Proposed Development at Fung Lok Wai, Yuen Long at Lot 1457 R.P. in D.D.123

Project Profile
Prepared in accordance to the Environmental Impact Assessment Ordinance (Cap 499)

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1. BASIC INFORMATION

1.1 Project Title

The title of this Project is:

"Proposed Development at Fung Lok Wai, Yuen Long at Lot 1457 R.P. in D.D.123", hereafter referred to as the "Project".

1.2 Purpose and Nature of Project

The project comprises the following development:

- a low density residential development with a domestic GFA measuring 148,000 m^2 within a development area of approximately 4.1 ha ;

- 71.6 ha (90% of the Project area) of enhanced and managed Wetland Nature Reserve (WNR). The proposed residential blocks will be located in the south-western corner of the site, with the WNR situated in the northern part of the site. The active fish ponds currently occupying this area will form the basis of the ecological compensation for the Project and will be enhanced in the following manner:

    - ♦ The pond bunds will be re-profiled to provide shallow sloping and irregular margins to increase feeding opportunities and efficiency for species like herons, egrets, waders, rails and crakes.

    - ♦ Emergent vegetation will be allowed to develop naturally or will be planted. Cover and feeding habitats will be provided on pond margins for animals, especially in areas of possible disturbance. Emergent vegetation will also be used to form links with similar types of habitat within and off the site.

    - ♦ Areas of shallow water and muddy islands will be provided at some of the larger ponds furthest from the residential development and closest to the Deep Bay mud flats. These areas will provide enhanced roosting and feeding habitats for herons, egrets, and waders.

    - ♦ The size of fishponds will be increased to reduce disturbance effects to egrets and herons.

    - ♦ Fish rearing will continue for conservation (rather than commercial) purposes, e.g. the fish species reared will be specially selected so as to provide prey for piscivorous birds.

- Fishpond draw down will be co-ordinated to provide food for wintering waterbirds, such as the Black-faced Spoonbill.

- If necessary, a number of ponds could also be drawn down in March/April to provide high-tide roosting sites for passage shorebirds, e.g. stints.

1.3 Name of the Project Proponent

The Project proponent is the Mutual Luck Investment Ltd., the registered owner of Lot 1457 R.P. in DD123, Yuen Long (the Project).

1.4 Location and Scale of Project, and History of Site

The location of the Project within Northwest New Territories is shown in Figure 1.1. The Project is located to the south of the Inner Deep Bay mud flats, between Yuen Long Industrial Estate and the Tin Shui Wai International Wetland Park (currently under construction). Immediately south of the Project area is Ng Uk Village. Ya Kai Shan is located to the immediate south-west of the Project area. This hill has a peak of 210m, screening the Project from the sight of Wang Chau and Yuen Long, which are 1.5 and 2 km south of the Project site respectively. The Yuen Long Industrial Estate is 1.45 km south-east of the Project.

TPB has proposed an amendment to the zoning of the Project site to "Other Specified Uses (Comprehensive Development and Wetland Enhancement Area)" ("OU(CDWEA)").

The Project area occupies 80.1 ha, 71 ha of which is existing wetland, primarily in the form of fishponds. Figure 1.2 shows the existing habitats for the area surrounding the Project, including the International Wetland Park (under construction) adjacent to Tin Shui Wai Reserve Zone. The Project is entirely within the Wetland Conservation Area (WCA) designated under the Town Planning Board Guidelines (TPB PG-No. 12B, April 1999). The northern boundary of this wetland area adjoins the Deep Bay Site of Special Scientific Interest (SSSI). Figure 1.3 shows the proposed habitats following the implementation of this Project.

The proposed residential development has a planned population of 3800 to 4900, and the proposed range of flat units is from 1360 to 1740. Figures 1.4 and 1.5 shows the current tentative layout plan of the Project and a photomontage showing the view looking from the Northwest towards to the Southeast, following implementation based on this provisional layout.

This site has a long history as a wetland area. Before 1800, the Deep Bay coastal area, of which the Project area is part, was dominated by brackish and fresh water marshland habitats. Between 1903 and 1945, the site was gradually reclaimed from the Deep Bay coast to form brackish and fresh water rice paddies and *gei wei* shrimp ponds. In 1924 it is understood that

there was a number of large and presumably tidal lagoons, including some areas of mangroves. Some mangroves and evidence of abandoned brackish rice paddies still exist along the southern edge of the site.

These paddies and *gei wei* were gradually converted to deep water fish ponds. By mid 1970's, almost all paddies and *gei wei* along Deep Bay coast had been converted to deep water fish ponds. From an aerial photo dated 1979, most of the Project area was still tidal, but a number of fish ponds had already been established in the south-western portion of the site.

Another aerial photo taken in 1992 shows that the whole site had been converted to fresh water ponds, the majority of which are used for fresh water fish farming. A few ponds along the southern edge of site are used for duck farming. Visual inspection of the site in December 1997 and January 1998 and recent aerial photos, indicate no significant changes have occurred in the location and boundaries of fish ponds since 1992.

1.5 The Type of Designated Project Covered in the Profile

The Project is a Designated Project according to Item P1 of Part I, Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO), since it is a residential development other than New Territories exempted houses within the Deep Bay Buffer Zones 1 or 2.

1.6 Name and Telephone Numbers of Contact Persons

2. PLANNING AND IMPLEMENTATION PROGRAMME

2.1 Responsibilities of Parties

Project Proponent : to commit to the recommendations and requirements of the EIA report and the TPB Planning Guidelines, particularly in terms of the ecological mitigation measures proposed.

Environmental Consultants : to recommend and develop mitigation measures of all unacceptable environmental impacts, in particular with respect to the ecological mitigation design and implementation.

2.2 Project Time Table

The tentative project time table for implementing the Project is from 2002 to 2006. The residential development is expected to be occupied from. 2006 onwards.

2.3 Considerations on Programme Requirements and Interaction with

Other Projects

The main consideration on programme requirement is the capacity of Ha Tsuen Pumping Station and the completion of the sewerage system for Tin Shui Wai Reserve Zone. Since the volume of sewage generated from the Project is likely to be small, the capacity of the current Ha Tsuen Pumping Station is likely to suffice. To confirm this, a Sewage Impact Assessment (SIA) will be undertaken as part of the study.

Construction of the Tin Shui Wai International Wetland Park began in later 1999. Works for this project and construction for the present project will therefore be concurrent for a period of time. The programme for design, construction and access routes of the WNR will therefore need to take into account the Wetland Park operation.

3. POSSIBLE IMPACT ON THE ENVIRONMENT

3.1 Ecology

Key issues requiring further design consideration and which may have a potential impact on the ecology of the Subject Site include:

- potential disturbance effect of the residential development to the flight path of birds, and from noise created by general community activities. The former is related to block height and layout;
- potential disturbance to fauna from visitors to the WNR;
- potential disturbance to an area within the proposed TSW International Wetland Park (Figure 3.1). The area likely to be impacted is low-lying ground, which will be modified into a marsh habitat to complement other wetland habitats in the Wetland Park design. The current impact assessment will take into account both the low traffic flow (490 pcu per hour at maximum) and the sensitivity of the habitat to disturbance;
- temporary disturbance impacts from wetland enhancement work and construction of residential development. Such impacts would be isolated to a few ponds at a time and will be scheduled to avoid the migratory season from November to March when the site is most heavily used by birds. Site surveys at Tin Shui Wai, however, shows that some species of birds can adapt to a noisy environment. Notwithstanding, suitable mitigation measures will be proposed to minimise the temporary noise impacts from piling works for the residential development.
- potential disturbance impacts on the WNR from increased traffic have been minimised by locating the access road to the south and west of the WNR area, thus minimising impacts on wildlife in the existing and future wetland areas..

3.2 Contaminated Materials

The sediments within the Project are predominantly marine deposited silt and clay. The fresh water aquaculture practice requires that organic fertilisers and sometimes lime be added for adjusting pH and to increase nutrient level. Aquaculture effluent does not contain heavy metals or toxic chemicals, although nutrient levels are quite high. It is not expected that any significant amount of contaminated mud would be present within the Project area.

Potential impacts from dredging and movement of pond sediment include increasing the turbidity of pond water and potential spillage into adjacent watercourses. Nutrients may be released into the pond water, resulting in a reduction in dissolved oxygen levels that may affect the aquatic life of the water body. These impacts will be temporary and, with appropriate mitigation in place, are expected to be minor.

3.3 Contaminated Land

The intended land use of the Project is residential and WNR. The land use for the past 70 years of the Project was fresh water aquaculture, and before that it was undisturbed coastline. Neither constitute contaminating land uses and land remediation is not required for the intended use of the Project.

3.4 Generation of Solid Waste

Construction waste impact is likely to be negligible as much of the displaced pond and pond bund material can be reused on site for the creation of the WNR.

A small quantity of municipal waste will be generated by the proposed residential blocks.

3.5 Generation of Effluents and Contaminated Runoff

During construction sediments or concrete washings could pollute storm water runoff if preventive measures are not taken. A small quantity of sewage will be generated from the proposed residential development.

3.6 Dust Emission

Marine sand will be used to form the residential part of the Project. This fill material is relatively coarse and generates minimum fugitive dust. Part of the WNR will require site formation using powered mechanical equipment to achieve the desired gradient.

Materials will be transported to the site by the access road to be constructed west of the development. Dust from this road is expected to be minimal. Nevertheless, measures should be implemented which minimise dust generation, such as watering of roads and covering of lorries' loads.

3.7 Noise

Minor noise impacts are likely during the construction phase. Potential impacts on wildlife have been discussed in detail in section 3.1. The nearest noise sensitive receivers are approximately 100 to 150 m south of the proposed residential development, with a small hill screening the view of these sensitive receivers towards the nearest proposed residential block.

Negligible noise impact is expected during the operation phase in view of the very low traffic volume, with an estimated morning peak trip generation of 380 to 490 pcu per hour on access road. Impacts from the proposed access road will be minimised through its location to the west and south of the residential development. A boundary wall and tall trees around the residential development will provide physical screening from any potential noise nuisance.

3.8 Visual and Landscape Character

There are no direct visual sensitive receivers of the proposed development as it is directly facing Inner Deep Bay. The location of the blocks adjacent to and in the shelter of a hillside helps to reduce the potential landscaping impacts which would arise from residential buildings in a rural landscape area. The physical presence of the blocks has a potential to impose on bird flight lines, an aspect of the project that requires further detailed studies to evaluate the extent of the impact.

4. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

4.1 Existing and Planned Sensitive Receivers

Figure 4.1 gives the locations of all the existing and planned noise, air and water quality sensitive receivers within 300m of the Project boundary. Representative sensitive receivers for each issue are also identified on this figure.

Noise and air sensitive receivers are located approximately 100m to 150m south of the proposed residential development. A small hill lies between the sensitive receivers and the development. The nearest water sensitive receiver is the western drainage channel that drains to Inner Deep Bay, a poorly mixed waterbody in which water quality has deteriorated in recent years, affecting the ecology of the system. For this reason, a “Zero Discharge Policy” (ZDP) has been applied to the Inner Deep bay area for protection of the marine environment.

4.2 Natural Environment

The existing habitats of the Project area were mapped through site visits undertaken between December 1997 and January 1998 and are shown on Figure 4.2. Since the middle of 1970's, all of the Project area has gradually been converted to deep water fish ponds. While providing an extensive wetland area, almost all of the natural and semi-natural freshwater habitat of Deep Bay coast has been lost.

The fishponds within the Project area represent a very important food source for both local and migratory birds. While the ponds are stocked, birds prey on both commercial and non-commercial fish and fresh water shrimp. Food is most available when the fish ponds are drained down periodically for harvest. Birds then flock to feed on the non-commercial fish and the abundant invertebrate population that then become available.

Many of the bird species observed within the Project area are also found at Mai Po Nature Reserve, indicating that the two areas are closely connected as a wetland unit.

4.3 Existing and Past Land Uses of the Project Site

Records before 1800 show that the Project area was part of a larger area of brackish and freshwater marshland. Land use changed as the site was gradually reclaimed from the Deep Bay coast to form brackish and fresh water rice paddies and *gei wei* shrimp ponds. Some mangroves and evidence of abandoned brackish rice paddies still exist along the southern edge of the site. By mid 1970's, almost all paddies and *gei wei* along Deep Bay coast had been converted to deep water fish ponds, although large expanses of the area remained tidal. Gradually, the number of freshwater ponds increased until in the 1990's, the whole site had been converted to fish ponds for use in fish farming and duck farming.

5. ENVIRONMENTAL PROTECTION MEASURES TO BE IMPLEMENTED

5.1 Ecology

The Project, if implemented, will result in a net increase of total wetland area and diversity within the Project. The original wetland area within the Project area amounts to 71 ha. This will be increased to a managed wetland area of 71.6 ha. The WNR has been designed to meet the following ecological and conservation objectives: -

- to ensure long-term conservation of valuable wetland areas;
- to meet the criterion of no net wetland loss and no loss of wetland function;

- to direct the productivity of the fishponds towards support of additional wildlife without compromising the existing wildlife;

- to increase bio-diversity of the zone; and

- to provide public access compatible with the TSW International Wetland Park and the 'Public Access Zoning' of the Ramsar Site.

The Project Proponent commits to establish a non-profit, independent wetland foundation for the WNR, which will be endowed with sufficient funds to provide a perpetual income to ensure the proper management of the WNR. The funds will be costed on the basis of a long term integrated multi-disciplinary management scheme with the ability to formulate new management strategies based on carefully collected and analysed scientific data. The foundation will oversee the use of resources (including funding) to manage the wetlands endowed to it. The WNR management foundation shall be set up with the following objectives in mind:

- to act as a vehicle for the ownership and /or management of any and all wetland entrusted to it;

- to implement management plans for the conservation, restoration, creation or ecological enhancement of such wetland, through a designated management agent;.

- to assist in the education of the public and to promote wetland research, management and wardening;

- to promote the concepts of conservation, replacement, restoration or ecological enhancement of wetland in the HKSAR;

- to oversee the use of the funds in achieving the management objectives; and

- to undertake all other activities necessary to meet the above objectives.

Measures to minimise disturbance to wildlife during the construction phase, include:

- reclamation to be carried out for the residential development area will be kept within a set of bunded fish ponds. Marine sand used for reclaiming this area will be transported to site via an access road to the south and west of the site to avoid impacting the wetland area in the north of the Project;

- temporary noise barriers will be erected along the access road and around the residential development during the construction stage to minimise disturbance from haul road traffic and site formation on both the proposed WNR area and the proposed TSW IWP;

- the access road will be widened to the minimum width necessary to serve the development. Works along the road will be minimised through careful scheduling of equipment and timing of the works;

- the intensity of the reclamation works will be kept low. The works will be timed to avoid the period between November to March when the number of feeding and roosting birds at Deep Bay is highest;

- dust levels will be kept low by frequent watering;

- works and site runoff will be contained within each bunded pond. Disturbance will be minimised to a level similar to that of regular fish pond maintenance during a drain down.

In the long term, public access to the WNR will be controlled to minimise disturbance to wildlife. Tall vegetation and fencing will be employed as a means of discouraging intrusion and specific viewing areas will be implemented to allow maximum benefit to public without resulting in disturbance impacts. Bird flight paths will be a consideration for block layout and height design.

5.2 Solid Waste Management Measures

A Refuse Collection Point (RCP) will be set up at the proposed residential development for collecting municipal waste and cleared vegetation. The waste will be transported to a Refuse Transfer Station for onward transportation to landfill during the operation phase.

During the construction phase, any material unsuitable for engineering use, such as pond bund material under the proposed residential development, will be used to create the WNR. Waste material will be classified, recycled and/or disposed to landfill as appropriate.

5.3 Effluents and Runoff Management

The volume of sewage generated during the operation phase of the residential development is estimated to be 1748 to 2254 m^3 based on the planned population and a sewage generation rate of 460 litres/head/day. The pollutant loading from the development is expected to be minimal. Storm runoff from the development will be passed through standard pre-treatment devices such as catchpits, to remove sediment, before entering the receiving water body. The feasibility of alternative mechanisms for pollutant reduction in stormwater, such as infiltration devices within the drainage system, will be investigated for the development. A proportion of the site

run-off will flow into the WNR wetland bodies, which will provide further polishing of the stormwater before it enters Deep Bay. Mechanisms that occur in wetlands to remove pollutants include:

- Sedimentation (for solids).
- Bacterial breakdown (organics).
- Adsorption and complexation (metals).

The effectiveness of removal varies, depending on the design, vegetation type and retention time in the wetland. Removal efficiencies have been reported to range from 50 to 80% for BOD5, 60 to 90% for solids and 60 to 80% for metals. Pollutant removal through an effective drainage system and wetland "polishing" is expected to reduce pollutant loading to a minimum level.

Within the proposed WNR, water will be drained from fish ponds periodically as per normal farming practice, thus minimising drainage impacts. Potential changes in the drainage patterns of the area as a result of the proposed development and associated mitigation will be evaluated in a DIA.

During the construction phase, sediment in wheel wash effluent will be settled and reused as far as practicable. Any remaining sediment will be disposed of appropriately in a public fill. As each fishpond is already bunded, sediment loaded runoff will be contained within the site. Sediment will be settled before runoff is released .

5.4 Dust Mitigation Measures

Wheel washing facilities will be provided for construction vehicles. Sediments in the effluent from wheel wash facilities and site runoff will be settled and removed before discharge to stormwater facilities. If stockpiles are required they will be covered. Exposed earth surfaces will be watered to minimise generation of fugitive dust as far as practicable.

5.5 Noise Mitigation Measures

The number of construction equipment will be minimised and turned off when not in use, and careful choice of work method will be required.

5.6 Visual and Landscape Mitigation Measures

Although direct visual sensitive receivers are absent, the overall visual character of the development and the site will be designed and landscaped incorporating a visually pleasing view of the area and minimising obtrusive features within the surrounding rural environment. Landscaping impacts have been minimised through location of the residential blocks close to the hill. Studies will be carried out on bird flight lines to optimise the building form to ensure minimal impact on avifauna.

6. FURTHER ENVIRONMENTAL IMPLICATIONS

6.1 Beneficial Effects

The Project will bring many beneficial effects on the ecology of the Subject Site as listed below:

- The naturalness of the Project will be considerably increased through ecological enhancement of the pond areas, such as establishing reed fringes, irregular and shallow sloping shorelines, more sustainable pond management practices, and re-creation of 12.9 ha of near-natural wetland habitats including reedbeds, ponds and 1.72 ha of marsh, which is a rare habitat in Hong Kong.

- Habitat and species diversity, as well as overall species richness and wildlife will be increased, especially for non-bird taxa. It is estimated that approximately 18 species of birds of particular conservation importance are likely to increase in number due to improvement of habitat quality.

- Creation of 1.72 ha of marshland habitat, which is becoming increasingly rare in Hong Kong.

- Maintenance of a contiguous fishpond system along the Deep Bay coastline through sustainable management, thus minimises fragmentation.

- Creation of ecological corridors consisting of a range of types and depths of vegetation to provide cover for animals.

- Creation of a Wetland Foundation which will be designed to manage wetland compensation area and thus contribute to the conservation of Hong Kong's ecological resources.

- The WNR will be designed to increase the suitability of the site as a breeding ground for various species.

- The permanent nature of the WNR will increase sustainability and ecological value of the fishponds and the new habitats created as a result of the Project.

6.2 Severity of Adverse Effects

Although potential fugitive dust and noise impacts are expected during the construction phase, the impacts are minor and temporary. Potential impacts

from site runoff, sewage, and waste will be contained within the subject site and mitigated with emphasis on recycling and overall pollutant loading reduction. Short term adverse effects from the Project will be minimised by vigilant application of proposed mitigation measures while there are negligible long term adverse effects.


N
Deep Bay
MAI PO
NATURE RESERVE
Tin Shui Wai
Wetland
Park
Fung Lok Wai
TIN SHUI WAI
RESERVE ZONE
TIN SHUI WAI
LEGEND
Boundary of Wetland Conservation Area (WCA)
Boundary of Wetland Buffer Area (WBA)
Boundary of Fung Lok Wai Alternative Proposal Subject Site
Figure title
Location Of Project, Wetland Conservation Area
Boundary And Wetland Buffer Area Boundary
Scale 1:15000
Date May 2000
Figure no. 1.1
Client
MUTUAL LUCK INVESTMENT LTD.
Consultant
Binnie
Binnie Black & Veatch Hong Kong Limited
博威工程顧問有限公司

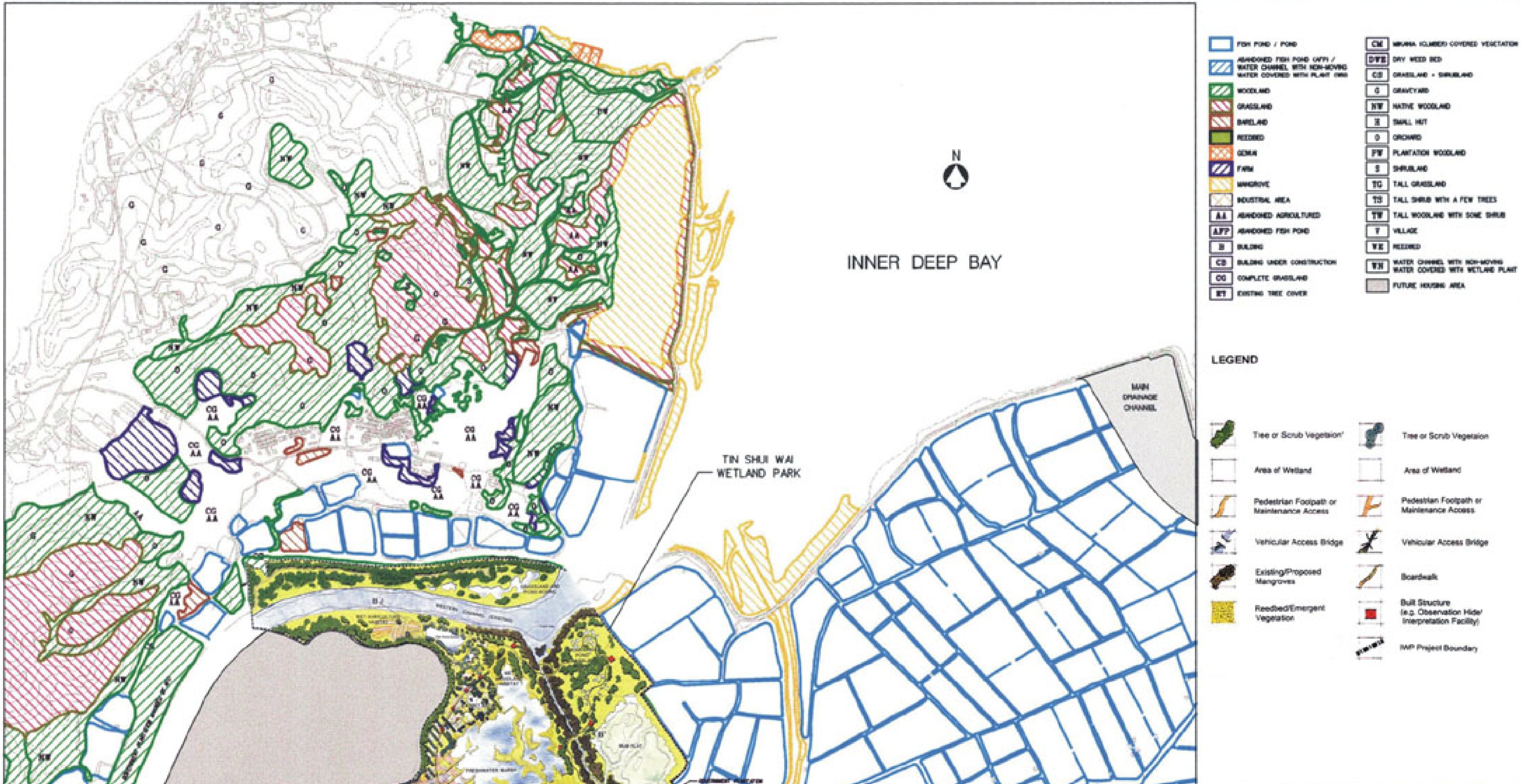
INNER DEEP BAY
N
TIN SHUI WAI
WETLAND PARK
MAIN
DRAINAGE
CHANNEL
WORKS IN PROGRESS
EXISTING SURROUNDING HABITATS
FISH POND / POND
ABANDONED FISH POND (AFP) /
WATER CHANNEL WITH NON-MOVING
WATER COVERED WITH PLANT (WN)
WOODLAND
GRASSLAND
BARELAND
REEDBED
GEIWAI
FARM
MANGROVE
INDUSTRIAL AREA
AA ABANDONED AGRICULTURED
AFP ABANDONED FISH POND
B BUILDING
CB BUILDING UNDER CONSTRUCTION
CG COMPLETE GRASSLAND
ET EXISTING TREE COVER
CM MIKANIA (CLIMBER) COVERED VEGETATION
DWB DRY WEED BED
GS GRASSLAND + SHRUBLAND
G GRAVEYARD
NW NATIVE WOODLAND
H SMALL HUT
O ORCHARD
PW PLANTATION WOODLAND
S SHRUBLAND
TG TALL GRASSLAND
TS TALL SHRUB WITH A FEW TREES
TW TALL WOODLAND WITH SOME SHRUB
V VILLAGE
WR REEDBED
WN WATER CHANNEL WITH NON-MOVING
WATER COVERED WITH WETLAND PLANT
FUTURE HOUSING AREA
LEGEND
Tree or Scrub Vegetation
Tree or Scrub Vegetation
Area of Wetland
Area of Wetland
Pedestrian Footpath or
Maintenance Access
Pedestrian Footpath or
Maintenance Access
Vehicular Access Bridge
Vehicular Access Bridge
Existing/Proposed
Mangroves
Boardwalk
Reedbed/Emergent
Vegetation
Built Structure
(e.g. Observation Hide/
Interpretation Facility)
IWP Project Boundary

Figure : 1.2

MAP OF EXISTING HABITATS WITHIN SUBJECT SITE AND SURROUNDINGS

	Ref. no.	Serial no.
Date May 2000	Designed WYC	Checked PS

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Engineers and Scientists

FUNG LOK WAI WETLAND NATURE RESERVE

- Marshland
- Bunds with dry grassland
- Reedbed and other emergent wetland vegetation
- Muddy islands / Shallows
- Open water
- Seasonal ponds
- Development site
- Trees and scrub
- Water control structure
- Hide position
- Ramsar Boundary
- Site boundary
- Footpath

EXISTING SURROUNDING HABITATS

- FISH POND / POND
- ABANDONED FISH POND (AFP) / WATER CHANNEL WITH NON-MOVING WATER COVERED WITH PLANT TYPE
- WOODLAND
- GRASSLAND
- BARELAND
- REEDBED
- GENIA
- FARM
- MANGROVE
- INDUSTRIAL AREA
- AA ABANDONED AGRICULTURED
- AFP ABANDONED FISH POND
- B BUILDING
- CB BUILDING UNDER CONSTRUCTION
- CG COMPLETE GRASSLAND
- ET EXISTING TREE COVER
- CM MIKANIA (CLIMBER) COVERED VEGETATION
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- G GRAVEYARD
- NW NATIVE WOODLAND
- H SMALL HUT
- O ORCHARD
- PW PLANTATION WOODLAND
- S SHRUBLAND
- TG TALL GRASSLAND
- TS TALL SHRUB WITH A FEW TREES
- TW TALL WOODLAND WITH SOME SHRUB
- V VILLAGE
- WE REEDBED
- WN WATER CHANNEL WITH NON-MOVING WATER COVERED WITH WETLAND PLANT
- FUTURE HOUSING AREA

LEGEND

WORKS UNDER AGREEMENT No CE 12/97

- Tree or Scrub Vegetation*
- Area of Wetland
- Pedestrian Footpath or Maintenance Access
- Vehicular Access Bridge
- Existing/Proposed Mangroves
- Reedbed/Emergent Vegetation

WORKS UNDER WMP PROJECT

- Tree or Scrub Vegetation
- Area of Wetland
- Pedestrian Footpath or Maintenance Access
- Vehicular Access Bridge
- Boardwalk
- Built Structure (e.g. Observation Hide/ Interpretation Facility)
- WMP Project Boundary

*Notes
B Buffer/Screen Woodland
L Native Lowland Woodland
W Wet Woodland Habitat

Figure : 1.3
MAP OF HABITATS FOLLOWING IMPLEMEMNTATION

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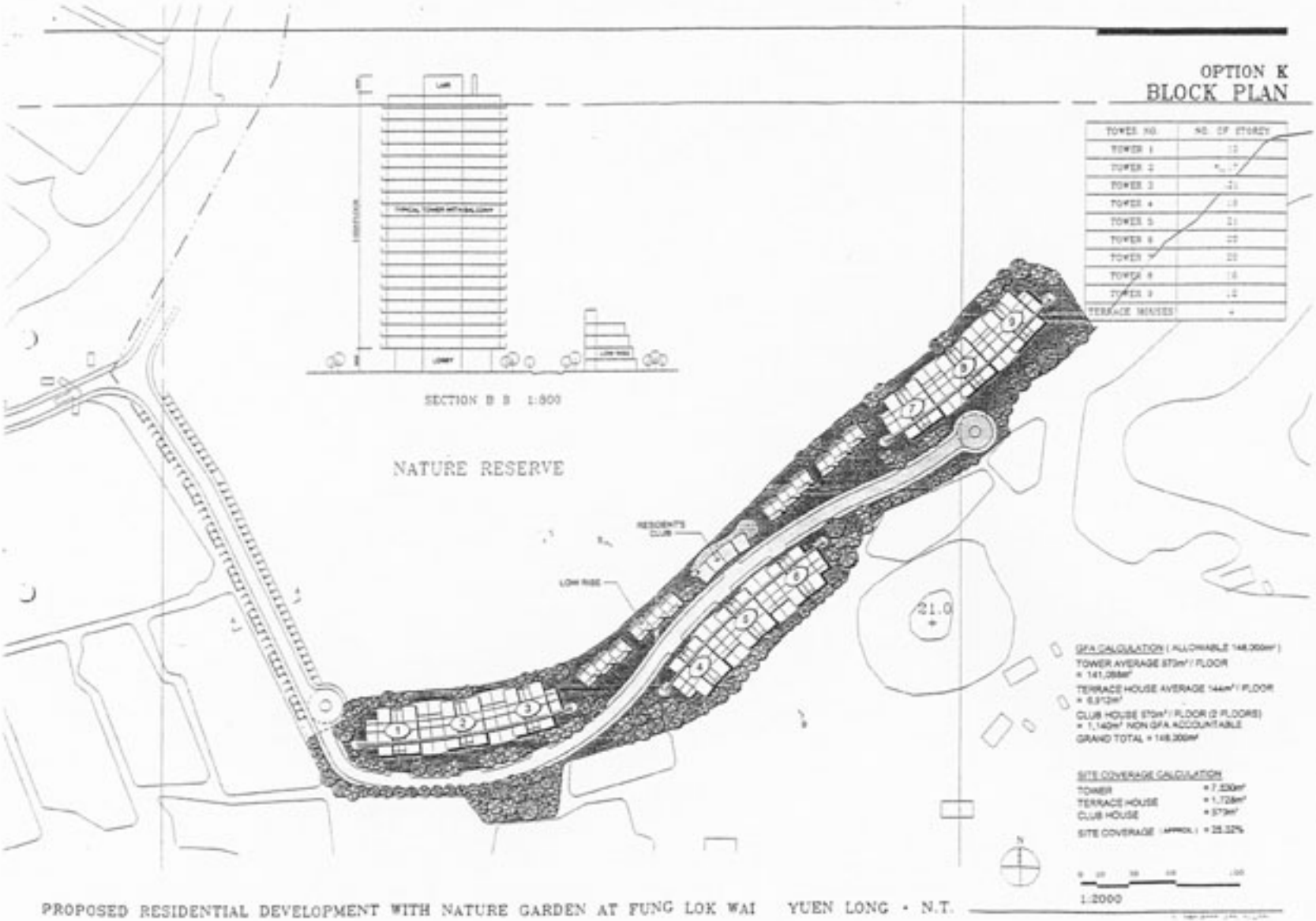

PROPOSED RESIDENTIAL DEVELOPMENT WITH NATURE GARDEN AT FUNG LOK WAI YUEN LONG • N.T.

Tentative Block Layout Plan for Proposed Residential at South-western Edge of Wetland Nature Reserve (All Building Heights are Provisional)

Figure 1.4	Ref. no.	Serial no.
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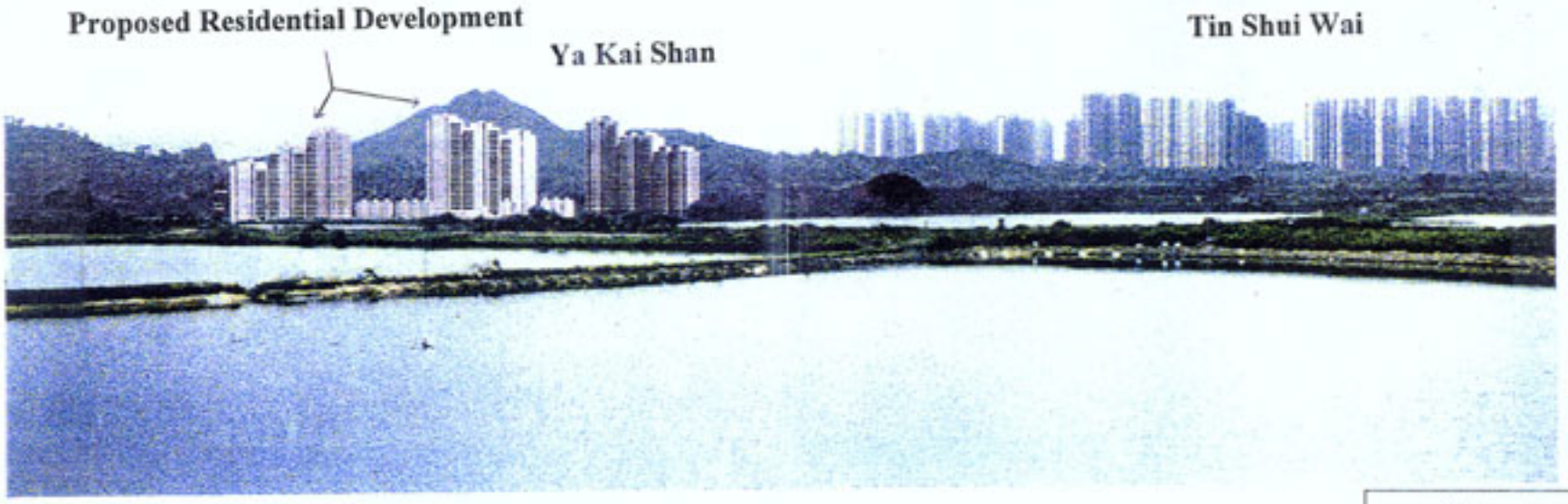

Photomontage showing View of Proposed Residential Development Looking from Northeast towards Southwest

Figure 1.5	Ref. no.	Serial no.
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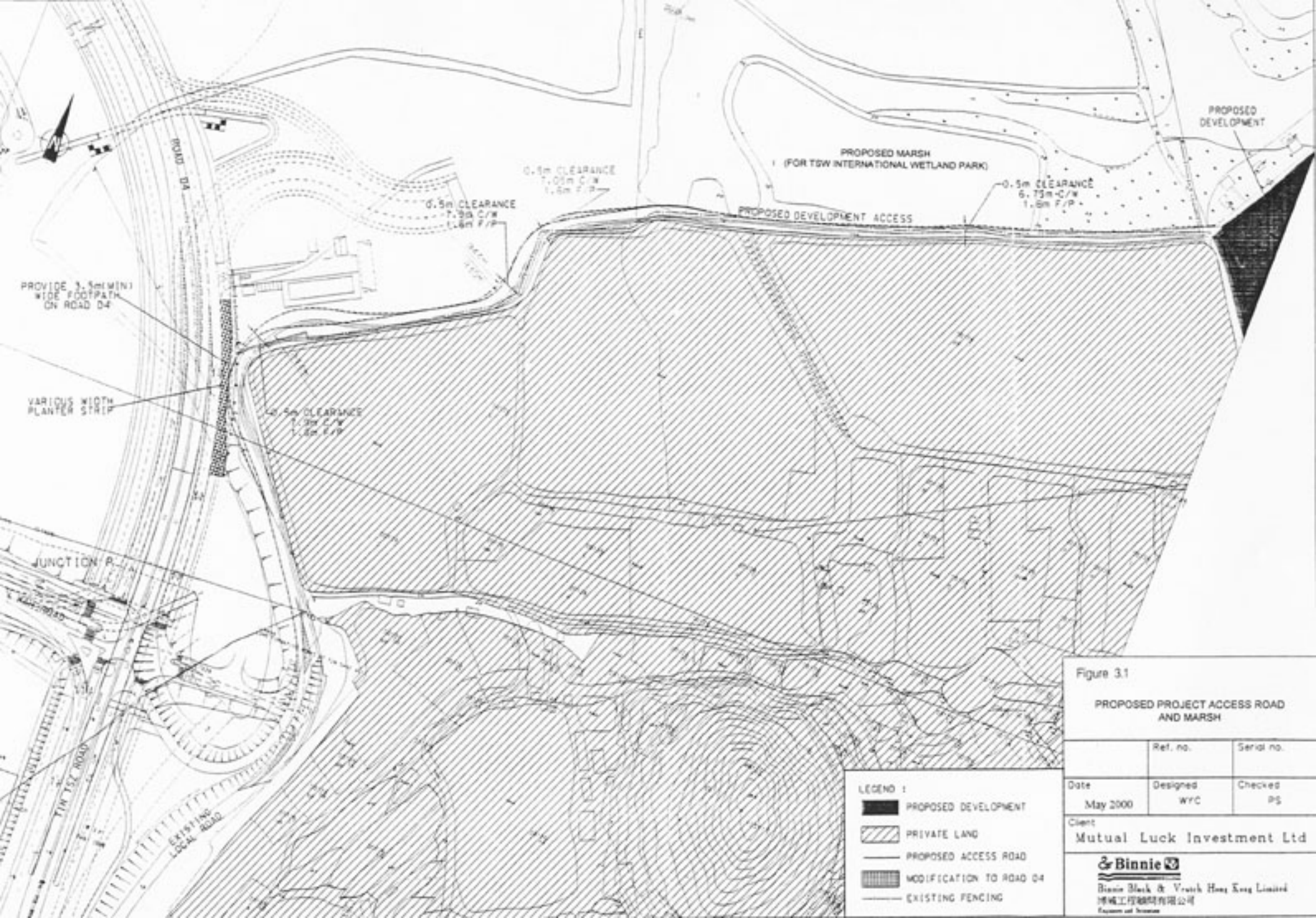

Figure 3.1

PROPOSED PROJECT ACCESS ROAD AND MARSH

	Ref. no.	Serial no.
Date: May 2000	Designed: WYC	Checked: PS

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N
INNER DEEP BAY
Project Site
FRESHWATER MARSH
MUD FLAT
REED BED FILTERS
MARSHLAND HABITAT
MAINTENANCE AREA, NURSERY AND WATER STORAGE PONDS
100 0 100 200 Meters
LEGEND
Representative noise and air sensitive receivers
Boundary of Project Site Area
Proposed Marshland habitat potentially affected by access road
Nearest water quality sensitive receiver leading to receiving water body, Inner Deep Bay
Proposed access road for redevelopment
Environmental Representative Receivers Within 300 m of Project Site
Figure 4.1
1:8000
Mutual Luck Investment Ltd.