

## **PROVISIONAL LOCAL VESSEL ADVISORY COMMITTEE**

### **Proposed Dredging Plan for the Rambler Channel & the Northern Fairway** **Container Terminal 9 Development**

#### **Purpose**

1. This paper serves to brief members on the proposed dredging plan for the Rambler Channel & the Northern Fairway associated with the Container Terminal 9 (CT9) Development.

#### **Briefing**

2. To minimize the disruption to marine traffic in the dredging areas, the dredging operation will be carried out in phases and the majority of the dredging works within the Rambler Channel and the existing Northern Fairway will use highly manoeuvrable self-propelled dredging unit, i.e. Trailing Suction Hopper Dredger. A briefing paper summarizing the dredging plan, proposed mitigation measures, etc. is attached at Annex.

#### **Consultation**

3. The proposed dredging plan has been consulted and agreed with Hong Kong Pilot Association and the Container Terminal Operators.

#### **Views Invited**

4. Members are invited to express their views on the proposed dredging plans.

#### **Presentation**

5. In collaboration with Mr. K. C. CHAN, SMO/P&D (2) of Marine Department, the Main Contractors of CT9 ? Hyundai-CCECC Joint Venture will present this paper at the forthcoming meeting.

## **Introduction**

1. The Terminal 9 Development project was commenced on 12<sup>th</sup> May 2000 and about 17% of the works was completed.
2. The dredging works for the Terminal 9 Development project are composed of the following three areas.
  - a) Dredging for the Site Area (Terminal and Back up Area).
  - b) Dredging for the Rambler Channel.
  - c) Dredging for the Northern Fairway.
3. The purpose of dredging to the above areas can be summarized as below:
  - a) Dredging for the Site Area  
This dredging is to construct 6 numbers of container berths in total length of 2 km and to provide 50 ha of reclaimed land for container stacking yard and back up area.
  - b) Dredging for Rambler Channel  
This dredging is to deepen the existing seabed up to (-) 15.50 mCD to cater for larger container vessels.
  - c) Dredging for the Northern Fairway  
This dredging is to realign the existing Northern Fairway approximately 470 metres to the southeast and deepen the depth to (-) 15.50 mCD.
4. The dredged materials from the above areas are divided into Contaminated Mud and Uncontaminated Mud according to their characteristics.

## **Proposed Dredging Plan**

5. Rambler Channel

The proposed dredging area for the Rambler Channel is located between the Terminal 9 site area and the existing Terminals 1 to 8. (Please refer to Appendix A.)

As the Rambler Channel is busy with the container vessels, the Contractor will principally use a Trailing Suction Hopper Dredgers (TSHD) for the majority of the Rambler Channel to minimize the disruption.

However, for the special areas it is inevitable that grab dredgers will need to be used. The special areas:

- a) Submarine Outfalls Area: The existing submarine outfalls are located in the north-western part of the Rambler Channel. For safe and accurate dredging, dredging by the grab dredger (s) is the most suitable option.
- b) The marginal area along the CT-9 quay deck: In order to make the dredging profile of CT-9 quay deck trench, the Rambler Channel adjacent to the quay deck shall be dredged together with the quay deck trench dredging using the grab dredgers. Also, due to the work barges and grab dredgers working along the quay deck, dredging by TSHD is not safe.

The dredging area of the Rambler Channel will be divided into smaller sub-areas and they will be dredged in sequence according to the work program submitted.

The Contractor shall provide VTC with detailed information on the working dredgers including operators / masters mobile phone numbers, working area, vessel name etc. The dredger should keep listening on VHF Ch.74 at all times such that VTC could communicate with the operators / masters of the working dredgers.

## 6. Northern Fairway

The proposed dredging area for the Northern Fairway is located between the Approach Fairway to Kwai Chung Container Terminal and the Western Dangerous Goods Anchorage / Western Quarantine & Immigration Anchorage. (Please refer to Appendix B.)

The majority of the proposed dredging area is outside the existing fairway and only a small part of the dredging area in the northern part is inside the fairway. The area outside the fairway will be dredged by grab dredgers, and the area inside the fairway will be dredged by a TSHD to minimize the disruption to the vessel traffic. The dredging operation will be implemented in two phases, i.e. outside and within existing Northern Fairway.

It is inevitable that relocation and retrieval of navigation / mooring buoys will be required for dredging the area. These are:

- a) Navigation Buoys  
Kellett North, WQ & Northern 4 will be temporarily moved 30m northward, one at a time. These navigation buoys will be reinstated at their original positions after completion of the dredging works at the area.

- b) Two mooring buoys namely PHW and A14 will be moved to positions agreed with the Marine Department, and other two mooring buoys namely A15 and B29 will be retrieved.

Two temporary marker buoys would be laid by the Contractor to demarcate the southern boundary of the works area.

The final configuration of the new Northern Fairway is shown in Appendix C

### **Mud Disposal**

7. Dredged material will be disposed of at the East Sha Chau Marine Disposal Area in case they are proved to be contaminated and at the South Tsing Yi Marine Disposal Area in the case they are uncontaminated.

### **Marine Department Notice**

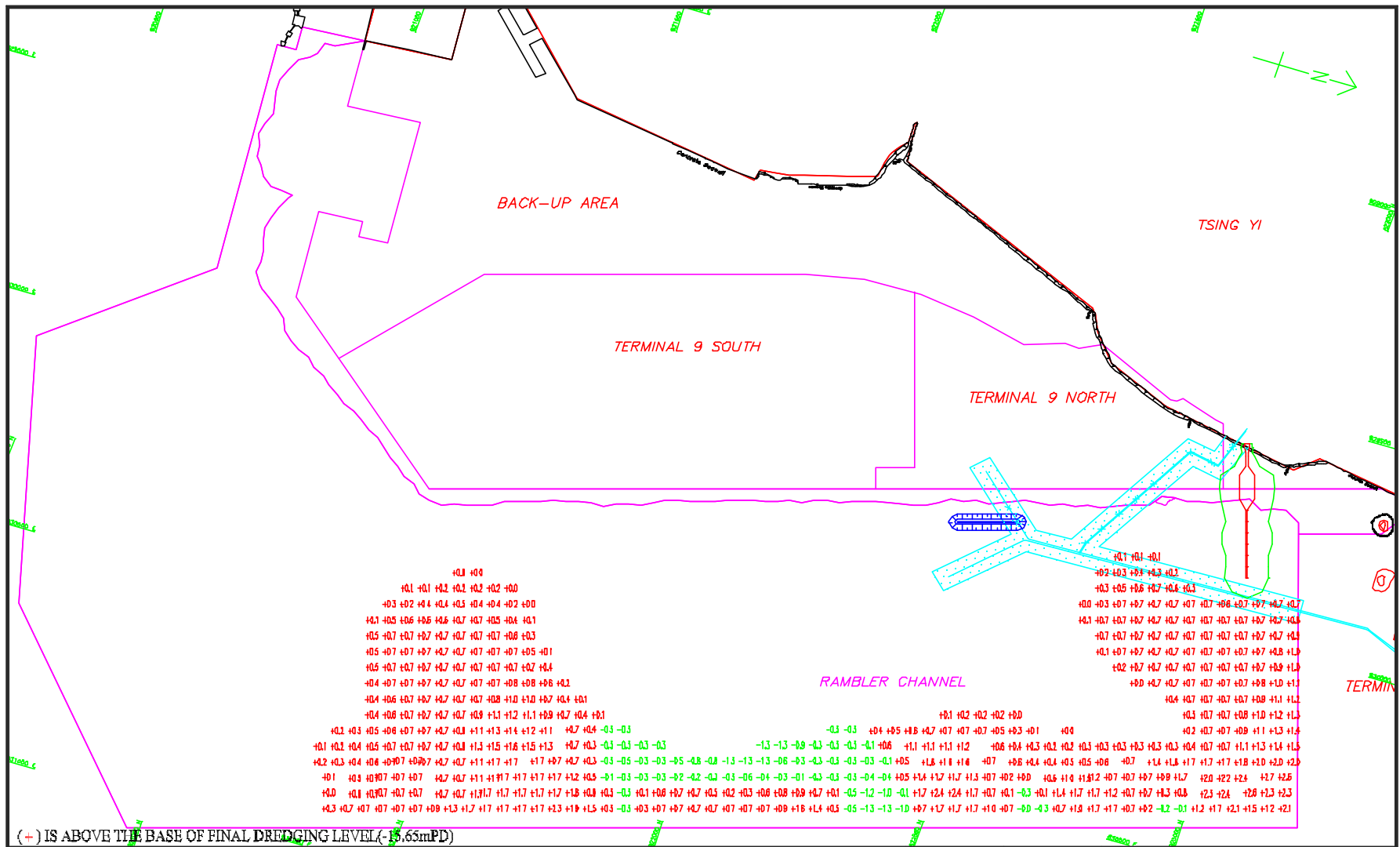
8. Appropriate Marine Department Notice for the above dredging works and buoy relocation will be promulgated in due course.

### **Implementation Programme**

9. The Contractor proposes to carry out the dredging for the Rambler Channel and the Northern Fairway, as follows.
  - a) Rambler Channel: 1 March 2002 to 30 April 2003
  - b) Northern Fairway: 1 January 2002 to 30 June 2002
10. Gazetting of the realignment of the Northern Fairway will take place on 1 August 2002.

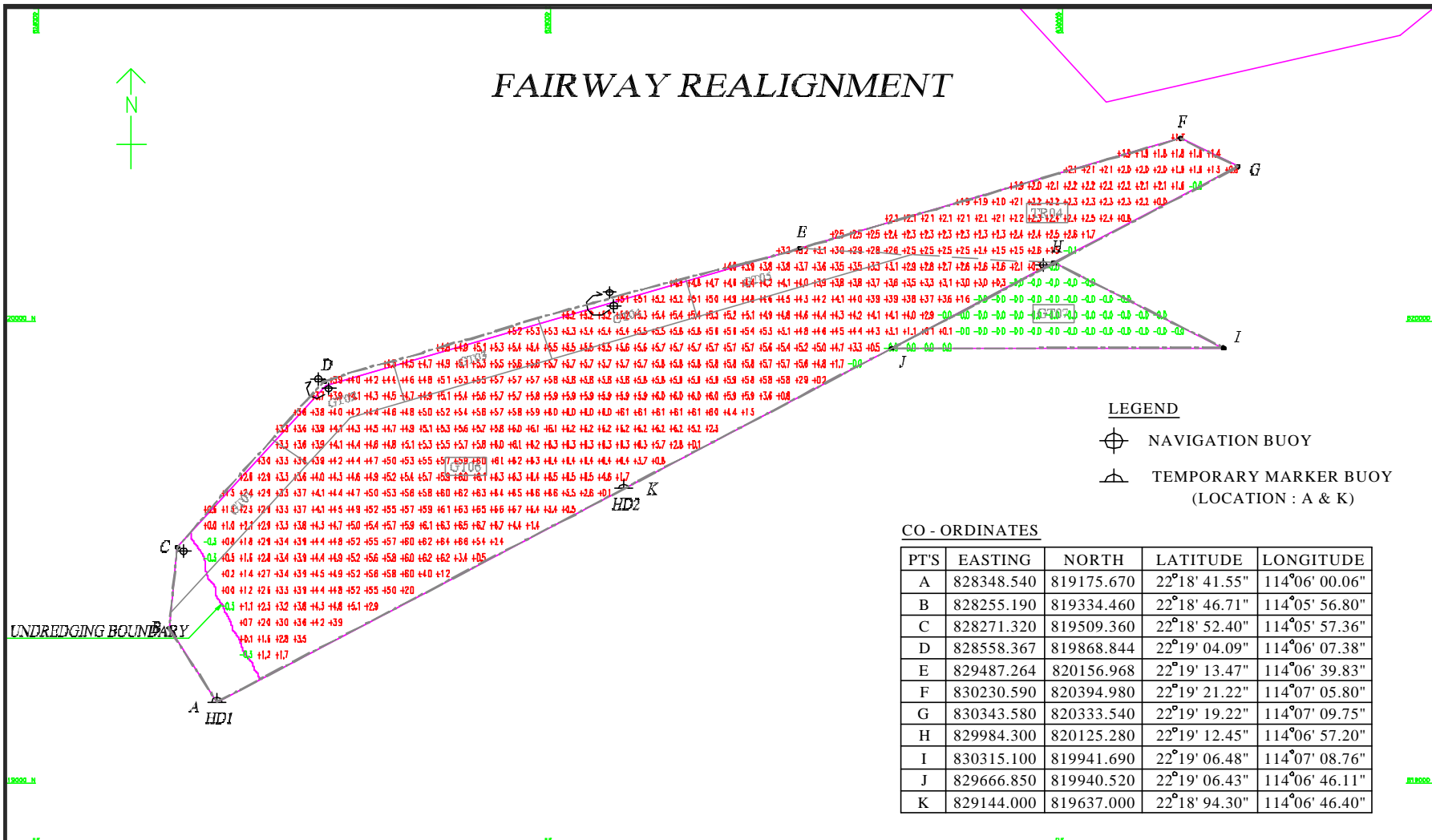
# Dredging Plan (Rambler Channel)

# Appendix A





(+) IS ABOVE THE BASE OF FINAL DREDGING LEVEL (-15.65mPD)

TITLE KWAI CHUNG CONTAINER PORT TERMINAL 9 DEVELOPMENT UNCONTAMINATION MATERIAL MUD DEFF. BETWEEN CONTAMINATION MUD & FINAL DREDGING LEVEL(-15.65mPD)	SCALE 1 : 7,500	DRAWN HUNG JUN, CHON	CONTRACTOR HYUNDAI-CCECC JOINT VENTURE
	DATE 23 JUNE 2001	REV	



FAIRWAY REALIGNMENT

LEGEND

-  NAVIGATION BUOY
-  TEMPORARY MARKER BUOY (LOCATION : A & K)

CO - ORDINATES

PTS	EASTING	NORTH	LATITUDE	LONGITUDE
A	828348.540	819175.670	22°18' 41.55"	114°06' 00.06"
B	828255.190	819334.460	22°18' 46.71"	114°05' 56.80"
C	828271.320	819509.360	22°18' 52.40"	114°05' 57.36"
D	828558.367	819868.844	22°19' 04.09"	114°06' 07.38"
E	829487.264	820156.968	22°19' 13.47"	114°06' 39.83"
F	830230.590	820394.980	22°19' 21.22"	114°07' 05.80"
G	830343.580	820333.540	22°19' 19.22"	114°07' 09.75"
H	829984.300	820125.280	22°19' 12.45"	114°06' 57.20"
I	830315.100	819941.690	22°19' 06.48"	114°07' 08.76"
J	829666.850	819940.520	22°19' 06.43"	114°06' 46.11"
K	829144.000	819637.000	22°18' 54.30"	114°06' 46.40"

(+) IS ABOVE THE BASE OF FINAL DREDGING LEVEL

TITLE **KWAI CHUNG CONTAINER PORT TERMINAL 9 DEVELOPMENT**  
**UNCONTAMINATION MATERIAL MUD**  
 DEFF. BETWEEN CONTAMINATION MUD & NAVIGATION DREDGING LEVEL(-15.65 & -11.65mPD)

SCALE  
1 : 7,500  
DATE  
20 JULY 2001

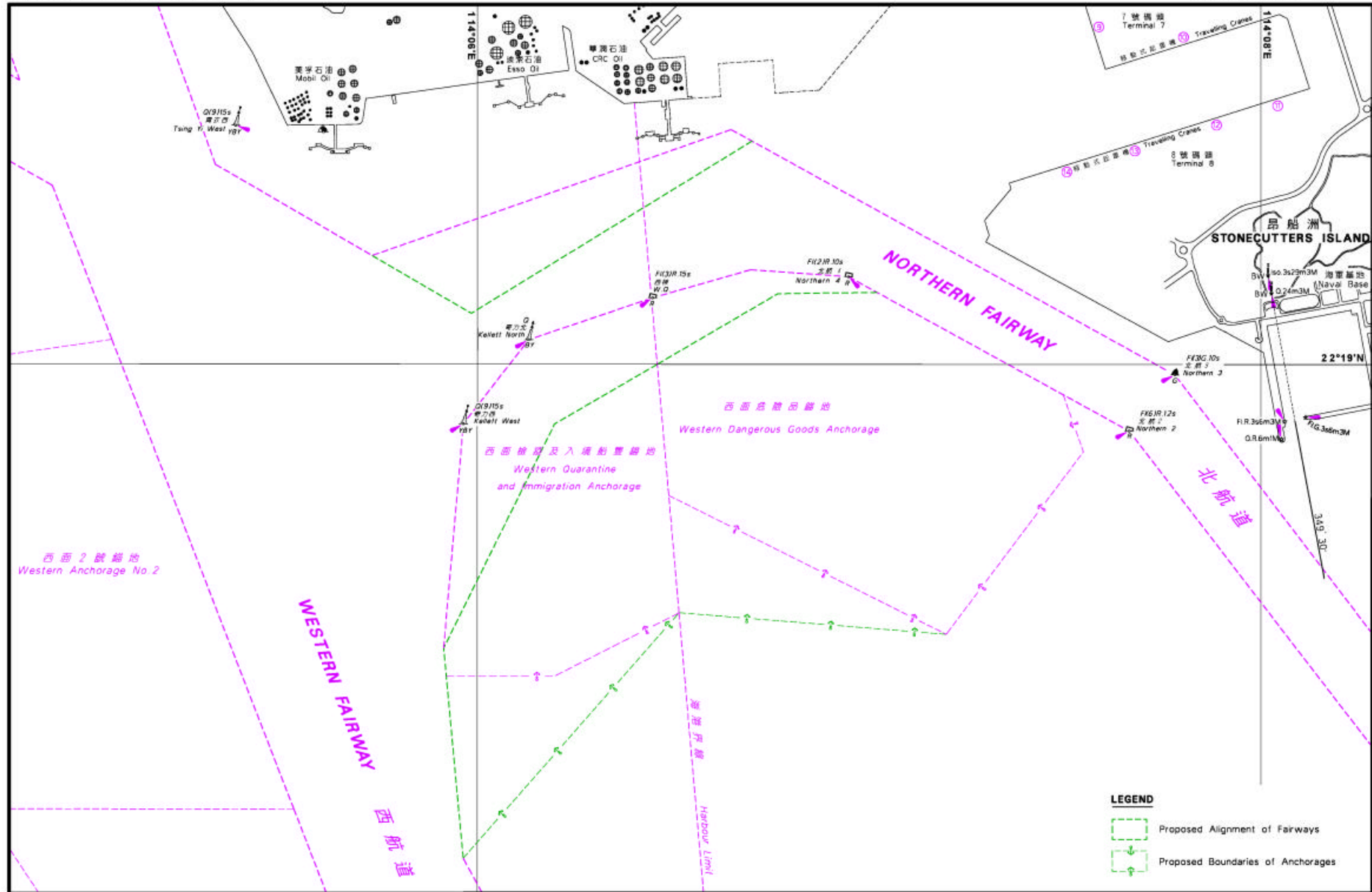
DRAWN  
REV.

CONTRACTOR  
 **HYUNDAI-CCECC JOINT VENTURE**



FAIRWAY REALIGNMENT

APPENDIX C



海軍處海道測量部於 2001 年 7 月繪製  
Prepared by the Hydrographic Office,  
Marine Department. July 2001

不立作航行用途  
Not to be used for Navigation

米 Metres 100 0 500 1000 Metres 米

基準 Datum WGS84

圖則編號 Drawing No. 2001MAR030