香港 國際機場 HONG KONG INTERNATIONAL AIRPORT

CONTRACT C24W08

AIRPORT TUNG CHUNG LINK

POC/C24W08/O/00107/E

SUBMISSION FOR SILT CURTAIN DEPLOYMENT PLAN

E	5/2/2026	For Approval			
D	14/1/2026	R – Submission acknowledged	---	---	---
C	9/12/2025	R – Submission acknowledged	---	---	---
B	26/11/2025	B1 - No-Objection subject to comments	---	---	---
A	31/10/2025	B1 - No-Objection subject to comments	---	---	---
Doc. Rev. No.	**Date**	**Remarks / Description of Revision / Status**	**Prepared by**	**Approved by**	**Approved by**
			C.H. So	**H. Fujimoto**	**H. Fujimoto**
			Environmental Officer	**Project Manager**	**Project Manager**
			Penta-Ocean Construction Co., Ltd.		

This Silt Curtain Deployment Plan (POC/C24W08/O/00107/E) for

Airport Tung Chung Link Project

dated 5 February 2026

has been reviewed and certified by

the Environmental Team Leader (ETL) in accordance with

Conditions 1.9 and 2.13 of Environmental Permit No. EP-630/2023/A.

Certified by:

Ir Chan, Thomas
Environmental Team Leader (ETL)
Mott MacDonald Hong Kong Limited

Date 6 February 2026

AECOM Imagine it. Delivered.

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By Email

Capital Works Management Department
Level 6, HKIA Tower 2,
15 Cheong Tat Road,
Hong Kong International Airport,
Lantau, Hong Kong

Mr. Lawrence Tsui (Authority's Representative's Delegate)

6 February 2026

Dear Sir,

Contract C24C03 – Independent Environmental Checker Consultancy Services for Airport Tung Chung Link
Silt Curtain Deployment Plan (POC/C24W08/O/00107/E)

Reference is made to the Contractor's submission of the Silt Curtain Deployment Plan (POC/C24W08/O/00107/E) in accordance with Conditions 2.13 of EP-630/2023/A of the Project, certified by the ET Leader on 6 February 2026.

We would like to inform you that we have verified on the captioned submission in accordance with the requirement stipulated in Condition 1.9 of EP-630/2023/A.

Should you have any queries, please feel free to contact the undersigned at 3856 5680.

Yours faithfully,
AECOM Asia Co. Ltd.

Lemon Lam
Independent Environmental Checker

Contents

LIST OF APPENDICES

1 INTRODUCTION

1.1 Background

Under the Environmental Impact Assessment Ordinance, the Environmental Impact Assessment (EIA) Report (Register No.: AEIAR-254/2023) prepared for the Airport Tung Chung Link Project (the Project) has been approved by the Environmental Protection Department (EPD). An Environmental Permit No. EP-630/2023 for the construction and operation of the Project was first granted by Director of Environmental Protection ("DEP") to Airport Authority Hong Kong ("AAHK") on 26 October 2023. Subsequently an application for variation of the EP was submitted on 3 November 2025 and the current valid EP (No. EP-630/2023/A, hereinafter known as "the EP") was issued by EPD on 1 December 2025. Pursuant to Condition 2.13, AAHK shall prepare a Silt Curtain Deployment Plan ("SCDP") for covering marine works that involve the deployment of silt curtain under this Project.

This Project consists of constructing a 3.8km vehicular road, named as the Airport Tung Chung Link ("ATCL"). This road will extend the passenger transport services using autonomous vehicles ("AV") from the Airport City Link ("ACL") to Tung Chung, aiming to enhance connectivity between the Hong Kong-Zhuhai-Macao Bridge ("HZMB") Hong Kong Port ("HKP"), SKYCITY and Tung Chung. The marine facilities in the waters between Airport Island and HKP Island, and the spur line running from the HKP Island to connect the Academy Station are included in the Project EIAR (Register No. AEIAR-254/2023) and the Project EP (EP No. EP-630/2023/A), however, the construction of marine facilities and spur line is not included in the current stage of ATCL construction. The SCDP for remaining marine works will be provided separately.

Penta-Ocean Construction Company Limited ("POC") is the Main Contractor of the Project and responsible for the marine viaduct construction which situated in a marine area between Lantau Island and Airport Island. This Silt Curtain Deployment Plan will include the marine viaduct construction area which situated in a marine area between Lantau Island and Airport Island. The proposed marine facilities in the waters between Airport Island and Hong Kong Boundary Crossing Facilities are not included in this submission.

1.2 Project Description

The Project (under EP Permit No.: EP-630/2023/A) will comprise:

- A 2.8km at-grade section along the eastern coast of Airport Island with intermediate stops;
- An overall 1km length of viaducts consisting of three sections (a land viaduct over Tung Chung town centre, a marine viaduct between Lantau Island and Airport Island and a land viaduct connecting with ACL at HZMB HKP);
- An elevated Tung Chung Central Station (TCCS) near Tat Tung Road;

- A depot for autonomous vehicle;
- A promenade; and
- Leisure supporting facilities, and the associated ancillary buildings and facilities.

As mention in Section 1.1, the construction of marine facilities and spur line of ATCL (including Academy Station) as stated in the Project EIAR and the Project EP are not included in the current stage of ATCL construction, and was thus not included in this SCDP".

1.3 Purpose and Scope

As specified in Condition 2.13 of the EP:
"The Permit Holder shall, no later than 2 months before the commencement of marine works involving deployment of silt curtains of the Project, deposit 3 hard copies and 1 electronic copy of a silt curtain deployment plan (SCDP) with the Director. The Plan shall include the construction programme of marine works and details on the design, location, operation and maintenance of silt curtain(s) to be deployed during the marine works. The Plan shall be fully and properly implemented."

This SCDP has been prepared in accordance with the EP requirements and details the requirements for implementation of silt curtains during the Project construction phase. This Silt Curtain Deployment Plan will include the marine viaduct construction area which situated in a marine area between Lantau Island and Airport Island.

1.4 Report Structure

Following the introductory section, the SCDP is structured as follows:

Section 2	Construction Works involving Deployment of Silt Curtain
Section 3	Silt Curtain Design and Location
Section 4	Operation and Maintenance
Section 5	Regular Checking and Monitoring

2 CONSTRUCTION WORKS INVOLVING DEPLOYMENT OF SILT CURTAIN

2.1 General

Deployment of silt curtain has been recommended for marine construction in the approved ATCL EIA report. The marine works activities during construction phase as stipulated in Section 2.2 will involve deployment of silt curtain.

The deployment of silt curtain will be commenced on 1 March 2026, and the marine piling works will be commenced on 1 April 2026. Construction programme involving deployment of silt curtain can be referred to the **Appendix A**.

The construction of marine viaduct section would involve the installation of 4 set of bridge piers (2 piles for each set, totaled 8 piles) across the Tung Chung Navigation Channel. A temporary working platform would be installed after installation of silt curtain(s) to surround the active marine works area for the marine viaduct and all subsequent piling work would be conducted by piling plants on top of the temporary working platform. Bored piling for the marine viaduct crossing the Tung Chung Navigation Channel would be conducted with the silt curtain remains in place.

Hanging type silt curtain will be deployed at the surrounding of each set of bridge piers (Bridge Pier 8 to Bridge Pier 11) for a marine viaduct between Lantau Island and Airport Island. Total of 4 individual silt curtains will be provided for the marine viaduct construction works.

Appendix C shows the site location and layout plan of the proposed marine works.

2.2 Construction Activities Involving Deployment of Silt Curtain

2.2.1 Marine Piling Works

As per the approved ATCL EIA Section 5.7.1.1 recommendation, silt curtains would be installed to surround the piling area prior to establishing piling equipment on barge, installing the steel pile casing and setting out the temporary working platform. The silt curtain will be kept in place throughout the bored piling works, including grabbing, drilling by Reverse Circulation Drilling (RCD), airlifting, reinforced cage installation and concreting for piles and pile caps.

The construction of marine viaduct section would involve the installation of 4 set of bridge piers, Bridge Pier 8 to Bridge Pier 11 (2 piles for each set, totaled 8 piles) across the Tung Chung Navigation Channel. At most two marine piles will be installed/constructed concurrently at the viaduct works area across Tung Chung Navigation Channel during the construction phase. After installation of silt

curtain(s) to surround the active marine works area for the marine viaduct, a temporary working platform that sits on support casings (with or without reinforcing by mini-piles) would be installed. The support casings will be positioned to the seabed by vibratory hammer from a barge. Such operation is expected to result in limited level of localized disturbance to bottom sediment, particularly when controlled by the surrounding silt curtain. In case mini-piles support is needed, the temporary support casings will be lowered until reaching the rock head until rock socket is formed. After securing the support casings, a temporary working platform would be installed on top of the casings and all subsequent piling works would be conducted by piling plants on top of the temporary working platform. Bored piling for the marine viaduct crossing the Tung Chung Navigation Channel would be conducted with the silt curtain remains in place.

3 SILT CURTAIN DESIGN AND CONSTRUCTION SEQUENCE

3.1 Types of Silt Curtains to be Deployed

Hanging Type silt curtain is proposed to be installed around Bridge Pier 8 to Bridge Pier 11. The following sub-sections outline the technical requirements of the silt curtain.

3.2 Requirements for Hanging Type Silt Curtains

Hanging Type silt curtains mainly comprise the geotextile fabric with ballast chain / weight and floatation. The geotextile fabric shall be connected all four sides using polypropylene rope with sufficient overlap to prevent leakage of suspended solids. The floatation is contained within a sleeve or collar with adequate buoyancy to support the full weight of the silt curtain. The bottom end of the silt curtain is weighted by a ballast chain incorporated into the hem of the silt curtain as to keep the silt curtain vertical during deployment.

The length of silt curtain deployed at the marine piling area will account for a buffer depth to ensure no gaps between the skirt of the silt curtain and seabed and cater for site irregularities and tidal variations.

To ensure the quality of silt curtain, the supplier must be quality certified (i.e. ISO 9001 or equivalent) and relevant project references / records of field tests demonstrating the silt curtains applicability for deployment in open sea marine environments and conditions comparable to those in Hong Kong waters shall be provided. Details are provided in **Appendix B**.

3.3 Arrangement for the Silt Curtain Deployment Location

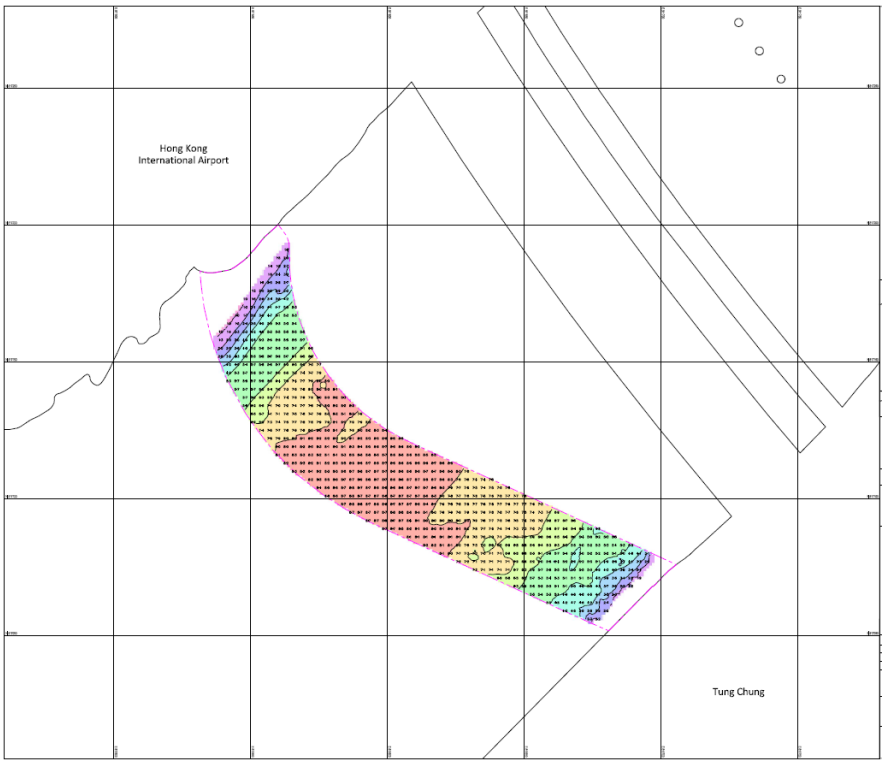
Before installation of temporary working platform commences, deployment of silt curtain is necessary. Silt curtain will be installed around the works area for demarcation and prevention of water quality impacts. The marine viaduct works area is shown in **Appendix C**.

3.4 Pre-Condition Survey

A Bathymetric Survey will be conducted to check the depth of the seabed and existing seabed condition using the Multibeam Sonar. The Survey coverage will be within the works area of the marine viaduct. The primary purpose of this survey is to detect any vertical anomalies (high-spots or low-spots) present on the seabed within the work area so that can pre-plan the working

methodology on the marine viaduct. Aside from pre-planning of the working methodology, the length of the silt curtain can be determined. The sample Bathymetric Survey Record is shown in **Figure 3.1**.

Figure 3.1: Sample Report of Bathymetric Survey on the Marine Viaduct

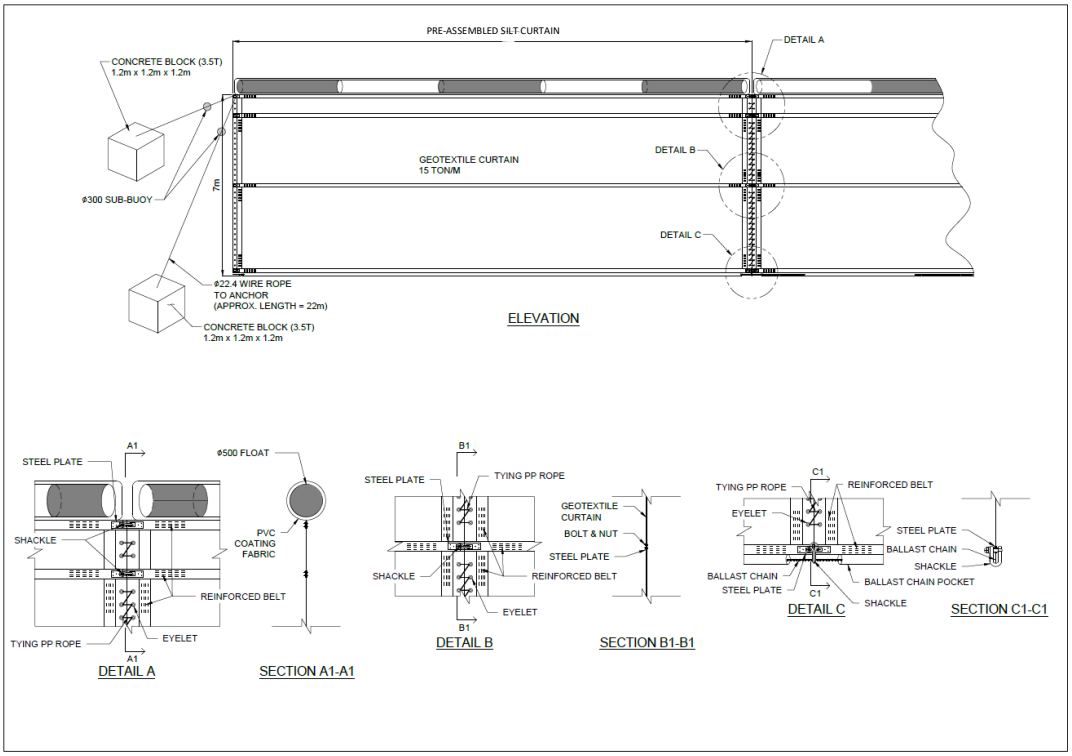


3.5 Procedures for Pre-Assembly of Silt Curtain

1. The pre-assembly of silt curtain will be conducted on deck of a 90T Crawler Crane Barge.
2. A 15m span of pre-assembled silt curtain will be connected to a 10m span of pre-assembled silt curtain to form a 25m long silt curtain section. Two 25m long silt curtain sections will be connected to form a 50m long silt curtain (2 nos. of 15m span silt curtain and 2 nos. of 10 m span silt curtain). Each connection will use the D-shackles and Polypropylene rope for stitching as shown in **Figure 3.2**.
3. Each pre-assembled silt curtain will be connected to another span of silt curtain using a D-shackle at the top, middle, and bottom connection points of the steel end plates.
4. The eyelets of the pre-assembled silt curtain will be threaded with a polypropylene rope in a zigzag pattern to connect the sections.
5. A ballast chain will be inserted into the chain pocket at the bottom of the pre-assembled silt curtain to provide weight and stability.

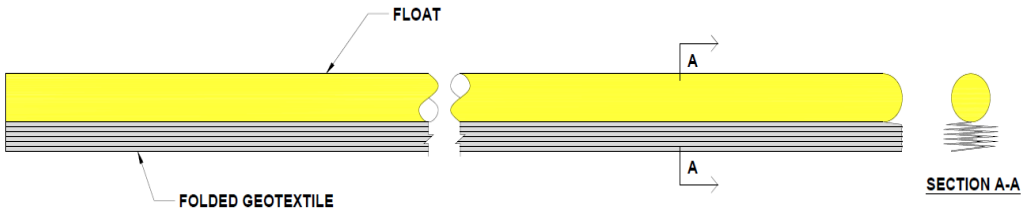
6. To safely secure the ballast chain pocket, a larger D-shackle will be attached to the lowest point of the connecting steel plate to support the weight of the ballast chain and avoid wear and tear on the ballast chain pocket.

Figure 3.2: Details of Stitching Two Spans of Pre-assembled Silt Curtain



7. After interconnecting all 4 spans of silt curtain, fold the assembled silt curtain, starting from the ballast chain pocket and working up towards the floatation end as shown in **Figure 3.3**.

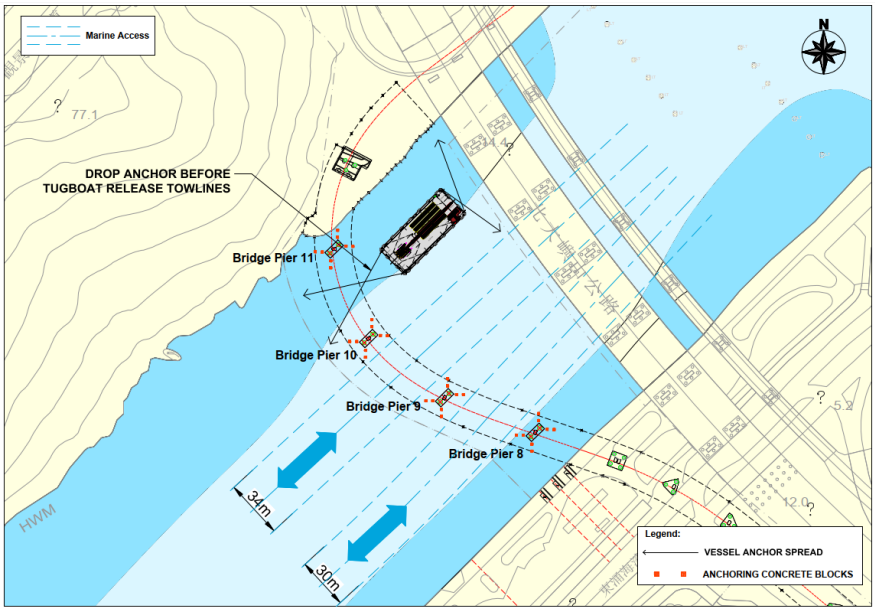
Figure 3.3: Folded Silt Curtain



3.6 Installation of Silt Curtain

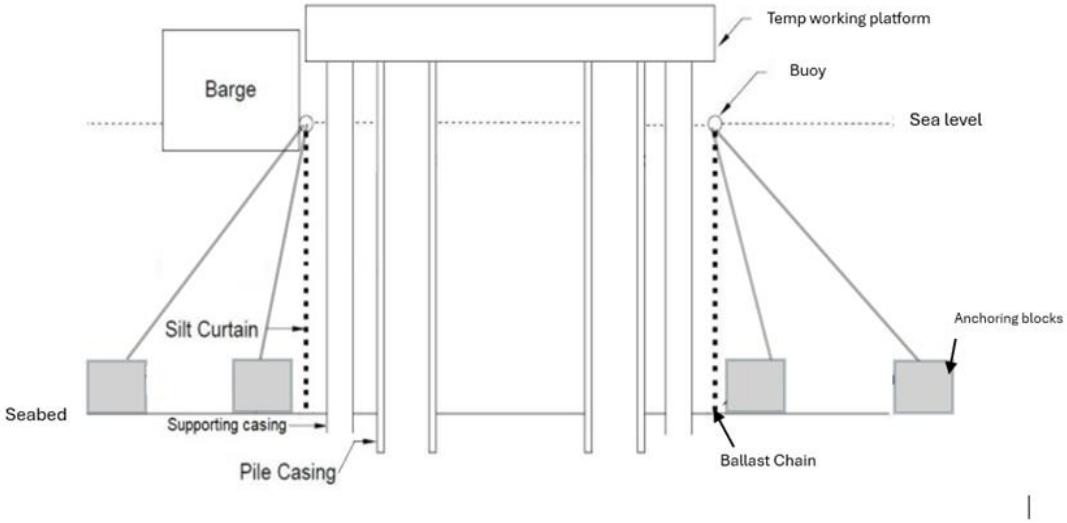
1. Anchoring concrete blocks will be used to keep the silt curtain vertical during deployment and would be settled at its designated positions before launching the silt curtain into the sea.
2. Four sets of pre-assembled silt curtain would be loaded to the 90T crawler crane barge and towing into the marine viaduct area by tugboat.
3. Upon reaching the marine viaduct area, the crawler Crane will drop its anchor on the seabed. The tugboat will release its towlines once all 4 anchors of the crawler crane barge has been set on the seabed as shown in **Figure 3.4**.

Figure 3.4: 90T Crawler Crane Anchor Drop at the Working Vicinity



4. The crawler crane barge will moor towards the silt curtain deployment locations and load down the folded silt curtain into the sea. Sub-buoys will be installed on the silt curtain first before the diver dives down and secure the silt curtain to the anchoring concrete blocks. Illustration of silt curtain set up is in **Figure 3.5**.

Figure 3.5: Diagram of Silt Curtain Set Up



5. The crawler crane will navigate the position of the silt curtain (see **Figure 3.6**) to its next position then repeat step until completing all 4 silt curtain positions as shown in **Figure 3.7**.

Figure 3.6: Navigating the Silt Curtain

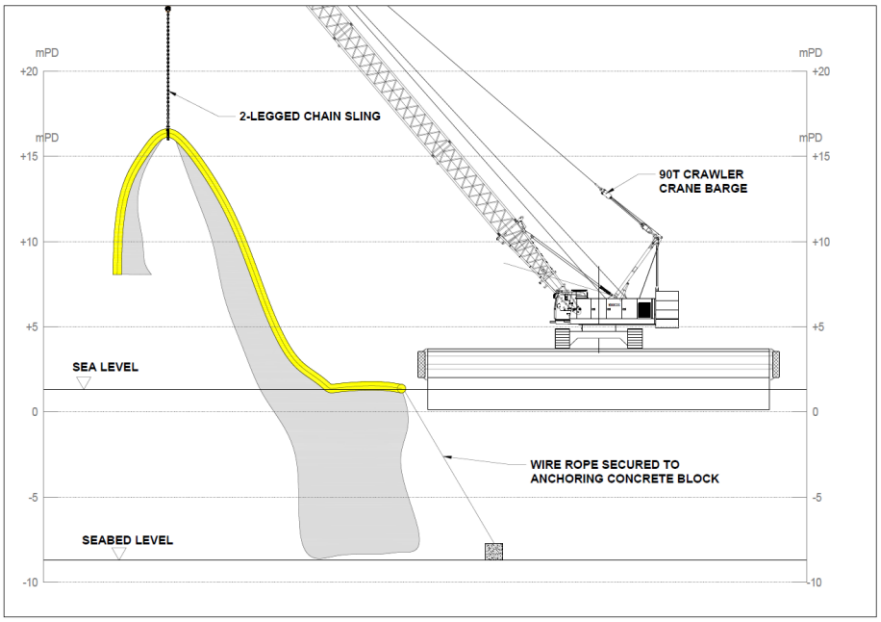
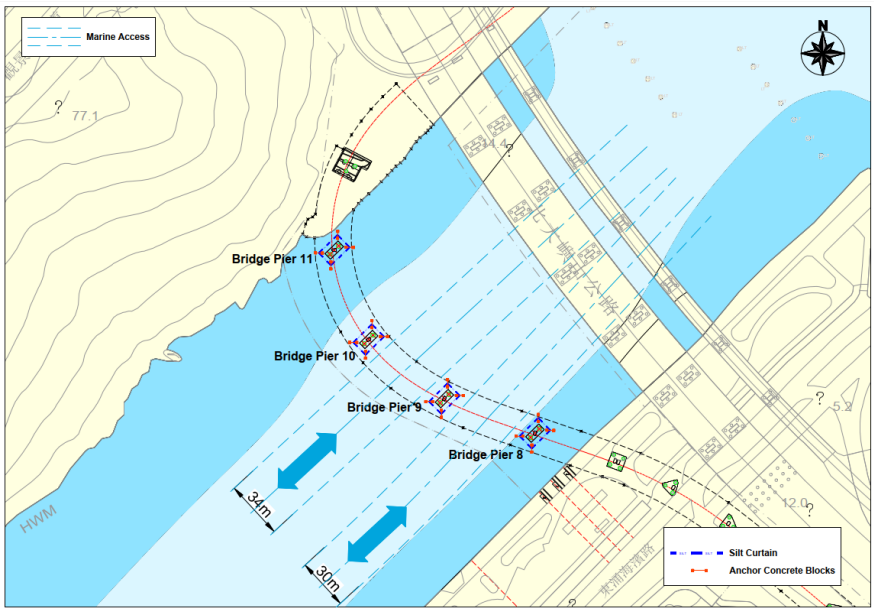


Figure 3.7: Completed Installation of Silt Curtain



4 OPERATION AND MAINTENANCE

4.1 Deployment of Silt Curtain

Silt curtain will be deployed at marine viaduct Bridge Pier 8 to Bridge Pier 11 prior to marine bored piling. The details of work sequence can refer to **Section 3.5 to 3.6**.

4.2 Operation of Silt Curtain

Silt curtain will remain in place throughout the marine piling works and will be removed after the completion of marine works (i.e. concreting for piles and pile caps) and the dismantling of temporary working platform. Regular checking and monitoring will be carried out during the operation of the silt curtain (see Section 5).

4.3 Procedures for Adverse Weather Conditions

During adverse weather conditions (e.g. typhoon signal No.3 or higher), no marine works will be conducted and the silt curtain will be retracted where possible to avoid unnecessary damage. After typhoon signal No.3 is lowered, the silt curtain will be re-deployed prior to re-initiation of marine

works around the bridge piers.

The Contractor will ensure the silt curtain is undamaged or will repair or replace the affected silt curtain before relevant marine works are re-initiated. Re-deployment of silt curtains where required, shall follow the procedures specified in Section 3.5 to 3.6.

4.4 Maintenance of Silt Curtain

Before commencement of marine works, daily visual inspection on the silt curtains will be conducted, any damage or faults identified in the silt curtain will be repaired immediately. Where the damage / fault is minor, the Contractor will undertake in-situ maintenance and repair by qualified divers without the need for retracting the silt curtain. Where such in-situ maintenance and repair are conducted, the Contractor will ensure that another diver is on standby, the appropriate warning flags / signals are in place, and the captain or foreman of the maintenance / construction vessel has communication channels open and ready to promptly alert other vessels to avoid the affected silt curtain area during the maintenance and repair. In case of mud plume flowing out from the silt curtain causing by the works is observed, repairing of silt curtain will be carried out immediately prior to resume the relevant marine works.

Spare parts of silt curtain will be prepared and stored on-site for replacement / repair. Where the damage / fault is extensive or cannot be easily repaired in-situ, the Contractor will retrieve the silt curtain and replace with new ones. In such circumstances, the relevant marine works will be suspended until the replacement is done.

4.5 Removal of Silt Curtain

Prior to removal of silt curtains, ensure all marine works and associated works (as mentioned in section 4.2 above) within the silt curtain has completed and visual inspection of the water quality shall be conducted to confirm no sediment plume remaining within the works area before commencing silt curtain removal. The silt curtain will be lifted carefully to avoid stirring up the seabed and will be removing by a crawler crane.

5 REGULAR CHECKING AND MONITORING

5.1 Inspection

Regular checking of the silt curtain will be conducted throughout the deployment of the silt curtain. The two types of checks that will be conducted are:

- Visual – the Contractor to check that the silt curtains are maintained in the correct positions with no obvious defects / entanglement, the marker buoys / lights (where applicable) are present and operational, and there is no observable muddy water passing through the silt curtain system. Any floating refuse trapped by the silt curtain will also be removed as part of the visual inspection.
- Diver – for conducting more thorough underwater inspections to check that the silt curtain fabric is intact, the silt curtain depths are correct, and there is no damage / breakage in load lines.

The checking frequency is summarised in Table 5.1. All checks will follow the inspection checklists shown in **Appendix D** and will be appropriately signed off by the Contractor.

Table 5.1: Inspection Requirement and Frequency

Inspection Requirement	Purpose	Visual Inspection Frequency	Diver Inspection Frequency
Upon initial installation	To confirm the silt curtain has been properly installed	Daily	Once
During operation	To maintain regular check of silt curtain performance / integrity		Quarterly
When there is observed / suspected sediment release	To identify cause of sediment release and confirm any remedial actions taken		At least once for each instance
Upon re-installation (where applicable)	To confirm the silt curtain has been properly re-installed		Once for each instance of re-installation

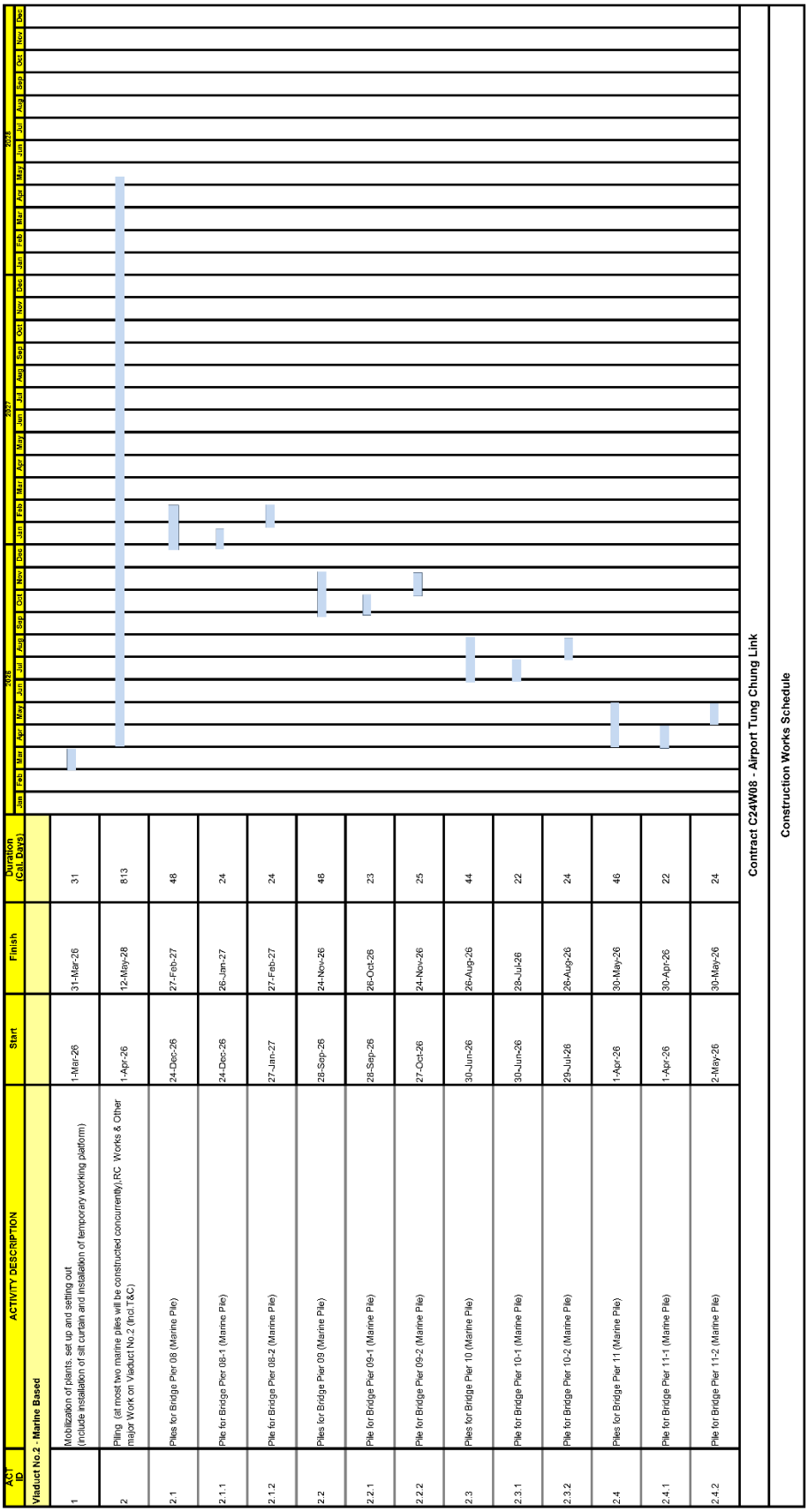
Weekly and ad hoc site inspections carried out by the Environmental Team (ET), and also monthly site inspection conducted by the Independent Environmental Checker (IEC), will include visual checks on the silt curtain location and effectiveness. Where the silt curtains deployed are identified by the ET and / or IEC to be ineffective or inadequate for controlling sediment release, the Contractor will make appropriate adjustments or provided additional silt curtains as necessary to improve and meet the water quality requirements of the Project.

5.2 Record Keeping

All inspections carried out by the Contractor will be recorded on the silt curtain inspection checklists are shown in **Appendix D**. All checklists will be signed by the Contractor and kept on-board the responsible maintenance / construction vessel and made available to the ET and IEC upon request for checking and auditing purpose. Diver inspection records will also be signed by the qualified diver. A summary of the records of the daily visual and the diver inspections including photographic records, as well as any rectification action taken, will be included in the Contractor's monthly environmental reports.

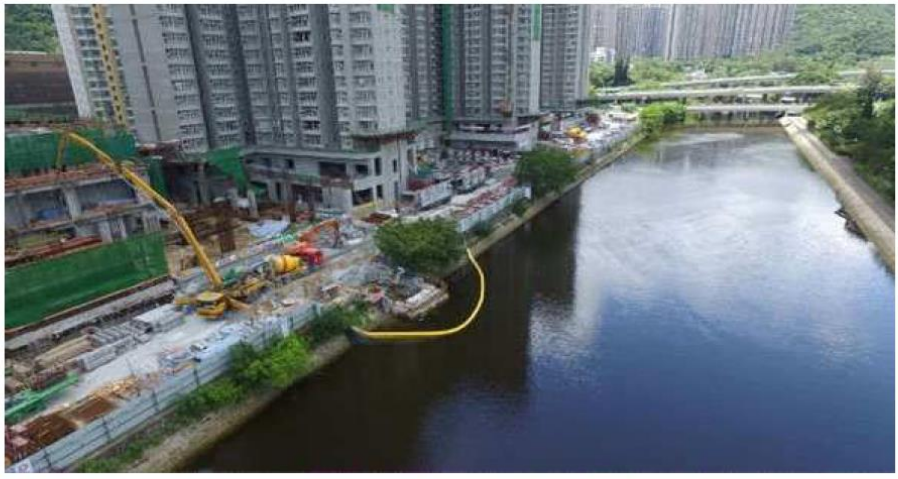
An implementation schedule of key requirement of relevant mitigation measures is provided in **Appendix E.**

APPENDIX A
CONSTRUCTION PROGRAMME INVOLVING DEPLOYMENT OF SILT CURTAIN


ACT ID
ACTIVITY DESCRIPTION
Start
Finish
Duration (Cal. Days)
2026
2027
2028
Viaduct No.2 - Marine Based
1 Mobilization of plants, set up and setting out (include installation of silt curtain and installation of temporary working platform) 1-Mar-26 31-Mar-26 31
2 Piling (at most two marine piles will be constructed concurrently),RC Works & Other major Work on Viaduct No.2 (Incl. T&C) 1-Apr-26 12-May-28 813
2.1 Piles for Bridge Pier 08 (Marine Pile) 24-Dec-26 27-Feb-27 48
2.1.1 Pile for Bridge Pier 08-1 (Marine Pile) 24-Dec-26 26-Jan-27 24
2.1.2 Pile for Bridge Pier 08-2 (Marine Pile) 27-Jan-27 27-Feb-27 24
2.2 Piles for Bridge Pier 09 (Marine Pile) 28-Sep-26 24-Nov-26 46
2.2.1 Pile for Bridge Pier 09-1 (Marine Pile) 28-Sep-26 26-Oct-26 23
2.2.2 Pile for Bridge Pier 09-2 (Marine Pile) 27-Oct-26 24-Nov-26 25
2.3 Piles for Bridge Pier 10 (Marine Pile) 30-Jun-26 26-Aug-26 44
2.3.1 Pile for Bridge Pier 10-1 (Marine Pile) 30-Jun-26 28-Jul-26 22
2.3.2 Pile for Bridge Pier 10-2 (Marine Pile) 29-Jul-26 26-Aug-26 24
2.4 Piles for Bridge Pier 11 (Marine Pile) 1-Apr-26 30-May-26 46
2.4.1 Pile for Bridge Pier 11-1 (Marine Pile) 1-Apr-26 30-Apr-26 22
2.4.2 Pile for Bridge Pier 11-2 (Marine Pile) 2-May-26 30-May-26 24
Contract C24W08 - Airport Tung Chung Link
Construction Works Schedule

APPENDIX B
SILT CURTAIN CATALOGUE AND SPECIFICATION

Material Submission
G and E Silt Curtain



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December 2022

Table of Contents

An Introduction of G and E Company Limited

G AND E COMPANY LIMITED
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361 – 363 Lockhart Road, Wanchai, Hong Kong
Tel: 2570 0103 Fax: 2570 0089 e-mail: info@g-and-e.com
website: www.g-and-e.com

G and E – A Perspective

G and E, a geosynthetics specialist, distributes a full range of geosynthetics from renowned global manufacturers. The Company also manages a competent installation contracting service team. To better serve our clients, design and engineering service have also been established in our portfolio. We aspire to provide our client engineering solutions, from application and design, supply of materials and their installation, to conformance testing and project commissioning.

G and E takes a strong vision in geosynthetics application, sustainable construction, and development by working closely with engineering communities, consultants, academic, industry organizations, research institutions, testing laboratories, contractors and education bodies, a mission to broaden geosynthetics' versatility.

We offer comprehensive and competitive service to application, design, installation, and testing, with superior attentiveness, professionalism and international industry standard.

G and E is ISO 9001 quality management certified and a VSRS registered contractor, with a remarkably successful working relationship with a long list of clients, the government, stakeholders, contractors, designers, consultant engineers, overseas distributors and trading partners. The clientele extends to Macau, Southeast Asia and Southern China.

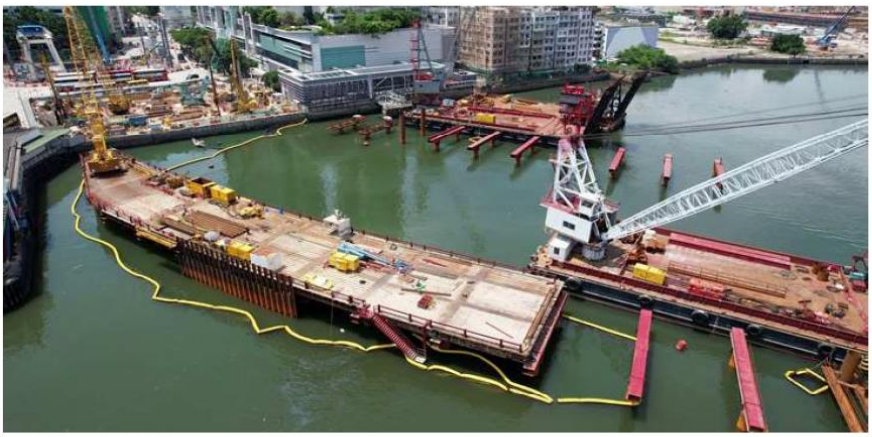
Talk to us today and see how our proposal can be an appropriate, cost-effective and time saving solutions. We are entering our 38th year in the industry, we have a library of experience to share and to support your project.

ISO9001:2015	International Geosynthetics Society	Product Endorsement	Registered Subcontractor

July 2022

G AND E COMPANY LIMITED
14/F Kiu Yin Commercial Building
361 – 363 Lockhart Road, Wanchai, Hong Kong
Tel: 2570 0103 Fax: 2570 0089 e-mail: info@g-and-e.com
website: www.g-and-e.com

G and E runs a global distribution network and sourcing agent of geosynthetics, as well as a provider of professional design and installation services.



Central Kowloon Route – Kai Tak West (HY/2014/07)

The company handles a comprehensive range of geosynthetic materials:

GEOTEXTILE:	Woven, non-woven, thermal bonded, needle punched, spun bond, special weave & composite
GEOMEMBRANE:	PE, PVC & EPDM membrane, keyed preformed, conductive & concrete protection liner, gas barrier, waterproofing sheet, leakage collection, contamination treatment & effluent containment system
GEODRAIN:	Geonet, geocomposite, cuspated drain, band drain, PVD, sheet drain, relief drain, raking drain
GEOGRID:	Uni-axial, bi-axial & tri-axial geogrid and composite geogrid, reinforced fill construction
EROSION CONTROL:	Erosion mat, concrete mat, coir mat, geocell, gabion, wire & cable mesh, concrete canvas, flexible rockfall barrier
MARINE:	Silt curtain, turbidity control, block mat, geotextile tube, oil & trash boom, geobag, geotextile container, concrete mattress
CLAY LINERS:	Geosynthetic bentonite liner, GCL and composite
TUNNEL:	Waterproofing membrane, invert drainage void former, GFRP, strip drain, geodrain
LANDSCAPE:	Geotextile filter, root barrier, drainage composite, roof drain, tree anchor, rigid drainage cell, grass paver, zero irrigation system
SERVICE:	Geomembrane leak location survey, HDPE pipe, geosynthetics fabrication, repair & testing, crib wall, reinforced fill slope and wall, ground stabilization, land decontamination

July 2022

Silt Curtain Leaflet

G and E - Silt Curtain

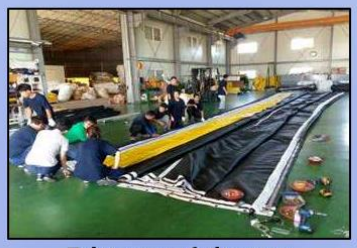
G and E has established silt curtain fabrication facility in Korea, making full use of professional factory set up, trained and skill workers, availability of quality geotextile and components, efficient operation and fast delivery from Busan to Hong Kong. G and E Silt Curtain (GESC series) has standard unit and customized model.

Typical proto-type

We can supply silt curtain systems with:

- Customize design & drawing based on requirements
- Engineer to site condition constraint
- Fabricate to specific depth and length
- Supplement with accessories and installation components

Handling of the silt curtain



Fabrication of silt curtain

Factory in Ansung, Korea

The silt curtain will be delivered in pre-assembled package, including the float, geotextile curtain, ballast chain, other accessories, readied for immediate deployment , anchor system is optional.

Silt Curtain Types

G and E Silt Curtain system comes in various types to suit all environments. There are:

- **Hanging type** - typical floating system to enclosed work area
- **Standing type** - suspended in mid water to allow marine traffic
- **Barge type** – for attachment to vessel or marine structure
- **Cover head type** - for coastal calm area
- **Frame type** - for enclosure of grab bucket
- **Double chain type** – a waving skirt to accommodate tidal change

Silt curtain at Lung Mei Beach, May 2018

Tung Chung New Town Extension - Reclamation and Advance Works, December 2018 (NL/2017/03)

TKO - Lam Tin Tunnel - Main Tunnel and Associated Works, April 2019 (NE/2015/01)

Central Kowloon Route - Kai Tak West, January 2019 (HY/2014/07)

Barge type

Cover head type

Double chain type

There are various sizes of float (buoyancy necessity), different grades of geotextile (strength requirement), a variety of steel plates (connection integrity), reinforcement belt (stiffening the curtain body) and several bottom chain (adequate ballast weight) to configurate the most appropriate system.

Silt Curtain Accessory

Optional accessories include sub-float to counter balance wave action, market buoy to identify anchor position, market light to signal alignment, fluke & ton bag anchor to replace anchor block as well as PP rope, shackle and anchor wire.

Anchor wire & cable

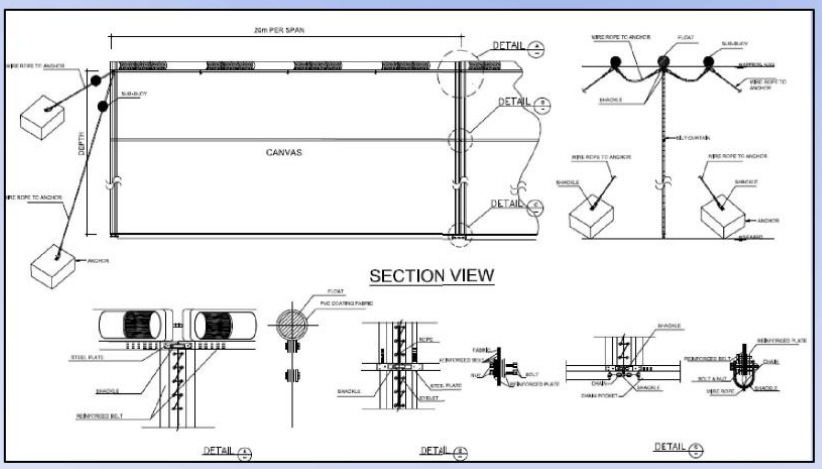
Marker light

Marker buoy

Sand bag anchor

Rope & shackle

Typical Design Drawing of Silt Curtain



Fluke anchor

Sub float

G and E Company Limited
14th Floor, Kiu Yin Commercial Building, 361-363 Lockhart Road,
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website: www.g-and-e.com

ver. 6_Apr 2021

Geotextile Specification

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website: www.g-and-e.com

GESC Silt Curtain Specification

Silt curtain system	Material	GESC-15
Silt Curtain Length	-	Length 10m / 15m / 20m per span
Silt Curtain Depth	-	Depth up to 15m
Float element	-	300mm - 480mm diameter float
Type of Silt Curtain	-	Hanging type
Fabrication	-	Fabricate in Korea

Geotextile	Unit	Test Method	GESC-15
Geotextile Model	-		SN15
Tensile Strength	kN/m	ISO 10319	150/150
Elongation	%	ISO 10319	20
Coefficient of permeability (h=50mm)	cm/sec	ISO 11058	$>1.0 \times 10^{-2}$
Weight	g/m2	ISO 9864	400
Material	-		Polypropylene
Colour	-		White
Recommended application			Medium term project in sheltered water (Normally, the silt curtain under sea water without external destruction, it can keep about 1-2 years)

Silt Curtain
Component Material and Coating

Silt Curtain
Component Material and Coating

Item	Material	Coating
Eyelet	0.2% Low Carbon Mild Steel	Painting (oil-based paint)
Steel Plate		Galvanized (50 - 80µm)
Reinforced Steel Plate		Hot Dip Galvanize (over 80µm)
Bolt & Nut		Galvanized (50 - 80µm)
Ballast Chain		Coal Tar Painting
Shackle		Galvanized (50 – 80µm)

ISO 9001:2015 Certificate

REGISTRATION CERTIFICATE

this is to certify that the management system of

G and E Company Limited.

have been assessed by A CUBE TIC LIMITED and registered against the requirements of

ISO 9001:2015

scope of registration

General Construction installation work Service and sales of Construction material such as Geosynthetics

14/F Kiu Yin Commerical Building361-363 Lockhart Road, Wan Chai, Hong Kong

Sites Registered		
28		21/16729
EAC		Certificate Number
22nd January 2014	27th March 2024	27th March 2027
Date Original Registration	Date Of Re-registration	Expiry Date
27th January 2027	N/A	N/A
Next Re-Audit Due Date	Revision Date	Previous Expiry Date

Alfonso Pagliuca, President & Founder, A Cube TIC Limited

UKAS MANAGEMENT SYSTEMS 0273

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT IAF

ACT

This certificate is the property of A Cube TIC Limited Unit 5 Middle Bridge Business Park Bristol Road Portishead Bristol BS20 6PN UK and must be returned on request.

Job Reference List

G and E Silt Curtain

Date	Project	Client	Consultant	Model	Size (W x Lm)	No. of Span
Jul-03	CV/2002/04 Penny's Bay Reclamation Stage 2	Gammon Construction Ltd	Scott Wilson Ltd		20 x 5 10 x 5	86 256
May-13	DC/2011/01 Drainage Maintenance and Construction in Mainland South Districts (2011-2015)	World Diamond Engineering Ltd	Drainage Services Department	GSP 15	20 x 5 5 x 3 2 x 3 13 x 3	1 10 1 4
Apr-14	HY/2012/07 Dual 2-lane carriageway between HZMB BCF and North Lantau Highway	Gammon Construction Ltd	AECOM Asia Co Ltd	DSP15	20 x 6 20 x 7 20 x 9	24 10 10
Mar-15	16/WSD/11 Replacement and rehabilitation of water mains at Peng Chau, Sunshine Island and Hei Ling Chau	Pipe Tech Ltd MIRDTEC HK Ltd	AECOM Asia Co Ltd	DSP 15 DSP 15 DSP 15	20 x 0.6 20 x 1.2 20 x 1.5	1 22 6
Mar-15	P552 Deep Cement Mixing Trial Works	Penta Ocean Construction Co Ltd	Atkins China Ltd & Mott MacDonald	DSP30 DSP30	20 x 8 25 x 8	2 6
Dec-15	HK/2012/08 Wan Chai Development Phase II - Central Wan Chai Bypass at Wan Chai West	China State - Leader JV	AECOM Asia Co. Ltd	DSP30 DSP30 DSP15 DSP15 DSP15	20 x 10 10 x 5 20 x 10 20 x 9 20 x 8	6 6 5 5 5
Dec-16	C3203 3rd Runway System Project DCM Ground Improvement Works (Package 3)	Sambo E & C Co Ltd	Atkins China Ltd & Mott MacDonald	DSP 30 Barge Type	10 x 4 10 x 2 9 x 4 9 x 1.6 9 x 2.8 9 x 1.8 9 x 2	46 2 246 4 2 2 2
Dec-16	C3204 3rd Runway System Project DCM Ground Improvement Works (Package 4)	CRBC-Sambo JV	Atkins China Ltd & Mott MacDonald	DSP30	6 x 5.3 6 x 11.3 6 x 12.3 6 x 12.8 6 x 13.8 6 x 6 20 x 3	2 2 20 4 4 100 10
Jan-17	C3201 3rd Runway System Project DCM Ground Improvement Works (Package 1)	Penta Ocean-China State- Dong Ah JV	Atkins China Ltd & Mott MacDonald	DSP 30	6 x 8	154
Feb-17	P560 Aviation Fuel Pipeline Diversion Works	Kat Yue Construction Engineering Ltd	Mott MacDonald HK Ltd	DSP15	20 x 1.5	8
Jul-17	Refuse Boom at Tai O by World Wide Fund	G and E Co. Ltd	World Wide Fund	DSP15	20 x 0.5	3
Aug-17	Lyric Theater Complex and Extended Basement Project for the WKCD Authority	Gammon Construction Ltd	AECOM Asia Co. Ltd / Mott Macdonald HK Ltd	DSP15	20 x 8	6
Mar-18	HK/2009/02 Wan Chai Development Phase II Central - Wanchai Bypass at Wanchai East	Chun Wo - CRGL JV	AECOM Asia Co Ltd	DSP15	20 x 7	13
Apr-18	NL/2017/03 Tung Chung New Town Extension - Reclamation and Advance Works	Build King - SCT JV	AECOM Asia Co Ltd	DSP15	20 x 4.7 20 x 6.4 20 x 6.9	699 90 37

1

G and E Silt Curtain

Date	Project	Client	Consultant	Model	Size (W x Lm)	No. of Span
					20 x 7.4	33
Apr-18	NE/2017/01 TKO - Lam Tin Tunnel Road - TKO Interchange and Associated Works	CW - STEC - CMGC JV Sam Woo Bore Pile Foundation Ltd	AECOM Asia Co Ltd	DSP15 Barge Type	14 x 4 14 x 5 14 x 6 12 x 5 12 x 6 14 x 10 14 x 14 14 x 12	28 44 46 36 18 10 10 22
May-18	NE/2015/01 TKO - Lam Tin Tunnel - Main tunnel and associated works	Leighton - China State JV	AECOM Asia Co Ltd	Silt Curtain	20 x 0.8 20 x 10	20 56
Jun-18	Lago Nam Van, Macau	Sunley Engineering & Construction Co Ltd	WSP	DSP15	20 x 1.1 20 x 1.9	17 3
Jun-18	Sai Sha Road Widening between Kam Ying Road and Future Trunk Road T7	Gammon Construction Ltd	Highways Dept	DSP15	14 x 1.5	2
Oct-18	HY/2014/07 Central Kowloon Route - Kai Tak West	Gammon Construction Ltd	Arup - Mott MacDonald JV	GESC-15	10 x 3 20 x 2 20 x 3 20 x 4 20 x 4.5 20 x 5 20 x 6 20 x 7 20 x 7.5 15 x 7.5	1 2 1 10 2 17 18 13 11 2
Nov-18	Proposed Residential Development at Site N TKOTL 70RP, Lohas Park Package 6	Hip Hing Construction Co Ltd	Meinhardt (M&E) Ltd	GESC 15	20 x 1.5 10 x 1.5	1 2
Nov-18	YL/2017/03 Development of Lok Ma Chau Loop; Land Decontamination and Advance Engineering Works	Sang Hing - Kuly Joint Venture	Black & Veatch Hong Kong Ltd	GESC15	20 x 2	14
Jan-19	C340B 輕軌嫣閣站主體建造工程 - 臨時道路工程	Hai Fai Construction	AECOM Asia Co Ltd	DSP 15	20 x 3	12
Apr-19	NE/2016/01 Site formation and infrastructure work for development of Anderson Road quarry site	Chun Wo - STE Vasteam JV	AECOM Asia Co Ltd	GESC 15	10 x 4	4
Jun-19	HY/2014/16 Hiram's Highway Improvement Stage 1 - Between Clearwater Bay Road and Marina Cove	China State Construction Engineering (Hong Kong) Limited	Meinhart Infrastructure and Environmental Ltd	GESC 15	20 x 4 15 x 2.5	5 2
Aug-19	金銀島名勝世界酒店	駿晟工程有限公司		GESC 15	20 x 3	40
Sep-19	HEC 18/8004 Lamma Power Station Extension - Unit 12, New LPS - LMX Cable Bridge	Sunley Engineering & Construction Co Ltd	HK Electric Co Ltd	GESC 15	4 x 1 10 x 2	2 4
Dec-19	NKIL 6575 Proposed Residential Development, Kai Tak	China Overseas Building Construction Ltd	SYW & Associates Ltd	GESC 15	20 x 4	3
Mar-20	EP/SP/9/91 Development and Management of West New Territories (WENT) Landfill	SUEZ NWS R & R (Hong Kong) Ltd	Black & Veatch Hong Kong Ltd	GESC 15	15 x 2 15 x 2.5 20 x 2 20 x 1.5	1 1 1 2

2

G and E Silt Curtain

Date	Project	Client	Consultant	Model	Size (W x Lm)	No. of Span
					20 x 4	1
Mar-20	13/WSD/17 First Stage of Desalination Plant at TKO	China State Construction Engineering (Hong Kong) Limited Friendly Benefit Engineering Ltd	Black & Veatch Hong Kong Ltd	GESC 15	10 x 6 10 x 10 15 x 10 20 x 6 20 x 13 20 x 15	8 14 4 9 4 7
Apr-20	EP/SP/66/12 Integrated Waste Management Facilities Phase 1	Zhen Hua Engineering Co Ltd	AECOM Asia Co Ltd	GESC 10	20 x 2 20 x 5	40 15
Apr-20	HEC 18_8005 Lamma Power Station Navigation Channel Improvement	UDL Holding Ltd	HK Electric Co Ltd	GESC-15	18 x 7 18 x 10	8 8
Apr-20	DC/2017/01 Construction of dry weather flow interceptor at Cherry Street Box culvert	B.C. Contractors Ltd	Black & Veatch Hong Kong Ltd	GESC-15	20 x 2	5
Jun-20	Development of Industrial Estate 2.0 Project C - Advanced Manufacturing Center	Friendly Benefit Engineering Ltd	Andrew Lee King Fun & Associates Architects	GESC-15	20 x 7 20 x 7	5 8
Aug-20	CV/2016/09 CEDD Maintenance contract for piers (2017-2022)	Sun Fook Kong (Civil) Limited	Civil Engineering and Development Department, Port	GESC-15	15 x 3	2
Oct-20	C18W10 North Commercial District Footbridge	Friendly Benefit Engineering Ltd	Mott MacDonald	DSP-15	20 x 8.5	5
Nov-20	C19W10 Intermodal Transfer Terminal - Bonded Vehicular Bridge	Will Pak Engineering Ltd	Mott MacDonald	GESC-15	10 x 8 14 x 10 14 x 11 20 x 8 20 x 10	2 16 4 6 18
Jan-21	C18W02 Intermodal Transfer Terminal Building	Build King Construction Ltd	AECOM Asia Co Ltd	GESC-15	20 x 7	3
Jan-21	19-83014 Lamma Power Station Extension	Paul Y. Construction Co. Ltd	Arcadis	GESC-15	15 x 3.5	3
Feb-21	NKIL 6574 Kai Tak Area 4B, Site 3	China Overseas Building Construction Ltd	New World Development Co. Ltd	GESC-15	20 x 4	2
Aug-21	Offshore LNG Terminal	Yun Lee Marine Holdings Ltd Tapbo Civil Engineering Co. Ltd	ARUP	GESC-15	20 x 2 20 x 4 20 x 6 20 x 16	30 5 60 15
Aug-21	C3802 APM / BHS Tunnels	Gammon Engineering & Construction Co. Ltd	Mott MacDonald	GESC-15	20 x 4.7	3
Dec-21	Aviation Fuel Receiving Facility at Sha Chau	Kat Yue Construction Engineering Ltd	ERM	Oil Fence	20 x 0.7	6
Mar-22	DC/2018/03 Expansion of Sha Tau Kok Sewage Treatment Works, Phase 1	Maritime Construction Engineering Ltd	Binnies Hong Kong Ltd	GESC-15	20 x 9	9
Mar-22	DC/2020/02 Construction of San Shek Wan Sewage Treatment Works, Associated Submarine Outfall and Pui O Sewerage Works	Maritime Construction Engineering Ltd	Black & Veatch Hong Kong Ltd	GESC-15	20 x 9.5 12 x 9.5	16 1

3

G and E Silt Curtain

Date	Project	Client	Consultant	Model	Size (W x Lm)	No. of Span
Apr-22	NL/2020/05 Tung Chung New Town Extension - Site Formation and Infrastructure Works at Ma Wan Chung	Build King - Richwwell Civil JV	Ove Arup and Partners HK Ltd	GESC-15	20 x 2.2	10
May-22	ND/2019/02 Kwu Tung North New Development Area, Phase 1	Chun Wo - Kwan Lee JV	AECOM Asia Co	GESC-15	20 x 3.5	4
Sep-22	1002EM19A Additional District Cooling System at the Kai Tak Development	Paul Y - Qianhai JV	Ove Arup and Partners HK Ltd	GESC-15		

4

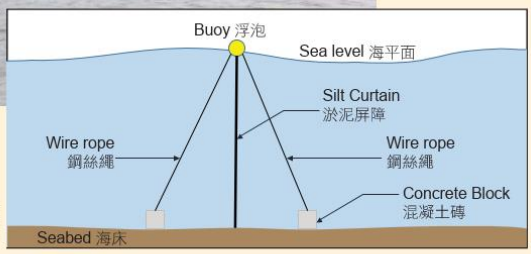
Photo References

防止水質污染 – 淤泥屏障
Prevention of Water Pollution – Silt Curtain

淤泥屏障是填海工程期間避免水質污染的緩解措施之一。在整個施工期間，填海區外圍以淤泥屏障隔離，以減低施工時對水質的影響。於每天施工前，工程人員須檢查淤泥屏障的狀況，包括其完整性及位置，確保淤泥屏障正確安裝及有效運作後，方可施工。另外潛水員會定期對淤泥屏障進行水底檢查。如發現任何破損，會即時維修或更換，以防止水質污染。

Provision of silt curtain is one of the mitigation measures to prevent the water pollution in reclamation works. During the course of construction, silt curtains are installed at the periphery of the reclamation area in order to minimise the impact on water quality. Our staff conduct daily check of the condition of the installed silt curtains prior to works commencement, including its integrity and location, so as to ensure the silt curtains are installed properly and function effectively. Furthermore, our diving team inspects the underwater condition of silt curtains regularly. In case of any defects found, the project team will repair or replace silt curtains immediately in order to prevent water pollution.

淤泥屏障
Silt curtains



淤泥屏障橫切面圖
Cross section of Silt curtain

資訊與聯絡
Information and Enquiries

如欲了解更多資料，請瀏覽東涌新市鎮擴展工程項目網頁：

For further information, please visit the website of Tung Chung New Town Extension project:

http://www.tung-chung.hk

如對東涌新市鎮擴展 – 填海及前期工程有任何意見及建議，歡迎提出。

Your views and comments on Tung Chung New Town Extension - Reclamation and Advance Works are welcome.

24 小時熱線 24-hour hotline **5976 1853**

電郵 email **enquiry@nl201703-bsjv.com**

DEVELOPMENT and CONSERVATION of LANTAU 發展及保育大嶼山

CEDD 土木工程拓展署 Civil Engineering and Development Department

AECOM

SAMSUNG Build King SAMSUNG C&T BUILD KING - SCT JOINT VENTURE

G AND E COMPANY LIMITED
14/F Kiu Yin Commercial Building
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Date	July 2022
Project	Contract No. DC/2018/03 Expansion of Sha Tau Kok Sewage Treatment Works, Phase 1
Client	Drainage Services Department
Consultant	Binnies Hong Kong Ltd
Main Contractor	Maritime Construction Engineering Ltd
Works	Turbidity Control
Material	Silt Curtain
Quantity	9 spans

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Date	March 2020
Project	Contract No. EP/SP/9/91 Development and Management of West New Territories (WENT) Landfill
Client	Environmental Protection Department
Consultant	Black & Veatch Hong Kong Ltd
Main Contractor	SUEZ NWS R&R (Hong Kong) Ltd
Works	Silt Trap at Outfall
Material	Silt Curtain
Quantity	1 span

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e-mail: info@g-and-e.com website: www.g-and-e.com

Date	August 2021
Project	Construction of Hong Kong Offshore Liquefied Natural Gas Terminal
Client	CLP Power Hong Kong Limited
Consultant	ARUP
Main Contractor	Yun Lee (Tim Kee) Marine Construction Ltd
Works	Turbidity Control
Material	Silt Curtain
Quantity	110 spans

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Date	April 2018
Project	Contract No. NL/2017/03 Tung Chung New Town Extension - Reclamation and Advance Works
Client	Civil Engineering Development Department
Consultant	AECOM Asia Co Ltd
Main Contractor	Build King - Samsung C & T JV
Works	Turbidity Control
Material	Silt Curtain
Quantity	859 spans

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website: www.g-and-e.com

Date	October 2018
Project	Contract No. HY/2014/07 Central Kowloon Route - Kai Tak West
Client	Highways Department
Consultant	Arup - Mott MacDonald JV
Main Contractor	Gammon Construction Ltd
Works	Turbidity Control around Piles
Material	Silt Curtain
Quantity	37 spans

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Date	May 2021
Project	Contract No. C19W10 Intermodal Transfer Terminal - Bonded Vehicular Bridge
Client	Hong Kong International Airport
Consultant	Mott MacDonald
Main Contractor	Will Pak Engineering Ltd
Works	Turbidity Control
Material	Silt Curtain
Quantity	46 spans

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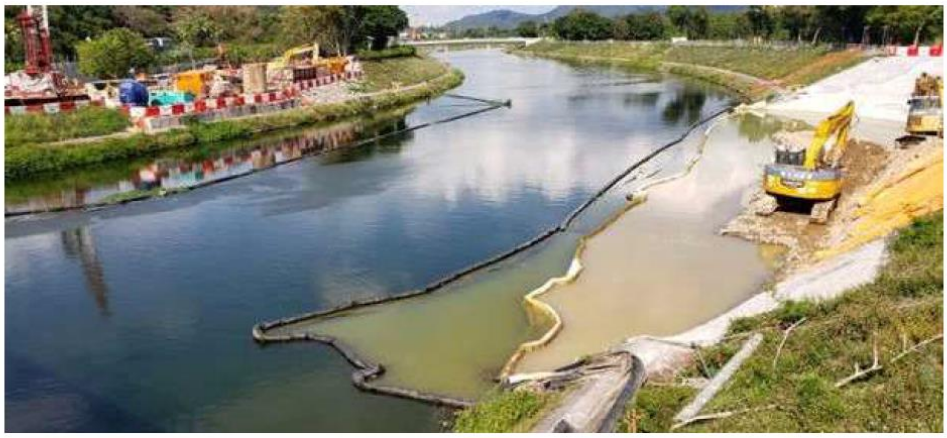

Date	December 2020
Project	Contract No. ND/2019/04 Fanling North New Development Area, Phase 1: Fanling Bypass Eastern Section
Client	Civil Engineering & Development Department
Consultant	AECOM Asia Co. Ltd
Main Contractor	DCK JV
Works	Turbidity Control
Material	Silt Curtain
Quantity	14 spans

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website: www.g-and-e.com

Date	January 2021
Project	Contract No. HKE 19_38014 Lamma Power Station Extension
Client	HK Electric
Consultant	Arcadis
Main Contractor	Paul Y. Construction Co. Ltd
Works	Turbidity Control
Material	Silt Curtain
Quantity	3 spans

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Tel: 852-2570 0103 Fax: 852-2570 0089
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Date	December 2018
Project	Contract No. YL/2017/03 Development of Lok Ma Chau Loop; Land Decontamination and Advance Engineering Works
Client	Civil Engineering and Development Department
Consultant	Black & Veatch Hong Kong Ltd
Main Contractor	Sang Hing - Kuly Joint Venture
Works	Turbidity Control
Material	Silt Curtain
Quantity	14 spans

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Date	June 2020
Project	Contract No. 13/WSD/17 First Stage of Desalination Plant at TKO
Client	Water Supplies Department
Consultant	Black & Veatch Hong Kong Ltd
Main Contractor	China State Construction Engineering (Hong Kong) Limited
Works	Turbidity Control
Material	Silt Curtain
Quantity	46 spans

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Date	October 2020
Project	Development of Industrial Estate 2.0 Project C - Advanced Manufacturing Center
Client	Hong Kong Science and Technology Parks Corporation
Consultant	Wong & Ouyang (Building Services) Ltd
Main Contractor	Gammon Construction Ltd Friendly Benefit Engineering Ltd
Works	Turbidity Control
Material	Silt Curtain
Quantity	9 spans

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Date	August 2020
Project	EP/SP/66/12 Integrated Waste Management Facilities Phase 1
Client	Environmental Protection Department
Consultant	AECOM Asia Co. Ltd
Main Contractor	Zhen Hua Engineering Co. Ltd
Works	Marine Park Protection
Material	Silt Curtain
Quantity	25 spans

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Date	March 2020
Project	Contract No. EP/SP/9/91 Development and Management of West New Territories (WENT) Landfill
Client	Environmental Protection Department
Consultant	Black & Veatch Hong Kong Ltd
Main Contractor	SUEZ NWS R&R (Hong Kong) Ltd
Works	Site Drainage Outfall Silt Control
Material	Silt Curtain
Quantity	1 span

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Date	June 2018
Project	Lago Nam Van, Macau
Client	Direcção dos Serviços De Protecção Ambiental of Macau
Consultant	WSP
Main Contractor	Sunley Engineering & Construction (Macau) Co Ltd
Works	Environmental Mitigation Measure
Material	Silt Curtain
Quantity	20 spans

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Date	May 2019
Project	Contract No. NE/2016/01 Site Formation and Infrastructure Works for Development of Anderson Road Quarry
Client	Civil Engineering and Development Department
Consultant	AECOM Asia Co Ltd
Main Contractor	Chun Wo - STEC - Vasteam JV Tinkle Construction Engineering Co Ltd
Works	Site Drainage Outfall Silt Control
Material	Silt Curtain
Quantity	4 spans

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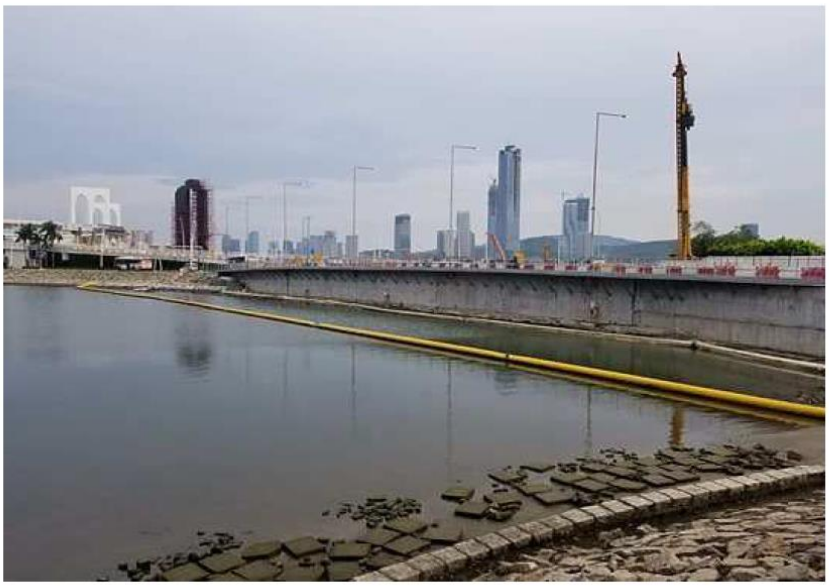

Date	January 2019
Project	C340B Main works for Barra Station, Macau
Client	MTR Railway Operations (Macau) Company Limited
Consultant	AECOM Asia Ltd
Main Contractor	China State Construction Engineeering Ltd
Works	Tubidity Control
Material	Silt Curtain
Quantity	12 spans

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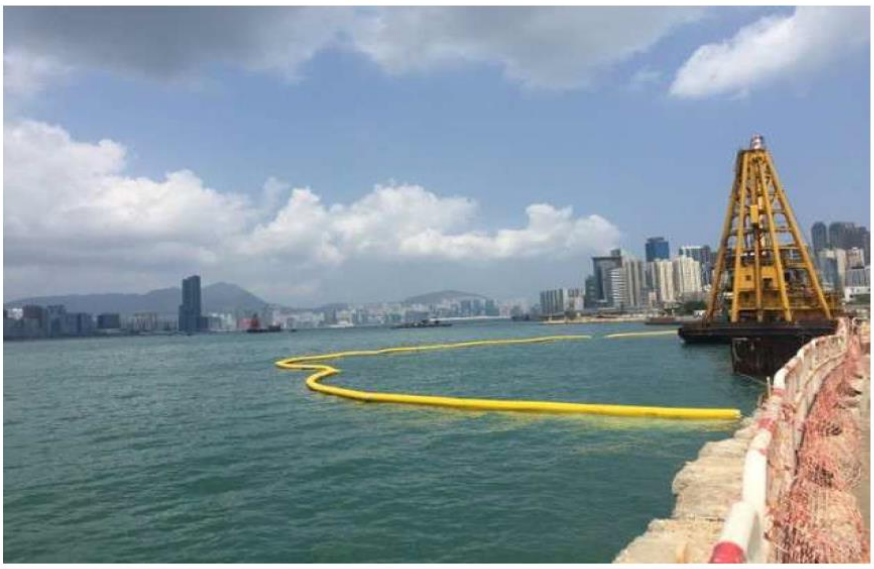
Wanchai, Hong Kong
Tel: 852-2570 0103 Fax: 852-2570 0089
website: www.g-and-e.com

Date	October 2018
Project	Contract No. HY/2014/07 Central Kowloon Route - Kai Tak West
Client	Highways Department
Consultant	Arup - Mott MacDonald JV
Main Contractor	Gammon Construction Ltd
Works	Turbidity Control
Material	Silt Curtain
Quantity	30 spans

G AND E COMPANY LIMITED
14/F Kiu Yin Commercial Building
361 - 363 Lockhart Road,
Wanchai, Hong Kong
Tel: 852-2570 0103 Fax: 852-2570 0089
website: www.g-and-e.com

Date	July 2017
Project	"ALL Hands on Deck", Reduce Ocean Gabbage Campaign
Client	Worldwide Fund for Nature Hong Kong
Consultant	G and E Company Limited
Main Contractor	G and E Company Limited
Works	Refuse Boom
Material	Silt Curtain
Quantity	3 spans

G AND E COMPANY LIMITED
14th Floor, Kiu Yin Commercial Building
361-363 Lockhart Road
Wanchai, Hong Kong
Tel: 852-2570 0103 Fax: 852-2570 0089
website: www.g-and-e.com



Date	March 2014
Project	Contract No. HK/2009/02 Wan Chai Development Phase II Central - Wan Chai Bypass Wan Chai East
Client	Civil Engineering and Development Department
Consultant	AECOM (Asia) Ltd
Main Contractor	Chun Wo - CRGL Joint Venture
Works	Turbidity Control
Material	Silt Curtain
Quantity	13 spans

G AND E COMPANY LIMITED
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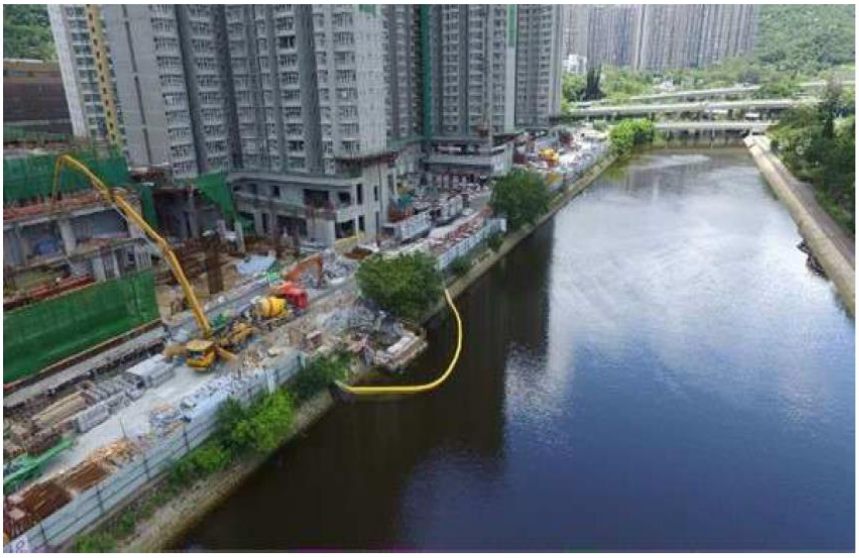

Date	April 2017
Project	Contract No. HKHA20120023 Public Rental Housing, Shek Mun Estate
Client	Housing Authority
Consultant	Housing Authority
Main Contractor	Hin Sum Engineering Co. Ltd
Works	Turbidity Control
Material	Silt Curtain
Quantity	2 spans

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Tel: 852-2570 0103 Fax: 852-2570 0089
website: www.g-and-e.com

Date	October 2016
Project	Contract C3201 Three Runway System Project Deep Cement Mixing Works (Package 1)
Client	Hong Kong Airport Authority
Consultant	Atkins in association with Mott MacDonald
Main Contractor	Penta Ocean-China State - Dong Ah JV
Works	Turbidity Control
Material	Silt Curtain Barge Type
Quantity	154 spans

G AND E COMPANY LIMITED
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Wanchai, Hong Kong
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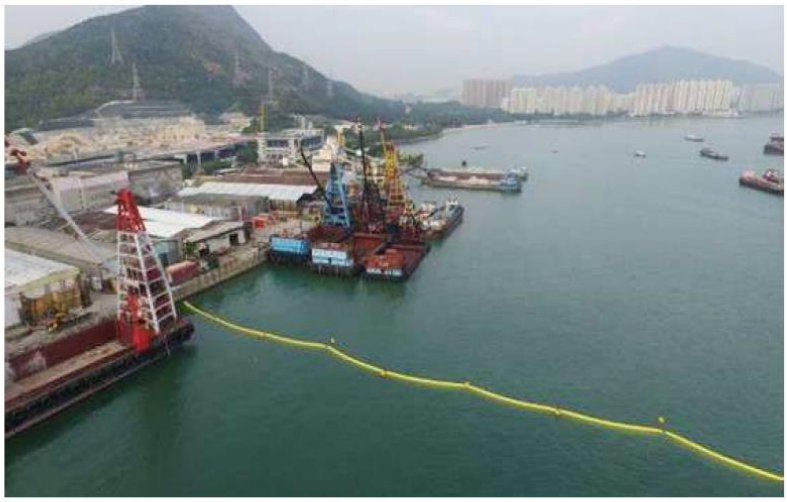
website: www.g-and-e.com



Date	June 2014
Project	Contract No. HY/2012/08 Tuen Mun - Chek Lap Kok Link Northern Connection Sub-sea Tunnel Section
Client	Highways Department
Consultant	AECOM Asia Co. Ltd
Main Contractor	Dragages - Bouygues JV
Works	Turbidity Control
Material	Silt Curtain
Quantity	85 spans

G AND E COMPANY LIMITED
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website: www.g-and-e.com

Date	March 2016
Project	Asia Pacific Gateway (APG) - Tseung Kwan O Section
Client	China Mobile International Limited
Consultant	Environmental Resources Management
Main Contractor	Maritime Mechanic Ltd
Works	Turbidity Control
Material	Silt Curtain
Quantity	12 spans

G AND E COMPANY LIMITED
14/F Kiu Yin Commercial Building
361 - 363 Lockhart Road,
Wanchai, Hong Kong
Tel: 852-2570 0103 Fax: 852-2570 0089
website: www.g-and-e.com

Date	May 2014
Project	HY/2012/07 Tuen Mun - Chek Lap Kok Link- Sothern Connection Viaduct Section
Client	Highway Department
Consultant	AECOM Asia Co. Ltd
Main Contractor	Gammon Construction Ltd
Works	Turbidity Control
Material	Silt Curtain
Quantity	44 spans

G AND E COMPANY LIMITED
14/F Kiu Yin Commercial Building
361 - 363 Lockhart Road,
Wanchai, Hong Kong
Tel: 852-2570 0103 Fax: 852-2570 0089
website: www.g-and-e.com

Date	February 2014
Project	HY/2012/07 Tuen Mun - Chek Lap Kok Link- Sothern Connection Viaduct Section
Client	Highway Department
Consultant	AECOM Asia Co. Ltd
Main Contractor	Gammon Construction Ltd
Works	Silt Curtain
Material	Woven Geotextile Bontec SG110/110
Quantity	10,500 sqm

G AND E COMPANY LIMITED
14/F Kiu Yin Commercial Building
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Wanchai, Hong Kong
Tel: 852-2570 0103 Fax: 852-2570 0089
website: www.g-and-e.com

Date	April 2015
Project	Contract No. 16/WSD/11 Replacement and Rehabilitation of Water mains, Stage 4 Phase 2
Client	Water Supplies Department
Consultant	AECOM Asia Company Limited
Main Contractor	Pipe Tech Ltd
Works	Turbidity Control
Material	Silt Curtain
Quantity	6 spans

G AND E COMPANY LIMITED
14/F Kiu Yin Commercial Building
361 - 363 Lockhart Road,
Wanchai, Hong Kong
Tel: 852-2570 0103 Fax: 852-2570 0089
website: www.g-and-e.com

Date	March 2015
Project	Contract No. P552 Deep Cement Mixing Trial Works
Client	Hong Kong Airport Authority
Consultant	Atkins - Mott MacDonald
Main Contractor	Penta Ocean Construction Co Ltd
Works	Turbidity Control
Material	Silt Curtain Barge Type
Quantity	8 Spans

G AND E COMPANY LIMITED
14/F Kiu Yin Commercial Building
361 - 363 Lockhart Road,
Wanchai, Hong Kong
Tel: 852-2570 0103 Fax: 852-2570 0089
website: www.g-and-e.com

Date	September 2013
Project	DC/2011/01 Drainage Maintenance and Construction in Mainland South Districts (2011-2015)
Client	Drainage Service Department
Consultant	Drainage Service Department
Main Contractor	Paul Y. Construction Co. Ltd
Works	Inflow Interceptor
Material	Silt Curtain
Quantity	16 spans

G AND E COMPANY LIMITED
14/F Kiu Yin Commercial Building
361 - 363 Lockhart Road,
Wanchai, Hong Kong
Tel: 852-2570 0103 Fax: 852-2570 0089
website: www.g-and-e.com

Date	December 2015
Project	Contract No. HK/2012/08 Wan Chai Development Phase II - Central Wan Chai Bypass at Wan Chai West
Client	CEDD
Consultant	AECOM Asia Co. Ltd
Main Contractor	China State Construction Engineering Co. Ltd
Works	Turbidity Control
Material	Silt Curtain
Quantity	27 spans

G AND E COMPANY LIMITED
14/F Kiu Yin Commercial Building
361 - 363 Lockhart Road,
Wanchai, Hong Kong
Tel: 852-2570 0103 Fax: 852-2570 0089
website: www.g-and-e.com

Date	May 2013
Project	Contract No. HK/2012/08 Wan Chai Development Phase II - Central Wan Chai Bypass at Wan Chai West
Client	CEDD
Consultant	AECOM Asia Co. Ltd
Main Contractor	China State Construction Engineering Co. Ltd
Works	Silt Curtain
Material	Woven Geotextile Bontec SG110/110
Quantity	42,000 sqm

Clarification Email from the Proposed Supplier "G & E Co Ltd

From: Natural Tsui <natural@g-and-e.com>
Sent: Tuesday, February 28, 2023 3:36 PM
To: LM Yuen <yuenlm@prosperch.com>
Cc: <HK River> FAN Tao <tqfan@163.com>; HKR-吴春 <wuchun72@163.com>; 李岩 <liyans163@163.com>; Aidan Law <aidanlaw@prosperch.com>
Subject: RE: DC/2019/09 - Material Submission - Silt Curtain

Dear Mr. Yuen,

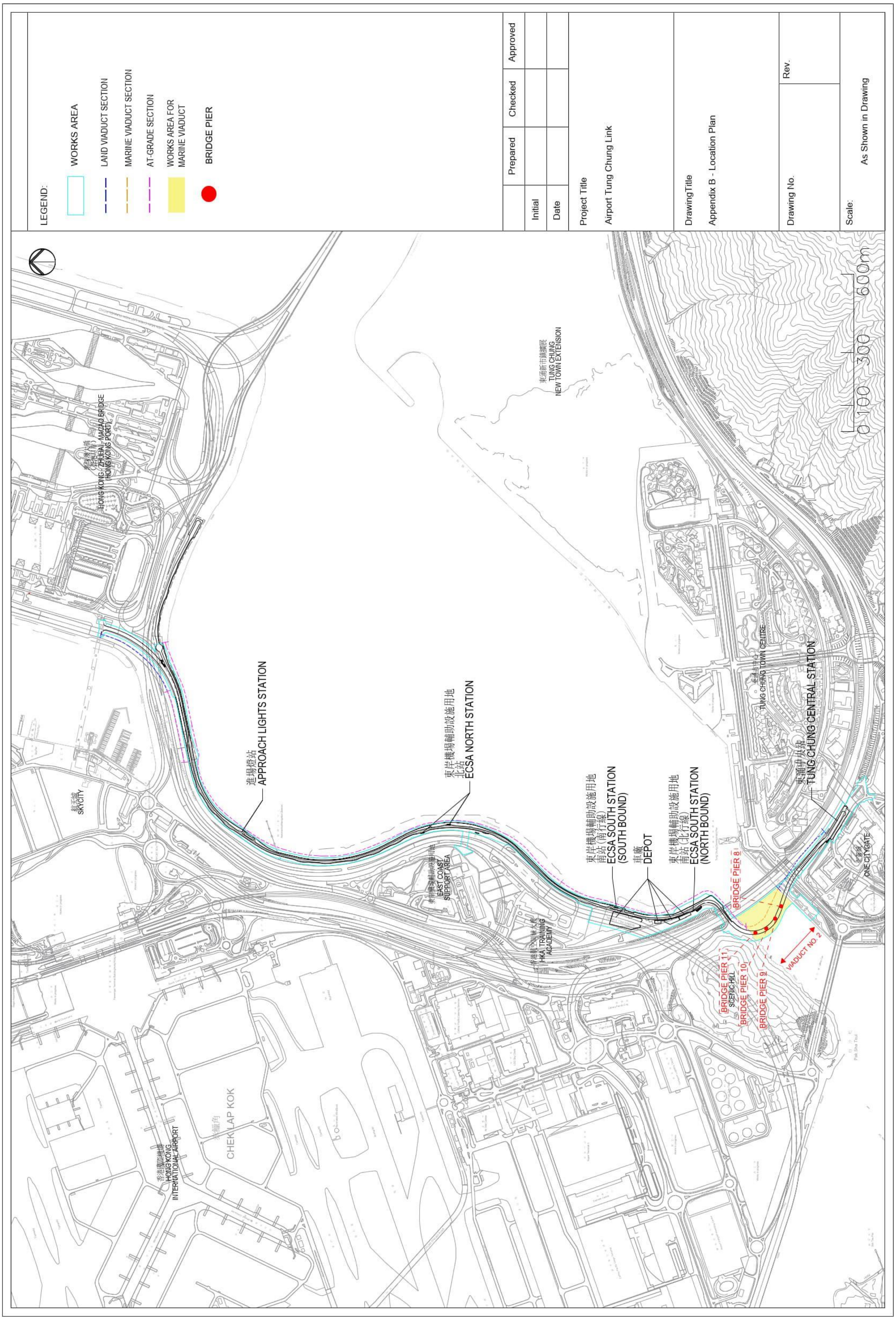
Please see the below comparison table of DSP15 & GESC-15:

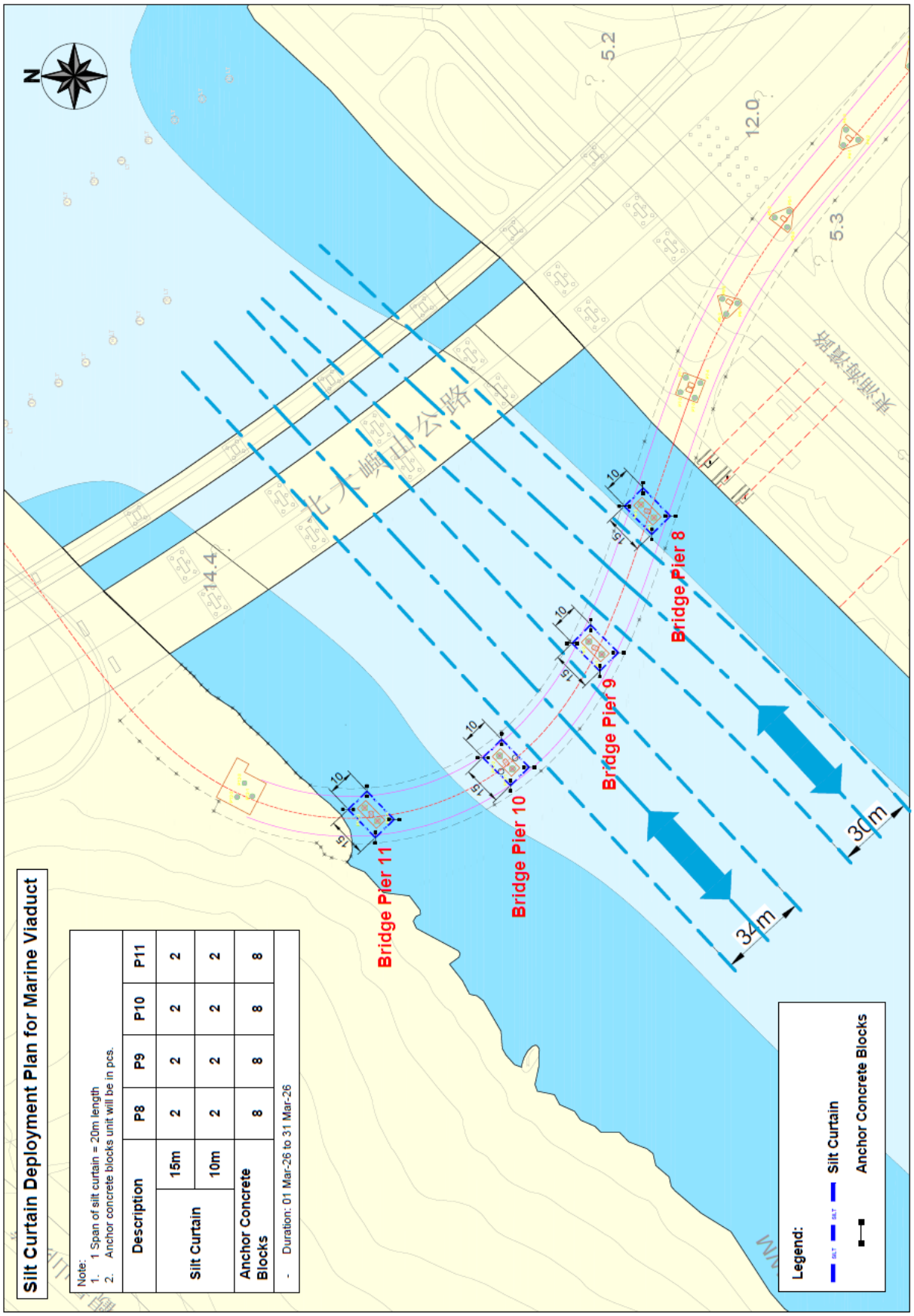
Proporties	Geonia DSP15 Silt Curtain	GESC-15 Silt Curtain	Remark
Tensile strength of silt curtain	150kN/m	150kN/m	In section 2.1 details of the proposed silt curtain part B - Deployment of Silt Curtain. As specified of DSP15 silt curtain properties, the tensile strength 150kN/m geotextile for silt curtain to be used, float device using high tenacity colored yarn with PVC coated fabric and 5kg chain. GESC-15 silt curtain properties and performance are same as DSP15. Therefore which is equivalent to DSP15
Float size	D500	D500	
Float cover material	High tenacity yarn with yellow colour PVC coated	High tenacity yarn with yellow colour PVC coated	
Chain weight	5kg	5kg	
Eyelet Coating	Painting (Oil based paint)	Painting (Oil based paint)	Components coating requirement of DSP15 and GESC15 are the same. Hence, they are same durability.
Steel Plate Coating	Galvanized (50-80um)	Galvanized (50-80um)	
Reinforced Steel Plate Coating	Hot dip Galvanized (50-80um)	Hot dip Galvanized (50-80um)	
Bolt & Nut Coating	Galvanized (50-80um)	Galvanized (50-80um)	
Chain Coating	Coal Tar Painting	Coal Tar Painting	

The GESC-15 silt curtain material properties, performance and durability is equivalent to DSP15.

Regards,
Natural
G and E Co Ltd

APPENDIX C
SILT CURTAIN LOCATIONS


LEGEND:
WORKS AREA
LAND VIADUCT SECTION
MARINE VIADUCT SECTION
AT-GRADE SECTION
WORKS AREA FOR MARINE VIADUCT
BRIDGE PIER
Prepared
Checked
Approved
Initial
Date
Project Title
Airport Tung Chung Link
DrawingTitle
Appendix B - Location Plan
Drawing No.
Rev.
Scale:
As Shown in Drawing
進場燈站
APPROACH LIGHTS STATION
ECSA NORTH STATION
ECSA SOUTH STATION (SOUTH BOUND)
車廠
DEPOT
ECSA SOUTH STATION (NORTH BOUND)
TUNG CHUNG CENTRAL STATION
BRIDGE PIER 8
BRIDGE PIER 9
BRIDGE PIER 10
BRIDGE PIER 11
VIADUCT NO 2
SKYCITY
CHEK LAP KOK
HONG KONG INTERNATIONAL AIRPORT
TUNG CHUNG NEW TOWN EXTENSION
TUNG CHUNG TOWN CENTRE
ONE CITYGATE
EAST COAST SUPPORT AREA
HKIA TRAINING ACADEMY
SCENIC HILL
HONG KONG - ZHUHAI - MACAO BRIDGE HONG KONG PORT
0 100 300 600m


Silt Curtain Deployment Plan for Marine Viaduct
Note:
1. 1 Span of silt curtain = 20m length
2. Anchor concrete blocks unit will be in pcs.
Description
Silt Curtain
15m
10m
Anchor Concrete Blocks
P8
P9
P10
P11
Duration: 01 Mar-26 to 31 Mar-26
Legend:
Silt Curtain
Anchor Concrete Blocks
Bridge Pier 11
Bridge Pier 10
Bridge Pier 9
Bridge Pier 8
34m
30m
N
北大嶼山公路
東涌海濱路

APPENDIX D
SILT CURTAIN INSPECTION CHECKLISTS

Daily Visual Inspection Checklist for Silt Curtain

Contract No.: _____

Date: _____

Time: _____

Weather: _____

Inspection Items	Results	If Unsatisfactory, provide details on the following				
		Affected Section(s) / Location(s)	Description of Unsatisfactory Item	Proposed Action	Date of Completion of Action	Confirmed / Completed by (Name and Signature)
Geotextile						
Curtain remains intact and without gap	□ Satisfactory □ Unsatisfactory					
Curtain in upright position	□ Satisfactory □ Unsatisfactory					
Curtain has no loose / flapping parts	□ Satisfactory □ Unsatisfactory					
No floating refuse trapped by the silt curtain	□ Satisfactory □ Unsatisfactory					
No sediment plume dispersed through the silt curtain	□ Satisfactory □ Unsatisfactory					
Ancillary Components						
Floaters are intact and not submerged	□ Satisfactory □ Unsatisfactory					
Marker buoys / lights are in correct positions and undamaged	□ Satisfactory □ Unsatisfactory					
No parts are detached from the silt curtain system	□ Satisfactory □ Unsatisfactory					

Checked By (Name & Signature): _____

Diver Inspection Checklist for Silt Curtain

Contract No.: _____

Date: _____

Time: _____

Weather: _____

Inspection Items	Results	If Unsatisfactory, provide details on the following				
		Affected Section(s) / Location(s)	Description of Unsatisfactory Item	Proposed Action	Date of Completion of Action	Confirmed / Completed by (Name and Signature)
Geotextile						
Curtain remains intact and without gap	□ Satisfactory □ Unsatisfactory					
Curtain in upright position	□ Satisfactory □ Unsatisfactory					
Curtain has no loose / flapping parts	□ Satisfactory □ Unsatisfactory					
Curtain is securely attached at joints	□ Satisfactory □ Unsatisfactory					
Curtain fittings (e.g. chains, bands, plates, joint connectors etc.) are intact and in position	□ Satisfactory □ Unsatisfactory					
Curtain extends to seabed level during low tide	□ Satisfactory □ Unsatisfactory					
Curtain hem is not weighted down by sediment deposition	□ Satisfactory □ Unsatisfactory					
Ancillary Components						
No parts are detached from the silt curtain system	□ Satisfactory □ Unsatisfactory					

Checked By (Name & Signature): _____

APPENDIX E
IMPLEMENTATION SCHEDULE OF RECOMMENDED MAJOR ENVIRONMENTAL MITIGATION MEASURES

SCDP Ref.	Recommended Major Environmental Mitigation Measures	Objectives of the Recommended Measures	Implementation Agent	Location	Implementation Stage
S.2.2.1	The following marine works activities during construction phase involve deployment of silt curtain: • Marine piling works As per the EIA recommendation, silt curtains would be installed to surround the piling area prior to establishing piling equipment on barge, installing the steel pile casing and setting out the temporary working platform. During the bored piling works, including grabbing, drilling by Reverse Circulation Drilling (RCD), air-lifting, reinforced cage installation and concreting of piles and pile caps, the silt curtain will be kept in place.	Mitigate potential water quality impact during marine works requiring silt curtains	Contractor	See Appendix C	Construction Phase (During the marine works requiring silt curtains)
S.3.2	<u>Design of Silt Curtain</u> • The silt curtain will be deployed to completely enclose the completed temporary working platform and steel pile casing. Hanging type silt curtain is proposed and to be installed. • Hanging type silt curtains shall mainly comprise the geotextile fabric with ballast chain / weight. • The geotextile fabric shall be connected to all four sides using polypropylene rope with sufficient overlap to prevent leakage of suspended solids. The floatation is contained within a sleeve or collar with adequate buoyancy to support the full weight of the silt curtain. The bottom end of the silt curtain is weighted by a ballast chain incorporated into the hem of the silt curtain as to keep the silt curtain vertical during deployment. • The length of silt curtain deployed at the marine piling area will account for a buffer depth to ensure no gaps between the skirt of the silt curtain and seabed and cater for site irregularities and tidal variations.	Ensure design of silt curtain is effective for mitigation of water quality impacts	Contractor	See Appendix C	Construction Phase (Before commencement of marine works requiring silt curtains)

SCDP Ref.	Recommended Major Environmental Mitigation Measures	Objectives of the Recommended Measures	Implementation Agent	Location	Implementation Stage
S.3.5, 3.6 and 4.1	Deployment of Silt Curtain • Silt Curtain will be deployed at marine viaduct Bridge Pier 08 to Bridge Pier 11 prior to marine bored piling. • The silt curtain will be loaded to the sea by crawler crane barge and secured by anchoring concrete blocks.	Ensure proper deployment of silt curtain	Contractor	See Appendix C	Construction Phase (Before marine works requiring silt curtains)
S.4.2 & 4.3	Operation of Silt Curtain • Silt curtain will remain in place throughout the marine piling works and will be removed after the completion of marine works (i.e. concreting for piles and pile caps) and the dismantling of temporary working platform. Procedures for Adverse Weather Conditions • During adverse weather conditions (e.g. typhoon signal No.3 or higher), no marine works will be conducted and the silt curtain will be retracted where possible to avoid unnecessary damage. After typhoon signal No.3 is lowered, the silt curtain will be re-deployed prior to re-initiation of marine works around the bridge piers. The Contractor will ensure the silt curtain is undamaged or will repair or replace the affected silt curtain before relevant marine works are re-initiated.	Ensure effective operation of the silt curtain	Contractor	See Appendix C	Construction Phase (During the marine works requiring silt curtains)

SCDP Ref.	Recommended Major Environmental Mitigation Measures	Objectives of the Recommended Measures	Implementation Agent	Location	Implementation Stage
S.4.4	<u>Maintenance of Silt Curtain</u> • Any damage or faults identified in the silt curtain will be repaired immediately. • Where the damage / fault is minor, the Contractor will undertake in-situ maintenance and repair by qualified divers without the need for retracting the silt curtain. • Where such in-situ maintenance and repair are conducted, the Contractor will ensure that another diver is on standby, the appropriate warning flags / signals are in place, and the captain or foreman of the maintenance / construction vessel has communication channels open and ready to promptly alert other vessels to avoid the affected silt curtain area during the maintenance and repair. • In case of mud plume flowing out from the silt curtain causing by the works is observed, repairing of silt curtain will be carried out immediately prior to resuming the relevant marine works. • Spare parts of silt curtain will be prepared and stored on-site for replacement / repair. • Where the damage / fault is extensive or cannot be easily repaired in-situ, the Contractor will retrieve the silt curtain and replace with new ones. In such circumstances, the relevant marine works will be suspended until the replacement is done.	Before commencement of marine works, daily visual inspection on the silt curtains will be conducted to ensure effective operation of the silt curtain	Contractor	See Appendix C	Construction Phase (During the marine works requiring silt curtains)
S.4.5	<u>Removal of Silt Curtain</u> • Prior to removal of silt curtains, make sure all marine works and associated works within the silt curtain has completed, and visual inspection of the water quality shall be conducted to confirm no sediment plume	Avoid damage to silt curtain and disturbance to the seabed	Contractor	See Appendix C	Construction Phase (After completion of marine works requiring silt curtains)

SCDP Ref.	Recommended Major Environmental Mitigation Measures	Objectives of the Recommended Measures	Implementation Agent	Location	Implementation Stage
	remaining within the works area before commencing silt curtain removal. • Lift the silt curtain carefully to avoid stirring up the seabed.				
S.5.1	<u>Regular Inspection of Silt Curtain</u> • Regular checking of the silt curtain will be conducted throughout the deployment of the silt curtain. The two types of checks that will be conducted by the Contractor are: -Visual -Diver • All checks will follow the inspection checklists shown in Appendix D and will be appropriately signed off by the Contractor. • Weekly and ad hoc site inspections carried out by the Environmental Team (ET), and also monthly site inspection conducted by the Independent Environmental Checker (IEC), will include visual checks on the silt curtain location and effectiveness.	Ensure effective operation of the silt curtain	Contractor, ET, IEC	See Appendix C	Construction Phase (During the marine works requiring silt curtains)