

Contract No. HK/2009/01

Wan Chai Development Phase II – Central -Wan Chai Bypass at
Hong Kong Convention and Exhibition Centre

Silt Screen Deployment Plan

| Revision | Date of Issue | Remarks | Author | Approved |
|----------|---------------|--|--------|----------|
| 0 | 19 Feb 10 | Initial issue | DW | WTH |
| 1 | 17 Mar 10 | Incorporating comments from ET & IEC | DW | WTH |
| 2 | 25 Mar 10 | Incorporating comments from ET & IEC | DW | WTH |
| 3 | 8 April 10 | Incorporating comments from Engineer | DW | WTH |
| 4 | 8 Nov 12 | Updated Section. 2.1, Appendix A, B & F | AM | PY |
| 5 | 12 July 13 | Updated Section 1.1, 2.2, 2.3, 4.2, Appendix A & H | AM | PLY |
| 6 | 11 Aug 2014 | Updated Section 1.1, 2.1, 4.2, Appendix A | KMN | SL |
| 7 | 8 Oct 2014 | Updated Section 1.1 | KMN | SL |

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GENERAL

1.1 *Introduction*

Prior to the commencement of any dredging and backfilling works in the vicinity of the existing seawater intakes, silt screens have been installed to protect the cooling water intakes. The main contractor of HK/2009/01, Chun Wo – Leader Joint Venture (CWLJV) will be responsible for the installation, maintenance, repairing (if necessary) and removal of the silt screens.

Since the original silt screens of cooling water intake C2, C3 & C4W have been relocated to new pumping stations by CWLJV and the silt screens of cooling water intake C4E will be relocated to new pumping station upon the completion of new station by HK/2009/02 contractor, the revised deployment plan have been updated to include the information on latest silt screen arrangement.

This deployment plan describes in details the design, method of installation, operation and maintenance of the proposed silt screen.

1.2 *Reference Specification and Drawings*

- General Specification Section 21 & 25
- Particular Specification Section 21 & 25
- Contract Drawing nos. 60041297/C1/200/1836B, Figure 4 of EP-356/2009

1.3 *Construction Plants*

The following plants shall be deployed:

| | |
|-------------------|-------|
| i) Crane Lorry | 1 no. |
| ii) Mobile Crane | 1 no. |
| iii) Motor Sampan | 1 no. |

Adequate resources shall be employed to suit the construction programme of silt screens.

1.4 Safety

The works shall carry out in accordance with the Project Safety Plan and shall comply with the requirements of the Marine Department and Labour Department. Specific risk assessment shall be prepared and submitted separately.

2. Silt Screen Design

2.1 In general, there are three types of silt screen. Type 1 silt screen is designed for those seawater intakes located on vertical seawall, i.e. seawater intakes of Telecom House, HK Academy for Performing Arts, Shui On Centre, Wan Chai Tower / Revenue Tower, Immigration Tower, Great Eagle Centre, China Resources Building, Sogo Tsim Sha Tsui, WSD. Type 2 silt screen is designed for seawater intakes of Hong Kong Convention and Exhibition Centre located under the promenade deck. Type 3 silt screen is designed for the submarine seawater intake near Avenue of Stars. Silt screens of either Type 1, Type 2 or Type 3 depending on the actual site condition, will also be installed for WSD saltwater intakes at WSD7 (Kowloon South), WSD19 (Sheung Wan) or any other intakes as highlighted in EP-356/2009 Table 1 and Figure 4 subject to the site instruction from the Engineer. The location plans for Type 1 to 3 silt screens are enclosed in **Appendix A**.

All cooling water intake C2, C3 & C4W have been relocated to new pumping stations by CWLJV on or before 24 June 2013. Whereas, cooling water intake C4E will be relocated to new pumping station upon completion of new station by HK/2009/02 contractor. The location plan of seawater intakes is enclosed in **Appendix A**.

2.2 Type 1 silt screen consists of a steel frame and a layer of geotextile screening. The steel frame will be fixed to the vertical seawall by anchor bolts. The geotextile screening will be tied on to the steel frame by nylon ropes and attached to the vertical seawall on both top and bottom sides. A hinged opening will be provided at the top of the steel frame as access for water monitoring inside the silt screen. The layout and general arrangement of Type 1 silt screen is enclosed in **Appendix B**.

2.3 Type 2 silt screen consists of a layer of geotextile screening tied on 300mm diameter buoys and extended to the seabed level secured by steel chain ballast. The buoys will be further positioned by nylon ropes tied on existing structures. Type 2 silt screen will be installed underneath the perimeter of the promenade piled deck of the pump house of Hong Kong Convention and Exhibition Centre (HKCEC) Phase 1 and both ends of the silt screen will be attached to the vertical seawall adjacent to the promenade piled deck. The layout and general arrangement of Type 2 silt screen is enclosed in **Appendix C**. Alternatively, Type 1 silt screen screen depending on the actual site condition during the course of the reclamation works.

2.4 Type 3 silt screen consists of 2 types of silt screen namely 'standing type' and 'hanging type' combined together. Standing type consists of a steel frame and a layer of geotextile screening on all 3 sides of the steel frame. The top frame will not be covered by geotextile to allow sufficient flow of water into the intake. The steel frame will be placed to the seabed to surround the seawater intake. The steel frame will be further secured to the seabed by steel cable tied to concrete sinkers. Hanging type is similar to Type 2 silt screen consists of a layer of geotextile screening tied on 300mm diameter buoys and extended to below the top level of the standing type silt screen. The bottom of the hanging type silt screen will be tied to ballast steel chain. The purpose of the hanging type silt screen is to prevent silt from sucking into the intake through the top opening of the standing type silt screen. The layout and general arrangement of Type 3 silt screen is enclosed in **Appendix D**.

2.5 The specification of the proposed geotextile for Type 1, 2 and 3 silt screens is enclosed in **Appendix E**.

3 Silt Screen Installation Procedure

3.1 Type 1 Silt Screen

3.1.1 To carry out an underwater conditional survey to locate the existing water intakes by diver.

3.1.2 To verify the location, depths and sizes of the intake pipes and measure

the dimension and position of the silt screen and mountings required.

- 3.1.3 To prefabricate the steel frame with steel mesh for fencing as determined in the previous step.
- 3.1.4 To mitigate the corrosion by seawater, all steel members should be hot-dip galvanized and the plastic coated steel mesh will be used before prefabrication.
- 3.1.5 The fabrication works will follow the layout drawing (See **Appendix B**)
- 3.1.6 A temporary steel working platform will be erected on site for installation of the steel frame.
- 3.1.7 To prefabricate the steel frame with steel mesh for fencing as determined in the previous step.
- 3.1.8 To form the anchor's holes by air drill.
- 3.1.9 The upper steel plate footing with 4 nos. anchor bolts will pre-install on the existing seawall.
- 3.1.10 To separate each steel frame to two portions for transportation and assembly on site.
- 3.1.11 To use crane lorry for lifting and fixing the steel frame to the location.
- 3.1.12 The top level of the steel frame is approximate +3.00mPD.
- 3.1.13 To use a chain block pulley system for lifting the steel frame from the top of the seawall for installation adjustment.
- 3.1.14 To fix and weld the steel frame onto the pre-installed steel plates.
- 3.1.15 To fix the lower steel plate footings onto the existing seawall using anchor bolts.
- 3.1.16 To tie the geotextile screening with steel chain ballast on to the steel frame by nylon ropes.

3.1.17 The outer silt screen can be removed and replaced during maintenance by workers using a chain block pulley system for lifting the screen directly from the water.

3.2 Type 2 Silt Screen / Type 3 Silt Screen (Hanging Type)

3.2.1 To carry out an underwater condition survey to locate the existing seawater intakes by divers.

3.2.2 To verify the location, depths and sized of the intake pipes and measure the dimension and position of the silt screen and mountings required.

3.2.3 To tie the silt screen to the buoys and steel chain ballast before transportation.

3.2.4 To transport the silt screen to the location for fixing via a marine pontoon.

3.2.5 To tie the buoys to the railings of the promenade deck / existing structures with nylon ropes.

3.2.6 To put the buoys to the water and then slowly put the silt screen with the steel chain ballast into sea.

3.2.7 The silt screen can be removed and replaced during maintenance by workers using a chain block pulley system to lift the screen directly from the water.

3.3 Type 3 Silt Screen (Standing Type)

3.3.1 Standing type silt screen shall be installed prior to the installation of hanging type silt screen.

3.3.2 To carry out an underwater conditional survey to locate the existing water intake by the divers.

3.3.3 To verify the location, depths and sizes of the intake pipes and measure the dimension and position of the silt screen and mountings required.

3.3.4 To prefabricate the steel frame with steel mesh for fencing as determined in the previous step.

3.3.5 To mitigate the corrosion by seawater, all steel members should be hot-dip galvanized and the plastic coated steel mesh will be used before prefabrication.

3.3.6 The fabrication works will follow the layout drawing (See **Appendix D**)

3.3.7 To prefabricate the steel frame with steel mesh for fencing as determined in the previous step.

3.3.8 To use a mobile crane for lifting and fixing the steel frame to the location. Divers will assist the positioning of the silt screen under the water.

3.3.9 To place the concrete sinkers to the seabed by mobile crane and tie the steel frame to the concrete sinkers with steel cables by divers.

3.3.10 The outer silt screen can be removed and replaced during maintenance by the divers.

4. Maintenance of Silt Screen

4.1 Site supervisors will check the condition of the silt screens daily during the course of the marine works. An inspection checklist (see Appendix G) will be prepared and filled in by the site supervisors accordingly. All checklists will be kept on site for record purpose. Divers will be deployed to check the condition of the Type 3 standing type silt screen regularly.

4.2 Nearby marine works will stop immediately if silt screens are found damaged. Type 1 and 2 silt screens will be lifted up from the water by a chain block pulley system and the damaged outer silt screen will be replaced by workers. Damaged outer silt screen of Type 3 silt screen shall be replaced by divers. Nearby marine works will resume after repairing of the damaged silt screens. (Nearby marine works was defined as works within the region 100m from the damaged silt screen)

- 4.3 Refuse around the silt screens will be collected at regular intervals on a daily basis so that water behind the silt screens will be kept free from floating debris.
- 4.4 Sufficient spare geotextile screening will be kept on site for replacing of damaged silt screens. The spare geotextile screening shall be kept in place to avoid direct contact with water and sunlight.

Appendix A
Location Plan for Type 1 to 3 Silt Screen

Legend

C1 Hong Kong Convention and Exhibition Centre Extension

P1 Hong Kong Convention and Exhibition Centre Phase 1

P3 Hong Kong Academy for Performing Art

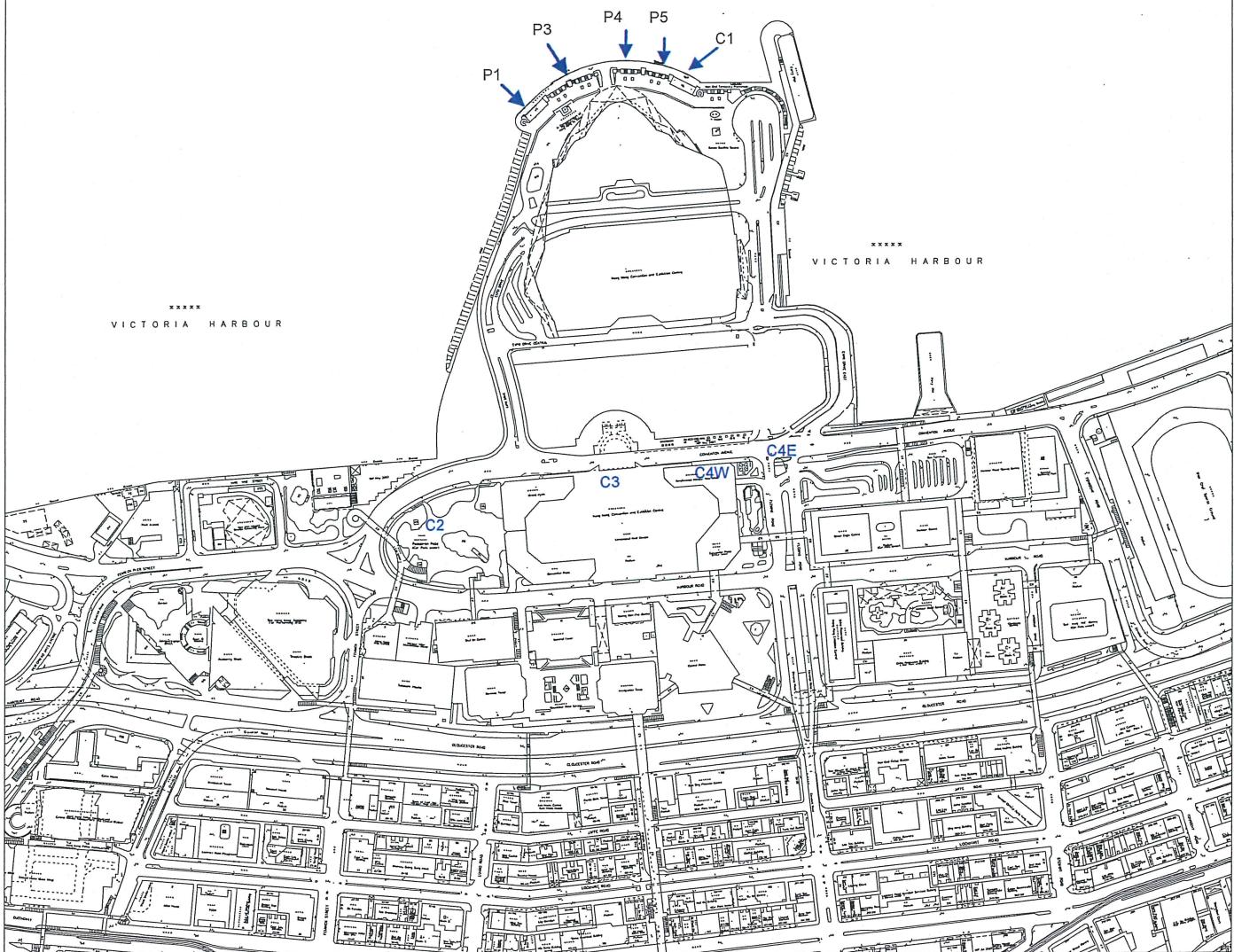
P4 Shui On Centre

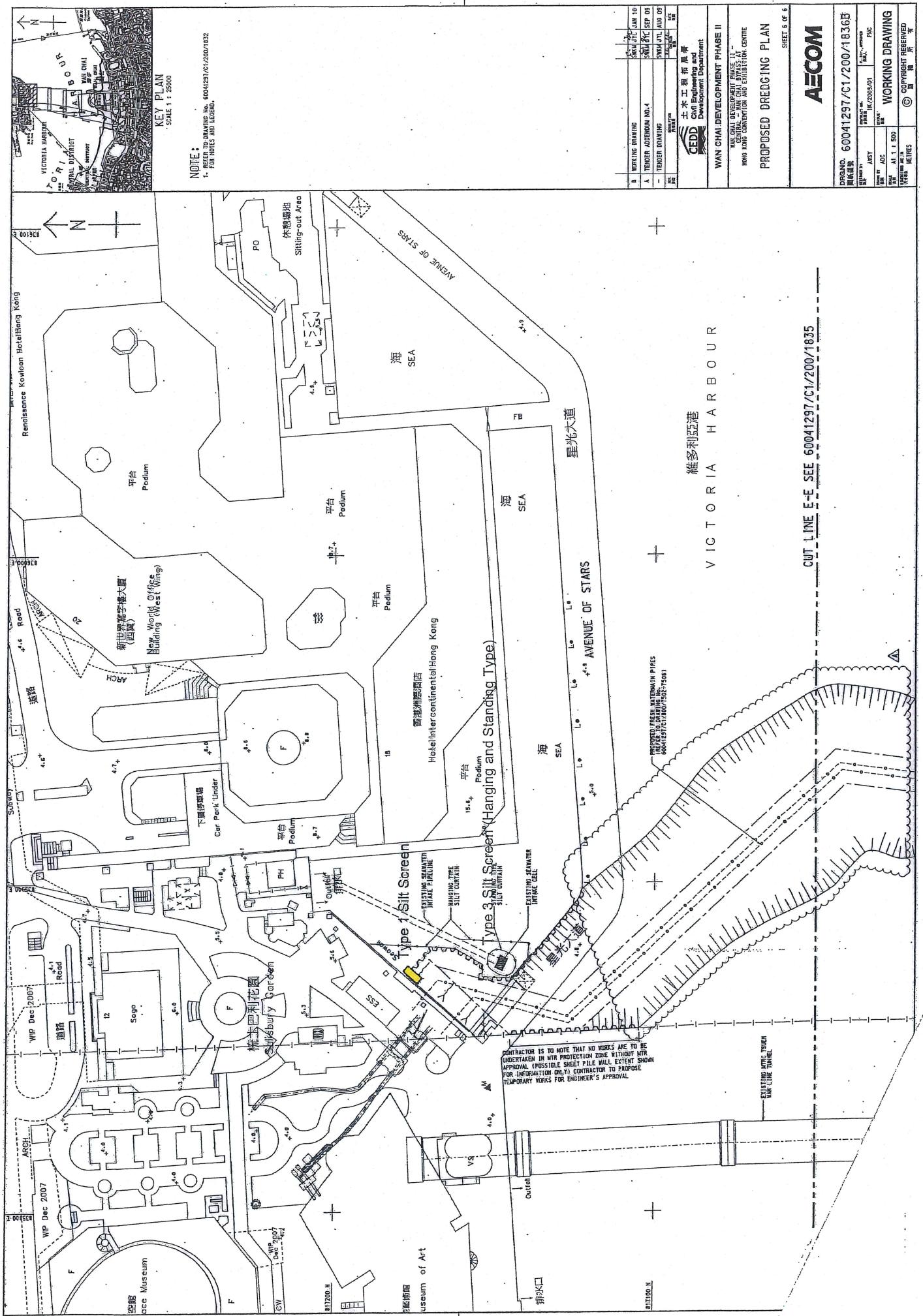
P5 Government Buildings (Wan Chai Tower / Revenue Tower / Immigration Tower)

Proposed silt screen will be installed for intake:

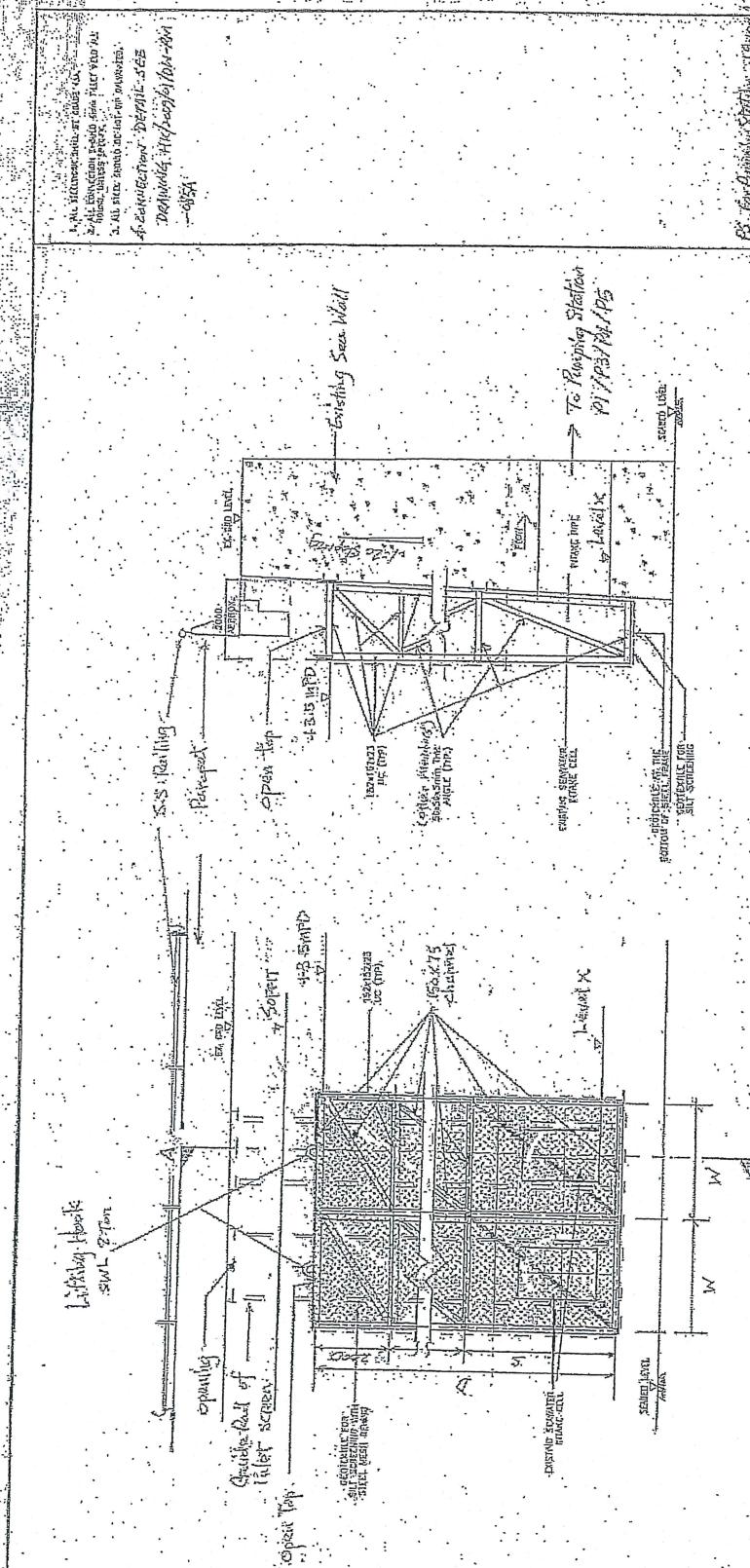
Type 1 silt screen for intake C1, P1, P3, P4, P5, C2, C4W, C4E

Type 2 silt screen for intake C3





Appendix B
Type 1 Silt Screen



SECTION ELEVATION OF TYPICAL DETAILS FOR SILT SCREEN OVER INTAKE PIPES

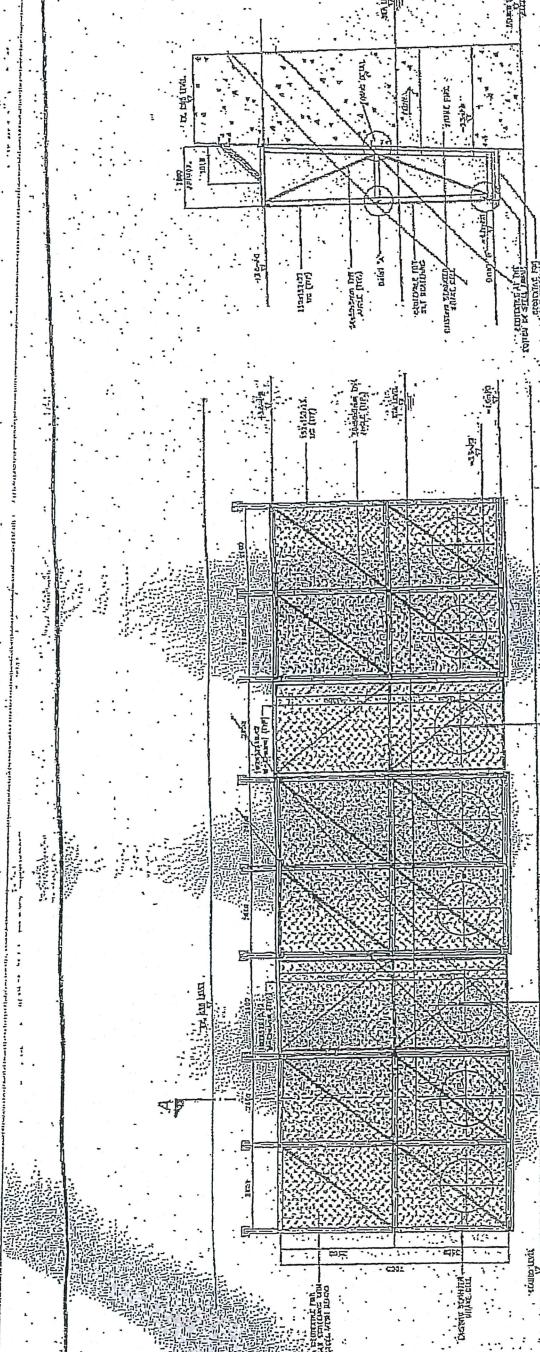
SCARLET & BROWN

| Sampling Station | D | S | W | Qty | Depth Level X |
|------------------|-------|------|-------------------|--------|---------------|
| P1 | 7.8 m | 27 m | 4.6 m Twin cell | 3 nos. | -4.07 m ED |
| P2 | 7.8 m | 25 m | 4.5 m Single cell | 3 nos. | -4.16 m ED |
| P4 | 6.9 m | 24 m | 4.6 m Twin cell | 2 nos. | -4.32 m ED |
| P5 | 6.9 m | 24 m | 4.5 m Single cell | 1 nos. | -4.25 m ED |

三

1950 Building Station Project

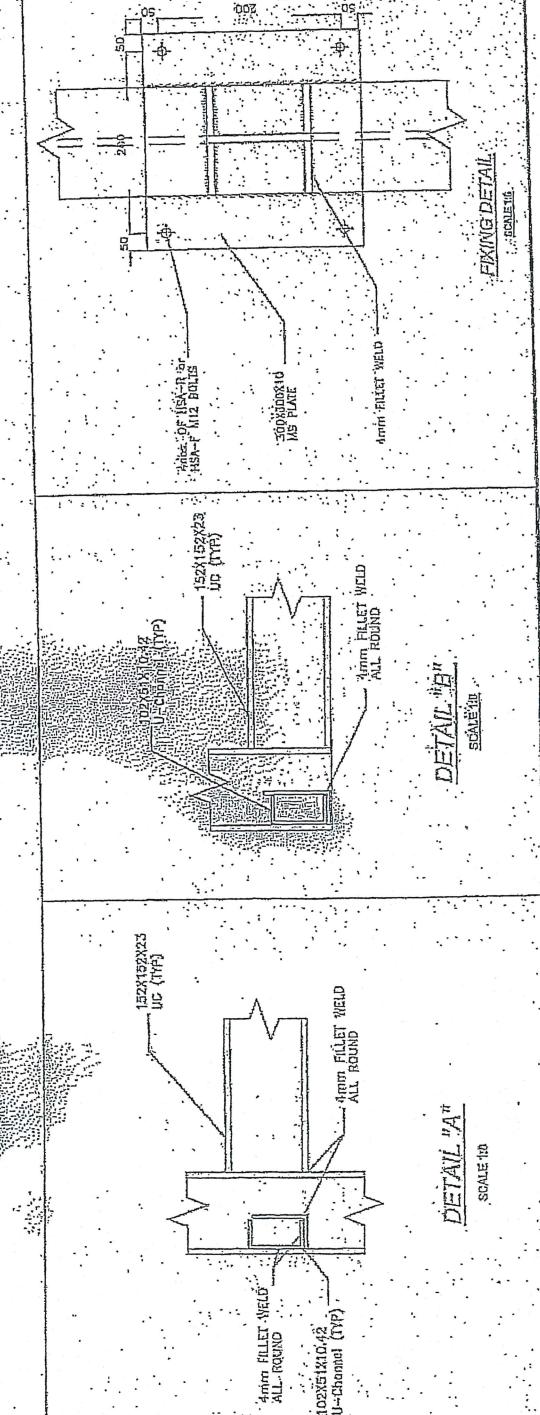
1. ALL STEADFAST SPIRIT BE EXALTED. Q.M.
 2. ALL CHRISTIAN SOULS ARE TRIED WHO ALL
 RODD, UNLESS SPARE.
 3. ALL STEEL SHOULD BE FORGED
 IN VIRTUE.



ELEVATION OF TYPICAL DETAILS FOR
A SILT-SCREEN OVERINTAKE PIPES
EXISTING DUMPING STATION OF HKGEG EXTENSION (SP)

SECTION A-A

CHANG CHI-KONG
DEPARTMENT OF CIVIL AND STRUCTURAL ENGINEERING
UNIVERSITY OF TORONTO



DETAIL "A"

DETAILS

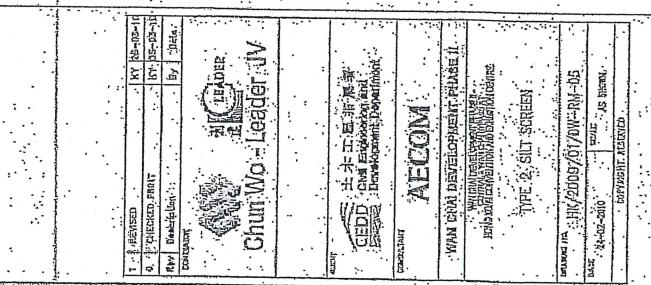
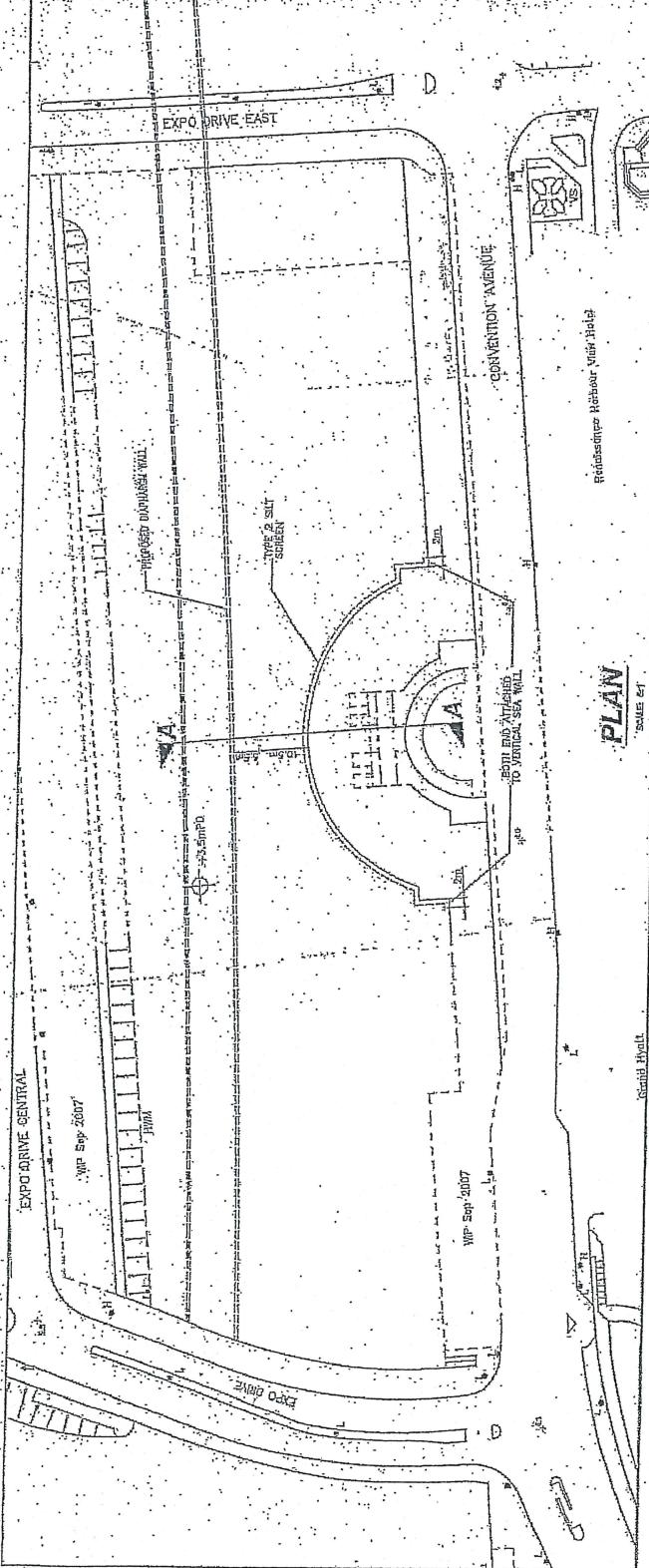
四

HANDBUCH DER
PHYSIK

Appendix C
Type 2 Silt Screen

NOTES:

1. No openings are to be justified from rooms to common areas.
2. Vertical drainage lines, all buildings above will be connected to vertical drainage lines.
3. Vertical drainage lines to vertical drainage lines.



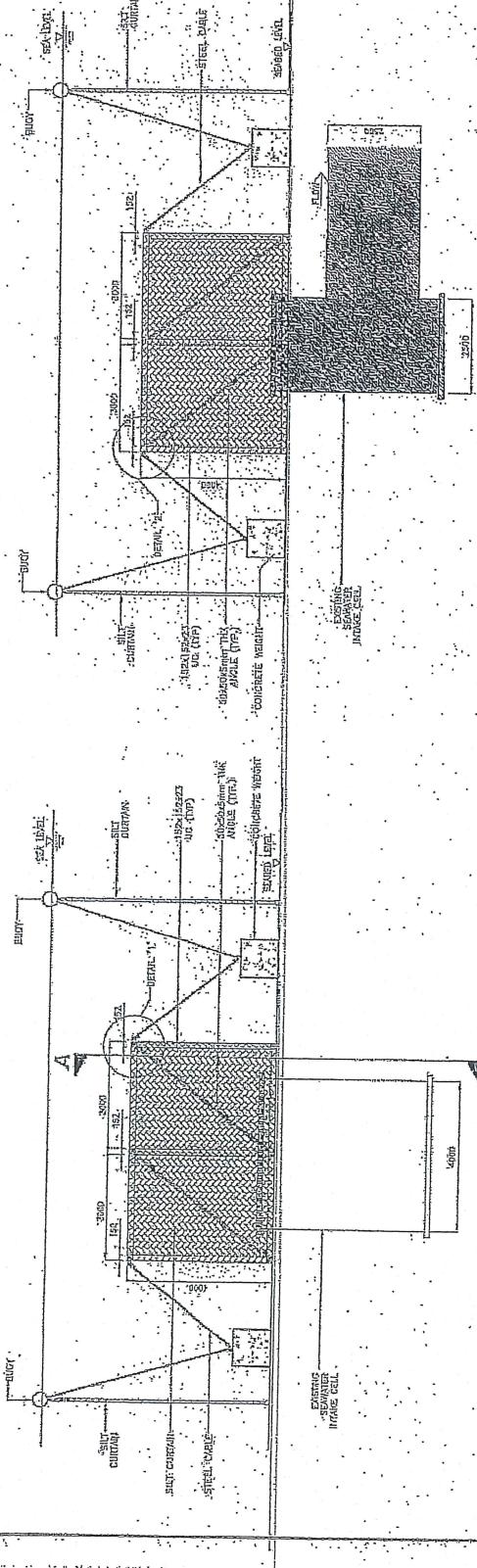
Appendix D
Type 3 Silt Screen

NOTES:

1. **UNIVERSITY OF HONG KONG** AND THE **UNIVERSITY OF HONG KONG LIBRARIES**.

2. **UNIVERSITY OF HONG KONG LIBRARIES** AND **UNIVERSITY OF HONG KONG LIBRARIES**.

3. **UNIVERSITY OF HONG KONG LIBRARIES** AND **UNIVERSITY OF HONG KONG LIBRARIES**.



SECTION OF STANDING TYPE
SILT CURTAIN DETAIL

SECTION II

Chin Wo - Leader JV

114

| | | | |
|--------------------|-------|--------------------|-------|
| 1. NAME | | 2. NAME | |
| 3. ADDRESS | | 4. ADDRESS | |
| 5. TELEGRAM | | 6. TELEGRAM | |

AECOM

WAN CHAI DEVELOPMENT PHASE II

TYPE 3: SIFT-CHURN

卷之四

17. 103-03-4010 1725 17. 1725. (A)

Appendix E
Specification of Proposed Geotextile for Type 1, 2 and 3 Silt Screens



SG 100/100

Technical data sheet according to internal specifications Bonar TF Version 03 dd. 17/02/03
Accompanying documents CH mailing; version 01 dd. 01/10/02



1137
1137-CPD-601
D3

|  |  |  |  |  |
|---|---|---|---|---|
| separation | filtration | reinforcement | protection | storage |

| | test method | value | tolerance |
|--|--------------|--------------------------------------|---------------------------------------|
| Mechanical properties | | | |
| Tensile strength MD | EN ISO 10319 | 110 kNm | +9.9 kNm |
| Tensile strength CD | EN ISO 10319 | 110 kNm | +9.9 kNm |
| Elongation MD | EN ISO 10319 | 20 % | +/- 6 % |
| Elongation CD | EN ISO 10319 | 11 % | +/- 2.5 % |
| Static puncture resistance CBR | EN ISO 12236 | 12.5 kN | +/- 2.5 kN |
| Dynamic perforation resistance - cone drop | EN 918 | 10 mm | +/- 2 mm |
| Hydraulic properties | | | |
| Water permeability normal to the plane | EN ISO 11058 | $23 \times 10^{-10} \text{ m/s}$ | $+/- 6.9 \times 10^{-10} \text{ m/s}$ |
| Water flow normal to the plane (t) | EN ISO 11058 | $23 \text{ l/m}^2 \text{ s}$ | $+/- 6.9 \text{ l/m}^2 \text{ s}$ |
| Characteristic opening size | EN ISO 12955 | 190 µm | +/- 57 µm |
| Physical properties | | | |
| Thickness under 2 kPa (t) | EN 954/1 | 1.53 mm | +/- 0.33 mm |
| Weight (t) | EN 965 | 475 g/m ² | +/- 47.5 g/m ² |
| Composition | | 100 % polypropylene woven geotextile | |

Durability
• geotextile has to be covered within 2 weeks after installation
• predicted to be durable for a minimum of 25 years in natural
soil with a pH < 9 and soil temperatures < 25 °C

|  |  |  |  |  |
|---|---|---|---|---|
| roads EN 13246-2001 | railways EN 14525-2000 | foundations & retaining walls EN 12851-2000 | drainage systems EN 14323-2000 | erosion control systems EN 14327-2000 |
|  |  |  |  |  |

| reservoirs & dams | canals | tunnels & under-ground structures | solid waste | liquid waste |
|-------------------|---------------|-----------------------------------|---------------|---------------|
| EN 13254-2000 | EN 13255-2000 | EN 13256-2000 | EN 13257-2000 | EN 13255-2000 |

1. This product is intended for use in both functions & applications highlighted with a bold border.
Nominal dimensions are 6.25 in x 1920x200. Other dimensions on demand.
2. Boma Technical Fabrics reserves the right to alter product specifications without prior notice. It is the responsibility of all users to satisfy themselves that the above data is current.
3. Although not guaranteed, these results do to the best of our knowledge after a full and accurate record of the product's performance.
4. Boma Technical Fabrics cannot accept responsibility for the performance of these products as the conditions of use are beyond our control.
5. No mandatory characteristics for CE marking.



TENCATE
Mirafi

Mirafi® X Woven Polypropylene Geotextiles

Properties of Mirafi® X Woven Polypropylene Geotextiles

| Property | Unit | 500X | 550X | 500X |
|--|---------|-------|-------|-------|
| Mechanical properties | | | | |
| Wide width tensile strength ISO 10319, ASTM D4593 | MD kN/m | 25 | 35 | 50 |
| Mean ultimate tensile strength | CD kN/m | 25 | 35 | 50 |
| Mean ultimate tensile strength | MD % | 20 | 20 | 20 |
| Extension at peak strength | CD % | 20 | 20 | 20 |
| Grab tensile strength ASTM D4632 | MD kN | 1.0 | 1.2 | 1.5 |
| Mean tensile strength | CD kN | 1.0 | 1.2 | 1.5 |
| Mean tensile strength | MD % | 75 | 75 | 75 |
| Extension at peak strength | CD % | 10 | 10 | 15 |
| CBR puncture strength ISO 12236, ASTM D2241 | kN | 3.2 | 4.2 | 5.5 |
| Mean puncture strength | | | | |
| UV resistance after 500 hrs ASTM D4355 | % | 70 | 70 | 70 |
| Strength retention | % | | | |
| Hydrophilic properties | | | | |
| Apparent opening size - ASTM D4751 | mm | 0.425 | 0.425 | 0.425 |
| Water permeability - ASTM D4491 | l/m²/s | 5 | 5 | 5 |
| Mean flow rate | cm²/s | 0.05 | 0.05 | 0.2 |
| Mean permeability | | | | |
| Nominal roll width | m | 4 | 4 | 4 |
| Nominal roll length | m | 200 | 200 | 200 |
| Estimated roll weight | kg | 115 | 100 | 160 |

Mirafi® is a registered trademark of Royal TenCate. The information contained herein is to the best of our knowledge accurate, but since the circumstances and conditions in which it may be used are beyond our control we do not accept responsibility for any loss or damage, however arising, which results directly or indirectly from use of such information. The data are given without warranty or liability against patent infringement.

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43400 Shah Alam, Selangor Darul Ehsan, Malaysia
Tel: +60 3 9028 8558 Fax: +60 3 9028 8575
Email: pia-asia@tencate.com

TENCATE
materials that make a difference

Appendix F
Arrange of Access Provision for Water Monitoring

Appendix G
Silt Screen Inspection Checklist



Contract No. HK/2009/01
Wan Chai Development Phase II - Central –
Wan Chai Bypass at Hong Kong Convention and Exhibition Centre

Client: Civil Engineering and Development Department

Consultant: AECOM

Main Contractor: Chun Wo - Leader Joint Venture

Silt Screen / Silt Curtain Daily Inspection Checklist

Silt Screen / Silt Curtain ID: _____

Location: _____

Inspection Date and Time: _____

| Item | Description | Condition | | Immediate Action Required?* | Target Rectify Date | Remark |
|------|---|-----------|----|-----------------------------|---------------------|--------|
| | | Yes | No | | | |
| 1 | Any floating debris/ refuse within silt curtain? | | | | | |
| 2 | Supporting fame / buoys in good condition? | | | | | |
| 3 | Tying wire / rope in good condition? | | | | | |
| 4 | Geotextile intact and in good condition | | | | | |
| 5 | Sinkers in good condition? | | | | | |
| 6 | Any obstruction to water flow between geotextile? | | | | | |

Checked by: _____

On behalf of Chun Wo-Leader JV

Endorsed by: _____

On behalf of AECOM

*Note: For silt screen / silt curtain with defects which need to be rectified immediately, related marine work has to be stopped until rectification work completed to the satisfaction of the Engineer.

Appendix H
Programme for the Installation and Removal of the Silt Screens

| Activity Description | Start | Finish | 2010 | | | | 2011 | | | | 2012 | | | | 2013 | | | | 2014 | | | | 2015 | | | | 2016 | | | | |
|--|----------|----------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|--|
| | | | Q1 | Q2 | Q3 | Q4 | |
| Installation of Slit Screens before relocation of Wan Chai Pump Station C1, C2, C3, C4E, C4W | 29/4/10 | 29/6/10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Installation of Slit Screens at TST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Installation of Slit Screens after relocation of Wan Chai Pump Station P1, P3, P4, P5 | 10/11/12 | 27/12/12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maintenance of Slit Screens before relocation of Wan Chai Pump Station C1, C2, C3, C4E, C4W | 29/4/10 | 30/11/13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maintenance of Slit Screens at TST | 29/8/11 | 30/11/13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maintenance of Slit Screen after relocation of Wan Chai Pump Station C1, P1, P3, P4, P5 | 10/11/12 | 1/10/16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Removal of Slit Screens at TST | 1/7/13 | 30/11/13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Removal of Slit Screens before relocation of Wan Chai Pump Station C2, C3, C4E, C4W | 1/7/13 | 30/11/13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Removal of Slit Screens after relocation of Wan Chai Pump Station C1, P1, P3, P4, P5 | 1/8/16 | 1/10/16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Last Updated on: 14-July-2014

Remark: P1, P3, P4, P5, C1, C2, C4E & C4W are the monitoring stations

Appendix I
EPD's Comments

24 DEC 2012 11:36 FROM LCOL/LCECL/LMC/LER
TO:0907 C1

TO 26341626

NO. 317

P. 1
1/002

水務處

OUR REF:

來的信號

YOUR REF:

信號

TEL NO.:

傳真號

FAX NO.:

電子郵件

E-MAIL

網址

HOME PAGE:

(9) in EP2/H4/S3/15 Pt.23

CL0907/03.09.00.00/5478/L

2835 2390

2591 0558

<http://www.epd.gov.hk>

Environmental Protection Department
Branch Office

28th Floor, Southern 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
渣打中企中心八樓

Urgent by Fax : 2634 1626

24 December 2012

Chun Wo - Leader Joint Venture
RECEIVED

27 DEC 2012

LETTER REF. NO. L C014378
VO/SL NO.

Chun Wo - Leader Joint Venture

5C, Hong Kong Spinners Industrial Building Phase 1,
601-603 Tai Nan West Street,
Cheung Sha Wan,
Kowloon, Hong Kong.

(Attn.: Mr. Paul Yu - Site Agent)

Dear Sir,

Environmental Impact Assessment (EIA) Ordinance, Cap.499

Environmental Permit (EP) No. FEP-02/356/2009

Wan Chai Development Phase II - Central-Wan Chai Bypass

Hong Kong Convention and Exhibition Centre

EP Condition 2.9: Updated Silt Screen Deployment Plan (Revision 4)

I refer to your letter under reference dated 15 November 2012, which was received by EPD on 26 November 2012, depositing the captioned submission as per Condition 2.9 of Further Environmental Permit No. EP-02/356/2009, reproduced below for your reference.

After consulting our Water Assessment Section, we find the submission needs to be revised as per our comments below:

- (1) Section 1.1: Please specify which party is responsible for the installation, maintenance, repairing (if necessary) and removal of the silt screens.
- (2) Section 2.2: In the 6th line, "wier" should read "water".
- (3) Section 4.2: Please specify a "boundary" for the "Nearby marine works".
- (4) Please provide a programme for the installation and removal of the silt screens.

Please revise and re-submit the captioned submission as per our comments above.

Yours faithfully,

Billy C.W. MA

(Billy C.W. MA)

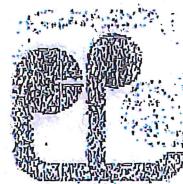
Environmental Protection Officer
for Director of Environmental Protection

Condition 2.9: Submission of Silt Screen Deployment Plan

2.9. The Permit Holder shall liaise with the owners and the operators of the seawater intakes as shown in Table 1 of this Permit on details of silt screen installation, maintenance and removal at the seawater intakes. The indicative locations of the intakes are shown in Figure 4 and Figure 5 of this Permit for reference. 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. The silt screen deployment plan shall be certified by the EP Holder and verified by the IHC as conforming to the relevant information and recommendation contained in the approved EIA Report (Register No. AEIA-R-128/2009) and liaison results with the owners and the 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 as presented in the finalised silt screen deployment plan. To avoid refuse entrapment and to ensure representative impact monitoring results, silt screens shall be maintained and refuse around them shall be collected at regular intervals on a daily basis so that water behind the silt screens be kept free from floating debris during the impact monitoring period. (see notes 8 and 9)

手署信號: (19) in EP2/H4/S3/15 Pt.26
 OUR REF: CL0907/03.09.00.00/6864/L
 申請號碼: 28th Floor, Southorn Centre,
 YOUR REF: 130 Hennessy Road,
 電話: 2835 2390 Wan Chai, Hong Kong.
 TEL. NO.:
 傳真號碼: 2591 0558
 FAX NO.:
 電子郵件: E-MAIL:
 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
 香港添丁
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|--------------------------------|
| Chun Wo - Leader Joint Venture |
| RECEIVED |
| 20 AUG 2013 |
| LETTER REF. NO. WO01T546 |
| V.O.S.I. NO. |

Urgent by Fax : 2587 1878

20 August 2013

Chun Wo - Leader Joint Venture
 P.O. Box No. 28947,
 Gloucester Road Post Office,
 Hong Kong

(Attn.: P.L. Yue - JV Board Representative)

Dear Sir,

**Environmental Impact Assessment (EIA) Ordinance, Cap.499
 Environmental Permit (EP) No. FEP-02/356/2009
 Wan Chai Development Phase II - Central-Wan Chai Bypass at
 Hong Kong Convention and Exhibition Centre
 EP Condition 2.9: Silt Screen Deployment Plan (Rev.5)**

I refer to your letter under reference dated 24 July 2013, depositing the captioned submission as per Condition 2.9 of Further Environmental Permit No. FEP-02/356/2009, reproduced below for your reference.

After consulting our Water Assessment Section, we find the submission needs to be revised as per our comments below:

- (1) page 3 of 16 section 1.1 3rd line 5th word: "CWLJV" should be given in full name
- (2) page 8 of 16 section 4.2: The definition of "Nearby marine works" is still ambiguous. It should refers to "works within a certain distance" and not "the distance itself."
- (3) Programme: the program chart should make good so that the status of the silt screens between installation and removal, i.e., functioning (with maintenance etc.) also indicated, which can tally with the description in Section 4.1 (i.e. maintenance of silt screen).

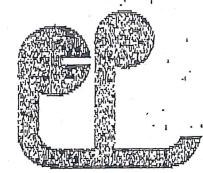
Yours faithfully,

Ma Chi Wan
 (Billy C.W. MA)
 Environmental Protection Officer
 for Director of Environmental Protection

收件處
OUR REF: (2) in EP2/H4/S3/15 Pt.32
來函信號: CL0907/03.09.00.00/10107/L
YOUR REF: 2835 2390
電話: 2591 0558
FAX NO.:
傳真: 2591 0558
電子郵件: [E-MAIL:](http://www.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
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修頓中心廿八樓



Urgent by Fax : 2587 1878

11 September 2014

Chun Wo - Leader Joint Venture
P.O. Box No. 28947,
Gloucester Road Post Office,
Hong Kong

(Attn.: Simon Liu - Site Agent)

| |
|--------------------------------|
| Chun Wo - Leader Joint Venture |
| RECEIVED |
| 12 SEP 2014 |
| LETTER REF. NO. WC023828 |
| V.O./S.I. NO. |

Dear Sir,

Environmental Impact Assessment (EIA) Ordinance, Cap.499
Environmental Permit (EP) No. FEP-02/356/2009
Wan Chai Development Phase II - Central-Wan Chai Bypass at
Hong Kong Convention and Exhibition Centre
EP Condition 2.9: Silt Screen Deployment Plan (Rev.6)

I refer to your letter under reference dated 19 August 2014, depositing the captioned submission as per Condition 2.9 of Further Environmental Permit No. FEP-02/356/2009, reproduced below for your reference.

After consulting our Water Assessment Section, we find the submission needs to be revised as per our comments below:

- (1) Some figures and texts in the appendixes (e.g. App.A - Location Plan; App.F - Arrangement of Access Provision for Water Monitoring, etc) are so blurred and not easy to read, please provide figures with higher resolution;
- (2) Please add a paragraph to outline why amendment of plan is necessary at, say section 1.1 Introduction, to facilitate the general reader to follow the logic; and
- (3) Please review the submission to ensure the general fluency and to prevent minor grammatical mistakes.

Yours faithfully,

Ma Chi-wai

(Billy C.W. MA)
Environmental Protection Officer
for Director of Environmental Protection