

Port Operations Committee
Local Vessels Advisory Committee
Pilotage Advisory Committee

**Marine Works of Laying Submarine Fibreoptic Cable
from Telegraph Bay to Pak Kok Tsui**

Purpose

Members are invited to refer to the **Annex** for the marine works associated with the construction of the proposed Lamma Island Cable System connecting Lamma Island from Hong Kong Island, by the Hong Kong Telecom Limited, and to submit any comments on the papers, if any, by replying to the Secretariat on or before 20 July 2022.

Marine Department
14 July 2022

Marine Works of Laying Submarine Fibreoptic Cable from Telegraph Bay to Pak Kok Tsui

Purpose

This paper aims to seek Members views on the marine works associated with the construction of the proposed submarine fibreoptic cable connecting Lamma Island and Hong Kong Island (**refer to Figure 1**).

Background

2. For Hong Kong SAR Government Project Number 5 under the Subsidy Scheme to Extend Fibre-based Networks to Villages in Remote Areas, Hong Kong Telecom Limited (the Project Proponent) has been awarded to construct a submarine fibre optic cable linking Telegraph Bay, at southern Hong Kong Island, and Pak Kok Tsui, on northern Lamma Island across the East Lamma Channel. The commencement date of the works is expected in Q3 to early Q4 of 2022. The construction works of the submarine cable will be conducted in accordance to the Land Lease Agreement.

Proposed Marine Works

3. The proposed cable installation works will be carried out by using a cable-laying barge and diving operations may be involved. Please refer to **Annex A** for information on the tentative works program.

Marine Traffic Impacts

4. The East Lamma Channel Traffic Separation Scheme (ELC TSS) is the deepest channel to the Port of Hong Kong and one of the principal waterways for deep-draught vessels entering and leaving the port of Hong Kong. The cable installation works will affect the marine traffic in the ELC TSS. To sustain the port efficiency, it is necessary to maintain the safety of the working vessels involved and the safe passage of ocean going vessels (OGVs), river trade vessels (RTVs) and local vessels along with the ELC TSS at all times. Marine Traffic Impact Assessment (MTIA) has been conducted to identify potential impacts arising from the marine works on existing marine traffic and facilities. The MTIA proposes appropriate mitigation measures to alleviate impacts and ensure vessels' navigation safety in the ELC TSS.

Proposed ELC TSS Traffic Diversion Arrangement and Risk Controlling Measures during Cable Installation Works

5. A portion of the ELC TSS will be occupied at different stages of the cable installation works and temporary marine traffic diversion would be required. The contractor will provide advance and detailed information of the works schedule and pre-agreed traffic arrangement to all relevant stakeholders.

6. A working area will be established around the cable laying barge. Yellow marker buoys fitted with yellow flashing lights and Automatic Identification System will be laid to mark the positions of the anchors extending from the cable laying barge. The positions of the anchors would be laid according to the agreed plan. The real-time positions of the marker buoys shall be closely monitored by the contractor at all times.

7. The total duration of the cable installation works by cable laying barge within the ELC TSS is estimated to be four working days. The majority of works and transitioning between work stages would be carried out during daylight hours only. However, to facilitate timely completion of works, works may be carried out during the nighttime where practicable and does not pose a risk to navigation safety.

8. It is anticipated that potential marine traffic impact arising from the cable installation works, particularly on existing traffic within ELC TSS could be mitigated by implementation of proposed marine traffic risk control measures. In this connection, the appointed contractor of the cable installation works shall:

- i. provide advance and detailed information on the marine works, schedule and agreed on traffic arrangement to the Marine Department (MD) for the promulgation of a Marine Department Notice for individual works stage and broadcasting of navigational warnings via NAVTEX Hong Kong Coast Station;
- ii. establish an effective communication mechanism with MD as well as Hong Kong Pilots Association and relevant stakeholders. Advance notification should be provided prior to cable installation works within ELC TSS or any change of the working schedule;
- iii. provide a 24-hour hotline to receive and/or handle public enquiries and emergencies;

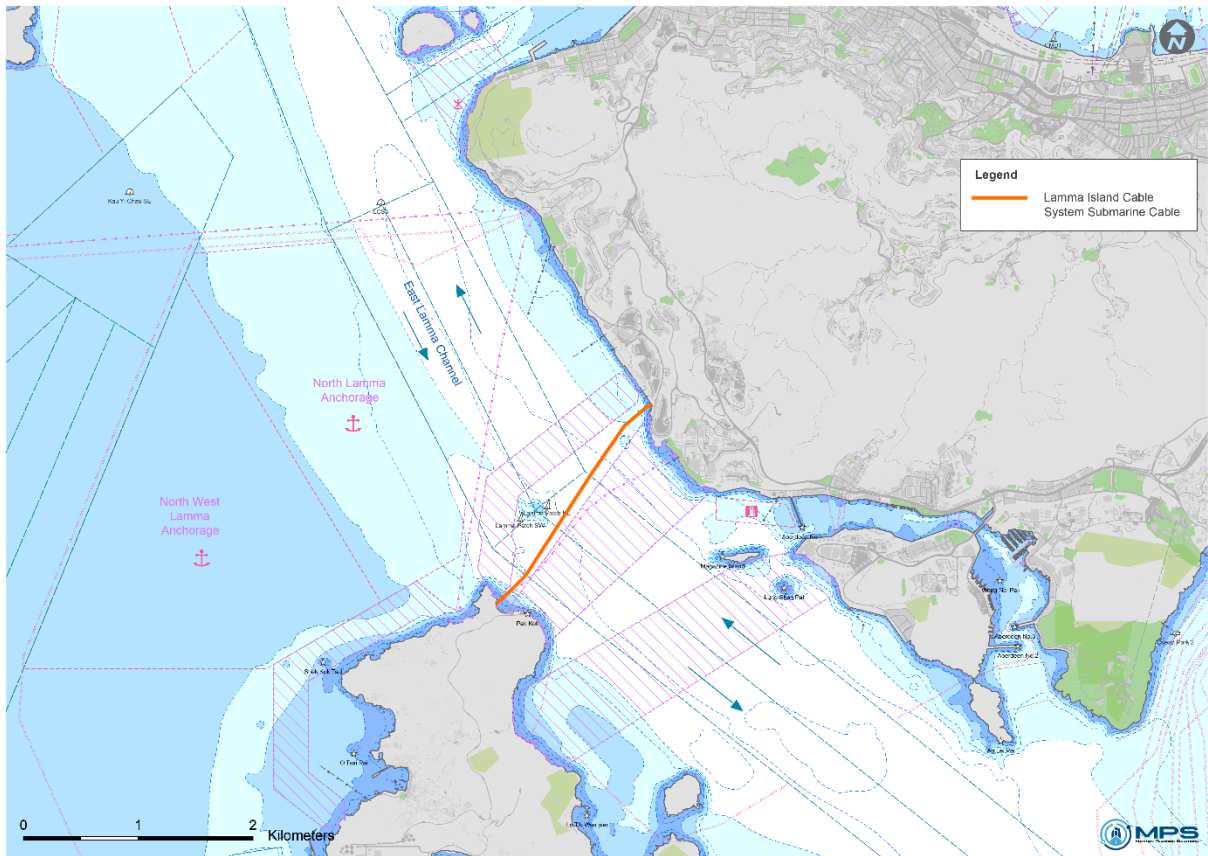
- iv. deploy at least four guard boats and one escort tug to indicate the position of anchors of the cable laying barge, ensure the safety of the works area, guide ocean going vessels transit, maintain safe passage of other vessels, and provide assistance for evacuation of working vessels in case of emergency; and
- v. implement contingency and evacuation plans for emergency events or adverse weather conditions; evacuation of construction vessels from the works area will be arranged as early as possible in the event of low visibility or the advent of typhoon.

Advice Sought

9. Members are invited to note the forthcoming works and provide comments to the abovementioned proposed marine traffic risk control measures. In case of any enquiry on the associated matters, please contact Mr. Cliff Ko of Hong Kong Telecom by phone at 2888 9349, or by email: cliff.mk.ko@pccw.com.

Hong Kong Telecom Limited
July 2022

Figure 1_The Lamma Island Cable System from Telegraph Bay to Pak Kok Tsui



Annex A – Tentative Works Program

Cable Installation Marine Works Operations	Estimated Duration
Route Clearance and/or Pre-lay Grapnel Run	Up to 1 working day
Shore-end cable installation (diving operation)	Up to 2 weeks
Offshore cable installation (by cable laying barge)	Up to 4 working days*
Post Lay Inspection and Burial (if necessary)	Up to 2 weeks

* Actual required duration of works is subject to site conditions of the seabed along the cable alignment. If areas of hard bedrock or sub-cropping rock, other than the anticipated areas encountered during actual works, the works duration may be extended by a few hours to one day.