


MTR Corporation Limited

TUEN MUN SOUTH EXTENSION

(No. EP-615/2022)

## **Pre-construction Ardeid Survey Plan**

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Position : Independent Environmental Checker  
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Date : 31 July 2023  
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## **Pre-construction Ardeid Survey Plan**

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(Raymond Wong)

Position : Environmental Team Leader

Date : 31 Jul 2023

MTR Corporation Limited

Consultancy Agreement No. C1502  
(Variation Order No. C1502/009)

**Environmental Monitoring and Audit  
(EM&A) for Tuen Mun South Extension**

**Pre-Construction Ardeid Survey Plan**

July 2023

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## **1 INTRODUCTION**

### **1.1 Background**

- 1.1.1 The Tuen Mun South Extension (TME) (hereinafter referred to as “the Project”) is one of the seven recommended railway schemes in the Railway Development Strategy 2014 (“RDS-2014”). The Project will extend the Tuen Ma Line (TML), from Tuen Mun (TUM) Station southwards by about 2.4 km, terminating at a new station near Tuen Mun Ferry Pier (i.e. Tuen Mun South (TMS) Station) with an intermediate station at Tuen Mun Area 16 (i.e. A16 Station).
- 1.1.2 An Environmental Impact Assessment (EIA) study for the Project was conducted in accordance with EIA Study Brief No. ESB-332/2020. The EIA Report and Environmental Monitoring and Audit (EM&A) Manual (Register No.: AEIAR-236/2022) were approved under the Environmental Impact Assessment Ordinance (EIAO), with an Environmental Permit (EP) granted on 18 August 2022 (EP No: EP-615/2022).
- 1.1.3 The Project extends from the existing overrun at TUM Station to southward, and its viaduct structure would be located adjacent to an ardeids night roost in Tuen Mun Park (hereafter referred to as “TMP Night Roost”). This TMP Night Roost comprises a group of mature trees (Big-leaved Fig *Ficus virens* and Chinese Banyan *Ficus microcarpa*), which supports night roosting ardeids, including Little Egret (*Egretta garzetta*), Great Egret (*Ardea alba*), and Chinese Pond Heron (*Ardeola bacchus*). According to the ecological surveys conducted in 2021 during the EIA study, the abundance of night roosting ardeids at this TMP Night Roost ranged from 39 individuals in wet season to 300 individuals in dry season. The construction of the viaduct structure may result in potential disturbance and indirect impact on the night roosting ardeids.
- 1.1.4 Mitigation measures include a buffer zone at 100 m from the night roost, where the working hours of construction activities were recommended in the approved EIA Report to minimise the potential disturbance to TMP Night Roost during the construction stage. A Pre-Construction Ardeid Survey should therefore be conducted to update and verify the ecological conditions of the TMP Night Roost prior to the commencement of construction works.
- 1.1.5 The construction works of the Project are tentatively scheduled to commence in Q4 2023. Pursuant to Conditions 2.16 of EP-615/2022, a Pre-construction Ardeid Survey Plan (PASP), which provides the details including but not limited to the programme, methodology and location of the pre-construction ardeid survey, shall be prepared by qualified ecologist(s) appointed under Condition 2.5 of EP-615/2022 and shall be submitted to the Director of Environmental Protection for approval no later than 2 months before commencement of construction works of the Project.

### **1.2 Purpose of this Plan**

- 1.2.1 This Pre-Construction Ardeid Survey Plan (PASP) presents the programme, methodology, and location of the pre-construction ardeid surveys, in order to achieve the objective of verification and update of ecological conditions (e.g. location and conditions of the TMP Night Roost, and the presence of any new or alternative night roosts within the 100 m Buffer Zone). Upon the approval of PASP, a pre-construction ardeid survey will be conducted accordingly. Subject to the latest findings from the pre-construction ardeid survey, the results from the EIA Study will also be reviewed for the applicability as monitoring baseline for subsequent ecological monitoring.

## **2 PRE-CONSTRUCTION ARDEID SURVEY**

### **2.1 Survey Area and Methodology**

- 2.1.1 For the purpose of the pre-construction ardeid survey and subsequent monthly monitoring, the surveys will be conducted in areas within the 100 m Buffer Zone of the TMP Night Roost. The pre-construction ardeid surveys will be undertaken to confirm the location of ardeid night roost and pre-roosting site(s) of ardeids, including the identified TMP Night Roost, and any new / alternative locations of night roosts. Direct observation (with the aid of binoculars) of the night roosting ardeids will be made from the proposed vantage points (VR1 – VR2). The 100 m Buffer Zone and proposed vantage points are shown in **Figure 1**.
- 2.1.2 Species, abundance, flight lines, locations, and the tree species used for night roosting ardeids will be recorded as close to the night roosts as possible. Observation of the flight lines (including flight direction, flight height, and returning time of the pre-roosting and roosting ardeids) will be undertaken at the proposed vantage points.
- 2.1.3 The survey will start from approximately an hour before sunset and last until nightfall, which will be the peak period of ardeid activities at the night roost and pre-roost sites. The exact time of sunset on the date of survey will be made reference to the Hong Kong Observatory.

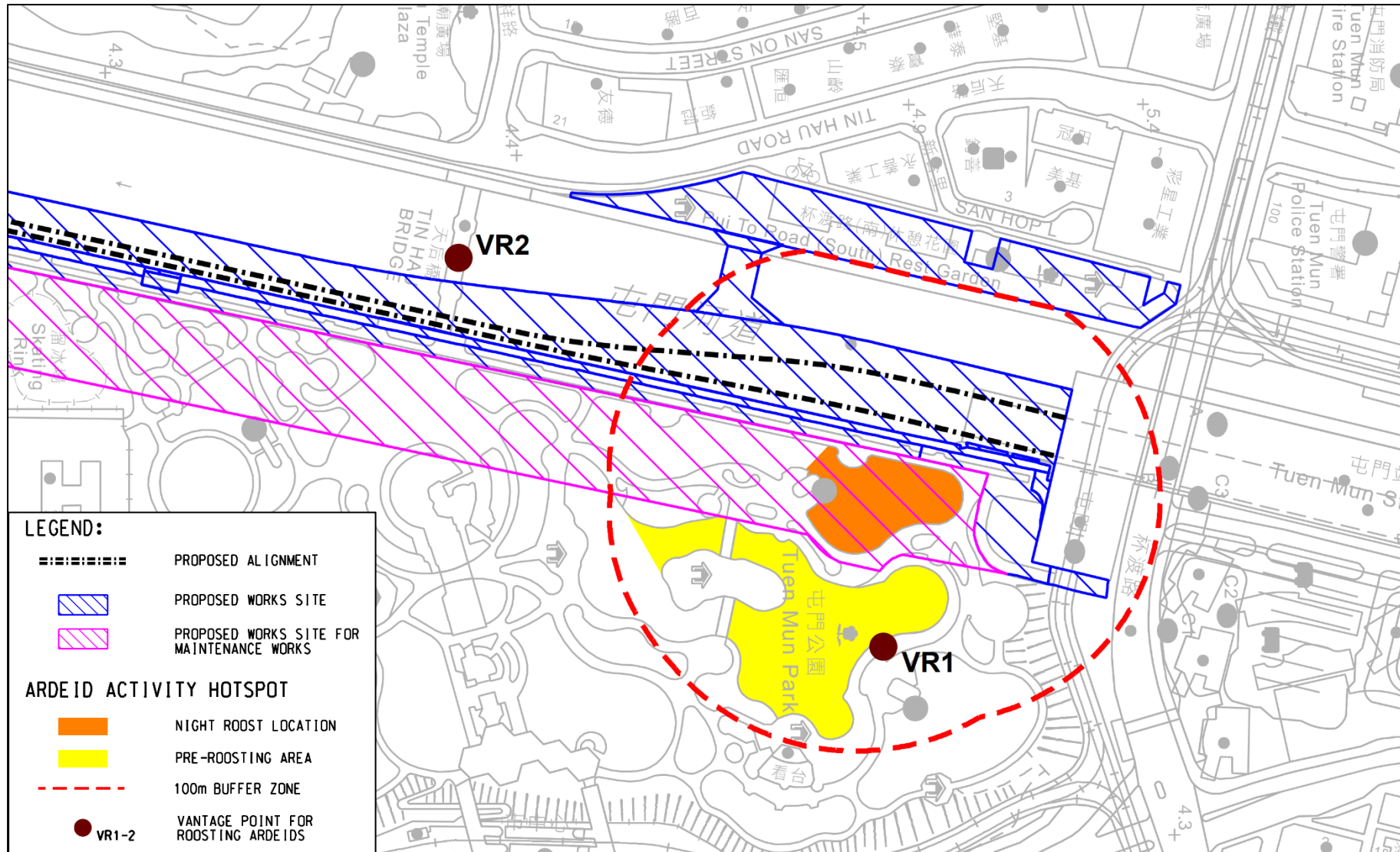
### **2.2 Survey Programme**

- 2.2.1 The pre-construction ardeid survey will be conducted in August 2023, prior to the commencement of construction works of the Project. The aim of the survey is to obtain the most updated conditions of the night roost in order to verify the findings from the approved EIA Report, and to establish the latest conditions for the purpose of subsequent monthly monitoring.

## **3 PRE-CONSTRUCTION ARDEID SURVEY REPORT (PASR)**

- 3.1.1 According to the Condition 2.17 of EP-615/2022, a Pre-Construction Ardeid Survey Report (PASR) shall be submitted at least one month before the commencement of construction works of the Project. The PASR will present the findings obtained from the pre-construction ardeid survey and from the EIA Study to establish the latest conditions.
- 3.1.2 The PASR will also list out the mitigation measures required to minimize impact on ardeid night roost during construction of the Project, including an implementation schedule in table form to clearly list out the mitigation measures to be implemented, including the implementation party, location, timing, and environmental performance required for implementation of the mitigation measures.
- 3.1.3 Subject to the findings of the survey, in the event that the active night roost is relocated to 100 m away from the Project boundary naturally, restriction on working hours would be ceased, subject to further consultation and agreement with AFCD / EPD. However, if the night roost is relocated to a location within 100 m from the works site or new night roost is found within 100 m from the works site, buffer zone should be adjusted or new buffer zone should be included accordingly.

**Figure**



**FIGURE 1 LOCATION OF TME ALIGNMENT, TMP NIGHT ROOST AND 100 M BUFFER ZONE**