

**For discussion
on 21 February 2025**

Legislative Council Panel on Transport

Upgrading and Enhancement of Pedestrian Crossing Facilities

Purpose

To enhance the accessibility of pedestrian crossing facilities, create a pedestrian-friendly environment, and promote walking as a sustainable mode of transportation, the Government is committed to properly managing pedestrian crossing facilities and maintaining their effective operation. The Government has all along been attentive to the development of related technologies and the needs of users, considering the incorporation of appropriate new features when renewing devices to address the increasing traffic and pedestrian demands. In addition to the trial projects of diagonal crossings¹ launched in 2024 and the installation of auxiliary devices which project red light at signalised crossings², we would like to introduce the following two ongoing pedestrian crossing facility projects to Members:

- (1) Renewal of electronic audible traffic signals at signalised crossings;
and
- (2) Renewal of Belisha beacon at pedestrian crossing on public roads.

¹ Diagonal crossings is a new type of pedestrian-friendly facility introduced by the Transport Department ("TD"), allowing pedestrians to choose to use these crossings to cross the road directly to the footpath on the other side diagonally with shorter distance and time. The TD launched trials of diagonal crossings in Sha Tin and Tsim Sha Tsui in January 2024 and August 2024 respectively to observe the operations of these crossings and collect relevant trial data. The way forward for diagonal crossings will be considered based on the trial results and Hong Kong's traffic conditions.

² To align with the strategies of "Improving Pedestrian Facilities and Ensuring Road Safety" under the "Task Force on District Governance", the TD started installing auxiliary devices which project red light at signalised crossings at about 100 locations across the territory in November 2023, including black sites or road junctions where a higher number of vehicle to pedestrian collisions were recorded in the past. The installation works were completed in December 2024.

Renewal of Electronic Audible Traffic Signals at Signalised Crossings

Background

2. Electronic audible traffic signals (“eATS”) serve to inform visually impaired persons (“VIP”) of the pedestrian traffic signal status, allowing them to cross the road safely based on audio prompts. Some pedestrian crossings³ have eATS equipped with push buttons which allow pedestrians to activate green pedestrian signal. The existing eATS were installed starting from 2003, and most of these eATS have been in continuous operation for over 20 years, exceeding their normal lifespan. In addition, the fault rate of these devices has been gradually increasing, necessitating a large-scale replacement.

3. The Transport Department (“TD”) takes this opportunity of replacement of aged eATS to review the technological developments of eATS and assess the current needs of users. TD plans to incorporate new features into the renewed devices to make it more convenient for VIP and other citizens to use pedestrian crossings.

Pilot Project

4. To establish the design and functional requirements for the next generation eATS, test and evaluate new features in the context of Hong Kong’s road environment, and gather feedback from the public, including VIP, regarding the actual operation of the new eATS, the TD has launched a pilot project on the renewal of eATS after consulting the Subcommittee on Access under the Rehabilitation Advisory Committee. Between 2021 and 2023, new generation eATS were installed at 20 junctions in Sham Shui Po District, Kwun Tong District, Southern District, Eastern District and Yau Tsim Mong District for detailed testing.

³ At some crossings with high vehicle flow and relatively low pedestrian traffic, green pedestrian signal will only be activated after the pedestrian pushbutton is pressed, allowing more vehicles to pass through the junction.

5. The original eATS at crossings have sound and vibration components that emitted different sound and vibration signals to indicate the status of the pedestrian traffic signal. Some devices include a pedestrian push button function, which allows pedestrians to activate green pedestrian signal when they press the button, allowing them to cross the road safely. Under the pilot project, apart from retaining the original functions, the following five new features have been added to the new eATS:

- (1) Light Illumination Unit: A light illumination unit is installed at the top of the new eATS, making it easier for persons with amblyopia to locate the pedestrian crossing;
- (2) Tactile Map: A tactile map is provided on the side of the eATS, providing layout information of the vicinity of the pedestrian crossing to the VIP;
- (3) Voice Message of Crossing Location: The new eATS has a voice message reading function. By pressing the activation button located at the bottom, the device will read out the names of nearby streets in different languages (Cantonese, Putonghua and English) to inform users of their location;
- (4) Touchless Pedestrian Push Button: A touchless pedestrian push button sensor is provided below the light component on the front of the new eATS, allowing pedestrians to activate the button without contact, reducing hygiene concerns of users; and
- (5) Flexible Volume Adjustment: The device features a new nighttime operation mode. When there is no VIP seeking to cross the road at night, the operating volume of the eATS will be lower than the existing level, thus reducing impact on nearby residences⁴. In the new

⁴ Depending on the specific location's environment and needs, the typical volume of the new eATS in night mode can be further reduced by up to 5 decibels as compared to the existing eATS.

nighttime volume reduction mode⁵, VIP can use a newly designed dedicated wireless device or mobile application to temporarily increase the volume of the eATS when they need to cross the road, ensuring their safe crossing.

6. New features of the new eATS are illustrated in **Annex 1**.

Territory-wide Renewal Programme

7. The TD has been maintaining good communication with representatives of VIP groups, including holding meetings and conducting field tests in different times in daytime and nighttime to further optimise the functions and settings of the new eATS. The operation of the new eATS under the pilot project has been smooth, and VIP groups have expressed support for the new eATS⁶. The TD has already followed the established government procedures to tender and award the contract, and is currently arranging with the contractor to replace approximately 13,000 eATS across the territory. The plan is to gradually install and put into operation these new devices at pedestrian crossings starting from the second quarter of 2025, for anticipated completion of all replacements before end 2027.

Renewal of Belisha Beacons at Zebra Crossings

Background

8. To facilitate road crossing for the public, zebra crossings are normally provided on roads with relatively low pedestrian and vehicular flows and with speed limit not exceeding 50 kilometers per hour. Nowadays, there are around 230 zebra crossings on public roads in Hong Kong. Pursuant to

⁵ Both the original and new generation of eATS can automatically adjust the output volume based on the surrounding noise levels; they output a higher volume in noisy environments and automatically lower the volume in quiet environments (such as during nighttime).

⁶ In early 2023, representatives from VIP groups submitted a summary of recommendations and feedback regarding the new eATS to TD. They expressed overall satisfaction with the new features and welcomed large-scale replacement of the eATS.

the Road Traffic (Traffic Control) Regulations (Cap.374G)⁷, vehicles are obliged to stop and give way to pedestrians when pedestrians step on a zebra crossing. Cap. 374G requires that every zebra crossing should be marked with a yellow globe on a post coloured with alternate black and white bands (known as “Belisha beacon”), and specifies that zebra crossings must be marked with designated road markings.

9. The Government receives from time to time public’s views that some drivers fail to stop in front of zebra crossings, affecting the safety of pedestrians crossing the road. In response to this situation, we note that some other regions have adopted an enhanced design of Belisha beacons. After consulting the Road Safety Research Committee under the Road Safety Council, the TD implemented a trial scheme to enhance zebra crossing facilities in 2022, which aimed at making the zebra crossings more conspicuous as well as reminding drivers to stop and give way to pedestrians alongside publicity, education and enforcement efforts.

Trial Scheme

10. In April 2022, the TD conducted a six-month trial scheme to enhance zebra crossing facilities at five zebra crossings in Kwai Tsing District, Sham Shui Po District, Kowloon City District and Tai Po District by replacing the traditional Belisha beacons with new beacons. In contrast to the existing Belisha beacons with a yellow globe lamp atop a black and white post, the new beacons consist of a halo of flashing yellow light and a post with flashing white bands. The new beacons are more visible than the traditional design, even during the daytime, the additional flashing components make the beacons more effective in attracting the attention of drivers for enhancing their awareness of the zebra crossings. Photos showing the new and traditional Belisha beacons are provided in **Annex 2**.

11. Based on the experience of the trial scheme, the proportion of drivers

⁷ Regulation 31 of Cap.374G stipulates that “Every pedestrian on a zebra crossing shall have precedence while on it over any vehicle and, if a pedestrian is on the zebra crossing before the vehicle or any part of it has come on to or over the zebra crossing, the driver of the vehicle shall accord precedence to such pedestrian”.

stopping in front of zebra crossings and giving way to pedestrians significantly increased from 42% to 80% after the installation of the new beacons. Moreover, according to the questionnaire survey of pedestrians on site, the majority of respondents considered that the new design of the beacons was brighter and more conspicuous than the old one. Most surveyed pedestrians expressed that more drivers were willing to stop and give way to pedestrians.

Territory-wide Renewal Programme

12. As the trial has shown a positive effect of the new Belisha beacons at zebra crossings on reminding drivers to stop and give way to pedestrians, the TD has commissioned the Electrical & Mechanical Services Department to replace all traditional Belisha beacons on public roads in Hong Kong. The renewal works have commenced in late 2024. It is planned that the installation and operation of the new beacons at zebra crossings will gradually commence in March 2025 with all the installation works completed by 2027.

Advice Sought

13. Members are invited to note the above renewal schemes on eATS at signalised crossings and Belisha beacons at zebra crossings.

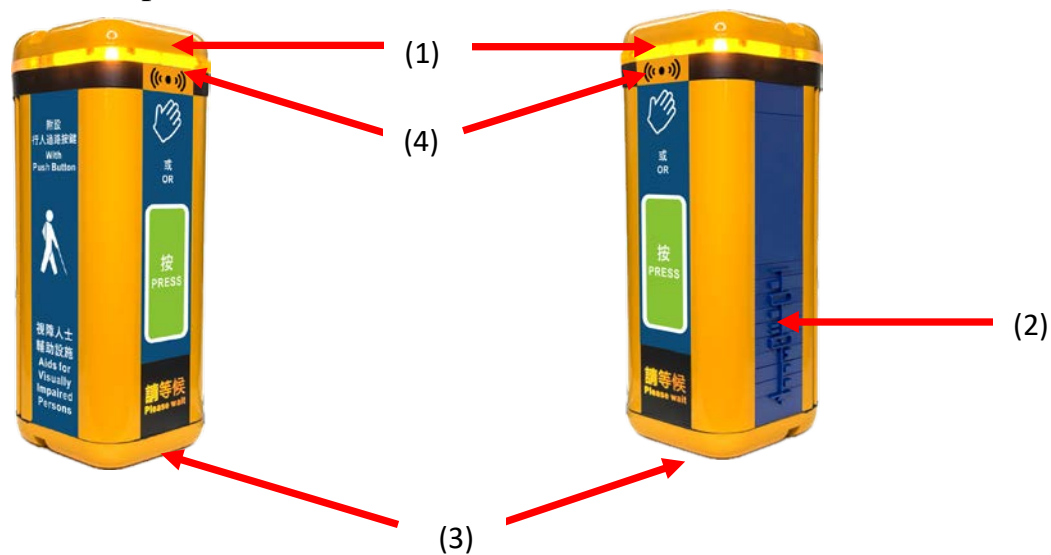
Transport and Logistics Bureau

Transport Department

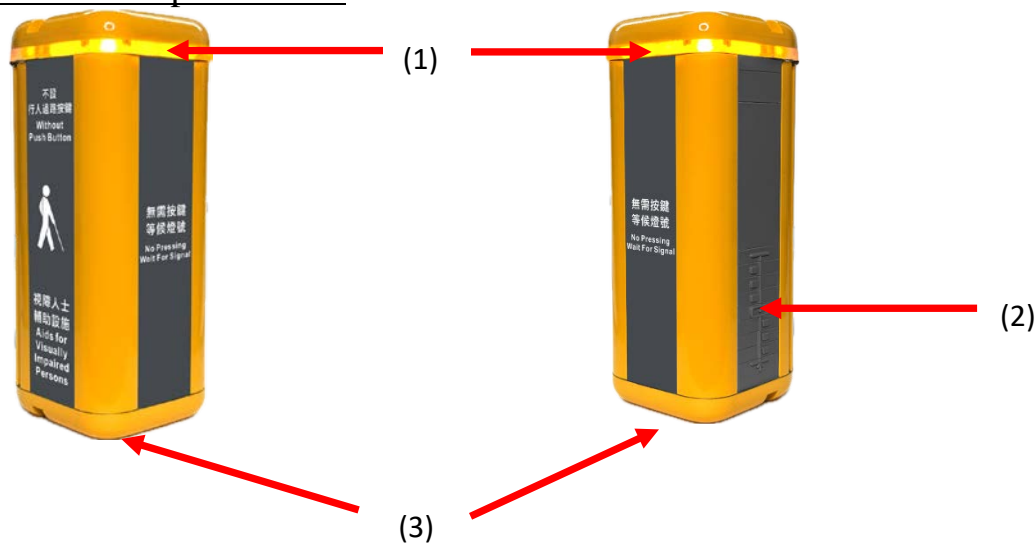
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Five new additional features of new eATS under the pilot project

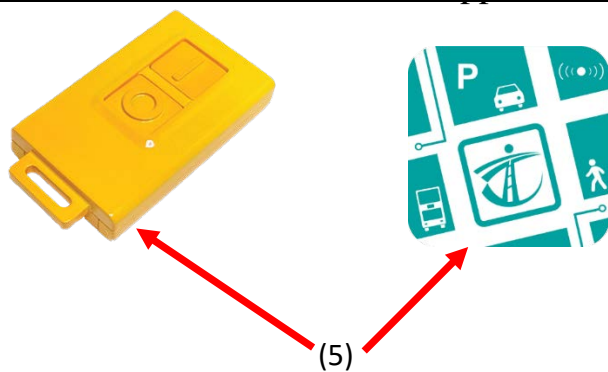
eATS with push button



eATS without push button



Dedicated wireless device / mobile application



(1) Light Illumination Unit

Allows persons with amblyopia to locate the crossing at night more easily.

(2) Tactile Map

Provides layout information of the crossing for VIP.

(3) Voice Message of Crossing Location

Reads out the names of streets near the crossing in different languages (Cantonese, Putonghua, and English) to inform VIP of their location.

(4) Touchless Pedestrian Push Button

Allows pedestrians to activate the button without contact, reducing hygiene concerns of users.

(5) Flexible Volume Adjustment

In night mode, VIP can use a dedicated wireless device or mobile application to temporarily increase the volume of the eATS when they need to cross the street, ensuring their safe passage.

Photos showing the new and traditional Belisha beacons



(1) Yellow globe lamp

(2) Black and white post

(3) Halo of flashing yellow light

(4) Post with flashing white bands