ordinance.
4. Consulting and coordinating with the policy bureau and other departments in preparing the project briefs for studies, as well as the documents for the construction contracts in connection with the above projects.
5. Procuring and administering consultancies and construction contracts for the delivery of the projects, including the resolution of claims and disputes raised by the contractors. Assuming overall responsibility for the control of project scope, cost and programme for the above projects.
6. Coordinating land matters and resolving interface issues arising from the HZMB and related highway infrastructure projects.
7. Managing the professional and technical staff in the project team.

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**Key portfolios of the existing Principal Government Engineer (PGE) and Chief Engineer (CE) posts in Highways Department and assessment of the possibility for them to take up additional responsibilities**

**Headquarters (HQs) and Regional Offices (ROs)**

Deputy Director of Highways (DDHy) (PGE) (D3) currently oversees the HQs and two ROs (i.e. Urban and New Territories). At the HQs, DDHy is assisted by two Government Engineers (GEs) (D2) (Assistant Director/Technical (AD/T) and Assistant Director/Development (AD/D)<sup>1</sup>) and four CEs to manage seven Divisions and ten Units. As regards the ROs, each office is led by one GE and two CEs.

2. DDHy has to deputise Director of Highways in the overall management of the Department, including formulation of departmental policies, overseeing staff matters of all professional and technical grades, and monitoring expenditures. He is the internal departmental administrative head and also has to oversee the work of HQs and the two ROs. In view that DDHy already has a wide span of responsibilities and is fully engaged, he cannot take on the responsibilities of Project Manager/Hong Kong-Zhuhai-Macao Bridge (PM/HZMB), which is a full-time job, on top of his own schedule.

3. As for the four CEs in the HQs, we have also assessed their current and anticipated workload, and concluded that they have no spare capacity to share out duties of the HZMB-related projects. They are/will be fully engaged as follows –

- (a) Chief Highway Engineer/Works oversees the implementation of all capital works (other than major works) in the territory, including planning and construction, public consultation and statutory procedures. His personal attention is required in determining project scope, steering the public consultation process, approving

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<sup>1</sup> AD/T is responsible for formulating technical and administrative policies, standards, techniques and guidelines on highway engineering, landscaping, surveying, quality management, environmental matters etc. and administering the public relation and training matters for the department, as well as personnel matters (including staff deployment, grade management as well as appointments). For AD/D, he is tasked to manage minor to medium size capital works projects, public lighting and road maintenance in two legally designated Control Areas, oversee the selection, employment and supervision of consultants and contractors, negotiate fees and agreements, and supervise the consultants and contractors when necessary.

documents for the relevant statutory procedures, administration of tendering process and approving tendering documents as well as the management and administration of contracts. Currently, there are about 50 projects under construction which would be completed by 2017, while about 60 projects are under planning or study. Apart from handling new road improvement projects arising from local traffic each year, he also takes on the overall coordination of the Hillside Escalator Links projects.

- (b) Chief Highway Engineer/Bridges and Structures is responsible for bridge and highways design and standard setting, provision of comments and technical advice on public and private developments/projects involving design of highway structures, supervision of structural design for in-house highway projects (over 20 every year) plus technical support for on-going construction works of designs. Furthermore, he also supervises the maintenance of major bridges and roads within the Tsing Ma and Tsing Sha Control Areas<sup>2</sup>.
- (c) Chief Engineer/Lighting provides specialist professional services and advice on all matters relating to the policies, design, planning and construction of public lighting provisions, as well as the maintenance and administration of some 220 000 units of public lighting in the territory. He is also studying and reviewing the standard and latest technologies for public lighting from environmental (light nuisance and pollution) and energy saving perspectives which requires his substantial inputs and attention in the short to medium term.
- (d) Chief Highway Engineer/Research and Development conducts research on an on-going basis in setting and upgrading highway design, construction, maintenance and material specifications and standards to meet operational needs and enhance environmental protection. He also oversees the Division's work in formulating and reviewing the departmental information technology strategies, coordinating the management of road excavations, and supervising centralised audit inspection teams on road opening works. The dedicated attention of a chief professional officer is required to ensure incorporation of updated technology in highway

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2 Highway facilities within the two Control Areas comprise four long span cable-supported bridges, four dual three-lane tunnels, viaducts and roads all lying along strategic routes linking to the Airport. Three major cable bridges within the Tsing Ma Control Area, built in the 1990s, now require more attention due to their normal wear and tear. Apart from the regular repairs of road surfacing, the essential structural elements require frequent inspection and maintenance.

engineering specifications and standards, to make use of state-of-the-art knowledge in formulating the departmental information technology strategies, to devise sophisticated coordinating and control mechanisms for road excavation, and to liaise with concerned parties for timely implementation of new initiatives. It is not practicable to release him to take up further duties outside his current portfolio.

4. As regards the two ROs (each led by one GE and supported by two CEs), they are responsible for district administration of highway infrastructure and maintenance works in their respective geographic area. They provide comments on public and private developments affecting public roads and technical advice on new highway projects (including gazettal-processing and objection-handling for road works initiated by the ROs and the private sector), and plan, design and supervise maintenance and upgrading works for about 2 100 km of roads, 2 500 highway structures and 13 200 road side slopes. They also oversee the processing of road excavation permits, resolve road opening coordination matters, and monitor the performance of utility undertakers in their excavation works. In the light of these on-going and heavy duties, and to ensure that the highway network is maintained in a safe and satisfactory condition, the directorate officers concerned cannot be spared/redeployed for taking on additional duties.

#### **Major Works Project Management Office (MWPMO)**

5. There are eight directorate officers in the MWPMO, including one PGE (designated as Project Manager/Major Works (PM/MW)), two GEs and five CEs. PM/MW heads the MWPMO and is responsible for the planning, design and implementation of major highways infrastructure projects. With an average expenditure for projects handled by the MWPMO for the coming five years (from 2013-14 to 2018-19) amounting to about \$7 billion per year, PM/MW has a very heavy workload in liaison work at the senior level and decision-making on major technical and funding issues. It is not practicable for him to take on the responsibilities of PM/HZMB on top of his own schedule.

6. We have also assessed the current and anticipated workload of the five CEs under the two major works project management teams. The outcome is that all of them do not have spare capacity in the short to medium term to take on additional work, as follows –

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- (a) CE1/MW is mainly responsible for the planning and implementation of a number of mega projects<sup>3</sup>. In the next five years, CE1/MW will be heavily involved in the completion of and contract finalisation work for the Tolo Highway and construction of Fanling Highway widening projects. The completion of the latter project has to tie in with the programme of the Liantang/Heung Yuen Wai Boundary Crossing Point. CE1/MW also oversees the implementation of the Universal Accessibility Programme involving retrofitting barrier-free access facilities for public walkways. Furthermore, CE1/MW is in charge of the project for improving Fan Kam Road and the road network in West Kowloon Reclamation Development to serve the traffic demand arising from on-going and new developments in the area. He will not therefore have any spare capacity to take on additional duties in the coming five years.
- (b) CE2/MW is mainly responsible for implementation of multi-billion Central Kowloon Route (CKR) linking West Kowloon with Kai Tak Development. While the public engagement for the project was completed in March 2013, CE2/MW has to continue to make considerable efforts engaging the concerned stakeholders on major key issues on environmental impact and building safety. He also has to oversee the timely completion of the relevant statutory procedures for the project including approval of the report on environmental impact assessment and obtaining Environmental Permit for the project. Given the complexity of CKR, CE2/MW will have to focus on overseeing the development of the detailed design, the tendering for the construction contracts and subsequent implementation of the construction works. Furthermore, CE2/MW is also responsible for taking forward the construction of major footbridge systems in Yuen Long Town and Mong Kok. CE2/MW will not therefore have any spare capacity to take on additional duties in the coming five years.

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3 Including the widening of Tolo Highway and Fanling Highway; retrofitting of noise barriers for existing roads including Tseung Kwan O Road, Kwun Tong Bypass, New Clear Water Bay Road, Hoi On Road, Tsing Tsuen Bridge and Tsuen Wan Approaches; and feasibility studies on proposed improvement to Fan Kam Road and proposed road improvement works for West Kowloon Reclamation Developments.

- (c) CE3/MW and CE4/MW are mainly responsible for the planning and implementation of the mega size Central-Wanchai Bypass and Island Eastern Corridor Link (CWB) project<sup>4</sup>. The construction of this project commenced in December 2009, and is now progressing in full swing under more than five construction contracts. Saving the complexity of the engineering works aside, the likely impact of the works on traffic, the water front, the Victoria Harbour and the environment will require careful monitoring and extensive public consultation, and therefore will demand high level involvement of the two CEs throughout till its completion and commissioning. Apart from the CWB project, the two CEs are also responsible for the planning and implementation of the Lin Ma Hang Road widening project, the Hiram's Highway Stage 1 and 2 improvement projects and 31 noise barrier retrofitting projects for existing roads<sup>5</sup>. The implementation of these projects is however subject to very diverse views of the public given their traffic, engineering, environmental, land and cultural heritage impacts. Accordingly, the two CEs and their teams have to carefully handle and address public concerns when working out preferred improvement options and consult the public. To smoothly take forward these projects, the personal and dedicated attention of the two chief professional officers is required and it is therefore not practicable to release CE3/MW and CE4/MW to take up further duties.
- (d) CE5/MW is mainly responsible for the planning and implementation of the Tuen Mun Road Improvement Project from Tsuen Wan to Tuen Mun Town Centre. The Project is being implemented under five civil engineering contracts and one Electrical and Mechanical works contract. CE5/MW is also responsible for the planning and implementation of the Widening of Castle Peak Road - Castle Peak Bay Section (CPR project) and the retrofitting of noise barriers on Tuen Mun Road (Town Centre and Fu Tei Sections) projects. Not to mention the technical problems encountered during the reconstruction works at the heavily trafficked Tuen Mun Road and in

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4 The CWB project consists of a 4.5 km dual three-lane trunk road with 3.7 km in tunnel between Central and North Point, 3 km of approach roads and slip roads, and associated 0.8 km Island Eastern Corridor between Hing Fat Street and Po Leung Kuk Yu Lee Mo Fan Memorial School. It is the last missing link of the strategic highway along the north shore of the Hong Kong Island and there is public expectation for its early completion to help relieve traffic congestion along the Connaught Road/Harcourt Road/Gloucester Road corridor.

5 It is a government policy to retrofit noise barriers or enclosures where practicable on existing roads with traffic noise levels exceeding 70 dB(A)L10(1 hour) for residential premises. So far nine retrofitting projects have been completed. Amongst the existing 31 retrofitting projects, eight are under construction and 23 are under various stages of planning and investigation.

difficult terrains, the large-scale temporary traffic arrangements, especially road closure during night time, often attract public attention. It thus demands a lot of efforts and careful planning and handling of CE5/MW and his team. As regards the CPR and retrofitting of noise barriers on Tuen Mun Road (Town Centre and Fu Tei Sections) projects, there are very diverse views from the public on their planning and implementation. To smoothly take forward these projects, the dedicated attention of a chief professional officer is required and it is not practicable to release CE5/MW to take up further duties.

### **Railway Development Office (RDO)**

7. Principal Government Engineer/Railway Development (PGE/RD) heads the RDO and is responsible for the planning, design and implementation of railway projects, including the related reprovisioning and enabling works, public infrastructure works and station improvement works, and overseeing the MTR Corporation Limited (MTRCL) on these aspects. With a number of strategically important railway projects under planning, design and implementation in the coming years, as well as the on-going Review and Update of the Railway Development Strategy 2000 Study, PGE/RD has a heavy workload in liaison work at senior level and decision making on planning, technical and other implementation issues. It is not possible for him to take on the responsibilities of PM/HZMB on top of his own schedule.

8. PGE/RD is supported by two GEs who are underpinned by six CEs and a supporting team. He is managing five major railway projects under construction for completion between 2014 and 2020. He is also undertaking the Review and Update of the Railway Development Strategy 2000 Study and providing suggestions for the planning and implementation of future new railway projects. New railway projects have been recommended for planning and implementation. All directorate staff have to be fully committed to the tasks as mentioned above, and will not have spare capacity to share other offices' duties. The key duties of the CEs are set out below –

- (a) CE/RD1-1 is responsible for the implementation of the South Island Line (East) which commenced construction in May 2011 for completion in end 2015. The 7-km long railway connects the MTR network at Admiralty to the Southern District of Hong Kong, via new stations at Ocean Park, Wong Chuk Hang, Lei Tung and South Horizons. Implementation of the railway is very complicated requiring close liaison and negotiation with various stakeholders, careful planning of temporary works and sophisticated building

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monitoring, all of which require professional and directorate attention. CE/RD1-1 also participates in the planning work of the current Review and Update of the Railway Development Strategy 2000 Study. Furthermore, CE/RD1-1 undertakes the implementation of numerous station improvement works proposed by the MTRCL and the public infrastructure works related to railway operation.

- (b) CE/RD1-2 is responsible for the planning and implementation of the North-South Line of the Shatin to Central Link (SCL), which extends the existing East Rail Line across Victoria Harbour to Admiralty via the Wan Chai North Area, and the public infrastructure works related to railway operation. The design and construction of the Cross-harbour Section of the SCL is extremely challenging as the SCL tunnel will interface with the Central-Wan Chai Bypass and the Wan Chai Development Phase II works, all of which are mega projects which are being constructed within congested workspace in the urban area and are under very tight construction schedules. The complex interface and technical problems require efforts of directorate staff to resolve.
- (c) CE/RD1-3<sup>6</sup> is responsible for implementation of the 11-km long East-West Line of the SCL and the 2.6-km long Kwun Tong Line Extension, both of which are under active construction. Both projects are being carried out in highly concentrated districts including Sha Tin, Wong Tai Sin, Kowloon City and Yau Tsim Mong. The construction works are extremely complicated involving substantive interface with operating railways and the public. The management of these projects requires professional and directorate input and attention.
- (d) CE/RD2-1 is responsible for the implementation of the West Island Line (WIL) and a number of public infrastructure works related to railway operation. As WIL works are carried out in the highly concentrated Central and Western District, problems encountered in difficult ground conditions and congested site restraint will have impact on the works programme. Negotiation with stakeholders on careful engineering planning, comprehensive building monitoring, as well as land and community facilities re-provisioning issues require close professional and directorate attention. CE/RD2-1 also participates in the planning work of the current Review and Update of the Railway Development Strategy 2000 Study.

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6 Occupying a supernumerary post created in April 2009 with the approval of the Finance Committee (FC) for a period of seven years.

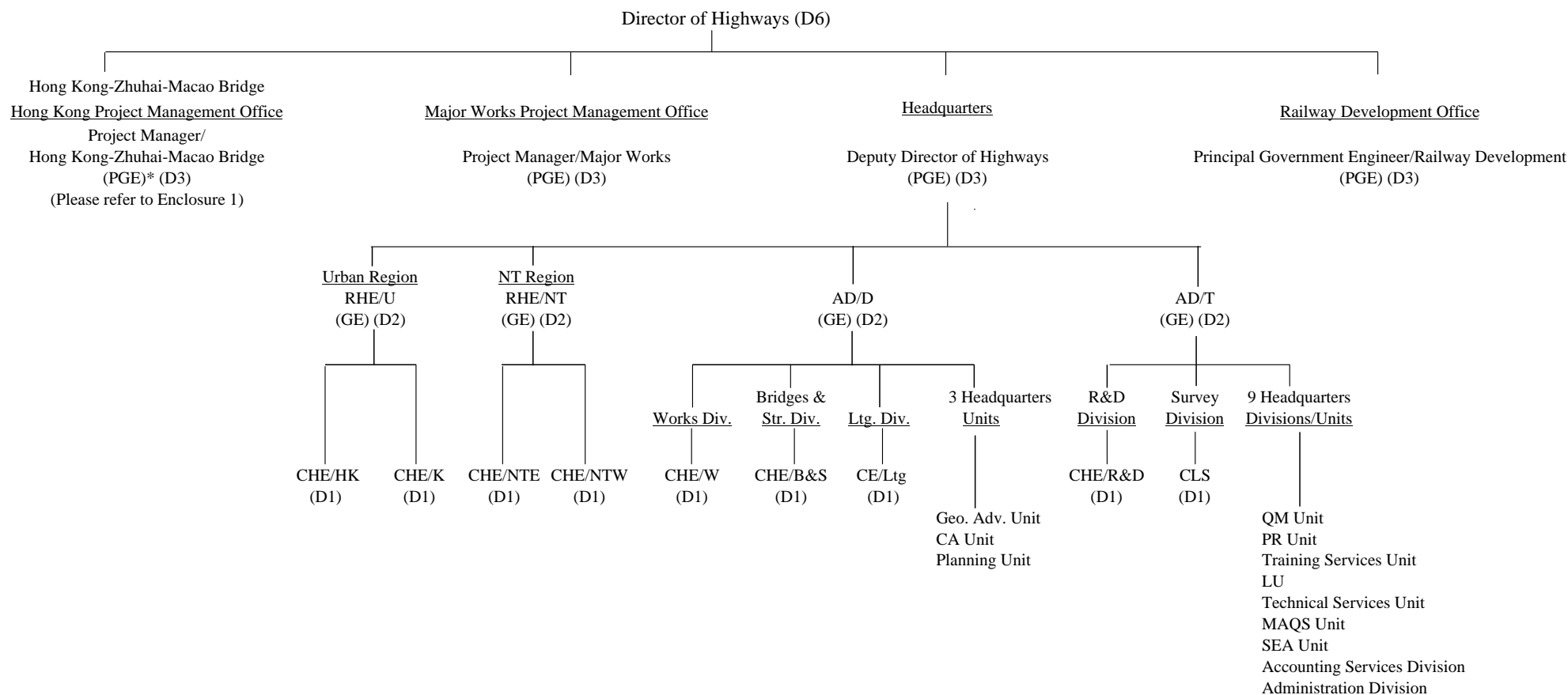
- (e) CE/RD2-2 is responsible for administering the consultancy study for the Review and Update of the Railway Development Strategy 2000 and the follow-up actions in assisting the Transport and Housing Bureau in formulating the railway development blueprint. He is also responsible for administering the railway transport model, which involves the maintenance of a comprehensive database of transport statistics, and collation of key planning and land use information to generate forecasts on rail patronage and revenue for different railway network configuration with different socio-economic and developments assumptions. Apart from transport modelling work, he has to examine all public and private development proposals, about 150 in number per annum, near the existing and planned railway lines so that these railway lines would be properly protected. He also needs to take part in the various planning and development studies and provide railway perspective.
  
- (f) CE/RD2-3<sup>7</sup> is responsible for the implementation of the Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link. Construction of the project is in full swing for completion in 2015. Other than overseeing the complicated interfaces with the other public infrastructure works projects, he is required to have close liaison with the Mainland counterparts for the complex cross-boundary interfaced works and operation issues. He also needs to liaise with the policy bureau and the railway corporations. These responsibilities require extensive professional and directorate input and attention.

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<sup>7</sup> Occupying a supernumerary post created in July 2008 with the approval of FC for a period of seven years.

## Existing Organisation Chart of Headquarters of Highways Department



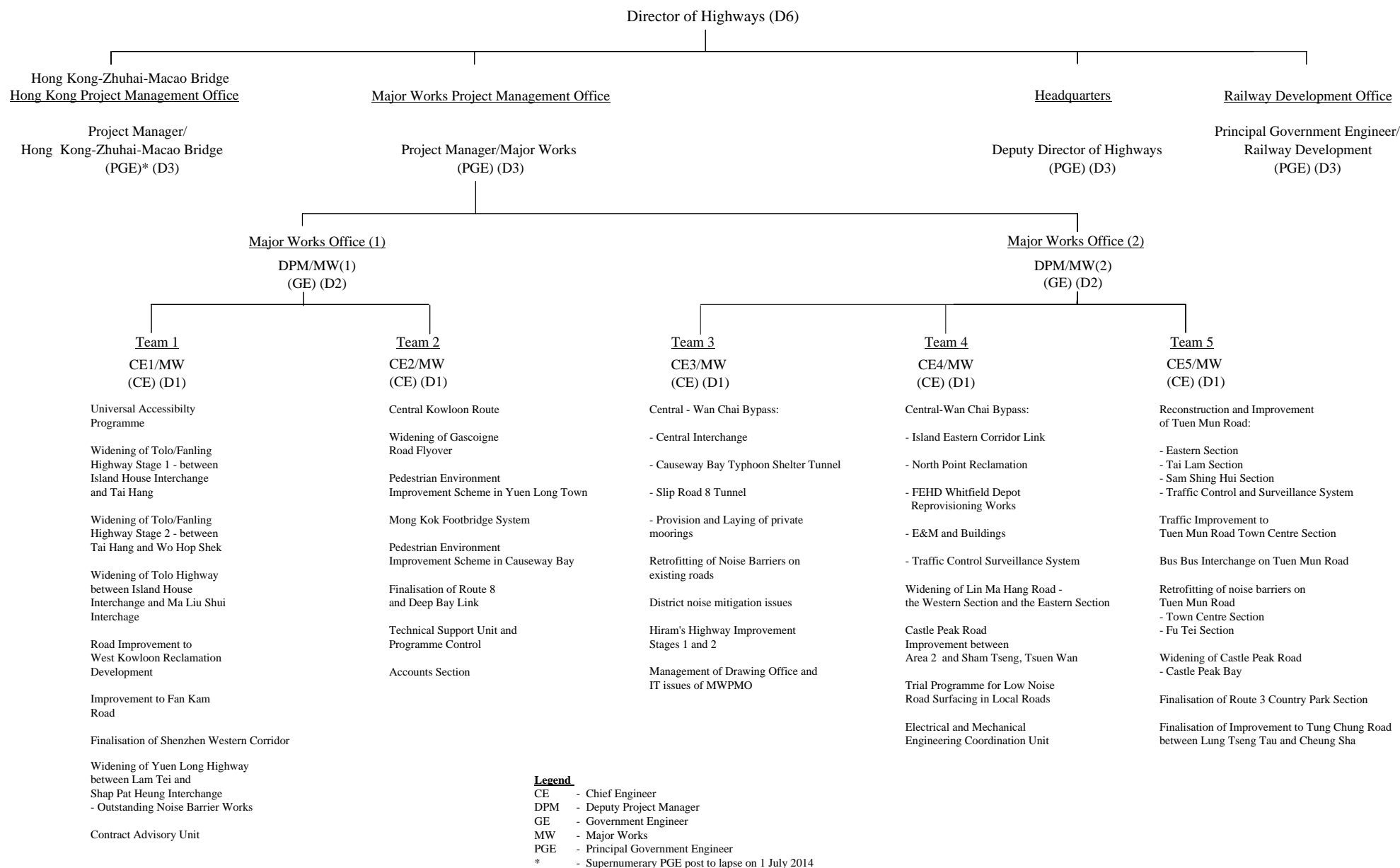
### Legend

AD/D - Assistant Director/Development  
 AD/T - Assistant Director/Technical  
 B&S - Bridges and Structures  
 CA - Contract Advisory  
 CE - Chief Engineer  
 CHE - Chief Highway Engineer  
 CLS - Chief Land Surveyor  
 Div. - Division  
 GE - Government Engineer  
 Geo. Adv. - Geotechnical Advisory

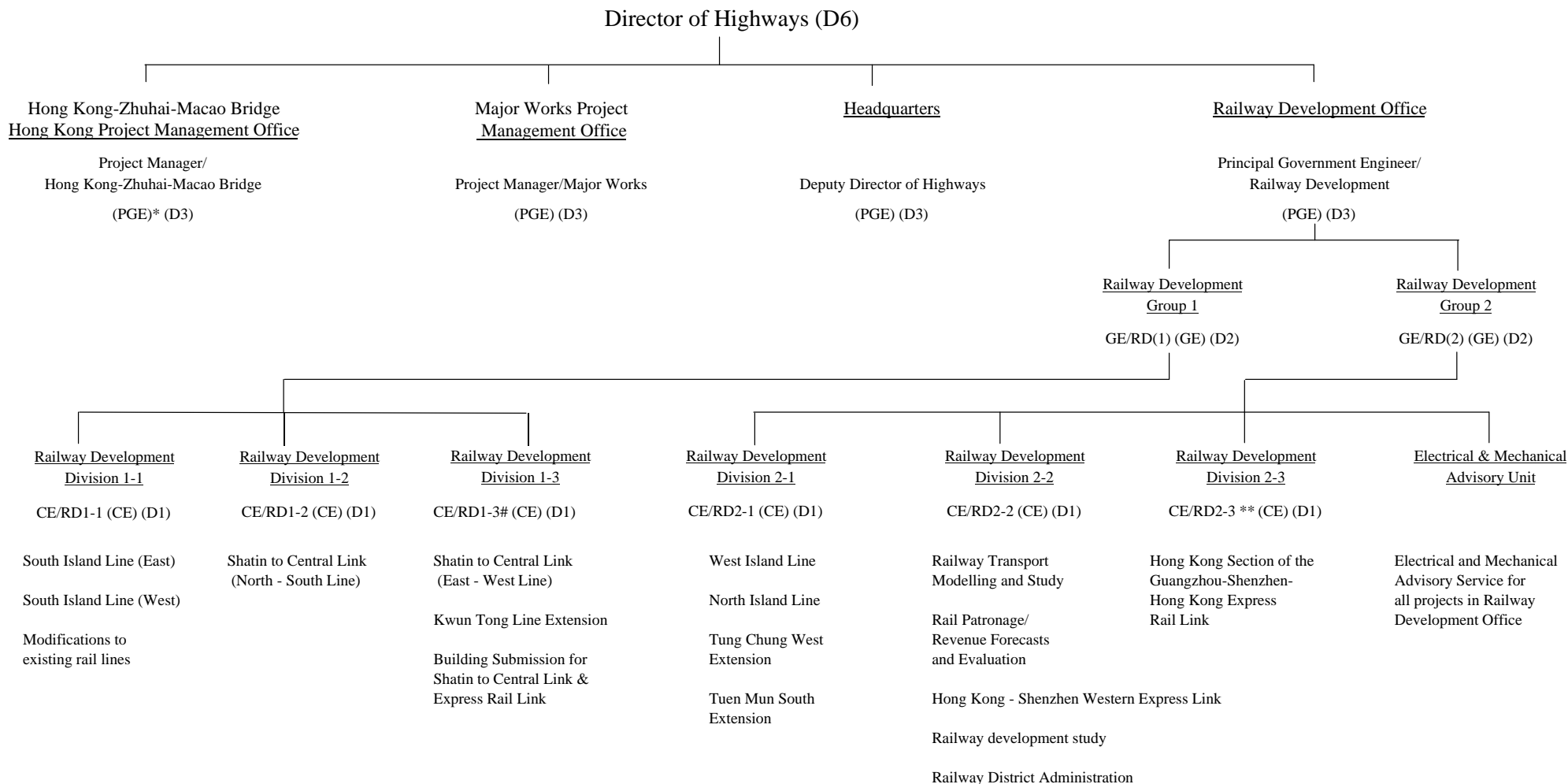
HK - Hong Kong  
 K - Kowloon  
 Ltg. - Lighting  
 LU - Landscape Unit  
 MAQS - Maintenance Accounts & Quantity Surveying  
 NT - New Territories  
 NTE - New Territories East  
 NTW - New Territories West  
 PGE - Principal Government Engineer  
 PR - Public Relations

QM - Quality Management  
 R&D - Research and Development  
 RHE - Regional Highway Engineer  
 SEA - Safety and Environmental Advisory  
 Str. - Structures  
 U - Urban  
 W - Works  
 \* - Supernumerary PGE post to lapse on 1 July 2014

## Existing Organisation Chart of Major Works Project Management Office of Highways Department



## Existing Organisation Chart of Railway Development Office of Highways Department



**Legend**

- |     |                                 |    |  |
|-----|---------------------------------|----|--|
| CE  | - Chief Engineer                | *  | - Supernumerary PGE post to lapse on 1 July 2014 |
| GE  | - Government Engineer           | ** | - Supernumerary CE post to lapse on 7 July 2015  |
| PGE | - Principal Government Engineer | #  | - Supernumerary CE post to lapse on 1 April 2016 |
| RD  | - Railway Development           |    |  |