

1 INTRODUCTION

1.1 Background

- 1.1.1 In March 1998 the Hong Kong Island and Islands Development Office Territory Development Department commissioned Pypun Engineering Consultants Ltd / Parsons Brinckerhoff (Asia) Ltd Joint Venture (in association with Enviro Hong Kong Ltd, ACLA Limited, Urbis Ltd, MVA Asia Ltd and Mott Connell Ltd) to carry out the Engineering Feasibility Study for the Infrastructural Works for housing development at Telegraph Bay.
- 1.1.2 The Engineering Feasibility Study (Agreement No. CE 92/97) comprises the construction of district distributor roads (D1 & D2), as well as the provision of other infrastructure for the housing development.
- 1.1.3 Telegraph Bay lies on the west coast of Hong Kong Island to south of Pok Fu Lam and comprises an area of existing flat reclamation bordered to the north, east and south by densely wooded slopes, and some residential development, and to the west by the open waters of the East Lamma Channel between Lamma Island and Hong Kong Island. It is overlooked by a number of residential developments, notably Baguio Villas, Kong Sin Wan Tsuen village, Wah Fu Estate and houses along Sassoon Road. These currently have open views over the channel.
- 1.1.4 In accordance with the Pok Fu Lam Outline Zoning Plan No. S/H10/5 promulgated in July 1994, the proposed development in Telegraph Bay include three housing sites with an area of about 13 hectares for medium density residential use and a site of about 3.5 hectares for government/institution/community (GIC) use. In addition, a site of 3.8 hectares to the south of the Telegraph Bay reclamation currently being used as a temporary golf centre is also reserved for residential development. The planning intention is for these four sites to be developed for highclass housing, compatible with the existing private development in this area, which is in great demand. Together these sites can provide about 2,600 flats with an average flat size of 200m².
- 1.1.5 The reclamation area at Telegraph Bay is presently unused and has no vehicular access and hence is very quiet and undisturbed with no adverse noise or air impacts from its surrounding. It is some considerable distance away from any public roads and provides the residential developments overlooking it with an open view of 13 hectares of flat reclamation bounded by a seawall with Lamma Channel in the background. In the absence of any future development on the site the present air and noise conditions would prevail, and the views from the surrounding residential developments would remain unchanged.

1.2 The Assignment

- 1.2.1 An Engineering Feasibility Study (the Study) is required for the development of Telegraph Bay to ensure that the proposed development is acceptable in environment, transport and engineering terms. The Study is also necessary in order to produce a general layout of the Telegraph Bay area and carry out preliminary design of infrastructure works identified for the development. In addition, a preliminary project feasibility study (PPFS) has been commissioned to enable the creation of the relevant PWP item for the works.

1.2.2 The fundamental objectives of the Engineering Feasibility Study are to:

- (i) formulate plans (supported by well engineered proposals) that will enable Government to achieve land-sale of the development sites in Telegraph Bay as soon as possible;
- (ii) formulate infrastructure schemes that will satisfy the need of, and are practicable for implementation in time for occupation of flats for the development sites, which shall take place as soon as possible, but not later than the Year 2004; and
- (iii) carry out preliminary design for the development and landscape layout and engineering infrastructure (together with mitigation measures for traffic, environmental and visual impacts) that will suit the plans and scheme referred to in (i) and (ii) above.

1.2.3 These three fundamental objectives for the Assignment will be key to the development of schemes and plans for land disposal of the housing sites.

1.2.4 Enviro Hong Kong Limited (Enviros) is responsible for the preparation of the *Environmental Impact Assessment (EIA) Study*. The Telegraph Bay Infrastructure Works and Property Development is considered to be a Schedule 3 Designated Project (DP) under Part II of the Environmental Impact Assessment Ordinance (EIAO) because it constitutes an engineering feasibility study for an urban development project which has a study area covering more than 20 ha. Within this Schedule 3 study, individual components such as the proposed sewage treatment works, the sewage outfall, Road D1 and Road D2 are recognized as individual Schedule 2 DPs under the EIAO (Figure 1.1). However, as a Schedule 3 DP only one EIA report covering all associated DPs will be issued. The EIA Team has undertaken this study in accordance with the Technical Memorandum on Environmental Impact Assessment Process (EIA Ordinance Cap. 499, S/16) and the Study Brief. It should also be noted that aspects of Route 7, which is a designated project commissioned by HyD in July 1998 (Agreement No. CE 96/97), are included in this assessment. Essentially, as per the requirements of the Study Brief, noise, air quality, visual and landscape impacts related to the construction and operation of Route 7 are evaluated with respect to the proposed Telegraph Bay Property Development. Although this EIA study recommends mitigation measures for the Route 7 Design Team, the Telegraph Bay EIA Team is not directly involved in the actual Route 7 Study. The noise, air quality and visual assessments are based upon the conforming Route 7 alignment which includes both the Telegraph Bay and Waterfall Bay Interchanges and was endorsed at the Engineering Steering Group Meeting No. 4. The recommended mitigation measures cannot be considered as detailed design specifications unless the Route 7 layout utilized remains unchanged. It should also be noted that the noise mitigation measures specified for both the internal roads, as well as Route 7, have been prepared in accordance with the “new road” noise mitigation requirements as specified in PELB Circular 10/98, as well as the EIAO. Remaining EIA aspects relating to Route 7 such as water quality, ecology and waste, as well as any other issues related to completing and EIA study for a DP under the EIAO will be covered under the current HyD Route 7 study (Agreement No. CE 96/97).

1.2.5 Because the Study commenced prior to the implementation of the EIAO (April 1, 1998) the Brief was entered directly into the Register under section 15 (1)(b) of the Ordinance and opportunities for public & ACE consultation will be available following the formal submission of the EIA report. So far, no adverse public commentary/concerns have been received concerning environmental issues associated with this project. In terms of general

comments, Plan D has indicated that some level of public concern exists over the loss of the golf driving range located on the headland at Waterfall Bay.

- 1.2.6 An *Environmental monitoring and Audit Manual* has also been prepared by Enviros and is submitted as a separate document.

1.3 Objectives of the Environmental Impact Assessment Study

- 1.3.1 The main objectives of the EIA Study are to:

- (i) assess the acceptability of environmental impacts from the proposed site construction, development and road operations upon representative sensitive receivers;
- (ii) determine the need for design and implementation of mitigation measures to control and minimise identified adverse environmental impacts in order to achieve compliance with the requirements of the Hong Kong Government environmental legislation and HKPSG; and
- (iii) to identify potential side effects and constraints of proposed measures.

1.4 Scope of the Environmental Impact Assessment Study

- 1.4.1 In order to fulfil the objectives of the EIA Study the scope of this report includes the following:

- description of the project, construction methodology and programme;
- identification of key environmental issues following agreement with EPD, AFD and Planning Department;
- identification of applicable regulatory requirements and guidelines;
- identification of representative existing and future sensitive receivers (SRs) likely to be affected by the proposed project and those likely to cause adverse impacts on the project – includes man made, natural and associated environmental constraints;
- identification of existing baseline information and data;
- site specific surveys to supplement lack of existing data;
- assessment of emission sources and determination of the acceptability of impacts on representative SRs and potential affected uses;
- identification, prediction and evaluation of any residual environmental impacts and cumulative impacts that may arise during construction, development and operation with respect to SRs and potential affected uses;
- agreement of baseline data, emission inventories and modelling inputs with EPD for the key parameters;
- quantification, by modelling and prediction analysis, of the potential environmental impacts arising from construction noise and air quality, including residual and cumulative impacts (transient, long term, irreversible) arising from construction, development and operation of Route 7;
- evaluation of the potential traffic noise and vehicular emissions impacts (with the computer-aid models) upon the proposed TBD development from the future Route 7 as well as the existing roads;
- evaluation of the potential impacts associated with the construction and operation of

- the proposed sewage treatment facility;
- qualitative assessment of potential water quality impacts;
- qualitative assessment of waste management issues and development of a waste management plan;
- assessment of residual and cumulative ecological impacts in terms of potential losses or damage to ecology (flora, fauna, natural habitats);
- development of practicable, effective and implementable mitigation strategies and measures for the control and minimisation of adverse environmental impacts in the short and long term;
- assessment of the landscape and visual impacts associated with the proposed development and related infrastructure works with respect to the existing or baseline site conditions;
- identification of measures, methods and standards to be incorporated into the detailed design, construction and operation of the project so that adverse predicted impacts are reduced and controlled to within acceptable level;
- design and preparation of the environmental monitoring and audit programme and requirements, for implementation, to ensure control and minimisation of adverse environmental impacts, during construction and operation;
- investigation of the extent of side effects of proposed mitigation measures and constraints associated with proposed mitigation measures; and
- identification of additional studies necessary to fulfil the objectives and the requirements of the EIA Study.

Figure

2.

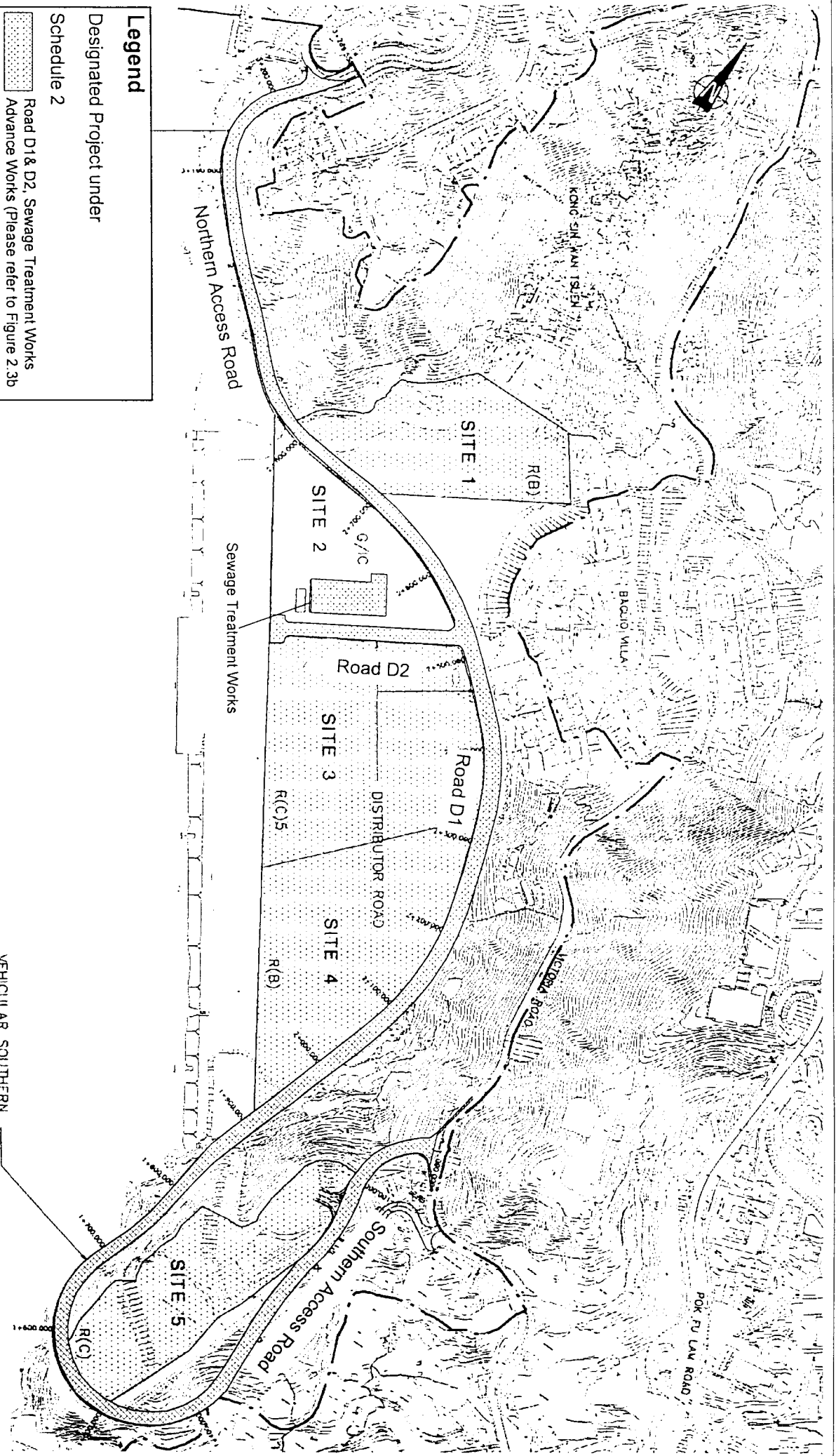
Legend

Designated Project under
Schedule 2

Road D1 & D2, Sewage Treatment Works
Advance Works (Please refer to Figure 2.3b
for the location of surcharge area)

Schedule 3

Telegraph Bay Development



AGREEMENT NO. CE 9297 INFRASTRUCTURAL WORKS FOR HOUSING DEVELOPMENT AT TELEGRAPH BAY
- ENGINEERING FEASIBILITY STUDY

Designated Project Components of Telegraph Bay Development

Rev	Description	Approved	Date

TERRITORY DEVELOPMENT DEPARTMENT, HONG KONG

HONG KONG ISLAND AND ISLANDS DEVELOPMENT OFFICE

PYPUN / PBA JOINT VENTURE

PYPUN
PARSONS BRINCKERHOFF (ASIA) LTD.

Figure No.	1.1	Rev.	
Designed By		Scale	NTS
Checked By		Date	Feb 99