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7 June 2017
(Fax No : 2840 0269)

Panel on Transport
Legislative Council Secretariat
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong
(Attn: Ms Doris LO)

Dear Ms Lo,

Panel on Transport

**PWP Item No. 461TH
Central Kowloon Route – Main Works**

**Motions passed at the meeting on 17 March 2017
on Central Kowloon Route (“CKR”) project**

Thank you for your letter of 20 March 2017 to the Secretary for Transport and Housing regarding the captioned issue, requesting the Government to follow up the following four motions passed under 461TH – “Central Kowloon Route – Main Works” –

- (i) To address public demands concerning the impacts on health and safety, this Panel requests that the following improvements must be made:
 - 1. replacing the semi-enclosure along the Gascoigne Road Flyover (“GRF”) fronting Blocks 1 to 5 of Prosperous Garden (“PG”) with a full enclosure;

2. extending the full enclosure fronting Block 3 of PG northwards beyond Yaumati Catholic Primary School (“YMTCPs”), since primary school students should not be educated in a confined space and their physical and psychological health must be protected; and
 3. ensuring that the noise and air quality levels generated by related works are not in violation of the existing environmental requirements.
- (ii) This Panel requests the Administration to, under the CKR project, consider duly extending the full enclosure to be installed along the GRF near the PG, so as to protect residents of the PG from noise nuisance and reduce air pollution of the district, thereby safeguarding the residents’ health.
- (iii) This Panel requests that the full enclosure be extended 230 metres southwards continuously from YMTCPs to Yau Ma Tei Police Station, followed by a semi-enclosure along certain road sections and then another full enclosure along a further 230 metres, so as to achieve a win-win situation.
- (iv) This Panel requests the Administration to make proper arrangements regarding the transitional arrangement after the demolition of the Yau Ma Tei public car park and the reprovisioning plan for the car park, and provide specific data on the parking spaces in the district before commencing the CKR project.

Our responses to the above motions are as follows –

Request for installing additional noise enclosures along the Gascoigne Road Flyover (“GRF”) fronting the Prosperous Garden

2. Three of the motions passed by Members involve replacing the semi-enclosure for the section of the existing GRF fronting Blocks 1 and 5 of PG with a full noise enclosure (the “**Central Full Enclosure**”); and extending the full noise enclosure adjacent to Blocks 3 and 4 of PG northward beyond the YMTCPs (the “**Northern Extension**”).

Requirements under the Environmental Impact Assessment

3. The CKR is a designated project under the Environmental Impact Assessment Ordinance (“EIAO”) (Chapter 499) and the Highways Department (“HyD”) has conducted an Environmental Impact Assessment (“EIA”) for the CKR in accordance with the requirements of the Technical Memorandum on Environmental Impact Assessment Process (“EIAO-TM”) and the Environmental Impact Assessment Study Brief (“SB”). The HyD has made available the EIA report, including the proposed mitigation measures, for public inspection and comment in accordance with the EIAO. The report complies with the statutory requirements (including the air quality objectives) applicable at that time and was approved by the Environmental Protection Department (“EPD”) with conditions¹ on 11 July 2013 in accordance with the EIAO after vetting by the Advisory Council on the Environment. The EPD also issued the Environmental Permit (“EP”) for the CKR under the EIAO on 9 August 2013.

4. On noise impact assessment concerning PG, the noise mitigation measures recommended under the CKR project along the GRF near PG, as shown at **Annex 1**, comprise mainly (i) an about 145m long semi-enclosure² covering the section of the existing GRF fronting Blocks 1 and 5 of PG; (ii) an about 110m long full noise enclosure covering the section of the existing GRF fronting Blocks 2 and 3 of PG; and (iii) an about 200m long full noise enclosure to the east of the semi-enclosure. With the implementation of the mitigation measures recommended in the EIA report, the CKR not only complies with the statutory requirements in EIAO, but it will also benefit about 1,600 dwellings in Yau Ma Tei, including around 700 dwellings of PG. Their noise level will be reduced by 10 dB(A) at most and 3 dB(A) on average as compared with the scenario without the CKR. In addition, the noise generated by the project roads of the CKR to the YMTCPs would not exceed 65 dB(A), complying with the requirements under the relevant legislations and guidelines. Furthermore, the classroom noise level at the YMTCPs has already been reduced to acceptable level by provision of acoustic window insulation and air conditioning under the School Insulation Programme of the Education Bureau.

¹ The conditions include setting up community liaison groups and incorporating more innovative and greening features for the landscape decks and ventilation buildings.

² The about 145m long semi-enclosure comprises two parts, including (i) a section of semi-enclosure of about 100m long covering mainly the eastbound traffic lane, and (ii) a section of semi-enclosure of about 45m long with both traffic bounds covered leaving about 2m tall vertical openings on the vertical side of the south side of the enclosure fronting Yan Cheung Road and farther away from PG.

5. On air quality impact assessment, the Air Pollution Control (Amendment) Ordinance 2013 passed by the Legislative Council (“LegCo”) on 10 July 2013 stated that the updated Air Quality Objectives came into effect on 1 January 2014. As the EIA process for the CKR was completed in August 2013, the construction and operation of the CKR should be in accordance with the statutory requirements applicable at the time when the EIA report was approved in 2013. As such, the updated Air Quality Objectives effective since 1 January 2014 were not applicable at the time when the EIA report for the CKR was approved in 2013. The EIA report of the CKR revealed that with the implementation of recommended mitigation measures, the environmental impact arising from the operation of the CKR (including the western tunnel portal), including the noise and air quality aspects, would comply with the various statutory requirements.

6. The HyD has adopted a number of mitigation measures for the design at the western tunnel portal of the CKR to minimize the environmental impact of the project. According to the current design, a landscaped deck would be constructed at the western tunnel portal to cover an about 250m long section of the mainline and a section of Hoi Wang Road between Waterloo Road and Yan Cheung Road to minimize the environmental impact of the tunnel portal. The proposed western tunnel portal is about 350m away from PG. We have also relocated the ventilation building from the original location near Ferry Street to the Yau Ma Tei Interchange of the West Kowloon Highway, increasing the distance between the ventilation building and PG from 120m to 570m.

7. Under the CKR project, we will install air purification system at three ventilation buildings at Yau Ma Tei, Ho Man Tin and Kai Tak Development to filter at least 80% of the nitrogen dioxide and respirable suspended particulates away from vehicular exhaust of the traffic in tunnel. Furthermore, the CKR is mainly in the form of tunnel, together with its function as an alternative expressway, it can significantly reduce the traffic flow at-grade and traffic congestion, reducing the air pollution and noise nuisance generated by vehicles, hence bringing overall environmental benefits. It is estimated that the project can help reduce annual emission of some 20 000 tonnes of carbon dioxide, equivalent to that absorbed by 860 000 new trees per year (covering an area of over 160 numbers of Kowloon Park), 18 tonnes of nitrogen oxides and 2 tonnes of respirable suspended particulates after the commissioning of the CKR.

Additional Noise Enclosures on GRF beyond the EIAO requirements

8. Since the first round of public engagement conducted by HyD in 2007, the HyD learnt that the residents in Yau Ma Tei were concerned about existing traffic noise of GRF and wished to install noise enclosures or noise

barriers on existing GRF. The HyD explained at that time that as the design of the main portion of GRF was carried out more than 10 years ago, the design standard at that time did not allow for capacity for future wind loads caused by additional noise enclosures or noise barriers. From a technical point of view, noise enclosure or noise barrier exceeding the structural capacity of the flyover could not be installed on the existing GRF.

9. The HyD subsequently conducted the EIA in the design stage in accordance with the EIAO and optimized the design of the CKR after taking into account the results of the EIA. As the tunnel portion of the CKR will be constructed underneath the foundation of Kansu Street section of GRF, the affected portion of the flyover will be underpinned or re-constructed. In addition, the Ferry Street section of GRF extending from Tung Kun Street to Kansu Street will be modified due to the construction of the CKR. The HyD will install noise enclosures and noise barriers at these two sections of flyover in accordance with the requirements of the EIA.

10. During the second round public engagement that commenced in December 2012, the HyD introduced to the Yau Tsim Mong District Council (“YTMD”) and the residents along the alignment the proposed noise mitigation measures at the GRF fronting PG. We learnt about the requests from PG residents for the Central Full Enclosure and Northern Extension during the public engagement exercise. Subsequently, the concern group, YTMD and some LegCo members also expressed repeatedly these requests. The YTMD passed motions at the meetings held on 12 December 2013 and 12 January 2016 respectively for the above requests. Over the years, PG residents have been expressing their requests to LegCo Members, and Government representatives have attended six LegCo case conferences and one site visit for their requests since January 2009.

11. We gazetted the road scheme for the proposed works of the project and the subsequent amendment scheme (to suit the design developments and to indicate the exact extent of creation of easement and other permanent rights in some land lots) under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) (“Roads Ordinance”) in November 2013 and March 2015 respectively. During the two statutory periods, we also received objections raised by those who were concerned about the environmental impact of the CKR on PG, requesting for the installation of the Central Full Enclosure and the Northern Extension.

12. We have explained many times in the public engagement activities and in handling the objections under the Roads Ordinance in the past that the Central Full Enclosure and the Northern Extension are not required under the EP.

As such, these two full enclosures are not within the project scope of the CKR project. In response to the proposals from the public and the YTMDC, the HyD has duly considered the two requests from PG residents in terms of structure, traffic safety, fire and cost effectiveness, etc. and explained in details on various occasions and via different channels to those concerned about the environmental impact of the CKR on PG the following justifications for not recommending to accommodate the two requests.

The Central Full Enclosure

13. On noise abatement performance, the Central Full Enclosure would not have additional road traffic noise mitigation effect on residential units on lower floors, and would only reduce the traffic noise level of three units on middle and upper floors who will already be protected³ by the mitigation measures originally proposed under the CKR project (the noise level of which will not be more than 70 dB(A)) by 1.0 dB(A). There would be no significant changes to the noise level of other dwellings. On air quality, there would be no significant change in general. The EIA results showed that the operation of the CKR would comply with the statutory requirements for air quality (including Air Quality Objectives) applicable at the time the EP was issued.

14. Since the existing GRF structure could not support the extra loadings of the full enclosure, standalone supporting structures would be required. The junction layout between Ferry Street and Kansu Street would need to be modified by reducing the number of traffic lanes of Kansu Street from three to two in order to accommodate the standalone supporting structures. Furthermore, the standalone supporting structures might block the sight lines of drivers, thus affecting road safety. The standalone supporting structures would also affect the existing open space and trees to the west of Yau Ma Tei Police Station. The installation of a full enclosure at the concerned location would have adverse visual impact on the visual sensitive receivers in the vicinity (including residential units on the lower floors of PG). As such, the overall design of the Central Full Enclosure is not satisfactory.

15. Furthermore, the additional construction cost is about \$250 million based on very preliminary assessment at the time of response to PG residents in 2013 (the cost estimate in September 2016 prices is about \$330 million and that in money-of-the-day (“MOD”) prices is about \$480 million). The Central Full Enclosure does not only lack environmental effectiveness, but its construction cost is also high; hence it is considered not cost-effective. Besides, as

³ Flats protected refer to flats originally being exposed to traffic noise above 70 dB(A) and their mitigated noise levels are reduced to 70 dB(A) or below after the implementation of the noise abatement measures.

mentioned at the LegCo case conference of 23 January 2017 and the LegCo Panel on Transport meeting on 17 March 2017, the HyD assessed that replacing the semi-enclosure for the whole section of the existing GRF fronting Blocks 1 and 5 of PG with a full enclosure would render the total length of the fully enclosed road section along GRF to exceed 230m; and in which case, in order to comply with Fire Services Department's ("FSD") "Codes of Practice for Minimum Fire Service Installations and Equipment", extra fire services installation and equipment will be required for the said road section (including an extensive dynamic smoke extraction system and fire protected escape passage). Hence, the Central Full Enclosure is technically infeasible.

The Northern Extension

16. The Northern Extension is not within the project scope of the CKR project. Furthermore, the construction cost of the some 60m long Northern Extension beyond the YMTCPs would be about \$350 million based on very preliminary assessment at the time of response to PG residents in 2014 (the cost estimate in September 2016 prices is about \$450 million and that in MOD prices is about \$640 million), and it would only benefit about 50 additional residential units of PG facing GRF by reducing the noise level by 1.0 dB(A) or above. Given the high construction cost and the limited number of residential units which could be benefited⁴, the Northern Extension is considered not cost-effective. In fact, with the implementation of the mitigation measures in the EIA report, the noise level of the residents of Blocks 3 and 4 of PG can already be reduced by up to 7 dB(A).

Impacts of accommodating the above two requests

17. Since these two noise enclosures are neither required under the EP nor within the project scope of the CKR project, if it is to incorporate the two requests into the scope of the CKR project, the proposal would require gazettal and obtaining authorization to the amended scheme again under the Roads Ordinance, in order to implement the amended scheme. Taking into account the time required for the statutory and administration procedures, the implementation of the CKR project would be delayed by at least about 2 years. The residents to be benefited by the CKR could not be benefited as scheduled, including the economic benefit of some \$3 billion per year resulted from the travel time saving, the environmental and other non-measurable benefits. Also, the project cost is expected to increase by about \$2 billion per year due to inflation.

⁴ Flats benefited refer to flats being exposed to traffic noise above 70 dB(A) and their mitigated noise levels are reduced by 1.0 dB(A) or more after the implementation of the noise abatement measures.

18. In view of the above considerations and based on the principle of prudent use of public funds, there is no justification for accommodating the two requests under the CKR project.

19. We have explained many times on different occasions via various channels to those concerned about the environmental impact of the CKR on PG, YTMDC and LegCo about the reasons for not accommodating the two requests. In fact, after implementing the mitigation measures recommended in the EIA report, the traffic noise impact on the residents of PG will be improved as compared with the scenario without the CKR. Nevertheless, the residents and Members still strongly request for the two additional sections of noise enclosures. At the LegCo Panel on Transport meeting held on 17 March 2017, Members generally supported the CKR project. Members also passed the three motions mentioned in the first paragraph above. After balancing the various factors and considering the damage to the community in general if the CKR project were deferred, the Government has repeatedly conducted in-depth examination to come up with a compromise scheme.

Compromise Scheme

20. As expounded in paragraph 24 below, we now propose to implement the Compromise Scheme as a separate public work project (“PWP”) item. Details of the scheme are set out below.

21. Regarding the request for the Central Full Enclosure, based on HyD’s preliminary assessment, about 90m of the 100m long central noise enclosure would need to be converted from covering mainly the eastbound traffic lane to covering carriageways of both bounds to maintain the same further noise reduction effect similar to the request, i.e. an additional 1.0 dB(A) reduction for the three dwellings whose traffic noise level would be reduced to not exceeding 70 dB(A) after the implementation of the mitigation measures under the CKR project, and with no significant change to the air quality. In light of the expectations of the residents and Members on covering the road section of GRF as far as possible, the HyD now proposes to convert the 100m long noise enclosure which originally only covers the eastbound traffic lane to cover both bounds in whole, while having vertical opening on the side fronting Yan Cheung Road farther away from PG to comply with the requirements of FSD. This modification scheme will not render the total length of the fully enclosed road section to exceed 230m. From the line-of-sight of PG, the carriageway of the whole section of GRF fronting PG will be fully covered. However, the implementation of this proposed central enclosure is subject to the availability of resources, the confirmation of detailed engineering feasibility, the completion of statutory procedures and the approval of funding application by

LegCo. In MOD prices, the Forecast Cost per Provisional Design (“FCPD”) of this modification scheme is roughly about \$670 million⁵. If LegCo’s funding approval can be obtained for the construction of the modification scheme in time, some of the noise enclosures/ barriers originally recommended under the CKR EIA report could be replaced with a cost saving of about \$150 million⁶.

22. Regarding the request for the Northern Extension, based on HyD’s preliminary assessment, extending the full enclosure northward by 40m would have similar additional noise mitigation effect as extending by 60m beyond YMTCPs, i.e. benefiting about 50 additional dwellings of PG facing GRF by reducing the noise level by 1.0 dB(A) or above, and is thus considered more preferable from the cost-effectiveness perspective. However, the implementation of this proposed northern extension is subject to the availability of resources, the confirmation of detailed engineering feasibility, the completion of statutory procedures and the approval of funding application by LegCo. The FCPD of the proposed scheme is roughly about \$450 million⁷ (in MOD prices), which is lower than that of the 60m extension scheme.

23. The overall layout plan of the above proposed Compromise Scheme is at **Annex 2**.

24. To avoid delaying the implementation programme of the CKR (please refer to paragraph 17 above for details), we consider that the proposed noise enclosures should be implemented under a separate PWP item. We plan to follow the established PWP procedures (including the confirmation of the feasibility of the project, gazettal and seeking authorization of the scheme under the Roads Ordinance, and seeking funding approval from LegCo, etc.) to implement the project. We will strive to implement the proposed noise enclosure construction works as soon as possible to bring benefit to the affected residents earlier.

⁵ The estimate will be higher or lower than the FCPD as a result of factors including subsequent design development, programme change, construction price level changes, etc.

⁶ The additional cost for this modification scheme is roughly estimated to be about \$520 million. This is slightly higher than that of the Central Full Enclosure mentioned in paragraph 15 above, mainly because the estimated cost in 2013 was based on a very preliminary design at the time while the estimated cost for the current Compromise Scheme is based on a preliminary design with more details.

⁷ The estimate will be higher or lower than the FCPD as a result of factors including subsequent design development, programme change, construction price level changes, etc.

Request for proper arrangements regarding the transitional arrangement after the demolition of the Yau Ma Tei public car park and the reprovisioning plan for the car park

25. As we all know, land resources in Hong Kong are scarce. In general, sites suitable for car park use also have the potential for other development purposes. Integrating public car parks into development projects is the best means to maximise the use of land and bring more benefit to the community as a whole. To this end, we are exploring with relevant bureaux and departments to consider the provision of a certain number of public parking spaces in the future development project at the existing site of the Yau Ma Tei Multi-storey Car Park (“YMTCP”). The actual number of parking spaces to be provided will depend on the planning guidelines, demand for parking spaces, overall parking policy and engineering feasibility at the time when the site is to be developed.

26. In the short and medium terms, we will strive to identify suitable sites in the district for use as temporary car parks to make up for the reduction in parking spaces as a result of the demolition of the YMTCP Building during the construction stage. Firstly, with the concerted efforts of various parties, an additional short-term tenancy (“STT”) car park with about 90 parking spaces for private cars was provided at the junction of Hoi Wang Road and Lai Cheung Road in end-2015.

27. Moreover, we have preliminarily identified a site at the junction of Jordan Road and Lin Cheung Road for temporary car park use. The site is currently being used as a temporary public transport interchange. We are discussing with the District Lands Office to use it as a temporary car park by way of STT upon the completion of a new permanent public transport interchange nearby under the Guangzhou-Shenzhen-Hong Kong Express Rail Link (Hong Kong Section) project. Based on the area of the site, it is estimated that about 700 parking spaces for private cars can be provided, but the actual number will depend on the design and operational mode adopted by the future operator (e.g. valet parking model can provide more parking spaces).

28. Furthermore, there are now also a number of privately operated car parks and STT car parks in Yau Ma Tei which provide public parking spaces that can ease the demand for parking spaces upon the demolition of the YMTCP Building. The utilisation of the YMTCP and the STT car parks in the district is at **Table 1** and the number of public parking spaces provided by the major privately operated car parks nearby is at **Table 2**.

Table 1: Utilisation of public car parks and STT car parks in Yau Ma Tei

Public car park	Number of parking spaces for private cars	Average utilisation rate at peak hours (December 2016)
Yau Ma Tei Car Park Building	750	88%
KX 2666 (Junction of Soy Street and Shanghai Street)	38	63%
KX 2943 (Man Wui Street)	157	71%
KX 3002 (Junction of Hoi Wang Road and Lai Cheung Road)	90	95%
KX 2995 (Yan Cheung Road)	230	88%
Total:	1265	86%

Table 2: Public parking spaces provided by major privately operated car parks in Yau Ma Tei and nearby areas

Location of car park	Number of public parking spaces for private cars
Elements	889
The Victoria Towers	79
China Hong Kong City	213
Park-in Commercial Centre	435
Sun Hing Building	70
Tsan Yung Mansion	57
Austin Tower	125
Hong Kong Scout Centre	530
Miramar Shopping Centre	105
Kowloon Station Car Park	220
Total:	2723

Note: The Transport Department does not have statistics on the utilisation rates of parking spaces provided by privately operated car parks.

29. While we understand that some of the car parks mentioned above are located at some distance away from the YMTCP, we believe that they are close to the destinations of many users of the YMTCP. For motorists whose destinations are located at the west of the YMTCP, such as the area around Ferry Street, the proposed temporary car park at the junction of Jordan Road and Lin Cheung Road would be a convenient choice. Also, motorists going to the south of the YMTCP near Jordan Road can consider using the car park of the Hong Kong Scout Centre which provides 530 parking spaces. As for motorists whose destinations are located at the north-east of the YMTCP near Kwong Wah Hospital, they can also consider using the Park-in Commercial Centre Car Park which provides 435 parking spaces.

30. In fact, Yau Ma Tei, situated at the heart of Kowloon, is served by convenient and well-developed public transport services, including the MTR, franchised buses, minibuses, etc. Motorists driving to Yau Ma Tei can, in most cases, consider commuting by various public transport modes.

Way Forward

31. We will submit the funding application for the PWP Item No. 461TH – Central Kowloon Route – Main Works to Public Works Subcommittee for support with a view to obtaining funding approval within this legislative session, so as to commence and complete the CKR as soon as possible for the earliest realisation of its benefits to the society.

Yours sincerely,

(Jocelyn NG)
for Secretary for Transport and Housing

c.c

Director of Highways (Attn. : Mr Tony LOK)

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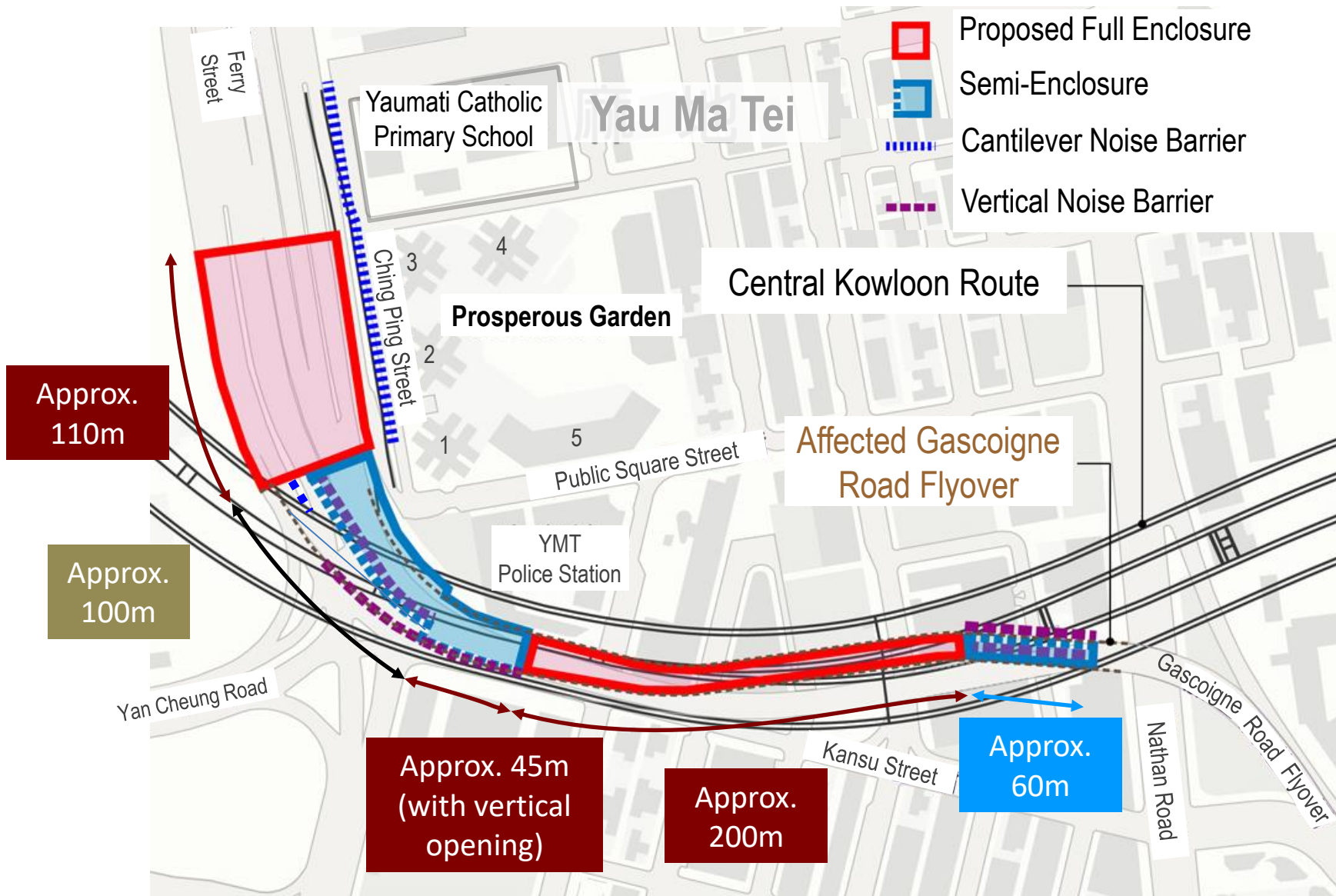
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Noise Mitigation Measures of the CKR Project under the Environmental Permit (Prosperous Garden)



Proposed Compromise Scheme (To be implemented under a separate PWP item)

Annex II

