

**For discussion  
On 19 February 2021**

**Legislative Council Panel on Transport**

**170TB – Braemar Hill Pedestrian Link**

**PURPOSE**

This paper seeks Members' views on the funding proposal for upgrading **170TB** "Braemar Hill Pedestrian Link" (the Project) to Category A.

**PROJECT SCOPE AND NATURE**

2. The proposed scope of works under the Project comprises –
  - (a) construction of a pedestrian subway of approximately 40 metres (m) in length and 4.2 m in width connecting the lift tower at King's Road to the concourse of MTR Fortress Hill Station mentioned in item (b) below;
  - (b) construction of a lift tower with two lifts at King's Road of approximately 33 m in height connecting the underground concourse of the MTR Fortress Hill Station, King's Road and the access road between Fortress Garden and Fortress Metro Tower;
  - (c) construction of an elevated pedestrian walkway of approximately 25 m in length and 3.7 m in width connecting the lift tower at King's Road mentioned in item (b) above to the access road between Fortress Garden and Fortress Metro Tower;
  - (d) construction of a lift tower with two lifts at Fortress Hill Road of approximately 21 m in height, and an elevated pedestrian walkway of approximately 10 m in length and 6.2 m in width connecting the lift tower to Tin Hau Temple Road;

- (e) construction of an elevated pedestrian walkway of approximately 33 m in length and 3.7 m in width spanning across Tin Hau Temple Road, and a set of covered escalator with an associated stairlift at Tin Hau Temple Road connecting to the elevated pedestrian walkway;
- (f) retrofitting of covers for existing stairways and construction of covered escalators and travellers along Wan Tin Path;
- (g) conversion of sections of the existing footpath at Fortress Hill Road into carriageway for relocation of an existing bus stop; and
- (h) ancillary works including geotechnical, electrical and mechanical, drainage, landscaping, public lighting and utilities works, as well as construction of retaining walls and covered footpaths.

3. An artist's impression of the Project is at **Annex 1**. We plan to commence the proposed works upon obtaining funding approval from the Finance Committee of the Legislative Council for target completion in around 6 years in phases. The works of items (a) to (c) and (h) will be completed in around 6 years, while that of items (d) to (f) will be completed in around 4 years.

## **JUSTIFICATIONS**

4. The level difference between Braemar Hill area and Fortress Hill area is about 150 m (i.e. about 50 storeys high). The Project will mainly serve the residents in Braemar Hill area and Fortress Hill area, and provide pedestrians, especially the elderly and persons with disabilities, a safe, convenient and barrier-free route for travelling to and from uphill areas to enhance its accessibility. The forecasted pedestrian flow of the Project is about 16 500 pedestrians per day.

5. Currently, the two existing lifts at King's Road near Exit A of MTR Fortress Hill Station only connect King's Road to a platform of the existing stairway at the mid-height of the slope beside Fortress Garden (hereafter referred to as "the midway platform"). If pedestrians are travelling uphill from King's Road to the access road between Fortress Garden and Fortress Metro Tower, they need to switch to an escalator at the midway platform. As the existing escalator

only operates in uphill direction, pedestrians going downhill can only use the existing stairway or switch to the existing lifts at the midway platform to reach King's Road. The pedestrian flow of the existing stairway exceeds about 30% of its capacity during peak hours. Moreover, pedestrians travelling uphill need to pass through Exit A of the MTR Fortress Hill Station which is located on ground level at King's Road and queue up for the lifts on the footpath near the exit, making the footpath very crowded. The proposed facilities mentioned in item (a) of paragraph 2 will help mitigate the congestion of the footpath and the stairway beside Fortress Garden. The proposed pedestrian system at King's Road can also provide barrier-free access and allow pedestrians to travel directly from the access road between Fortress Garden and Fortress Metro Tower to King's Road and the concourse of MTR Fortress Hill Station, improving pedestrian walkability. The pedestrian route is illustrated in **Annex 2**.

6. A Collaborative Scheme was proposed by MTR Corporation Limited (MTRCL) in 2016, covering the construction of the facilities mentioned in item (a) of paragraph 2, to replace its original Station Improvement Scheme<sup>1</sup>. The Collaboration Scheme was agreed by the Government in 2017. In comparison with the current design of facilities as mentioned in item (a) of paragraph 2, the original Station Improvement Scheme of the MTRCL fails to join up the access road between Fortress Garden and Fortress Metro Tower, King's Road and the concourse of MTR Fortress Hill Station. Furthermore, the operation of the existing lifts at King's Road would have to be suspended during the construction period. Therefore, the Collaborative Scheme is a more optimal solution as it can enhance the connectivity of the pedestrian network for the Project without affecting the service of the existing lifts at King's Road during the construction period. The Collaborative Scheme was then supported by the Planning Works and Housing Committee (PWHC) of Eastern District Council (EDC) at its meeting on 10 October 2017. The details of the Collaborative Scheme are illustrated in **Annex 3**.

7. The level difference between Fortress Hill Road and Tin Hau Temple Road is about 15 m (i.e. about five storeys high). At present, the public can only use the existing open-air stairway of over 80 stairs located next to Tin Hau Temple Road/Fortress Hill Road Garden or walk 200 m along the existing

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<sup>1</sup> In order to provide barrier-free access facilities for MTR Fortress Hill Station, MTRCL's original Station Improvement Scheme is to demolish and rebuild the existing lift tower at King's Road and connect it to the concourse level of MTR Fortress Hill Station with an underground adit.

inclined footpath to travel between Fortress Hill Road and Tin Hau Temple Road. Also, the level difference at two ends of Wan Tin Path is about 100 m (i.e. about 33 storeys high), and currently there are no facilities to assist pedestrians to travel uphill. Provision of facilities such as lifts, covered walkways and escalators at the abovementioned path would enhance pedestrian connectivity and allow the public to travel between Fortress Hill area and Braemar Hill area more conveniently and safely, offering an alternative mode of travelling besides vehicles.

## **FINANCIAL IMPLICATIONS**

8. In accordance with the agreement between the Highways Department (HyD) and MTRCL, HyD and MTRCL will share the expenditure of the Collaborative Scheme. MTRCL will bear an amount equal to the cost of the MTRCL's original Station Improvement Scheme plus 50% of the additional cost over and above that.

9. We estimate the capital cost of the Project to be about \$766.80 million in money-of-the-day (MOD) prices. The cost includes the expenditure for the Collaborative Scheme as mentioned in paragraph 6 above.

## **PUBLIC CONSULTATION**

10. HyD consulted PWHC of EDC in 2012 and attended three public meetings organised by EDC members of North Point, Fortress Hill and Braemar Hill areas to collect the public's views and determine the preferred alignment. Between 2014 and 2018, HyD consulted PWHC of EDC on the alignment and design scheme of the proposed pedestrian link on a number of occasions and attended public meeting / public forum / focus group meeting to explain in detail the design scheme and discuss with local residents their matters of concerns. After gauging the public's views, HyD had revised the design scheme of the Project in order to maximise its social benefits. In June 2018, the final design scheme was presented to and endorsed by the PWHC. After the finalisation of the final design scheme, HyD has distributed leaflets to local residents and created a simulation video to explain the proposed alignment and design of the Project.

11. At the invitation of the PWHC of EDC, HyD attended its meeting on 24 April 2020 to present the details of the Project. Other than the suggestion from a few members on organizing more briefing sessions for local residents to inform them of the Project's details, no other comments were received.

12. The scheme and plan of the Project were gazetted under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) (the Ordinance) on 28 June and 5 July 2019 respectively. During the gazettal period, we received a total of 13 objections, which were mainly related to a) the need for constructing 4 lifts at King's Road and Fortress Hill Road, b) lack of local support for/insufficient consultation on the implementation of the Project/diverging views over the alignment, c) slope safety, and d) concerns over privacy and security. HyD arranged meetings with the objectors to explain the objective and details of the Project. Among the 13 objections, one of them was subsequently withdrawn unconditionally.

13. The Project was then submitted to Chief Executive-in-Council for consideration. Having considered the 12 unresolved objections, the Chief Executive-in-Council authorized the proposed works of the Project without modification under the Ordinance. The relevant authorization notice of the Project was gazetted on 21 August and 28 August 2020 respectively.

14. HyD has consulted the Advisory Committee on the Appearance of Bridge and Associated Structures (ACABAS)<sup>2</sup> on the Project. The Committee accepted the proposed aesthetic design.

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<sup>2</sup> ACABAS comprises representatives of the Hong Kong Institute of Architects, the Hong Kong Institution of Engineers, the Hong Kong Institute of Planners, the Architectural Services Department, HyD, the Housing Department, the Civil Engineering and Development Department, and a representative from an architectural or relevant faculty of a local academic institution. It is responsible for vetting the design of bridges and other structures associated with the public highway system, including noise barriers and enclosures, from the aesthetic and visual impact points of view.

## ENVIRONMENTAL IMPLICATIONS

15. The Project is not a designated project under Schedule 2 of the Environmental Impact Assessment Ordinance (Cap. 499). It will not cause long-term environmental impact. HyD will control construction noise, dust and site run-off nuisances to level within established standards and guidelines through the implementation of suitable mitigation measures. The required expenses of implementing the environmental mitigation measures have been included in the project estimate.

16. During the planning and design stages, HyD has considered the design and refined the construction procedures with a view to reducing generation of construction waste as far as possible. In addition, HyD will require the contractor to reuse inert construction waste (e.g. use of excavated materials for backfilling) on site or in other suitable construction sites as far as possible in order to minimise the disposal of inert construction waste at public fill reception facilities<sup>3</sup>. HyD will encourage the contractor to maximise the recycling of or the use of recyclable inert construction waste, and the use of non-timber formwork.

17. During the construction stage, HyD will require the contractor to submit for the Government's approval a plan setting out the waste management measures, which shall include appropriate mitigation measures to avoid, reduce, reuse and recycle inert construction waste. HyD will ensure that the day-to-day operations on site comply with the approved plan and will require the contractor to separate the inert portion from non-inert portion of construction waste on site for disposal at appropriate facilities. HyD will control the disposal of inert and non-inert construction waste at public fill reception facilities and landfills respectively through a trip-ticket system.

18. HyD estimates that the Project will generate a total of 54 470 tonnes of construction waste. Of these, 8 350 tonnes (15.3%) of inert construction waste will be reused on site, while 44 120 tonnes (81.0%) of inert construction waste will be delivered to public fill reception facilities for subsequent reuse.

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<sup>3</sup> Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Disposal of inert construction waste in public fill reception facilities requires a license issued by the Director of Civil Engineering and Development.

The remaining 2 000 tonnes (3.7%) of non-inert construction waste will be disposed at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be about \$3,532,530 for the Project (based on a unit charge rate of \$71 per tonne for disposal at public fill reception facilities and \$200 per tonne at landfills as stipulated in the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)).

## **HERITAGE IMPLICATION**

19. The Project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites or buildings, sites of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office.

## **TREE IMPLICATION**

20. Of the 203 trees within the project boundary, 114 trees will be retained. The Project will involve the removal of 89 trees by felling. All trees to be felled are not important trees<sup>4</sup>. HyD will incorporate planting proposals into the Project, including the compensatory planting of 120 new trees.

## **LAND ACQUISITION**

21. The Project does not require acquisition of private land.

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<sup>4</sup> “Important tree” refers to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance e.g. Fung Shui tree, tree as landmark of monastery or heritage monument, and trees in memory of an important person or event;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking account of overall tree sizes, shape and any special features), e.g. trees with curtain like aerial roots, trees growing in unusual habitat; or
- (e) trees with trunk diameter equal to or exceeding 1.0 m (measured at 1.3 m above ground level), or with height/canopy spread equal to or exceeding 25 m.

## **TRAFFIC IMPLICATIONS**

22. The Project will not cause significant traffic impact during construction. To facilitate the construction works, HyD will implement temporary traffic arrangements (the TTA) and set up a traffic management liaison group to discuss and vet the TTA. This group comprises representatives from the contractor, the Hong Kong Police Force, the Transport Department, public transport operators and other relevant government departments. HyD will specify requirements for implementing the TTA in the works contract to minimise the traffic impacts during construction. HyD will also display notice boards on site, providing details of the TTA and the anticipated completion dates of individual sections of works. In addition, HyD will set up a telephone hotline for public enquiries or complaints.

## **BACKGROUND**

23. The Government established in 2009 an assessment mechanism to conduct initial screening and detailed scoring for hillside escalator links and elevator systems (HEL) proposals received then. After completion of the assessment and prioritisation of the proposals, the Government decided to take forward 18 HEL proposals. This Project is among one of them.

24. We upgraded the Project to Category B in September 2011, and a feasibility study on alignment was carried out in July 2012. The cost of the feasibility study is about \$1.0 million, funded by block allocation Subhead 6100TX “Highway works, studies and investigations for items in Category D of the Public Works Programme”. The feasibility study has been completed.

25. We engaged a consultant to undertake the investigation and preliminary design work in June 2015. The cost of the above consultancy service is about \$6.2 million, funded by block allocation Subhead 6100TX “Highway works, studies and investigations for items in Category D of the Public Works Programme”. The works of the consultancy service have been completed.



26. We engaged a consultant to undertake the detailed design work in January 2019, cost of which is about \$11.0 million. It is funded by block allocation Subhead 6100TX “Highway works, studies and investigations for items in Category D of the Public Works Programme”. The detailed design of the Project has been substantially completed.

## **WAY FORWARD**

27. We plan to submit the proposal for upgrading the Project 170TB as mentioned in paragraph 2 above to Category A to Public Works Subcommittee to seek its support, and to seek funding approval from the Finance Committee in this legislative session.

**Transport and Housing Bureau  
Highways Department  
February 2021**



Annex 1  
附件1



50 mm SCALE 1 : 1  
40  
30  
20  
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圖則名稱 drawing title  
工務計劃項目第6170TB號  
寶馬山行人通道系統 - 構思圖  
PWP ITEM NO. 6170TB  
BRAEMAR HILL PEDESTRIAN LINK - ARTIST'S IMPRESSION

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辦事處 office	工程部 WORKS DIVISION	HIGHWAYS DEPARTMENT HONG KONG 路政署

**Proposed Pedestrian Subway Connecting Proposed Lift Tower and Fortress Hill MTR Station Concourse**  
 擬建行人隧道連接擬建升降機塔和港鐵炮台山站大堂

**Annex 2**  
**附件2**



Access road between  
 Fortress Garden and  
 Fortress Metro Tower  
 富澤花園和康澤花園  
 之間的通道

Existing escalator  
 現有自動扶梯

Existing lift tower  
 現有升降機塔

Exit A of MTR station  
 港鐵站 A 出口

Proposed lift tower and elevated  
 walkway  
 擬建升降機塔及高架行人道

Ground level  
 (King's Road)  
 地面  
 (英皇道)

Fortress Hill MTR  
 Station Concourse  
 (underground)  
 港鐵炮台山站大堂(地底)

Proposed pedestrian subway connecting the proposed lift tower and Fortress Hill  
 MTR Station Concourse  
 擬建行人隧道連接擬建升降機塔和港鐵炮台山站大堂

- Entering Fortress Hill MTR station will no longer need to route through Exit A of the station at King's Road  
 無需通過在英皇道的港鐵站 A 出口進出港鐵炮台山站
- To allow pedestrians to travel directly from the access road between Fortress Garden and Fortress Metro Tower to King's Road and the concourse of the Fortress Hill MTR Station  
 讓行人由富澤花園和康澤花園之間的通道直達英皇道和港鐵炮台山站大堂

50 mm SCALE 1 : 1

40  
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圖則名稱 drawing title

工務計劃項目第6170TB號  
 寶馬山行人通道系統  
 PWP ITEM NO. 6170TB  
 BRAEMAR HILL PEDESTRIAN LINK

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比例 scale A4  
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圖則編號 drawing no.  
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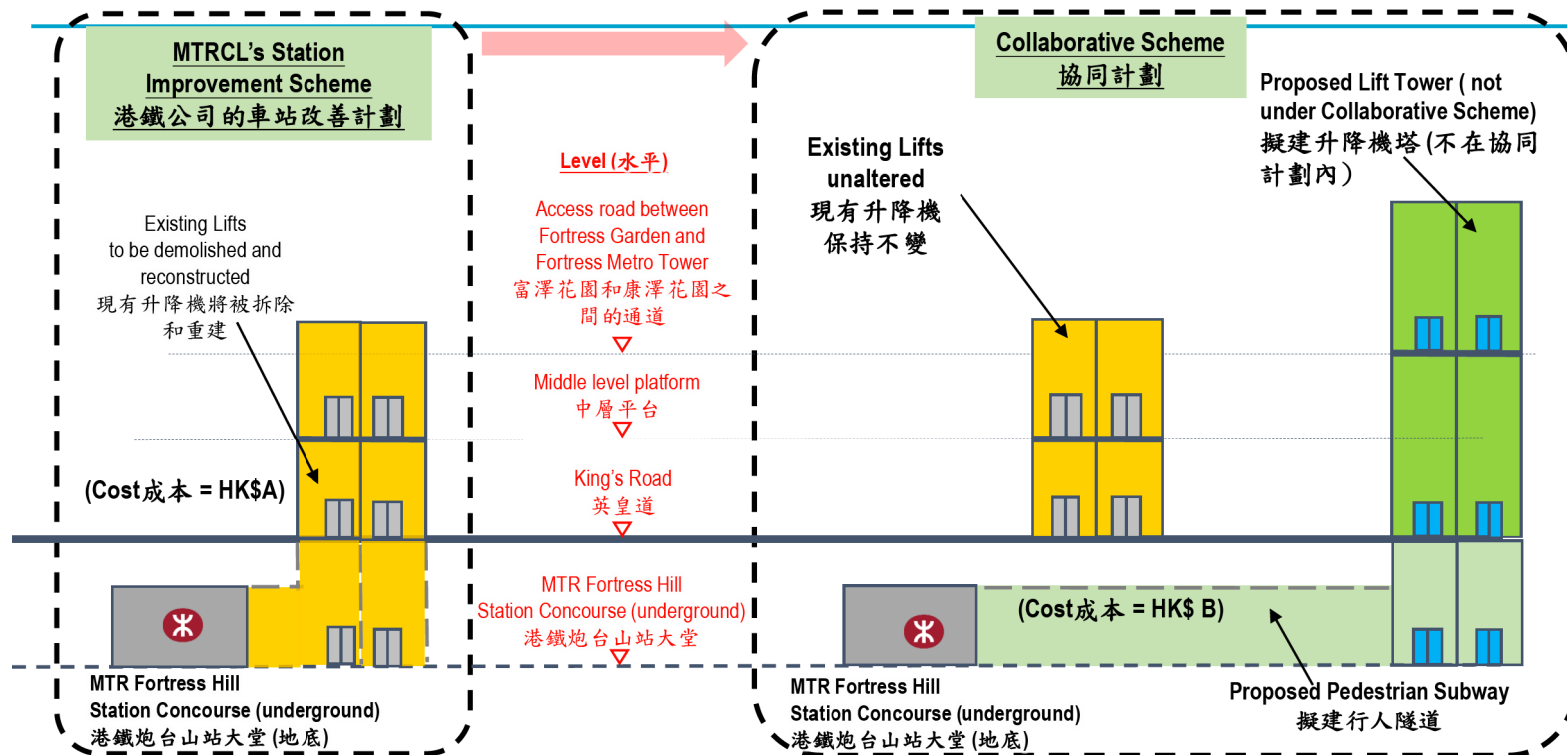
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 office  
**工程 部**  
**WORKS DIVISION**

 **HIGHWAYS DEPARTMENT HONG KONG** 路 香 港 政 署

0 10 20 30 40 50 mm SCALE 1 : 1

# Collaborative Scheme 協同計劃

# Annex 3 附件3



	MTRCL's expenditure 港鐵公司支出	HyD's expenditure 路政署支出
MTRCL's Station Improvement Scheme 港鐵公司的車站改善計劃	HK\$A	Nil
Collaborative Scheme 協同計劃	$HK\$[(B)-(A)]/2 + (A)$	$HK\$[(B)-(A)]/2$

SCALE 1 : 1  
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圖則名稱 drawing title

工務計劃項目第6170TB號  
寶馬山行人通道系統  
PWP ITEM NO. 6170TB  
BRAEMAR HILL PEDESTRIAN LINK

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HIGHWAYS DEPARTMENT  
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