



Tai Shue Wan Development at Ocean Park

Project Profile

May 2013
Ocean Park

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Ocean Park, Aberdeen, Hong Kong.

Issue and revision record

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A	May 2013	Various	Gary Chow	Eric Ching	First submission

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1. Basic Information

1.1 Project Title

The title of this Project is “Tai Shue Wan Development at Ocean Park”.

1.2 Project Description and Nature of the Project

The project is to redevelop the existing theme park areas at Tai Shue Wan (TSW) into a Water Park to enhance the attractiveness of Ocean Park into a world-class theme park and provide a must-see destination to the visitor. This Project is anticipated to be completed for operation by second half of year 2017.

1.3 Name of the Project Proponent

The Project Proponent is Ocean Park Corporation (OPC).

1.4 Location and Scale of the Project

An approximately 6 hectares of proposed Project will be mainly located within the developed areas of Middle Kingdom and Bird Paradise in the TSW Ocean Park area. OPC is currently the holder of the Environmental Permit No. EP-249/2006/B, which is a variation to the original Environmental Permit No. EP-249/2006. **Figure 1** shows the proposed project layout plan.

The Zone is primarily planned to a general low-to-medium rise marine-themed park development with related retail, dining and entertainment facilities (not include hotel development) serving visitors and the public. The development will consist of the following:

- (a) An indoor zone – Water Park (with a wave pool; sandy beach, lazy river, various water slides, F&B facilities; premium zone with cabanas; associated facilities; and also with underground car-parking)
- (b) An outdoor zone – Water Park (also with various pools, lazy river, water slides, natural stream and pools; and some small-scale F&B facilities)
- (c) General approach area; coach & taxi drop-off point and Emergency Vehicular Access Road (EVA).

The design of the proposed Project will be commenced in the second quarter of year 2013. The earliest advance site work is anticipated to be physically commenced by the second quarter of year 2014. The Project is targeted to be complete and opened to the public by second half of year 2017.

1.5 History of site

The Project area is situated on the southern side of the existing Ocean Park area and surrounded by hill slopes on three sides and seawall on the west. The area was covered by the Middle Kingdom, Aviary, Flamingo Pond and Bird Paradise.

1.6 Number and Types of Designated Project Covered by the Project

The Ocean Park is an exempted designated project under Part 1, Schedule 2, Item O.8 of the Environmental Impact Assessment Ordinance (EIAO), as it was already in existence before the enactment of the EIAO. The proposed TSW Development at Ocean Park, which involves a change to physical alignment, layout or design of the project causing an environmental impact, is subject to a material change to the designated project.

1.7 Name and Telephone Number of Contact Person(s)

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2. Outline of Planning and Implementation Programme

2.1 Project Implementation and Schedule

The design of the proposed Project will be commenced in the second quarter of year 2013. The earliest advance site work is anticipated to be physically commenced by the second quarter of year 2014. The EIA study is planned for commencement upon issue of the Study Brief and is anticipated to be completed in the third quarter of 2013 subject to overall programming of the Project. Construction of the Project will commence upon receipt of environmental permit. The Project is targeted to be completed and opened to public by second half of year 2017. The proposed timetable for the implementation of the Project is showed in **Table 1**.

Table 1: Proposed timetable for implementation of the Project

Activities	Time
EIA study	June 2013 – Nov 2013
Approval of an EIA report	March 2014
Application for an environmental permit	April 2014
Commencement of Construction	May 2014

2.2 Interactions with Other Project

2.2.1 No significant interfacing with other projects has been identified.

3. Possible impacts on the environment

3.1 Outline of Processes Involved

3.1.1 Construction of the Project

The envisaged method of construction for various elements of the works includes:

- Site formation
- Foundation and footing construction
- General building construction
- Water pools and streams re-provision
- Soft and hard Landscaping works
- Access road and EVA construction
- Water rides installation

The Project will not involve any dredging, reclamation or seawall construction.

3.1.2 Operation Plan for the Project

The Project will consist of two parts –an indoor zone and an outdoor zone. A general approach area will be provided for coach and taxi drop-off point and Emergency Vehicular Access Road (EVA).

3.2 Potential Environmental Impacts

The proposed Project is situated within the Ocean Park TSW development, which is located to the western side of Nam Long Shan (Brick Hill) facing the Aberdeen Channel and is generally made up of rocky slopes with scattered vegetation. The site is shielded by natural hill/landscape and the nearest air/noise sensitive receivers are the small industrial area and scattered schools nearby. The potential environmental impacts based on the preliminary project design information during the construction and operation phases have been identified as below:

3.2.1 Air Quality

3.2.1.1 Construction phase

During construction phase, construction dust would be potentially generated from the demolition and construction works. Gaseous emission from construction plant and vehicles may also have impact on air quality.

3.2.1.2 Operation phase

During operation phase, traffic flows on Shum Wan Road will be resumed, but will not be more than that before the closure of the Tai Shue Wan Entrance at January 2011. Therefore, the emission from vehicles would not cause deterioration of the nearby air quality.

3.2.2 Noise

3.2.2.1 Construction phase

During construction phase, potential noise impact on noise sensitive receiver arising from construction activities such as site formation work and powered mechanical equipment should be taken into account.

3.2.2.2 Operation phase

Regarding the operational phase, a number of noise sources are anticipated:

- The E&M equipment serving the project;
- Other fixed noise sources such as plant/ pumps etc;
- A public announcement (PA) system similar to the system serving the existing Park;
- The ventilation louvers for the Indoor Water Park enclosure / shell structure;
- Chiller plant for the Water Park which is anticipated to be located in the basement level; and
- Traffic from Shum Wan Road will be resumed, but will not be more than that before the closure of the Tai Shue Wan Entrance at January 2011.

3.2.3 Water Quality

3.2.3.1 Construction phase

No reclamation, hydraulic/marine facilities, dredging or any seawall construction will be conducted under this Project. The potential water quality impact will be the construction runoff and drainage from land-based construction activities and the sewage effluents from the construction workforce. The small stream close to the Bird Paradise would be re-provisioned as part of the landscape design for the TSW development and the water quality impact on the coral located around the TSW Headland will be avoided and minimized through strict control of surface runoff and implement good site practices, with an Environmental Monitoring and Auditing mechanism.

3.2.3.2 Operation phase

The potential water quality impact sources during the operation phase are anticipated to be as follows:

- Additional discharges, if any, containing disinfectants/ residual chemicals from waterpark pools;
- Surface runoff from landscaped areas potentially containing pesticides or fertilizer residues;

- Thermal and chemical discharge, if any, from cooling systems; and
- Possible sewage overflow and/ or emergency bypass as a result of capacity constraint of sewerage system or emergencies arising from the Project proposal, if any, for sewage treatment and disposal within the Park.

Any effluent discharged from the Water Park would be required to comply with the standards stipulated in the discharge licences issued by EPD for discharge to the public foul sewers within the Western Buffer Water Control Zone.

3.2.4 Waste Management

3.2.4.1 Construction phase

Construction and demolition (C&D) materials generated from the site wastes, site formation, refuse from the workforce and chemical waste will be collected, handled and disposed of according to the Waste Disposal Ordinance.

3.2.4.2 Operation phase

During operation phase, the main sources of waste would be general refuse and commercial waste (including food waste) generated by guests and the F&B and retail facilities respectively.

3.2.5 Ecology

During construction phase, the existing shrubland habitat within and in the periphery of the Project area will be affected. The Project would also cause potential impact on the ardeids roosting near Flamingo Pond and Bird Paradise. Impact, if any, on the two seasonal fresh water streams which located at the southern slopes of Nam Long Shan Road will need to be addressed.

3.2.6 Landscape and Visual

The proposed Project will have a moderate change on the existing landscape and visual context of the TSW area. The Project will be able to be seen by a number of VSRs during both the day and when lit up at night. However, it is likely that the proposed major facilities, such as the Indoor Water Park enclosure, will be seen as vibrant additions to the Hong Kong landscape and tourism facilities and would not present any insurmountable landscape and visual impact.

3.2.7 Cultural Heritage

No known area of archaeological site, cultural / built heritage resources or historic monument within and in the vicinity of the Project area was identified.

3.2.8 Hazard to Life

No chlorine storage facility will be needed and no PHI will be involved for the proposed Project.

4. Major Elements of the surrounding environment

4.1 Major Existing and Planned Sensitive Receivers

The major existing and planned sensitive receivers and parts of the natural environment that might be affected by the proposed Project are highlighted in **Table 2**.

Table 2: Major existing and planned sensitive receivers

Type of Sensitive Uses	Sensitive Receivers/ Sensitive Parts of Natural Environment
Educational Institutions	Victoria Shanghai Academy, and HK Juvenile Care Centre
Water Bodies	Existing seawater intake for pumping station at Ocean Park; Aberdeen South Typhoon Shelter; Secondary contact recreational waters to the south of Ocean Park; Corals at some sites around the headland including in TSW Bay; and small streams close to Flamingo Pond and Bird Paradise
Ecologically Significant Areas	Semi-natural shrubland, Ardeid roosting site near Flamingo Pond and Bird Paradise
Places of High Visual Value	Pleasure boat users travelling at Aberdeen Channel and East Lamma Channel

5. Environmental Protection measures to be incorporated in the design and any further environmental implications

5.1 Air Quality

5.1.1 Construction phase

Dust control measures should be implemented in accordance to the Air Pollution Control (Construction Dust) Regulation such as adoption of good site practices, regular plant maintenance and regular watering to reduce dust emission. With mitigation measures in place, it is anticipated that construction phase air quality impacts can be maintained within acceptable levels.

5.1.2 Operation Phase

For potential air quality impacts during operation phase, the Project will seek to avoid or minimize such impacts as far as practicable during the process of establishing the TSW development.

5.2 Noise

5.2.1 Construction phase

Various noise mitigation measures may be applied to reduce noise levels during construction phase. Mitigation measures such as use of quiet plant, locating noisy PME away from NSRs, use of silencers and mufflers and use of noise barriers or enclosure, etc., will be implemented as required to ensure construction noise is reduced to acceptable levels.

5.2.2 Operation phase

For stationary sources, mitigation measures would be required. The exhaust louvers of the plant can be orientated away from the identified sensitive receivers, and the stationary plant should be powered down to minimal when they are not in use. Silencers, vibration dampers and enclosures are also suggested to be used.

5.3 Water Quality

5.3.1 Construction phase

During the construction phase, mitigation measures for water quality impacts will be implemented in accordance with the Practice Note for Professional Persons on Construction Site Drainage (ProPECC PN1/94). With mitigation measures in places, it is anticipated that construction phase water quality impacts can be maintained within acceptable levels.

5.3.2 Operation Phase

During the operation phase, proper means of treatment and/ or disposal of sewage generated during the operation phase will be provided.

5.4 Waste Management

5.4.1 Construction phase

During the construction phase, measures that may be implemented to manage the waste generated from the Project site includes preparation of a Waste Management Plan, on-site sorting and reuse of C&D materials, implementation of a trip-ticket system and appropriate handling, storage and disposal of chemical waste in accordance with the Waste Disposal (Chemical Waste) (General) Regulations.

5.4.2 Operation phase

During the operation phase, the main sources of waste would be general refuse and commercial waste (including food waste) generated by guests and the F&B and retail facilities respectively. The existing waste management systems employed in the Park would be extended to deal with these wastes. Proper refuse collection and handling will be implemented and provisions will be made for recyclable materials to be segregated from the general refuse as far as practicable.

5.5 Ecology

5.5.1 Construction phase

During the construction phase, impact on flora/fauna species of conservation interest will be avoided as far as possible. Where it is practicable mitigation measures such as transplantation and compensation of ecologically important habitat will be provided. Indirect construction disturbance will be minimized through fencing off works areas.

5.5.2 Operation phase

Compensation of trees could re-provide roosting habitats for affected fauna species.

5.6 Landscape and Visual

5.6.1 Construction phase

During the construction phase, appropriate mitigation measures will be adopted to minimise the landscape and visual impacts such as use of decorative hoardings and early introduction of landscape treatments. The development of the Outdoor Water Park facilities around the site such as water features and natural slopes will be undertaken in a careful and sympathetic manner to avoid damage to the natural and semi-natural topography and site resources.

5.6.2 Operation phase

During the operation phase after full establishment of the TSW development, it is anticipated that the landscape amenity and visual context of the site will be enhanced.

5.7 Cultural Heritage

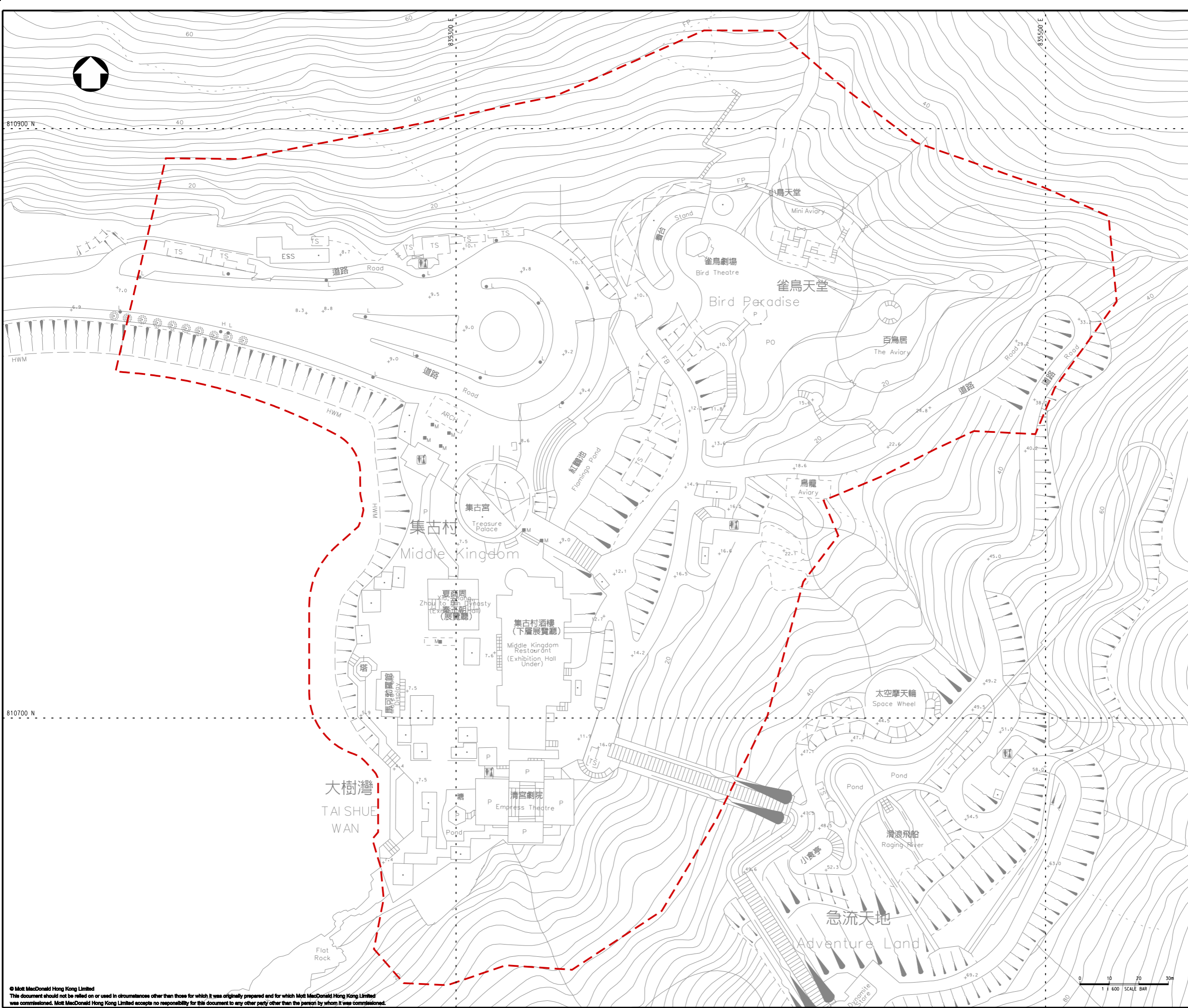
No mitigation measure for cultural heritage is considered necessary.

6. Use of previous approved EIA Reports

The following approved EIA report was used for reference:

- Repositioning and Long Term Operation Plan of Ocean Park Environmental Impact Assessment (approved on 12 July 2006).

Figure



Notes

Key to symbols

--- PROJECT AREA 項目範圍

Reference drawings

P1	MAY 13	MING	FIRST ISSUE	GC	AFK
Rev	Date	Drawn	Description	Ch'kd	App'd



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Project

**TAI SHUE WAN DEVELOPMENT
AT OCEAN PARK
海洋公園大樹灣發展**

Title

**PROJECT LAYOUT PLAN
項目範圍**

Designed	RH	Eng check	GC
Drawn	MING	Coordination	SMF
Dwg check	RH	Approved	AFK
Scale at A1	1:600	Status	PRE
Drawing Number	FIGURE 1		圖一