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Legislative Council Panel on Transport

**Staffing proposal for the implementation of the
Hong Kong section of the Guangzhou-Shenzhen-Hong Kong
Express Rail Link**

Purpose

This paper briefs Members on the proposal to create one supernumerary Chief Engineer (CE) (D1) post for seven years in the Railway Development Office (RDO) of the Highways Department (HyD) to take up the planning and implementation of the proposed Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL) project, with effect from 7 July 2008. We plan to submit the proposal to the Establishment Subcommittee of the Finance Committee (FC) for consideration at its meeting on 19 June 2008 and for FC approval on 4 July 2008.

Justification

Policy Commitment

2. The XRL provides an express railway line linking Hong Kong with Shenzhen and Guangzhou. Through the XRL, Hong Kong will be connected to the national high-speed railway network, enabling passengers from Hong Kong to travel to various major Mainland cities.

3. The XRL is one of the ten major infrastructure projects in the 2007 Policy Address. On 22 April 2008, the Executive Council decided to ask the MTR Corporation Limited (MTRCL) to proceed with the further planning and design of the Hong Kong Section of the XRL. The target is to finalize the planning and design work within 2008. Construction will commence in 2009 for the completion earliest in 2014 or 2015.

Need for a Supernumerary CE (D1) Post

4. The RDO is tasked with overseeing the day-to-day planning and implementation of new railway projects including the XRL. It is headed by a

Principal Government Engineer (PGE) (D3) and consists of two groups, each headed by a Government Engineer (GE) (D2). The two groups are underpinned by four teams, each led by a CE, as well as two other supporting teams. The existing and proposed organisation chart of the RDO is at Annex A.

Annex A

5. HyD is currently pressing ahead with various major rail and road projects. In the RDO, apart from the XRL, it is in parallel planning the Shatin to Central Link (SCL), West Island Line (WIL), South Island Line (East) (SIL(E)), Northern Link (NOL) and the proposed Hong Kong-Shenzhen Airport Rail Link (ARL). Many of them are under very tight implementation timetables. The RDO is also overseeing the construction of the Kowloon Southern Link (KSL) and Tseung Kwan O South Station, in addition to administering the railway transport model to facilitate railway planning and implementation.

Hong Kong Section of XRL

6. The Hong Kong section of the XRL is the first high-speed rail project in Hong Kong. It will involve the construction of a 26-km railway tunnel (which will rank amongst one of the longest in the world) from West Kowloon to the boundary and an underground terminus at West Kowloon. Please refer to Annex B for the XRL's alignment plan. Owing to the complexity and scale of the XRL project, it will take about six to seven years to commission the project from now to commissioning, even following a fast-track programme (i.e. by 2014 or 2015).

Annex B

7. The engineering and technical issues involved in the long tunnel of the XRL are more complicated than those of the conventional metro systems. The ventilation points, access adits and emergency rescue station along the tunnel in both urban and rural areas will create a lot of planning, land and interface issues. The West Kowloon Terminus, which is some 25 metres underground with an area of about ten hectares is also an engineering challenge. Its interface with the future West Kowloon Cultural District and its topside development bear important implications on the project completion. All these issues require intensive and constant coordination at senior level with a large number of policy bureaux / departments and the MTRCL.

8. The XRL also requires the RDO to liaise closely with the Mainland authorities, not only on technical issues such as setting of standards, resolving interface issues and ensuring the interoperability of the whole railway, but also on

the mode of operation of the XRL which would have an important bearing on the implementation and financial return of the XRL.

9. Given the urgency of the planning work for the XRL project, one supernumerary CE (D1) post was created on 12 July 2007 under delegated authority for five months to vet the project proposal and coordinate comments from other government departments. The post lapsed on 11 December 2007. However, in view of the growing workload of the RDO, it is necessary to create a dedicated CE post for the XRL throughout its planning and construction stages.

10. The proposed supernumerary CE (D1) post, to be designated as Chief Engineer/Railway Development 2-3 (CE/RD2-3), will be responsible for the planning and implementation of the Hong Kong section of the XRL. The job description is at Annex C.

Annex C

11. We have critically examined the possible redeployment of the existing Chief Engineers (CEs) within the RDO to take on the work of the proposed CE/RD2-3 post. The conclusion is that it is not operationally feasible for them to take up the tasks related to the XRL without affecting the work quality as all of them are fully engaged in different railway projects, as follows –

- (a) CE/Railway Planning (1) is responsible for the implementation of KSL and the WIL. For the KSL, CE/Railway Planning (1) needs to continue his efforts to ensure that this extension of West Rail Line will be commissioned as planned in late 2009 and that it would be subject to effective testing and trials without affecting the services of the existing West Rail Line. The WIL, which is now undergoing detailed design, will have to commence construction in 2009 for completion in 2013 or 2014. It involves the construction of deep tunnels and stations underneath the highly developed and urbanised Central and Western District. There are a variety of difficult interface, land and reprovisioning issues requiring close professional attention (e.g. relocation of the David Trench Rehabilitation Centre and the Kennedy Town Swimming Pool etc.). We consider that a dedicated directorate officer is most essential to take forward the KSL and WIL so that they would be completed as planned;

- (b) CE/Railway Planning (2) is responsible for the planning of the SCL, the further planning and design of which will begin shortly. The SCL will involve construction/modification of altogether nine stations and has complicated planning interfaces with the Kai Tak Development, the Wan Chai Development Phase II reclamation and the Central-Wan Chai Bypass (CWB). Its construction is scheduled to begin in 2010;
- (c) CE/Railway (1) is responsible for the planning of the SIL(E), the construction of which would commence in 2011 for completion no later than 2015. The preliminary design work has started. CE/Railway(1) is also responsible for the planning of the NOL, another project to improve the rail service in Northwestern New Territories. He is keeping in view of the changes in the planning parameters and project assumptions for the NOL and working with parties concerned to see how the project proposals for the NOL should be adjusted to address these changes. He is also providing input into the planning and engineering study on the New Development Areas in the Northeast New Territories to ensure the NOL will be properly integrated with the new developments. Apart from overseeing the planning of these projects, the duties of CE/Railway(1) also include the settlement of the final accounts for the entrustments under various railway projects already commissioned and coordinating the planning and the implementation of about 30 modification proposals of existing railway stations; and
- (d) CE/Technical Services is responsible for administering the railway transport model, maintaining a comprehensive database of transport statistics, and collating key planning and land use information to generate forecasts on rail patronage and revenue for different railway network configuration at different future years with different socio-economic assumptions. He is also responsible for the planning of the proposed ARL, another cross-boundary project announced by the Chief Executive in 2007 Policy Address.

12. As elaborated in paragraph 11 above, the majority of the railway projects under planning will have their construction commencing between 2009 and 2011 for completion in the period of 2013 to 2019. Please refer to Annex D

years or so when the XRL is under planning and implementation, the RDO's existing directorate staff will be fully committed to the tasks as detailed in paragraph 11 above and will not have spare capacity to take up the XRL project.

Non-directorate Support

13. Funding has been secured for the creation of two Senior Engineer (SE) and six Engineer/Assistant Engineer (E/AE) posts for the delivery of various railway projects now under planning in 2008-09. Of these, one SE and three E/AE posts will be deployed to the XRL project. With these additional staff resources and through internal redeployment of these posts, we will establish a dedicated team for the XRL project comprising four SE and six E/AE posts to support the proposed CE/RD2-3.

Other Alternatives Considered

14. We have also considered the possible redeployment of existing directorate officers in other offices within HyD to take on the work of the proposed CE/RD2-3 post. As all the other directorate officers are fully engaged in their respective duties, it is operationally not possible for them to take up the tasks related to the XRL without adversely affecting the discharge of their current duties. The details are set out below -

Headquarters and Regional Offices

15. The four CEs under the Headquarters each heads one Division, namely, Works, Bridges and Structures, Lighting and Research and Development. The four other CEs in the Regional Offices (two in the Urban and two in the NT Regions) are responsible for district administration of infrastructure and maintenance works.

Major Works Project Management Office (MWPMO)

16. There are five CEs in the MWPMO. Their responsibilities are appended below -

- (a) CE/MW1-1 is currently responsible for the planning of widening of Tolo Highway, retrofitting of noise barriers for new roads including Tseung Kwan O Road and Flyover, Kwun Tong Bypass, Hoi On Road, Tsing Tsuen Bridge and Tsuen Wan Approaches and finalization works of Shenzhen Bay Bridge, Deep Bay Link and

Yuen Long Highway;

- (b) CE/MW1-2 is responsible for the construction of Route 8. While part of the Route 8 (Shatin to Cheung Sha Wan) has been opened, his team is required to complete the remaining and most critical stages of the Cheung Sha Wan to Tsing Yi Section. This includes the world's second largest cable stage bridge, i.e. Stonecutters Bridge, which is scheduled for completion in 2009. Thereafter, CE/MW1-2 will work with CE/MW2-1 on the CWB;
- (c) CE/MW1-3 deals with the planning of the Central Kowloon Route (CKR) and retrofitting of noise barriers for existing roads including Tai Wo Road, Sha Tin Road, Wong Uk Tsuen, Tai Po Road, Yuen Wo Road, Fanling Highway, Po Shek Wu Road, Po Lam Road North, Po Ning Road, Ma Wang Road, Chai Wan Road, Tuen Mun Road, Long Tin Road and Castle Peak Road. The CKR team is now focusing on the Environment Impact Audit study, which is a sensitive and political issue;
- (d) CE/MW2-1 is responsible for the planning of the CWB and Island Eastern Corridor Link and finalization of accounts for the Castle Peak Road Improvement Project. Although the progress of the CWB Project is affected by recent judicial reviews, CE/MW2-1 is fully occupied with the follow-up action on the legal proceedings as well as exploring alternatives to proceed with the project; and
- (e) CE/MW2-2 is responsible for the planning of Tuen Mun Road Improvement Project (TMR), Hiram's Highway (HH) and Tung Chung Road Improvement Project. The TMR Project is anticipated to commence in the second half of this year and will be commissioned in 2014 the earliest. The HH project is currently planned to commence construction works in end 2010 for completion in end 2013.

17. In view of the fact that the workload for all the five CEs in MWPMO will increase significantly in the coming years, there is no scope of reshuffling their duties so as to release resources to handle the XRL. It should also be noted that extensive public consultation / engagement exercises have to be conducted in bringing forward any major infrastructure project. Highway proposals are no exception. Our experience on CKR, CWB, HH and TMR reflects that heavy staff resources not previously allowed for are now required to ensure proper project planning.

Hong Kong-Zhuhai-Macao Bridge Hong Kong Project Management Office
(HZMB HKPMO)

18. The HZMB HKPMO is led by a PGE, who is assisted by two CEs (one CE redeployed from the MWPMO and the other is a supernumerary CE post created, both up to 30 June 2010). The momentum for the project has picked up considerably. The CEs are fully occupied with the feasibility study, advanced technical studies and implementation arrangements for the HZMB, the preliminary design and various impact assessments on the Hong Kong Boundary Crossing Facilities and the connecting road in association with the HZMB. They are also responsible for the implementation of the Tuen Mun Western Bypass and the Tuen Mun - Chek Lap Kok Link, which is some 17-km long highway connecting Northwestern New Territories with the Hong Kong International Airport.

19. In the light of the stringent manpower situation in HyD, we consider that the proposed creation of the supernumerary CE post is the only viable arrangement to ensure the proper planning and implementation of the XRL. The existing organisation chart of HyD is at Annex E.

Annex E

Financial Implications

20. The proposed creation of the supernumerary CE post will bring about an additional notional annual salary cost at mid-point of \$1,201,200. The additional cost expressed in terms of full annual average staff cost, including salaries and staff on-costs, amounts to \$1,765,000.

21. In addition, the planning and implementation of the XRL project will necessitate the creation of four additional non-directorate posts, as set out in paragraph 13 above, at a notional annual mid-point salary cost of \$2,571,090 and the full annual average staff cost of \$4,986,000.

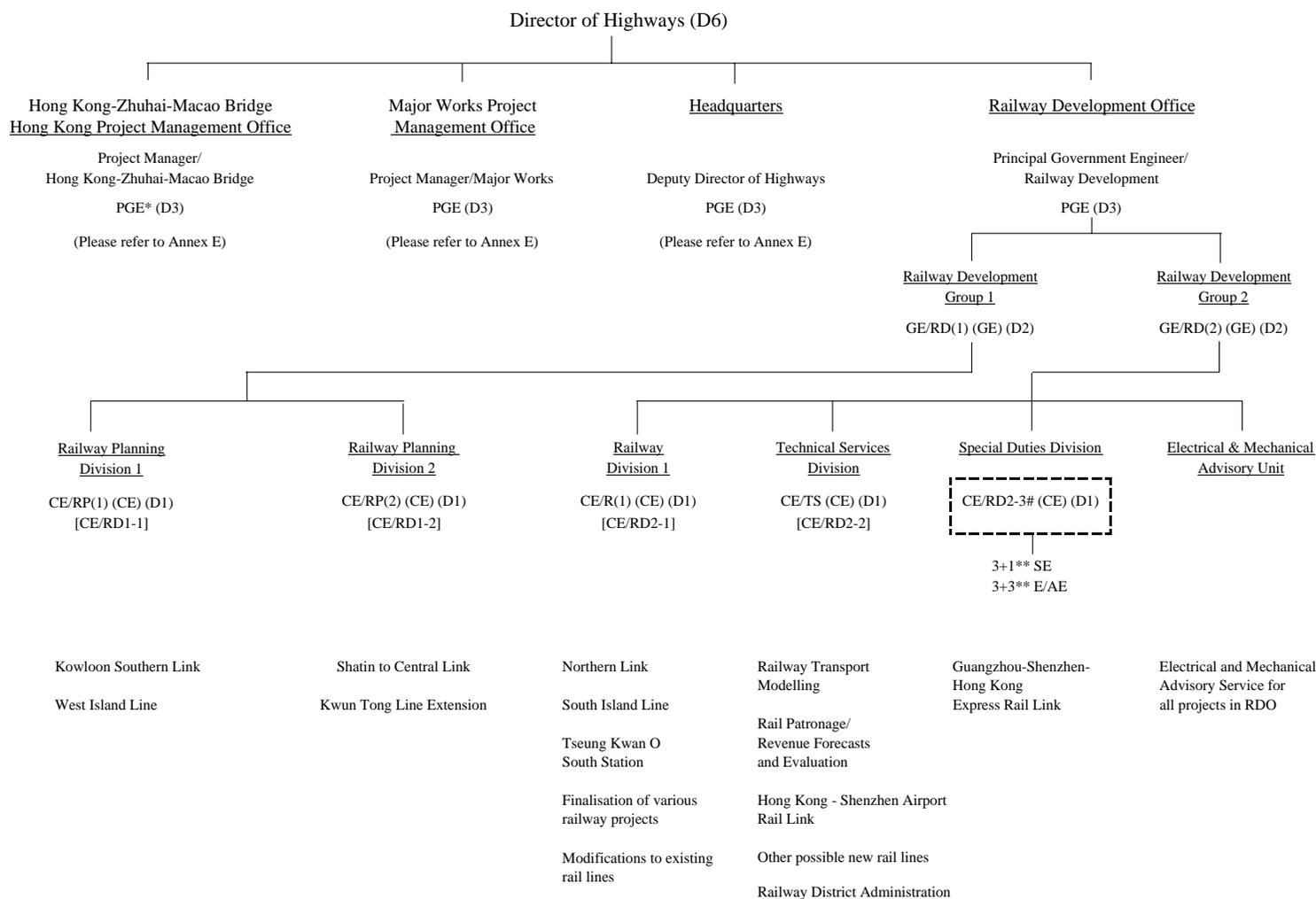
22. We have included sufficient provision in the Estimates of 2008-09 under Head 60 – HyD to meet the cost of this proposal. The proposal is covered in ECI(2007-08)8 on “Update on Overall Directorate Establishment Position” as a possible staffing requirement which was then under review.

Advice Sought

23. Members are invited to give their views on this paper and indicate support for the staffing proposal.

**Transport and Housing Bureau
May 2008**

Existing and Proposed Organisation Chart of Railway Development Office, Highways Department



Legend

CE - Chief Engineer
E/AE - Engineer/Assistant Engineer
GE - Government Engineer
PGE - Principal Government Engineer
R - Railway

RD - Railway Development
RP - Railway Planning
SE - Senior Engineer
TS - Technical Services

[#] - Supernumerary post proposed to be created from 7 July 2008 to 6 July 2015
[] - Post title renamed with effect from 7 July 2008
* - Supernumerary post to lapse on 1 July 2010
** - new posts to be created in 2008-09 and subject to review in 2015-16



圖則名稱 drawing title

廣深港高速鐵路香港段中線方案

CENTRAL ALIGNMENT SCHEME FOR HONG KONG SECTION OF XRL

**Job Description for
Chief Engineer/Railway Development 2-3 (CE/RD2-3)**

Rank : Chief Engineer (D1)
Responsible to : Government Engineer/Railway Development (2)

Overall Role and Objectives -

CE/RD2-3 heads a Division of the Railway Development Office and is responsible for the planning and implementation of the Hong Kong section of the Guangzhou – Shenzhen – Hong Kong Express Rail Link (XRL) project, including the associated Essential Public Infrastructure Works (EPIW), e.g. passenger linkage to the West Kowloon terminus.

Major Duties and Responsibilities -

1. Leading and directing subordinates in the planning, design and implementation of the XRL.
2. Liaising with the Mainland authorities on planning, technical, financial and operational aspects of the XRL.
3. Administering any Public Works Programme items relating to the XRL, including the associated EPIW, e.g. passenger linkage to the West Kowloon terminus.
4. Preparing and administering the entrustment agreement/project agreement with the railway corporation, and resolving claims and disputes raised by the railway corporation.
5. Monitoring the railway corporation on the adoption of appropriate strategy, procedures and programmes on the engineering and financial aspects of the XRL.
6. Preparing the statutory process in the gazettal of the schemes under relevant ordinances.
7. Coordinating with other government bureaux/departments and resolving interfacing matters related to the XRL.

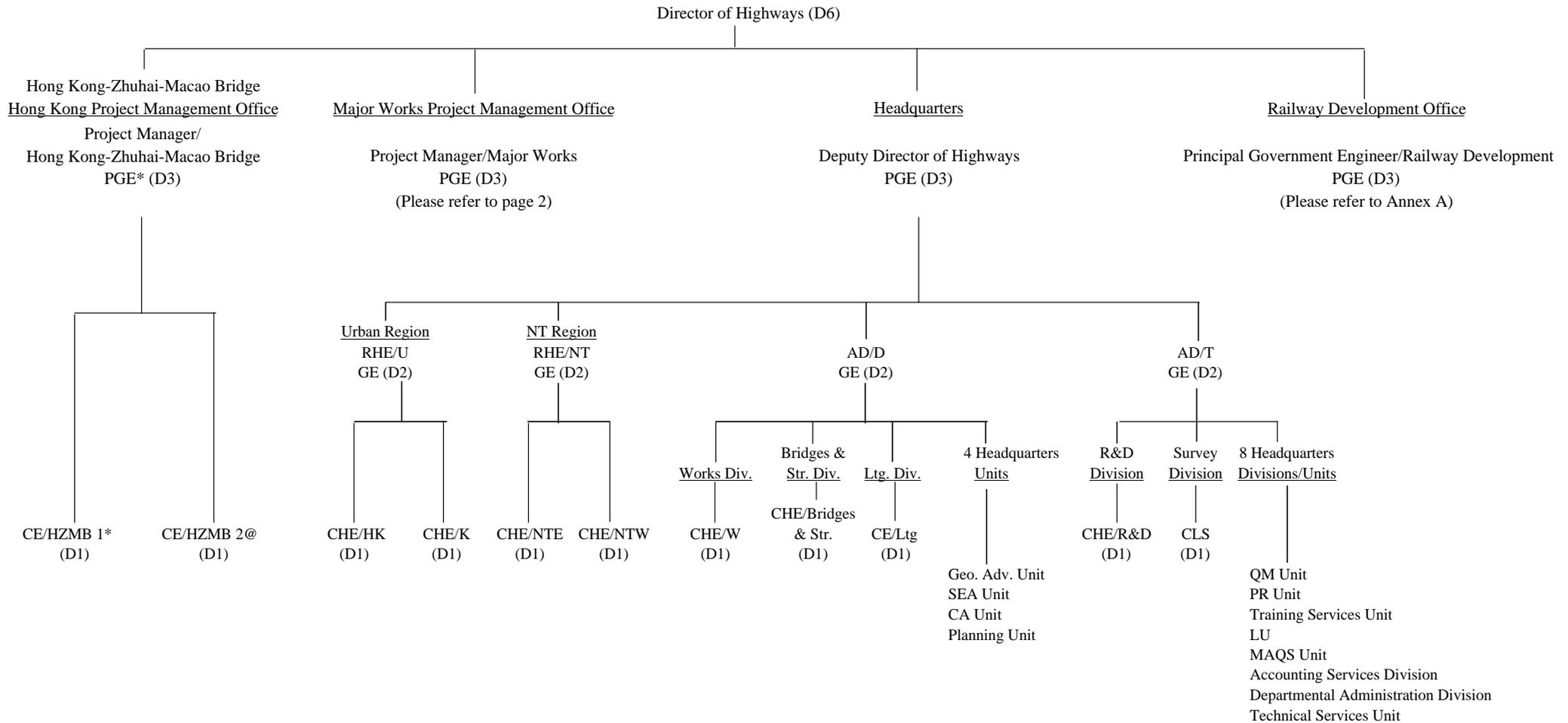
Indicative Implementation Schedule of Railway Projects under Construction / Planning**興建 / 規劃中的鐵路工程示意實施時間表**

| Railway Projects 鐵路工程 | | Approx. Project Cost (\$billion) 大約工程費用 (十億元) | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | | |
|---------------------------|---|---|---|--------------------|------|--------------------|------|------|------|------|------|------|------|------|------|--|--|
| Under Construction 興建中 | Kowloon Southern Link 九龍南線 | 8 (MOD) (當日價格) | [Construction bar] | | | | | | | | | | | | | | |
| | Tseung Kwan O South Station 將軍澳南站 | 1 (MOD) (當日價格) | [Construction bar] | | | | | | | | | | | | | | |
| Under Planning 規劃中 | Hong Kong Section of Guangzhou-Shenzhen-Hong Kong Express Rail Link 廣深港高速鐵路香港段 | 39.5 (2009 prices) (2009年價格) | [Planning bar] | [Construction bar] | | | | | | | | | | | | | |
| | Shatin to Central Link 沙田至中環線 | 37.4 (2007 prices) (2007年價格) | [Planning bar] | | | [Construction bar] | | | | | | | | | | | |
| | Kwun Tong Line Extension 觀塘線延線 | 4.2 (2007 prices) (2007年價格) | [Planning bar] | | | [Construction bar] | | | | | | | | | | | |
| | West Island Line 西港島線 | 8.9 (2006 prices) (2006年價格) | [Planning bar] | [Construction bar] | | | | | | | | | | | | | |
| | South Island Line (East) 南港島線(東段) | >7 | [Planning bar] | | | [Construction bar] | | | | | | | | | | | |
| | Northern Link 北環線 | Under Review 檢討中 | Implementation Programme Under Review 實施時間表檢討中 | | | | | | | | | | | | | | |
| | Hong Kong-Shenzhen Airport Rail Link 港深機場軌道聯絡線 | | Implementation Programme Under Review 實施時間表檢討中 | | | | | | | | | | | | | | |

Legend 圖例:

- Planning 規劃
- Construction 興建

Existing Organisation Chart of Highways Department



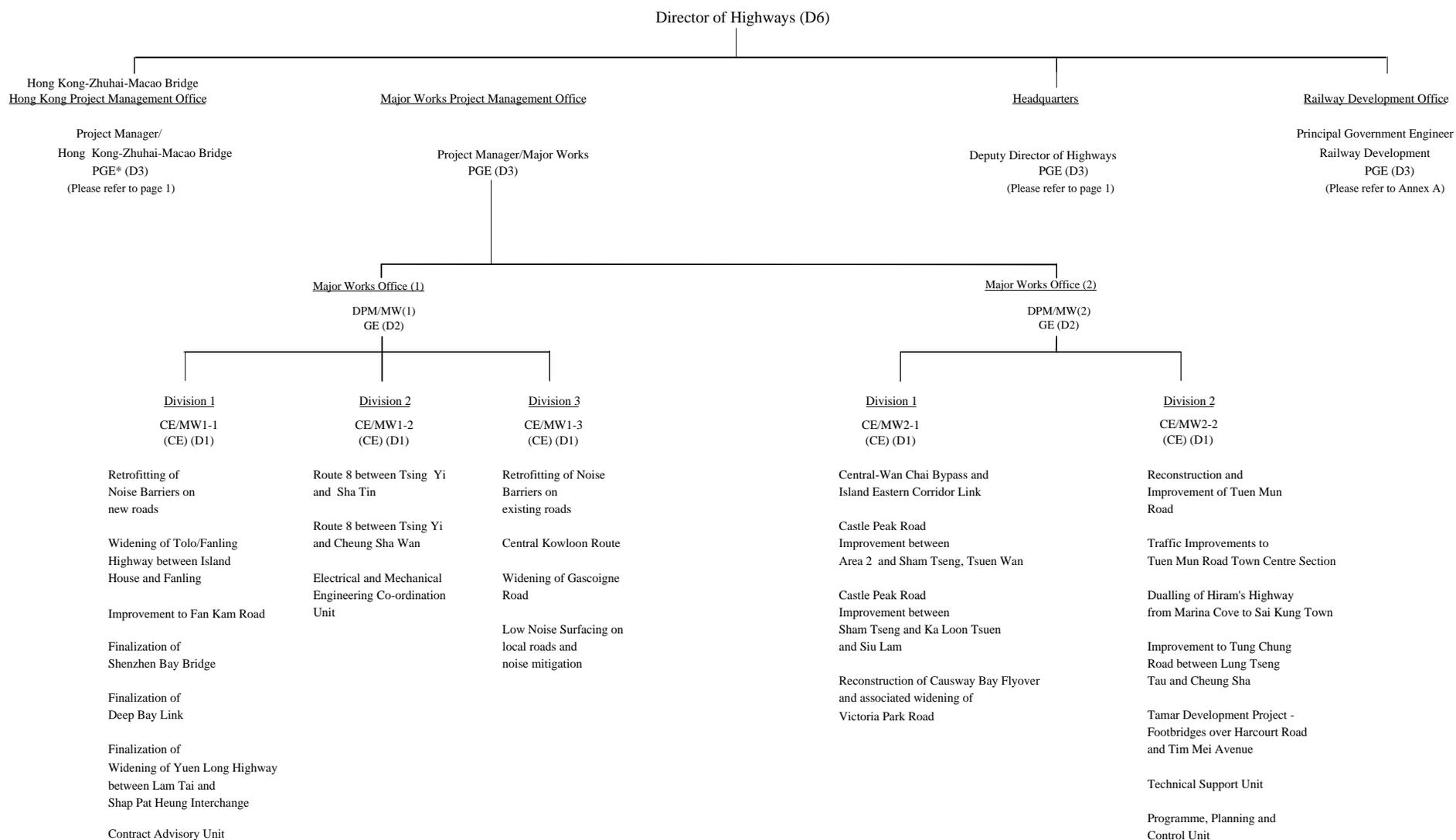
Legend

AD/D - Assistant Director/Development
 AD/T - Assistant Director/Technical
 CA - Contract Advisory
 CE - Chief Engineer
 CHE - Chief Highway Engineer
 CLS - Chief Land Surveyor
 Div. - Division
 Geo. Adv. - Geotechnical Advisory
 GE - Government Engineer
 HK - Hong Kong
 HZMB - Hong Kong-Zhuhai-Macao Bridge

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 posts of 1 PGE and 1 CE to lapse on 1 July 2010
 @ - 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 2010

Existing Organisation Chart of Highways Department

Legend

- PGE - Principal Government Engineer
- CE - Chief Engineer
- DPM - Deputy Project Manager
- GE - Government Engineer
- MW - Major Works
- * - Supernumerary post to lapse on 1 July 2010