

本署檔號
OUR REF: Ax(4) to EP2/G/A/124 Pt.15
來函檔號
YOUR REF:
電話
TEL. NO.: 2835 1128
圖文傳真
FAX NO.: 2591 0558
電子郵件
E-MAIL: rwywong@epd.gov.hk
網址
HOMEPAGE: <http://www.epd.gov.hk>

Environmental Protection Department
Branch Office
28th Floor, Southorn Centre,
130 Hennessy Road,
Wan Chai, Hong Kong.



環境保護署分處
香港灣仔
軒尼詩道
一百三十號
修頓中心廿八樓

24th Nov 2016

MTR Corporation Limited

Environmental Impact Assessment (EIA) Ordinance, Cap.499
Application for Variation of an Environmental Permit

Project Title: Shatin to Central Link – Hung Hom to Admiralty Section
(Application No. VEP-510/2016)

I refer to your above application received on 3 Nov 2016 for variation of an environmental permit under Section 13(1) of the EIA Ordinance.

Pursuant to Section 13(5) of the EIA Ordinance, we have amended the Environmental Permit (EP-436/2012/D). I attach the Environmental Permit as amended (No. EP-436/2012/E) for your use.

Under Section 15 of the EIA Ordinance, the amended Environmental Permit will be placed on the EIA Ordinance Register. It will also be placed on the EIA Ordinance website (<http://www.epd.gov.hk/eia/>).

Please note that if you are aggrieved by any of the conditions imposed in this Permit, you may appeal under Section 17 of the EIA Ordinance within 30 days of receipt of this Permit.

Should you have any queries on the above application, please contact me or my colleague Ms. Stella Lai at 2835 1847.

Yours sincerely,

(Richard W.Y. WONG)

Acting Principal Environmental Protection Officer
for Director of Environmental Protection

Encl.

ENVIRONMENTAL IMPACT ASSESSMENT ORDINANCE
(CHAPTER 499)
Sections 10 & 13

環境影響評估條例
(第499章)
第10條及13條

ENVIRONMENTAL PERMIT TO CONSTRUCT AND OPERATE
A DESIGNATED PROJECT
建造及營辦指定工程項目的環境許可證

PART A (MAIN PERMIT)
A部 (許可證主要部分)

Pursuant to Section 10 of the Environmental Impact Assessment Ordinance (EIAO), the Director of Environmental Protection (the Director) grants the environmental permit (EP-436/2012) to the **MTR Corporation Limited** (hereinafter referred to as the "Permit Holder") on 22 March 2012. Pursuant to Section 13 of the EIAO, the Director amends the Environmental Permit based on the Application No. VEP-510/2016. The amendments, described below, are incorporated into this Environmental Permit (EP-436/2012/E). This Environmental Permit as amended is for the construction and operation of the designated project described in Part B subject to the conditions specified in Part C. The issue of this environmental permit is based on the documents, approvals or permissions described below:-

根據《環境影響評估條例》(條例)第10條的規定,環境保護署署長(署長)於2012年3月22日將環境許可證(編號EP-436/2012)批予**香港鐵路有限公司**(下稱“許可證持有人”)。根據條例第13條的規定,署長因應更改環境許可證的申請編號VEP-510/2016修訂環境許可證。以下修訂已包含在本環境許可證內(EP-436/2012/E)。本經修訂的環境許可證作為建造及營辦本許可證B部所說明的指定工程項目,但須遵守C部所列明的條件。本環境許可證的發出,乃以下表所列的文件、批准或許可作為根據:

Application No. 申請書編號	VEP-510/2016
Document in the Register 登記冊上文件	(1) Shatin to Central Link – Hung Hom to Admiralty Section Environmental Impact Assessment (EIA) Report, Environmental Monitoring and Audit (EM&A) Manual and Executive Summary (Register No.: AEIAR-166/2012) [Hereinafter referred to as "the EIA Report"] (1) 沙田至中環綫 - 紅磡至金鐘段環境影響評估報告,環境監察審核手冊及行政摘要(登記冊編號:AEIAR - 166/2012) [下稱環評報告] (2) The Director's letter of approval of the EIA report dated 17 Feb 2012 [Ref.: (29) in AX(4) to EP2/G/A/124 Pt.4] (2) 署長於2012年02月17日發出批准環評報告的信件 [檔案編號: (29) in AX(4) to EP2/G/A/124 Pt.4] (3) Application for an Environmental Permit No. AEP-436/2012. [Hereafter referred to as "the Application No. AEP-436/2012"] (3) 申請環境許可證編號 AEP-436/2012。[下稱“申請書編號 AEP-436/2012”] (4) Application documents for Variation of Environmental Permit including all attachments submitted by the Permit Holder on 2 April 2014 (Application No. VEP-433/2014)



Environmental Permit No. EP - 436/2012/E
環境許可證編號 EP- 436/2012/E

	<p>(4) 許可證持有人於 2014 年 4 月 2 日提交的更改環境許可證申請文件包括所有附件(申請書編號：VEP-433/2014)</p> <p>(5) Application documents for Variation of Environmental Permit including all attachments submitted by the Permit Holder on 18 February 2015 (Application No. VEP-467/2015)</p> <p>(5) 許可證持有人於 2015 年 2 月 18 日提交的更改環境許可證申請文件包括所有附件(申請書編號：VEP-467/2015)</p> <p>(6) Application documents for Variation of Environmental Permit including all attachments submitted by the Permit Holder on 8 September 2015 (Application No. VEP-482/2015)</p> <p>(6) 許可證持有人於 2015 年 9 月 8 日提交的更改環境許可證申請文件包括所有附件(申請書編號：VEP-482/2015)</p> <p>(7) Application documents for Variation of Environmental Permit including all attachments submitted by the Permit Holder on 13 January 2016 (Application No. VEP-490/2016)</p> <p>(7) 許可證持有人於 2016 年 1 月 13 日提交的更改環境許可證申請文件包括所有附件(申請書編號：VEP-490/2016)</p> <p>(8) Application documents for Variation of Environmental Permit including all attachments submitted by the Permit Holder on 3 November 2016 (Application No. VEP-510/2016)</p> <p>(8) 許可證持有人於 2016 年 11 月 3 日提交的更改環境許可證申請文件包括所有附件(申請書編號：VEP-510/2016)</p>
--	--

Application No. 申請書編號	Date of Application 申請日期	List of Amendments Incorporated into Environmental Permit 已包含在本環境許可證內的修訂項目	Date of Amendment 修訂日期
VEP-433/2014	2 April 2014 2014 年 4 月 2 日	<p>Add "Reclamation and Dredging Works at Shek O Casting Basin." under Scale and Scope of Designated Project(s) in Part B</p> <p>許可證 B 部 "指定工程項目的規模和範圍" - 新增 "於石澳的沉管隧道預製件工場進行填海及挖泥工程"</p> <p>Vary Part B, Figure 1 and 2 to include an extended works area</p> <p>更改環境許可證 B 部, 圖 1 及 2 以包含擴大的工作範圍</p> <p>Vary Condition 2.19 (g)(ii), Condition 2.20 and Figure 4 in Part C to be more in line with the EIA Report.</p> <p>更改環境許可證 C 部, 第 2.19 (g)(ii) 及 2.20 項條件及圖 4 以更符合環境評估報告</p> <p>Add Conditions 2.31.1 to 2.31.7 and Table 1 in Part C to specify measures to mitigate water quality impact at Shek O Casting Basin.</p> <p>新增環境許可證 C 部第 2.31.1 至 2.31.7 項條件及表一, 指定具體措施, 以減輕位於石澳的沉管隧道預製件工場的水質影響。</p>	30 April 2014 2014 年 4 月 30 日



Application No. 申請書編號	Date of Application 申請日期	List of Amendments Incorporated into Environmental Permit 已包含在本環境許可證內的修訂項目	Date of Amendment 修訂日期
		<p>Add Figure 6, Figure 7 & Figure 8 in Part C to show details of the marine works areas, barging point and water quality monitoring stations in Shek O Casting Basin.</p> <p>新增環境許可證 C 部圖 6, 圖 7 及圖 8 顯示位於石澳的沉管隧道預製件工場的海事工程位置, 躉船轉運站及水質監測站的細節。</p>	
VEP-467/2015	18 February 2015 2015 年 2 月 18 日	<p>Vary Condition 2.18, Condition 2.19, Condition 2.22 and Figure 2 in Part C to cover the extension of Immersed Tube Tunnel (IMT) at Hung Hom Landfall and within Causeway Bay Typhoon Shelter (CBTS).</p> <p>更改環境許可證 C 部, 第 2.18, 第 2.19 及 2.22 項條件及圖 2 以於紅磡著陸點及銅鑼灣避風塘擴展沉管式隧道。</p> <p>Add Condition 2.33 – 2.35 to restrict the use of Kai Tak Barging Facility (KTBF) for delivery of construction and demolition materials from this Project.</p> <p>新增環境許可證 C 部, 第 2.33 至 2.35 項條件以限制啟德躉船轉運站用作運送由本工程項目產生的拆建物料。</p> <p>Add Figure 9 in Part C to show the location of Kai Tak Barging Facility.</p> <p>新增環境許可證 C 部圖 9, 以顯示啟德躉船轉運站的位置。</p> <p>Add Figure 10 in Part C to illustrate final stage of IMT construction within CBTS.</p> <p>新增環境許可證 C 部圖 10, 以演示近銅鑼灣避風塘進行沉管式隧道工程的施工最後階段。</p>	19 March 2015 2015 年 3 月 19 日
VEP-482/2015	8 September 2015 2015 年 9 月 8 日	<p>Vary Condition 2.33 in Part C to include ex-Wan Chai Public Cargo Working Area Barging Point (ex-PCWABP) and an additional Barging Point at Causeway Bay Typhoon Shelter (CBTSBP) for delivery of construction and demolition materials/spoils from this Project.</p> <p>更改環境許可證 C 部, 第 2.33 項條件以包括灣仔前公眾貨物裝卸區躉船轉運站和新增的銅鑼灣避風塘躉船轉運站用作運送由本工程項目產生的拆建物料/棄土。</p> <p>Add Condition 2.34 in Part C to specify mitigation measures at ex-PCWABP.</p> <p>新增環境許可證 C 部, 第 2.34 項條件, 指定灣仔前公眾貨物裝卸區躉船轉運站的具體緩解措施。</p>	2 October 2015 2015 年 10 月 2 日



Application No. 申請書編號	Date of Application 申請日期	List of Amendments Incorporated into Environmental Permit 已包含在本環境許可證內的修訂項目	Date of Amendment 修訂日期
		<p>Add Condition 2.37 in Part C to specify mitigation measures at CBTSBP.</p> <p>新增環境許可證 C 部, 第 2.37 項條件, 指定銅鑼灣避風塘躉船轉運站的具體緩解措施。</p> <p>Add Figure 9a in Part C to show the boundary of works area in this Project which is allowed to use CBTSBP and the indicative location of the barging points.</p> <p>新增環境許可證 C 部圖 9a, 以顯示此工程項目中可使用銅鑼灣避風塘躉船轉運站的工地範圍及躉船轉運站的示意位置。</p> <p>Renumber Figure 9 to Figure 9b in Part C to show the location of Kai Tak Barging Facility</p> <p>把環境許可證 C 部的圖 9 重新編號為圖 9b, 以顯示啟德躉船轉運站的位置。</p> <p>Add Figure 9c in Part C to show the location of CBTSBP.</p> <p>新增環境許可證 C 部圖 9c, 以顯示銅鑼灣避風塘躉船轉運站的位置。</p>	
VEP-490/2016	13 January 2016 2016 年 1 月 13 日	<p>Vary Condition 2.18, Condition 2.18.1, Figure 2 and Figure 10 in Part C to introduce an alternative construction method (reduced reclamation scheme) at Causeway Bay Typhoon Shelter (CBTS) i.e. Optimised Scheme for Immersed Tube Tunnel (IMT) construction in CBTS.</p> <p>更改環境許可證 C 部, 第 2.18 及 2.18.1 項條件及圖 2 和 圖 10 以新增另一個可選擇的建築方案(減少填海)--優化計劃作為近銅鑼灣避風塘進行沉管式隧道工程的施工程序</p>	5 February 2016 2016 年 2 月 5 日

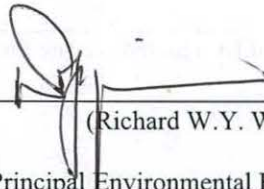


Application No. 申請書編號	Date of Application 申請日期	List of Amendments Incorporated into Environmental Permit 已包含在本環境許可證內的修訂項目	Date of Amendment 修訂日期
VEP-510/2016	3 November 2016 2016 年 11 月 3 日	<p>Vary Condition 2.19 to introduce an alternative dredging option (using two smaller closed grab dredgers instead of one large closed grab dredger) within the open Victoria Harbour outside Causeway Bay Typhoon Shelter (CBTS)</p> <p>更改環境許可證 C 部, 第 2.19 項條件以新增在銅鑼灣避風塘外的維多利亞港可選擇的挖泥選項(用兩艘細的閉合式抓斗挖泥船替代一艘大的閉合式抓斗挖泥船)。</p> <p>Add Condition 2.38, Condition 2.38.1, Figure 11 and Figure 12 in Part C to introduce an alternative construction method (Drill-and-Blast method combined with mechanical excavation) for Exhibition Station (EXH) Zone 2 area.</p> <p>新增環境許可證 C 部, 第 2.38 及 2.38.1 項條件, 圖 11 和 圖 12 以新增另一個會展站 2 區可選擇的建築方案(鑽爆加機械挖掘)。</p>	23 November 2016 2016 年 11 月 23 日

23 November 2016

Date

日期



(Richard W.Y. WONG)

Acting Principal Environmental Protection Officer
For Director of Environmental Protection

環境保護署署長

(署理首席環境保護主任 黃偉恩 代行)



PART B (DESCRIPTIONS OF DESIGNATED PROJECT(S))

B部 (指定工程項目的說明)

Hereunder is the description of the designated project(s) mentioned in Part A of this environmental permit :-
下列為本環境許可證A部所提及的指定工程項目的說明：

Title of Designated Project(s) 指定工程項目的名稱	Shatin to Central Link (Hung Hom – Admiralty Section) [This designated project is hereinafter referred to as "the Project"] 沙田至中環綫 - 紅磡至金鐘段 [這指定工程項目下稱“工程項目”]
Nature of Designated Project(s) 指定工程項目的性質	Construction and operation of a railway and its associated stations, a railway tunnel more than 800m in length between portals, reclamation works and dredging works 興建和運作鐵路及其相聯車站，一條入口之間的長度超過800米的鐵路隧道，填海工程及相關挖泥工程。
Location of Designated Project(s) 指定工程項目的地點	Railway alignment from proposed ventilation building in Hung Hom Station crossing Victoria Harbour, Causeway Bay Typhoon Shelter, proposed Exhibition Station to Admiralty; overrun tunnel; an immersed tube tunnel (IMT) casting basin in Shek O and the extension of an access road in Lo Wu. The location of this Project and its works areas are shown in Figures 1 & 2 attached to this Permit. 鐵路路線由擬建的紅磡站北通風大樓、橫過維多利亞港、銅鑼灣避風塘、擬建的會展車站至金鐘、越位隧道、位於石澳的沉管隧道預製件工場及於羅湖擴建現有的通道。工程項目及其工地的位置見載於本許可證夾附的圖1及2。
Scale and Scope of Designated Project(s) 指定工程項目的規模和範圍	The Project comprises the following designated project elements: (i) Construction and operation of an approximately 6 km underground railway from Hung Hom to Admiralty; the associated Exhibition Station and the integrated Admiralty Station; the overrun tunnel to the southwest of integrated Admiralty Station; the associated ventilation buildings, ventilation shafts, smoke extraction facilities and other associated works. (ii) Temporary reclamation totalling approximately 0.54 ha. at Hung Hom landfall and Causeway Bay Typhoon Shelter; and the replacement of Hung Hom Bypass fender piles; (iii) Reclamation works and dredging works in Victoria Harbour for the cross-harbour section of the railway; (iv) Reclamation and Dredging Works at Shek O Casting Basin. 工程項目的範圍包括： (i) 興建和運作一段長約6公里從紅磡至金鐘的地底鐵路；會展車站及綜合性金鐘站；連接金鐘站西南面的越位隧道；及其相關通風樓、通風井、排煙設施和本工程項目的其他相關工程； (ii) 位於紅磡海岸附近及銅鑼灣避風塘，總面積約0.54公頃的臨時填海工程；及更換紅磡繞道防撞欄樁柱； (iii) 於維多利亞港進行填海及挖泥工程以建造海底鐵路； (iv) 於石澳的沉管隧道預製件工場進行填海及挖泥工程。



PART C (PERMIT CONDITIONS)

1. General Conditions

- 1.1 The Permit Holder and any person working on the Project shall comply with all conditions set out in this Permit. Any non-compliance by any person may constitute a contravention of the Environmental Impact Assessment Ordinance (Cap. 499) and may become the subject of appropriate action being taken under the Ordinance.
- 1.2 The Permit Holder shall ensure full compliance with all legislation from time to time in force including but without limitation to the Noise Control Ordinance (Cap. 400), Air Pollution Control Ordinance (Cap. 311), Water Pollution Control Ordinance (Cap. 358), Waste Disposal Ordinance (Cap. 354), Dumping at Sea Ordinance (Cap. 466) and Dangerous Goods Ordinance (Cap.295). This Permit does not of itself constitute any ground of defense against any proceedings instituted under any legislation or imply any approval under any legislation.
- 1.3 The Permit Holder shall make copies of this Permit together with all documents referred to in this Permit or the documents referred to in Part A of the Permit readily available at all times for inspection by the Director or his authorised officers at all sites/offices covered by this Permit. Any reference to the Permit shall include all documents referred to in the Permit and also the relevant documents in the Register.
- 1.4 The Permit Holder shall give a copy of this Permit to the person(s) in charge of the site(s) and ensure that such person(s) fully understands all conditions and all requirements incorporated by the Permit. The site(s) refers to site(s) of construction and operation of the Project and shall mean the same hereafter.
- 1.5 The Permit Holder shall display conspicuously a copy of this Permit on the construction site(s) at all vehicular site entrances/exits or at a convenient location for public's information at all times. The Permit Holder shall ensure that the most updated information about the Permit, including any amended permit, is displayed at such locations. If the Permit Holder surrenders a part or the whole of the Permit, the notice he sends to the Director shall also be displayed at the same locations as the original Permit. The suspended, varied or cancelled Permit shall be removed from display at the construction site(s).
- 1.6 The Permit Holder shall construct and operate the Project in accordance with the project descriptions in Part B of this Permit.
- 1.7 The Permit Holder shall ensure that the Project is designed, constructed and operated in accordance with the information and all recommendations described in the approved EIA Report (Register No.: AEIAR-166/2012), the application documents for environmental permits and relevant documents in the Register listed in Part A of this Permit; the information or mitigation measures described in this Permit, mitigation measures to be recommended in submissions that shall be deposited with or approved by the Director as a result of permit conditions contained in this Permit, and mitigation measures to be recommended under on-going surveillance and monitoring activities during all stages of the Project. Where recommendations referred to in the documents in the Register are not expressly referred to in this Permit, such recommendations are nevertheless to be implemented unless expressly excluded or impliedly amended in this Permit.
- 1.8 All deposited submissions, as required under this Permit, shall be rectified and resubmitted in accordance with the comments, if any, made by the Director within one month of the receipt of the Director's comments or otherwise as specified by the Director.
- 1.9 All submissions approved by the Director, all submissions deposited without comments by the Director, and all submissions rectified in accordance with comments by the Director under this Permit shall be construed as part of the permit conditions described in Part C of this Permit. Any variation of the submissions shall be approved by the Director in writing or as prescribed in the relevant permit conditions. Any non-compliance with the submissions may constitute a contravention of the Environmental Impact Assessment Ordinance (Cap. 499). All submissions or any variation of the submissions shall be certified by the Environmental Team (ET) Leader and verified by the Independent Environmental Checker (IEC) referred to in Conditions 2.1 and 2.2 below, before submitting to the Director under this Permit.



- 1.10 The Permit Holder shall release all finalised submissions as required under this Permit, to the public by depositing copies in the Environmental Impact Assessment Ordinance Register Office, or in any other places, or any internet websites as specified by the Director, or by any means as specified by the Director, for public inspection. For this purpose, the Permit Holder shall provide sufficient copies of the submissions.
- 1.11 The Permit Holder shall notify the Director in writing the construction commencement date of the Project no later than one month prior to the commencement of construction of the Project. The Permit Holder shall notify the Director in writing immediately if there is any change of the construction commencement date.
- 1.12 All submissions to the Director required under this Permit shall be delivered either in person or by registered mail to the Environmental Impact Assessment Ordinance Register Office (currently at 27/F, Southorn Centre, 130 Hennessy Road, Wanchai, Hong Kong). Electronic copies of all finalised submissions required under this Permit shall be prepared in Hyper Text Markup Language (HTML) (version 4.0 or later) and in Portable Document Format (PDF) (version 1.3 or later), unless otherwise agreed by the Director and shall be submitted at the same time as the hardcopies.
- 1.13 For the purpose of this Permit, "construction commencement" does not include works related to site clearance and preparation, or other works as agreed by the Director.
- 1.14 The Permit Holder shall notify the Director in writing the operation commencement date of the Project no later than two months prior to the commencement of operation of the Project. The Permit Holder shall notify the Director in writing immediately if there is any change of the operation commencement date.

2 **Special Conditions**

Submissions and Measures before Commencement of Construction of the Project

Employment of Environmental Monitoring and Audit (EM&A) Personnel

- 2.1 An Environmental Team (ET) shall be established by the Permit Holder no later than one month before the commencement of construction of the Project. The ET shall not be in any way an associated body of the Contractor or the Independent Environmental Checker (IEC) for the Project. The ET shall be headed by an ET Leader. The ET Leader shall be a person who has at least 7 years of experience in environmental monitoring and auditing (EM&A) or environmental management. The ET and the ET Leader shall be responsible for the implementation of the EM&A programme in accordance with the EM&A requirements as contained in the EM&A Manual of the Project. The ET Leader shall keep a contemporaneous log-book of each and every instance or circumstance or change of circumstances, which may affect the compliance with the recommendations of the EIA Report and this Permit. The ET Leader shall notify the IEC within one working day of the occurrence of any such instance or circumstance or change of circumstances. The ET Leader's log-book shall be kept readily available for inspection by all persons assisting in supervision of the implementation of the recommendations of the EIA Report and this Permit or by the Director or his authorized officers. Failure to maintain records in the log-book, failure to discharge the duties of the ET Leader as defined in the EM&A Manual or failure to comply with this Condition would entitle the Director to require the Permit Holder by notice in writing to replace the ET Leader. Failure by the Permit Holder to make replacement or further failure to keep contemporaneous records in the log-book despite the employment of a new ET Leader may render the Permit liable to suspension, cancellation or variation.
- 2.2 An IEC shall be employed by the Permit Holder no later than one month before commencement of construction of the Project. The IEC shall not be in any way an associated body of the Contractor or the ET for the Project. The IEC shall be a person who has at least 7 years of experience in EM&A or environmental management. The IEC shall be responsible for duties defined in the EM&A Manual and shall audit the overall EM&A performance, including the implementation of all environmental mitigation measures, submissions required in the EM&A Manual, and any other submissions required under this Permit. In addition, the IEC shall be responsible for verifying the environmental acceptability of permanent and temporary works, relevant design plans and submissions under this Permit. The IEC shall verify the log-book(s) mentioned in Condition 2.1 of this Permit. The IEC shall notify the Director by fax, within one working day of receipt of notification from the ET Leader of



each and every occurrence, change of circumstances or non-compliance with the EIA Report and this Permit, which might affect the monitoring or control of adverse environmental impacts from the Project. In the case where the IEC fails to so notify the Director of the same, fails to discharge the duties of the IEC as defined in the EM&A Manual or fails to comply with this Condition, the Director may require the Permit Holder by notice in writing to replace the IEC. Failure to replace the IEC as directed or further failure to so notify the Director despite employment of a new IEC may render the Permit liable to suspension, cancellation or variation. Notification by the Permit Holder is the same as notification by the IEC for the purpose of this Condition.

Community Liaison Groups

- 2.3 Before the commencement of construction of the Project, the Permit Holder shall set up Community Liaison Groups (CLGs) comprising representatives of concerned and affected parties, including owners' corporations, management offices, local committees, residents and schools in the affected areas along the railway alignment, to facilitate communication, enquiries and complaints handling on environmental issues related to the Project. A designated complaint hotline shall also be set up for the Project to address the concerns and complaints in an efficient manner throughout the entire construction period of the Project. The Permit Holder shall follow up with the CLGs on the implementation of mitigation measures and other initiatives proposed by the Permit Holder, arrangement of continuous construction noise monitoring as well as tree management and transplantation, etc. The Permit Holder shall notify the Director the date of setting up the CLGs, the membership, the terms of reference and the contact details at least one month before commencement of construction of the Project.

Appointment of Certified Arborist

- 2.4 The Permit Holder shall appoint a Certified Arborist to advise on, monitor and ensure proper implementation of measures for protecting trees affected by the Project, in particular the Old and Valuable Trees within the Project boundary, as well as trees to be transplanted, and to prepare proposals to be submitted under Condition 2.14.

Management Organization of Main Construction Companies

- 2.5 The Permit Holder shall, no later than two weeks before the commencement of construction of the Project, inform the Director in writing the management organization of the main construction companies and/or any form of joint ventures associated with the construction works of the Project. The submitted information shall include at least an organization chart, names of responsible persons and their contact details.

Submission of Construction Programme and EP Submission Schedule

- 2.6 The Permit Holder shall, no later than two weeks before commencement of construction of the Project, deposit with the Director four hard copies and one electronic copy of the construction programme showing the commencement and completion dates of major items of construction works; together with the anticipated schedule of submissions for fulfilling the submission requirements as contained in this Permit. The Permit Holder shall inform the Director in writing of any subsequent changes to this submitted construction programme and EP submission schedule.

Submission of Construction Noise Mitigation Measure Plan

- 2.7 To further reduce the air-borne construction noise impacts on the Noise Sensitive Receiver (NSR) with exceedance after mitigation as predicted in the EIA Report, (i.e. Causeway Centre, Block A), the Permit Holder shall, no later than one month before the commencement of construction of the Project, submit to the Director for approval four hard copies and one electronic copy of an updated Construction Noise Mitigation Measure Plan (CNMMP) and other initiatives proposed by the Permit Holder. The plan shall include:-
- (a) a schedule of construction works to be carried out at the works areas of the Project within 300m from the NSR;
 - (b) an updated construction methodology of the construction works;
 - (c) an updated powered mechanical equipment (PME) list for the construction works;
 - (d) an updated proposal of air-borne construction noise mitigation measures for the NSR, including

- the provision of noise barriers and enclosures, if applicable; and
- (e) an updated prediction of noise levels in accordance with the above updated information and mitigation proposals in place.

Before submission to the Director, the CNMMP shall be certified by the ET and verified by the IEC as conforming to the relevant information and recommendations contained in the EIA Report. The approved CNMMP shall be fully and properly implemented.

Submission of Continuous Noise Monitoring Plan

- 2.8 The Permit Holder shall, no later than one month before the commencement of construction of the Project, submit to the Director for approval four hard copies and one electronic copy of a Continuous Noise Monitoring Plan for the Project. The plan shall include:
- (a) updated environmental monitoring and audit requirements relating to continuous noise monitoring at the NSR with exceedance after mitigation in air-borne construction noise impact as predicted in the EIA Report (i.e. Causeway Centre, Block A) and as updated in the CNMMP approved under Condition 2.7;
 - (b) drawings in the scale of 1:5,000 or other appropriate scale as agreed by the Director showing the proposed location for conducting continuous noise monitoring;
 - (c) monitoring methodology and measurement parameters;
 - (d) a system to report the continuous noise monitoring results on a website as required under Condition 4.2, within a period of 2 working days after the relevant noise monitoring data are collected or become available; and
 - (e) an Event and Action Plan giving details of the immediate active remedial measures in the event that the measured noise levels exceed the worst-case scenario predicted in the EIA Report or the levels as updated by the CNMMP approved under Condition 2.7.

Before submission to the Director, the Continuous Noise Monitoring Plan shall be certified by the ET and verified by the IEC as conforming to the relevant information and recommendations contained in the EIA Report or the updated prediction of noise levels as contained in the CNMMP approved under Condition 2.7. The approved Continuous Noise Monitoring Plan shall be fully and properly implemented.

Submission of Construction and Demolition (C&D) Material Management Plan

- 2.9 The Permit Holder shall, no later than one month before commencement of construction of the Project, submit to the Director for approval four hard copies and one electronic copy of a Construction and Demolition (C&D) Materials Management Plan (C&DMMP). The C&DMMP shall describe the arrangements for avoidance, reuse, recovery and recycling, storage, collection, treatment and disposal of C&D materials to be generated from the construction of the Project. The C&DMMP shall indicate the disposal location(s) of all surplus excavated spoil and other wastes. A trip ticket system shall be included in the C&DMMP. Surplus excavated spoil and other wastes shall only be disposed of at designated disposal locations unless otherwise approved by the Director.

Before submission to the Director, the C&DMMP shall be certified by the ET Leader and verified by the IEC as conforming to the relevant information and recommendations contained in the EIA Report. The approved C&DMMP shall be fully and properly implemented.

Submission of Silt Curtain Deployment Plan

- 2.10 At least two weeks prior to the commencement of marine works of the Project, the Permit Holder shall deposit with the Director four hard copies and one electronic copy of a silt curtain deployment plan. The silt curtain deployment plan shall be certified by the ET Leader and verified by the IEC as conforming to the relevant information and recommendation contained in the EIA Report. In particular, silt curtains shall be deployed as required under Conditions 2.13, 2.17, 2.18 and 2.19 of this Permit. The silt curtain deployment plan shall include plans showing the construction programme and details on the design, operation and maintenance requirements of the silt curtain(s) including but not limited to deployment of silt curtain(s) for dredging, filling works and underwater blasting as recommended in the EIA Report and the relevant documents in the EIAO Register. The typical configuration of the silt curtain is shown in Figure 3 for reference. The deposited silt curtain deployment plan shall be fully and properly implemented throughout the construction period.



Submission of Silt Screen Deployment Plan

- 2.11 At least two weeks prior to the commencement of the marine works, the Permit Holder shall deposit with the Director four hard copies and one electronic copy of a silt screen deployment plan to provide details of the design, operation and maintenance requirements of the silt screen systems as required under Conditions 2.18 and 2.20 of this Permit. The Permit Holder shall liaise with the owners and the operators of the seawater intakes shown in Figure 4 of this Permit on details of silt screen installation, maintenance and removal at the seawater intakes. The silt screen deployment plan shall be certified by the ET Leader and verified by the IEC as conforming to the relevant information and recommendation contained in the EIA Report and the liaison results with owners and operators of the seawater intakes. The typical configuration of silt screen is shown in Figure 3 for reference. Silt screens shall be installed at seawater intakes prior to the commencement of the corresponding marine works in the vicinity. To avoid refuse entrapment and to ensure representative impact monitoring results, silt screens shall be maintained and refuse around them shall be removed on a daily basis so that water behind the silt screens will be kept free from floating debris during the construction period.

Submission of Sediment Management Plan

- 2.12 The Permit Holder shall, no later than one month before the commencement of marine works of the Project, submit to the Director for approval four hard copies and one electronic copy of an updated sediment management plan. The plan shall include, but not limited to, details of the proper treatment and handling of sediments generated by the Project before disposal. The sediment management plan shall be fully and properly implemented.

Submission of Fisheries Impact Mitigation Plan

- 2.13 In the event that underwater blasting is used, the Permit Holder shall, no later than one month before the commencement of any underwater blasting, submit four hard copies and one electronic copy of a fisheries impact mitigation plan to the Director for approval. The plan shall be prepared in consultation with the relevant authorities, including, but not limited to, the Civil Engineering and Development Department, Marine Department and Agriculture, Fisheries and Conservation Department. The plan shall set out details of measures to minimize impacts on fisheries resources from underwater blasting, such as the use of silt curtain to fence off and isolate the lethal zone of the underwater blasting, where practicable. The approved fisheries impact mitigation plan shall be fully and properly implemented.

Submission of Visual, Landscape and Tree Planting & Tree Protection Plan

- 2.14 The Permit Holder shall, no later than one month before the commencement of construction of the Project, submit four hard copies and one electronic copy of the visual, landscape and tree planting & tree protection plan to the Director for approval. The plan, with drawings in the scale of 1:1000 or other appropriate scales as agreed by the Director, shall show the visual and landscape, tree planting & tree protection measures of the Project, and shall include at least the following information:
- (a) aesthetic landscape and architectural treatment for above ground structures including MTR entrances, plant buildings, ventilation buildings, ventilation shafts, cooling towers, emergency access point, screen hoarding and associated engineering facilities;
 - (b) tree protection proposal showing locations, size, number and plant species of trees to be retained; and detailed working method statement for protection of retained trees;
 - (c) transplantation proposal showing locations, size, number and tree species to be transplanted and the final locations for transplantation;
 - (d) tree felling proposal showing locations, size, number and plant species of trees to be felled;
 - (e) tree compensation proposal showing locations, size, number and plant species of trees to be planted as compensation;
 - (f) post-planting care proposal showing the proposed establishment period and the associated maintenance care requirements and frequency for transplanted trees and trees planted as compensation under this Condition; and
 - (g) implementation programme, maintenance and management schedules for measures proposed in (a) to (f) above.

The proposals under Conditions 2.14(b) to (f) shall be prepared by the Certified Arborist appointed

under Condition 2.4. The plan shall be certified by the ET Leader and verified by the IEC as conforming to the information and recommendations contained in the EIA Report. The approved plan shall be fully and properly implemented.

Submissions and Measures to be Implemented During Construction Stage

Measures for Mitigating Construction Dust Impact

- 2.15 In order to minimise the construction dust impact, the following dust mitigation measures shall be implemented:
- (a) watering once every working hour to keep active works areas, exposed areas and paved haul roads wet; and
 - (b) enclosing the unloading process at any barging point tipping hall by a 3-sided screen with top, and operating water spraying and flexible dust curtains at the discharge point.

Measures for Mitigating Construction Water Quality Impact

Temporary Reclamation at Hung Hom Landfall and Associated Works

- 2.16 To reduce the release of sediment and contaminant during temporary reclamation at Hung Hom Landfall, all excavation and dredging works shall be undertaken within cofferdam and there shall be no open dredging.
- 2.17 Silt curtains shall be installed to surround the works area to minimize the release of sediment due to removal and reinstatement of fender piles of Hung Hom Bypass and minor marine piling works as shown in Fig 2.

Temporary Reclamation and Dredging at the Causeway Bay Typhoon Shelter (CBTS) Breakwater

- 2.18 The Permit Holder shall notify, no later than two weeks before the commencement of Immersed Tube Tunnel Construction within CBTS, to the Director for the choice of the scheme: Temporary Reclamation Scheme (Condition 2.18(I)) or Reduced Reclamation Scheme (Optimised Scheme) (Condition 2.18(II)).

Temporary Reclamation Scheme (As shown in Figure 2 INSET 1A)

- 2.18(I) To minimize water quality impact arising from the temporary reclamation and dredging works at the CBTS breakwater, the following mitigation measures shall be implemented:
- (a) before carrying out the temporary reclamation, temporary seawalls shall first be constructed to a height above the water mark to enclose the temporary reclamation area. Bulk filling for the temporary reclamation shall proceed behind the completed seawalls;
 - (b) temporary seawalls shall not be removed before completion of all excavation and dredging works for demolition of the temporary reclamation behind the seawalls;
 - (c) all dredging works for the demolition of the temporary reclamation shall be carried out by closed grab dredgers;
 - (d) no more than two dredgers with closed grab (each of about 8m³ capacity) shall be operated for dredging at the CBTS breakwater and within the typhoon shelter at any time. The Permit Holder shall liaise with other contractors within CBTS to ensure that the combined dredging rate for all concurrent dredging works (include dredging works for concurrent projects such as WDII and CWB) to be undertaken within the CBTS shall not exceed 4,500 m³ per day (and 281m³ per hour with a maximum working period of 16 hours per day) throughout the entire construction period;
 - (e) silt curtains shall be deployed to fully enclose the closed grab dredger(s) and shall be extended from water surface to the seabed, as far as practicable, during any dredging works;



- (f) any gaps in the seawall that may need to be provided for marine access shall be shielded by silt curtains to control sediment plume dispersion away from the site during any dredging or filling works; and
- (g) silt screen shall be deployed to protect the cooling water intakes within the CBTS throughout the temporary reclamation and dredging period as shown in Figure 4.

Reduced Reclamation Scheme (Optimised Scheme) (As shown in Figure 2 INSET 1B)

2.18(II) To minimize water quality impact arising from the removal of the breakwater, the following mitigation measures shall be implemented:

- (a) prior to removal of the breakwater, pipe piles and concrete blocks shall be installed;
- (b) removal of the breakwater shall be carried out within pipe pile wall, concrete blocks and silt curtain;
- (c) all dredging works shall be carried out by closed grab dredgers;
- (d) no more than two dredgers with closed grab (each of about 8m³ capacity) shall be operated for dredging at the CBTS breakwater and within the typhoon shelter at any time. The Permit Holder shall liaise with other contractors within CBTS to ensure that the combined dredging rate for all concurrent dredging works (include dredging works for concurrent projects such as WDII and CWB) to be undertaken within the CBTS shall not exceed 4,500 m³ per day (and 281m³ per hour with a maximum working period of 16 hours per day) throughout the entire construction period;
- (e) silt screen shall be deployed to protect the cooling water intakes within the CBTS throughout the IMT construction period as shown in Figure 4.

Immersed Tube Tunnel (IMT) Construction within CBTS

2.18.1 To minimize water quality impact arising from IMT construction within CBTS, the following mitigation measures shall be implemented:

- (a) pipe piles shall be used to form temporary seawalls for IMT construction within CBTS and silt curtain shall be deployed as required to control sediment plume dispersion away from the site during dredging and filling as shown in the indicative arrangement in Figure 10;
- (b) the temporary seawalls shall not be removed before completion of all dredging or filling works for IMT construction, except for the section of pipe piles as shown in the indicative arrangement in Figure 10 to facilitate the necessary dredging works for placing the IMT11;
- (c) silt curtains shall be deployed to fully enclose the closed grab dredger to be used for dredging or filling work outside the temporary seawalls and the silt curtains shall be extended from water surface to the seabed, as far as practicable;
- (d) no more than two dredgers with closed grab (each of about 8m³ capacity) shall be operated for dredging at the CBTS breakwater and within the typhoon shelter at any time. The Permit Holder shall liaise with other contractors within CBTS to ensure that the combined dredging rate for all concurrent dredging works (include dredging works for concurrent projects such as WDII and CWB) to be undertaken within the CBTS shall not exceed 4,500 m³ per day (and 281m³ per hour with a maximum working period of 16 hours per day) throughout the entire construction period;
- (e) for the removal of fill material at the gap between the interface of IMT11 and the IMT segment ME4 constructed by others, airlift or sand pump method shall be used as shown in Figure 10;
- (f) all removed fill material from airlift or sand pump method shall be stored inside impermeable compartment of the barge before being transported off-site;
- (g) bulk filling operation within CBTS shall be carried out by closed grab dredger or by down pipe;
- (h) any gaps in the seawalls that may need to be provided for marine access shall be shielded by silt

curtains to control sediment plume dispersion away from the site during any dredging or filling works;

- (i) silt screen shall be deployed to protect the cooling water intakes within the CBTS throughout the IMT construction period as shown in Figure 4; and
- (j) water quality monitoring shall be conducted at cooling water intake 9 for Windsor House (See Figure 4) during IMT construction within CBTS. The monitoring frequency, parameters, equipment and methodology shall follow those for dredging and filling as stipulated in the EM&A Manual.

Immersed Tube Tunnel (IMT) Construction and Dredging in the Harbour outside CBTS

2.19 To minimize water quality impacts from IMT construction and dredging in Victoria Harbour, the following mitigation measures shall be implemented:

- (a) dredging shall be carried out by closed grab dredger;
- (b) no more than one closed grab dredger (of no greater than 18m³) or two closed grab dredgers which are at minimum distance of 150m apart (of total grab size of no greater than 18m³) shall be operated outside the CBTS in the open harbour for construction of this Project;
- (c) the Permit Holder shall notify, no later than two weeks before adopting a different dredging option operated outside the CBTS in the open harbour, to the Director on the following:-
 - (i) Dredging option:
Option A: one closed grab dredger (of no greater than 18m³); or
Option B: two closed grab dredgers which are at minimum distance of 150m apart (of total grab size of no greater than 18m³) in Condition 2.19 (b);
 - (ii) The choice of the daily production rates with supporting document(s) in Condition 2.19 (d)(i); and
 - (iii) The choice of the hourly production rates with supporting document(s) in Condition 2.19 (e)(i).
- (d) the daily production rate of any dredging or bulk filling work of the Project within the open Victoria Harbour outside CBTS:

- (i) shall not exceed the following if corresponding concurrent works take place in Victoria Harbour;

Scenario	Concurrent Projects	Daily production rate (m ³ per day)
1	No concurrent works	4,500
2	CKR	4,140
3	T2	3,940
4	LTT	4,170
5	CKR, T2	3,600
6	CKR, LTT	3,830
7	T2, LTT	3,620
8	CKR, T2, LTT	3,280
9	CKR, T2, LTT, CT, CWB	2,500

Note:

CKR – Dredging for Central Kowloon Route (CKR)

T2 – Sand Filling for Road T2

LTT – Sand Filling for Tsueng Kwan O – Lam Tin Tunnel

CT – Dredging Works for Proposed Cruise Terminal at Kai Tak (CT Dredging) Stage 2

CWB – Dredging for Tunnel Construction within the CBTS under the CWB Project

- (ii) shall not exceed 1,500m³ per day at the area within 60m from the southern boundary of the temporary reclamation at Hung Hom Landfall.



- (e) the hourly production rate for any dredging or bulk filling work of the Project within the open Victoria Harbour outside CBTS:

- (i) shall not exceed the following if corresponding concurrent works take place in Victoria Harbour;

Scenario	Concurrent Projects	Hourly production rate (m ³ per hour)
1	No concurrent works	281
2	CKR	258
3	T2	246
4	LTT	260
5	CKR, T2	225
6	CKR, LTT	239
7	T2, LTT	226
8	CKR, T2, LTT	205
9	CKR, T2, LTT, CT, CWB	156

Note:

CKR – Dredging for Central Kowloon Route (CKR)

T2 – Sand Filling for Road T2

LTT – Sand Filling for Tsueng Kwan O – Lam Tin Tunnel

CT – Dredging Works for Proposed Cruise Terminal at Kai Tak (CT Dredging) Stage 2

CWB – Dredging for Tunnel Construction within the CBTS under the CWB Project

- (ii) shall not exceed 93m³ per hour at the area within 60m from the southern boundary of the temporary reclamation at Hung Hom Landfall.
- (f) dredging for temporary reclamation outside the CBTS shall not be carried out concurrently with any dredging or bulk filling works for IMT construction;
- (g) floating type or frame type silt curtains shall be deployed around the dredging operations within 200m from the Hung Hom landfall;
- (h) frame type silt curtains shall be deployed around the dredging operations for the remaining IMT segments outside 200 m from the Hung Hom landfall;
- (i) the maximum working time for the dredging / filling works of the Project shall not exceed 16 hours per day, or more than 6 days per week; and
- (j) only one chiseling machine or hydraulic breaker shall be adopted for underwater rock breaking.
- 2.20 Silt screens shall be installed at the water intakes during dredging or filling works of the relevant IMT sections for the Project outside the CBTS as shown in Figure 4.
- 2.21 To protect the water quality in Victoria Harbour from any possible underwater blasting, the following mitigation measures shall be implemented:
- (a) charge shall be placed in cores within rock in order that there will be no blast directly into the water; and
- (b) in terms of the construction sequence, sediment dredging within the planned IMT works area shall be conducted prior to any underwater blasting.
- 2.22 To minimize water quality impacts during IMT construction, bulk filling along the IMT alignment (outside the CBTS) shall not be carried out concurrently with the bulk dredging works along the IMT alignment (outside the CBTS).

Shek O Casting Basin

Washdown, Flooding and Draining

- 2.23 To minimize water quality impacts from the washdown, flooding and draining operations at Shek O Casting Basin, a wastewater treatment unit shall be installed for appropriate treatment processes such

as sedimentation and oil removal. During the flooding of the basin with seawater, cofferdam/earth bund shall be in place to ensure no escape of water. Prior to opening a channel through the cofferdam/earth bund for transport of IMT segment, water inside the basin shall be skimmed of floating debris. A period of no less than 24 hours shall be allowed for the suspended materials to settle before opening the basin to the sea.

Temporary Marine Works at Shek O Casting Basin

- 2.23.1 The Permit Holder shall, no later than one month before the commencement of marine works in the Basin as shown in Figure 6, submit to the Director for approval four hard copies and one electronic copy of a Silt Curtain Deployment Plan. A typical configuration of silt curtain is shown in Figure 3 for reference. When the silt curtain is opened to allow passage of vessels, all sea bed leveling, filling works, dredging works and construction of earth bunds must be stopped to avoid release of sediment to the water column outside the silt curtain. The Silt Curtain Deployment Plan shall include the construction programme and details of the design, operation and maintenance requirements of the silt curtain(s). The Silt Curtain Deployment Plan shall be certified by the ET Leader and verified by the IEC as conforming to the relevant information and recommendation contained in the Application for Variation of Environmental Permit (VEP 433/2014) including all attachments submitted by the Permit Holder, and other relevant documents in the Register.
- 2.23.2 Marine works at the Basin, except for the construction of the barging point, shall not commence until the Silt Curtain Deployment Plan is approved by the Director. The approved Silt Curtain Deployment Plan shall be fully and properly implemented at both the northern gate and the southern gate throughout the marine works at the Basin, except for the construction of barging point.
- 2.23.3 All fill materials used in marine works at the Basin shall contain no more than 5% fines (aggregates diameter smaller than 63 μ m) content.
- 2.23.4 The sea bed levelling works shall not involve any dumping of imported fill materials onto the seabed. The in-situ volume of sea bed materials to be moved during the sea bed leveling works shall not be more than 10,000m³. If sea bed materials other than coarse sand, cobble and gravel as identified in the previous marine investigation are encountered, alternative leveling methods and/or additional mitigation measures shall be proposed for the approval of the Director before the works can proceed. The silt curtain shall be properly installed prior to the commencement of sea bed leveling works, and if necessary, double silt curtains shall be deployed to ensure full enclosure of the leveling works at all times to prevent the escape of sediment to water column outside the silt curtains.
- 2.23.5 The filling of the southern part of the Basin shall be carried out using rocks or coarse aggregates with diameters between 20mm and 200mm and with no more than 5% fines (aggregates with diameter smaller than 63 μ m) content, up to a level not higher than -12mPD. The maximum filling rate shall be no more than 4,500m³/day.
- 2.23.6 The barging point shall be constructed by placing concrete blocks on the seabed and placing concrete pavement on top of the concrete blocks. A typical cross section is shown in Figure 7 for reference. Dredging for the construction of barging point shall not be allowed.
- 2.23.7 Additional water quality monitoring shall be conducted throughout the construction period of sea bed leveling work at the northern gate and the removal of earth bunds at the northern and southern gates to monitor any potential water quality impact. The proposed impact monitoring station and control stations are given in Table 1 and shown in Figure 8. Monitoring parameters shall include at least dissolved oxygen, turbidity and suspended solids level. The monitoring methodology, including monitoring equipment, laboratory measurement requirements, monitoring frequency and timing, action and limit levels, etc., shall follow those as stipulated for baseline and impact water quality monitoring in the approved EM&A Manual.

Table 1: Additional Water Quality Monitoring Locations at the Shek O Casting Basin

Monitoring Station ID	Description	Coordinates	
		Easting	Northing
GB3	Turtle Cove Beach	841120	810280
C3	Control station for ebb tide	841200	806210
C4	Control station for flood tide	843330	807320



Submission and Measures for Mitigating Land Contamination Impact

2.24 To determine the extent and level of land contamination and formulate necessary remedial measures at the existing above-ground diesel tanks for Wan Chai Swimming Pool as shown in Figure 5 of this Permit, the Permit Holder shall:-

- (a) no later than two months before commencement of construction work at the above-ground diesel tanks for Wan Chai Swimming Pool, submit to the Director for approval four hard copies and one electronic copy of a Contamination Assessment Plan (CAP). The CAP shall include proposal with details of representative sampling and analysis required to determine the nature and extent of contamination, if necessary;
- (b) no later than one month after the completion of the land contamination investigation works in accordance with the approved CAP, submit to the Director for approval four hard copies and one electronic copy of Contamination Assessment Report (CAR) to document the findings of the land contamination investigation works and assessment on the nature and extent of land contamination;
- (c) if land contamination is confirmed, submit to the Director for approval four hard copies and one electronic copy of Remedial Action Plan (RAP) to formulate necessary remedial measures. All remedial measures described in the approved RAP shall be fully and properly implemented. No demolition of the existing above-ground diesel tank for Wan Chai Swimming Pool shall be carried out before the CAP/RAP is approved by the Director.

Before submission to the Director, the CAP, CAR and RAP shall be certified by the ET Leader and verified by the IEC as conforming to the information and recommendations contained in the EIA Report.

Measures for Mitigating Aerial Emissions from Construction Plant

2.25 All diesel fuelled construction plant, including marine vessels if possible, used by the contractors within the works areas of the Project shall be powered by ultra low sulphur diesel fuel.

Submissions and Measures Before and During Operational Stage

Submission of As-Built Drawings of Measures for Mitigating Visual and Landscape Impact and Tree Planting

2.26 At least one month before the Project commences operation, four hard copies and one electronic copy of as-built drawing(s) on landscape and visual mitigation measures with an explanatory statement showing the final locations, size, number and species of planting to demonstrate compliance with the approved submissions under Condition 2.14 of this Permit shall be deposited with the Director. This as-built submission shall be certified by the ET Leader and verified by the IEC that the Visual, Landscape and Tree Planting & Tree Protection Plan approved under Condition 2.14 has been fully and properly implemented.

Submissions and Measures for Mitigating Operational Noise

2.27 The Permit Holder shall operate 9-car SP1900 train, or other train type with equivalent or better noise performance supported with justifications by the ET Leader and verified by the IEC as conforming to the information, requirements and recommendations as set out in the EIA Report. The maximum train frequency operating in the Project from hours 0700 to 2300 shall not exceed 30 trains per hour in each direction. The maximum train frequency operating in the Project from hours 2300 to 0700 of the following day shall not exceed 24 trains per hour in each direction.

2.28 The Permit Holder shall, no later than one month after completion of corresponding parts of the tunnel excavation of the Project, deposit with the Director four hard copies and one electronic copy of an updated Operational Ground-borne Noise Mitigation Measures Plan to justify the adequacy of the proposed operational ground borne noise mitigation measure recommended for that part of the tunnel in the EIA Report. The plan shall include the review and verification of the assumptions adopted in the EIA Report, such as line source response and ground vibration conditions, and shall include justifications and recommendations for any additional noise mitigation measures found necessary.

including but not limited to:

- a) medium attenuation baseplates (Type 1);
- b) high attenuation baseplate or booted dual sleepers (Type 2); or
- c) floating mini slab trackform (Type 3).

Before submission to the Director, the Operational Ground-borne Noise Mitigation Measures Plan shall be certified by the ET Leader and verified by the IEC as conforming to the information, requirements and recommendations as set out in the EIA Report.

- 2.29 The Permit Holder shall, no later than one month after the completion of installing the rail tracks, deposit with the Director four hard copies and one electronic copy of a set of as-built drawing(s) for the operational ground-borne noise mitigation measures as recommended in the updated Operational Ground-borne Noise Mitigation Plan deposited under Condition 2.28 above. Before submission to the Director, the set of as-built drawing(s) shall be certified by the ET Leader and verified by the IEC who shall confirm that the measures set out in the updated Operational Ground-borne Noise Mitigation Plan under Condition 2.28 has been fully and properly implemented.
- 2.30 At least one month before commencement of operation of the Project, the Permit Holder shall carry out noise performance test in accordance with Sections 8.3 to 8.10 of the EM&A Manual and deposit with the Director four hard copies and one electronic copy of a Noise Performance Test Report to confirm the compliance of the operational ground-borne levels in accordance with the EIA Report. Before submission to the Director, the Noise Performance Test Report shall be certified by the ET Leader and verified by the IEC as conforming to the information and recommendations contained in the EIA Report. All measure(s) recommended in the deposited Noise Performance Test Report shall be fully and properly implemented.
- 2.31 At least one month before commencement of operation of the Project, the Permit Holder shall carry out fixed plant noise audit and deposit with the Director four hard copies and one electronic copy of an audit report showing that the design of the fixed plant noise sources associated with the Project complies with the maximum sound power levels determined in the EIA Report. The audit report shall also confirm that noise emitted from the fixed noise sources shall be free of the characteristics of tonality, impulsiveness and intermittency. The audit report shall be certified by the ET Leader and verified by the IEC as conforming to the information and recommendations contained in the EIA Report.

Measures for Mitigating Impacts on Water Quality from Track Run-off

- 2.32 To mitigate water quality impact from tunnel run-off from rail track:
- (a) track drainage channels discharge shall pass through oil/grit interceptors/chambers to remove oil, grease and sediment before discharging into public storm drainage / foul sewerage systems;
 - (b) the silt traps and oil interceptors shall be cleaned and maintained regularly; and
 - (c) oily contents of the oil interceptors shall be transferred to an appropriate disposal facility, or to be collected for reuse, if possible.

Restrictions on the use of the ex-Wan Chai Public Cargo Working Area Barging Point (ex-PCWABP), Kai Tak Barging Facility (KTBF) and Causeway Bay Typhoon Shelter Barging Point (CBTS BP)

- 2.33 The construction and demolition materials (C&DM) arising from the Project shall be delivered to the future barging point when it becomes available at Wanchai ex-Public Cargo Working Area (ex-PCWABP) as shown in Figure 9a for reuse or disposal. Before the ex-PCWABP becomes available, the C&DM arising from the Project, other than those from the tunnel from Exhibition Station to South Ventilation Shaft (the Eastern Tunnel) and related works areas as shown in Figure 9a, shall be delivered to Kai Tak Barging Facility (KTBF) for reuse or disposal. The C&DM from the Eastern Tunnel and related works areas shall be loaded onto barges at Causeway Bay Typhoon Shelter Barging Point (CBTSBP) for reuse or disposal. The locations of KTBF and CBTSBP are shown in Figure 9b and 9c respectively. When the ex-PCWABP becomes available, C&DM from the Project shall no longer be delivered to KTBF or CBTSBP.
- 2.34 To minimize any nuisance arising from the operation of ex-PCWABP, the following mitigation

measures shall be implemented:

- (a) construction activities shall not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the surrounding water at the ex-PCWABP;
 - (b) loading of barges shall be controlled to prevent splashing of materials into the surrounding water. Barges shall not be filled to a level that will cause the overflow of materials during loading or transportation.
 - (c) the tipping hall at ex-PCWABP shall be equipped with a 3-sided screen and top cover, and operated with water sprays and flexible dust curtains at the discharge point; and
 - (d) the haul roads within ex-PCWABP shall all be paved and sprayed with water once every working hour. Vehicles shall pass through wheel washing facilities before leaving the ex-PCWABP.
- 2.35 To minimize any nuisance arising from the delivery of C&DM from this Project to KTBF, the following mitigation measures shall be implemented:
- (a) the C&DM delivery vehicles to KTBF shall not depart from construction sites and works areas of this Project between 2300 hours and 0700 hours on the following day; and
 - (b) the number of C&DM delivery vehicles departing from construction sites and works areas of this Project to KTBF shall not exceed 82 vehicles per hour or 1000 vehicles per day.
- 2.36 To avoid overloading the capacity of KTBF, in the event that this Project uses KTBF concurrently with other projects for handling C&DM disposal, the number of C&DM delivery vehicles delivering C&DM from this Project to KTBF shall be adjusted such that the total number of C&DM delivery vehicles using KTBF shall not exceed 82 vehicles per hour or 1000 vehicles per day.
- 2.37 To minimize any nuisance arising from the operation of CBTSBP, the following mitigation measures shall be implemented:
- (a) the CBTSBP shall only accept C&DM from the Eastern Tunnel and related works areas as shown in Figure 9a;
 - (b) no ramp or tipping hall shall be erected at the CBTSBP;
 - (c) the CBTSBP shall be operated using one derrick barge with bucket, which shall be berthed alongside the seawall, and one loader to load the C&DM from temporary stockpile into the bucket for transfer into the barge.
 - (d) to avoid escape of spoil from the bucket into the CBTS water whilst being transferred onto the barge, tarpaulin shall be provided to cover the gap between the barge and the seawall;
 - (e) silt curtain shall be installed to enclose the CBTSBP area when the barge is being loaded with C&DM; and
 - (f) the tarpaulin and silt curtain shall be checked to ensure their proper function before loading of C&DM onto the barge commences.

Construction Method at Exhibition Station (EXH) Zone 2

- 2.38 The Permit Holder shall notify, no later than 2 months after sufficient information to be collected to develop the geological profile for EXH Zone 2 area as shown in Fig.11, to the Director for the choice of the construction method: (i) Cut-and-cover method or (ii) Drill-and-blast method combined with mechanical excavation (Condition 2.38.1).

Drill-and-blast method combined with mechanical excavation

- 2.38.1 To minimize the construction dust impact and the airborne construction noise impact arising from the Drill-and-blast method combined with mechanical excavation at EXH station Zone 2 area, the following mitigation measures shall be implemented:
- (a) EXH Zone 2 shall be enclosed with construction deck or noise panel during blasting as shown in Figure 12;
 - (b) Adoption of wire mesh and rubber mats over the blasts; and
 - (c) Adoption of watering before and after each blast.



3. Environmental Monitoring and Audit Requirements

- 3.1 The EM&A programme shall be implemented in accordance with the procedures and requirements as set out in the EM&A Manual of the Project and the Continuous Noise Monitoring Plan approved under Condition 2.8 above. The Permit Holder shall review the EM&A requirements or programme based on the submitted construction programme required under Condition 2.6. Any changes to the EM&A requirements or programme and termination of the EM&A programme shall be supported with justifications by the ET Leader and verified by the IEC to their conformance with the requirements as set out in the EM&A Manual of the Project and the Continuous Noise Monitoring Plan approved under Condition 2.8; and the prior approval from the Director shall be sought before their implementation.
- 3.2 Samples, measurements and necessary remedial actions shall be taken in accordance with the requirements of the EM&A Manual by:
- (a) conducting baseline environmental monitoring;
 - (b) conducting impact monitoring;
 - (c) carrying out remedial actions described in the Event/ Action Plans of the EM&A Manual in accordance with the time frames set out in the Event/ Action Plans, or as agreed by the Director, in case where specified criteria in the EM&A Manual are exceeded; and
 - (d) logging and keeping records of details of all parameters within 3 working days of the collection of data or completion of remedial action(s), for the purpose of preparing and submitting the monthly EM&A Reports and to make available for inspection on site.
- 3.3 Four hard copies and one electronic copy of the Baseline Monitoring Report shall be submitted to the Director at least 2 weeks before the commencement of construction of the Project. The submissions shall be certified by the ET Leader and verified by the IEC as complying with the requirements as set out in the EM&A Manual. Additional copies of the submission shall be provided upon request by the Director.
- 3.4 Four hard copies and one electronic copy of the monthly EM&A Reports shall be submitted to the Director within two weeks after the end of the reporting month throughout the entire construction period. The monthly EM&A Reports shall include a summary of all non-compliance with the recommendations in the EIA Report or this Permit. The submissions shall be certified by the ET Leader and verified by the IEC as complying with the requirements as set out in the EM&A Manual. Additional copies of the submission shall be provided upon request by the Director.
- 3.5 All EM&A results submitted under this Permit shall be true, valid and correct.

4. Electronic Reporting of EM&A Information

- 4.1 To facilitate public inspection of the Baseline Monitoring Report and the monthly EM&A Reports via the EIAO Internet Website and at the EIAO Register Office, electronic copies of these Reports shall be prepared in the Hyper Text Markup Language (HTML) (version 4.0 or later) and in Portable Document Format (PDF) (version 1.3 or later), unless otherwise agreed by the Director and shall be submitted at the same time as the hard copies as described in Conditions 3.3 and 3.4 of this Permit. For the HTML version, a content page capable of providing hyperlink to each section and sub-section of these Reports shall be included in the beginning of the document. Hyperlinks to all figures, drawings and tables in these Reports shall be provided in the main text from where the respective references are made. All graphics in these Reports shall be in interlaced GIF format unless otherwise agreed by the Director. The content of the electronic copies of these Reports must be the same as the hard copies.
- 4.2 The Permit Holder shall set up a dedicated web site and notify the Director in writing the internet address where the environmental monitoring and project data is to be placed within 1 month after the commencement of construction of the Project. All environmental monitoring results described in Condition 4.1 above and all submissions required by this Permit shall be made available to the public via this dedicated web site to be set up by the Permit Holder in the shortest time practicable, and in no event later than 2 weeks after the relevant environmental monitoring data are collected or become available, unless otherwise agreed with the Director. The Permit Holder shall maintain the dedicated website for public access of the environmental monitoring data and reports throughout the entire

construction period and during the first 3-year of operation of the Project, or otherwise as agreed by the Director.

- 4.3 The internet website as described in Condition 4.2 above shall enable user-friendly public access to the monitoring data and project data including the EIA Report, the environmental permit(s) and project profile of the Project. The internet website shall have features capable of:

- (a) providing access to all environmental monitoring data collected since the commencement of construction and all submissions under this permit;
- (b) searching by date;
- (c) searching by types of monitoring data; and
- (d) hyperlinks to relevant monitoring data after searching;

or otherwise as agreed by the Director.

Notes :

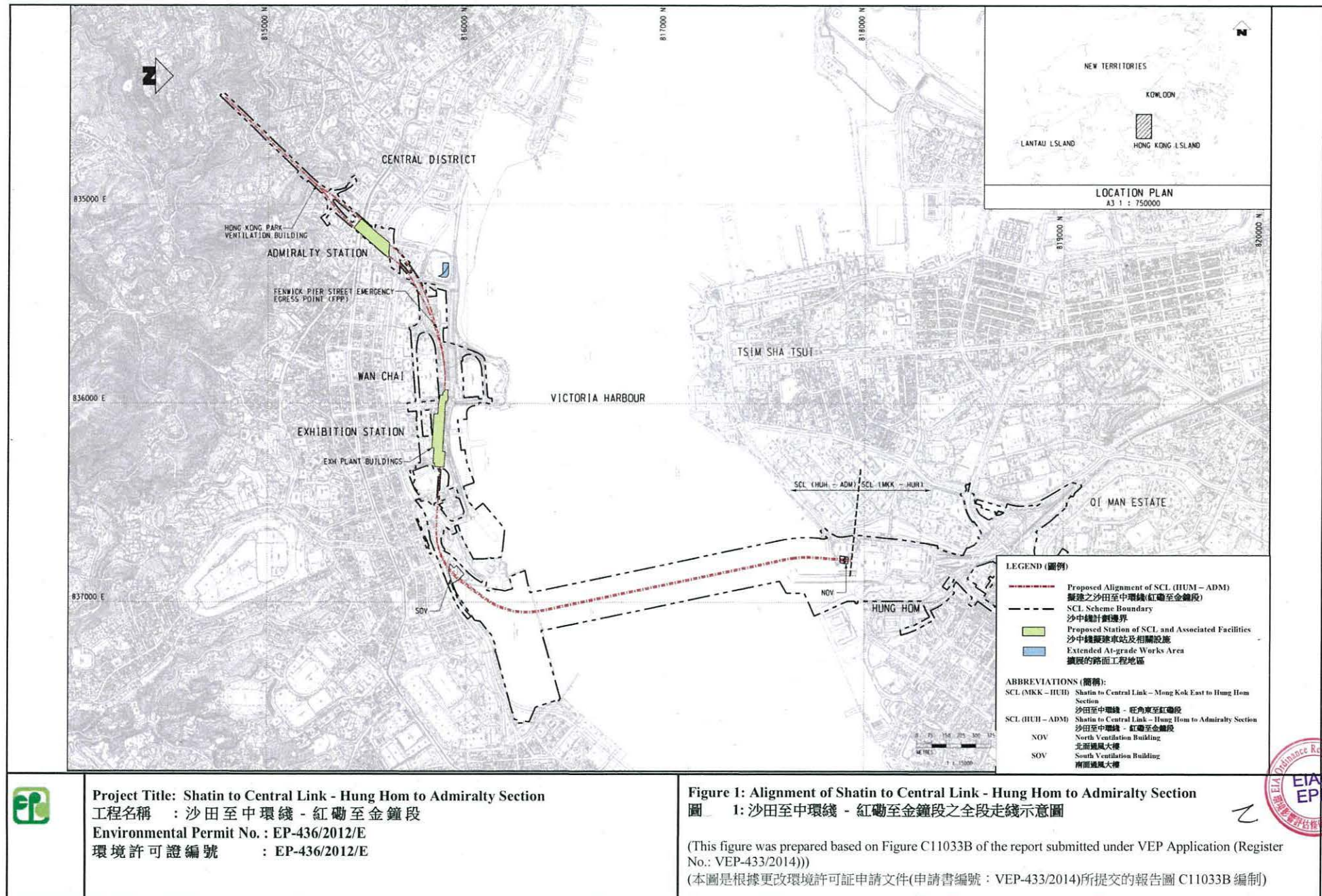
1. This Permit consists of three parts, namely, PART A (Main Permit), PART B (Description of Designated Project) and PART C (Permit Conditions). Any person relying on this permit should obtain independent legal advice on the legal implications under the Ordinance, and the following notes are for general information only.
2. If there is a breach of any conditions of this Permit, the Director or his authorized officer may, with the consent of the Secretary for the Environment, order the cessation of associated work until the remedial action is taken in respect of the resultant environmental damage, and in that case the Permit Holder shall not carry out any associated works without the permission of the Director or his authorized officer.
3. The Permit Holder may apply under Section 13 of the Ordinance to the Director for a variation of the conditions of this Permit. The Permit Holder shall replace the original permit displayed on the construction site by the amended permit.
4. A person who assumes the responsibility for the whole or a part of the designated project may, before he assumes responsibility of the designated project, apply under Section 12 of the Ordinance to the Director for a further environmental permit.
5. Under Section 14 of the Ordinance, the Director may with the consent of the Secretary for the Environment, suspend, vary or cancel this Permit. The suspended, varied or cancelled Permit shall be removed from display at the construction site.
6. If this Permit is cancelled or surrendered during construction or operation of the Project, another environmental permit must be obtained under the Ordinance before the Project could be continued. It is an offence under section 26(1) of the Ordinance to construct or operate a designated project listed in Part I of schedule 2 of the Ordinance without a valid environmental permit.
7. Any person who constructs or operates the Project contrary to the conditions in the Permit, and is convicted of an offence under the Ordinance, is liable:-
 - i. on a first conviction on indictment to a fine of \$ 2 million and to imprisonment for 6 months;
 - ii. on a second or subsequent conviction on indictment to a fine of \$ 5 million and to imprisonment for 2 years;
 - iii. on a first summary conviction to a fine at level 6 and to imprisonment for 6 months;
 - iv. on a second or subsequent summary conviction to a fine of \$1 million and to imprisonment for

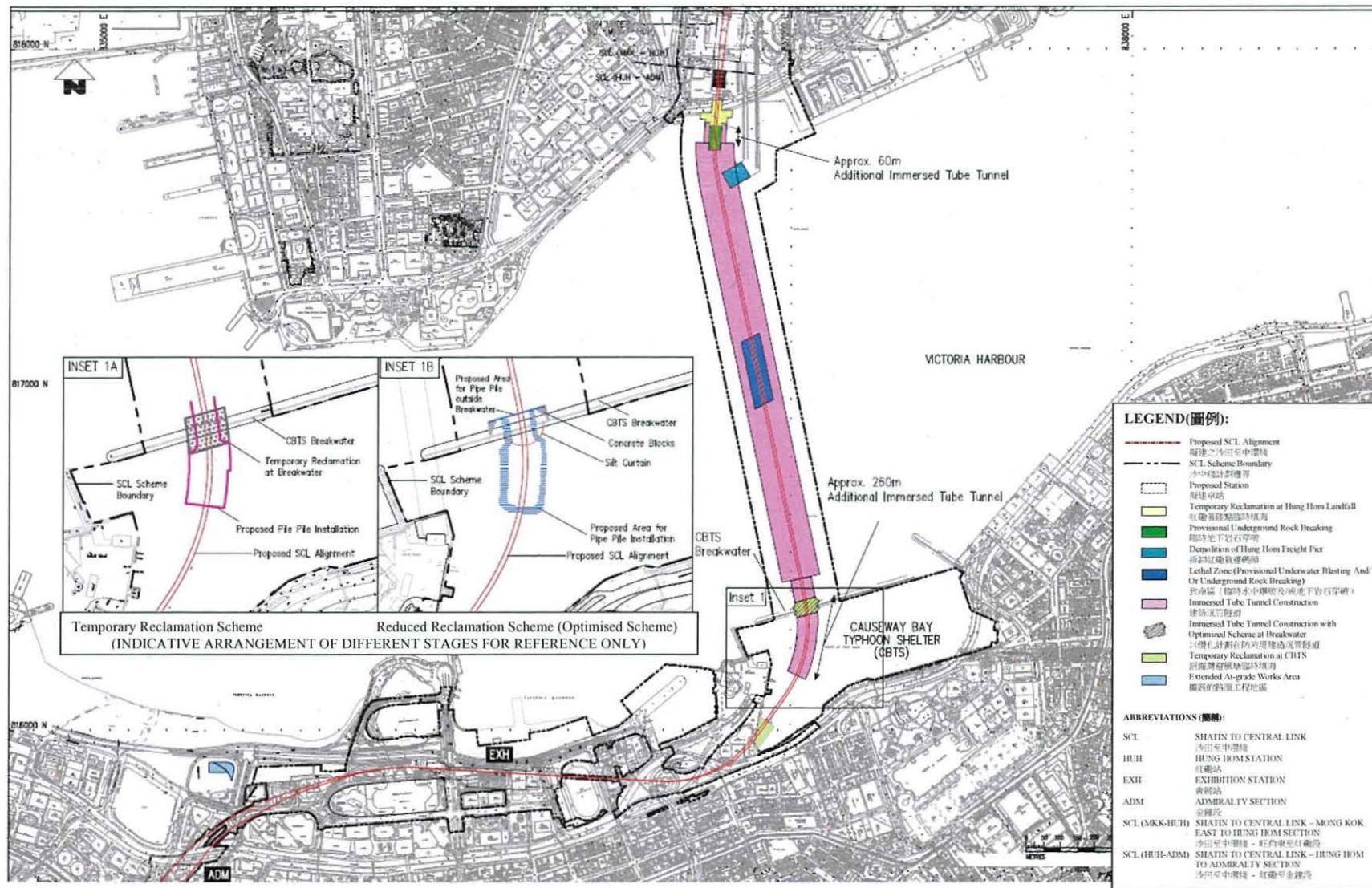


1 year; and

- v. in any case where the offence is of a continuing nature, the court or magistrate may impose a fine of \$ 10,000 for each day on which he is satisfied the offence continued.
8. The Permit Holder may appeal against any condition of this Permit under Section 17 of the Ordinance within 30 days of receipt of this Permit.
9. The Notes are for general reference only and that the Permit Holder should refer to the EIA Ordinance for details and seek independent legal advice.







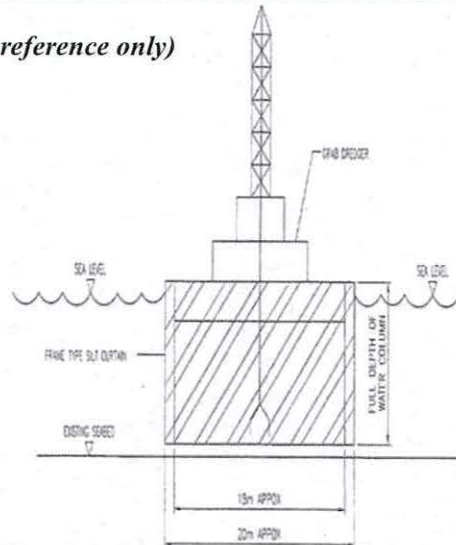
Project Title: Shatin to Central Link - Hung Hom to Admiralty Section
 工程名稱：沙田至中環綫 - 紅磡至金鐘段
 Environmental Permit No.: EP-436/2012/E
 環境許可證編號：EP-436/2012/E

Figure 2: Marine Works for Shatin to Central Link - Hung Hom to Admiralty Section within Victoria Harbour
 圖 2: 沙田至中環綫 - 紅磡至金鐘段在維多利亞港內之海上工程

(This figure was prepared based on Figure C11033B of the report submitted under VEP Application (Register No.: VEP-490/2016))
 (本圖是根據更改環境許可証申請文件(申請書編號：VEP-490/2016)所提交的報告圖 C11033B 編制)

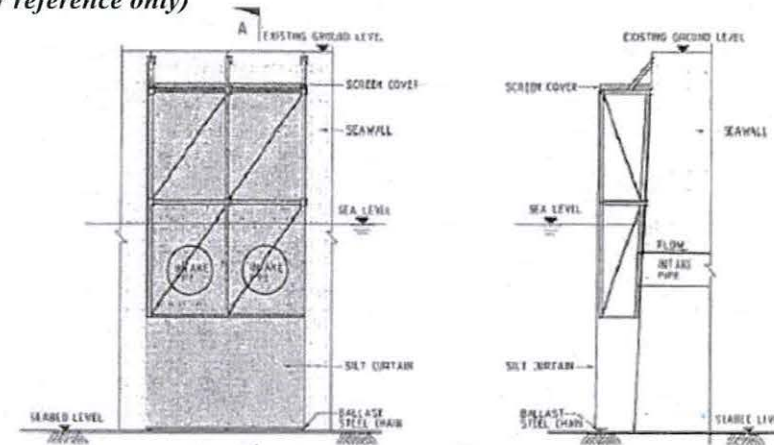


(For reference only)



TYPICAL DETAILS FOR FRAME TYPE SILT CURTAIN DEPLOYMENT

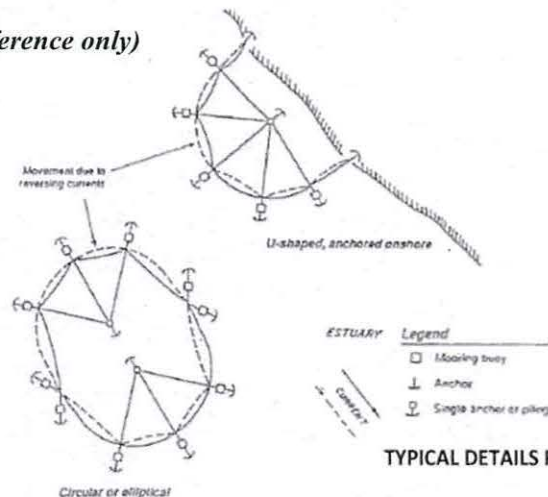
(For reference only)



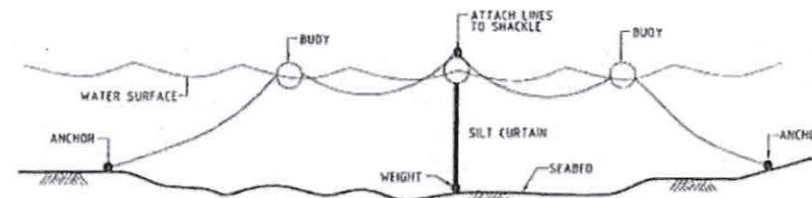
TYPICAL DETAILS FOR SILT SCREEN OVER INTAKE PIPES

SECTION A - A

(For reference only)



TYPICAL DETAILS FOR FLOATING TYPE SILT CURTAIN DEPLOYMENT



Project Title : Shatin to Central Link – Hung Hom to Admiralty Section
工程項目名稱：沙田至中環綫 - 紅磡至金鐘段

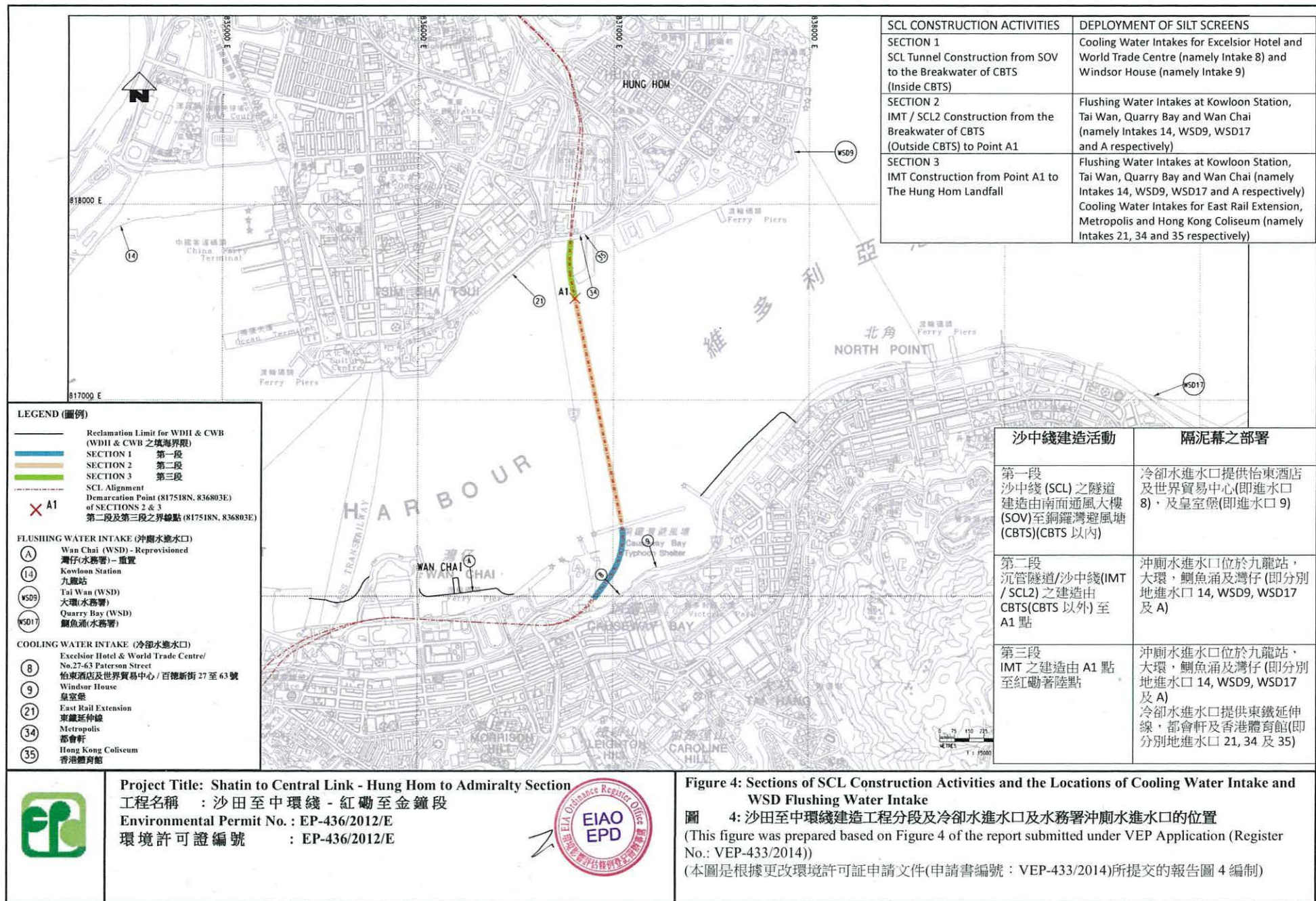
Environmental Permit No. : EP-436/2012/E
環境許可證編號 : EP-436/2012/E

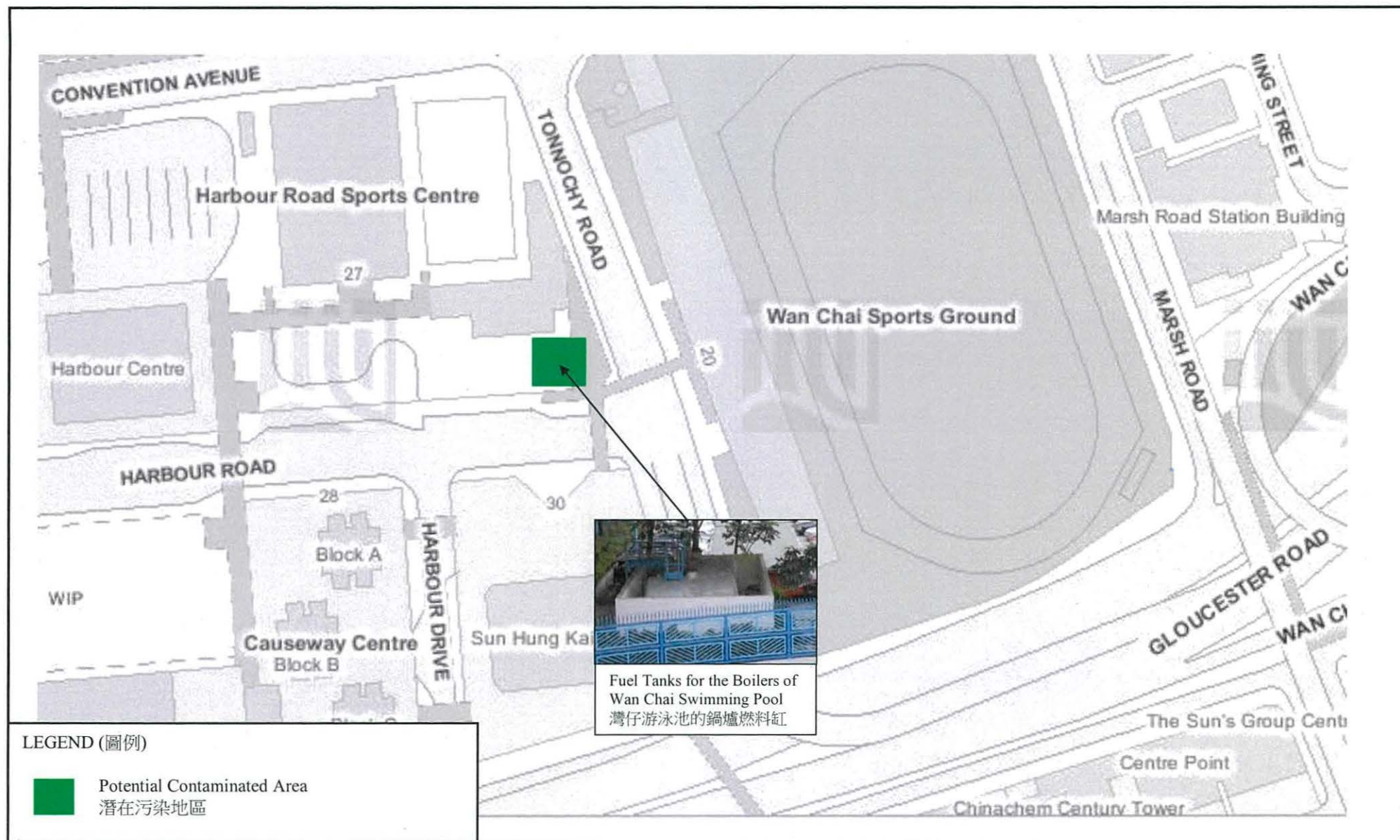


Figure 3: Typical Configurations of Silt Curtains and Silt Screens

圖 3: 隔泥幕及隔泥網結構示意圖

(This figure was prepared based on Appendix 11.13 of EIA report (Register No.: AEIAR-166/2012))
(本圖是根據環評報告(登記冊編號 AEIAR-166/2012) 附錄 11.13 編制)





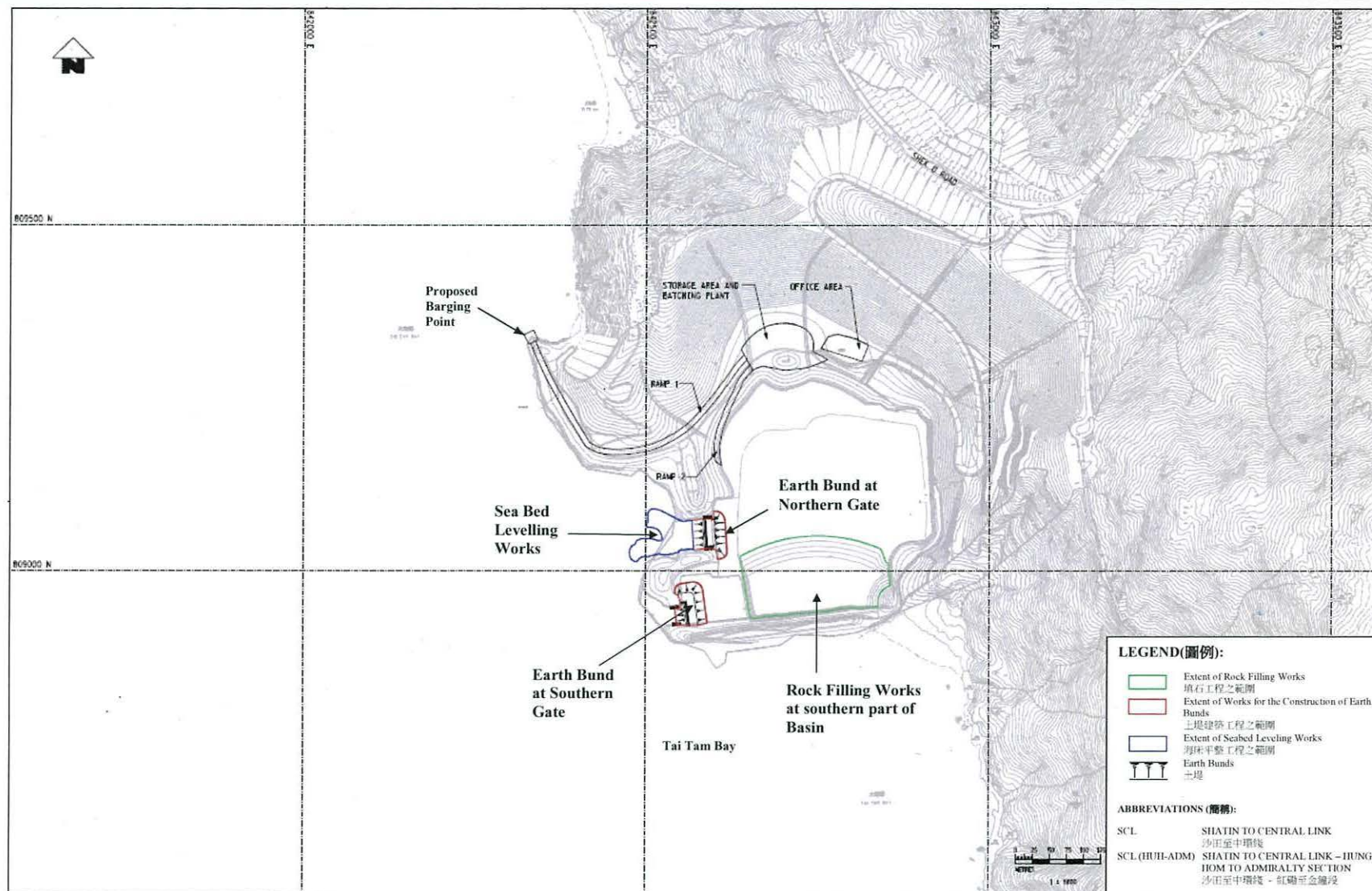
Project Title : Shatin to Central Link – Hung Hom to Admiralty Section
工程項目名稱：沙田至中環綫 – 紅磡至金鐘段

Environmental Permit No. : EP-436/2012/E
環境許可證編號 : EP-436/2012/E

Figure 5: Location of potential contaminated area
圖 5: 潛在土地污染的位置

N





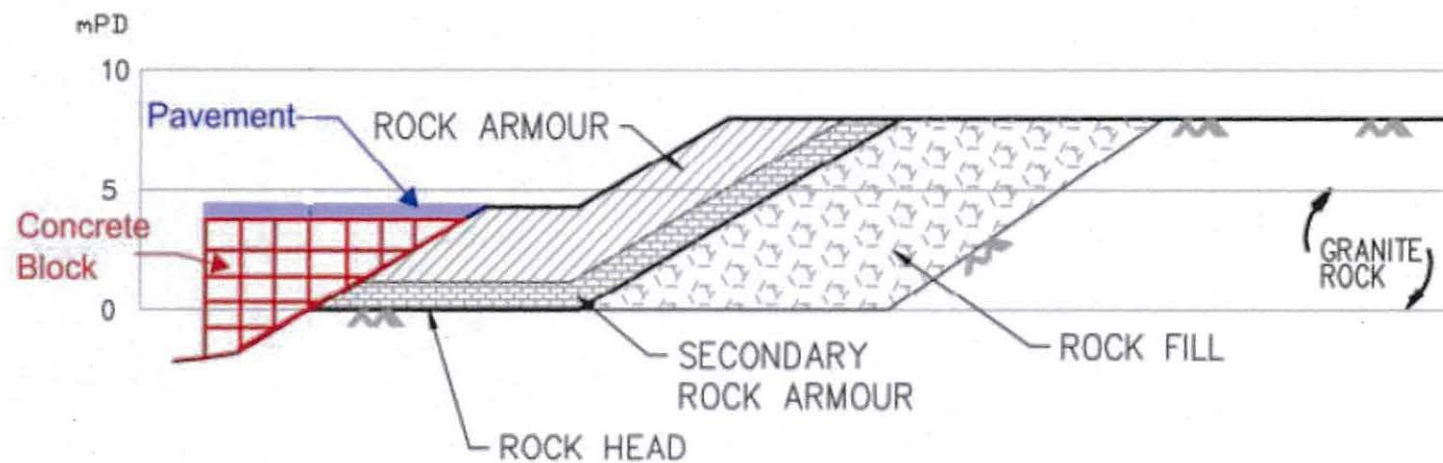
Project Title: Shatin to Central Link - Hung Hom to Admiralty Section
工程名稱 : 沙田至中環綫 - 紅磡至金鐘段

Environmental Permit No. : EP-436/2012/E
環境許可證編號 : EP-436/2012/E

Figure 6: Works at Shek O Casting Basin
圖 6: 石澳的沉管隧道預製件工場

(This figure was prepared based on Figure C11033B/C/SCL/ACM/M50/104 of the report submitted under VEP Application (Register No.: VEP-433/2014))
 (本圖是根據更改環境許可證申請文件(申請書編號: VEP-433/2014)所提交的報告圖 C11033B/C/SCL/ACM/M50/104 編制))





Project Title : Shatin to Central Link – Hung Hom to Admiralty Section
工程項目名稱：沙田至中環綫 – 紅磡至金鐘段

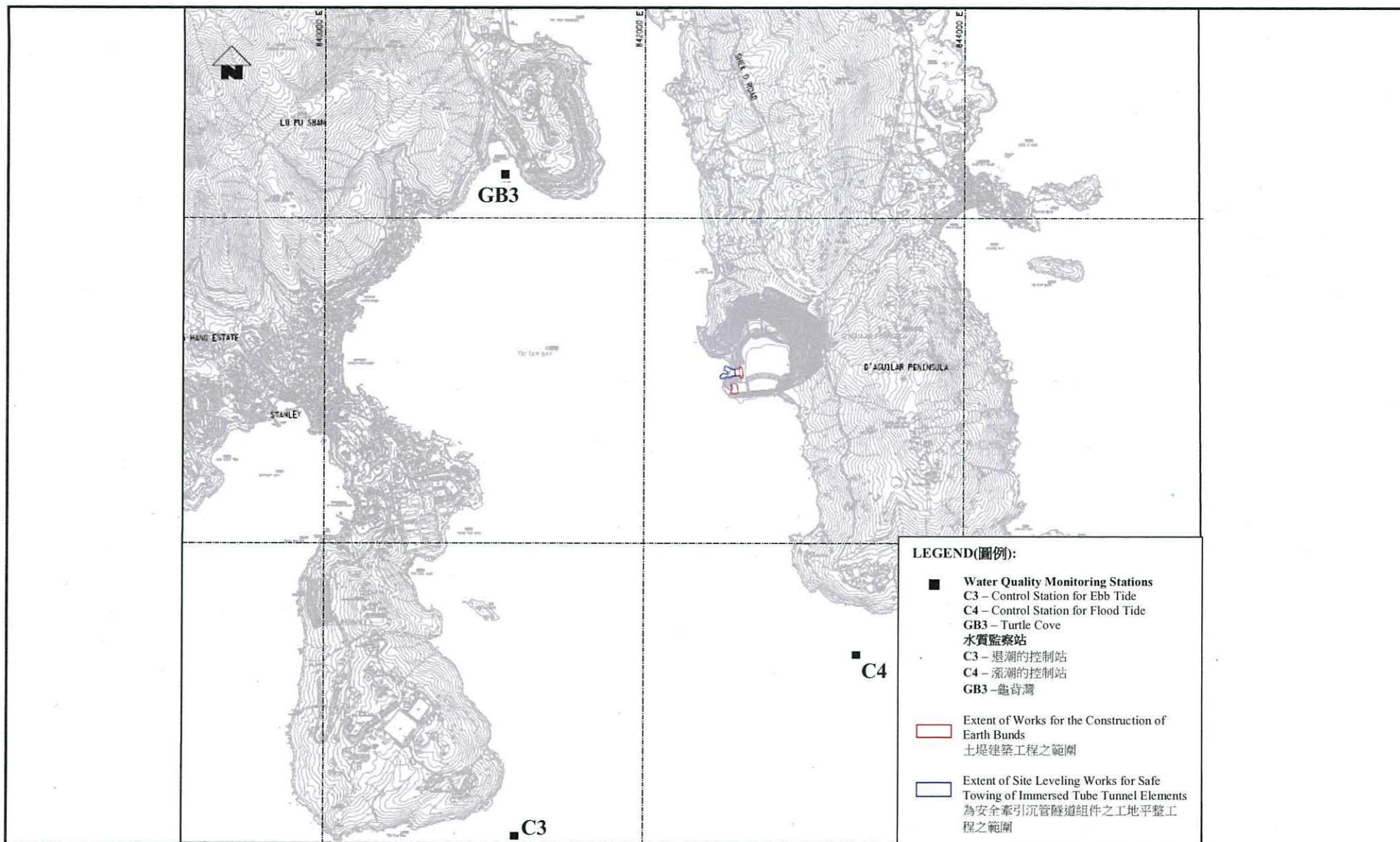
Environmental Permit No. : EP-436/2012/E
環境許可證編號 : EP-436/2012/E

Figure 7: Cross Section of a Typical Barging Point
圖 7: 躉船轉運站的橫截面

(This figure was prepared based on Appendix 8.3 of the report submitted under VEP Application (Register No.: VEP-433/2014))

(本圖是根據更改環境許可證申請文件(申請書編號: VEP-433/2014)所提交的報告附錄 8.3 編制)





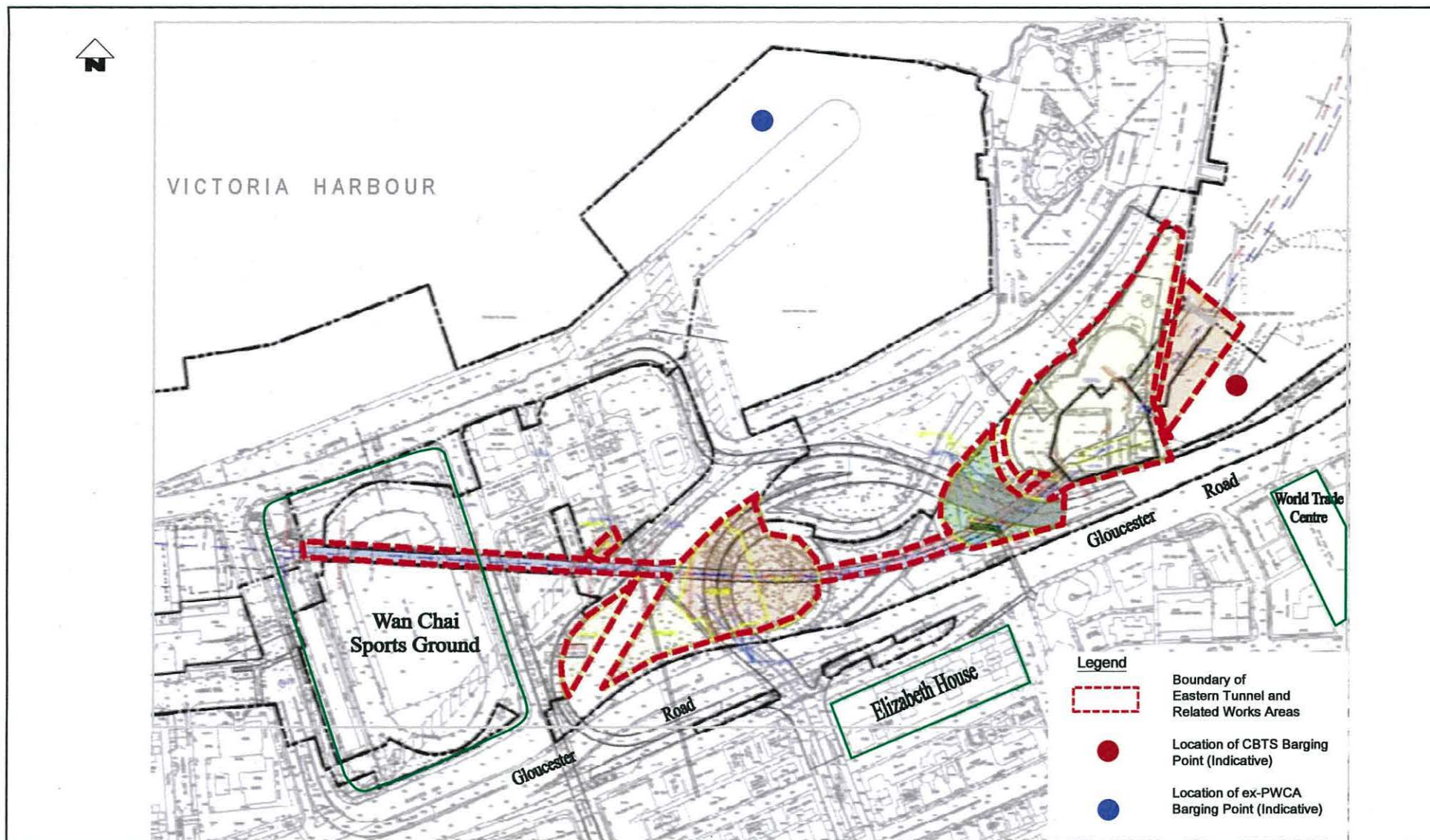
Project Title : Shatin to Central Link – Hung Hom to Admiralty Section
工程項目名稱：沙田至中環綫 – 紅磡至金鐘段

Environmental Permit No. : EP-436/2012/E
環境許可證編號 : EP-436/2012/E

Figure 8: Locations of Water Quality Monitoring Stations
圖 8: 水質監測站的位置

(This figure was prepared based on Figure C11033B/C/SCL/ACM/M59/101 of the report submitted under VEP Application (Register No.: VEP-433/2014))
 (本圖是根據更改環境許可證申請文件(申請書編號: VEP-433/2014)所提交的報告圖 C11033B/C/SCL/ACM/M59/101 編制))





Project Title: Shatin to Central Link - Hung Hom to Admiralty Section
工程名稱：沙田至中環綫 - 紅磡至金鐘段

Environmental Permit No.: EP-436/2012/E
環境許可證編號：EP-436/2012/E

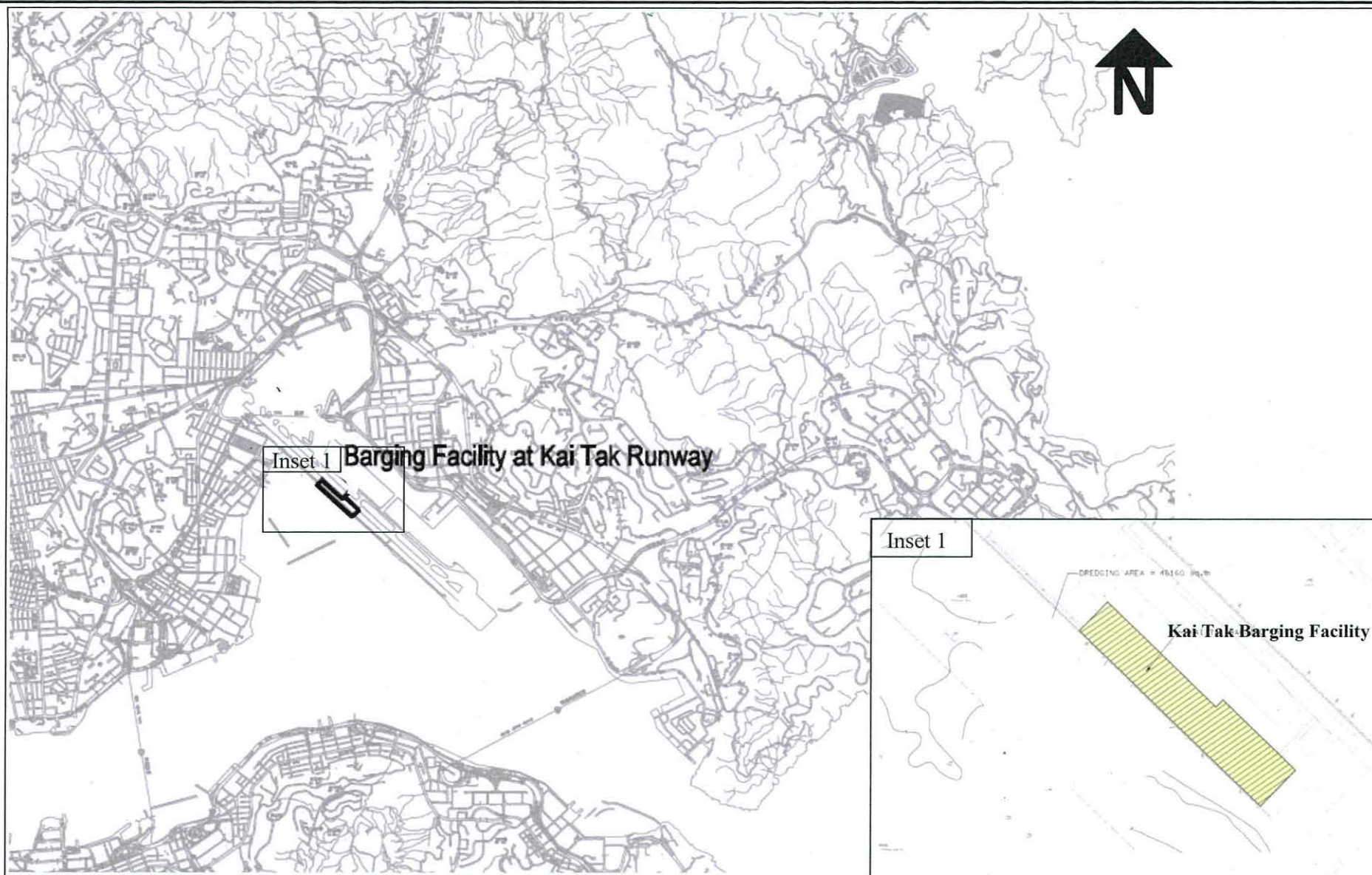
Figure 9a: Boundary of Eastern Tunnel and Related Works Areas and the indicative location of the barging points.

圖 9a: 東邊隧道及相關工地的範圍圖和疊船轉運站的示意位置

(This figure was prepared based on Figure 1.1 of the report submitted under VEP Application (Register No.: VEP-482/2015))

(本圖是根據更改環境許可證申請文件(申請書編號：VEP-482/2015)所提交的報告圖 1.1 編制))





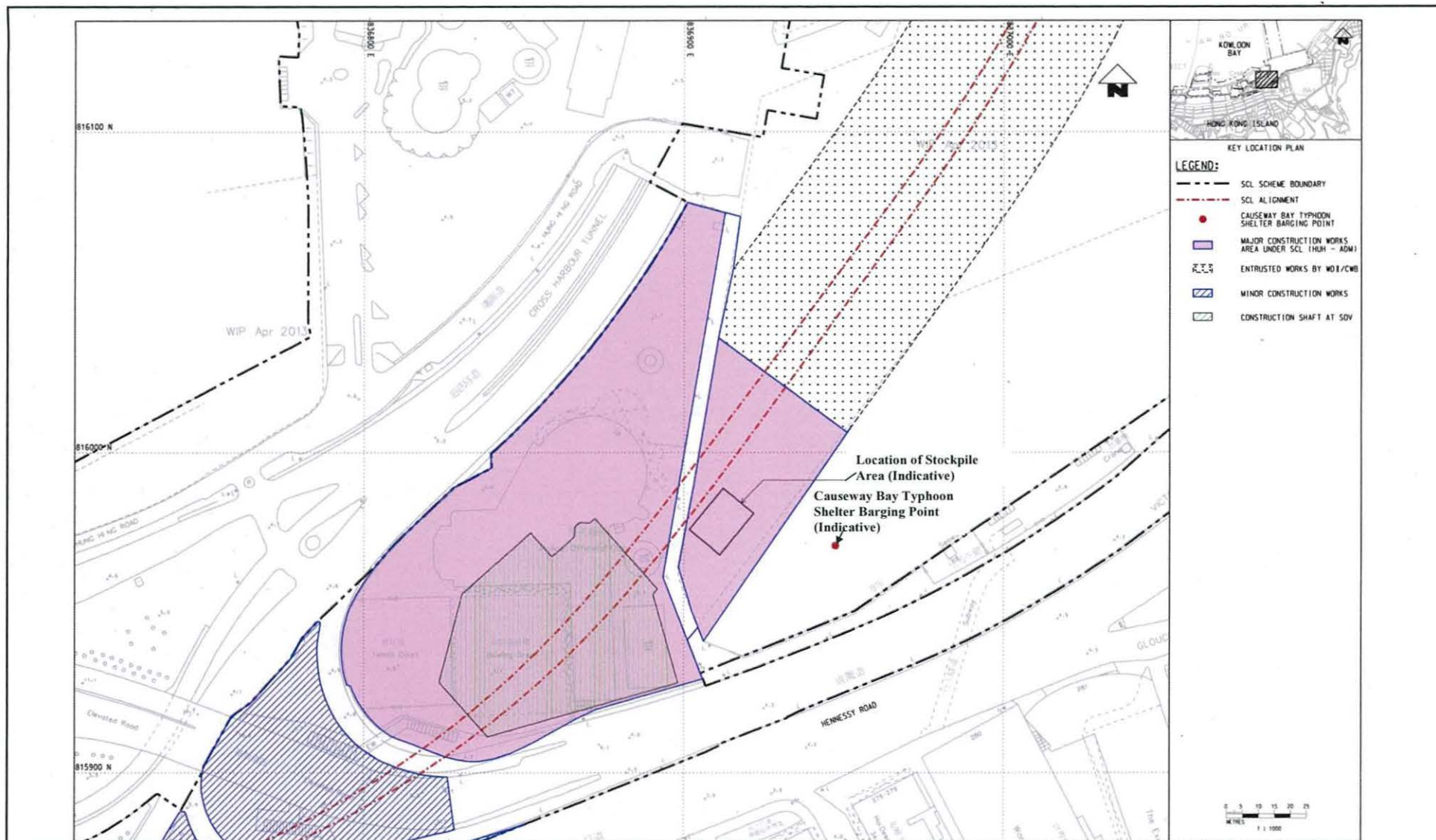
Project Title : Shatin to Central Link – Hung Hom to Admiralty Section
工程項目名稱：沙田至中環綫 – 紅磡至金鐘段

Environmental Permit No. : EP-436/2012/E
環境許可證編號 : EP-436/2012/E

Figure 9b: Location of Works Areas (Off-Site) – Kai Tak Barging Facility
圖 9b: 工地外的工作區 – 啟德跑道躉船轉運站位置圖

(This figure was prepared based on Figure 5 and Figure 7 of EP-438/2012/H (Register No.: VEP-467/2015))
 (本圖是根據環境許可證 EP-438/2012/H (申請書編號: VEP-467/2015) 的圖 5 及圖 7 編制)





Project Title: Shatin to Central Link - Hung Hom to Admiralty Section
工程名稱：沙田至中環綫 - 紅磡至金鐘段

Environmental Permit No. : EP-436/2012/E
環境許可證編號：EP-436/2012/E

Figure 9c: Location of Causway Bay Typhoon Shelter Barging Point

圖 9c: 銅鑼灣避風塘疊船轉運站位置圖

(This figure was prepared based on Figure A of the report submitted under VEP Application (Register No.: VEP-482/2015))

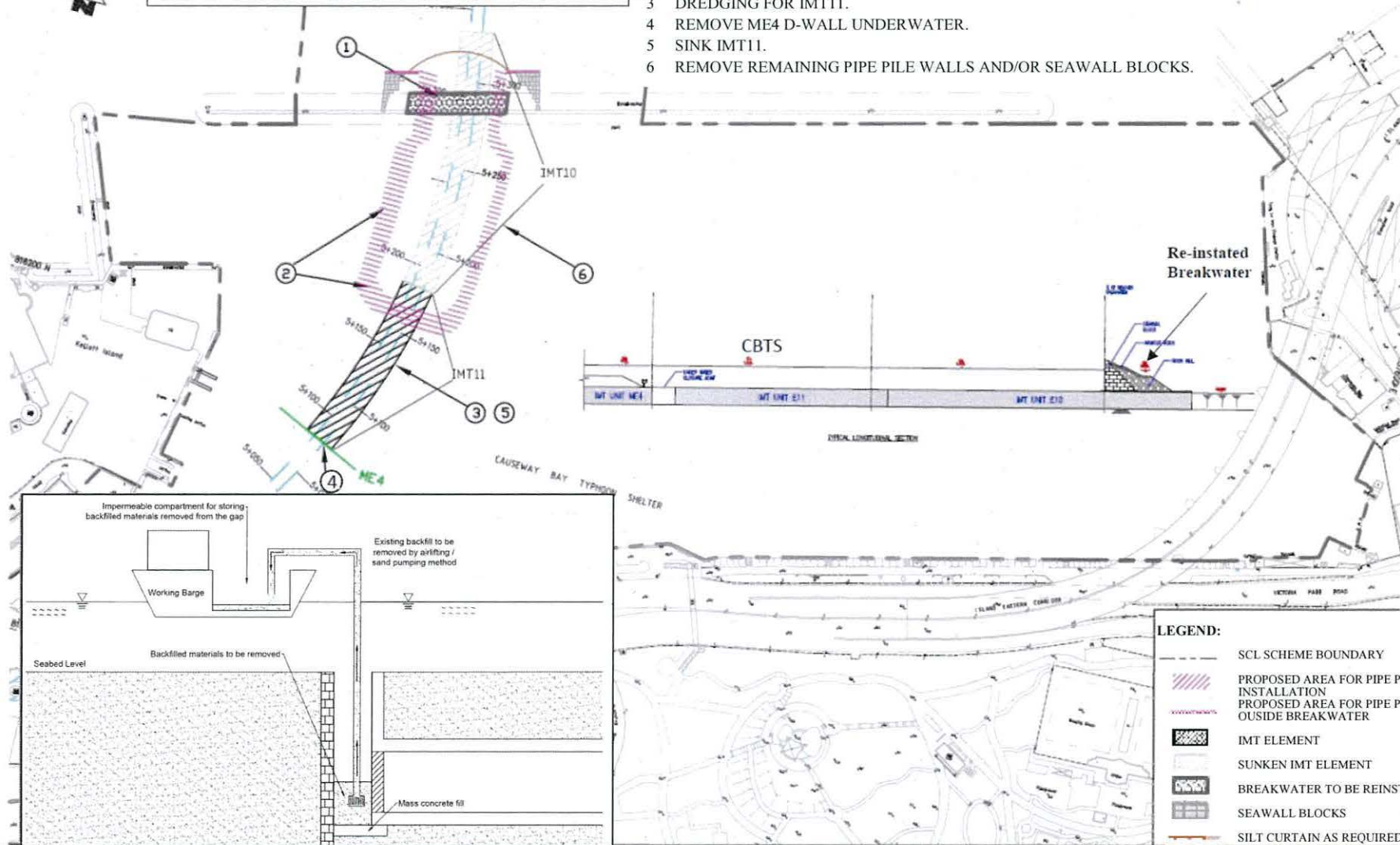
(本圖是根據更改環境許可證申請文件(申請書編號：VEP-482/2015)所提交的報告圖 A 編制)



Indicative arrangement for reference only

Construction Activities at Final Stage of IMT Construction within CBTS

- 1 TEMPORARY REINSTATE THE BREAKWATER.
- 2 REMOVE ONE SIDE AND END PORTION OF PIPE PILE WALLS.
- 3 DREDGING FOR IMT11.
- 4 REMOVE ME4 D-WALL UNDERWATER.
- 5 SINK IMT11.
- 6 REMOVE REMAINING PIPE PILE WALLS AND/OR SEAWALL BLOCKS.



Project Title : Shatin to Central Link – Hung Hom to Admiralty Section

工程項目名稱：沙田至中環綫 – 紅磡至金鐘段

Environmental Permit No. : EP-436/2012/E

環境許可證編號 : EP-436/2012/E

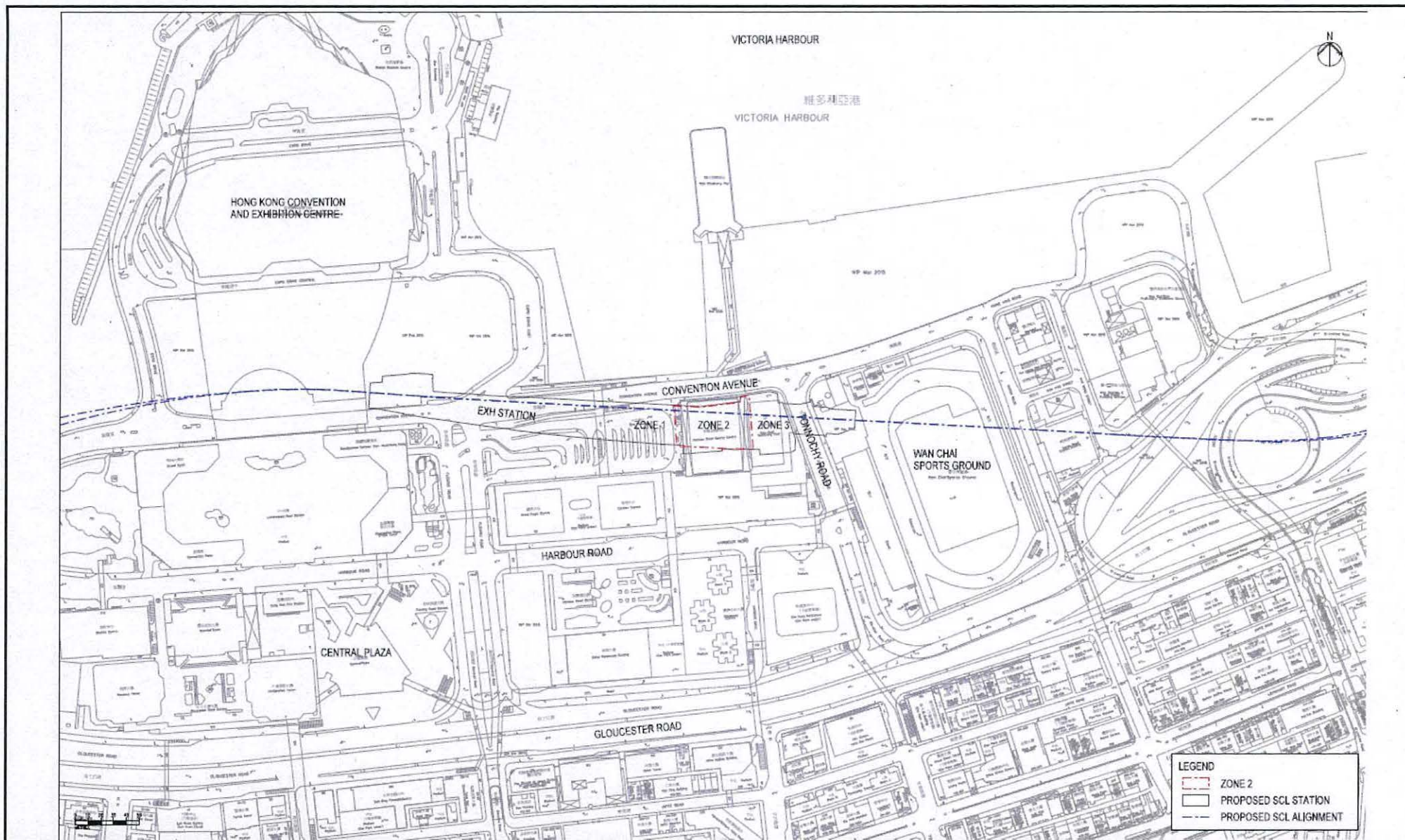
Figure 10: Final Stage of IMT Construction at CBTS

圖 10: 銅鑼灣避風塘進行沉管式隧道工程的施工最後階段

(This figure was prepared based on Appendix 2.1 of the report submitted under VEP Application (Register No.: VEP-490/2016))

(本圖是根據更改環境許可證申請文件(申請書編號: VEP-490/2016)所提交的報告圖附錄 2.1 編制)



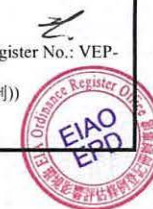


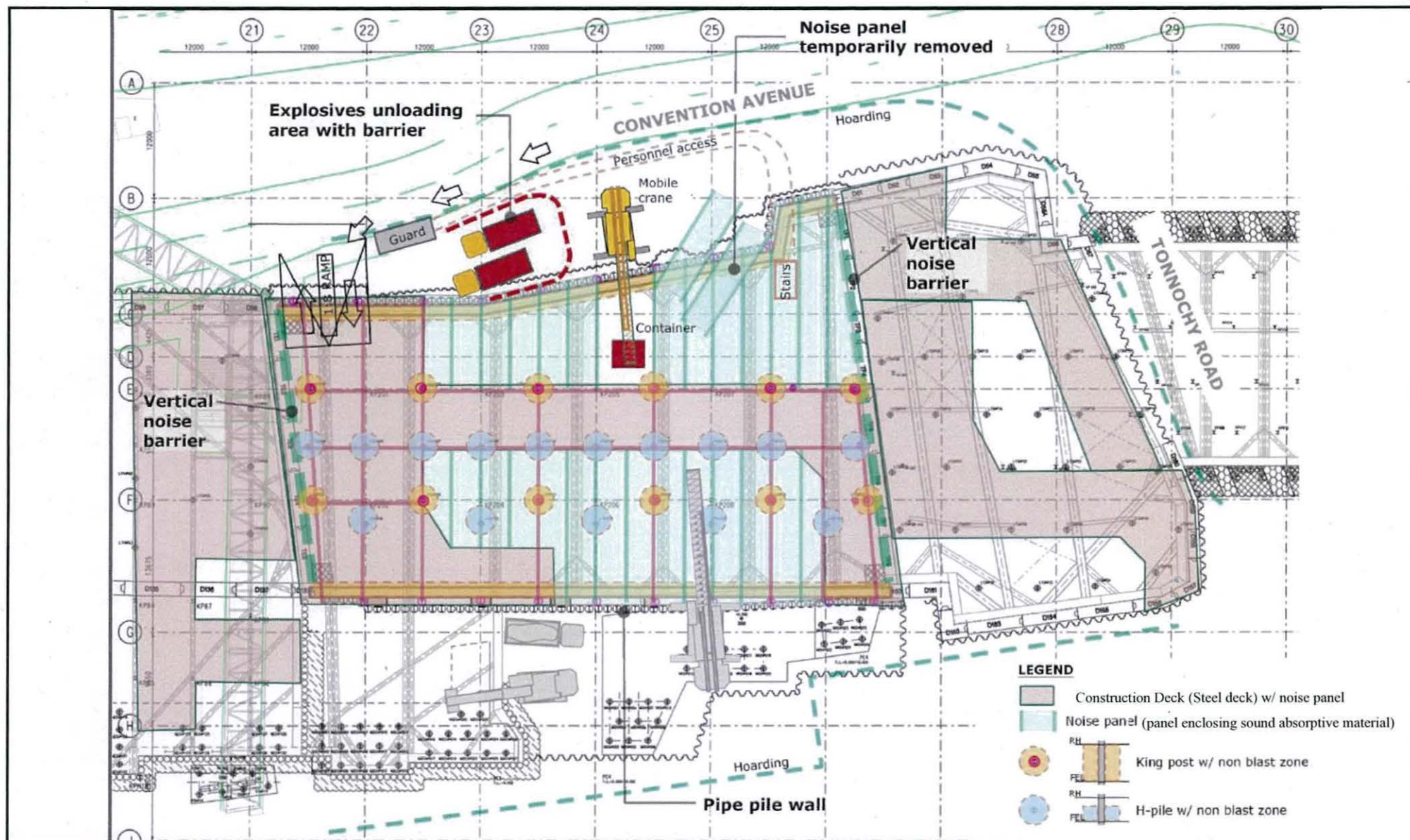
Project Title : Shatin to Central Link – Hung Hom to Admiralty Section
工程項目名稱：沙田至中環綫 – 紅磡至金鐘段

Environmental Permit No. : EP-436/2012/E
環境許可證編號 : EP-436/2012/E

Figure 11: Location of Exhibition Station Zone 2 area
圖 11: 會展站 2 區位置圖

(This figure was prepared based on Figure 1.1 of the report submitted under VEP Application (Register No.: VEP-510/2016))
 (本圖是根據更改環境許可證申請文件(申請書編號: VEP-510/2016)所提交的報告圖 1.1 編制)





Project Title : Shatin to Central Link – Hung Hom to Admiralty Section
工程項目名稱：沙田至中環綫 – 紅磡至金鐘段

Environmental Permit No. : EP-436/2012/E
環境許可證編號 : EP-436/2012/E

Figure 12: Indicative Design of the Noise Mitigation Measure at EXH Zone 2
圖 12: 會展站2區的噪音緩解措施示意設計圖

(This figure was prepared based on Appendix 4.2 of the report submitted under VEP Application (Register No. VEP-510/2016))
 (本圖是根據更改環境許可證申請文件(申請書編號: VEP-510/2016)所提交的報告圖附錄 4.2 編制))



