



Contract No. HY/2009/15

Shatin to Central Link – Protection Works at Causeway Bay Typhoon Shelter

CONTRACT HY/2009/15

CENTRAL – WAN CHAI BYPASS

TUNNEL (CAUSEWAY BAY TYPHOON SHELTER SECTION)

SHATIN TO CENTRAL LINK PROTECTION WORKS (ENTRUSTED TO HY/2009/15)

Silt Screen Deployment Plan

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1.0 Introduction

The purpose of this plan is to illustrate the design, installation and subsequent maintenance procedures of the silt screens to be deployed during the protection works at Causeway Bay Typhoon Shelter for the Shatin to Central Link in accordance with the contract requirement and the condition stipulated in the Environmental Permit No. EP-416/2011. Under the EP condition 2.8, silt screens shall be provided as protection for the existing cooling seawater intakes, including intake for the Excelsior Hotel & World Trade Centre/No.27-63 Paterson Street (Excelsior Intake), and intake for the Windsor House (Windsor House Intake).

The silt screens for Excelsior Intake and Windsor House Intake were designed and constructed by CHEC-CRBC JV, the Main Contractor for the Contract No. HY/2009/11. China State Construction Engineer (Hong Kong) Limited (CSHK), the Main Contractor for the Contract No. HY/2009/15, was responsible for the operation, maintenance and removal of the silt screens.

A meeting was held on 20 May 2011 between representatives from The Excelsior, Kai Shing Management Services Ltd (Property management group for Excelsior Hotel and World Trade Centre), CHEC-CRBCJV, CSHK with Engineer's Representative and Environmental Team. Excelsior Hotel's representative advised that the Excelsior Intake was no longer in use and the valves inside the pumping station had been closed. As a result to the abandonment of seawater intake, the removal of silt screen for Excelsior Intake was taken place on 21 May 2011 and intake water quality impact monitoring was terminated from 26 May 2011. Notes of the meeting have been attached in Appendix D.

On 23 May 2011, the silt screen for Windsor House Intake was handed over to CSHK for subsequent operation, maintenance and removal. Instruction of silt screen take over has been attached in Appendix E.

2.0 General Layout of Silt Screen

For the Windsor House Intake, the geotextile will be installed at a wall-mounted steel frame. The geotextile can be removed for regular cleaning or maintenance. The location plan of silt screen for the two intakes is appended in Appendix A.

3.0 Maintenance Schedule

The maintenance schedule of the silt screens refers to the table below.

Maintenance Period	
From	To
October 2011	End of Contract

4.0 Maintenance

- 4.1 For Windsor House Intake, site foreman and supervisors will be assigned to check the condition of the silt screens at daily intervals during the course of the marine works. While floating refuse around the silt screens will be collected to avoid blockage of sea water flow by floating debris. Checklist for Windsor house Intake has been designed to standardize the inspection and the format of the inspection checklist is enclosed in Appendix B. All completed checklists shall be kept for record.
- 4.2 If any of the silt screens is found damaged and repairing works are identified as necessary, all marine works within the region 50m from the corresponding intake would be temporarily ceased. The silt screens would be lifted up from the sea by using chain block pulley system and with the aid of crane barge if necessary so that the damaged parts (e.g. geotextile filter, steel mesh, etc.) of the silt screens can be repaired/replaced.
- 4.3 The ceased marine works as mentioned will only be resumed after the damaged silt screen is satisfactorily repaired.
- 4.4 Spare geotextile materials and other associated components will be stored on site for readily repairing/replacement in case of damages.

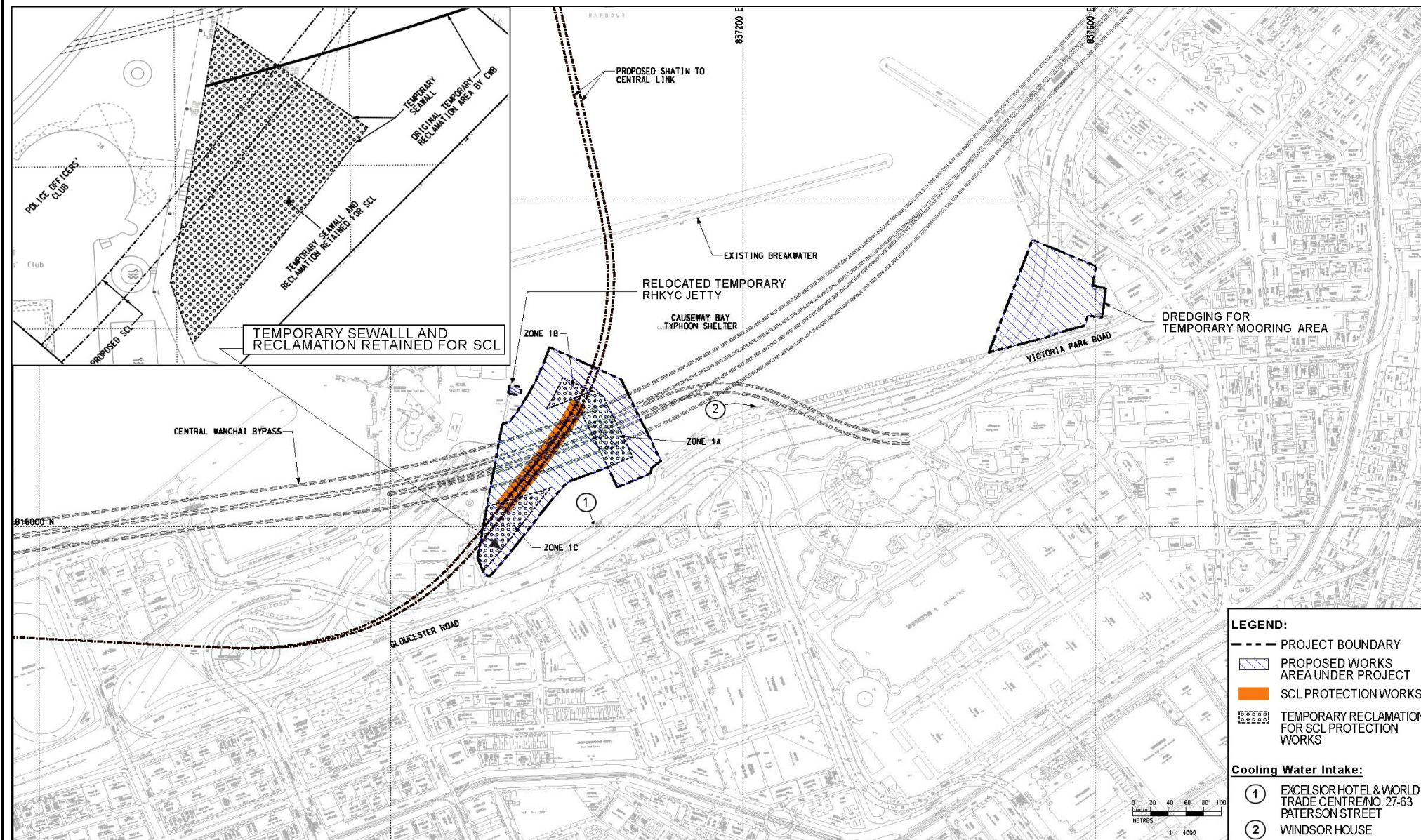
5.0 Technical Details and Materials of Silt Screen

The details of silt screen design and materials are attached in Appendix C.

6.0 Appendices

- 6.1 Appendix A – Silt Screen Location Plan
- 6.2 Appendix B – Daily Inspection Checklist
- 6.3 Appendix C – Technical Details and Materials for Silt Screen
- 6.4 Appendix D – Notes of Liaison Meeting for Silt Screen Removal after the Decommissioning of Cooling Water Intake for the Excelsior Hotel & World Trade Centre
- 6.5 Appendix E – Instruction of Take Over Silt Screen at Windsor House Cooling Water Intake

Appendix A – Silt Screen Location Plan



Project Title : ShaTin to Central Link Protection Works at Causeway Bay Typhoon Shelter
工程項目名稱：沙田至中環綫位於銅鑼灣避風塘內之保護工程

Environmental Permit No. : EP-416/2011
環境許可證編號 : EP-416/2011

Figure 1: Location of the Project
圖 1: 工程項目位置

(This figure was prepared based on Figure NEX2213/C/331/ENS/M50/501 of EIA report (Register No.: AEIAR-159/2011))
 (本圖是根據環評報告(登記冊編號 AEIAR-159/2011) 圖 NEX2213/C/331/ENS/M50/501 編制)

Appendix B – Daily Inspection Checklist

Silt Screen每日檢查表

位置: Windsor House Cooling Water Intake 編號: _____

日期: _____ 檢查員: _____

	星期 一	星期 二	星期 三	星期 四	星期 五	星期 六
1. 整潔						
1.1 沒有垃圾在浮架內						
1.2 已清理架內垃圾						
1.3 其它 (請註明):						
2. 鐵架狀況						
2.1 鐵架沒有損壞						
2.2 鐵架接口沒有損壞						
2.3 螺絲沒有鬆脫						
2.4 其它 (請註明):						
3. 隔泥布狀況						
3.1 隔泥布沒有損壞						
3.2 隔泥布沒有鬆脫						
3.3 其它 (請註明):						
簽署:						

說明: ✓ = 滿意 x = 不滿意須改善 - = 不適用

Appendix C

Technical Details and Materials for Silt Screen



CHEC-CRBC JV



Date : 8th October 2010
Our Ref. : CHEC-CRBC JV/C-257/01.22/001669

AECOM
8/F., Grand Central Plaza
Tower2, 138 Shatin Rural Committee Road
Shatin, Hong Kong

Attn.: Mr. David Kwan

Dear Sir,

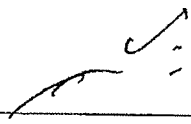
Contract No. HY/2009/11
Central-Wan Chai Bypass – North Point Reclamation
Construction of silt screen at seawater intake for the Windsor House

Further to the joint meeting with the representatives of Highways Department, AECOM/RSS, the Windsor House and our colleagues on 5th October 2010, we will carry out the construction works of silt screen at seawater intake for the Windsor House and please find the following documents provided herewith for your information and onward processing:

- 1) Sketches of silt screen at seawater intake for the Windsor House;
- 2) A copy of details of anchor bolt and
- 3) A copy of details of material for silt screen.

Thank you for your kind attention.

Yours faithfully,
For and on behalf of
China Harbour Engineering Company Limited –
China Road and Bridge Corporation Joint Venture

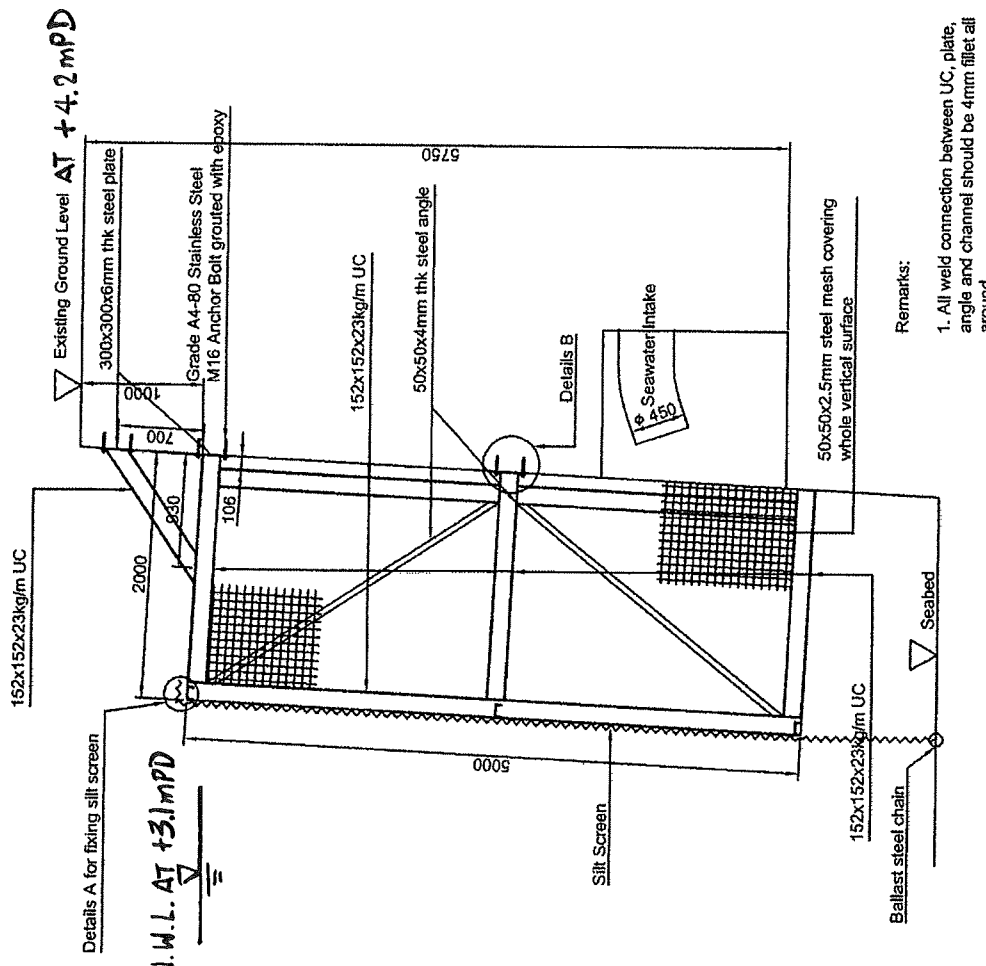


Daniel Cheung
Site Agent

Encl.

DC/JC/WCM/sy

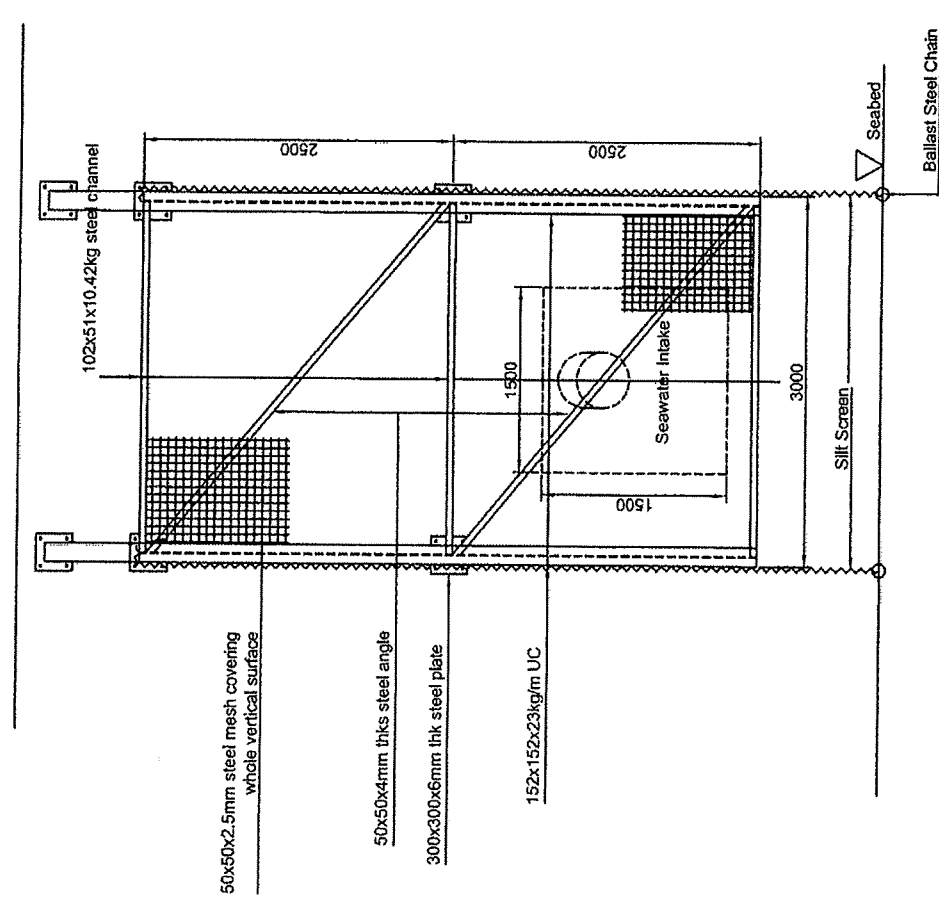
c.c. AECOM – Mr. Kelvin Cheng



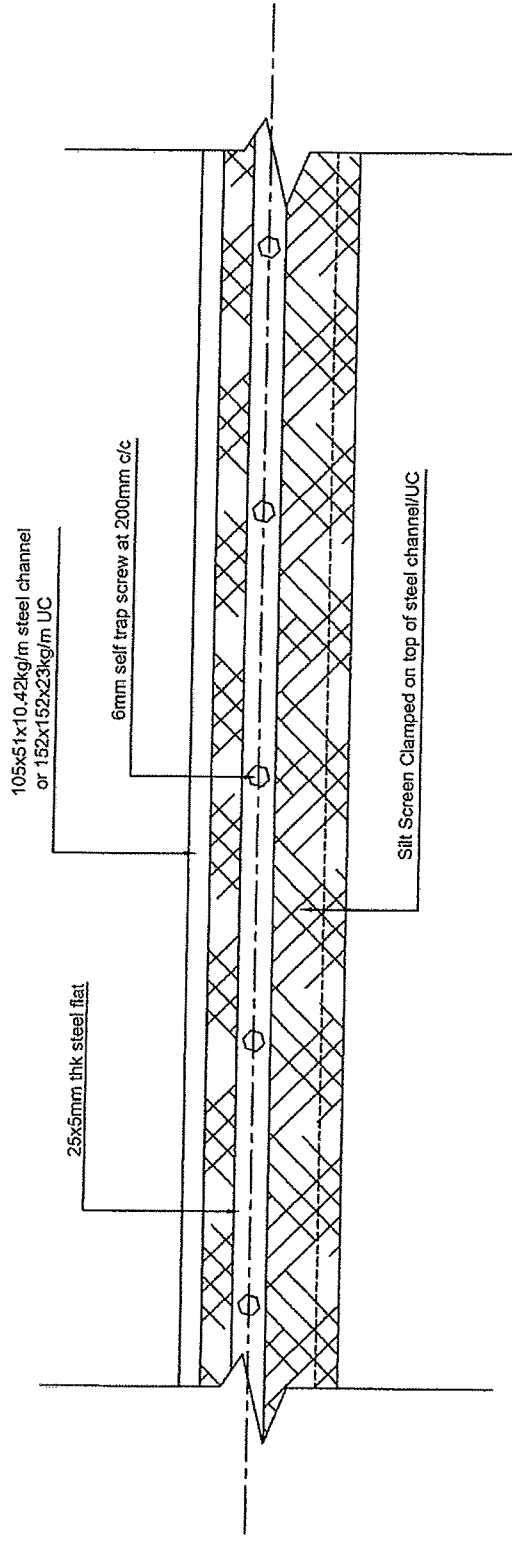
Remarks:

1. All weld connection between UC, plate, angle and channel should be 4mm fillet all around.
2. All units are in millimeter.
3. All steel should be Grade 43A
4. Silt Screen should cover from top of steel frame down to existing seabed

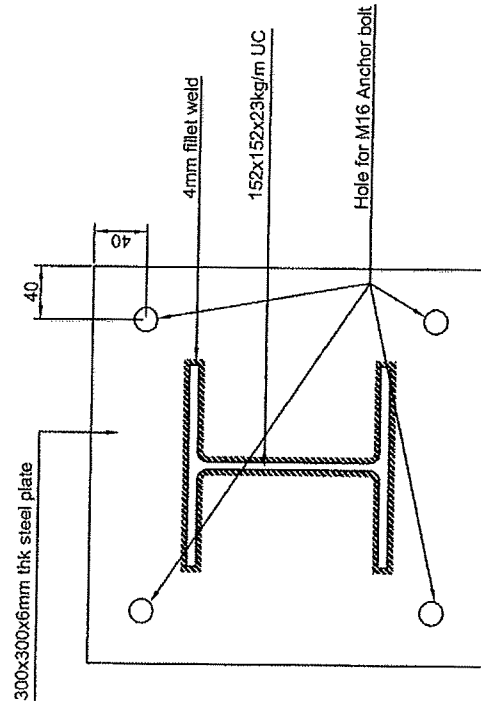
Side View of Screen at Seawater Intake



Elevation View of Screen at Seawater Intake



Details A



Details B



CHEC-CRBC JV



Date : 8th October 2010
Our Ref. : CHEC-CRBC JV/C-257/01.22/001668

AECOM
8/F., Grand Central Plaza
Tower2, 138 Shatin Rural Committee Road
Shatin, Hong Kong

Attn.: Mr. David Kwan

Dear Sir,

Contract No. HY/2009/11
Central-Wan Chai Bypass – North Point Reclamation
Construction of silt screen at seawater intake for the Excelsior

Further to the joint meeting with the representatives of Highways Department, AECOM/RSS, the Excelsior and our colleagues on 5th October 2010, we will carry out the construction works of silt screen at seawater intake for the Excelsior and please find the following documents provided herewith for your information and onward processing:

- 1) Sketches of silt screen at seawater intake for the Excelsior;
- 2) A copy of details of anchor bolt and
- 3) A copy of details of material for silt screen.

Thank you for your kind attention.

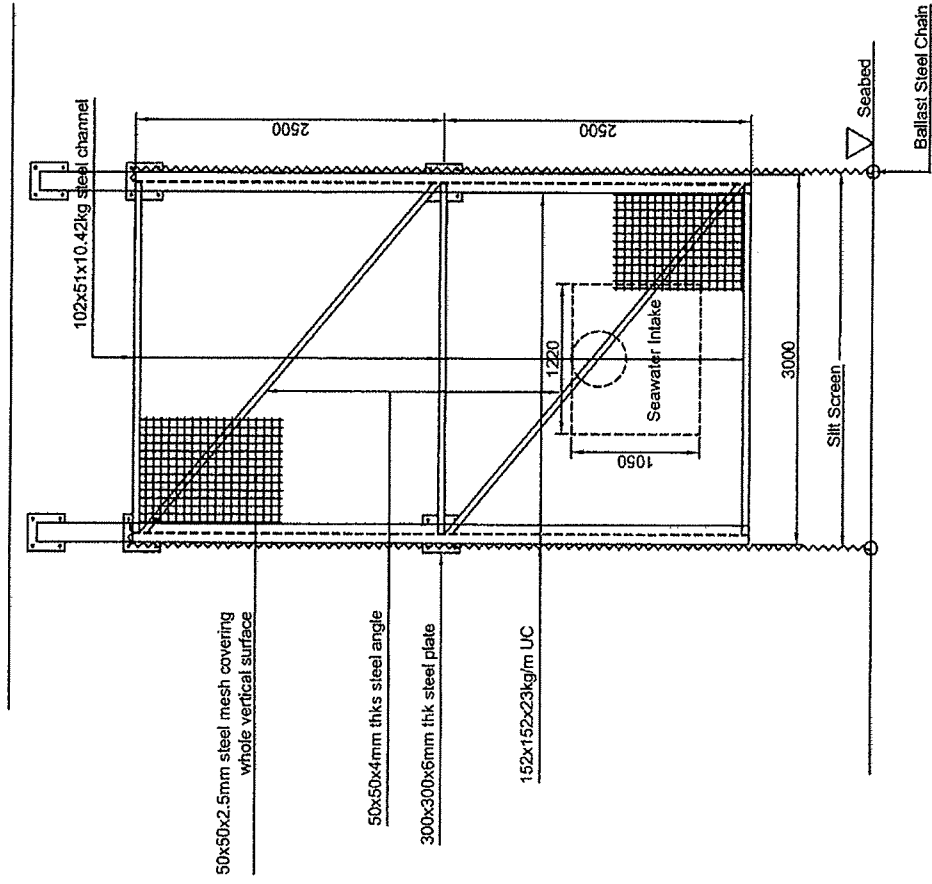
Yours faithfully,
For and on behalf of
China Harbour Engineering Company Limited –
China Road and Bridge Corporation Joint Venture

Daniel Cheung
Site Agent

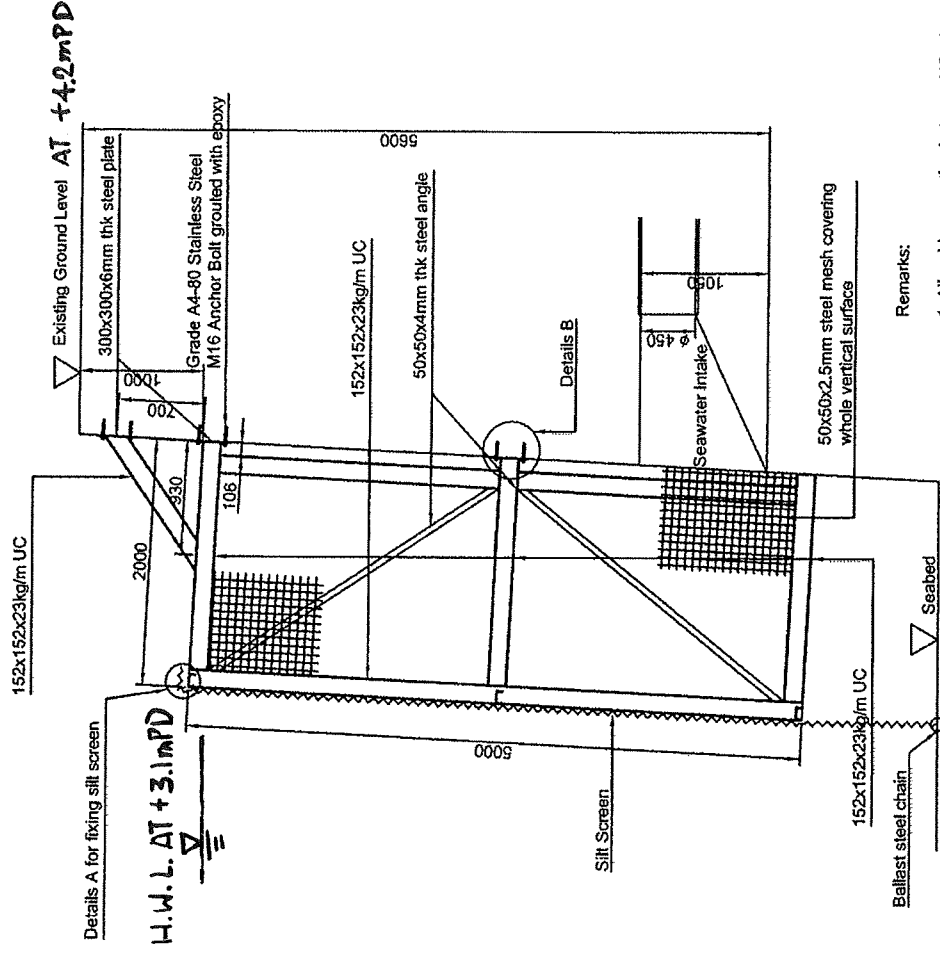
Encl.

DC/JC/WCM/sy
WCM

c.c. AECOM – Mr. Kelvin Cheng



Elevation View of Screen at Seawater Intake



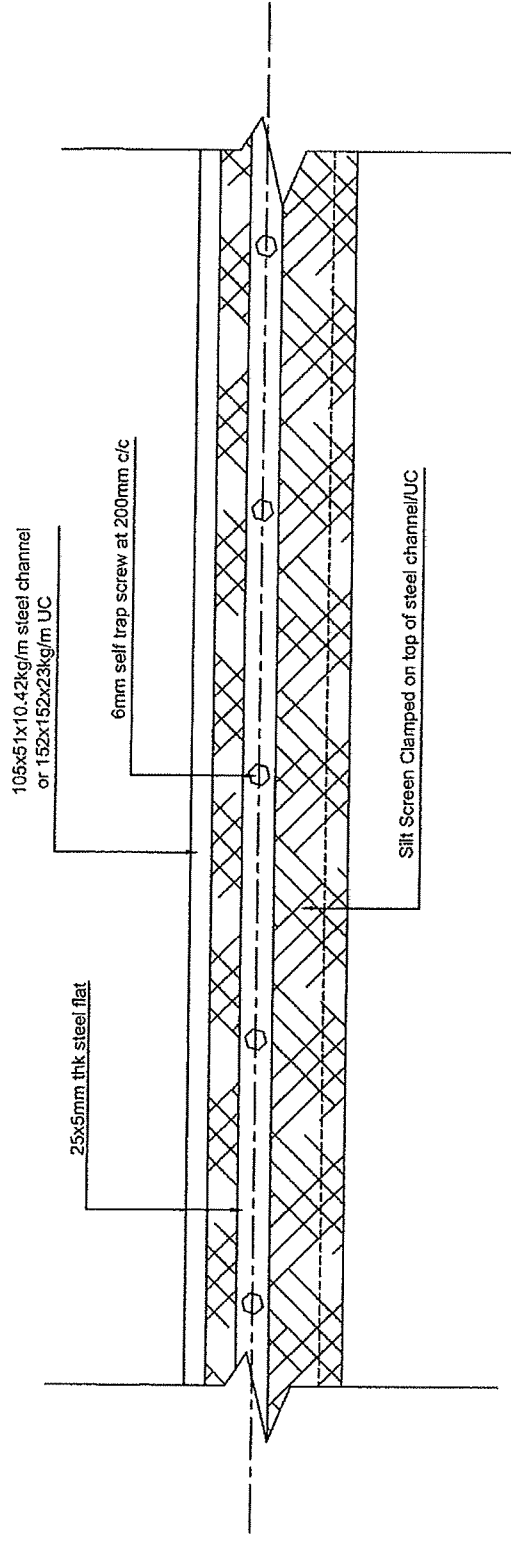
Side View of Screen at Seawater Intake

Remarks:

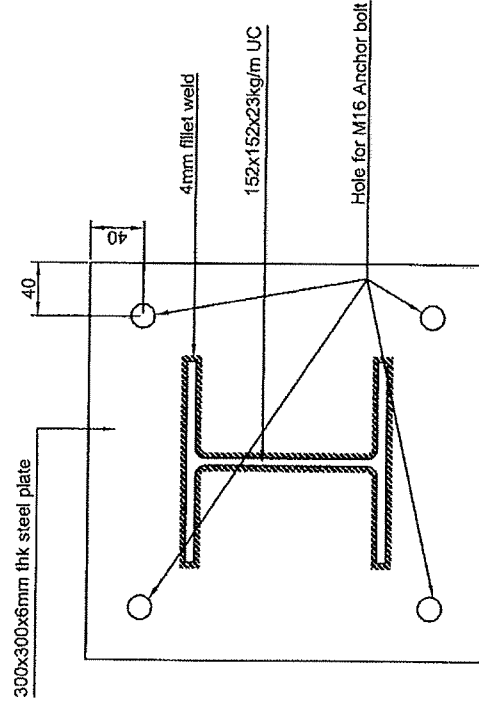
1. All weld connection between UC, plate, angle and channel should be 4mm fillet all around.
2. All units are in millimeter.
3. All steel should be Grade 43A
4. Silt Screen should cover from top of steel frame down to existing seabed

Silt Screen at Seawater Intake for The Excelsior(Sheet 1 of 2)

Sketch No. SK1A



Details A



Details B

HIT-RE 500 injection adhesive

Base material

- Concrete
- Hard natural stone
- Solid blockwork

Use

- Suitable to achieve high loads in concrete and stone
- For fixing the base of tower crane
- For fixing the fender in terminals
- For fixing post-installed rebar up to Y40 and anchor rod up M39
- For underwater application

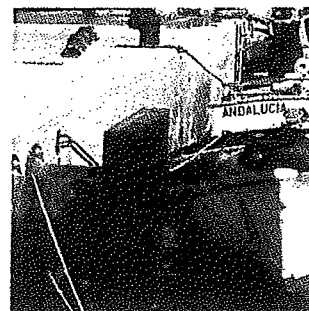
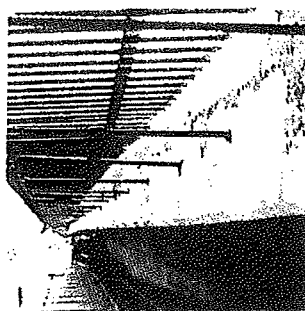
Material

- 2-component ready mix epoxy resin (styrene-free)

Curing Time

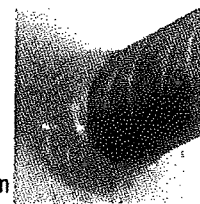
Temperature of the base material	Working time	Curing time
40°C	12 min.	4 hours
30°C	20 min.	8 hours
20°C	30 min.	12 hour
10°C	2 hours	24 hours
0°C	3 hours	50 hours
-5°C	4 hours	72 hours
less than -5°C	Contact Hilti advisory service	

Approvals: (Rebar)

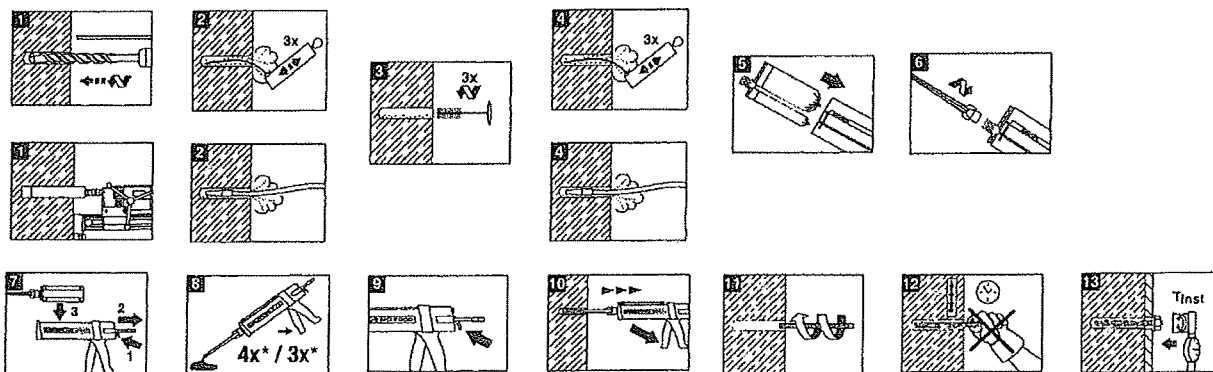


Benefits

- Extremely high performance without expansion pressure
- User-friendly, odourless (styrene free)
- Lower sensitivity to oversized, dusty, wet holes and diamond coring holes
- Red colour adhesive for easy on site inspection
- Foil pack design reduces disposal cost
- With NSF and WRAS approvals for use in contact with drinking water
- Short dispensing time



Installation procedures



* Throw away first three trigger pulls for 330 ml cartridge, four trigger pulls for 500 ml cartridge.

HIT-RE 500 programme

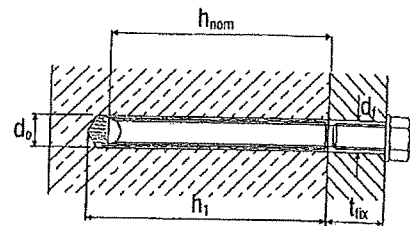


Description	Including	Content (ml)	Package (pcs)	Ordering designation	Item no.
HIT-RE 500	1 mixer	500	20	FOIL PACK RE 500 /500/1	369109
HIT-RE 500	1 mixer	330	25	FOIL PACK RE 500 /330/1	337109
HIT-RE-M mixer			100	HIT-RE-M	337111

HIT-RE 500 with HAS-E anchor rod

Material

- Steel strength grade 5.8 and 8.8 for M8 to M24 and M27 to M39 respectively, galvanized at least 5µm
- Steel strength grade 5.8 and 8.8 for M8 to M24 and M27 to M39 respectively, hot dip galv. to 45µm
- A4-70 and A4-50 stainless steel for M8 to M24 and M27 to M39 respectively.
- High corrosion resistance (HCR) (M8-M24)
- A5-80 stainless steel (on request)



Technical data

Recommended load, F_{30} (kN), non-cracked concrete at 30N/mm², safety factor(γ)=3

Model	Size	M8	M10	M12	M16	M20	M24	M27	M30	M33	M36	M39
HIT-RE 500 + HAS-E / -EF	Tensile Load, N_{te}	5.7	9.1	13.3	25.3	39.4	56.7	69.9	91.7	107.7	128.1	146.8
	Shear Load, V_{re}	3.6	5.8	8.4	15.8	24.8	35.7	75.2	91.3	113.9	133.6	160.7
HIT-RE 500 + HAS-ER / HCR	Tensile Load, N_{te}	8.1	12.5	17.9	26.0	47.1	67.9	66.8	81.1	101.1	118.7	142.7
	Shear Load, V_{re}	5.0	8.1	11.7	22.2	34.7	49.9	47.0	57.1	71.2	83.5	100.5

Remarks:

- 1) All the data applies to no edge distance, spacing and other influences
- 2) For detail design method please refer to Fastening Technology Manual
- 3) HAS-HCR anchor rod are only up to M24 only

Approvals: (Thread Rod)



HAS-E Programme

Thread dia. (mm)	Drill bit norm. dia., d _b (mm)	Min. hole depth, h ₁ (mm)	Anchor- age depth, h _{nom} (mm)	Tighten. torque T _{test} (Nm)	Max. fasten. thk. t _{th} (mm)	Clear- ance hole, d _i (mm)	Width across flats, S _w	Filling Volume (ml)	Package (pcs)	Order designation	Item no
HAS-E galvanized version (min. 5µm)											
M8	10	85	80	15	14	9	13	4	20	HAS-E M8x80/14	332219
M8	10	85	80	15	54	9	13	4	10	HAS-E M8x80/54	333099 *
M10	12	95	90	30	21	12	17	6	20	HAS-E M10x90/21	332220
M10	12	95	90	30	61	12	17	6	10	HAS-E M10x90/61	333100 *
M10	12	95	90	30	81	12	17	6	10	HAS-E M10x90/81	333101 *
M12	14	115	110	50	28	14	19	10	20	HAS-E M12x110/28	332221
M12	14	115	110	50	88	14	19	10	10	HAS-E M12x110/88	333102 *
M12	14	115	110	50	128	14	19	10	10	HAS-E M12x110/128	333103 *
M12	14	115	110	50	168	14	19	10	10	HAS-E M12x110/168	333104 *
M16	18	130	125	100	20	18	24	15	10	HAS-E M16x125/20	333105 *
M16	18	130	125	100	38	18	24	15	20	HAS-E M16x125/38	332222
M16	18	130	125	100	108	18	24	15	10	HAS-E M16x125/108	333106 *
M16	18	130	125	100	148	18	24	15	10	HAS-E M16x125/148	333107 *
M16	18	130	125	100	198	18	24	15	10	HAS-E M16x125/198	333108 *
M16	18	130	125	100	348	18	24	15	10	HAS-E M16x125/348	333109 *
M20	24	175	170	160	48	22	30	43	10	HAS-E M20x170/48	332223
M20	24	175	170	160	68	22	30	43	10	HAS-E M20x170/68	333110 *
M20	24	175	170	160	108	22	30	43	10	HAS-E M20x170/108	333111 *
M20	24	175	170	160	158	22	30	43	10	HAS-E M20x170/158	333112 *
M20	24	175	170	160	208	22	30	43	10	HAS-E M20x170/208	333113 *
M24	28	215	210	240	54	26	36	65	10	HAS-E M24x210/54	332224
M27	30	250	240	270	60	30	41	71	4	HAS-E M27x240/60	333114 *
M30	35	280	270	300	70	33	46	124	4	HAS-E M30x270/70	333115 *
M33	37	310	300	1200	80	36	50	140	4	HAS-E M33x300/80	333116 *
M36	40	340	330	1500	90	39	55	160	2	HAS-E M36x330/90	333117 *
M39	42	370	360	1800	100	42	59	160	2	HAS-E M39x360/100	333118 *

Thread d.a. (mm)	Drill bit nom. dia., d _b (mm)	Min. hole depth, h ₁ (mm)	Anchorage depth, h ₂ (mm)	Tighten. torque T _{ax} (Nm)	Max. fasten. thk. t _{ax} (mm)	Clear- ance hole, d _r (mm)	Width across flats, S _w	Filling Volume (ml)	Package (pcs)	Order designation	Item no
HAS-EF hot dip galvanized version (min. 45µm)											
M8	10	85	80	15	14	9	13	4	20	HAS-EF M8x80/14	333143★
M8	10	85	80	15	54	9	13	4	10	HAS-EF M8x80/54	333144★
M10	12	95	90	30	21	12	17	6	20	HAS-EF M10x90/21	333145★
M10	12	95	90	30	61	12	17	6	10	HAS-EF M10x90/61	333146★
M10	12	95	90	30	81	12	17	6	10	HAS-EF M10x90/81	333147★
M12	14	115	110	50	28	14	19	10	10	HAS-EF M12x110/28	333148★
M12	14	115	110	50	88	14	19	10	20	HAS-EF M12x110/88	333149★
M12	14	115	110	50	128	14	19	10	10	HAS-EF M12x110/128	333150★
M12	14	115	110	50	168	14	19	10	10	HAS-EF M12x110/168	333151★
M16	18	130	125	100	20	18	24	15	10	HAS-EF M16x125/20	333152★
M16	18	130	125	100	38	18	24	15	10	HAS-EF M16x125/38	333153★
M16	18	130	125	100	108	18	24	15	10	HAS-EF M16x125/108	333154★
M16	18	130	125	100	148	18	24	15	10	HAS-EF M16x125/148	333155★
M16	18	130	125	100	198	18	24	15	10	HAS-EF M16x125/198	333156★
M16	18	130	125	100	348	18	24	15	10	HAS-EF M16x125/348	333157★

HAS-EF hot dip galvanized version (min. 45µm)											
M20	24	175	170	160	48	22	30	43	10	HAS-EF M20x170/48	333158★
M20	24	175	170	160	68	22	30	43	10	HAS-EF M20x170/68	333159★
M20	24	175	170	160	108	22	30	43	10	HAS-EF M20x170/108	333160★
M20	24	175	170	160	158	22	30	43	10	HAS-EF M20x170/158	333161★
M20	24	175	170	160	208	22	30	43	10	HAS-EF M20x170/208	333162★
M24	28	215	210	240	54	26	36	65	10	HAS-EF M24x210/54	333163★
M27	30	250	240	270	60	30	41	71	4	HAS-EF M27x240/60	333164★
M30	35	280	270	300	70	33	46	124	4	HAS-EF M30x270/70	333165★
M33	37	310	300	1200	80	36	50	140	4	HAS-EF M33x300/80	333166★
M36	40	340	330	1500	90	39	55	160	2	HAS-EF M36x330/90	333167★
M39	42	370	360	1800	100	42	59	160	2	HAS-EF M39x360/100	333168★

HAS-ER A4 stainless steel version											
M8	10	85	80	15	14	9	13	4	20	HAS-ER M8x80/14	333119
M8	10	85	80	15	54	9	13	4	10	HAS-ER M8x80/54	333120★
M8	10	85	80	15	114	9	13	4	10	HAS-ER M8x80/114	333121★
M10	12	95	90	30	21	12	17	6	20	HAS-ER M10x90/21	333122
M10	12	95	90	30	61	12	17	6	10	HAS-ER M10x90/61	333123★
M10	12	95	90	30	81	12	17	6	10	HAS-ER M10x90/81	333124★
M10	12	95	90	30	111	12	17	6	10	HAS-ER M10x90/111	333125★
M12	14	115	110	50	28	14	19	10	20	HAS-ER M12x110/28	333126
M12	14	115	110	50	88	14	19	10	10	HAS-ER M12x110/88	333127★
M12	14	115	110	50	128	14	19	10	10	HAS-ER M12x110/128	333128★
M12	14	115	110	50	168	14	19	10	10	HAS-ER M12x110/168	333129★
M16	18	130	125	100	20	18	24	15	10	HAS-ER M16x125/20	333130★
M16	18	130	125	100	38	18	24	15	20	HAS-ER M16x125/38	333131★
M16	18	130	125	100	108	18	24	15	10	HAS-ER M16x125/108	333132★
M16	18	130	125	100	148	18	24	15	10	HAS-ER M16x125/148	333133★
M16	18	130	125	100	198	18	24	15	10	HAS-ER M16x125/198	333134★
M20	24	175	170	160	48	22	30	43	10	HAS-ER M20x170/48	333135
M20	24	175	170	160	108	22	30	43	10	HAS-ER M20x170/108	333136★
M24	28	215	210	240	54	26	36	65	10	HAS-ER M24x210/54	333137
M27	30	250	240	270	60	30	41	71	4	HAS-ER M27x240/60	333138★
M30	35	280	270	300	70	33	46	124	4	HAS-ER M30x270/70	333139★
M33	37	310	300	1200	80	36	50	140	4	HAS-ER M33x300/80	333140★
M36	40	340	330	1500	90	39	55	160	2	HAS-ER M36x330/90	333141★
M39	42	370	360	1800	100	42	59	160	2	HAS-ER M39x360/100	333142★

HAS-HCR high corrosion resistance material											
M8	10	85	80	15	14	9	13	4	20	HAS-HCR M8x80/14	229504★
M10	12	95	90	30	21	12	17	6	10	HAS-HCR M10x90/21	229505★
M12	14	115	110	50	28	14	19	10	10	HAS-HCR M12x110/28	229506★
M16	18	130	125	100	38	18	24	15	5	HAS-HCR M16x125/38	229507★
M20	24	175	170	160	48	22	30	43	5	HAS-HCR M20x170/48	229508★
M24	28	215	210	240	54	26	36	65	5	HAS-HCR M24x210/54	229509★

Anchor
bolt



Silt Curtain
Bontec SG100/100

April 2007



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- 1) **Manufacturer Company Profile**

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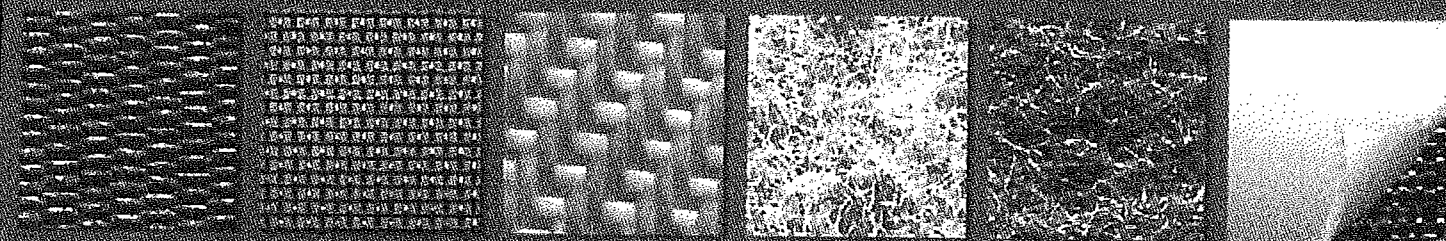
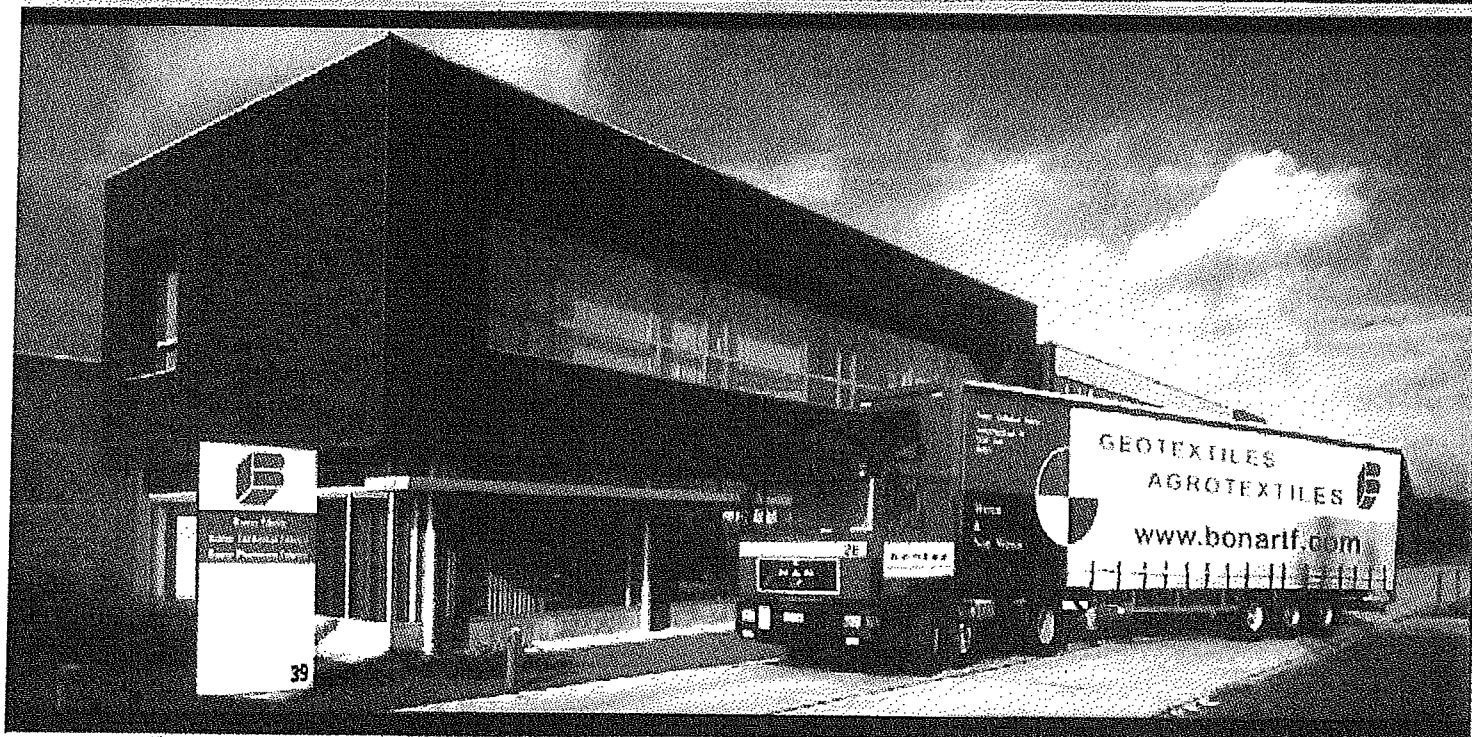
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Manufacturer Company Profile



WE UNDERCOVER THE WORLD

bontec

woven and nonwoven geotextiles

A TOTAL RANGE OF GEOTEXTILES

WHY CHOOSE BONTEC® GEOTEXTILES ?



bontec
woven and nonwoven geotextiles

Bonar Technical Fabrics is Europe's premier manufacturer of woven and nonwoven geotextile products. Through our continuous commitment to quality, product development and production improvement, we have earned our position as a major player in our markets. Today, with over 30 years experience in the geosynthetics industry, and the full backing of our parent company, we are confident that we will continue to grow our business and remain at the forefront of our markets for many years ahead.

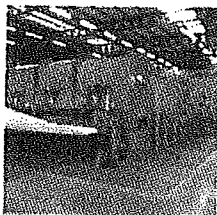
Manufactured under the brand name Bontec®, using state of the art geotextile production technology, our woven and nonwoven geotextile ranges offer product solutions for the functions of Separation, Filtration, Drainage, Erosion Control, Reinforcement and Protection.



Fibre Extrusion

■ In-house Fibre Production

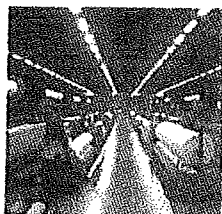
Fibre production involves the extrusion of continuous filaments that are then cut into short staple fibres. Through the careful identification of fibre formulation, filament density and staple fibre length, we can ensure that the mechanical and hydraulic properties are maximised for each of our nonwoven product ranges.



Non woven geotextiles

■ Nonwoven Geotextile Production

Using ultra modern needle punching looms and a unique thermal bonding process, our nonwoven geotextile production involves the processing of a uniform web of staple fibres that are orientated and bonded to form a finished sheet product.



Woven geotextiles

■ Woven Geotextile Production

Polypropylene tapes are manufactured in our slit film extrusion department prior to being woven on Sulzer looms. The warp tapes (machine direction) are beamed into the loom and the weft tapes (cross-machine direction) are threaded over and under alternate elements. The woven product that emerges offers very high mechanical strengths per unit weight.



State of the art laboratory

■ Quality and the Environment

All plants operate in accordance with an ISO 9001:2000 Quality Assurance System and ISO 14001 Environmental Management System. Products are tested internally in our fully equipped geosynthetics laboratory in accordance with the latest European and International standards.



First class customer service

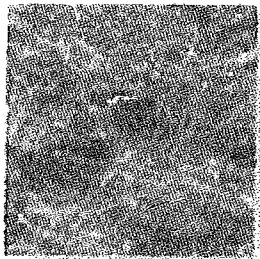
■ First Class Customer Service

At Bonar we believe the customer should be able to purchase the most appropriate product for his task. As such our staff are readily available to offer a full service package from the initial product selection phase, through to final delivery and the provision of after sales support.



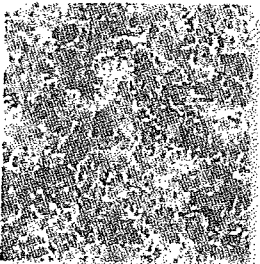
BONTEC®: A TOTAL RANGE OF GEOTEXTILES

NON-WOVEN GEOTEXTILES



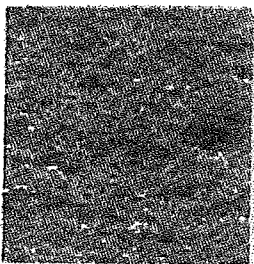
■ NW: Thermally Bonded Non Woven Geotextiles

Produced using mechanical and thermal bonding processes, the NW range is primarily used for lightweight separation and filtration. Their excellent hydraulic properties result in their preferred use in filtration applications. Typical uses include as a filter to encapsulate a trench drain or a granular drainage blanket.



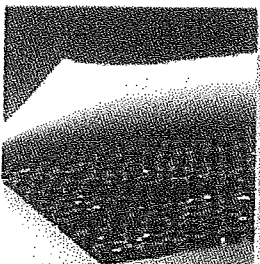
■ SNW: Superior Needle-punched Nonwoven Geotextiles

Made from white high tenacity fibres, the SNW range offers maximum performance per unit weight and is ideal for use in applications where both strength and elongation are key parameters of the geotextiles' performance.



■ VNW: Coloured Needle-punched Nonwoven Geotextiles

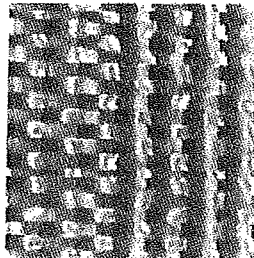
Produced using multi-coloured staple virgin fibres, products range from 200 to 1800g/m². VNW grades offer a felt like appearance and are used in the functions of protection, drainage and erosion control. Areas of application include membrane protection in landfill and reservoirs, or for erosion control on riverbanks and coastlines.



■ LG: Geocomposites

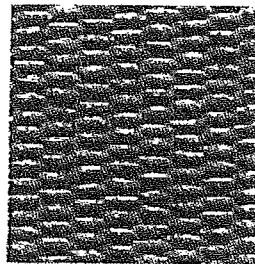
Produced via a combination of woven and nonwoven technology, the LG range offers the best of both product types in a single layer. The resulting products are ideally suited to uses where a high demand is placed on the geotextiles' strength, protection efficiency and physical robustness.

WOVEN GEOTEXTILES



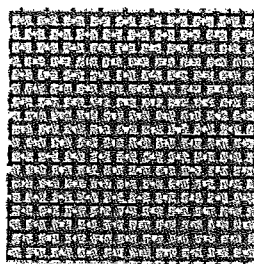
■ SG: Standard Grade Light weight Woven Geotextiles

Increasing from 70 to 200g/m² SG lightweights are used primarily for separation to prevent good quality granular fill intermixing with the poorer soil below. Typical uses include in new highways, car parks, airport runways, under stone foundation layers for new buildings etc.



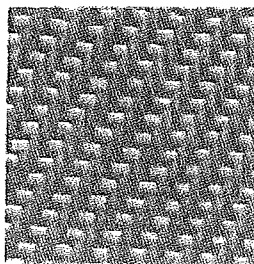
■ SG: Standard Grade Heavy weight Woven Geotextiles

With possible tensile strengths in excess of 200kN/m, SG heavyweight geotextiles are used in applications where the loadings are severe. Uses include short term basal reinforcement, coastal erosion schemes or areas requiring general soil stabilisation.



■ HF: High Flow Woven Geotextiles

Used where there exists a requirement for the quick escape of excess water, HF fabrics are used primarily in erosion control applications e.g. under concrete revetment blocks or between dissimilar layers of quick draining granular fill e.g. a coarse sand and rounded gravel.



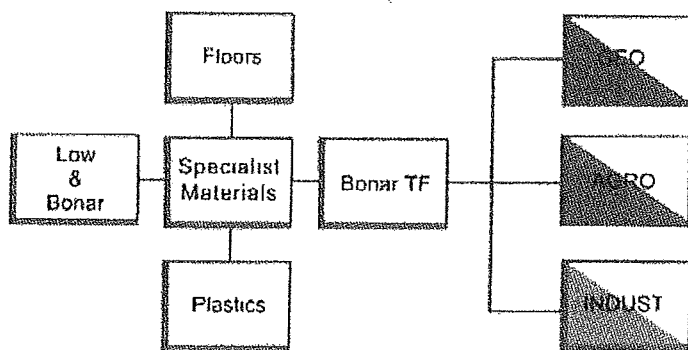
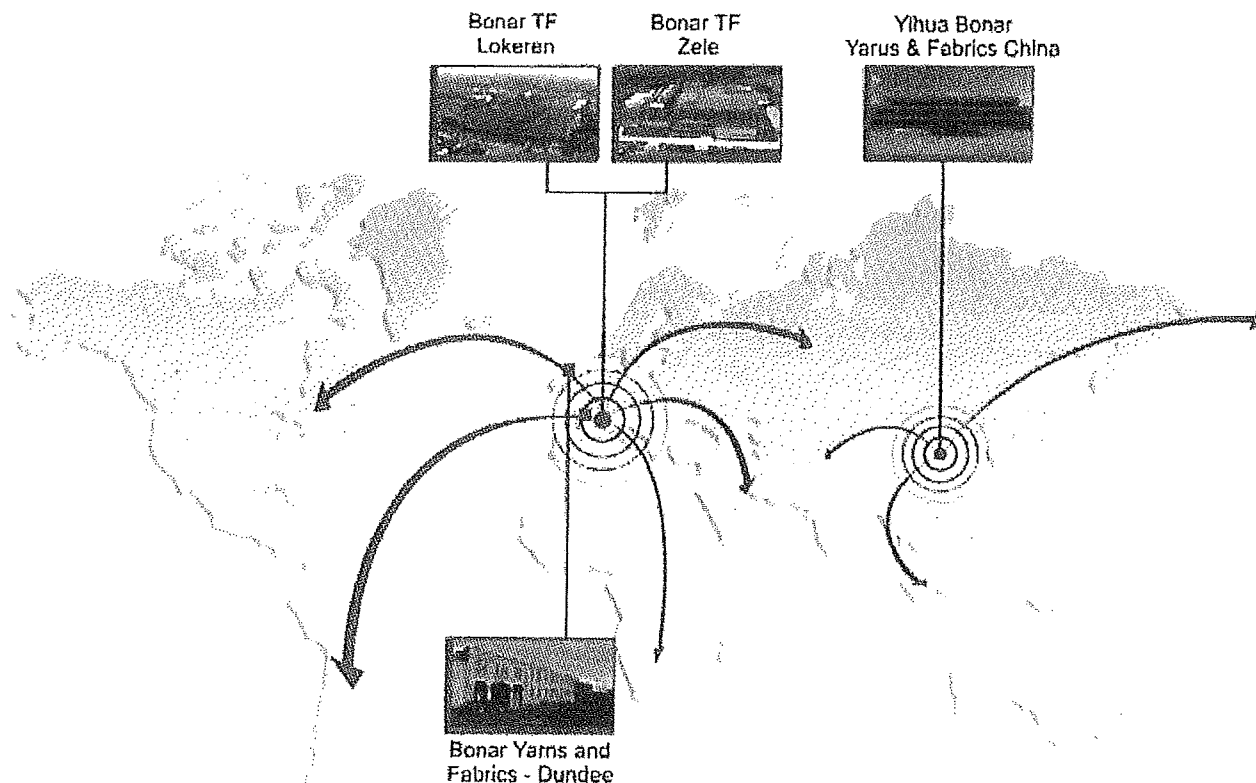
■ HS: High Strength Woven Geotextiles

Produced from high tenacity polyester yarns, the HS products offer tensile strengths up to 600kN/m combined with low extension and excellent creep characteristics. Applications include the reinforcement of vertical walls, steep slopes and embankments over soft soil with long term design lives.

bontec

woven and nonwoven geotextiles

GROUP STRUCTURE



Bonar Technical Fabrics is a division of **LOW & BONAR** plc, an international group that manufactures and supplies a wide range of products in the Specialist Materials, Flooring and Plastics markets

As part of the Specialist Materials division, Bonar TF focuses on the production of three distinct product ranges including geotextiles, agrotexiles, and technical textiles for the industrial and building sectors. Its headquarters are situated in the Belgian town of Zele, a short distance from the main ports of Antwerp, Zeebrugge and Rotterdam. This proximity assures clients quick and economic deliveries throughout the world.



BONAR TECHNICAL FABRICS NV/SA
P/A Industriestraat 39
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Bonar Yarns & Fabrics Ltd
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DD3 7EU
T. +44 (0)1382 346102
F. +44 (0)1382 229238
E-mail: geotextiles@bonaryarns.com

website: www.bonartf.com

Product Specification

bontec

a bonar technical fabrics product

SG 100/100

Technical data sheet according to internal specifications Bonar TF: version 03 dd. 17/02/03
Accompanying documents CE marking: version 01 dd. 01/10/02



1137
1137-CPD-601
03

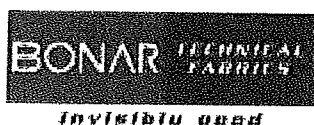
separation	filtration	reinforcement	protection	drainage

	test method	value	tolerance
Mechanical properties			
Tensile strength MD	EN ISO 10319	110 kN/m	- 9,9 kN/m
Tensile strength CD	EN ISO 10319	110 kN/m	- 9,9 kN/m
Elongation MD	EN ISO 10319	20 %	+/- 4,6 %
Elongation CD	EN ISO 10319	11 %	+/- 2,53 %
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	23×10^{-3} m/s	- $6,9 \times 10^{-3}$ m/s
Water flow normal to the plane (*)	EN ISO 11058	23 l/m ² .s	- 6,9 l/m ² .s
Characteristic opening size	EN ISO 12956	190 µm	+/- 57 µm
Physical properties			
Thickness under 2 kPa (*)	EN 964/1	1,53 mm	+/- 0,31 mm
Weight (*)	EN 965	475 g/m ²	+/- 47,5 g/m ²
Composition	100 % polypropylene woven geotextile		

Durability	<ul style="list-style-type: none"> geotextile has to be covered within 2 weeks after installation predicted to be durable for a minimum of 25 years in natural soil with $4 < \text{pH} < 9$ and soil temperatures $< 25^\circ\text{C}$.
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roads	railways	foundations & retaining walls	drainage systems	erosion control systems
EN 13249:2000	EN 13250:2000	EN 13251:2000	EN 13252:2000	EN 13253:2000
reservoirs & dams	canals	tunnels & underground structures	solid waste	liquid waste
EN 13254:2000	EN 13255:2000	EN 13256:2000	EN 13257:2000	EN 13265:2000

- This geotextile is intended for use in both functions & applications highlighted with a bold border.
 - Roll dimensions are 5,25 m x 100/200 m. Other dimensions on demand.
 - Bonar 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.
 - Although not guaranteed, these results do to the best of our knowledge offer a true and accurate record of the product's performance.
 - Bonar Technical Fabrics cannot accept responsibility for the performance of these products as the conditions of use are beyond our control.
- (*) Not mandated characteristics for CE marking.



BONAR Technical Fabrics nv/na
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E-mail: geotextiles@bonar-tf.com

BONAR Yarns & Fabrics Ltd
St. Salvador Street • Dundee DD1 7PU • United Kingdom
Tel +44 (0)1382 746702 • Fax +44 (0)1382 783378
E-mail: pp100@bonar-yarns.com

Specification Comparison

Particular Specification vs Bonar SG 100/100

Updated: 25/08/2006

Properties	Particular Specification		Bonar SG 100/100	
	Test Method	Technical Data	Test Method	Technical Data
Tensile strength MD	(mean value)	55 kN/m	EN ISO 10319	110 kN/m
Tensile strength CMD	(mean value)	55 kN/m	EN ISO 10319	110 kN/m
Elongation MD	-	-	EN ISO 10319	20%
Elongation CMD	-	-	EN ISO 10319	11%
Mass per unit area	(mean value)	330 g/m ²	EN 965	475 g/m ²
Thickness at 2kN/m ²	-	-	EN 964-1	1.53 mm
Dynamic perforation resistance	-	-	EN 918	10 mm
Resistance to static puncture	-	-	EN ISO 12236	12.5 kN
Opening size O90	(maximum value)	190 um	EN ISO 12956	190 um
Water permeability	-	-	EN ISO 11058	23 mm/s
Material	-	PP woven	-	PP woven
Roll width	-	-	-	5.25 m
Roll length	-	-	-	100 m

Certification

CERTIFICAAT KWALITEITSMANAGEMENTSYSTEEM

ISO 9001 : 2000

Hiermee verklaart BQA, nv dat het kwaliteitsmanagementsysteem van de firma
Bonar Technical Fabrics NV – Site in Zele en Lokeren

BONAR TF

waarvan de zetel gevestigd is Industriestraat 39 - 9240 Zele - België, op 02-05-2005 beoordeeld werd
en conform is met de norm ISO 9001, uitgave 2000, voor het volgende toepassingsgebied:

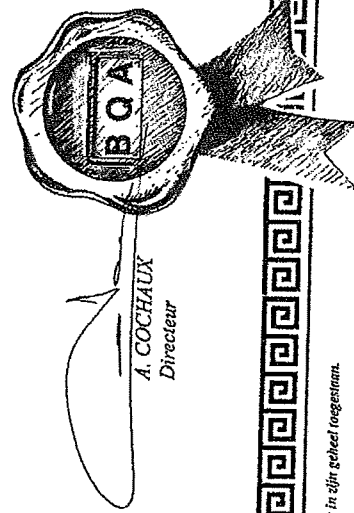
*Development, manufacture and sales of a standard range of fibres and textiles such as agrotexiles, building
textiles and geosynthetics, as well as similar products especially designed to customer specifications.*

Dit certificaat is door BQA, nv verstrekt conform zijn kwaliteitshandboek betreffende kwaliteits-
systeemcertificatie en na het afsluiten van het certificatiecontract N° ACIA/CER/02-05-2005/301,
waarbij de firma zich onderwerpt aan de regelmatige controle van haar kwaliteitsmanagementsysteem.

Certificaat N° C/02-05-2005/301
Geldig tot 02-05-2008



BQA N° QS 006



Iedere persoon die kennis heeft van misbruik van dit certificaat moet BQA, nv hiervan in kennis stellen. Het openbaar maken van dit certificaat is strafbaar in zijn geheel toegenomen.
BQA, nv - Montoyerstraat 24 bis 9 - 1000 Brussel.

ACIA/CER/02-05-2005

CERTIFICAAT MILIEUBEHEERSYSTEEM

ISO 14001 : 2004

Hiermee verklaart BQA, nv dat het kwaliteitssysteem van de firma
Bonar Technical Fabrics NV – Site in Zele en Lokeren



waarvan de zetel gevestigd is Industriestraat 39 – 9240 Zele – België, op 02-05-2005 beoordeeld werd
en conform is met de norm ISO 14001, uitgegeven 2004, voor het volgende toepassingsgebied:

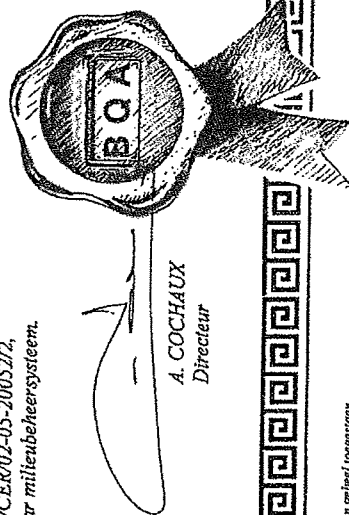
*Development, manufacture and sales of a standard range of fibres and textiles such as agrotexiles, building
textiles and geosynthetics, as well as similar products especially designed to customer specifications.*

Dit certificaat is door BQA, nv verstrekt conform zijn kwaliteitshandboek EMS betreffende milieubeheersysteem-
certificatie en na het afsluiten van het certificatiecontract N° AC/AJCER/02-05-2005/2,
waarbij de firma zich onderwerpt aan de regelmatige controle van haar milieubeheersysteem.

Certificaat N° C/02-05-2005
Geldig tot 02-05-2008



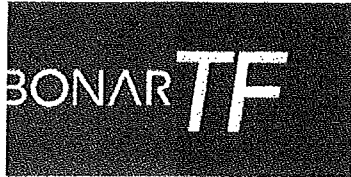
BQA N° 018 EMS



A. COCHAUX
Directeur

Iedere persoon die kennis heeft van gebruik van dit certificaat moet BQA, nv hiervan in kennis stellen. Het openbaar maken van dit certificaat is slechts in zijn geheel toegestaan.
BQA, nv – Montignystraat 24 (08) – 1000 Brussel

AC/AJC/02-05-2005



Exchange: +32 (0) 52 45 74 11
Geo. +32 (0) 52 45 74 87
Agro: +32 (0) 52 45 74 01
Carpet & Fibres +32 (0) 52 45 74 83
Accountancy +32 (0) 52 45 74 10
Purchase: +32 (0) 52 45 74 13
Fax General +32 (0) 52 45 74 54
Fax Geo/Carpet. +32 (0) 52 45 74 95
Fax Agro: +32 (0) 52 44 56 04
Fax purchase: +32 (0) 52 45 74 19
www.bonartf.com

Zele, 14.07.06

CERTIFICATION OF CONFORMANCE

The undersigned supplier BONAR TECHNICAL FABRICS, hereby states under his responsibility that the following product complies with the indicated technical properties :

L/C n°ICBC04M606896

Type SG 100/100 :	13125,0 m ²
Type VNW 200-PP-K	9773,2 m ²

Manufacturer : Bonar Technical Fabrics N.V

BONAR TECHNICAL FABRICS N.V.


BONAR TECHNICAL FABRICS N.V.
p/a Industriestraat 39
B-9240 Zele

BONAR TECHNICAL FABRICS nv/sa

Industriestraat 39 Zone Z2 • B-9240 Zele • BELGIUM • HR Dendermonde 57 031 • BTW/TVA BE 421 053 442 • Ondernemingsnummer: 0421 053 442



ING IBAN BE84 3900 9581 7059
BIC: BBRU BE BB

FORTIS IBAN BE45 2930 1911 2489
BIC: GEB ABE BB

KBC IBAN BE66 4400 0019 1143
BIC: KRED BE BB

ING BREDA IBAN NL34 BBRU 020 9944633
BIC: BBRUNL2X

bontec

A Bonar technical fabrics product

Fax

Date: 11-Aug-04	
To: G and E - Hong Kong Mr. Gary NG	From: Isabelle Ruyffelaere - 0032 52 457 487 Philippe Grimmelpez - 0032 52 457 486
Fax:	Pages: 1 +
Your reference: Bonar TF acquisition of Uco Technical Fabrics	
Our reference:	G&E11082004.fax

To Whom it may concern

We hereby confirm that Bonar acquired the company UCO Technical Fabrics in October 1996 and all activities of the manufacturing and sales of Woven and Non woven geotextiles.

The Company changed name to **BONAR TECHNICAL FABRICS**.

Its headquarters are moved to Industriestraat 39, 9240 Zele, Belgium. At the same location is a new manufacturing plant of non woven geotextiles based.

The plant where woven geotextiles are produced is based on the old UCO location: weverslaan 15, Lokeren, Belgium.

Should you require any further information, please do not hesitate to contact us.

Best regards


Philippe Grimmelpez
Sales & Marketing Manager geotextiles.



BONAR Technical Fabrics nv/sa
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St. Salvador Street • Dundee DD2 7BJ • United Kingdom
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E-mail nyul@bonaryarns.com

bontec

a bonar technical fabrics product

fax

Date: 14-Jun-05	
To: G and E – Hong Kong Mr. Gary NG / Mr Stanley	From: Isabelle Ruyffelaere – 0032 52 457 487 Philippe Grimmelprez – 0032 52 457 486
Fax:	Pages: 1 +
Your reference: SG 100/100	
Our reference: G&E06142005.fax	

Dear Gary,

- With reference to your inquiry of we hereby would like to confirm that:

Bontec SG 100/100 geotextile is woven in our vertical integrated plant in Belgium according the strict Iso 9001 : 2000 quality and ISO 14001 environmental system.

a/ The material is resistant to all naturally occurring soil acids and alkalis.

b/ The material is resistant to biological attack

c/ when used correctly (cfr installation guidelines), resistant to deterioration caused by the effects of exposure to weather and burial. The polymers contain special stabilizers to resist to normal UV and oxidation.

d/ this is stable over temperatures of 0 – 60 °C.

e/ The material is resistant to normal forces imposed during installation. Special forces that might occur during construction / installation must be given to Bonar so that special studies can be done.

Should you require any further information, please do not hesitate to contact us.

Best regards


Philippe Grimmelprez
Sales & Marketing Manager



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E-mail rguild@bonaryarns.com

Installation Guideline

BONTEC: Woven and Non Woven Geotextiles manufactured by Bonar Technical Fabrics – Belgium.



RECOMMENDATION FOR THE INSTALLATION OF GEOTEXTILES

- The **BONTEC** geotextiles shall be kept in its original packaging in order to protect it from damaging UV-rays and high temperatures.
- The **BONTEC** geotextiles shall be stored protected from wind, rain, excess moisture or sunlight.
- The **BONTEC** geotextiles shall only be unpacked just before use. The material shall be covered within 1 week
- The **BONTEC** geotextiles shall be labelled and show the following data :
 - roll number
 - quality
 - name of the manufacturer
 - roll length & width
 - roll weight
- The **BONTEC** geotextiles shall be laid with the longitudinal ascis down slopes
- A minimum overlap of 500 mm between the different sheets shall be respected. Sewing of the different fabrics shall be done with a double prayer stitching technique with non deteriorating thread.
- Wherever visibility or installation of the **BONTEC** geotextile is poor an extra safety overlap of +/- 1 m shall be respected
- The surfaces to be covered with **BONTEC** geotextiles shall be smooth and free of sticks, roots, sharp objects, and all debris that may damage the fabric. The surface to be covered shall be firm and unyielding, with no sudden changes or brakes in grade.
- The compacted sub-base shall be maintained in a smooth, uniform and compacted condition during installation of the fabric.
- In area' s where wind is prevalent, fabric installation shall be started at the upwind side of the project and proceed downwind. The leading edgeof the fabric shall be secured at all times with sandbags or other means sufficient to hold it down during high winds. Sandbags or rubber tires may be used as required to hold the fabric in position during installation. Tires shall not have exposedsteel cords or other sharp edges which may snag or cut the fabric. Materials, equipment or other items shall not be dragged across the fabric or be allowed to slide down slopes on the fabric.
- Should the fabric be damaged during any step of the installation, the damaged section shall be repaired by covering it with a piece of fabric which extends at least 0,6 meter in all directions beyond the damaged area. The fabric shall be secured as directed by the engineer.
- Smoking shall not be permitted by personnel working on the fabric.

List of Project Reference

Bonar

Date	Project	Client	Consultant	Style
Feb-05	CV/2003/06 Stanley Waterfront Improvement Project - Construction Pier and Boardwalk	* Sun Fook Kong (Civil) Ltd	Civil Engineering and Development Department	SG100/100 NW10
Feb-05	99/9028 Lamma Power Station	Wai Kee (Zens) Construction & Transportation Co Ltd	Maunsell Geotechnical Services Ltd	SG100/100
Feb-05	CV/2004/02 Reconst. of Wong Shek & Ko Lau Wan Public Piers	* Kin Shing Construction Co Ltd	Civil Engineering and Development Department	SG100/100
Apr-05	CV/2002/04 Penny's Bay Reclamation Stage 2	Gammon Skanska Ltd Shun Tat Construction Engineering Ltd	Scott Wilson Ltd	SG100/100 SG100/100
Apr-05	HK/12/02 CED, Central Reclamation Phase III, Engineering Works	Best Leader Engineering Ltd Leighton - China State - Van Oord Joint Venture	Atkins China Ltd	SG100/100 SG100/100
May-05	03/8013 Lamma Island to Cyberport	Leader Marine Contractors Ltd Honwin Engineering Ltd	Maunsell Geotechnical Services Ltd	SG100/100 SG100/100
Jul-05	Shenzhen to Tai Po Twin Submarine Gas Pipeline Project	Honwin Engineering Limited		SG100/100
Sep-05	TP37/03 Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 2A	Leader - Wai Kee (C&T) Joint Venture	Hyder Consulting Ltd	SG100/100
Nov-05	HY/2002/26 Stone Cutter's Bridge	r Hong Kong River Engineering Co Ltd	Ove Arup	SG100/100
Feb-06	CV/2005/12 Fill Reception Facilities at Tseung Kwan O Area 137 Quarry Bay and Mui Wo	Penta-Ocean Construction Co Ltd	Civil Engineering Department	SG100/100
Mar-06	Maintenance Dredging at Castle Peak Power Station (CPPS) Jetty	New Concepts Engineering Development Ltd	Civil Engineering Department	SG100/100
Mar-06	CV/2004/04	China Harbour Engineering	Civil Engineering	SG100/100

Bonar Woven Geotextile

		Co (Group)	Department	
Mar-06	HY/2005/06 Castle Peak Road Improvement West of Tsing Lung Tau	Shun Tat Construction Engineering Limited	Mouchel Halcrow JV	SG100/100
May-06	212 Main Works for the Proposed Third Golf Course Development at Kau Sai Chau, Sai Kung	China Harbour Engineering Co (Group)	Ove Arup and Partner	SG100/100 NW15
Jun-06	Hong Kong Convention and Exhibition Centre	Wai Kee (Zens) Construction & Transportation Co Ltd Kaden - Wai Kee (C&T) Joint Venture		SG100/100 SG100/100
Aug-06	EP/SP/52/06 Development of EcoPark in Tuen Mun Area 38	Kaden Construction Limited	Scott Wilson Ltd	SG100/100
Oct-06	Lamma Island Cable Landing	United Marine Co Ltd	Hong Kong Electric Co Ltd	SG100/100
Nov-06	CV/2004/01 Maintenance and Repairs to Seawalls, Piers and Other Port Works	Kin Shing Construction Co Ltd	Civil Engineering and Development Department	SG100/100
Dec-06		Friendly Benefit Engineering Ltd		SG100/100
Feb-07	Prebored Socketted H-Piles at Hong Kong Convention & Exhibition Centre	Yee Hop Engineering Co Ltd		SG100/100

March 12, 2007

Approval Letters

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

RECEIVED
24 JAN 2005

土木工程處
Civil Engineering Office

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E-mail 電子郵件 :
Telephone 電話 : (852) 2760 5737
Facsimile 傳真 : (852) 2714 2054
Our reference 本署編號 : () in PW WC/CV0402/R20/340 Pt.1
Your reference 來函編號 : KS330/2005

香港九龍公主道101號
土木工程拓展署大樓四樓
4/F, Civil Engineering and
Development Building,
101 Princess Margaret Road,
Kowloon, Hong Kong

Kin Shing Construction Company Limited
1/F,
27 Yin Chong Street,
Mong Kok
Kowloon
(Attn.: Mr. Patrick P K Chau - Site Agent)

24 January 2005

BY MAIL & FAX No. 2780 2085

Dear Sirs,

Contract No. CV/2004/02
Reconstruction of Wong Shek and Ko Lau Wan Public Piers

Material Submission - Geotextile for Silt Curtain

I refer to your letter of 14.1.2005 enclosing the particulars of the geotextile for fabrication of silt curtain.

In accordance with PS Clause 26.08(2), the proposed "SG 100/100" woven geotextile manufactured by Bonar Technical Fabrics is approved to be used under the captioned Contract.

Pursuant to PS Clause 26.08(1), you are required to submit details of the silt curtains 3 weeks before their deployment.

Contract No. CV/2004/02			
Post	Initial	Copy	Action
CM			
PM			
SA			
Sub-A			
Eng.(1)			
Eng.(2)			
Q.P.			
Forman			
Q.S.			
Safety			
Material			
Survey			

c.c.
SIOW/P2B - Site Copy

cls

Yours faithfully,

(W H LEE)

Engineer's Representative
Port Works Division
Civil Engineering and Development Department

24-FEB-2005 18:57 FROM SPK

TO 25700089

P.01/01

10'd 70101

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

Web site 網址 : <http://www.cedd.gov.hk>
 E-mail 電子郵件 :
 Telephone 電話 : (852) 2782 5035
 Facsimile 傳真 : (852) 2714 2054
 Our reference 本署編號 : (15) in PW WC/CV0306/R20/340 Pt.01
 Your reference 來函編號 : CIV/002091/1.2/HW/SY/CC/mc(S0118)

土木工程處
 Civil Engineering Office

香港九龍公主道 101 號
 土木工程發展大樓 4 樓
 4/F, Civil Engineering and
 Development Building,
 101 Princess Margaret Road,
 Kowloon, Hong Kong

18 February 2005

Sun Fook Kong (Civil) Limited
 Rms. 3207-10,
 Great Eagle Centre,
 23 Harbour Road,
 Wan Chai,
 Hong Kong
 (Attn: Mr. Howard KONG - Fax No. 2827 6275)

Dear Sirs,

Contract No. CV/2003/06
Stanley Waterfront Improvement Project -
Construction of Pier and Boardwalk

Fabric for Silt Curtain

I refer to your above letters dated 21.1.2005 and 15.2.2005 proposing the SG100/100 fabric supplied by "Bonar Technical Fabrics" for silt curtain.

I have no objection to your proposed material for silt curtain.

Yours faithfully,

Paul Y K MA
 (Paul Y K MA)

Engineer's Representative
 Port Works Division
 Civil Engineering and Development Department

c.c.
 Site Office (Attn: SLOW/PIA)
 CEG/PIA

File PW WC/CV0306/M10/300

YKMA/ma

Post-Net Fax Note	7871	Date	24/2/05
To	MR. STANLEY WAN	From	CIVIL ENG. SEC. - PA
Co./Dept.	G&E	Co.	SEK
Phone #	25060026	Phone #	6841703
Fax #	25700041	Fax #	

TOTAL P.01

Mott MacDonald Hong Kong Limited

Consulting Engineers

Chief Resident Engineer's Office
North Lantau Development - Tung Chung
for Territories Development Department

Our Ref : S287/NL1/25.7/283/JY

30 June 1992

China Harbour Engineering Company
19/F, China Harbour Building
370-374 King's Road
North Point
Hong Kong.

Attn : Mr. S. Y. Yu

T.D.O. CONTRACT NO. NL 1/91		
C. E. Dept.		
DATE	ACTION	INFORM
SA		llk
DSA		
QS		
ENG		
SUR		
FOREMAN		
FILE		llk

Dear Sirs,

North Lantau Development
Contract No. NL1/91
Tung Chung Development Phase I - Site Formation
Materials for Subsoil Drains

I refer to your letter ref. NL1/C/0097/008/MM/143 of 10/6/92 submitting materials for subsoil drains for our approval.

I have the following comments :

- 1) The proposed subsoil drain material - i.e. 300mm diameter ADS corrugated polyethylene subsoil drain pipes from Benpak Waterwise company is acceptable.
- 2) The proposed Geotextile SG17/15 from UCO (2 layers) as protection for subsoil drainage is acceptable in principal. Please submit further technical specification such as lapping and site storage requirements recommended by the manufacturer.
- 3) The proposed Greenfix Eromat Special type 5 from CCL is still under review. You will be notified of the outcome if a decision is made.

Yours faithfully
for MOTT MACDONALD HONG KONG LIMITED

Luke Chi

Luke Chi
Engineer's Representative

LC/JY/ak

21

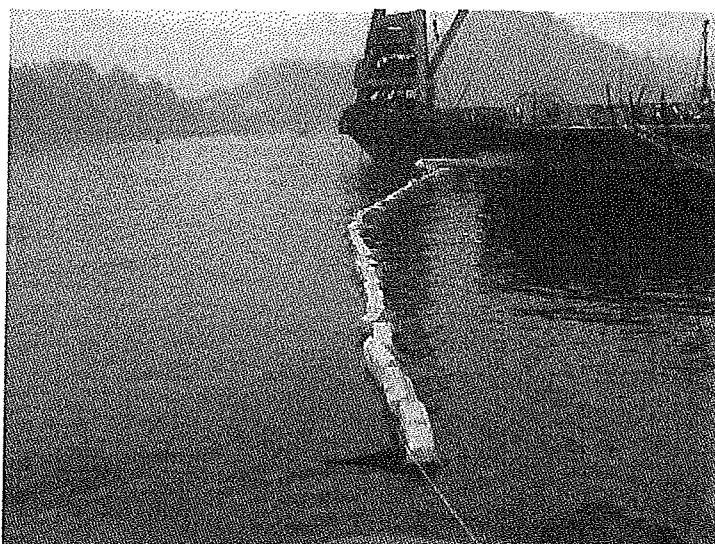
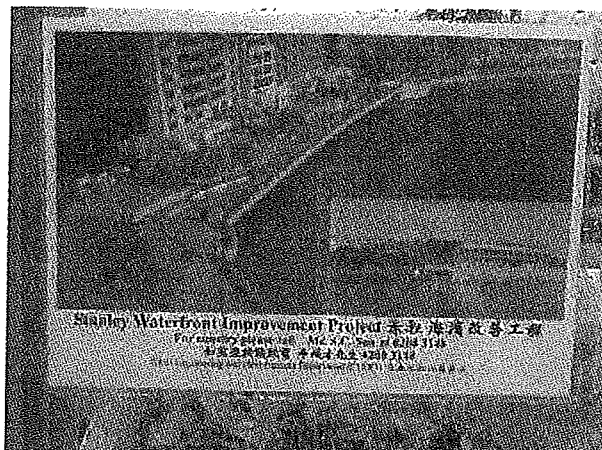
217
30/6

Photos References



G AND E COMPANY LIMITED

Rm. B, 13/F Cheung Lee Ind. Bldg.
9 Cheung Lee Street
Chai Wan, Hong Kong
Tel: 2508 0028 / 2570 0103 Fax: 2570 0089



Appendix D

Notes of Liaison Meeting for

Silt Screen Removal after the Decommissioning of

Cooling Water Intake for the Excelsior Hotel &

World Trade Centre

Your Ref. :
Our Ref. : CWB/(HY/2009/15)/M30/910/15B001371

21 May 2011



15B001371

See Distribution List

24 MAY 2011
M30/910

Dear Sir/ Madam,

Contract No. HY/2009/15
Central-Wan Chai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

Water Quality Monitoring Station C6 - Seawater Intakes for the Excelsior (and World Trade Centre)

I refer to the liaison meeting amongst Excelsior / Kai Shing / AECOM / ET / CSHK / CHEC CRBC JV held in 33/F Conference Room of the Excelsior on 17 May 2011.

The notes of the meeting is hereby attached for your reference.

Yours faithfully,
For and on behalf of
AECOM Asia Co. Ltd.

Peter Poon
Principal Resident Engineer

Encl.

c.c AECOM - Attn. : Mr. Conrad Ng
M45/150

PP/EW/QMY/gw

Distribution List

Company / Address	Contact Person
1. The Excelsior Hotel 281 Gloucester Road Causeway Bay Hong Kong	Attn: Mr. Raymond Ho
2. Kai Shing Management Services Ltd Room 1404, 14/F., World Trade Centre 280 Gloucester Road Causeway Bay Hong Kong	Attn: Ms. Margaret Lau/ Mr. Kelvin Tsang/ Mr. Cheng
3. Lam Environmental Services Ltd. 11/F, Centre Point 181-185 Gloucester Road Wan Chai, Hong Kong	Attn: Mr. Raymond Dai
4. CHEC-CRBC Joint Venture 19th Floor, China Harbour Building 370-374 King's Road North Point, Hong Kong	Attn: Mr. Daniel CHEUNG/ Mr. C M Wong
5. China State Construction Engineering (Hong Kong) Ltd. 29/F, China Overseas Building 139 Hennessy Road Wan Chai, H.K.	Attn: Mr. Simon Tang

Notes of Meeting

Meeting Date/Time: 17 May 2011, 11:00 a.m.

Venue: Conference Room, 33/F, The Excelsior

Project: (Contract no. HY/2009/15)
Central-Wan Chai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

Subject: Liaison meeting for silt screen removal after the Decommissioning of the Seawater Intakes for the Excelsior

Distribution: Excelsior, Kai Shing, ETL, CSHK, CHEC CRBC JV & AECOM

PRESENT:

Mr. Raymond Ho	}	The Excelsior, Hong Kong (Excelsior)
Ms. Margaret Lau	}	
Mr. Kelvin Tsang	}	Kai Shing Management Services Ltd (Kai Shing)
Mr. Cheung	}	
Mr. Eric Wong	}	
Mr. Y K Poon	}	AECOM Asia Co. Ltd (AECOM)
Mr. Ernest Wong	}	
Ms. Cherry Mak	}	Lam Environmental Services Ltd, Environmental Team (ET)
Mr. Samuel Tsui	}	China State Construction Engineering Ltd, The Contractor of HyD Contract No. HY/2009/15 (CSHK)
Mr. Daniel Cheung	}	China Harbour Engineering Co. Ltd. China Road and Bridge
Mr. C M Wong	}	Corporation Joint Venture The Contractor of HyD Contract No. HY/2009/11 (CHEC CRBC JV)

<u>NO.</u>	<u>ITEM</u>	<u>ACTION</u>
1.	Mr. Eric Wong (AECOM) briefly described the background of silt screen installation for seawater intakes (C6) for The Excelsior, which is a part of the environmental permit's requirements. CHEC CRBC JV was the party responsible for installation and maintenance of the silt screen at the seawater intakes for The Excelsior.	Noted
2.	Mr. Raymond Ho (Excelsior) advised that the seawater intake was no longer in use since 11 January 2011 as they had connected permanent water supply from WSD pipelines, and that the seawater intake had been abandoned with the valves inside the pumping station closed.	Noted
3.	Mr. Daniel Cheung (CHEC CRBC JV) suggested that the silt screen provision for C6 would be removed from 20 May 2011 (Friday) and expected that the removal works would need a few days to complete.	CHEC CRBC JV
4.	Ms. Margaret Lau (Kai Shing) suggested and CHEC CRBC JV agreed that the removal works would not be scheduled for Saturday or Sunday.	Note
5.	Mr. Eric Wong stated that a submission would be prepared by CSHK notifying EPD of the removal works.	CSHK
6.	Ms. Cherry Mak (ET) said that they would entirely disconnect and remove all power sockets inside the pump house accordingly. Advance notice would be sent to Ms. Margaret Lau.	ET
7.	Ms. Cherry Mak advised that the routine impact water quality monitoring for intake would be terminated subjected to the formal notification to EPD. The enhanced dissolved oxygen monitoring would be maintained.	Noted
8.	Ms. Margaret Lau stated that advance notice, as well as the working schedule and details of supervisor for silt screen removal, would be required from CHEC CRBC JV for information. CHEC CRBC JV agreed.	CHEC CRBC JV
9.	Mr. Daniel Cheung said that after removal of the silt screen, CHEC would take photos and share to all parties for record.	CHEC CRBC JV

EW/QMY/gw

Appendix E

Instruction of Take Over Silt Screen

at Windsor House Cooling Water Intake



AECOM
8/F, Grand Central Plaza, Tower 2,
138 Shatin Rural Committee Road,
Shatin, Hong Kong
香港新界沙田鄉事會路 138 號
新城市中央廣場第 2 座 8 樓
www.aecom.com

Engineer's Representative's Office
25 Hung Hing Road,
Causeway Bay, Hong Kong
香港銅鑼灣鴻興道 25 號
+852 3912 3000 tel
+852 3912 3010 fax

Your Ref. :
Our Ref. : CWB/(HY/2009/15)/C20/800/15B001478

2 June 2011

China State Construction Engineering (Hong Kong) Limited
29/F China Overseas Building,
139 Hennessy Road,
Hong Kong

Attn.: Mr. Simon Tang

Dear Sir,

Contract No. HY/2009/15
Central-Wan Chai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

Silt Screen at Windsor House Seawater Intake

Pursuant to P.S. Clause 25.05 (2) (i), you are instructed to take over the captioned silt screen effective on 23 May 2011, and carry out regular inspection and maintenance of the silt screen until such time that an instruction is made to you to cease the operation.

Yours faithfully,
For and on behalf of
AECOM Asia Co. Ltd.

Peter Poon
Engineer's Representative

c.c. AECOM - Attn.: Mr. Conrad Ng

PP/EW/EH/WW/gw

