

Tung Chung - Ngong Ping Cable Car Project

PROJECT PROFILE

1. BASIC INFORMATION

1.1 Project Title

Tung Chung - Ngong Ping Cable Car Project.

1.2 Purpose and Nature of Project

The project comprises the construction and operation of a cable car system between Tung Chung Town Centre and Ngong Ping on Lantau Island. The development of the cable car system aims to further develop Ngong Ping as a major tourist attraction in Hong Kong.

1.3 Name of Project Proponent

Hong Kong Island & Islands Development Office, Territory Development Department (TDD).

1.4 Location and Scale of Project

A Preliminary Preferred Alignment (PPA) for the cable car system has been identified based on the findings of the feasibility study completed by the Mass Transit Railway Corporation and a subsequent desk top study conducted by TDD. The location of this project is shown on Drawing No. HKI-Z180. On the basis of the PPA, the scope of the project will include the following:

- (a) construction of a cable car system of about 5.7 km long between Tung Chung Town Centre and Ngong Ping on Lantau Island;
- (b) construction of associated pylons and other supporting structures, and ancillary works;
- (c) construction of two terminals, one at Tung Chung Town Centre and the other at Ngong Ping; and

- (d) construction of an intermediate station on the Airport Island and a turning station in the Lantau North Country Park.

1.5 The Subject Site and its Surrounding Environments

1.5.1 Based on the PPA, the proposed cable car route between Tung Chung Terminal and the Intermediate Station will run along the northern side of the Chek Lap Kok South Road Bridge. The remaining route will traverse across Tung Chung Channel and the Lantau North Country Park before terminating at Ngong Ping.

1.5.2 The proposed site for the Tung Chung Terminal (Drawing No. HKI-Z181) is located in Tung Chung Town Centre to the north of Tung Chung Crescent and at about 200m from Tung Chung MTR Station. The site falls within an area zoned “Government, Institution or Community” (“G/IC”) on the draft Tung Chung Town Centre Area Outline Zoning Plan (OZP) No. S/I-TCTC/5.

1.5.3 The proposed site for the Intermediate Station (Drawing No. HKI-Z182) is located on the south shore of the Airport Island. The site falls within an area zoned “Green Belt” on the draft Chek Lap Kok Outline Zoning Plan (OZP) No. S/I-CLK/2.

1.5.4 The proposed site for the Ngong Ping Terminal (Drawing No. HKI-Z183) is located in the northwest of the Ngong Ping Plateau. The site falls within an area zoned “Green Belt” on the approved Ngong Ping Development Permission Area (DPA) Plan No. DPA/I-NP/2. Ngong Ping is situated between the Lantau South and Lantau North Country Parks but does not fall within the boundary of either Country Parks.

1.6 Number and Types of Designated Projects to be Covered

This project is classified as a Designated Project under Category Q – Miscellaneous under Schedule 2 Part I of the Environmental Impact Assessment Ordinance (EIAO).

1.7 Name and Telephone Number of Contact Person

2. **OUTLINE PLANNING AND IMPLEMENTATION PROGRAMME**

2.1 Government intends to grant a franchise to finance, design, construct and commission the project on a Built-Operate-Transfer basis. The successful bidder will be required to refine the PAA or propose alternative to minimize the potential environmental impacts in the course of EIA study. The granting of the franchise to the successful bidder will be subject to a number of conditions being met, including the approval of the EIA report.

2.2 It is tentatively scheduled that the EIA will commence in early 2002 for completion by mid 2003. This will be followed by design and the relevant statutory procedures. Construction is expected to be completed by 2006.

2.3 Interaction with other projects

The project may have interaction with some projects, including but not limited to the following:

- (a) PWP Item 209DS – Ngong Ping Sewage Treatment Works and Sewerage;
- (b) Provision of Water Supply to Ngong Ping; and
- (c) Tung Chung and Tai Ho Development Phases 3 and 4.

The above list of projects is not exhaustive and will be reviewed during the EIA study.

3. **POSSIBLE IMPACTS ON THE ENVIRONMENT**

3.1 Introduction

This section describes the likely environmental impacts of the proposed works in both the construction and operation phases.

3.2 Construction Phase

3.2.1 Air Quality

There may be possible air quality impacts during construction from dust generated due to excavation and earthworks for the site formation of the pylon sites and

terminal stations.

3.2.2 Noise

There may be possible noise to be generated from the operation of powered mechanical equipment during construction, and from helicopters which are expected to be used for transporting construction materials to isolated sites for the pylon construction.

3.2.3 Solid Waste

Waste to be generated will consist mainly of excavated materials, construction waste and general refuse.

3.2.4 Storage, handling, transport and disposal of dangerous goods, hazardous materials or wastes

It is envisaged that there will be no dangerous goods or hazardous materials to be used or generated from the works.

3.2.5 Water Quality

Possible impacts on water quality may arise from the site run-off carrying suspended earth materials, fuel or oil spills from construction plants. Impacts could also arise from the discharge of wastewater from the site.

As the Ngong Ping Terminal is situated within the Water Gathering Ground of Shek Pik Reservoir, the potential impacts on water gathering ground will be assessed and straightly controlled.

As pylons may be constructed at Tung Chung Channel, the impacts associated with the construction of pylon at the channel will be assessed.

3.2.6 Landscape and Visual Impact

The construction of stations, pylons and other works may disturb the natural topography, natural streams and woodlands within the site and its surrounding areas. This may also affect the landscape character and create visual impacts. These impacts will be assessed.

3.2.7 Ecology Impacts

The alignment for the cable car system will run through the existing Lantau North Country Park and the Lantau North Country Park Extension. The major habitat types in the vicinity of the Preliminary Preferred Alignment include streams, woodland, mangrove and seagrass bed. Impacts during construction on these habitats and the associated fauna and flora will be assessed.

3.2.8 Cultural Heritage Impacts

The known sensitive cultural resources in the vicinity of the proposed works include the Po Lin Monastery in Ngong Ping and some pre-1960 structures located in Ngong Ping. The EIA study will analyse any potential impacts on cultural heritage and recommend appropriate mitigation measures.

3.3 Operation Phase

3.3.1 Air Quality

During the operation of the proposed cable car system, air quality is not expected to be a cause for concern as no aerial emissions will be expected to be produced.

3.3.2 Noise

There may be noise generated from the mechanical equipment at the terminals and at the intermediate station, and from the cable car runners passing over the pylons.

3.3.3 Landscape and Visual Impacts

The project may have landscape and visual impacts and an assessment on the landscape and visual impacts will be carried out.

3.3.4 Ecology

The cable car system is suspended from the ground by pylons and the passengers generally have no access to the country park area in between the terminals. Disturbance to the country park ecology during the operational phase should be minimal. Any possible impacts will still be assessed in the EIA study.

3.3.5 Hazard

The proximity of the proposed intermediate station on Airport Island to the fuel tank farm on Chek Lap Kok may pose potential hazards to cable car passengers. However, the number of passengers to be present at the station will depend on the cable car system to be proposed by the operator. A risk hazard assessment of the project will be carried out as soon as the requisite data is available.

4. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

4.1 Existing and Planned Sensitive Receivers/Natural Environment

Existing and planned sensitive receivers and sensitive parts of the natural environment, which might be affected during the construction and/or operational phases of the project are listed in Table 4.1.

Table 4.1 Representative Sensitive Receivers/Natural Environment

Ref. No.	Area	Type	Current Status
1.	Lantau North Country Park	Conservation	Existing
2.	Village houses at Ngong Ping	Village	Existing
3.	Tung Chung Area 4	Residential	Existing
4.	Tung Chung Areas 46 & 47	Residential	Proposed
5.	Po Lin Monastery	G/IC	Existing
6.	Lotus Monastery	G/IC	Existing
7.	San Tau SSSI	Conservation	Existing
8.	Ngong Ping SIII	Conservation	Existing
9.	Lantau South Country Park	Conservation	Existing
10.	Lantau Peak SSSI and Special Area	Conservation	Existing

Note: This list is not intended to be exhaustive and will be reviewed with EPD during the EIA study.

5. ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED IN THE DESIGN AND ANY FURTHER ENVIRONMENTAL IMPLICATIONS

5.1 Air Quality

5.1.1 Construction Phase

The potential dust impacts arising from construction activities will be controlled by the Air Pollution Control Ordinance and its subsidiary Regulations. Appropriate dust suppression measures, such as regular wetting of the site to reduce dust and tarpauline covering of all dusty vehicle loads transported to and off site, will be adopted during construction.

5.1.2 Operational Phase

Dust, which is predominantly associated with construction, is not expected to be an issue during the operational stage.

5.2 Noise

5.2.1 Construction Phase

The noise level arising from construction activities will be regulated by the licensing conditions of construction noise permits issued under the Noise Control Ordinance (NCO).

The mitigation measures recommended in ProPECC PN 2/93 “Noise from Construction Activities – Non-statutory” will be implemented, as appropriate, to control the noise impacts. In addition, quieter powered mechanical equipment and/or movable noise barriers can be used to reduce the noise generated to acceptable levels during construction.

In order to minimize disturbance to the Country Parks, helicopters are expected to be used for transporting construction materials to most of the pylon sites within the Park. Due to the remoteness of the pylon sites and the high flexibility of the flight path, noise impact on sensitive receivers can be avoided by carefully choosing the flight path.

5.2.2 Operational Phase

The EIA study will address the potential noise impacts and determine the most practicable mitigation measures to be incorporated into the design of the cable car system and the terminal buildings to ensure residual noise levels to comply with the standards set in the NCO.

5.3 Waste

5.3.1 Construction Phase

Solid waste generated during the construction phase may include excavated spoil, surplus construction materials, used products and municipal type waste, all of which will be disposed of in accordance with environmental guidelines. To minimize impacts, the following will be taken into consideration:

- (a) Solid materials and waste will be removed from the site and taken to a designated disposal site;
- (b) Construction waste will be sorted into inert and non-inert materials and disposed of at public filling areas and landfill sites respectively.

5.3.2 Operational Phase

During the operation of the cable car system, the bulk of waste generated will comprise domestic and commercial refuse. The recycling and re-use of most of these materials such as aluminium, glass, ferrous metal etc., are expected to be planned and implemented by the management of the cable car system.

Used lubricating oil and hydraulic oil will be generated from various operational processes of the cable car system. The operator will be required to be registered with the Environmental Protection Department as a chemical waste producer.

5.4 Water quality

5.4.1 Construction Phase

Mitigation measures will be required to control the site run-off in order to avoid polluting the local streams. By implementing adequate construction site drainage according to the practices outlined in ProPECC PN 1/94 “Construction Site Drainage”, the surface runoff can be controlled satisfactorily without significant adverse impact during construction.

As the Ngong Ping Terminal is within the Water Gathering Ground of Shek Pik Reservoir, any effluent discharged from the terminal to the existing stream course will be pre-treated to comply with the relevant discharge standards for Group A

inland waters as stipulated in the Technical Memorandum.

5.4.2 Operational Phase

The collection, treatment and disposal of wastewater arising from the cable car project and associated development will be addressed in the EIA study.

5.5 Ecology Impacts

5.5.1 Construction Phase

Potential ecological impacts may arise from the construction activities of the project. The proposed cable car alignment will be fine-tuned during the EIA study so as to avoid and/or minimize the potential ecological impacts. The EIA study will analyze any potential impacts on the natural habitat/ecology and recommend mitigation measures to control the site run-off, which might affect the ecologically sensitive streams close to the work area. Mitigation measures to minimize the impact of hill fire on vegetation during construction stage will also be recommended.

5.5.2 Operational Phase

The most probable impact on natural habitat/ecology during the operational stage will be brought about by pylon maintenance works and visitors in the Ngong Ping area. These issues will be addressed and studied in the EIA.

5.6 Cultural Heritage Impacts

If necessary, a historical, archaeological and cultural heritage impact study will be carried out to address the potential impacts along the alignment of the cable car system.

5.7 Landscape and Visual Impact

Mitigation measures to minimize the landscape and visual impacts may include but not limited to:

- (a) Use of crib walls, retaining walls to reduce the amount of earthworks;
- (b) Aesthetic design of retaining walls, elevated structures and terminal buildings;
- (c) Landscape treatment on slopes; and

(d) Compensatory planting.

The potential issues of visual and landscape impacts of the project will be addressed and studied in the EIA.

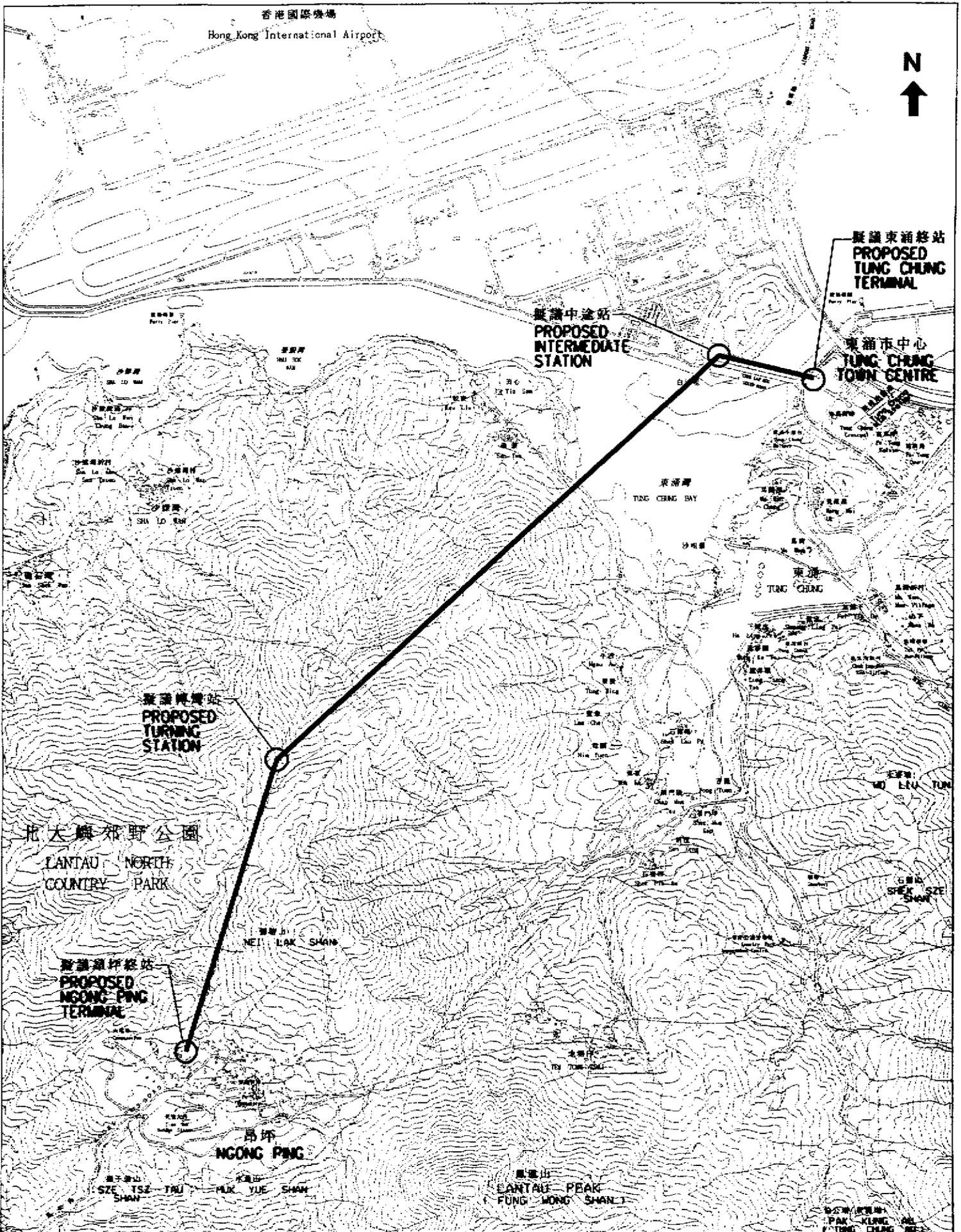
5.8 Apart from the above-mentioned mitigation measures, the EIA study will investigate in detail the environmental impacts and propose appropriate mitigation measures which will be incorporated into the design and implemented during construction. The effectiveness of such mitigation measures adopted will also be closely monitored by implementing appropriate monitoring and audit schemes to ensure their effectiveness.

6. USE OF PREVIOUSLY APPROVED EIA REPORTS

There is no previous EIA reports prepared for the Tung Chung – Ngong Ping Cable Car route for a project of similar nature.

Attachment : Drawing No. HKI-180, HKI-Z181, HKI-Z182 and HKI-Z183

Hong Kong Island and Islands Development Office
Territory Development Department



東涌 - 昂平吊車項目
TUNG CHUNG - NGONG PING CABLE CAR PROJECT

圖例
LEGEND: 拓展署桌面研究報告初步可取路線

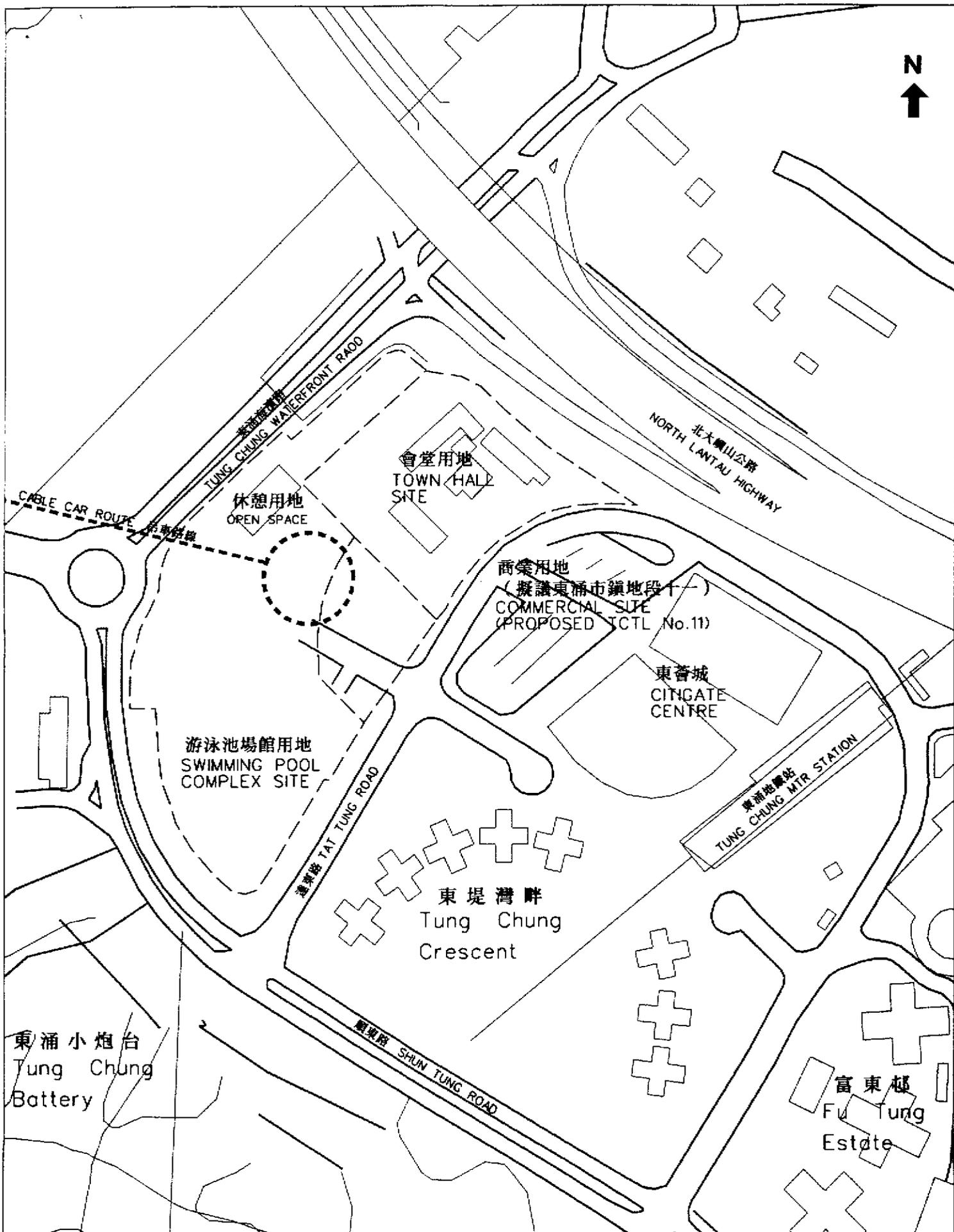
PRELIMINARY PREFERRED ALIGNMENT IDENTIFIED BY DTS

比例
SCALE
不按比例 N.T.S.

圖則編號
DRAWING NO.
HK1-Z180

辦事處 OFFICE
港島及離島拓展處
HONG KONG ISLAND AND ISLANDS
DEVELOPMENT OFFICE

拓展署
TERRITORY
DEVELOPMENT
DEPARTMENT



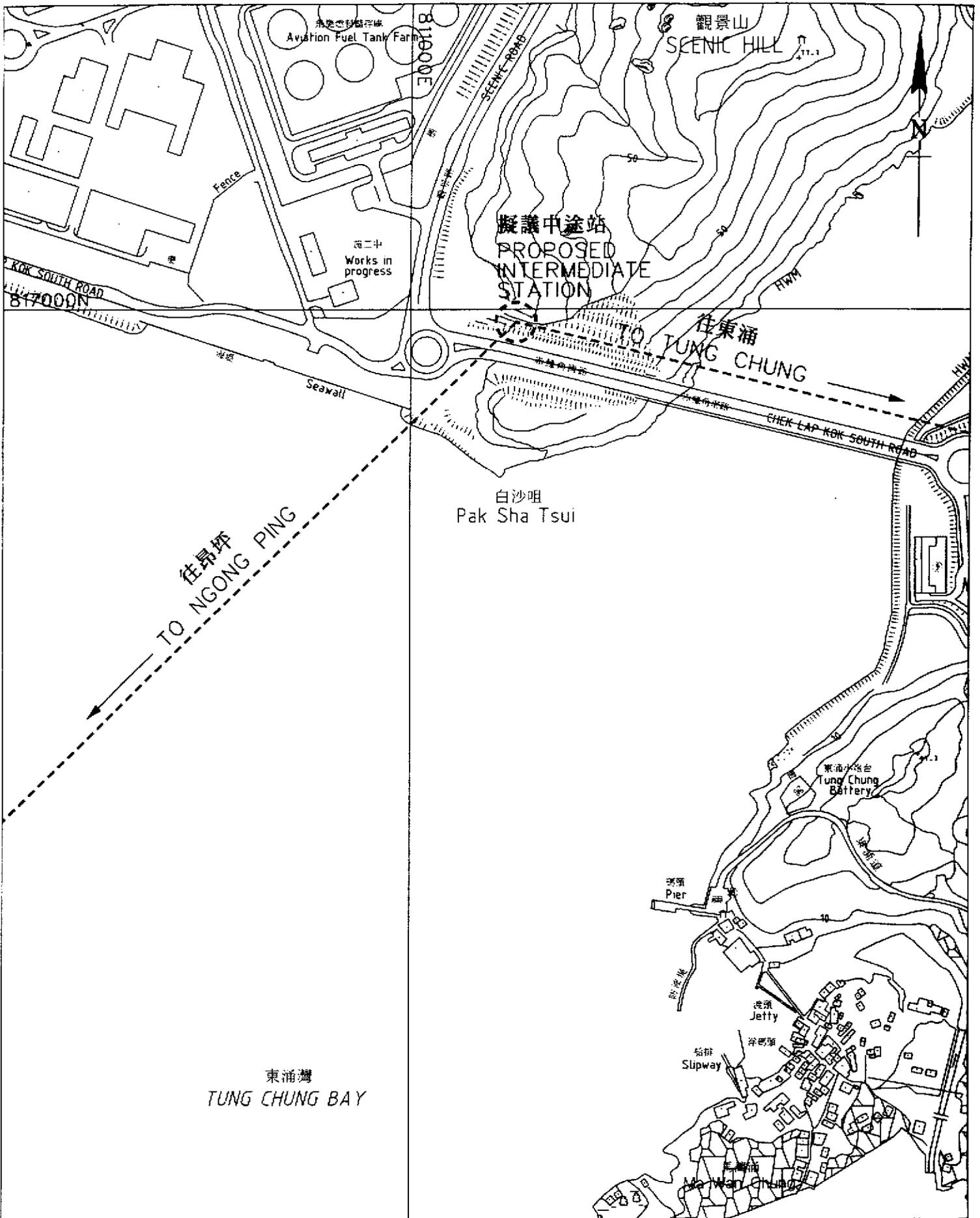
圖例：
LEGEND :

東涌 - 昂坪吊車項目

TUNG CHUNG - NGONG PING CABLE CAR PROJECT

--- 路線
ALIGNMENT

○ 東涌東涌終站可能位置 (根據初步可取路線)
POSSIBLE LOCATION OF PROPOSED TUNG CHUNG TERMINAL
(BASED ON PRELIMINARY PREFERRED ALIGNMENT)



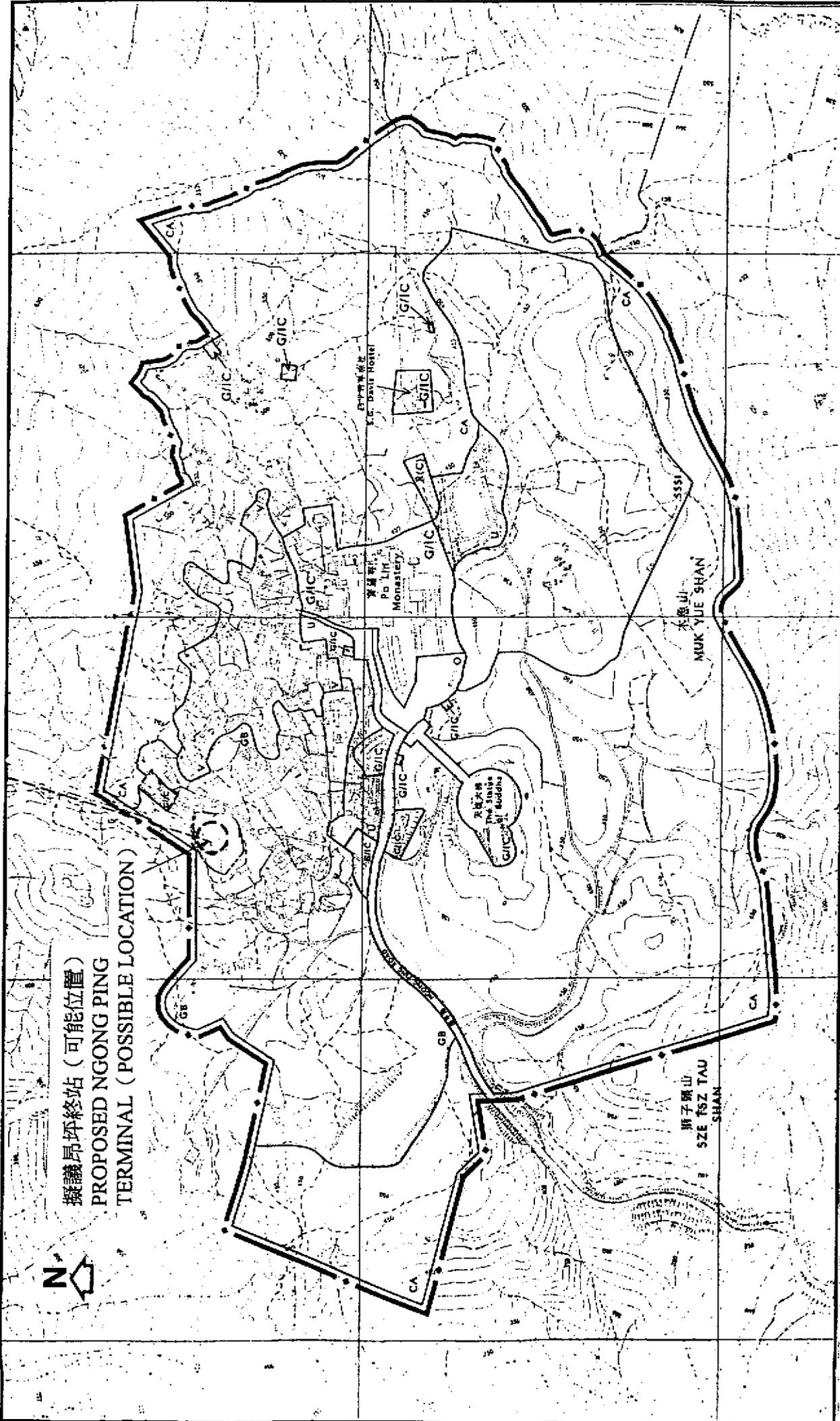
圖例
LEGEND:

----- 路線
 ALIGNMENT

○ 機場島上中途站的可能位置 (根據初步可取路線)
 POSSIBLE LOCATION OF INTERMEDIATE STATION ON THE AIRPORT ISLAND
 (BASED ON PRELIMINARY PREFERRED ALIGNMENT)

東涌 — 昂坪吊車項目
TUNG CHUNG - NGONG PING CABLE CAR PROJECT

HKI-Z182



擬議昂坪終站 (可能位置)
 PROPOSED NGONG PING
 TERMINAL (POSSIBLE LOCATION)



圖例 LEGEND:

--- 路線 ALIGNMENT

○ 昂坪終站的可能位置 (根據初步可取路線)

○ POSSIBLE LOCATION OF NGONG PING TERMINAL
 (BASED ON PRELIMINARY PREFERRED ALIGNMENT)

東涌 - 昂坪吊車項目

TUNG CHUNG - NGONG PING CABLE CAR PROJECT

SCALE : N.T.S. HKI - Z183