

**For discussion
On 22 November 2002**

Legislative Council Panel on Transport

Widening of Tolo Highway

**Section between Ma Liu Shui Interchange
and Island House Interchange**

PURPOSE

This paper briefs Members on the progress of the widening of Tolo Highway — section between Ma Liu Shui Interchange and Island House Interchange and the provision of associated noise barriers.

BACKGROUND

2. To cope with increasing traffic demand, Highways Department is widening the 5.4km section of Tolo Highway between Island House Interchange and Ma Liu Shui Interchange from a dual 3-lane to a dual 4-lane carriageway. The widening works commenced in March 1999 and the widened main carriageway expected to be open to traffic by the end of 2002. The latest project estimate is \$880 million.

3. Noise barriers are being erected along Tolo Highway as part of the widening project to provide noise mitigation to noise sensitive existing and planned developments. There are about 260m of vertical transparent barriers along the southbound carriageway near Island House Interchange, 3,800m of solid vertical absorbent barriers along the northbound carriageway, 2,250m of which have 2.5m cantilever canopies, and 2,790m of solid vertical absorbent median barriers. The location of these noise barriers is shown in the **Annex**.

NEED FOR NOISE BARRIERS

4. The provision of noise barriers is in accordance with the recommendations of the Environmental Impact Assessment (EIA) for the project completed in April 1997. The EIA study for the project was

carried out in accordance with the administrative procedures set out in the Technical Circular issued by the then Works Branch and the then Planning, Environment and Lands Branch. The noise planning standards for road traffic noise stipulated in the Hong Kong Planning Standards and Guidelines became statutory standards when the EIA Ordinance (EIAO) and its associated Technical Memorandum (TM) came into operation in April 1998. Under the EIAO, we are required to consider noise impacts on planned as well as existing uses.

5. According to the TM, direct noise mitigation measures such as road alignment, alternative land use arrangements, building orientation and noise barriers should be explored and evaluated before indirect noise mitigation measures, in the form of window insulation and air-conditioning, are considered. This is because the latter will deprive those affected of outdoor activities in a reasonable environment and an “open-window” life style. In view of space restrictions and having explored all other means of mitigating traffic noise at source, the EIA recommended a package of vertical and canopy noise barriers ranging from 1.5m to 8m high.

6. The EIA took into account the visual impact arising from the proposed noise barriers but the overriding requirement was that the noise reduction effect should not be compromised. The noise barriers now being provided are mainly of non-transparent absorptive type, which can more effectively reduce reflection of traffic and railway noise to the nearby developments as compared with transparent panels. To mitigate the visual impact of these noise barriers, a range of recessive colours, principally in greens and blues, has been used for the noise barrier panels to tune in with the backdrop of the vegetated hill slope (green) and the harbour (blue). In addition, planting will be provided to further soften the visual intrusion of the barriers. Trees will be planted behind the barriers but, due to space restrictions, it is only possible to plant small shrubs in some locations in front of the barriers.

PREMISES BENEFITTING

7. According to the latest update, about 1,410 existing dwellings will benefit from the provision of these noise barriers. These include the facilities/residential buildings of the Chinese University of Hong Kong (CUHK), Tai Po Town Lot (TPTL) No. 135 (i.e. Deerhill Bay), TPTL

No. 150 (San Wai/Lo Wai Development), the Seaview Villas and KCRC staff quarters at Tai Po Kau, the Care Village near Tai Po, the Conservation Centre at Island House. The barriers provided for these existing dwellings are marked green in the Annex and these represent 77% of the barriers provided under this project. The noise barriers that have already been erected are set out below :

- (a) Island House Interchange - the 900m long median barrier, about 100m of the transparent barrier (out of 250m) and 900m of the north bound barrier (out of 1500m);
- (b) Tai Po Area 39 - 1,000m of north bound barrier (out of 1,950m) and the 1,300m long median barrier; and
- (c) Ma Liu Shui Interchange - 500m north bound barrier and half of the median barrier (out of 600m).

In sum, about 4,700m (70%) out of about 7,000m of noise barriers have been completed. These comprise about 80% of the median barriers, 60% of the north bound barriers and 40% of the southbound barriers.

8. As for noise barriers to be provided for planned developments, some 300 planned dwellings in CUHK will be protected by barriers near Ma Liu Shui Interchange. Tai Po Area 39 is zoned for educational and GIC uses and, together with some 30 planned residential units above 12th floor level in Cheung Shue Tan Village, will be affected by the widening works. Highways Department is reviewing the schedule for installing those barriers with a view to synchronize with the timing of the future developments. The noise barriers to be provided for future developments are marked in dotted red in the Annex. We forecast that the traffic noise experienced by the above dwellings could be reduced to below the planning standards of 70dB(A) for residential dwellings and 65dB(A) for educational institutions with the provision of the noise barriers.

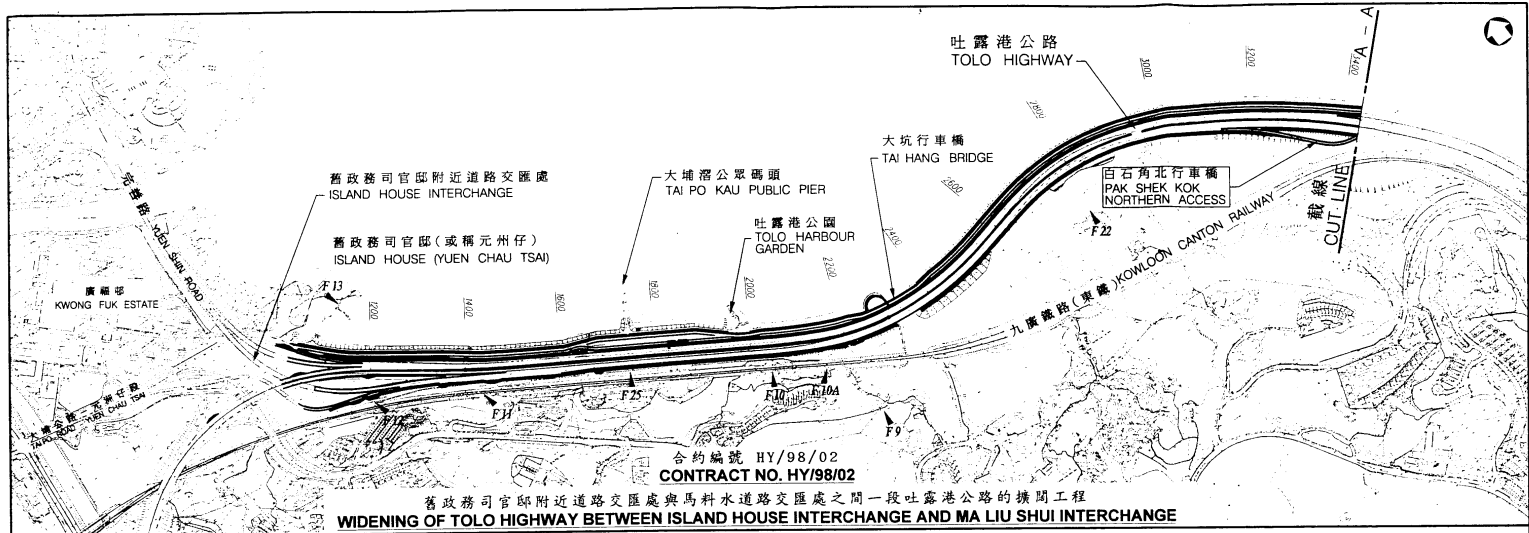
COST

9. The latest cost estimate of the noise barriers is \$140 million. The unit cost for protecting each existing and planned dwelling with direct noise mitigation measures in the form of noise barriers is \$80 000.

ADVICE SOUGHT

10. Members are invited to note the content of this paper.

**Environment, Transport and Works Bureau
November 2002**



圖例
LEGEND

- 為現有發展豎建的隔音屏障
NOISE BARRIER FOR EXISTING DEVELOPMENTS
- - - - 為大埔39區將來發展豎建的隔音屏障
NOISE BARRIER FOR PLANNED DEVELOPMENTS IN TAI PO AREA 39
- ▲ F22 現有易受噪音影響的地方
EXISTING NOISE SENSITIVE RECEIVERS
- ▲ F18 將來易受噪音影響的地方
PLANNED NOISE SENSITIVE RECEIVERS

