

Contract No. HY/2013/04 Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Infrastructure Works Stage II (Southern Portion)

CONTRACTOR SUBMISSION FORM (CSF) To **Engineer's Representative** Attn. Mr. Alfred Cheng Ref. No. CDG/CSF/EN02.05/2015/0561 CSF No. CSF/00221/a Subject | Submission of Monthly EM&A Report for August 2015 Item Description 1 Pursuant to PS Clause 25.01A and Condition 5.4 of the Environmental Permit No. EP-353/2009/I, we would like to submit herewith a copy of Monthly EM&A Report certified by our ETL, Messrs. Mott MacDonald, for your onward submission to Environmental Protection Department. Remarks: **Purpose of Submission:** For Approval For Information **For Record Purposes Expected Reply Date:** From: Contractor's Representative Name: **Eddie Tang** Date: 8 September 2015 Signature:



Responses to Further Comments on Monthly EM&A Report (August 2015)

Responses			Noted and revised.
Comments Received	ENPO (Ray Yan) by email dated 7 September 2015		Section 4.1 (20 August Please revise the last sentence to state the follow-up actions for outstanding observation will be checked in the upcoming site inspections and reported in the coming reporting period.
Item Reference	ENPO (Ray Yan) by em	Further Comment(s)	Section 4.1 (20 August 2015
No.			÷



Our ref JFP/TK/bw/T355861/02/02/L029

т 2828 5757

E Terence.Kong@mottmac.com.hk

Your ref

Ramboll Environ Hong Kong Limited Room 2403, 24/F, Jubilee Centre 18 Fenwick Street Wanchai, Hong Kong

> 8 September 2015 By Email

Attn: Mr. Raymond Dai - Independent Environmental Checker

Dear Sir.

Contract No. HY/2013/04 Hong Kong-Zhuhai-Macao Bridge (HZMB)
Hong Kong Boundary Crossing Facilities – Infrastructure Works Stage II (Southern Portion)
Monthly EM&A Report for August 2015

In accordance with Condition 5.4 of the Environmental Permit (EP-353/2009/I) covering the captioned contract, we are pleased to submit the certified Monthly EM&A Report for August 2015 for your verification.

Yours faithfully
For MOTT MACDONALD HONG KONG LIMITED

Terence Kong

Environmental Team Leader

Encl.

cc. AECOM – Mr. Alfred Cheng (By Email)

China State Construction Engineering (Hong Kong) Ltd. - Mr. Gary Ng (By Email)



Our ref JFP/TK/bw/T355861/02/02/L029

r 2828 5757

Terence.Kong@mottmac.com.hk

Your ref

E

Ramboll Environ Hong Kong Limited Room 2403, 24/F, Jubilee Centre 18 Fenwick Street Wanchai, Hong Kong

> 8 September 2015 By Email

Attn: Mr. Raymond Dai - Independent Environmental Checker

Dear Sir,

Contract No. HY/2013/04 Hong Kong-Zhuhai-Macao Bridge (HZMB)
Hong Kong Boundary Crossing Facilities – Infrastructure Works Stage II (Southern Portion)
Monthly EM&A Report for August 2015

In accordance with Condition 5.4 of the Environmental Permit (EP-353/2009/I) covering the captioned contract, we are pleased to submit the certified Monthly EM&A Report for August 2015 for your verification.

Yours faithfully For MOTT MACDONALD HONG KONG LIMITED

Terence Kong

Environmental Team Leader

Encl.

cc. AECOM – Mr. Alfred Cheng (By Email)

China State Construction Engineering (Hong Kong) Ltd. - Mr. Gary Ng (By Email)



Ref.: HYDHZMBEEM00_0_3352L.15

8 September 2015

By Fax (3468 2076) and By Post

AECOM Asia Co. Ltd.
The PRE's Offices
5 Ying Hei Road, Tung Chung, Lantau
Hong Kong

Attention: Mr. Alfred Cheng

Dear Sir,

Re: Agreement No. CE 48/2011 (EP)

Environmental Project Office for the

HZMB Hong Kong Link Road, HZMB Hong Kong Boundary Crossing Facilities, and Tuen Mun-Chek Lap Kok Link – Investigation

Contract No. HY/2013/04 - HZMB HKBCF - Infrastructure Works Stage II (Southern Portion)

Monthly Environmental Monitoring & Audit Report for August 2015

Reference is made to the Environmental Team's submission of the Monthly Environmental Monitoring & Audit Report for August 2015 certified by the ET Leader (ET's ref.: "JFP/TK/bw/T355861/02/02/L029" dated 8 September 2015) and provided to us via e-mail on 8 September 2015.

We are pleased to inform you that we have no adverse comment on the captioned report. We write to verify the captioned submission in accordance with Condition 5.4 of the Environmental Permit No. EP-353/2009/I.

Thank you very much for your attention and please feel free to contact the undersigned should you require further information.

Yours faithfully, For and on behalf of Ramboll Environ Hong Kong Limited

Raymond Dai

Konjuj

Independent Environmental Checker

c.c. HyD Mr. Matthew Fung (By Fax: 3188 6614)
HyD Mr. Horace Hong (By Fax: 3188 6614)
Mott MacDonald Mr. Terence Kong (By Fax: 2827 1823)
CSCE Mr. Eddie Tang (By Fax: 2459 4336)

Internal: DY, YH, LP, CL, ENPO Site

Q:\Projects\HYDHZMBEEM00\02_Proj_Mgt\02_Corr\HYDHZMBEEM00 0 3352L.15.doc

190	元里で下	Wind the second			T	
115	盟理次序 6		ω	ω	3	
秦	縣風險分類	#	II -	#	#	
剩餘	嚴重性	7	7	7	7	
<u></u>	上	7	7	7	7	
	監察及檢討	安全 海港 海州 安宁 法国 海 安宁 计任 祖 田 田 田 田 田 田 田 田 田 田 田 田 田 田 田 田 田 田	旦	<u></u> 트	<u>니</u> 때	
	個人防護用品	及 区 安 日本 光 守 土 車 次 荘 春	<u> </u> 프	브	ᄪ	
	培訓	工具箱培訓	中區	山町	山區	
	横	工程師 總管 管工 機械操作員 訳號員	工庫	丁區	干岜	
	控制措施	- 起重機使用前須持有有效檢驗證書 - 合資格人士定期檢查起重機 - 操作員每日施工前檢查起重機機械,如發現任何問題,應立即通知當區管工及安全部 明通知當區管工及安全部 - 實施專人專機制度 - 國封施工區域	- 起重機械及起重裝置必須持有 有效證書 - 委任訊號員協助"睇位" - 委任吊運監督員監察吊運工序 - 實行色碼識別系統 - 由合資格人士使用前檢查起重 機械及起重裝置 - 吊運物加設尾繩	- 實行專人專機制度 - 委任訊號員協助"睇位"及監察機械動 - 委任吊運監督員監察吊運工序 - 實施色碼識別系統 - 圍封吊運區域	- 實行專人專機制度 - 委任訊號員協助"睇位"及監察 機械移動 - 移動前先計劃路徑及視察路面 情況 - 實施人車分路 - 惡劣天氣情況下停止施工	
闽	《	恒			哑	
8	厥 重性	2	2 2		7	
Ī	コ	3	3	3	3	
	現有措施	NA	NA 土庫		1世	
1	直接受影響人員 響人員	所有工人	비	山	回	
立	自政大が背危害	起重機械失靈	高處墮物	起重機械或 車輛動時碰 及工友	機械或車輛翻側	
	工作程序		機械移動			

	Admit N. J. N					
1	<u></u>	ĸ	ω	m m	ω	ъ
	屋 屋 屋 B B B B B B B B		#	-	#	#
剩餘	嚴重性	7	7	7	2	2
	戶需和	7	7	7	7	7
	監察及檢討	<u> </u> 프	<u> </u>	山區	山	千旦
	個人防護用品品	ᄪ	工匠	기 때	甲	브
	罪	ᄪ	旦	匠	山區	ᄪ
	教	山區	日	工程部 総管 管工 管工 機械操作員 別號員 運輸車司機	긔 眶	干国
	控制措施	- 實行專人專機制度 - 委任訊號員協助"睇位"及監察機械移動 - 移動前先計劃路徑及視察路 面情況 - 實施人車分路 - 惡劣天氣情況下停止施工	- 實行專人專機制度 - 圍封施工區域 - 委任訊號員協助"聯位"及監 察移動 - 控土機需裝設後視鏡 - 挖土機需裝設摩響警告系統	- 起重機械及起重裝置必須持有有效證書 - 委任訊號員協助"聯位" - 委任訊監督員監察吊運工 序 - 實行色碼識別系統 - 由合資格人士使用前檢查起 - 由合資格人士使用前檢查起 - 由合資格人主護語 - 由合資格人主護語 - 由合資格人主護語 - 由合資格人主護語	行車前先計劃路徑行車前先視察地面情況由訊號員指交通及帶領行車惡劣天氣情況下暫停施工	· 實施人車分路措施 · 依照地盤現場交通指揮及使 用指定行車道路 · 惡劣天氣情況下暫停施工 · 由訊號員指交通及帶領行車
Ī	《險分類	恒	恒	恒	回	恒
1	嚴重性	2	2	7	7	2
	口需和	3	3	3	3	3
	現有措施 同上 3		用上	干国	丑国	
	直接受影響人員	正 匠 工		山	旦	甲二
	で		挖土機碰及 工 <i>友</i>	高空墮物	運輸車輛翻側	運輸車輛碰 及工友
	工作程序	機械移動		運送物料到地盤		

1	處理次序		4		33			3
	餘風險分類	#						
THE A	-	т-		#		#		
剩餘	下	2			7		7	7
umx.	監察及檢討 計量				<u>니</u>			国上 2
		<u></u>			<u>III.</u>		<u>lin</u>	lin'
	個人防護用品品	旦			旦		旦	비
	培訓	<u></u> ᄪ			山		<u> </u>	丁直
	執行	工程師 總管 管工 體力操作員			甲二十		4 喧	工程師 總管 管工 運輸車司機
	控制措施	- 提供體力操作培訓 - 採用正確身體姿勢進行人力 操作 - 使用機械協助搬運 - 搬運物超過 16 公斤應由小組 型式(兩人或以上)合力搬運 或由機械協助搬運	較輕型式搬運 - 搬運前先檢查搬運路線,確 保沒有障礙物	- 搬運物超過 16 公斤應由兩人 合力搬運或由機械協助搬運 - 採用正確身體姿勢進行人力	操作 - 搬運前先選定搬運路線 - 選定安全、平坦、合適搬運通 道.	提供體力操作培訓使用機械協助搬運採用正確身體姿勢進行人力 操作搬運物超過16公斤應由小組	型式(兩人或以上)合力搬運或由機械協助搬運, 或由機械協助搬運 - 拆細大型較重物件,以小件/ 較輕型式搬運 - 搬運前先檢查搬運路線,確 保沒有障礙物	- 由訊號員指揮交通及帶領行車 - 移動前先計劃路徑及視察路面 情況 - 實施人車分路 - 惡劣天氣情況下停止施工
Ī	風險分類	恒			恒		恒	恒
	嚴重性	2			7 7		2	
	口部和	m			8	m		3
	現有措施	ᄪ	기 기 교		同上			
	直接受影響人員	體力操作員			正		三日	所有工人
1	直接受影響 危害	體力操作引致身體受傷			體力操作時維織	設立海泥存	放區時體力 操作引致身 體受傷	運輸車輛翻側
	工作程序					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	政工様呢存 放區及攪拌 設施	設立海泥攪 拌設施

超甲	里次序	m	m	c.	
屋袋	風險分類	-	-	#	
维	嚴重性	7	7	2	
剩餘	正語和	2	7	2	
監察及檢		<u>니</u> 때	中国	旦	
個人防護用	대(A) (A) (A) (B) (B) (B) (B) (B) (B) (B) (B) (B) (B	기 (正	ᄪ	甲	
1	岸	甲	甲甲	日恒	
1	検	工程師 総管 管工 起重機操作員 訊號員	工程師 總管 管工 起重機操作員 訊號員 運輸車司機	工程師 總管 管工 機械操作員 罚號員	
	控制措施	- 嚴格執行安全吊運工作程序 有有效證書 由合資格人士使用前檢查起 重機械及起重裝置 中合資格人士使用前檢查,如 發現任何問題應立即通知當 區管工或安全部 實行專人專機制度 委任訊號員協助"聯位" 委任訊號員協助"聯位" 委任訊號員協助"聯位" 資行电應識別系統 所理物加設尾繩 國對施工區域	 起重機械及起重裝置必須持有有效證書 委任訊號員協助"睇位" 委任吊運監督員監察吊運工序 實行色碼識別系統 由合資格人士使用前檢查起重機體 日程物加設導尾繩 手工具加設尾繩 雪封吊運區域 	 ・起重機使用前須持有有效檢驗證書 ・合資格人士定期檢查起重機 ・操作員每日施工前檢查起重機械,如發現任何問題,應立即通知當區管工及安全部 ・實施專人專機制度 ・面封施工區域 ・實行人車分路措施 	
風堡	※	恒	恒	恒	
殿	軍性	7	6	7	
 	語和	ю	ю	3	
	現有 措施	百二	一旦	正	
	響人員響人員	旧	뜨	匝	
直接受影響	副	地 動 教 教	丹運時高空 <u>墮</u> 物	海泥攪拌及 淨化設施翻 圓	
} } 1	工作程序		運輸儲存缸	設立海泥淨化設施	

	處理次序	м	33	4	4	4
	餘風險分類	#	#	極低	極低	極低
剩餘	嚴重性	7	7		-	-
 	口需和	7	7	7	7	7
	監察及檢 討	프	旦	山	브	山
	個人防護用品品	브	브	山區	及 及 及 及 及 及 及 及 在 未 未 未 未 未 未 未 未 未 本 年 本 本 本 本 本 本 本 本 本	千世
	培訓	<u>비</u>	<u>ᄪ</u>	브	中恒	中国
	教行	<u> 기</u> 떠	斗喧	干岜	打圖	기쁘
	控制措施	 挖掘機須時有有效檢驗證書 拖工坐機位置 實行專人專機制度 操作員每天開工前檢查挖掘 機,如有發現任何問題,應 暫停施工及通知當區管工及 安全部 合資格人土定期檢查挖掘機 一個對施工區域 	· 實行專人專機制度 · 指定挖掘機操作員離開駕駛 室時必須關掉引擎及拔走啓 動匙以杜絕非授權人士操作 挖掘機	. 使用前檢查手工具 . 管工定期檢查手工具是否仍 然可用 . 配戴合規格手套	配戴合規格防化手套,禁止 使用棉手套 執行危險物質管制措施 配戴個人防護用品,例如保 護衣物、護目鏡、安全鞋、 呼吸器或合適口罩等 只有受訓工友才能進行相關 工序	提供體力操作訓練予操作員 定期小休,離開駕駛室到地 面做適量伸展運動
Ħ	風險分類	iu <u>c</u>	恒	ゎ	桕	每
	嚴重性	7	2	-	1	-
	口給性	3	3	33	3	3
	現有措施	丁岜	干鱼	工国	五百	ゴビ
	直接受影響人員	丁迪	一直	工匠	브	挖掘機操作員
	直接受影響 危害	挖掘機失靈	非指定操作 員駕駛挖掘 機	使用不符標準手工具	身體敏感/受刺激	背部受傷
	工作程序		挖掘海泥		操作挖掘機	

1	處理次序	4	8	4	8	
壓	孫風險分類	極低	1	· · · · · · · · · · · · · · · · · · ·	#	II
剩餘	嚴重性	_	7	-	7	74
黨	口細和	7	7	7	7	7
	監察及檢討	匠	山	ᄪ	띡	口匠
	個人防護用品品	甲	뜨	뜨	뜨	ᄪ
	岸	回口	비	<u>니</u> 때	<u> </u> 띧	干ഥ
	英	千直	打삩	ᄪ	ゴ=	工ഥ
	控制措施	- 使用合標準聽覺保護器 - 由合資格人土進行噪音估 - 使用優質機動設備類型機械	- 提供清涼飲用水 - 提供清涼休息室/亭 - 制定"工作-休息-工作"時段 - 改變工作程序,避免正午時 問施工	- 配戴合規格防化手套,禁止使用棉手套。執行危險物質管制措施- 執行危險物質管制措施- 配戴個人防護用品,例如保護衣物、護目鏡、安全鞋、呼吸器或合適口罩等- 只有受訓工友才能進行相關工序	· 實施人車分路措施 · 委任訊號員協助指揮地盤交 · 通立交通警告標語及告示 · 倒車時須有訊號員協助"聯 位"及車輛須安裝有後視鏡及 倒車聲響警告裝置 · 地盤內所有管理人員或必須 穿著合標準反光衣	- 起重機械及起重裝置必須持有有效證書 - 委任訊號員協助"聯位" - 委任吊運監督員監察吊運工 序 - 實行色碼識別系統 - 由合資格人土使用前檢查起 - 直機械及起重裝置
臣	風險分類	寂	恒	色	विष्	恒
E	嚴重性	1	2	1	2	7
1	口語和	3	3	3	ω	rs ·
	現有措施	用上	用上	一旦	五百	山區
	直接受影響人員	甲	三国	千世	旦	巨
古女历史簿	自按文影響 危害	型型	中暑	直接接觸危 險物質化學 品引致身體 敏感/受刺激	地盤內發生交通意外	高空魔物
	工作程序			水泥穩定過 程及海泥回 填	Site traffic 地盤交通	在 主 要 工 进 近 进 近 进 近 近 近 元 元 元 元 元 元 元 正 運

4	處理次序				
	蔣風險分類				
416	嚴重性				
剩餘	压器和				
	監察及檢 討				
	個人防護用品				
	中				
	英				
	控制措施	- 吊運物加設導尾繩	- 圍封吊運區域	- 實施臨時封路措施,由訊號員	在封路兩端截停車輛
匝	@ 分類	ľ	 		
E	麼重性 ————				
1	ロ 能 性				
	現有措施				
	画				
	るまです。				
	工作程序				

Remarks: 1. List out the standard of the safety equipment, for example EN;
2. The assessment should be conducted by Project Manager or Engineer, General Foreman, Safety Officer, Representative of Subcontractor and worker.



Monthly EM&A Report for August 2015

September 2015

China State Construction Engineering (Hong Kong) Limited



Monthly EM&A Report for August 2015

Contents

Chapter	r Title				
Executive	Summary	i.			
1	Introduction	1			
1.1	Background	1			
1.2	Project Description	1			
1.3	Project Organisation	1			
1.4	Construction Programme	2			
1.5	Construction Works undertaken during the Reporting Period	2			
2	Air Quality Monitoring	3			
2.1	Monitoring Locations	3			
2.2	Monitoring Requirements	3			
2.3	Monitoring Results				
3	Noise Monitoring	5			
3.1	Monitoring Locations				
3.2	Monitoring Requirements				
3.3	Monitoring Results	5			
4	Environmental Site Inspection and Audit	6			
4.1	Site Inspection	6			
4.2	Advice on the Solid and Liquid Waste Management Status				
4.3	Environmental Licenses and Permits				
4.4	Implementation Status of Environmental Mitigation Measures				
4.5	Summary of Exceedance of the Environmental Quality Performance Limit	/			
4.6	Summary of Complaints, Notification of Summons and Successful Prosecution	/			
5	Future Key Issues	8			
5.1	Construction Programme for the Coming Months	8			
5.2	Environmental Site Inspection Schedule for the Coming Month	8			
6	Conclusions	9			
6.1	Conclusions	9			
Tables					
Table 1.1:	Contact Information of Key Personnel				
Table 2.1:	Construction Dust Monitoring Locations				
Table 2.2:	Action and Limit Levels for 1-hour TSP				
Table 2.3:	Action and Limit Levels for 24-hour TSP				
Table 3.1:	Construction Noise Monitoring Locations				
Table 3.2:	Action and Limit Level for Construction Noise				
Table 5.1.	Construction Activities for September 2015	C			



Monthly EM&A Report for August 2015

Figures

Figure 1 Location of Air Quality Monitoring Stations
Figure 2 Location of Noise Monitoring Stations

Appendices

Appendix A. Location of Works Areas

Appendix B. Project Organization for Environmental Works

Appendix C. Construction Programme
Appendix D. Event and Action Plan
Appendix E. Waste Flow Table

Appendix F. Environmental Licenses and Permits

Appendix G. Implementation Schedule for Environmental Mitigation Measures (EMIS)

Appendix H. Statistics on Environmental Complaints, Notification of Summons and Successful Prosecutions

Appendix I. Environmental Site Inspection Schedule

Mott MacDonald

Monthly EM&A Report for August 2015

Executive Summary

This Monthly Environmental Monitoring and Audit (EM&A) Report is prepared for Contract No. HY/2013/04 "Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Infrastructure Works Stage II (Southern Portion)" (hereafter referred to as "the Contract") for the Highways Department of Hong Kong Special Administrative Region (HKSAR). The Contract was awarded to China State Construction Engineering (Hong Kong) Limited (hereafter referred to as "the Contractor") and Mott MacDonald Hong Kong Limited (MMHK) was appointed as the Environmental Team (ET) by the Contractor.

The Contract is part of the "Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities" (HZMB HKBCF) Project which is a "Designated Project" under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499) and for which an EIA Report (Register No. AEIAR-145/2009) was prepared and approved. The current Environmental Permit (EP) for HKBCF, namely No. EP-353/2009/I, was issued on 17 July 2015. These documents are available through the EIA Ordinance Register. Commencement of the Contract took place on 13 March 2015 and the construction works commenced on 13 July 2015.

Mott MacDonald Hong Kong Limited has been appointed by the Contractor to implement the Environmental Monitoring & Audit (EM&A) programme for the Contract in accordance with the Updated EM&A Manual for HKBCF (Version 1.0) and will be providing environmental team services for the Contract.

This is the 2nd Monthly EM&A Report for the Contract which summaries findings of the EM&A works during the reporting period from 1 to 31 August 2015 (the "reporting period").

Environmental Monitoring and Audit Progress

The monthly EM&A programme was undertaken in accordance with the Updated EM&A Manual for HKBCF (Version 1.0). It should be noted that the air quality and noise monitoring works for the Contract are covered by Contract No. HY/2010/02 "Hong Kong-Zhuhai-Macao Bridge HKBCF – Reclamation Works" and Contract No. HY/2011/03 "Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between Scenic Hill and HKBCF". The ET of the Contract or another ET of the HZMB project is required to conduct impact air quality monitoring at AMS6 and AMS7A and noise monitoring at NMS2 and NMS3B as part of EM&A programme if these monitoring stations are no longer covered under Contract Nos. HY/2010/02 and HY/2011/03. However, this is subject to ENPO's final decision on which ET should carry out the monitoring work at these stations.

The dates of site inspection during the reporting period are listed below:

Environmental Site Inspection: 5, 13, 20 and 25 August 2015

Breaches of Action and Limit Levels

Summary of Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level at AMS6 shall be referred to the monthly EM&A report prepared by Contract No. HY/2011/03.

There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at station AMS7A by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

There was no Action and Limit Level exceedance for noise recorded at station NMS2 and station NMS3B by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

Mott MacDonald

Monthly EM&A Report for August 2015

Complaint Log

There were no complaints received in relation to the environmental impact during the reporting period.

Notifications of Summons and Successful Prosecutions

There were no notifications of summons or prosecutions received during this reporting period.

Reporting Changes

There was no reporting change during the reporting period.

Future Key Issues

The future key issues to be undertaken in the upcoming month are:

- Preliminary Bored Piling at Abutment A1101; and
- Predrilling at Box Culvert D, Bridge D9a, D9b, D9c, D10, D11, D14a, D16 subject to actual site possession status.

Mott MacDonald

Monthly EM&A Report for August 2015

1 Introduction

1.1 Background

On 13 March 2015, Mott MacDonald Hong Kong Limited (MMHK) was commissioned by China State Construction Engineering (Hong Kong) Limited (also referred to as "the Contractor") to undertake the Environmental Team (ET) services (including environmental monitoring and audit (EM&A)) for Contract No. HY/2013/04 "Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Infrastructure Works Stage II (Southern Portion)" ("the Contract") for the Highways Department of Hong Kong Special Administrative Region (HKSAR).

The Contract is part of the "Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities" (HZMB HKBCF) Project which is a "Designated Project" under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499) and for which an EIA Report (Register No. AEIAR-145/2009) was prepared and approved. The current Environmental Permit (EP) for HKBCF, namely No. EP-353/2009/I, was issued on 17 July 2015. These documents are available through the EIA Ordinance Register. Commencement of the Contract took place on 13 March 2015 and the construction works commenced on 13 July 2015. The works areas of the contract are shown in **Appendix A**.

This is the 2nd Monthly EM&A Report summarising the findings of EM&A activities conducted under the Contract from 1 to 31 August 2015 (the "reporting period") and is submitted to fulfil Condition 5.4 of the EP.

1.2 Project Description

The Proposed works under this Contract comprise the following:

- Construction of vehicular bridge and at-grade roads at the southern portion of Hong Kong Boundary Crossing Facilities;
- Construction of associated street lighting, street furniture, road marking, road signage, box culverts and outfalls, drainage, sewerage, fresh water and flushing water supply, irrigation, landscape, electrical and mechanical (E&M), utilities and services works;
- Provisioning of civil engineering works and power supply for Traffic Control and Surveillance System (TCSS); and
- Other works in accordance with the Contract.

1.3 Project Organisation

The organisation chart and lines of communication with respect to the on-site environmental management structure together with the contact information of the key personnel are shown in **Appendix B**. The key personnel contact names and numbers are summarized in **Table 1.1**.

Table 1.1: Contact Information of Key Personnel

Aug 2015\(02) Aug 2015.docx

Party	Position	Name	Telephone	Fax
Engineer or Engineer's Representative (AECOM Asia Co. Ltd.)	Chief Resident Engineer	Alfred Cheng	3958 7471	3468 2076
Environmental Project Office / Independent Environmental Checker (Ramboll Environ Hong Kong Limited)	Environmental Project Office Leader	Y H Hui	3465 2888	3465 2899
	Independent Environmental Checker	Raymond Dai	3465 2888	3465 2899
	Environmental Site Supervisor	Ray Yan	5181 8165	3465 2899



Monthly EM&A Report for August 2015

Party	Position	Name	Telephone	Fax
Contractor	Site Agent	Eddie Tang	9863 7686	2459 4336
(China State Construction Engineering (Hong Kong) Limited)	Environmental Officer	Gary Ng	9475 6832	2459 4336
Environmental Team (Mott MacDonald Hong Kong Limited)	Environmental Team Leader	Terence Kong	2828 5919	2827 1823
24-hour Complaint Hotline	-	-	5236 7111	8=

1.4 Construction Programme

The Construction Works Programme of the Project is provided in Appendix C.

1.5 Construction Works undertaken during the Reporting Period

A summary of the construction activities undertaken during this reporting period is shown below:

- 6 nos. predrilling holes completed on BCF Island;
- Contractor's temporary accommodation site formation and concrete base slabe construction on BCF Island; and
- The bored piling works for Pile No. P2 was started on 28 August 2015.

Monthly EM&A Report for August 2015

2 Air Quality Monitoring

2.1 Monitoring Locations

The air quality monitoring works for the Contract are covered by Contract No. HY/2010/02 "Hong Kong-Zhuhai-Macao Bridge HKBCF – Reclamation Works" and Contract No. HY/2011/03 "Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between Scenic Hill and HKBCF". The ET of the Contract or another ET of the HZMB project is required to conduct impact air quality monitoring at AMS6 and AMS7A as part of EM&A programme if these air quality monitoring stations are no longer covered under Contract No. HY/2010/02 and HY/2011/03. **Figure 1** shows the locations of air monitoring stations

Table 2.1: Construction Dust Monitoring Locations

Identification No.	Location Description
AMS6 ⁽¹⁾	Dragonair/CNAC (Group) Building
AMS7A ⁽¹⁾	Chu Kong Air-Sea Union Transportation Co. Ltd

Remarks

(1) The ET of this Contract should conduct impact air quality monitoring at the AMS listed in the table as part of EM&A programme according to latest notification from ENPO when the monitoring station(s) is/are no longer covered by another ET of the HZMB project.

2.2 Monitoring Requirements

The air quality monitoring works for the Contract are covered by Contract No. HY/2010/02 "Hong Kong-Zhuhai-Macao Bridge HKBCF – Reclamation Works" and Contract No. HY/2011/03 "Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between Scenic Hill and HKBCF".

The Action and Limit Levels for 1-hr TSP and 24-hr TSP are provided in **Table 2.2** and **Table 2.3** respectively.

Table 2.2: Action and Limit Levels for 1-hour TSP

Monitoring Station	Action Level, μg/m³	Limit Level, μg/m³
AMS6 - Dragnair / SNAC (Group) Building (HKIA)	360	500
AMS7A - Chu Kong Air-Sea Union Transportation Co. Ltd.	370	500

Table 2.3: Action and Limit Levels for 24-hour TSP

Monitoring Station	Action Level, μg/m ³	Limit Level, μg/m³
AMS6 - Dragnair / SNAC (Group) Building (HKIA)	173	260
AMS7A - Chu Kong Air-Sea Union Transportation Co. Ltd.	183	260

The event and action plan is provided in **Appendix D**.

If exceedance(s) at these stations is/are recorded by the ET of the Contract or referred by the other ET under the HZMB project to the Contract, the ET of the Contract will carry out an investigation and findings will be reported in the monthly EM&A Report.

Mott MacDonald

Monthly EM&A Report for August 2015

2.3 Monitoring Results

The monitoring results for AMS6 and AMS7A are reported in the monthly EM&A Reports prepared for Contract Nos. HY/2011/03 and HY/2010/02 respectively.

Summary of Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level at AMS6 shall be referred to the monthly EM&A report prepared by Contract No. HY/2011/03.

There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at station AMS7A by the Environmental Team of Contract No. HY/2010/02 during the reporting period.



Monthly EM&A Report for August 2015

3 Noise Monitoring

3.1 Monitoring Locations

The noise monitoring works for the Contract are covered by Contract No. HY/2010/02 "Hong Kong-Zhuhai-Macao Bridge HKBCF – Reclamation Works". The ET of the Contract or another ET of the HZMB project is required to conduct noise monitoring at NMS2 and NMS3B as part of EM&A programme if these monitoring stations are no longer covered under Contract No. HY/2010/02. **Figure 2** shows the locations of noise monitoring stations.

Table 3.1: Construction Noise Monitoring Locations

Identification No.	Location Description
NMS2 ⁽¹⁾	Seaview Crescent
NMS3B ^{(1) (2)}	Site Boundary of Site Office Area at Works Area WA2

Remarks

- (1) The ET of this Contract should conduct impact noise monitoring at the NMS listed in the table as part of EM&A programme according to the latest notification from ENPO when the monitoring station(s) is/are no longer covered by another ET of the HZMB project.
- (2) The Action and Limit Levels for schools will be applied for this alternative monitoring location.

3.2 Monitoring Requirements

The monitoring requirements, monitoring equipment, monitoring parameters, frequency and duration, monitoring methodology and monitoring schedule are detailed in the monthly EM&A Reports prepared for Contract No. HY/2010/02.

The Action and Limit Levels for construction noise are defined in Table 3.2.

Table 3.2: Action and Limit Level for Construction Noise

Parameter	Action Level	Limit Level
07:00 - 19:00 hours on normal weekdays	When one documented complaint is received	75 dB(A)*

es: If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

3.3 Monitoring Results

The monitoring results for NMS2 and NMS3B are reported in the monthly EM&A Reports prepared for Contract No. HY/2010/02. No noise exceedances were recorded at stations NMS2 and NMS3B by the ET of Contract No. HY/2010/02 during the reporting period.

^{*} Reduce to 70 dB(A) for schools and 65 dB(A) during school examination period.



Monthly EM&A Report for August 2015

4 Environmental Site Inspection and Audit

4.1 Site Inspection

Site Inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control mitigation measures for the project. During the reporting period, site inspections were carried out on 5, 13, 20 and 25 August 2015.

Particular observations during the site inspections and corrective actions undertaken by the Contractor are described below.

30 July 2015

a. Stagnant water pond following recent rainfall was observed at WA3. Subsequently, the stagnant water was reduced. The observation was closed on 5 August 2015.

5 August 2015

a. No new observations were made.

13 August 2015

a. Stagnant water was observed in a drip tray. Subsequently, the drip tray was removed. Also, tarpaulin sheet provided to prevent rain from entering the drip tray for a generator was not properly placed and should be improved. Subsequently, the tarpaulin sheet was rectified. The observation was closed on 20 August 2015.

20 August 2015

- a. Some dark smoke emission was observed from a drilling machine. The engine oil was replaced and no further dark smoke emission was observed. The observation was closed on 25 August 2015.
- b. Part of a haul road was observed to be dry. The Contractor was reminded to maintain the required frequency of water spraying at all times. Records of such water spraying should also be regularly maintained. Follow-up actions for the outstanding observation will be inspected during the upcoming site inspections and reported in the coming reporting period.

25 August 2015

No new observations were made.

4.2 Advice on the Solid and Liquid Waste Management Status

The Contractor registered as a chemical waste producer for the Contract. Sufficient numbers of receptacles were available for general refuse collection and sorting.

There was no generation of C&D material during this reporting period. Also, there was no generation of excavated sediment for treatment during this reporting period. Excavated marine sediment will be treated using cement solidification/stabilization (Cement S/S) techniques and will be reused onsite for either backfilling or landscaping (e.g. berm material).

The monthly summary of waste flow table is detailed in Appendix E.





The Contractor was reminded that chemical waste containers should be properly treated and stored temporarily in designated chemical waste storage area on site in accordance with the Code of Practice on the Packing, Labelling and Storage of Chemical Waste.

4.3 Environmental Licenses and Permits

The valid environmental licenses and permits during the reporting period are summarized in Appendix F.

4.4 Implementation Status of Environmental Mitigation Measures

In response to the site audit findings, the Contractor carried out corrective actions.

A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in **Appendix G**. Most of the necessary mitigation measures were implemented properly.

4.5 Summary of Exceedance of the Environmental Quality Performance Limit

Summary of Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level at AMS6 shall be referred to the monthly EM&A report prepared by Contract No. HY/2011/03.

There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at station AMS7A by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

There was no Action and Limit Level exceedance for noise recorded at station NMS2 and station NMS3B by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

4.6 Summary of Complaints, Notification of Summons and Successful Prosecution

There were no complaints received in relation to the environmental impact during the reporting period. The details of cumulative statistics of Environmental Complaints are provided in **Appendix H**.

No notification of summons or prosecutions was received during the reporting period.

Statistics on notifications of summons and successful prosecutions are summarized in Appendix H.



Monthly EM&A Report for August 2015

5 Future Key Issues

5.1 Construction Programme for the Coming Months

As informed by the Contractor, the major construction activities for September 2015 are summarized in Table 5.1.

Table 5.1: Construction Activities for September 2015

Site Area	Description of Activities
HKBCF	Preliminary Bored Piling at Abutment A1101; and
	 Predrilling at Box Culvert D, Bridge D9a, D9b, D9c, D10, D11, D14a, D16 subject to actual site possession status.

5.2 Environmental Site Inspection Schedule for the Coming Month

The tentative schedule for weekly site inspections for September 2015 is provided in Appendix I.



Monthly EM&A Report for August 2015

6 Conclusions

6.1 Conclusions

Commencement of the Contract took place on 13 March 2015 and the construction works of the Contract commenced on 13 July 2015.

Summary of Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level at AMS6 shall be referred to the monthly EM&A report prepared by Contract No. HY/2011/03.

There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at station AMS7A by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

There was no Action and Limit Level exceedance for noise recorded at station NMS2 and station NMS3B by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

Environmental site inspections were carried out on 5, 13, 20 and 25 August 2015. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site inspections.

There were no complaints received in relation to the environmental impact during the reporting period.

There were no notifications of summons or prosecutions received during the reporting period.

Contract No. HY/2013/04 HZMB HKBCF - Infrastructure Works Stage II (Southern Portion) Monthly EM&A Report for August 2015



Figures

Figure 1 Location of Air Quality Monitoring Stations

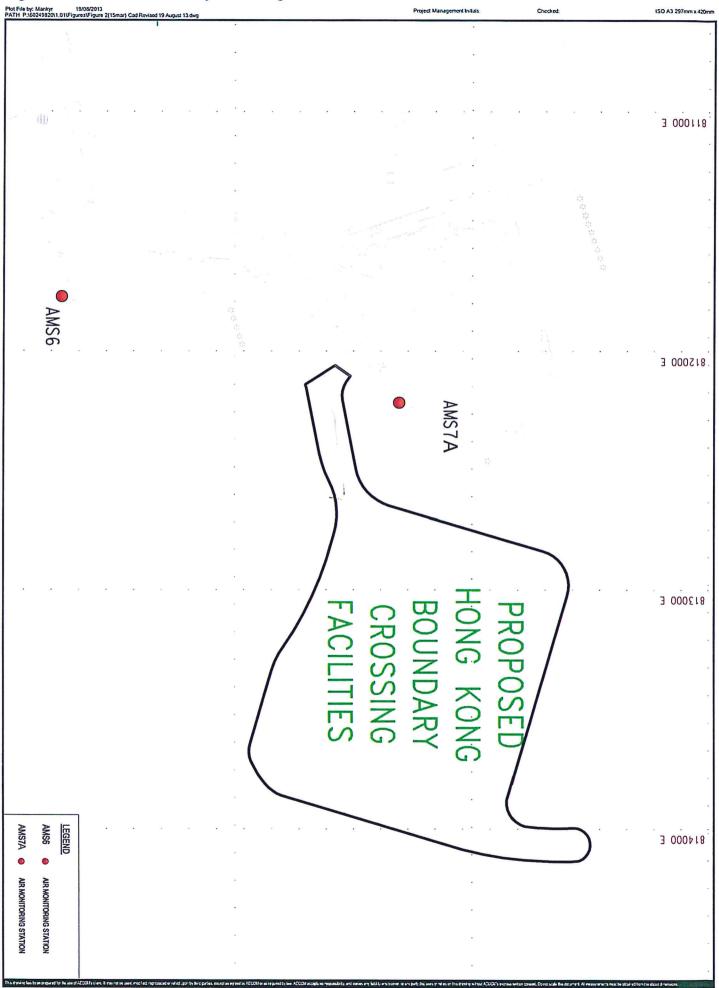


Figure 2 Location of Noise Quality Monitoring Stations

Plot File by: LAMACL 15/03/2012 PATH P:#60249820#1.01#CAD#Drowing#Figure#Figure 2(15mmr).dwg ISO A3 297mm x 420mm 817000 N 818000 N 819000 N 811000 E NMS2- Sea View Cresent 812000 E NMS2 and NMS3B 813000 E _EGEND Works Area WA2 Area NOISE MONITORING STATIONS 814000

Project Management Initials:

AGREEMENT NO. CE 13/2010(EE) HZMB HONG KONG BOUNDARY CROSSING FACILITIES (SUPERSTRUCTURE & INFRASTRUCTURE) — DESIGN AND CONSTRUCTION Project No.: — Date: JUL 2013 Date: JUL 2013

AIR QUALITY AND NOISE MONITORING STATIONS

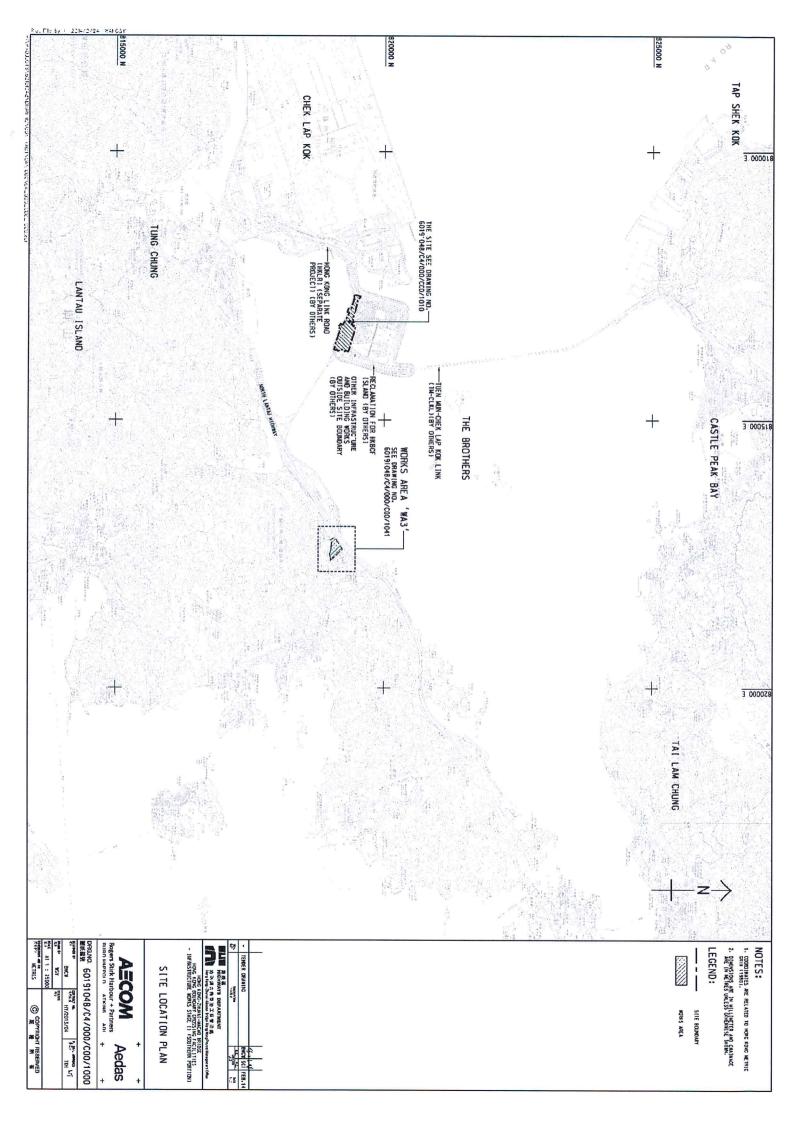
AECOM

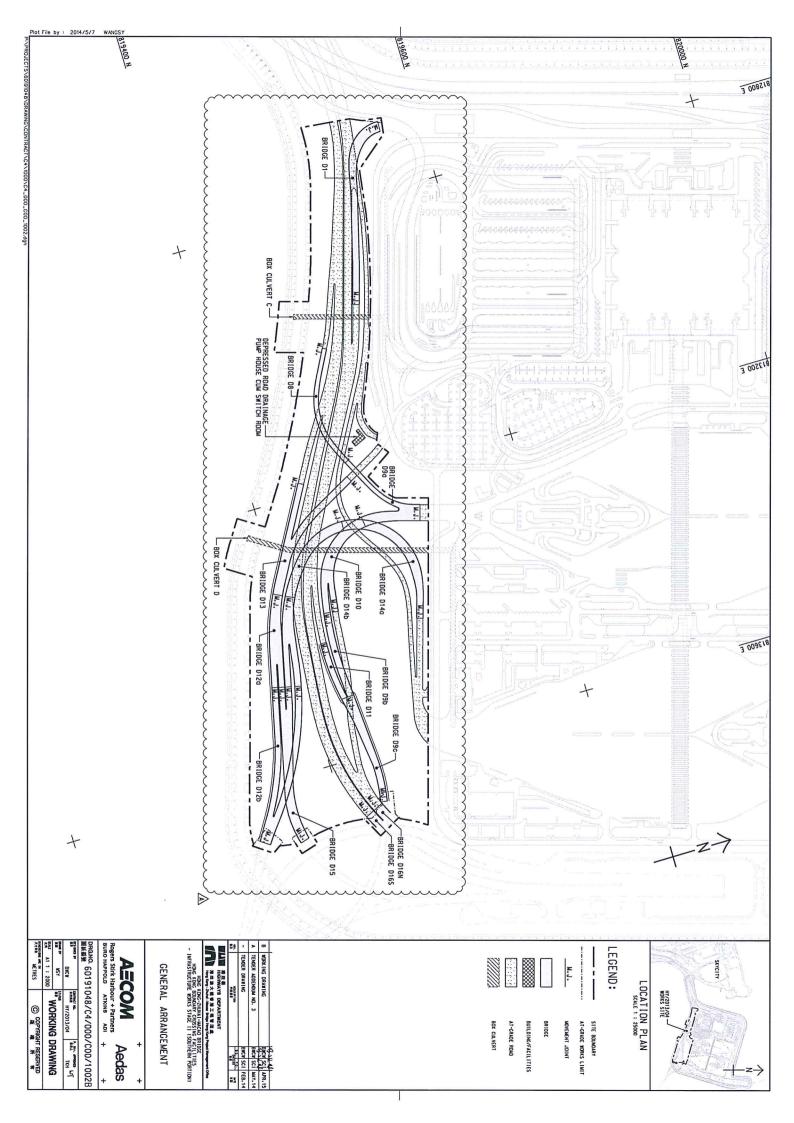
Figure 5-1

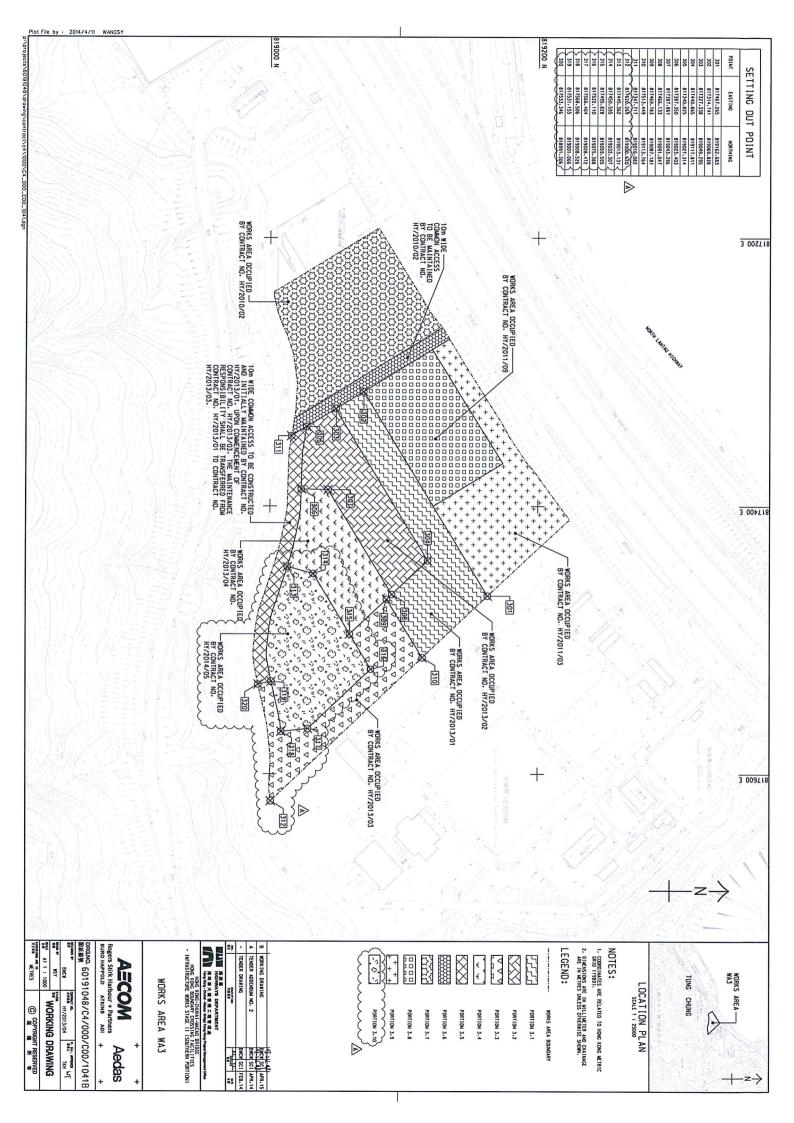


Monthly EM&A Report for August 2015

Appendix A. Location of Works Areas





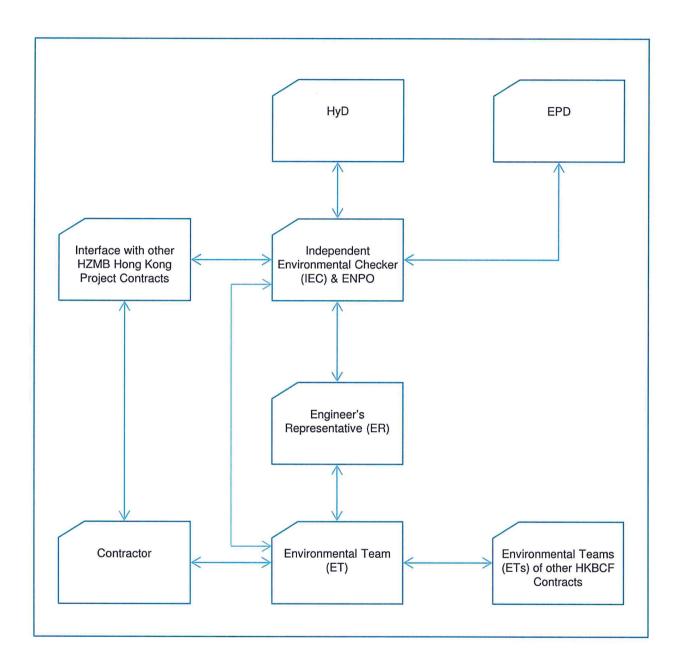




Monthly EM&A Report for August 2015

Appendix B. Project Organization for Environmental Works

Project Organisation for Environmental Works



Line of Communication



Monthly EM&A Report for August 2015

Appendix C. Construction Programme

中國連謀工程(春港)有阻公司 cri	CON.FOTXD18 KD18 - Competion of Section VIIID of the Works (1155)	VICTOR COMPENSION SECTION AND OF MAIN OF THE MAIN OF T	KD17A - Completion of Section VIIIC of the Works (795)	CON.FOT.XD17 KD17 - Achievement of Stage 7 (718)	CONFOT:KD16 KD16 - Completion of Section VIIIB of the Works (1155) 0	CON.FOT.KD15 KD15 - Completion of Section VIIIA of the Works (795) 0	CON.FOT.KD14 KD14 - Completion of Section VII of the Works (1155) 0	CON.FOT.KD13 KD13 - Completion of Section VI of the Works (465)	CON.FOT.KD12 KD12 - Completion of Section V of the Works (803) 0	CON.FOT.KD11 KD11 - Completion of Section IV of the Works (565) 0	CON.FOT.KD10 KD10 - Completion of Section III of the Works (803) 0	CON.FOT.KD09 KD09 - Completion of Section II of the Works (803) 0	CON.FOT.KD08 KD08 - Completion of Section I of the Works (795) 0	CON.FOT.XXXXX KXXXX Achievement of Stage 6 (270)	CON.FOT.KD06 KD06 - Achievement of Stage 5 (615) 0	CON.FOT.KDOS KDOS - Achievement of Stage 4 (615) 0	CON.FOT.KD04 KD04 - Achievement of Stage 3 (465) 0	CON.FOT.KD03 KD03 - Achievement of Stage 2 (525) 0	CON.FOT.KD02 KD02 - Achievement of Stage 1B (650) 0	CON.FOT.KD01 KD01 - Achievement of Stage 1A (525)	Contractual Key Dates - Stage / Section Completion of the Works	CON.PD.1180 Site Possession of Portion D3 (183) 0 12-Sep-15*	CON.PD.1170 Site Possession of Portion D2 (488) 0 13-Jul-16*	CON.PD.1160 Site Possession of Portion D1 (183) 0 12-Sep-15*	CON.PD.1150 Site Possession of Portion C2 (184) 0 13-Sep-15*	CON.PD.1140 Site Possession of Portion C1 (184) 0 13-Sep-15*	CON.PD.1130 Site Possession of Portion BS (123) 0 14-Jul-15*	CON.PD.1100 Site Possession of Portion B4 (627) 0 29-Nov-16*	CON.PD.1090 Site Passession of Portion 83 (476) 0 01-Jul-16*	CON.PD.1080 Site Possession of Portion B2 (123) 0 14-Jul-15*	CON.PD.1070 Ste Passession of Portion B1 (92) 0 13-Jun-15*	CON.PD.1060 Site Passessian of Portion A6 (61) 0 13-May-15*	CON.PD.1050 Site Possession of Portion A5 (61) 0 13-May-15*	CON.PD.1040 Site Passession of Portion A4 (627) 0 29-Nov-16*	CON.PD.1030 Site Possession of Portion A3 (476) 0 01-Jul-16*	CON.PD.1020 Site Possession of Portion A2 (61) 0 13-May-15*	Site Possession of Portion A1 (61)	on Dates	CON.XD.0020 Completion of the whole of the Works (1520) 0	CON.KD.0010 Commencement Date 0 13-Mar-15	CONJAD_0005 Letter of Acceptance (LOA) 0 27-Feb-15*	Contract Key Dates	Hong Kong Boundary Crossing Facilities - Infrastructure Works Stage II (Southern Portion) WC	ctivity ID Activity Name Orig Durl Early Start
♦ Current Miestone R ☐ Critical Remaining Work ☐ Remaining Work	10-May-18* 0 CAL1 - 7 day		0	27-Feb-17* 0 CAL1-7 day	10-May-18* 0 CAL1 - 7 day	15-May-17* 0 CAL 1 - 7 day	10-May-18* 0 CAL 1 - 7 day	19-Jun-16* 0 CAL 1 - 7 day	23-May-17* 0 CAL1 - 7 day	27-Sep-16* 0 CAL1 - 7 day	23-May-17* 0 CAL1 - 7 day	23-May-17* 0 CAL1 - 7 day	15-May-17* 0 CAL1 - 7 day	07-Dec-15* 0 CAL1-7 day	16-Nov-16* 0 CAL 1 - 7 day	16-Nov-16* 0 CAL 1 - 7 day	19-Jun-16* 0 CAL 1 - 7 day	18-Aug-16* 0 CAL 1 - 7 day	21-Dec-16* 0 CAL1-7 day	18-Aug-16* 0 CAL1-7 day		5* 0 CAL1-7 day	0 CAL1-7 day	5* 0 CAL1-7 day	5* 0 CAL1-7 day	5* 0 CAL1-7 day	0 CAL1-7 day	6* 0 CAL1-7 day	0 CAL1-7 day	0 CAL1-7 day	0 CAL1-7 day	5* 0 CAL1-7 day	5* 0 CAL1-7 day	6* 0 CAL1-7 day	0 CAL1-7 day	5* 0 CAL1-7 day	0		10-Мау-19 0 CAL 1 - 7 day	.5 CAL 1 - 7 day 14 days from LOA	5* 0 CAL1-7 day		outhern Portion) WC	rt Early Finish Total Calendar Remarks
HY/2013/04 - Initial Works Programme (Rev. 01)			◆ 15-%ay-7	◆ 27.Feb-17		◆ 15-(kay-)7		 ₱. ₱-Jun-16 	◆ 22i-May-17	◆ 27.5ep-16	◆ 23/Hay-17	◆ 23 ⁱ /by-17	◆ 155/bp+J7	◆ 07-0cc 15	◆ 15-Kov-16	◆ 16-kor-16	◆.19-Jun-16	◆ 38 Aug;15	◆ 21-bec-16	◆18-Aug:15		12.5cp;15 •	13-Ju-16 ◆	12-5op-15 •	135cp-15 ◆	135cp-15 :Φ	14-Jul-15 ◆	29-Nov-16 ◆	01-Ju-16 �	14-Jul-15 (Ф	33Jur-15. �	13-Nay-15 ◆	13-bay-15 ◆	29-Nor-15 ◆	01-14-16 ♦	33-bor-15 •				13-Har-15 •	2)-Feb-15 •			2017 2018 M A M
[mlw]																																							ļ					S 0 N

		CAL 1 - 7 day within 60 days	5 27-Apr-15* 0	60 27-Feb-15	CON.PR.1010 Arrange and Secure Professional Indemnity Insurances and submit copy to Engineer	CON.PR.1010
						Insurance
					Preliminaries and General Requirements	· CIIIIII
		CAL 2 - 6 day	10-мау-19* 0	0	KUZU - Competion of Section IXB of the Works (15ZU)	CONSCIENCE
◆ 15-May-18		CAL 2 - 6 day		0		CON.SC.KD19
◆ 10-мау-18		CAL 2 · 6 day		0		CON.SC.KD18
	◆ 35-40 ₁ -47.7	CAL 2 - 6 day		0		CON.SC.KD17A
	♦ 20Feb:17	CAL 2 - 6 day	20-Feb-17* 0	0		CON.SC.KD17
◆ 10-мау-18				0		CON.SC.KD16
	◆ 15-feby-17			0		CON.SC.KD15
◆ 10-мау-18				0		CON.SC.KD14
	e; (8-)un/)6			0		CON-SC.KD13
	◆:16-kby:17			0		CON.SC.KD12
	◆ 27-Sep-16			0		CON'SC'YOTI
	◆ 23 ¹ kg/J7	CAL 2 - 6 day	23-May-17* 0	0	KD10 - Completion of Section III of the Works (803)	CON'SC'K®10
	◆ Z3Hby-17	CAL 2 - 6 day	23-May-17* 0	0	KD09 - Completion of Section II of the Works (803)	CON.SC.KD09
	◆ 35-60y-27	CAL 2 - 6 day	15-May-17* 0	0	KD08 - Completion of Section I of the Works (795)	CON.SC.KD08
	♦ 07-0gc 15	CAL 2 - 6 day	07-Dec-15* 0	0	KD07 KD07 - Achievement of Stage 6 (270)	CON.SC.KD07
	◆.16-Nov-16	CAL 2 - 6 day	16-Nov-16* 0	0	KD06 - Achievement of Stage 5 (615)	CON.SC.KD06
	◆ 09-kor-16	CAL 2 - 6 day	09-Nov-16* 0	0	KD05 - Achievement of Stage 4 (615)	CON.SC.KD05
	◆ 11-Jun-16	CAL 2 - 6 day	11-Jun-16* 0	0	KD04 - Achievement of Stage 3 (465)	CON.SC.KD04
	◆ 138-Aug.15	CAL 2 - 6 day	18-Aug-16* 0	0	KD03 - Achievement of Stage 2 (525)	CON.SC.KD03
	◆ 14-Dec-16	CAL 2 - 6 day	14-Dec-16* 0	0	KD02 - Achievement of Stage 1B (650)	CON-SC.KD02
	◆.18.hug.16	CAL 2 - 6 day	18-Aug-16* 0	0	KD01 - Achievement of Stage 1A (525)	CON.SC.KD01
			Vorks	pletion of the V	Contractor Planned Completion: Key Dates - Stage / Section Completion of the Works	ontrac
	◆ 12Jun/17	CAL 1 - 7 day	12-Jun-17* 0	0	1350 Handover of Portion D3 (KD8+28 days)	CON.HD.1350
	◆ IzJun-17	CAL 1 - 7 day	12-Jun-17* 0	0	1340 Handover of Portion D2 (KD8+28 days)	CON.HD.1340
	◆ 12-jun [7]	CAL 1 - 7 day	12-Jun-17* 0	0	1330 Handover of Portion D1 (KD8+28 days)	CON.HD.1330
	◆15-jun_16	CAL 1 - 7 day	19-Jun-16* 0	0	1320 Handover of Portion C2 (KD13+0 days)	CON.HD.1320
	◆ 12-jun/7	CAL 1 - 7 day	12-Jun-17* 0	0	1310 Handover of Portion C1 (VD8+28 days)	CON.HD.1310
◆ 07-Jun-18		CAL 1 - 7 day	07-Jun-18* 0	0	1300 Handover of Portion B5 (KD14+28days)	CON.HD.1300
	◆; 20-jun;17	CAL 1 - 7 day	20-Jun-17* 0	0	1290 Handover of Portion B4 (KD12+28 days)	CON.HD.1290
	◆ 25·00:16	CAL 1 - 7 day	25-Oct-16* 0	0	1280 Handover of Portion B3 (KD11+28 days)	CON.HD.1280
	◆ 12-Jun-17	CAL 1 - 7 day	12-Jun-17* 0	0	1270 Handover of Portion B2 (KD8+28 days)	CON.HD.1270
	◆ 12-Jun-17	CAL1-7 day	12-Jun-17* 0	0	1260 Handover of Portion B1 (KDB+2B days)	CON.HD.1260
♦ 07-Jun−18		CAL 1 - 7 day	07-Jun-18* 0	0	1250 Handover of Portion A6 (KD14+28 days)	CON.HD.1250
	♦: 19-)un-16	CAL1-7 day	19-Jun-16* 0	0		CON.HD.1240
	◆ 100-in-i/J	CAL1-7 day	20-Jun-17* 0	0	1220 Handover of Portion A4 (KD10+28 days)	CON.HD.1220
	♦ : 20:Jun;17	CAL1-7 day	20-Jun-17* 0	0		CON.HD.1210
	◆ 12-Jun/7	CAL 1 - 7 day	12-Jun-17* 0	0	1200 Handover of Portion A2 (KD8+28 days)	CON.HD.1200
	◆ 12-Jun-17	CAL1-7 day	12-Jun-17* 0	0	.1190 Handover of Portion A1 (KD8+28 days)	CON.HD.1190
					Contractual Handover Dates to Employer	Contrac
		CAL1-7 day	10-May-19* 0	o	T.KD20 KD20 - Completion of Section DB of the Works (1520)	CON.FOT.KD20
◆ 15-May-18		CAL1-7 day	15-May-18* 0	0	T.KD19 KD19 - Completion of Section IXA of the Works (1160)	CON.FOT.KD19
JEMAMJU	O N D J F M A M J Jul A S O N D J F M A M J Jul A S O N D J F M A M J Jul A S O N D		Float			,

tvity ID Activity Name	Orig Dur Early Start Early Finish Total Calendar Remarks	2015 2016 2017 2018
Initial Works Programme	FOR	O N D J F M A M J M A S O N D J F M A M J M A S O N D J F M A M J M A M A M M J M A M M A M M A M M
CON.PR.1020.10 Prepare & Submit Initial Works Programme (TWP)	7 27-Feb-15 05-Mar-15 0 CAL 1 - 7 day 7 days from LOA	
CON.PR.1020.20 Engineer's Approval	30 06-Nor-15 04-Apr-15 0 CAL 1 - 7 day	
Provisional Programme for Piling Works		
CON.PR. 1030.10 Prepare Detailed Piling Schedule (refer to IWP)	14 13-Mar-15 26-Mar-15 9 CAL1 - 7 day	
CON.PR. 1030.20 Engineer's Approval	9	
3 Months Rolling Programme		
CON.PR1040.10 Prepare 3 Months Rolling Programme	14 27-Feb-15 12-Mar-15 0 CAL 1 - 7 day 14 days from LOA	
CON.PR. 1040.20 Engineer's Approval	24 13-Nor-15 05-Apr-15 0 CAL1 - 7 day	
Detailed Works Programme		
CON.PR.1050.10 Prepare Detailed Works Programme (DWP)	60 05-Apr-15 03-Jun-15 0 CAL1-7 day	
CON.PR.1050.20 Engineer's Approval	30 04-Jun-15 03-Jul-15* 0 CAL1-7 day	
Safety & Health		
CON.PR.1060.10 Draft Safety Plan	14 09-Nar-15 22-Mar-15* 0 CAL 1 - 7 day 14 days from LOA	
CON.PR.1060.20 Finalized Safety Plan	21 23-Nar-15 12-Apr-15 30 CAL 1 - 7 day 35 days from LOA	
Environmental Management Plan		
CON.PR.1080.10 Draft Environmental Management Plan	21 27-Feb-15 19-Mar-15 30 CAL 1 - 7 day 21 days from LOA	
CON.PR.1080.20 Finalized EMP	24 20-Nar-15 12-Apr-15 30 CAL 1 - 7 day 45 days from LOA	
Sub-Contractor Management Plan		
CON.PR.1080.50 Prepare Sub-Contractor Management Plan	30 27-Feb-15 28-Mar-15 0 CAL 1 - 7 day 30 days from LOA	
CON.PR.1080.60 Engineer's Approval	24 29-Mar-15 21-Apr-15* 0 CAL 1 - 7 day	
CONJPR.0130 Site Possession / Access to Works Area WA3	0 13-Mg-15 10 CAL2-6 day	
	13-Mar-15 19-Mar-15 10	0
CON.PR.0150 Engineer's Principal Site Office	45 20-Mar-15 16-May-15 11 CAL 2 - 6 day	
CON.PR.0150.10 Site Formation	3 20-Mar-15 23-Mar-15 10 CAL2 - 6 day	
CON.PR.0150.20 Foundation	5 24-Mar-15 28-Mar-15 10 CAL 2 - 6 day	
CON.PR.0150.30 Base Stab	5 30-Mar-15 08-Apr-15 10 CAL 2 - 6 day	
CON.PR.0150.40 Structural Steel Erection	10 09-Apr-15 20-Apr-15 10 CAL 2 - 6 day	
	28-Apr-15	
	15-May-15 10	
	07-May-15 15-May-15 10	
CON.PR.0150.90 T&C	2 16-May-15 18-May-15 10 CAL 2 - 6 day	
95	18-May-15* 10	D-407-55
	08-Apr-15 01-Jun-15 11	
CON.PR.0170 External Works - Paving, Drainage and Fencing	24 18-May-15 15-Jun-15* 11 CAL 2 - 6 day	
Procurement Bridge Bearings		
PROC.:MA.1610 Detailed Design / Shop Drawings and Materials Submission	60 08-Apr-15 18-Jun-15 31 CAI 2-6-day	
	19-Jun-15 18-Jul-15 31	
PROC.MA.1650 Production / Manufacturing / Factorization		
PROC.MA.1670 Materials Delivery (first delivery)	0 05-Nov-15 31 CAL 2 - 6 day	95-85-55
Precast Concrete - Segments		

Admir ID Adi	Addity Name	Orig Dur Ea	Early Start Earl	Early Finish To	al	Calendar Remarks	2015 2016
PROC.MA.1765 En	Engineer's Review / Approval	24 05		2	E	CAL 2 - 6 day	O N O
PROC.MA.1770 Mo	Mould Fabrication	48 06	06-Jul-15 29-	29-Aug-15		CAL 2 - 6 day	
PROC.MA.1780 Ca	Cast Prototype / Inspection and Approval	24 31-	31-Aug-15 26-	26-Sep-15	11 C	CAL 2 - 6 day	
PROC.MA.2570 Pro	Production of Precast Segments (1101 nos @ 4 segments/ day)	276 29	29-Sep-15 02-	02-Sep-16	11	CAL 2 - 6 day 1101 nos @ 4 segments / day	
PROC.MA.2590 Ma	Materials Delivery (First Delivery)	0 10	10-Nov-15		11	CAL 2 - 6 day	10-ko-55 🍎
PROC.MA.2650 Ma	Materials Delivery (Last Delivery)	0 03	03-Sep-16	_	25 C	CAL 2 - 6 day	03-Sep-16 ◆
&M Works and B	E&M Works and Building Services for Pump House and Switch Room (Design,Supply and Install)	om (Desig	1,Supply a	nd Install)			
PROC.SC.1285 De	Detailed Design and Material/ Equipment Submisson & Statutory Approval (FSD/EMSD)	200 08	08-Apr-15 04-	04-Dec-15	83 C	CAL 2 - 6 day	
PROC.SC.1287 En	Engineer's Review / Approval	24 05	05-Dec-15 05-	05-Jan-16	83 C	CAL 2 - 6 day	
PROC.SC.1290 Pro	Procurement and Manufacturing of Materials	180 06	06-Jan-16 15-	15-Aug-16	83 C	CAL 2 - 6 day	
PROC.SC.1300 Ma	Materials Delivery (first delivery)	0 16	16-Aug-16		83 C	CAL 2 - 6 day	16;Aug-16; ◆
teel Structures	Steel Structures for Sign Gantry / High Mast Structure & Other Signages	ignages					
PROC.MA.1990 De	Detailed Design / Material Submission	90 08	08-Apr-15 25	25-Jul-15		CAL 2 - 6 day	
	Engineer's Review / Approval				23	CAL 2 - 6 day	
PROC.MA.2010 Ma	Manufacture of Steel Structures	180 24	24-Aug-15 02-	02-Apr-16		CAL 2 - 6 day	
PROC.MA.2020 Ma	Material Delivery (first delivery)	0 05	05-Apr-16			CAL 2 - 6 day	05-Apr-16 ◆
Roads and Bridge Lighting	e Lighting						
PROC.MA.2840 Lig	Lighting Arrangement Detailed Design / Material Submission and Approval (within 12 weeks)		08-Apr-15 04	04-วัน-15 1		CAL 2 - 6 day	
	Engineer's Review / Approval					CAL 2 - 6 day	
	Manufacture of Road and Bridge Lighting			29-Apr-16 1		CAL 2 - 6 day	
Irrigation System	EMI	9	20	+		Court own	
PROC.SC.1180 De	Detailed Design / Material Submission	160 08	08-Apr-15 17-	17-0ct-15	98 C	CAL 2 - 6 day	
PROC.SC.1185 En	Engineer's Review / Approval	24 19	19-Oct-15 16-	16-Nov-15	98 C	CAL 2 - 6 day	-0
PROC.SC.1190 Pro	Procurement and Shipment of Irrigation Materials/Equipment	72 17	17-Nov-15 15-	15-Feb-16	98 C	CAL 2 - 6 day	
capi	9						
PROC.SC.2760 Pro	Propose Nursery for Landscape Materials	48 08	08-Apr-15 04-	04-Jun-15 1	8 8	CAL 2 - 6 day	
	Some inspection of the transfer of approximation						
	Landscape Materials Growing			06-Apr-16 1		CAL 2 - 6 day	3
PROC.SC.2810 Ma	Materials Delivery (first delivery)	0 0/	07-Apr-16		186	CAL 2 - 6 GBy	V-April 0
Construction / Installation	installation						
nitial Works / S	Initial Works / Site Establishment & Maintenance Works						
CONS.A1.0100 Sit	Site Possession / Access to Portion A1, A2, A5 & A6	0 13	13-мау-15		0	CAL 2 - 6 day	
CONS.A1.0110 Mc	Mobilisation, Site Clearing and Site Set-up		13-мау-15 30-	30-May-15		CAL 2 - 6 day	
CONS.A1.0120 Ins	Install Temporary Facilities / Hygiene Facilities	36 01	01-Jun-15 14-	14-Jul-15*		CAL 2 - 6 day	
Gates and Haul Ro	Road Construction						
CONS.A1.1010 Sit	Site Possession / Access to Portion A1	0 13	13-May-15		18 C	CAL 2 - 6 day	33 do: 15 d
CONS.A1.1020 Su	Survey/ Setting Out	6 13	13-May-15 19-	19-May-15	18 C	CAL 2 - 6 day	
CONS.A1.1030 Co	Construct Gate 1 at Haul Road	14 20	20-May-15 05-	05-Jun-15	18 C	CAL 2 - 6 day	
CONS.B1.1010 Sit	Site Possession / Access to Portion B1	0 13	13-Jun-15		12 C	CAL 2 - 6 day	135/10-715
CONS.B1.1020 Mc	Mobilisation, Site Survey and Setting Out	6 13	13-Jun-15 19-	19-Jun-15	12 C	CAL 2 - 6 day	
CONS.B1.1030 Co	Construct Gale 3 and Temporary Haul Road	22 16	16-Jun-15 13	13-Jul-15	12 C	CAL 2 - 6 day	
CONS.B2.1010 Sit					6 0	CAL 2 - 6 day	14-0415 ♦
	Site Possession / Access to Portion B2 & B5	0 14	14-Jul-15				

rity ID Activity Name	Orig Dur Early Start Early Finish Total Calendar Remarks	2016 2016 2017
CONS.R2.,1030 Construct Temporary Haul Road	41 21-Jul-15 05-Sep-15 6 CAL 2 - 6 day	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Preliminary Bored Pile and Load Testing at Abutment A1101		
	2	13 Nov.15 💠
	13-May-15 24-May-15 2	
	20-May-15 24-May-15 2	-
20	25-May-15 01-Jun-15 2	
	02-Jun-15 15-Jun-15 2	
	13-Jul-15 2	
CONS.A1.0220 Pile Load Testing & Submit Report	28 14-Jul-15 10-Aug-15 2 CAL 1 - 7 day	
Preliminary Bored Pile and Load Testing at Abutment A106		
	0	115-65-15
CONS.A1.0410 Mobilise Plant & Set-up Support	12 13-Sep-15 24-Sep-15 0 CAL1-7 day	
CONS.A1.0415.10 Predrilling to Preliminary Bored Pile	5 25-Sep-15 29-Sep-15 0 CALI-7 day	
CONS.A1.0415.20 GI Report and Verification / Agreement to Founding Level	8 30-Sep-15 07-Oct-15 0 CAL 1 - 7 day	
CONS.A1.0420 Preliminary Bored Piling - Abutment A106 (1 no. 2000mm dia x 52m)	14 08-Oct-15 21-Oct-15 0 CAL1 - 7 day 1 no. x 14 days / 1 rig	
CONS.A1.0430 Pile Curing		
CONS.A1.0440 Pile Load Testing and Submit Report	28 19-Nov-15 16-Dec-15 0 CAL 1 - 7 day	
Treatment for Bored Piling Excavated Materials		
CONS.EX.1010 Set-up Stockpile for Excavated Marine Mud	24 26-May-15 23-Jun-15 63 CAL 2 - 6 day	
CONS.EX.1020 Plot Test for Marine Mud Treatment	30 24-Jun-15 29-Jul-15 63 CAL 2 - 6 day	0
CONS.EX.1030 Solidification / Stabilisation / Approval Method	90 30-Jul-15 14-Nov-15 63 CAL 2 - 6 day	
CONS.EX.1040 Set-up Treatment Facilities and Storage Yard	48 17-Oct-15 12-Dec-15 63 CAL 2 - 6 day	
	10-Sep-16	
CONS.EX.1060 Decommissioning of Treatment Facilities	36 12-Sep-16 27-Oct-16 63 CAL 2 - 6 day	
at Po		
	14-Sep-15 15	ď
CONS.CI.1020 Ste Possession / Access to Portion D1 and D3 CONS.CI.1030 Ste Cel-lin	0 12-Sep-15 16 CAL2-6 day	12-Spr.15 ◆
CONS.BP.5010 Prepare Design and Submit Proposal for an Alternative Barging Point	24 02-May-15 30-May-15 7 CAL 2 - 6 day	
	01-Jun-15 13-Jun-15 7	
CONS.BP.5040 Statutory Approval - MD Vetting, Site Inspection and Approval	7	
CONS.BP.5050 Marine Department Issues Permit / Consent	7	◆ 25/Aug-15
CONS.BP.5060 Construct Barging Point	60 26-Aug-15 06-Nov-15 7 CAL 2 - 6 day	
CONS.BP.5070 Test and Commission	12 07-Nov-15 20-Nov-15 7 CAL 2 - 6 day	6
Box Culverts		
608		
CONS.OF.1020 Prepare Documents for Statutory Submission to Marine Department CONS.OF.1020 MD Vetting, Size Inspection and Approval	60 20-0ct-15 31-0cc-15 33 CAL2-6 day 60 02-Jan-16 15-War-16 33 CAL2-6 day	
	15-Mar-16 33	◆ 15-Har-16
Box Culvert D (Portion A1 & B1)		
Box Culvert D - (15 bays)		
CONS.A1.1040 Access to Portion A1 (Interface with Contract 03)	0 13-May-15 0 CAL 2 - 6 day	10 / 40/-15
CONS.A1.1045 Survey / Setting Out	6 13-May-15 19-May-15 0 CAL 2 - 6 day	

ctivity ID Activity Name	Orlg Dur Early Start Early Finish	Total Calendar Remarks	2015 201
CONS.A1.1055.10 Predriling at Portion A1 (30 nos)	-	0 CAL 2 - 6 day 30 nos x 5d / 4 rigs	0 N D J F M A M J J W D D J F M A M J J
	06-Jun-15	0 CAL 2 - 6 day	
CONS.A1.1060 Box Culvert D - Bored Piling Works (30 nos. 1200-1800mm dia x 63m +	90 18-Jun-15 05-Oct-15	0 CAL 2 - 6 day 30 nos x 18d / 6 rigs	1
CONS.A1.1065 Pile Testing / Interface Coring Test	90 23-Jul-15 07-Nov-15	0 CAL 2 - 6 day	
CONS.A1.1070 Install Dewatering Wells + Pump Test + Open Cut Excavation to formation	76 25-Aug-15 24-Nov-15	0 CAL 2 - 6 day	1
CONS.A1.1090 Pile Trimming and Pile Caps (15 nos.)		0 CAL 2 - 6 day 15 Piecaps x 8 days / 2 WF	1
CONS.A1.1095.10 Box Culvert - Base Slab, Wall & Top Slab - Part 1 (8 bays)	86 06-Nov-15 20-Feb-16		1
CONS.A1.1095.20 Box Culvert - Base Slab, Wall & Top Slab - Part 2 (7 bays)	76 25-Nov-15 27-Feb-16	1 CAL 2 - 6 day 7 bays (Base Slab 8d,Walls10d	1
CONS.A1.1100 Backfill / Reinstate and Connect UU and Road Works SOL101 and SOL102	76 07-Jan-16 12-Apr-16	1 CAL 2 - 6 day	
Box Culvert D - (3 bays and Outfall)		_	
CONS.B1.1150 Divert / Shift Haul Road to North	12 06-Oct-15 19-Oct-15	0 CAL 2 - 6 day	
CONS.B1.1160 Remove Rock Armour	14 20-Oct-15 05-Nov-15	0 CAL 2 - 6 day	
CONS.BI.1170 Construct Pling Platform	12 06-Nov-15 19-Nov-15	0 CAL 2 · 6 day	
CONS.B1.1180.10 Predriling (6 nos)	15 20-Nov-15 07-Dec-15	0 CAL 2 - 6 day 6 nos x 5 days / 2 rigs	
CONS.B1.1180.20 GI Report and Verification / Agreement to Founding Level	15 04-Dec-15 21-Dec-15	0 CAL 2 - 6 day	
CONS.B1.1190 Box Cuhert D - Bored Pling (6 nos 1200-1800mm dia x 63m + 0.65m Rock Societ)	54 21-Dec-15 27-Feb-16	0 CAL 2 - 6 day 6 nos x 18 days / 2 rigs	1
CONS.B1.1200 Pile Testing / Interface Coring Test	54 03-Feb-16 13-Apr-16	0 CAL 2 - 6 day	
CONS.B1.2110 Commence Works on Box Culvert Outfall	0 14-Apr-16	0 CAL 2 - 6 day	14-Apr;16 •
CONS.B1.2115 Divert/Shift Haul Road (on top of completed box culvert)	12 14-Apr-16 27-Apr-16	0 CAL 2 - 6 day	
CONS.B1.2130 Remove Piling Platform	14 28-Apr-16 16-May-16	0 CAL 2 - 6 day	
CONS.B1.2140 Install Seawall Block & Rockfill near Seawall	20 17-May-16 08-Jun-16	0 CAL 2 · 6 day	
CONS.B1.2150 General Fill	14 10-Jun-16 25-Jun-16	0 CAL 2 - 6 day	
CONS.BI.2180 Sheet Pling Works	20 27-Jun-16 20-Jul-16	0 CAL 2 - 6 day	
CONS.BI.2190 Install Dewatering Wells and Carry Out Pumping Test	24 21-Jul-16 17-Aug-16	0 CAL2-6 day	
CONS.BI. 2200 ELS Works (2 levels of Strut)	36 18-Aug-16 30-Sep-16	0 CAL 2 - 6 day Soft Excavation 600m3 /100m3 / day + 2 levels of struts at 12	
		0 CAL 2 - 6 day 3 pilecaps x 8 days	
CONS.B1.2220 Construct Box Culvert Outfall & Connect Drainage	90 08-Nov-16 27-Feb-17	0 CAL 2 - 6 day 3 bays (Base Slab 8d, Walls10d & Top Slab 12 days)	
CONS.BI.2230 Backfill, Remove Seawall Blocks & Reinstate Rock Armour	60 28-Feb-17 15-May-17	0 CAL 2 · 6 day	
Boy Culturat C (Bortion C1)			
Prelimnary Driven Piles and Load Testing			
CONS.C1.0450 Commence Preliminary Driven H Pile at Box Culvert C	0 13-Sep-15	0 CAL1-7 day	13-Sep-15 ◆
CONS.C1.0460 Mobilise Plant & Set-up Support	12 13-Sep-15 24-Sep-15	0 CAL 1 - 7 day	
CONS.C1.0470.10 Predriling (4 nos)	20 25-Sep-15 14-Oct-15	0 CAL 1 - 7 day 4 nos x 5 days / Pile - 1 rig	•
CONS.C1.0470.20 GI Report and Verification / Agreement to Founding Level	8 15-0ct-15 22-0ct-15	0 CAL 1 - 7 day	
CONS.CI.0480 Preliminary Drhen H Pile (4 nos)	10 23-Oct-15 01-Nov-15	0 CAL 1 - 7 day 4 nos x 2.5 days / Pile - 1 rig	
CONS.C1.0500 Pile Load Testing and Submit Report	28 02-Nov-15 29-Nov-15	0 CAL 1 - 7 day	
Box Culvert C - Bay 4-8			
CONS.C1.1040 Commence Box Culvert C at Portion C1	0 06-Nov-15	0 CAL 2 - 6 day	06·Nov-15 ♦
CONS.CI.1045 Survey / Setting Out	6 06-Nov-15 12-Nov-15	0 CAL 2 - 6 day	
CONS.CI.1055.10 Predriling (56 nos)	47 13-Nov-15 09-Jan-16	0 CAL 2 - 6 day 56 nos x 5 days / 6 Rig	1
	47 27-Nov-15 23-Jan-16	0 CAL 2 - 6 day	1
CONS.CI.1055.20 GI Report and Verification / Agreement to Founding Level	47 11-Dec-15 06-Feb-16	0 CAL 2 - 6 day 56 nos x 2.5 Days / 3 Driving Rig	1
	47 28-Dec-15 24-Feb-16	0 CAL 2 - 6 day	•
20		0 CAL 2 - 6 day 14 Pile Caps x 8 days / 2 Work	

CONS.CI1100 Construct Box Cuhert & Drainage Connection (5 bays)	07-Mar-16 04-Jun-16 0	J F M A M J J S O N D J F M A M J J M A S O N D J F M A M J M A S O N D J F M A M A M J M A S O N D J F M A M A S O N D J F M A M A S O N D J F M A M A S O N D J F M A M A S O N D J F M A M A S O N D J F M A M A M A S O N D J F M A M A M A S O N D J F M A M A M A S O N D J F M A M A M A S O N D J F M A M A M A S O N D J F M A M A M A S O N D J F M A M A M A S O N D J F M A M A M A S O N D J F M A M A M A M A S O N D J F M A M A M A M A M A M A M A M A M A M
ç		
CONS.CI.1120 Divert / Shift Haul Road to North CONS.CI.1150 Remove Rock Armour	14 11-Feb-16 26-Feb-16 2 CAL2-6-day 18 27-Feb-16 18-Mar-16 2 CAL2-6-day	
	19-Mar-16 08-Apr-16 2	
10	09-Apr-16 02-Jun-16 2	
CONS.C1.1170.20 GI Report and Verification / Agreement to Founding Level	45 23-Apr-16 17-Jun-16 2 CAL 2 - 6 day	
CONS.C1.1180 Piling Driving Works - Driven H-Pile (36 nos)	30 27-Nay-16 02-Jul-16 2 CAL 2 - 6 day 36 nos x 2.5 days / 3 rigs	
CONS.CI.8480 Commence Box Culvert C Outfoil	0 06-Jul-16 0 CAL 2 - 6 day	065Jul-16 ♦
CONS.C1.8485 Divert /Shift Haul Road to North (on top of completed box culvert)	10 06-Jul-16 16-Jul-16 0 CAL 2 - 6 day	
CONS.CL.8490 Remove Pling Platform	12 18-Jul-16 30-Jul-16 0 CAL 2 - 6 day	
CONS.C1.8500 Seawall Block Installation near Seawall	18 01-Aug-16 20-Aug-16 0 CAL 2 - 6 day	
CONS.CI.8510 General Fill	12 22-Aug-16 03-Sep-16 0 CAL2-6 day	
CONS.C1.8530 Sheet Pling	14 05-Sep-16 22-Sep-16 0 CAL2-6 day	
CONS.C1.8540 Dewatering Wells + Pump Test	24 23-Sep-16 22-Oct-16 0 CAL2 - 6 day	
CONS.C1.8550 ELS Works (2 layers of Strut)	36 24-Oct-16 03-Dec-16 0 CAL2-6 day	
CONS.C1.8560 Pile Trimming and Construction of Pile Caps (9 Pilecaps) CONS.C1.8570 Construct Box Colored + Outbill & Decisions Connection (78m or 3 base)	32 05-Dec-16 13-Jan-17 0 CAL 2 - 6 day 9 Pile caps x 8 days / 2 WF	
	29-Mar-17 15-May-17 0	
CONS.C1.8590 Complete Box Culvert C	0	◆ 15-60p·17
Bridge Works Bridge D1 in Portion C1, D1 and D3 (Interface with Contract HY/2013/03)	33)	
CONS.C1.1130 Access to Portion C1, D1 & D3	0 14-Sep-15 9 CAL2 - 6 day	14Sop 15 • •
CONS.C1.1140 Survey / Setting Out	6 14-Sep-15 19-Sep-15 9 CAL 2 - 6 day	
CONS.C1.2200.10 Predriling (17 nos)	30 26-Sep-15 03-Nov-15 4 CAL2 - 6 day 17 nos x 5 days / 3 rigs	
CONS.C1.2200.20 GI Report and Verification / Agreement to Founding Level	8 01-Nov-15 12-Nov-15 16 CAL2-6 day	
CONS.C1.2210 D1 Bored Pling (17 nos. 1800-2000mm dia x 52m) (2 nos + 0.8m Rock Socket)	62 02-Dec-15 18-Feb-16 0 CAL 2 - 6 day 2 x 18 days and 15 nos x 14 days / 4 rigs	
CONS.C1.2215 Pile Testing	62 05-Jan-16 19-Mar-16 0 CAL 2 - 6 day	
	02-Feb-16 16-Apr-16 0	1
CONS.C1.2225.20 Per P508 Curriq CONS.C1.2225.20 Per P508 Curriq	24 22-Mgr.16 22-Apr.16 0 CAL2-0 day 1 nos x 12 days	
	23-Apr-16 11-Jun-16 0	1
CONS.C1.2226 Achievement of KD4 (465)	11-Jun-16 0	◆ 11-Jun-16
CONS.C1.2230 Construct Abutment A106	30 09-Mar-16 15-Apr-16 0 CAL2 - 6 day 1 no	-0
CONS.C1.2240 Pier Columns + Pier Head & Bearings P101-P105	60 22-Feb-16 06-May-16 0 CAL2 - 6 day 5 nos x 12 days	
CONS.C1.2250 Bridge D1 - Erect Precast Segments + Stitching + Stressing (6 spans)	48 23-Apr-16 21-Jun-16 0 CAL 2 - 6 day 96 segments, 6 spans x 8 days / span	
CONS.C1.2260 D1 Bridge Ancillary - Parapet/TCSS, Railing, MJ, Drainage & Bridge Lighting		
CONS.C1.2265 D1 Bridge Ancillary - Parapet + Railing, MJ, Drainage, Bridge Lighting, Signages S	11-0d-16 05-Dec-16 21	
	29-Apr-17 11	◆ 29-Apr-17
Bridge D8		
	0 14-Sep-15 26 CAL 2 - 6 day	14-35rp 15: 0
instatizado and rosessori/ Access to rotton CI		
CONS.CI.2288 Survey / Setting Out	12 14-Sep-15 26-Sep-15 26 CAL2 - 6 day	

ID Activity Name	Orig Dur Early Start Early Finish Total	Calendar Remarks		2017 2018 2019
CONS.C1.2290.20 GI Report and Verification / Agreement to Founding Level	30-Oct-15		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	D J F M A M J J J J A S O N D J F M A A M J J J A S O N D J F M A A M J J J A S O N D J
CONS.C1.2300 D8 Bored Pling (10 nos.2000mm dia x 52m)	70 09-Dec-15 05-Mar-16 0	CAL 2 - 6 day 10 nos x 14 days / 2 rigs		
CONS.C1.2305 Pile Testing	70 14-Jan-16 12-Apr-16 0	CAL 2 - 6 day		
	56 19-Feb-16 28-Apr-16 0	CAL2 - 6 day 5 nos x 8 days + 6 days trimming		
	31-Mar-16 28-May-16	CAL 2 - 6 day 4 nos x 12 days	1	
	30 16-May-16 20-Jun-16 0	CAL 2 - 6 day 1 no		
CONS.C1.2340 Bridge D8 - Erect Precast Segments + Stitching + Stressing (4 spans)	32 21-Jun-16 28-Jul-16 0	CAL 2 - 6 day 62 Segments, 4 spans x 8 days	1	
CONS.C1.2350 D8 Bridge Ancillary - Parapet/TCSS, Railing, MJ, Drainage & Bridge Lighting	32 13-Jul-16 18-Aug-16 0	CAL 2 - 6 day 186m / 3 moulds @ 5 days cycle / 10m bay	-0	
	18-Jan-17 15-Mar-17	CAL 2 - 6 day 186m / 2 moulds @ 5 days cycle / 10m bay		
	29-Mar-17 12-Apr-17	CALZ-6 day		
CONS.C1.2370 Completion of Bridge D8	0 12-Apr-17 23	CAL2-6 day		◆ 12-Apr-17
Bridge D9a in Portion A1 & A5				
CONS.A5.2010 Site Possession / Access to Portion A1 & A5 (61 days)	0 13-May-15 16	CAL 2 - 6 day	13-lay:15 ◆	
CONS.A5.2015 Suvey / Setting out	6 13-May-15 19-May-15 16	CAL2-6 day	0	
CONS.A5.2020.10 Predriling - Portion A1 & A5 (12 nos)	30 20-May-15 25-Jun-15 16	CAL2-6 day 12 nos x 5d / 2 rigs	0	
CONS.AS.2020.20 GI Report and Verification / Agreement to Founding Level	8 26-Jun-15 06-Jul-15 16	CAL2-6 day		
CONS.AS.2030 D9a Bored Piling (12 nos.1800-2200mm dia x 47m)	56 14-Jul-15 16-Sep-15 10	CAL2-6 day 12 nos x 14 d / 3 rigs		
CONS.AS.2035 Pile Testing	56 15-Aug-15 22-Oct-15 15	CAL 2 - 6 day		
CONS.A5.2040 Pile Trimming + Pile Caps (2 nos)	48 17-Sep-15 14-Nov-15 15	CAL2 - 6 day 2 pile caps		
CONS.AS.2050 Pier Columns + Pier Head & Bearings (4 nos. P904-P907)	48 02-Nov-15 29-Dec-15 15	CAL 2 - 6 day 4 nos x 12 days	1	
CONS.AS.2065 Bridge D9a - Erect Precast Segments + Stitching + Stressing (4 spans)	32 01-Mar-16 11-Apr-16 0	CAL 2 - 6 day 58 Segments, 4 Spans x 8 days	I	
CONS.A5.2070 D9a Bridge Ancillary - Parapet/TCSS, Railing, MJ, Drainage, Bridge Lighting, & Ston Gantry	25 12-Apr-16 11-May-16 44	CAL 2 - 6 day 85m / 2 moulds @ 5 days cycle /	0	
CONS.A5.2080 D9a Bridge Ancillary - Parapet + Railing, MJ, Drainage, Bridge Lighting, Signatures	25 12-Dec-16 12-Jan-17 49	CAL 2 - 6 day 85m / 2 moulds @ 5 days cycle /		-0-
Bridge D9a in Portion C1 & C2				
CONS.C2.3010 Site Possession / Access to Portion C1 & C2 (184 days)	0 14-Sep-15 0	CAL 2 - 6 day	14-Sep-15 ◆	
CONS.C2.3015 Survey / Setting Out	6 14-Sep-15 19-Sep-15 0	CAL 2 - 6 day		
CONS.C2.3020.10 Predrilling - Portion C1 & C2 (8 nos)	20 16-Sep-15 10-Oct-15 0	CAL 2 - 6 day 8 nos x 5d / 2 rigs		
CONS.C2.3020.20 GI Report and Verification / Agreement to Founding Level	20 02-Oct-15 26-Oct-15 0	CAL 2 - 6 day	•	
CONS.C2.3030 D9a in Portion C1 & C2 Bored Pling (8 nos.1800-2200mm dia x 47m)	56 05-Oct-15 09-Dec-15 0	CAL 2 - 6 day 8 nos x 14 d / 2 rigs		
CONS.C2.3035 Pile Testing	56 07-Nov-15 14-Jan-16 0	CAL 2 - 6 day		
CONS.C2.3040 Pile Trimming + Pile Caps (3 nos)	36 10-Dec-15 23-Jan-16 0	CAL 2 - 6 day	1	
CONS.C2.3050 Péer Columns + Pier Head & Bearings (3 nos P902, P903 + P805)	24-Dec-15 06-Feb-16	CAL 2 - 6 day 3 nos x 12d		
CONS.C2.3070 Construct Abutment A901	30 04-Jan-16 06-Feb-16 0	CAL 2 - 6 day 1 no		
CONS.C2.3080 Bridge D9a (C1 & C2) - Erect Precast Segments + Stitching + Stressing (2 spans)	16 11-Feb-16 29-Feb-16 0	CAL 2 - 6 day 30 segments, 2 spans,		
CONS.C2.3085 D3a (C1 & C2) Bridge Ancillary - Parapet/TCSS, Railing, MJ, Drainage, Bridge Lighting, & Sign Gantry	48 01-Mar-16 29-Apr-16	CAL 2 - 6 day 87.5m / 2 Steel Mould @ 5 days cycle / 10m bay	1	
CONS.C2.3095 Completion of Works in Section VI (KD13)	0 31-Nay-16 15	CAL 2 - 6 day	◆ 31-May-16	
	12-Apr-16 20-Apr-16	CAL 2 - 6 day 16 segments, 1 span, P903-P805 x 8 days		
	30-Apr-16 31-May-16	CAL 2 - 6 day 46m / 1 Steel Moulds @ 5 days cyke / 10m bay		
	12-Dec-16 12-Jan-17	CAL 2 - 6 day 46m / 1 Steel Moulds @ 5 days cyce / 10m bay		
CONS.C2.3130 Completion of Bridge D9a	0 28-Mar-17 35	CAL 2 - 6 day		₽ 28-401-17
Rridge Dgb				
	0 13-May-15 63	CAL 2 - 6 day	13-May:15 •	
CONS.A1.1105 Access to Portion A1	13-Man-15 10-Man-15	CAL 2 - 6 day		
	6 13-May-15 19-May-15 63			

tivity ID Activity Name	ime	Orig Dur Eart	Early Start Early	Early Finish Total	100	Calendar Remarks	П	2017	2018
CONS.A1.1110.20 GI Report	GI Report and Verification / Agreement to Founding Level	8 21-	21-Jul-15 29-:	29-Jul-15		CAL 2 - 6 day	C C C C C C C C C C		
CONS.A1.1120 D9b Bored	D9b Bored Piling (8 nos. 2000mm dia x 49m) including 4 for P910	56 11-4	11-Aug-15 16-0	16-0ct-15	23	CAL 2 - 6 day 8 nos x 14 days / 2 rig			
CONS.A1.1125 Pile Testing	9	56 22-9	22-Sep-15 28-N	28-Nov-15	77	CAL 2 - 6 day	1		
CONS.A1.1130 Pile Trimm	Pile Trimming + Pile Caps	38 30-1	30-Nov-15 15-J	15-Jan-16	77	CAL 2 - 6 day 4 nos x 8d + 6d Trimming			
CONS.A1.1140 Pier Colum	Pier Columns + Pier Head & Bearings (4 nos. P908 & P909 + P910 x2)	48 16-J	16-Jan-16 15-M	15-Mar-16	77	CAL 2 - 6 day 4 nos x 12 days	1		
CONS.A1.1160 Bridge D9b	Bridge D9b - Erect Precast Segments + Stitching + Stressing (3 spans)	24 22-J	22-Jun-16 20-:	20-Jul-16	0	CAL 2 - 6 day 44 Segments, 3 spans x 8 days	0		
CONS.A1.1170 D9b Bridge	D9b Bridge Ancillary - Parapet/TCSS, Railing, ለህ, Drainage & Bridge Lighting	33 12-	12-Jul-16 18-A	18-Aug-16	0	/ span CAL 2 - 6 day 132m / 2 steel moulds @ 5 days			
	D9b Bridge Ancillary - Parapet + Railing, MJ, Drainage, Bridge Lighting, Signages					CAL 2 - 6 day 132m / 2 steel moulds @ 5 days cycle / 10m bay		-0-	
CONS.A1.1180 Uyb Final Aspnar, Pa	Uyb Final Asphar, Yaving + Road Mahings Bridge D9b complete	0 13-	13-Feb-17 25-F	25-Feb-17 25-Feb-17	61 0	CAL 2 - 6 day		■ PCEFAD-17	
Bridge D9c									
CONS.A1.1192 Site Posse	Site Possession / Access to Portion A1 & A2	0 13-1	13-May-15		26	CAL 2 - 6 day	13 May 15 ◆		
CONS.A1.1194 Survey / Setting Out	etting Out	6 13-	13-May-15 19-M	19-May-15	26	CAL 2 - 6 day			
CONS.A1.1200.10 Predrilling (8 nos)	(8 nos)	20 20-1	20-May-15 12-J	12-Jun-15		CAL 2 - 6 day 8 nos x 5 days / 2 rigs	0		
CONS.A1.1200.20 GI Report	GI Report and Verification / Agreement to Founding Level	8 13-J	13-Jun-15 23-J	23-Jun-15	26	CAL 2 · 6 day			
CONS.A1.1210 D9c Bored	D9c Bored P≣ng (8 nos. 2000mm dia x 62m)	56 14-1	14-Jul-15 16-S	16-Sep-15	10	CAL 2 - 6 day 8 nos x 14 days / 2 rigs	1		
CONS.A1.1215 Pile Testing	Q	56 20-A	20-Aug-15 27-C	27-0ct-15	10	CAL 2 - 6 day	1		
CONS.A1.1220 Pile Trimmi	Pile Trimming + Pile Caps (3 nos)	36 13-0	13-Oct-15 24-N	24-Nov-15	26	CAL 2 - 6 day 3 nos x 8 days + 6 days for Trimming	1		
CONS.A1.1230 Pier Colum	Pier Columns + Pier Head & Bearings	36 11-1	11-Nov-15 22-D	22-Dec-15	26	CAL 2 - 6 day 3 nos x 12 days	0		
CONS.A1.1240 Bridge D9c	Bridge D9c - Construct Deck (Cast in Situ) (1 span, P910 to P911)	36 23-0	23-Dec-15 05-F	05-Feb-16	26	CAL 2 - 6 day 1 span (cast in-situ)	1		
CONS.A1.1250 Bridge D9c Stressing (Bridge D9c - Erect Precast Segments Pier P911 to Pier P913 + Stitching + Stressing (2 spans)					CAL 2 - 6 day 28 segments, 2 spans x 8 days / span			
	D9c Bridge Ancillary - Parapet + Railing, MJ, Drainage, Bridge Lighting,	32 24-5	24-Sep-16 02-N	02-Nov-16	19 :	cycle / 10m bay CAL 2 - 6 day 126m / 2 Steel moulds @ 7 day			
ridge D9c in Portion A	Bridge D9c in Portion A3 (Interface with Contract HY/2012/07)					cyce/ tum bay			
CONS.A3.1010 Site Posses	Site Possession / Access to Portion A3	0 02-J	02-Jul-16		11	CAL 2 - 6 day	02-ju+16 ◆		
CONS.A3.1020 Mob/ Surve	Mob/ Survey / Setting Out	12 02-J	02-Jul-16 15-J	15-Jul-16 1		CAL 2 - 6 day			
CONS.A3.1030 Bridge D9c + Stätching	Bridge D9c (A3) - Erect Precast Segments Pier P913 to Contract Interface + Stitching + Stressing (1 span)	12 29-J	29-Jul-16 11-A	11-Aug-16	0	CAL 2 - 6 day 14 segments, 1 span x 8 days			
CONS.A3.1040 D9c Bridge	D9c Bridge Ancillary - Parapet/TCSS, Railing, MJ, Drainage & Bridge Lighting	35 12-A	12-Aug-16 23-S	23-Sep-16	0	CAL 2 - 6 day 41m 1 Steel Moulds @ 5 days cycle / 10m bay			
	D9c Bridge Ancillary - Parapet + Railing, MJ, Drainage, Bridge Lighting, Signages					CAL 2 - 6 day 41m 1 Steel Moulds @ 5 days cycle / 10m bay			
	rain Ashiak raway in Noou rainaiya		79-1407-02			CAL 2 - 6 day			
Bridge D10	Competen of works in Stage 18 (MZ)	o	14-0	14-Dec-16	0	CAL 2 - 6 day		● 14-Dec-16	
	Site Possession / Access to Portion A1	0 13-M	13-May-15		22	CAL 2 - 6 day	33 457-155		
	etting Out			19-May-15 6		CAL 2 - 6 day			
CONS.A1.1290.10 Predriling (16 nos)	(16 nos)	25 09-J	09-Jul-15 06-A	06-Aug-15 2	24 (CAL 2 - 6 day 14 nos x 5d / 2 rigs	0		
CONS.A1.1290.20 GI Report a	GI Report and Verification / Agreement to Founding Level	8 07-A	07-Aug-15 15-A	15-Aug-15 2	24 (CAL 2 - 6 day	0		
CONS.A1.1300 D10 Bored	D10 Bored Piing (14 nos 1800-2200mm dia x 57m) (42m for Abutment)	66 14-S	14-Sep-15 02-D	02-Dec-15	0	CAL 2 - 6 day 14 nos x 14 days / 3 rigs	1		
CONS.A1.1305 Pile Testing		66 22-0	22-Oct-15 09-Ja	09-Jan-16	0	CAL 2 - 6 day	1		
CONS.A1.1310 Pile Trimmin	Pěe Trimming + Pěe Caps					CAL 2 - 6 day 8 nos x 8 days + 6 days trinming	1		
	MOOT					CAL 2 - 6 day			
	Pier Columns + Pier Head & Bearings			01-Apr-16		CAL 2 - 6 day 8 nos x 12 days / 2 Teams	I		
	Bridge D10 - Erect Precast Segments + Stitching + Stressing (8 spans)	64 02-Apr-16		20-Jun-16	0	CAL 2 - 6 day 109 segments, 8 spans x 8 days / span	1		
	D10 Bridge Ancillary - Parapet/TCSS, Railing, M1, Drainage, Bridge Lighting, & Sign Gantry	50 03-Jun-16		02-Aug-16 1	14 0	CAL 2 - 6 day 195m / 2 Steel Moulds @ 5 days cycle / 10m bay	1		
CONS.A1.1355 D10 Bridge Signages	D10 Bridge Ancillary - Parapet + Railing, MJ, Drainage, Bridge Lighting, Signages	50 01-D	01-Dec-16 03-Fe	03-Feb-17 1	19 0	CAL 2 - 6 day 195m / 2 Steel Moulds @ 5 days cycle / 10m bay + median		1	

Size Possession Access to Printion A1 (610) 0 1240p-15 1550p-15 10	ctivity ID Activity Name	Orig Dur Early Start Early Finish	Total Calendar Remarks	2015 2016 2017 2018	
San Palemente Acames to Palement (\$10.0) San Palemente Acames to Palement (\$10.0) San Palemente Acames to Palement (\$10.0) San Palemente Acames to Palemente Acames					
Surfections Control	Bridge D11				
Contract price (man) Contract price			40		
Comparison Com		19-Sep-15			
20 Gillaport activiration / Japromote to incodes posed. 20 Stocks 20 Sto		26-Sep-15	CAL 2 - 6 day		
Extraction of Dect. 2000mm dis 460 (Sallin in Authenseld)		23-0ct-15			
### Timons ## Cap(4 no.) 34		02-Nov-15			
Ret Timeney + Part Copy (+ cap 5) 200 - 100		04-Dec-15			
Abstracest A latitis Abstraces		09-Jan-16			
Red Columns + Novi Hood & Examps (Cloud, Fillica Horible 22) Diship Cill Feder Account September 1, Stationy - Streemon (1 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill Feder Account September 1, Stationy - Streemon (2 January). Diship Cill F		02-Feb-16			
Bridge 2011 - Erest Princest September 4 - Standary 4 - Standary 5 - Standary 5 - Standary 6 -		26-Feb-16			
D. I) Richop Catory - Prospect (TCSS, Rahey, M.), Denoya, Richo (pilphon), 12 12-bas (1 8-bay) (6 0 CLL 2-6 day 1) many and an expect (1 family for the state) (1 10 pilphon), 12 12-bas (1 8-bay) (6 0 CLL 2-6 day 1) many and an expect (1 family for the state) (1 family fo		11-Jul-16			
District Andrey Prospect Balley (L), Dealoge, Delgo (L) Dealoge (L)		21-Jul-16			
Dill Haul August Paring + South Parings		19-Aug-16			
Size Possession / Access is Protein B1				◆ 24-100-1-15	
See Procession / Access to Protein B1	Bridge D12a				
Set Survey and Setting Out. 6 13-1an-15 9-1an-15 0 C44,2-6 day		- 8		13-Jun-15: •	
December		13-Jun-15			
Column Part		18-Jun-15			
Dilà Bond Pilig (17 nos. 2000mm dis x 60m + 1.0m Rock Socket) Pie Testing Pie Cops Accident Pier Colors Accident Pier Social Suprimit Pier Colors Accident Pier Colors		04-Jul-15			
Pic Training + Pic Caps Pic Charmins + Pic Fload & Bearings Pic Columns + Pic Fload & Bearing + Bear		18-Jul-15			
Re Trimming + Pile Capis 60 23-Sep-15 0+Occ-15 0 CAL 2- 6 day 3 nox x 14 days + 18 8 days + 100 pays in the state of t		20-Aug-15			
Per Columns - Per Hebd & Boarings 48 24-Oct.15 18-Oct.15 0 CAL 2 - 6 oby 7 rose x 1 days 2 Teams Bridge D12a - Erect Precast Sogments + Staching + Stressing (6 spans) 48 24-Oct.15 27-Jan-16 0 CAL 2 - 6 oby 7 rose x 1 days 5 spans x 8 days D 12a Bridge Andlary - Parapet PTCSS, Nalling, NU, Drainage, Bridge Lighting, a Spans x 8 days begin Station of Station and National Regions of Station and National Regions (10 parapets) 45 15-Aug-16 0 CAL 2 - 6 oby 17 Im / 2 steel modulé © 5 days D 12a Bridge Andlary - Parapet + Raining, NU, Drainage, Bridge Lighting, a Spans x 8 days begin and the parapet of Raining, NU, Drainage, Bridge Lighting, a Spans x 8 days and x 8 days an		23-Sep-15			
Dila Bedge Andbry - Panpet FCSS, Ralling, MJ, Drahage, Bridge Lighting, 45 26-Jan-16 21-Aur-16 0 CAL 2 - 6 day 171 m 2 steel moulds © 5 days 6 days		20-MO-15			
Sage Schrity Sading Andahy - Parapet + Railing, MJ, Dahage, Bridge Lighting, 45 15-Aug-16 08 Oct-16 3 CAL 2 - 6 day 171m / 2 stefanodos © 5 days 5ynages 5yn		26-Jan-16			
D126 Froil Asphalt Paving + Road Markings 12 14-Oct-16 0 CAL 2 - 6 day 150 CAL		15-Aug-16		0	
Side Possession / Access to Porton B2 & B5		14-0ct-16			
Site Possession / Access to Portion B2 & B5				● 17:00±16	
Site Possession / Access to Portion B2 8. B5 0 14-Jul-15 31 CAL 2-6 day	Bridge D12b				
Site Survey / Setting out		14-Jul-15		14-04-15 • •	
20 GReport and Verification / Agreement to Founding Level 30 05-Sept 15 12-Oct-15 0 0 122b Bored Pring (18 nos. 2000mm dia x 64m + 3.3m Rock Socket) 65 19-Sept 15 12-Oct-15 0 0 122b Bored Pring (18 nos. 2000mm dia x 64m + 3.3m Rock Socket) 65 26-Oct-15 12-Jan-16 0 14 15 15 15 15 15 15 15 15 15 15 15 15 15		14-Jul-15			
D12b Bered Piling (18 nos. 2000mm da x 64m + 3.3m Rock Socket) 65 19-5ep 15 07-0ec-15 0 Pile Testing 65 20-6ec-15 12-Jan-16 0 Pile Testing 75 20-6ec-15 0 Pile Tresting 75 20-6ec-15 0 Pile Tresting 75 20-6ec-15 0 Pile Columns + Pier Head & Bearings 77 22-Nov-15 20-6ec-15 0 Pier Columns + Pier Head & Bearings 60 30-0ec-15 12-Mar-16 0 Pier Columns + Pier Head & Bearings 60 30-0ec-15 12-Mar-16 0 Pier Columns + Pier Head & Bearings 60 30-0ec-15 12-Mar-16 0 Pier D12b Bridge Andlary - Parapet/TCSS, Railing, MJ, Drahage, Bridge Lighting, 45 22-Mar-16 19-May-16 0 Pier D12b Bridge Andlary - Parapet + Railing, MJ, Drahage, Bridge Lighting, 45 22-Mar-16 19-May-16 0 Pier Brail Parky, Road Markings and Signages 72 20-May-16 13-May-16 0 Pier Brail Parky, Road Markings and Signages 12 20-May-16 13-May-16 0 Pier Brail Parky, Road Markings and Signages 12 20-May-16 13-May-16 0		05 San 15			
Pile Testing Pile Columns + Pile Colpts Pile Trimming + Pile Colpts Pile Columns + Pier Head & Bearings Pile Trimming + Pile Colpts Pile Columns + Pier Head & Bearings Pile Trimming + Pile Colpts Pile Columns + Pier Head & Bearings Pile Trimming + Pile Colpts Pile Columns + Pier Head & Bearings Pile Columns + Pie		19-Sep-15			
Pet Trimming + Piac Capes 72 23-Nov-LS 20-Feb-16 0 Pet Columns + Pet Head & Bearings 60 30-Dec-LS 12-Mar-16 0 Bridge D12b - Erect Precast Segments + Shzdning + Stressing (8 spans) 64 28-Jan-16 19-Apr-16 0 D12b Bridge Ancillary - Parapet/TCSS, Railing, NJ, Drainage, Bridge Lighting, 45 22-Mar-16 19-Apr-16 0 D12b Bridge Ancillary - Parapet/TCSS, Railing, NJ, Drainage, Bridge Lighting, 45 22-Mar-16 19-Apr-16 0 Signapers 72 20-May-16 13-Aug-16 0 Signapers Final Paying, Road Markings and Signapers Final Paying, Road Markings and Signapers 12 28-Sep-16 13-Oct-16 0		26-Oct-15			
Per Columns + Peir Head & Bearings 60 30-Dec-15 12-Mar-16 0 Bridge D12b - Erect Precast Segments + Shicking + Stressing (8 spans) 64 28-Jan-16 19-Apr-16 0 D12b Bridge Andlary - Parapet/TCSS, Railing, NU, Drainage, Bridge Lighting, 45 22-Mar-16 19-May-16 0 Signapors 72 20-May-16 13-May-16 0 Signapors 72 20-May-16 13-May-16 0 Signapors 72 20-May-16 13-May-16 0 Grant Prival Parking, Road Markings and Signapors 72 20-May-16 13-May-16 0 O Signapors 73 20-May-16 13-May-16 0 O Signapors 74 20-May-16 14 28-Sep-16 13-Oct-16 0 O Signapors 75 20-May-16 14 28-Sep-16 14 20-Ct-16 0 O Signapors 75 20-May-16 14 28-Sep-16 14 20-Ct-16 0 O Signapors 75 20-May-16 14 28-Sep-16 14 20-Ct-16 0 O Signapors 75 20-May-16 14 28-Sep-16 14 20-Ct-16 0 O Signapors 75 20-May-16 14 28-Sep-16 14 20-Ct-16 0 O Signapors 75 20-May-16 14 28-Sep-16 14 20-Ct-16 0 O Signapors 75 20-May-16 14 28-Sep-16 14 20-Ct-16 0 O Signapors 75 20-May-16 14 28-Sep-16 14 20-Ct-16 0 O Signapors 75 20-May-16 14 28-Sep-16 14 20-Ct-16 0 O Signapors 75 20-May-16 14 28-Sep-16 14 20-Ct-16 0 O Signapors 75 20-May-16 14 20-Ct-16 0 O Signapors 75 20-May-16 14 28-Sep-16 14 20-Ct-16 0 O Signapors 75 20-May-16 14 20-Ct-16 0 O Signapors 75		23-Nov-15			
Bridge D12b - Erect Precest Segments + Streiding + Streiding (Spans) 64 28-Jan-16 19-Apr-16 0 D12b Bridge Andlany - Parapet/TCSS, Ralling, MJ, Drahnage, Bridge Lighting, 45 22-Nan-16 19-Nay-16 0 & Syn Golarly D12b Bridge Andlany - Parapet + Ralling, MJ, Drahnage, Bridge Lighting, 72 20-Nay-16 13-Aug-16 0 Synapores Final Paving, Road Markings and Synapoes Final Paving, Road Markings and Synapoes D1 (Cast in-situ) in Portion B3 (Interface with Contract HY/2012/07)		30-Dec-15			
Olzb Bidge Andlary - Parapet/TCSS, Ralling, NJ, Drahage, Bridge Lighting, 45 22-Mgr-16 19-Mgy-16 0 A Sgn Goldry - Parapet + Ralling, NJ, Drahage, Bridge Lighting, 22 20-Mgy-16 13-Mgy-16 0 Sgnapets Final Paving, Road Markings and Sgnages b (cast in-situ) in Portion B3 (Interface with Contract HY/2012/07)		28-Jan-16		1	
D12b Bdge Andlany - Parapet + Raling, NJ, Dahage, Bidge Ughting, 72 20-Hay-16 13-Aug-16 0 Signages 12 28-Sep 16 13-Oct-16 0 Final Paving, Road Markings and Signages 12 28-Sep 16 13-Oct-16 0 b (cast in-situ) in Portion B3 (Interface with Contract HY/2012/07)		22-Mar-16			
b (cast in-situ) in Portion B3 (Interface with Contract HY/2012/07)		28-Sep-16			
	Bridge D12h (rast in-sin) in Portion R3 (Interface with Contract HY/20	10 000			
Site Possessin/Arress to Portion B3	CONS RT 2110 Sta Deceasion/Agrees to Borbon RT	0 02-1:1-16	O CAI 3-6dw	D3.14.55 A	

yID Aci	Activity Name Survey / Setting Out	Orig Dur Early Start 6 02-Jul-16	tart Early Finish	sh Total Float	Calendar Remarks CAL 2 - 6 day	2015 O N D J F M A M J M A S O N D J F M A	2016 M J Jul A S O N D J F M	J F M A M J J M A S O N D J F M A M	2018 2 M J Jul A S O N D J F M A
	Bridge D12b (Portion B3) - Construct Deck (cast-in-situ) Pier P1210/P1214				CAL 2 - 6 day 1 span (cast in-situ)		1		
CONS.B3.2140 D12	nterrace with Other Contract D12b Bridge Ancillary - Parapet/TCSS, Railing, MJ, Drainage, Bridge Lighting, A ston Captro	21 18-Aug-16	-16 10-Sep-16	6	CAL 2 - 6 day 41m / 1 steel mould @ 5 days				
CONS.B3.2145 D12	D12b Bridge Ancillary - Parapet + Railing, MJ, Drainage, Bridge Ughting, Signaces	21 24-Aug-16	-16 19-Sep-16	0	CAL2 - 6 day 41m / 1 steel mould @ 5 days		•		
CONS.B3.2150 D12	D12b Final Paving, Road Markings and Signages	7 20-Sep-16	-16 27-Sep-16	6	CAL 2 - 6 day				
CONS.B3.2160 Con	Completion of Section IV (KD11) Works within Portion B3 including Bridge D12b	0	27-Sep-16	6	CAL 2 - 6 day		• 27-Sep-16		
Bridge D13 in Porti	Bridge D13 in Portion B1 and Portion C1								
CONS.B1.1925 Site	Site Possession / Access to Portion B1	0 13-Jun-15	-15	27	CAL 2 - 6 day	13-Jun-15 •			
CONS.B1.1926 Site	Site Possession / Access to Portion C1	0 14-Sep-15	-15	0	CAL 2 - 6 day	14-Sep-15 ◆			
CONS.B1.1928 Site	Site Survey / Setting out Portion B1	6 13-Jun-15	-15 19-Jun-15	5 27	CAL 2 - 6 day	0			
CONS.B1.1929 Site	Site Survey / Setting out Portion C1	6 14-Sep-15	-15 19-Sep-15	0	CAL 2 - 6 day	-			
CONS.B1.1930.10 Pre	Predriling (15 nos) in Portion B1	25 24-Jul-15	15 21-Aug-15	0	CAL 2 - 6 day 15 nos x 5 days / 3 rigs	0			
CONS.B1.1930.20 GI F	GI Report and Verification / Agreement to Founding Level - B1	8 22-Aug-15	-15 31-Aug-15	5 37	CAL 2 - 6 day	0			
CONS.B1.1932.10 Prev	Predriling (6 nos) in Portion C1	15 21-Sep-15	-15 09-Oct-15	5 0	CAL 2 - 6 day 6 nos x 5 days / 2 rigs				
CONS.B1.1932.20 GI F	GI Report and Verification / Agreement to Founding Level - C1	8 10-Oct-15	-15 19-Oct-15	0	CAL 2 - 6 day				
CONS.B1.1940 D13	D13 Bored Piling (15 nos. 1800-2000mm dia x 52m) 4nos + 0.8m Rock Socket - Portion B1	57 26-Sep-15	-15 04-Dec-15	5 15	CAL 2 - 6 day 4 nos x 18 days and 11 nos x 14				
CONS.B1.1942 Pile	Pile Testing B1	57 02-Nov-15	-15 09-Jan-16	6 15	CAL 2 - 6 day	1			
CONS.B1.1946 D13	D13 Bored Pling (6 nos. 1800-2000mm dia x 47m-52m) - Portion C1	42 20-Oct-15	-15 08-Dec-15	5 0	CAL 2 - 6 day 6 nos x 14 days / 2 rigs	1			
CONS.B1.1948 Pile	Pile Testing C1	42 23-Nov-15	-15 13-Jan-16	6 28	CAL 2 - 6 day	_0			
CONS.B1.1950 Pile	Pile Trimming + Pile Caps - Portion BI	56 05-Dec-15	-15 15-Feb-16	6 15	CAL 2 - 6 day 5 nos x 10 days +6 days trimming	1			
CONS.B1.1952 Pile	Pile Trimming + Pile Caps - Portion C1	36 14-Jan-16	-16 27-Feb-16	6 28	CAL 2 - 6 day 3 nos x 10 days + 6 days trinming				
	Pier Columns + Pier Head & Bearings	56 20-Jan-16	-16 31-Mar-16	6 15	CAL 2 - 6 day 9 nos x 12 days / 2 teams				
	Construct Abutment A1301 + A1307 - Portion C1			6 7	CAL 2 - 6 day 2 nos x 2 work fronts	0			
	Bridge D13 - Erect Precast Segments + Stitching + Stressing (9 spans)	66 20-Apr-16	-16 09-Jul-16	0	CAL 2 - 6 day 129 Segments, 9 spans x 8 days /span				
	D13 Bridge Ancillary - Parapet/TCSS, Railing, MJ, Drainage, Bridge Lighting, & Sign Cantry				CAL 2 - 6 day 293m / 3 steel moulds @ 5 days cycle / 10m bay]		
	Signages				cycle / 10m bay		[
CONS.BL.2000	UID FINI KSMAR FANTS, ROOD PATRINGS & SIGNAGES Completion of Patrice D13	0 20-001-10	10-Nov-16	147	CAL 2 - 6 day		,		
		-		r					
					のとなるのでは、大きのでは、				
	Commence Bridge U14a / Portion A1				CAL 2 - 6 day	May-15			
	survey / serring our				CAL 2 - 6 day				
	Predrilling (12 nos)	30 19-May-15		9	CAL 2 - 6 day 12 nos x 5 days / 2 rigs				
20	GI Report and Verification / Agreement to Founding Level	8 25-Jun-15	·15 04-Jul-15	9	CAL 2 - 6 day				
CONS.A1.1480 D14	D14a Bored Piling (12 nos. 2000mm dia x 62m) 47m for Abutment	56 14-Jul-15	15 16-Sep-15	5 2	CAL 2 - 6 day 12 nos x 14 days / 3 rigs	1			
CONS.A1.1485 Pile	Pile Testing	56 15-Aug-15	-15 22-Oct-15	5 24	CAL 2 - 6 day	1			
CONS.A1.1490 Pile	Pile Trimming + Pile Caps	54 17-Sep-15	-15 21-Nov-15	5 24	CAL 2 - 6 day 6 nos x 8 days + 6 days trimming]			
CONS.A1.1510 Pier	Pier Columns + Pier Head & Bearings	36 26-Oct-15	15 05-Dec-15	5 24	CAL 2 - 6 day 6 nos x 12 / 2 WF	1			
CONS.A1.1515 Con	Construct Abutment A1401	30 01-Dec-15	-15 07-Jan-16	6 11	CAL 2 - 6 day				
	Bridge D14a - Erect Precast Segments + Stitching + Stressing (5 spans)	40 21-Jan-16	·16 10-Mar-16	0	CAL 2 - 6 day 75 Segments / 5 spans x 8 days / span				
	D14a Bridge Ancillary - Parapet + Railing, MJ, Drainage, Bridge Lighting & Signages				CAL 2 - 6 day 428m / 4 steel moulds @ 5 days / cycle / 10m bay				
	D14a Final Asphalt Paving + Road Markings	12 15-Mar-17			CAL 2 - 6 day				
CONS.A1.1550 Brid	Bridge D14a complete	٥	28-Mar-17	7 35	CAL 2 - 6 day			28-Mar-17	
Bridge D14b in Port	Bridge D14b in Portion A1 and Portion B1								
	Access to Portion B1		15	57	CAL 2 - 6 day	135un-15 ◆			
CONS. B1. 1656 Sun	Communication Out				CALL				

divity ID A	Activity Namo	Orig Dur E	Early Start E	Early Finish	Total	Calendar Remarks	0 N D 1 5 N A N 1 1 1 N A S O N D 1 5 N A N 1 1 N A S O N D 1 5 N A N 1 1 N A S O N D 1 5 N A N 1 N A S O N D 1
CONS.B1.1660.10 P	Predriling (6 nos)	15 0	09-Jul-15	25-Jul-15	చ	CAL 2 - 6 day 6 nos x 5 days / 2 rigs	
CONS.B1.1660.20 G	GI Report and Verification / Agreement to Founding Level	8 2	27-Jul-15 0	04-Aug-15	127	CAL 2 - 6 day	
	D14b Bored Pling (6 nos. 2000-2200mm dia x 62m) (2nos +2.3m Rock Socket)			20-Feb-16	10	CAL 2 - 6 day 2 nos x 18 days + 4 nos x 14 days / 2 rigs	
	the results of the Control of the Co			OT-ING-17	5 5	CALZ-6 day	
CONS.B1.1690 P	Ple Trinning + Ple Caps Pler Columns + Pler Head & Bearings	30 2: 72 0:	29-Mar-16 0 05-May-16 :	04-May-16 30-Jul-16	6 6	CAL 2 - 6 day 3 nos x 8 days + 6 days trimming CAL 2 - 6 day 6 nos x 12	
	Bridge D14b - Erect Precast Segments + Stitching + Stressing (3 spans)			25-Aug-16	0	CAL 2 - 6 day 49 Segments @ 3 spans x 8	
CONS.B1.1720 D	D14b Bridge Ancilary - Parapet + Railing, MJ, Drainage, Bridge Lighting & Signages	36 20	26-Aug-16 J	11-0ct-16	21	CAL 2 - 6 day 284m / 4 steel moulds @ 5 days / cycle / 10m bay	
CONS.B1.1730 D	D14b Final Asphalt Paving + Road Markings	12 2	26-Jan-17 1	11-Feb-17	0	CAL 2 - 6 day	
CONS.B1.1740 B	Bridge D14b complete	0		11-Feb-17	73	CAL 2 - 6 day	◆ 11-feb-17
Bridge D14c							
CONS.B1.1744 S	Site Possession / Access to Portion B1	0 1	13-Jun-15		72	CAL 2 - 6 day	13-Jun-15: ◆
CONS.B1.1746 S	Survey / Setting Out	6 1:	13-Jun-15 1	19-Jun-15	72	CAL 2 - 6 day	
CONS.B1.1750.10 P	Predriling (11 nos)	20 23	22-Aug-15 1	14-Sep-15	20	CAL 2 - 6 day 11 nos x 5 days / 3 rigs	
CONS.B1.1750.20 G	GI Report and Verification / Agreement to Founding Level	8 1	15-Sep-15 2	23-Sep-15	4	CAL 2 - 6 day	
CONS.B1.1760 D	D14c Bored Pling (11 nos. 2000-2200mm dia x 67m + 2.3m Rock Socket)	66 1:	17-0ct-15	06-Jan-16	23	CAL 2 - 6 day 11 nos x 18 days / 3 rigs	
CONS.B1.1765 P	Pile Testing	66 31	30-Nov-15 2	20-Feb-16	23	CAL 2 · 6 day	
CONS.B1.1770 P	Pile Trimming + Pile Caps	48 2	21-Jan-16 1	19-Mar-16	23	CAL 2 - 6 day 3 nos x 12 days + 6 days	
CONS.B1.1790 P	Pier Columns + Pier Head & Bearings	48 2	22-Feb-16 2	21-Apr-16	23	CAL2-6 day 4 nos x 12 days	
CONS.B1.1795 B	Bridge D14c - Construct Deck (cast in-situ) Pier P1409 to P1410	36 2:	22-Apr-16 0	04-Jun-16	23	CAL 2 - 6 day 1 span (cast in-situ)	0
CONS.B1.1800 B	Bridge D14c - Erect Precast Segments + Stitching + Stressing (4 spans)	32 26	26-Aug-16 0	05-Oct-16	0	CAL 2 - 6 day 60 Segments, 4 spans x 8 days	
	D14c Bridge Ancillary - Parapet + Railing, MJ, Drainage, Bridge Lighting & Signages			11-Jan-17	0	CAL 2 - 6 day 428m / 4 steel moulds @ 5 days / cycle / 10m bay	
CONC B1 1930	DITE FROM ASMISH FOR BY T NOOU FOI RAISS		7 /1-400/-27	71-116/-C7	3 6	CALZ-6 day	
	anya otto compete	c		/T-libfi-C7	8	CALZ-0 009	→ 230011
		1000				THE STATE OF THE PARTY OF THE P	
CONS.BS.2109	Simply Sta Setting Out		14-Jul-15	20-1-4-15	8	CAL 2 - 6 day	
5	Predrilling (11 pgs)			A.Nou.15	5	CAL 3 - 6 day 11 poor v6 days 13 day	
	Of Department Validation I Associated to Consultation I			T-MON-T-		CALZ - 0 day 11 llos x 3 days / 2 ligs	
2	or refore any semination I wheeling is to commit the			CT-A0M1-07	o	CALZ-6 BBy	
	D15 Bored Piling (11 nos. 2000mm dia x 65m + 3.3m Rock Socket)	50 09		11-Feb-16	0	CAL 2 - 6 day 11 nos x 18 days / 4 rigs	
CONS.BS.2125 P.	Pile Testing	50 25	25-Jan-16 2	29-Mar-16	0	CAL 2 - 6 day	
CONS.BS.2130 PI	Ple Trimming + Ple Caps	54 30	30-Mar-16 0	03-Jun-16	0	CAL 2 - 6 day 4 nos x 12 days + 6 days for trimming	
CONS.BS.2140 Pi	Pier Columns + Pier Head & Bearings	48 Q	04-Jun-16 0	01-Aug-16	0	CAL 2 - 6 day 4 nos x 12 days	
CONS.B5.2150 Br	Bridge D15 - Construct Deck (cast In-situ) Pier P1501/P1502-1503	36 16	16-Aug-16 2	28-Sep-16	0	CAL 2 - 6 day 1 span x 36 days (cast in-situ)	
CONS.BS.2160 Br	Bridge D15 - Erect Precast Segments + Stictching + Stressing (4 spans)	32 06	06-Oct-16 1	12-Nov-16	0	CAL 2 - 6 day 64 Segments, 4 Spans x 8 days / span	
CONS.B5.2170 D	D15 Bridge Ancillary - Parapet/TCSS, Railing, MJ, Drainage, Bridge Lighting, & Sign Gantry	60 05	05-Nov-16 1	17-Jan-17	0	CAL 2 - 6 day 450m / 4 steel moulds @ 5 days	
CONS.B5.2180 D	D15 Final Asphalt Paving, Road Markings and Signages	12 17	17-May-17 3	31-May-17	280	CAL 2 - 6 day	
Bridge D15 in Po	Bridge D15 in Portion B4 (Interface with Contract HY/2012/07)						
	Site Possession/Access to Portion B4	0 25	29-Nov-16		25	CAL 2 - 6 day	29-Noy-16 ◆
CONS.B4.2180 St	Survey / Site Setting Out	6 25	29-Nov-16 0	05-Dec-16	25	CAL 2 - 6 day	
CONS.B4.2190 Br	Bridge D15 - Erect Precast Segments on Falseworks at Portion B4 Interface (1 span)	8 06	06-Dec-16 1	14-Dec-16	25	CAL 2 - 6 day 14 segments, 1 Span x 8 days	
CONS.B4.2200 D	D15 Bridge Ancillary - Parapet/TCSS, Railing, MJ, Drainage, Bridge Lighting, & Sign Gantry	30 20	20-Jan-17 2	27-Feb-17	25	CAL 2 - 6 day 84m / 2 steel moulds @ 5 days cycle / 10m bay	
CONS.B4.2210 D	D15 Final Asphalt Paving, Road Markings and Signages	12 25	29-Mar-17 1	12-Apr-17	0	CAL 2 - 6 day	
CONS.B4.2220 In	Inspection and Handover	24 13	13-Apr-17 1	16-May-17	0	CAL 2 - 6 day	
CONE BY 2220		0			•	CAI 2-6 day	

	74 Ech 10	CONS.RW.2980 Road Markings and Road Skinages
	24-Jan-18 23-Feb-18 0	CONS.RW.2970 Final Road Paving (Wearing Course)
	6 17-Jan-18 23-Jan-18 0 CAL 2 - 6 day	CONS.RW.2930 Road Clearing
		Portion A6 - Final Paving and Road Markings
0	23-Dec-16 20-Jan-17	CONS.RW.2720 Road Markings and Road Signages
	24 25-Nov-16 22-Dec-16 1 CAL 2 - 6 day	CONS.RW.2690 Final Road Paving (Wearing Course)
		Final Paving and Road Markings
	75 11-Jun-16 07-Sep-16 7 CAL2 - 6 day	CONS.RW.2830 Install Road Ligting and Signages
	75 12-May-16 10-Aug-16 2 CAL 2 - 6 day	CONS.RW.2220 Install Road Railing and Fencing
		Installation of Railing and Fencing + Road Lighting and Signages
	75 15-Mar-16 17-Jun-16 2 CAL 2 - 6 day	CONS.RW.2150 Road Formation to Base Course
	90 26-Jan-16 19-May-16 0 CAL 2 - 6 day	CONS.RW.2140 Road Formation to Road Base
		Road Works to Road Base and Base Course
	90 27-Nov-15 17-Mar-16 0 CAL 2 - 6 day	CONS.RW.1110 Construct Precast Road Kerbings
	20-Nov-15 10-Mar-16	CONS.RW.1100 Road Formation to Sub-base
	08-Oct-15 03-Mar-16 0	
		- 7
	350 PH-Aug-15 01-He0-16 0 CAL 2 - 6 day	
		Others
	150 21-10-15 18-Jan-16 0 CAL 2-6 day	
		T Underground Utilities
	150 06-Jun-15 03-Dec-15 12 CAL 2 - 6 day	install Drainage System (Drain Pipes & ng & Interface Connection
		CONS.RW.1020 Road Formation to Sub-grade (Cut & Fill)
	13-May-15 19-May-15 0	
		. 0
		Road SOL 101 / 109 / 114
		Road Formation and Drainage System
		Road Works (East of Box Culvert D)
		Road Works, Drainage and U/G Utilities
♦ 23/8/-17	0 23-May-17 0 CAL 2 - 6 day	CONS.A4.2330 Completion of Bridge D16N and D16S
	6 17-May-17 23-May-17 0 CAL2-6 day	CONS.A4.2320 Inspection and Handover of Bridge D16
	12 02-May-17 16-May-17 0 CAL 2 - 6 day	CONS.A4.2310 Final Asphalt Paving, Road Markings and Signages
	26 18-Jan-17 20-Feb-17 0 CAL 2 - 6 day 38m / 1 steel moulds @ 5 days cycle / 10m bay	CONS.A4.2300 D16N & D16S Bridge Ancillary - Parapet, MJ, Drainage, Bridge Lighting, TCSS & Signages
	36 29-Nov-16 12-Jan-17 0 CAL 2 - 6 day 1 span cast in-situ 36 days	CONS.A4.2290 Bridge D16S & D16N - Construct Deck (cast in-stu)
29-Nor-16 •	0 29-Nov-16 0 CAL2 - 6 day	CONS.A4.2285 Site Passession / Site Access to Portion A4
		Bridge D16S and D16N in Portion A4
	36 03-Jun-16 16-Jul-16 0 CAL 2 - 6 day	CONS.A4.2280 Construct Abutment A1601
	40 15-Apr-16 02-Jun-16 0 CAL 2 - 6 day	CONS_A4.2270 Pile Trimming + Pile Caps
	56 02-Feb-16 14-Apr-16 0 CAL 2 - 6 day	CONS.A4.2265 Pile Testing
	56 18-Dec-15 27-Feb-16 0 CAL 2 - 6 day 4 nos x 14 days / 1 rig	CONS.A4.2260 D16N8S Bored Piling (4 nos x 1800mm dia)
	8 09-Dec-15 17-Dec-15 0 CAL 2 - 6 day	CONS.A4.2250.20 GI Report and Verification / Agreement to Founding Level
	20 16-Nov-15 08-Dec-15 0 CAL2-6 day 4 nos x 5 d / 1 rig	CONS.A4.2250.10 Predriling (4 nos)
	6 04-Nov-15 10-Nov-15 4 CAL 2 - 6 day	CONS.A4.2240 Survey / Site Setting Out
OH-log-15 ◆	0 04-Nov-15 4 CAL 2 - 6 day	CONS.A4.2230 Commence Works for Abutment A1601
		Bridge D16S and D16N and Abutment A1601 in Portion A6
	O N D	

uata uate: 2/-Heb-15 Print Date: 23-Apr-15 13:05 CONS.RW.2850 Install Road Ligting and Signages CONS.RW.2260 Install Road Railing and Fencing Installation of Railing and Fencing + Road Lighting and Signages CONS.RW.2210 Road Formation to Base Course Road Works to Road Base and Base Course Road Formation and Drainage System Road SOL 107 / 113 Road SOL 102 CONS.RW.2130 Construct Precast Road Kerbings CONS.RW.2120 CONS.RW.2110 Kerbing and Footings for Railing, Fencing, Signages and Road Lighting CONS.RW.2060 CONS.RW.2050 CONS.RW.2040 CONS.RW.2010 Road Formation to Sub-grade (Cut & Fill) CONS.RW.2000 Survey/ Road Setting Out CONS.RW.2730 Road Markings and Road Signages CONS.RW.2700 Final Road Paving (Wearing Course) CONS.RW.2840 Install Road Ligting and Signages CONS.RW.2240 Install Road Railing and Fencing CONS.RW.2180 Road Formation to Base Course CONS.RW.2170 Road Formation to Road Base Road Works to Road Base and Base Course CONS.RW.2080 CONS.RW.2910 CONS.RW.2890 CONS.RW.1990 Excavate to invert level and install Drainage System (Drain Pipes & Catchpit/Manholes) + Testing & Interface Connection CONS.RW.1970 Survey/ Road Setting Out Portion A6 - Final Paving and Road Marking CONS.RW.2100 Construct Precast Road Kerbings CONS.RW.2090 Kerbing and Footings for Railing, Fending, Signages and Road Lighting CONS.RW.2900 CONS.RW.1980 Road Formation to Sub-grade (Cut & Fill) Road Formation and Drainage Systen CONS.RW.2990 Road Markings and Road Signages CONS.RW.2920 Final Road Paving (Wearing Course) installation of Railing and Fencing + Road Lighting and Signages Installation of Underground Utilities Excavate and Install Fresh WM / Valves & fittings + Testing, Cleaning & Flushing and Interface Connection (3 lines) Excavate to invert level and install Drainage System (Drain Pipes & Catchpit/Manholes) + Testing & Interface Connection Excavate and Construct Footings for Road Lightings / Railing / Fencing and Signages Road Formation to Sub-base Excavate and Install ELV/ LV Ducting and Pillar Box for TCSS Excavate and Install Fresh WM / Valves & fittings + Testing, Cleaning & Flushing and Interface Connection Road Formation to Road Base Excavate and Construct Footings for Road Lightings / Railing / Fencing and Excavate and Install ELV/LV Ducting and Pillar Box for TCSS and Road Lighting Excavate and Install Common Telecom Ducting and Telecom Ducting by Others Excavate and Install Flush WM / Valves & fittings + Testing, Cleaning & Flushing and Interface Connection (1 line) 100 150 150 150 13-Jun-15 120 13-Oct-15 150 90 60 17-Jun-16 75 29-Dec-15 75 19-Dec-15 75 12-Dec-15 36 15-Aug-15 6 08-Aug-15 14 24-Apr-18 24 22-Mar-18 18 21-Jan-17 22 23-Dec-16 90 02-Dec-15 90 25-Nov-15 60 28-May-15 6 20-May-15 13-Apr-16 16-Feb-16 15-Mar-18 11-Nov-15 04-Nov-15 15-0ct-15 26-Sep-15 25-Jun-16 16-May-16 08-Aug-15 25-Jul-15 28-Jul-16 26-Jan-16 14-Jul-15 HY/2013/04 - Hong Kong Boundary Crossing Facilities Infrastructure Works Stage II (Southern Portion) 26-Aug-16 23-Feb-16 23-Apr-18 22-Mar-16 10-Dec-15 01-Apr-16 25-Sep-15 30-Jun-16 19-May-16 15-Mar-16 05-Feb-16 11-Jan-16 07-Aug-15 27-May-15 13-Jul-16 19-May-16 22-Mar-16 15-Mar-16 01-Mar-16 16-Feb-16 15-Jan-16 14-Aug-15 21-Mar-18 14-Feb-17 20-Jan-17 12-Aug-16 08-Mar-16 23-Sep-16 22-Jan-16 08-Oct-16 Float 7 13 CAL 2 - 6 day CAL 2 - 6 day CAL 2 - 6 day Note: Late Final Paving due to Site Logistics related to CAL 2 - 6 day O NO D TEM AM TAM A SO NO D TEM AM TAM A TEM AM . .

Page: 14 / 24

THE DAME. 25-Apr-13 13:03		•
skity ID Activity Name	Orig Dur Early Start Early Finish Total Calendar Remarks	15 2016 2017 2018
Final Paving and Road Markings		C C C C C C C C C C C C C C C C C C C
CONS.RW.2740 Road Markings and Road Signages	16 17-Feb-17 07-Mar-17 11 CAL2-6 day	
Road SOL 108 / 106		
Adjacent to Road SOL 108 / 106 and Abutment A901		
CONS.RW.2070 Excavate and Instal Common Telecom Ducting and Telecom Ducting by Others + Bodding of the Construction to subrade + Dahage System CONS.RW.2160	53 12-Apr-16 15-Jun-16 0 CAL 2 - 6 day	-
	23-Apr-16 05-May-16 0	
CONS.RW.2230 Excavate and Construct footing for Railing and Road lighting	16-May-16 0	
CONS.RW.2250 Road formation to Subbase	6 17-May-16 23-May-16 0 CAL2-6 day	
CONS.RW.2370 Construct Precast Road Kerbings	6 24-May-16 30-May-16 0 CAL2-6 day	
CONS.RW.2380 Road formation to Road base and Base course	8 31-May-16 08-Jun-16 0 CAL 2 - 6 day	
CONS.RW.2390 Install Road Lighting, Railing and Signages	4 10-Jun-16 14-Jun-16 0 CAL 2 - 6 day	
CONS.RW.2400 Final Road Paving and Road markings (KD13 - Completion of Section VI)	4 15-Jun-16 18-Jun-16 0 CAL 2 - 6 day	
Road Works (West of Box Culvet D)		
Road Formation and Drainage System		
Road SOL 101 / 105		
CONS.RW 2270 Survey/ Road Setting Out	6 14-Sep-15 19-Sep-15 0 CAL 2 - 6 day	
CONS.RW.2280 Road Formation to Sub-grade (Cut & Fill)	75 21-Sep-15 19-Dec-15 2 CAL 2 - 6 day	
CONS.RW.2290 Excavate to invert level and install Drainage System (Drain Pipes & Catchpit/Nanholes) + Testing & Interface Connection	150 09-Oct-15 13-Apr-16 2 CAL 2 - 6 day	
-		
	18-Sep-15 07-Dec-15 0	
	0/-086-15	• Crage: D
CONS.RW.2310 Example and Install Fresh WM/ Valves & fittings + Testing, Cleaning & Flushing and Interface Connection CONS.RW.2320 Example and Install Common Telecom Ducting and Telecom Ducting by	150 17-Nov-15 23-Nay-16 0 CAL 2 - 6 day 150 24-Nov-15 30-Nay-16 0 CAL 2 - 6 day	
CONS.RW.2330 Excavate and Install ELV/ LV Ducting and Pillar Box for TCSS	06-Jun-16 0	
Kerbing and Footings for Railing, Fencing, Signages and Road Lighting		
CONS.RW.2340 Excavate and Construct Footings for Road Lightings / Railing / Fencing and Signages	120 05-Feb-16 06-Jul-16 0 CAL 2 - 6 day	
	22-Mar-16 13-Jul-16 0	
CONS.RW.2360 Construct Precast Road Kerbings	90 01-Apr-16 20-Jul-16 0 CAL 2 - 6 day	
CONS.RW.2570 Road Formation to Road Base	90 31-May-16 14-Sep-16 2 CAL 2 - 6 day	
CONS.RW.2580 Road Formation to Base Course	18-Jul-16 17-Oct-16 2	
Installation of Railing and Fencing + Road Lighting and Signages		
CONS.RW.2630 Install Road Railing and Fencing	90 27-Aug-16 14-Dec-16 0 CAL 2 - 6 day	
CONS.RW.2860 Install Road Lighting and Signages	75 19-Oct-16 17-Jan-17 0 CAL 2 - 6 day	
CONS.RW.2660 Final Road Paving (Wearing Course) CONS.RW.2750 Road Markings and Road Simones	24 18-feb-17 17-Mar-17 0 CAL 2 - 6 day	
	10-Apr-17 26-Apr-17 14	0
Road SOL 102 /106/111		
	6 21-Sep-15 26-Sep-15 0 CAL 2 - 6 day	

CONS.C1.5010 Commence Works on Depressed Road (1st half on the West side) Stage 1- Depressed Road Works (West Side 1st Half) CONS.RW.2680 Final Road Paving (Wearing Course) CONS.RW.2880 Install Road Lighting and Signages Installation of Railing and Fencing + Road Lighting and Signages CONS.RW.2620 Road Formation to Base Course CONS.RW.2610 Road Formation to Road Base Road Works to Road Base and Base Course CONS.RW.2440 Survey/ Road Setting Out Road Formation and Drainage System Road SOL 104 CONS.RW.2760 Road Markings and Road Signages CONS.RW.2670 Final Road Paving (Wearing Course CONS.RW.2870 Install Road Lighting and Signages CONS.RW.2640 Install Road Railing and Fending CONS.RW.2940 Excavate and Install Fresh WM / Valves & fittings + Testing, Cleaning & Flushing and Interface Connection CONS.RW.2430 Excavate to invert level and install Drainage System (Drain Pipes & Catchpit/Manholes) + Testing & Interface Connection CONS.C1.5030 Excavate to formation level CONS.RW.2540 Kerbing and Footings for Railing, Fencing, Signages and Road Lighting CONS.RW.2480 CONS.RW.2470 CONS.RW.2450 Road Formation to Sub-grade (Cut & Fill) Installation of Railing and Fencing + Road Lighting and Signages CONS.RW.2600 Road Formation to Base Course Road Works to Road Base and Base Course CONS.RW.2530 Construct Precast Road Kerbings Kerbing and Footings for Railing, Fencing, Signages and Road Lighting CONS.RW.2960 Excavate and Install ELV/ LV Ducting and Pillar Box for TCSS CONS.RW.2950 Excavate and Construct Footings for Road Lightings / Railing / Fencing and Signages Install Road Railing and Fencing Excavate and Install Fresh WM / Valves & fittings + Testing, Cleaning & Flushing and Interface Connection (3 lines) Excavate to invert level and install Drainage System (Drain Pipes & Catchpit/Manholes) + Testing & Interface Connection Road Formation to Road Base Excavate and Install ELV/ LV Ducting and Pillar Box for TCSS Excavate and Construct Footings for Road Lightings / Railing / Fencing and Excavate and Install Common Telecom Ducting and Telecom Ducting by Others Excavate and Install Flush WM / Valves & fittings + Testing, Cleaning & Flushing and Interface Connection (1 line) 120 120 150 120 150 150 19-Oct-15 90 150 19-Dec-15 14 12-Apr-17 90 21-May-16 90 06-May-16 45 29-Sep-15 0 21-Sep-15 48 17-Dec-16 48 19-Nov-16 48 07-Oct-16 60 23-Aug-16 60 05-Jul-16 6 19-Nov-15 14 12-Apr-17 20 18-Mar-17 90 13-Sep-16 75 02-Sep-16 6 21-Sep-15 12-Jul-16 25-Feb-16 26-Nov-15 21-Apr-16 03-Dec-15 19-Apr-16 12-Apr-16 17-Nov-15 05-Jul-16 27-Feb-16 HY/2013/04 - Hong Kong Boundary Crossing Facilities Infrastructure Works Stage II (Southern Portion) 21-Nov-15 17-Feb-17 17-Jan-17 04-Nov-16 22-Aug-16 25-Jun-16 23-May-16 26-Sep-15 02-May-17 12-Sep-16 05-Sep-16 05-Aug-16 29-Jul-16 23-Jan-16 11-Apr-17 03-Jan-17 08-Jun-16 02-Dec-16 21-Sep-16 02-May-17 02-Dec-16 21-Oct-16 08-Aug-16 22-Apr-16 22-Jul-16 25-Nov-15 25-Jul-16 Float 24 24 = = = = CAL 2 - 6 day O NO JEMAM JMA SONO JEMAM MAMASONO JEMAM JMA SONO JEMAM JMA SONO JEMAM JMA SONO JEMAM JMA SONO

Page: 16 / 24

Activity ID Activity Name	Orig Dur Early Start Early Finish Total Ca	Calendar Remarks 2015 2016
CONS.C1.5040 Excavate and install Drainage Pipes and Construct Manholes & Baddill	45 27-Oct-15 17-Dec-15	O N D J F M A M J J M A M J M A M J M A M J M A M M M M M M M M
CONS.C1.5050 Excavate and Install Fresh Water Mains & Flush Water Main + Hydrotest, Clean & Flushing and Connection	54 18-Nov-15 22-Jan-16 0	ide
CONS.C1.5060 Construct U-Structure - Base Slab and Walls	72 04-Dec-15 03-Mar-16 0 CAL 2 - 6 day	
CONS.C1.5070 Construct Plain ad Rabbed Finishes to Walls	05-Apr-16	ide de la companya de
CONS.C1.5080 Backfill and Compaction	36 06-Apr-16 19-May-16 0 CAL 2 - 6 day	
CONS.C1.5090 Construct Footing for Road Lighting and Signages	24 20-May-16 17-Jun-16 0 CAL 2 - 6 day	idey
	12 18-Jun-16 02-Jul-16 0 CAL 2 - 6 day	idy
Stage 2 - Depressed Road (East Side 2nd Half) Interface with Bridge D14a, D9a & D10	th Bridge D14a, D9a & D10	
	0 04-Jul-16 0	(day) 01-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
CONS.C1.8680 Survey / Setting out	09-Jul-16	day
CONS.C1.8690 Excavate to formation level	45 09-Jul-16 30-Aug-16 0 CAL2-	CAL 2 - 6 day interface with erection of segments at D14a and D10
CONS.C1.8700 Excavate and install Drainage Pipes and Construct Manholes & Baddill	45 06-Aug-16 29-Sep-16 0	ide;
CONS.CI.8710 Excavate and Install Fresh Water Mains & Flush Water Main + Hydrotest, Clean & Flushing and Connection	in + Hydrotest, 60 27-Aug-16 09-Nov-16 0 CAL 2 - 6 day	ide
CONS.C1.8720 Construct U-Structure - Base Slab and Walls	72 23-Sep-16 17-Dec-16 0 CAL 2 - 6 day	iday
CONS.C1.8730 Construct Plain ad Rabbed Finishes to Walls	60 07-Nov-16 18-Jan-17 0 CAL 2 - 6 day	idy
CONS.C1.8740 Backfill and Compaction	36 19-Jan-17 04-Mar-17 0 CAL 2 - 6 day	idy
CONS.C1.8750 Construct Footing for Road Lighting and Signages	24 06-Mar-17 01-Apr-17 0 CAL 2 - 6 day	iday
CONS.C1.8760 Install Ducting and Drawpits for Road Lighting	12 03-Apr-17 20-Apr-17 0 CAL2-6 day	(day
CONS.C1.8770 Install Road Lighting and Signages + Cabling and Termination	tion 12 21-Apr-17 06-May-17 0 CAL 2 - 6 day	iday
CONS.C1.8780 Road Paving and Road Markings	7 08-May-17 15-May-17 0 CAL 2 - 6 day	iday
Under Ground Utilities (Power, Water & Telecom)		
Sewage Rising main		
CONS.RM.1010 Commence Works on Rising Main	0 21-Dec-15 36 CAL 2 - 6 day	day 22-bec 15 ◆
CONS.RM.1020 Site Survey / Setting Out Sewerage Alignment	6 21-Dec-15 29-Dec-15 36 CAL 2 - 6 day	iday
CONS.RM.1030 Excavate to Invert Level & Install 2 Sewage Rising Main DN100 CHC & CHD	V100 CHC & CHD 60 30-Dec-15 12-Mar-16 36 CAL 2 - 6 day	idey
CONS.RM.1040 Construct Thrust Block	18 14-Mar-16 07-Apr-16 36 CAL 2 - 6 day	iday
CONS.RM.1050 Gravity Flow Testing	12 08-Apr-16 21-Apr-16 36 CAL 2 - 6 day	iday
CONS.RM.1060 Backfill	30 22-Apr-16 28-May-16 36 CAL 2 - 6 day	iday
CLP Cables and Telecom Crossing at Portion D2 and D1		
	60 13-Jul-16 22-Sep-16 0	
	22-Sep-16 04-Nov-16 0	
CONS.RW.2820 Backfill and reinstate ground	18 05-Nov-16 25-Nov-16 0 CAL 2 - 6 day	day
Portion A1 and A2 - Sub-Base Area		
CONS.A1.4430 Demobilisation of Temporary Facilities on Site	13-Jan-17 13-Feb-17	iday
CONS.A1.4440 Site Survey / Site Clearing	12 14-Feb-17 27-Feb-17 0 CAL 2 - 6 day	Cory
	20 28-Feb-17 22-Mar-17 0 CAL 2 - 6 day	iday
CONS.A1.4460 Sub-Base Material Topping (Area 29,963 m2 x 100mm thk Subbase)	(Subbase) 40 23-Mar-17 15-May-17 0 CAL 2 - 6 day	Gey Company
Se Ct		
	0 04-Mar-16 0 CAL 2 - 6 day	(day
CONS.C1.5120 Mobilisation / Survey/ Setting Out	6 04-Nar-16 10-Mar-16 0 CAL 2 - 6 day	dey
	20 10-Nbr-16 06-Apr-16 0 CAL 2 - 6 day	S
CONS.C1.5130 Install Dewatering Wells + Pump Test	24 07-Apr-16 05-May-16 0 CAL 2 - 6 day	Ġ,
CONS.C1.5140 ELS Works to Formation level (Basement 2)	54 06-Nay-16 11-Ju-16 0 CAL 2 - 6 day	day

ity ID Ad	activity Namo	Orig Dur Early Start	Early Finish	Total	Calendar Remarks	115 2016 2017	2019
CONS.C1.5160 Co	Construct Walls and Slab to Upper Basement	24 04-Aug-16	31-Aug-16	0	CAL 2 - 6 day	C C C C C C C C C C	2
CONS.C1.5170 Co	Construct Walls and Slab to Ground Level	24 01-Sep-16	30-Sep-16	0	CAL 2 - 6 day		
CONS.C1.5200 Co	Construct Walls and Roof Slab	24 03-Oct-16	31-0ct-16	0	CAL 2 - 6 day Linked to KD6		
CONS.C1.5205 AB	ABWF & Building Services Works to Pump House / Switch Room	14 01-Nov-16	16-Nov-16	0	CAL 2 - 6 day		
CONS.C1.5210 Ad	Achievement of Stage 5 (KD6) / Interface with C3	0	16-Nov-16	0	CAL 2 - 6 day	• 15 do-16	
CONS.C1.5215 Bui	Building Services Installation	75 17-Nov-16	18-Feb-17	7	CAL 2 - 6 day		
CONS.C1.5220 ME	MEP Installation for Pump House/Switch Room (By C3)	75 17-Nov-16	18-Feb-17	7	CAL 2 - 6 day		
CONS.C1.5235 AB	ABWF Works + External Works	75 17-Nov-16	18-Feb-17	7	CAL 2 - 6 day	1	
	T&C and Statutory Permits/Centification (FS, BD)	60 20-Feb-17	06-May-17	7	CAL 2 - 6 day		
Sign Gantry							
CONS.C1.0510 Co	CONS.C1.0510 Commence Preliminary Driven H Pile for Sign Gantry	0 13-Sep-15		0	CAL1-7 day	13-Sep-15 •	
CONS.C1.0520 Mo	Mobilise Plant & Set-up Support		24-Sep-15	0	CAL 1 - 7 day		
CONS.C1.0530.10 Pre	Pre-drilling (2 nos)	10 25-Sep-15	08-Oct-15	0	CAL 2 - 6 day 2 nos x 5 days		
CONS.C1.0530.20 GI	GI Report and Verification / Agreement to Founding Level	8 09-Oct-15	17-0ct-15	0	CAL 2 - 6 day		
CONS.C1.0540 Pre	Preliminary Driven H Pile (2 nos)	5 18-0ct-15	22-0ct-15	0	CAL 1 - 7 day 2 nos x 2.5 days / Pile - 1 rig		
CONS.C1.0550 Pile	Pile Load Testing and Submit Report	28 23-Oct-15	19-Nov-15	0	CAL1-7 day		
Sign Gantry Footing	Sign Gantry Footings at Grade in Portion A1						
9	Pile)						
CONSAL4370 Mo	Commence Foundation / Footing for Sign Gantry Mobilise Plant + Survey / Setting Out	6 20-Nov-15	26-Nov-15	6 6	CAL 2 - 6 day	CONTROL D.	
10	Predriling (12 nos)		04-Jan-16	10	CAL 2 - 6 day 12 nos x 5 days / 2 rigs		
CONS.A1.4380.20 GI	GI Report and Verification / Agreement to Founding Level	30 11-Dec-15	18-Jan-16	10	CAL 2 - 6 day	-0-	
CONS.A1.4390 Pil	Pling Works - Driven H Pile (12 nos)	30 07-Jan-16	13-Feb-16	2	CAL 2 - 6 day 12 nos x 2.5 d / Driven H-Pile		
CONS.A1.4410 Ex	Excavation, Pile Trimming + Cast Pile Caps (3 nos)	30 15-Feb-16	19-Mar-16	20	CAL 2 - 6 day	0	
CONS.A1.4420 Ba	Backfill Foundation	12 21-Mar-16	07-Apr-16	20	CAL 2 - 6 day		
oigh dailuy rooun	Sign value round at claus in roundings or or roundings						
DS302 (610mm di	DS302 (610mm dia. Prebored H Pile)						
	Commence Foundation / Footing for Sign Gantry			14	CAL 2 - 6 day	4	
	Mobilisation/ Survey / Setting Out		23-Sep-15	. 14	CAL 2 - 6 day]	
	Predriling for Prebored H Pile (8 nos)		19-0ct-15	=	CAL 2 - 6 day 8 nos x 5 days / 2 rigs		
CONS.D1.3400.20 GI	GI Report and Verification / Agreement to Founding Level Pre-horsed Socket H-Pile (8 nos.)	8 20-Oct-15	29-0ct-15	36	CAL 2 - 6 day 8 pos x 6 days / Pile - 1 rin		
	Ple Testing		29-Jan-16	36	CAL 2 - 6 day		
	Excavation, Pile Trimming + Pile Caps (2 nos)	24 30-Jan-16	01-Mar-16	36	CAL 2 - 6 day		
CONS.D1.3440 Bai	Backfill Foundation	12 02-Mar-16	15-Mar-16	36	CAL 2 - 6 day		
GT408 (Driven H Pile)	Pile)						
CONS.C1.4010 Co	Commence Foundation / Footing for Sign Gantry	0 06-Nov-15		0	CAL 2 - 6 day	06-Nor-15 ◆	
CONS.C1.4020 Sui	Survey / Setting Out	2 06-Nov-15	07-Nov-15	0	CAL 2 - 6 day		
CONS.C1.4030.10 Pre	Predrilling (8 nos)	20 09-Nov-15	01-Dec-15	0	CAL 2 - 6 day 8 nos x 5 days / 2 rigs		
20	GI Report and Verification / Agreement to Founding Level	8 02-Dec-15	10-Dec-15	0	CAL 2 - 6 day		
	Pling Works - Driven H Pile (8 nos)	20 11-Dec-15	06-Jan-16	o	CAL 2 - 6 day 8 nos x 2.5 days		
	Excavation, Pile Trimming + Cast Pile Caps (2 nos)		29-Jan-16	8	CAL 2 - 6 day		
2012:21:070	Condition of the Condit	0 50-381-10	05-1-00-10	8	CHLZ-0 GBY		

				Contract of the Contract of th	
				Landscaping and Irrigation System	Landsca
		04-Mar-16 7 CAL 2 - 6 day	12 20-Feb-16	2.3300 Baddill to final ground level and Reinstate Road	CONS.C2.3300
	-0	19-Feb-16 7 CAL 2 - 6 day 3 bays x 12 days	36 06-Jan-16	2.3290 Cast Base & Wall Stem 3 bays (ribbed finish to Im below F.G.L)	CONS.C2.3290
		05-Jan-16 7 CAL 2 - 6 day	10 22-Dec-15	2.3280 Excavate to formation level (open cut / slope)	CONS.C2.3280
		21-Dec-15 7 CAL 2 - 6 day	3 18-Dec-15	2.3270 Survey / Setting Out	CONS.C2.3270
	18 Dec 15 ◆	7 CAL 2 - 6 day	0 18-Dec-15	2.3260 Commence RW13 Retaining Wall	CONS.C2.3260
				RW13 (40m / 3 bays)	RW13 (4
	-0	08-Jan-16 40 CAL 2 - 6 day	16 18-Dec-15	2.3360 Backfil to final ground level & Reinstate Road	CONS.C2.3360
	.0	17-Dec-15 7 CAL 2 - 6 day 3 bays x 12 days	36 06-Nov-15	2.3350 Cast Base & Wall Stem 3 bays (ribbed finish to 1m below F.G.L)	CONS.C2.3350
		05-Nov-15 7 CAL 2 - 6 day	12 23-0ct-15	2.3340 Excavate to formation level (open cut / slope)	CONS.C2.3340
		7	5 16-0ct-15	2.3330 Survey / Setting Out	CONS.C2.3330
	16·0α;-15; ♦	7		2.3320 Commence RW8 Retaining Wall	CONS.C2.3320
				RW8 (35m / 3 bays)	RW8 (3
	_0	18-Jan-17 23 CAL 2 - 6 day	24 19-Dec-16	2.3250 Install Railing for RW1 and RW1a	CONS.C2.3250
		17-Dec-16 23 CAL 2 - 6 day	72 23-Sep-16	2.3240 Backfil to final ground level and Reinstate Roads	CONS.C2.3240
		05-Nov-16 23 CAL 2 - 6 day 11 bays x 12 days / 2 WF	72 10-Aug-16	2.3230 Cast Base & Wall Stem (ribbed finish to 1m below F.G.L.)	CONS.C2.3230
		22-Sep-16 23 CAL 2 - 6 day	60 13-Jul-16	2.3220 Excavate to formation level (open cut / slope)	CONS.C2.3220
		12-Jul-16 23 CAL 2 - 6 day	6 06-Jul-16	2.3210 Survey / Setting Out	CONS.C2.3210
	06-Ju-16 ◆	23 CAL 2 - 6 day	0 06-Jul-16	2.3200 Commence RW1a Retaining Wall	CONS.C2.3200
				RW1a (176m / 11 bays)	RW1a (1
		12-Oct-16 80 CAL 2 - 6 day	30 03-Sep-16	2.3180 Backfill to final ground level and Reinstate Roads	CONS.C2.3180
		02-Sep-16 80 CAL 2 - 6 day 4 bays x 12 days	48 09-Jul-16	2.3170 Cast Base & Wall Stem 4 bays (ribbed finish to 1m below F.G.L)	CONS.C2.3170
	0	18-Jul-16 80 CAL 2 - 6 day	20 24-Jun-16	2.3160 Excavate to formation level (open cut / slope)	CONS.C2.3160
	0	23-Jun-16 32 CAL 2 - 6 day	6 17-Jun-16	2.3150 Survey / Setting Out	CONS.C2.3150
	17.Jun;16.◆	32 CAL 2 - 6 day	0 17-Jun-16	2.3140 Commence RW1 Retaining Wall	CONS.C2.3140
				RW1 (51m / 4 bays)	RW1 (51
				Retaining Walls in Portion C1	Retaining
		28-Nov-16 0 CAL2 - 6 day	12 15-Nov-16	1.3550 Backfil to final ground level	CONS.A1.3550
		14-Nov-16 0 CAL 2 - 6 day	14 29-0ct-16	1.3540 Install U/G Utilities - TCSS, ELV & LV Ducting & Draw Pits	CONS.A1.3540
		28-Oct-16 0 CAL 2 - 6 day 1 bay x 12 days	20 05-Oct-16	1.3530 Cast Base & Wall Stem 1 bay (ribbed finish to 1m below F.G.L)	CONS.A1.3530
		04-Oct-16 0 CAL 2 - 6 day	12 20-Sep-16	1.3520 Excavate to formation level (open cut / slope)	CONS.A1.3520
		20-Sep-16 0 CAL2 - 6 day	4 14-Sep-16	1.3510 Survey / Setting Out	CONS.A1.3510
	[4/Sop:16] ◆	0 CAL2-6 day	0 14-Sep-16	1.3500 Commence RW16s Retaining Wall (29m / 2 bays)	CONS.A1.3500
				RW16S (15m / 1 bay)	RW165 (
		29-Sep-16 0 CAL 2 - 6 day	12 14-Sep-16	1.3490 Backfil to final ground level	CONS.A1.3490
		13-Sep-16 0 CAL 2 - 6 day	14 29-Aug-16	1.3480 Install U/G Utitles - TCSS, ELV & LV Ducting	CONS.A1.3480
		27-Aug-16 0 CAL 2 - 6 day 1 bay x 18 days	20 05-Aug-16	1.3470 Cast Base & Wall Stem 1 bay (ribbed finish to 1m below F.G.L)	CONS.A1.3470
		04-Aug-16 0 CAL 2 - 6 day	12 22-Jul-16	1.3460 Excavate to formation level (open cut / slope)	CONS.A1.3460
		21-Jul-16 0 CAL 2 - 6 day	4 18-Jul-16	1.3450 Survey / Setting Out	CONS.A1.3450
	18-Jul-16:◆	0 CAL 2 - 6 day	0 18-Jul-16	1.3440 Commence RW16n Retaining Wall (29m / 2 bays)	CONS.A1.3440
				RW16N (15m / 1 bay)	RW16N
		30-Nov-15 11 CAL 2 - 6 day	12 17-Nov-15	1.3420 Backfill to final ground level	CONS.A1.3420
	0	CAL 2 - 6 day 2 bays x 12 days	24 19-Oct-15	1.3410 Cast Base & Wall Stem 2 bays (ribbed finish to 1m below F.G.L)	CONS.A1.3410
2018 W W A M A W	2015 W W W W W W W W W	Early Finish Total Calendar Remarks OND	Orig Dur Early Start	Activity Name	vity ID

D-23m-16	ctivity ID Activity Name	Orig Dur Early Start Early Finish Total Calendar Remarks	2016 2017 2018
Control Cont		07-Jan-16 0	00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
10 School Control		07-Jan-16 08-Jan-16 0	
Control Chemistry (present University (and present in Chemist 10-0015		09-Jan-16 01-Feb-16 0	
Control to Timmay Cultification 20 154455 General 12 CAL2-Sam Journal Samural Samu		02-Feb-16 13-Feb-16 2	
PRINT CONTROL		15-Feb-16 08-Mar-16 2	
		09-Mar-16 05-Apr-16 16	
Temporal Control Control Sept Control 20 Cata Control 21 Cata Control 22 Cata Control 23 Cata Control 24 Cata Control 25 Cata Control 25 Cata Control 25 Cata Control 25 Cata Control 26 Cata Control 27 Cata Control 28 Cata Control 2	CONS.CI.4140 Backill Foundation DS261 (Driven H Pite)	06-Apr-16 12-Apr-16 16	
Total principal Cust (Cust Compared to Product) and 1 States (1 St	CONS.C1.4150 Commence Foundation / Footing for Sign Gantry	02-Feb-16 0	MALANTA A
Note and efficient Proposed products Park Status		02-Feb-16 03-Feb-16 0	
		04-Feb-16 01-Mar-16 0	
Statistical (in strong) 20 1114/04/16 00-00-00 CAL2-6 day Constitution (in immore) CAL2-6 day CAL2-6 day		02-Mar-16 10-Mar-16 0	
Statistication Stat		11-Mar-16 07-Apr-16 0	
Bella		08-Apr-16 30-Apr-16 0	
Palis		03-May-16 09-May-16 0	
CA2-6 day CA2-	ADS301 (Driven H Pile)		
2 23-24-15 23-24		02-Mar-16 0	02-har-16 •
20		02-Mar-16 03-Mar-16 0	
Report and Verification / Agreement to Founding Level 9-July-15 9-July-1		04-Mar-16 30-Mar-16 0	
Way Wards - Chromat PRE (12 (2001) 30 11-1/40-16 10 CLL 2-6 day Control Front PRE (12 (2001) 30 18-1/40-16 8 CLL 2-6 day Control Front PRE (12 (2001) 0 18-1/40-16 8 CLL 2-6 day Control Front PRE (12 (2001) 0 23-1/40-16 0 CLL 2-6 day Control Front PRE (12 (2001) 0 23-1/40-16 0 CLL 2-6 day Control Front PRE (12 (2001) 0 23-1/40-16 0 CLL 2-6 day Control Front PRE (12 (2001) 0 23-1/40-16 0 CLL 2-6 day Control Front PRE (12 (2001) 0 23-1/40-16 0 CLL 2-6 day Control Front PRE (12 (2001) 0 23-1/40-16 0 CLL 2-6 day Control Front PRE (12 (2001) 0 23-1/40-16 0 CLL 2-6 day Control Front PRE (12 (2001) 0 23-1/40-16 0 CLL 2-6 day Control Front PRE (12 (2001) 0 23-1/40-16 0 CLL 2-6 day Control Front PRE (12 (2001) 0 23-1/40-16 0		31-Mar-16 09-Apr-16 0	
Cold Foundation St. Entering + Capt (2 Jose) St. Estap-16 O. 2 Juli-16 O. 2 Juli-1		11-Apr-16 17-May-16 0	
Methods Met		18-May-16 22-Jun-16 8	
H Pile) H Pile) 1 31-Non-16 CAL 2 - 6 day Thront and Verification / Footing for Sign Guardy 2 31-Non-16 CAL 2 - 6 day Thront and Verification / Agreement to Founding Level 2 31-Non-16 3 31-No	CONS.C1.4280 Backfill Foundation	23-Jun-16 02-Jul-16 8	
Deciding Claring Out	FADS303 (Driven H Pile)		
Report and Verifation Agreement to Founding Level		31-Mar-16 01-Apr-16 8	31400-16 💠
Bisport and Veritation / Agreement to Founding Level		02-Apr-16 26-Apr-16 8	
Bing Works - Driven H Piet (8 nos) 16 18-Hay-16 04-Jun-16 0 CAL 2-6 day 8 mos x 2.5 days xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx		27-Apr-16 06-May-16 8	
Accordation, Pile Trimming + Cast Pile Caps (2 nos) 20 06-Jun-16 29-Jun-16 0 CAL 2 - 6 day antity and High Mast for TCSS Works 12 39-Jun-16 14-Jul-16 0 CAL 2 - 6 day Act 2 - 6 day		18-May-16 04-Jun-16 0	
antry and High Mast for TCSS Works antry and High Mast for TCSS Works Portion A1 & Portion A6 Portion A2 & Portion A6 Portion A3 & Portion A6 Portion A6 Portion A1 & Portion A6 Portion		06-Jun-16 29-Jun-16 0	
antry and High Mast for TCSS Works section of Sign Gantry & High Mast Structure and Associated Conducts for 90 03-Hoy-16 18-Aug-16 0 CAL 2 - 6 day (O1 and IO3) Portion A1 & Portion A6 Portion A1 & Portion A6 Portion A1 & Portion A6 **Price A1 & Portion A2 & Portion A6 **Price A1 & Portion A2 & Portion A2 & Portion A3 & Portion A3 & Portion A3 & Portion A4 &		30-Jun-16 14-Jul-16 0	
Portion A1 & Portion A6	Erection of Sign Gantry and High Mast for TCSS Works		
Portion A.1. & Portion A.6 Portion A.6 Portion A.6 Portion A.1. & Portion A.1. & Portion A.1. & Portion A.2. Portion A.2. Portion A.2. Portion A.3. Portion	CONS.CI.4360 Erection of Sign Gantry & High Mast Structure and Associated Conduits in	90 03-May-16 18-Aug-16 0	
Zām / 3 bays) 0 22-Jul-15 7 CAL 2-6 day 22-Jul-15 7 6 22-Jul-15 7 CAL 2-6 day 1 17/ stope) 18 29-Jul-15 18-Aug-15 7 CAL 2-6 day 10 mbch to Im below F.G.L.) 36 19-Aug-15 39-Sep-15 7 CAL 2-6 day 24 16-Sep-15 15-Oct-15 7 CAL 2-6 day 25m / 2 bays) 0 02-Oct-15 11 CAL 2-6 day 25m / 2 bays) 0 02-Oct-15 07-Oct-15 11 CAL 2-6 day	Retaining Walls in Portion A1 & Portion A6		
ce RW11 Rebainsy Wal (42m / 3 bays) 0 22-Jul-15 7 CAL 2-6 day 22-Jul-15 22-Jul-15 7 CAL 2-6 day Setting Out 6 22-Jul-15 28-Jul-15 7 CAL 2-6 day 10-6 day 10-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7-7	RW11 (42m / 3 bays)		
Setting Out 6 22-Jul-15 28-Jul-15 7 CAL 2-6 day Indicate of the control of t		22-Jul-15 7	Z-Jid-15 ◆
to formation level (open cat / stype) 18 29-Jul-15 18-Aug-15 7 CAL 2-6 day 2 bays x 12 days e 8. Wall Stem 3 bays (ribbed finish to Im below F.G.L) 36 19-Aug-15 30-Sep-15 7 CAL 2-6 day 3 bays x 12 days final ground level 24 16-Sep-15 15-Oct-15 7 CAL 2-6 day co RW1-4a Redaining Wall (29m / 2 bays) 0 02-Oct-15 07-Oct-15 11 CAL 2-6 day setting Out 5 02-Oct-15 07-Oct-15 11 CAL 2-6 day		22-Jul-15 28-Jul-15 7	5
### ##################################		29-Jul-15 18-Aug-15 7	
final ground level 24 16-Sep-15 15-Oct-15 7 ce RW14a Retaining Wal (29m / 2 bays) 0 02-Oct-15 11 setting Out 5 02-Oct-15 07-Oct-15 11		19-Aug-15 30-Sep-15 7	0
ce RW14a Retaining Wal (25m / 2 bays) 0 02-Oct-15 11 setting Out 5 02-Oct-15 07-Oct-15 11	CONS.A1.3360 Baddfill to final ground level	16-Sep-15 15-Oct-15 7	
Commence RW14a Retaining Wall (29m / 2 bays) 0 02-Oct-15 11 Survey / Setting Out 5 02-Oct-15 07-Oct-15 11	RW14A (29m / 2 bays)		
5 02-00-15 07-00-15 11		02-0d-15 11	0.2-dc:15 �
		07-04-15	

Activity ID Activity Namo	Orig Dur Early Start	Early Finish Too	tal Calendar Remarks	0 N O S Y M M Y M Y M O S Y M O S Y M M Y M Y M Y M Y M Y M Y M Y M Y M
CONS.A1.9470 Install Lateral Irrigation Pipes & Sprinkers	12 07-Feb-17	20-Feb-17 37	37 CAL 2 - 6 day	X
CONS.A1.8480 Irrigation Coverage Test	6 21-Feb-17	27-Feb-17	37 CAL 2 - 6 day	
CONS.A1.8490 Soft Landscaping - Shrubs Planting / Ground Cover	12 13-Apr-17	29-Apr-17	0 CAL 2 - 6 day 2300 m2 / 10 m2 / manday / 20 workers	
CONS.A1.8500 Complete Landscape Works in Portion C1 (West Section)	o	29-Apr-17	0 CAL 2 - 6 day	◆ 35/m²-17
	100) Debot
			41 CAL 2 - 6 day Area 1800 m2 41 CAL 2 - 6 day 1080 m3 / 100 m3 /day	Avantu V
	12 20-Feb-17			
				· · · · · · · · · · · · · · · · · · ·
CONS.A1.8570 Soft Landscaping - Shrubs Planting / Ground Cover	11 02-May-17			
CONS.A1.8580 Complete Landscape Works in Zone FC4	0	15-May-17	0 CAL 2 - 6 day	◆ 13-blop-17
Landscaping - Water Meter W02				
Zone BC4				
CONS.C1.8200 Commence Landscape Works	0 21-Jul-16	-	0 CAL 2 - 6 day Area 15,470 m2	21-101-15 ◆
		24-Sep-16		
CONS.CI.8220 Install Irrigation Main Line + Construct Swale	60 12-Aug-16	25-Oct-16	0 CAL 2 - 6 day	
CONS.CI.8230 Install Lateral Irrigation Pipes / Sprinkers	60 06-Sep-16	18-Nov-16	0 CAL 2 - 6 day	
CONS.C1.8240 Irrigation Coverage Test	14 19-Nov-16	05-Dec-16	0 CAL 2 - 6 day	
CONS.C1.8250 Soft Landscaping - Shrubs Planting / Ground Cover	60 06-Dec-16	20-Feb-17	0 CAL 2 - 6 day 15,470 m2 / 10m2 / day / 26 workers	
CONS.C1.8260 Complete Landscape Works in Zone BC4 W02	0	20-Feb-17		◆ 20feb:17
Zone BC4 in Portion D1				
CONS.C1.8600 Commence Landscape Works in Portion D1	0 26-Nov-16			25·Noy-16 ◆
CONS.C1.8610 Top Soil to Landscaped Areas	24 26-Nov-16			
CONS.C1.8620 Install Irrigation Main Line + Construct Swale	44 24-Dec-16	20-Feb-17	0 CAL 2 - 6 day	
CONS.C1.8630 Install Lateral Irrigation Pipes / Sprinklers	30 14-Feb-17	20-Mar-17	0 CAL 2 - 6 day	0
CONS.C1.8640 Irrigation Coverage Test	6 21-Mar-17	27-Mar-17	0 CAL 2 - 6 day	
CONS.C1.8650 Soft Landscaping - Shrubs Planting / Ground Cover	36 28-Mar-17	15-May-17	0 CAL 2 - 6 day 2730 m2 / 10m2 / day / 10 workers	
CONS.C1.8660 Complete Landscape Works in Porton D1 of Zone BC4 W02	0	15-May-17		◆ 15-by-17
Zone CC4				
CONS.C1.8270 Commence Landscape Works in Zone CC4	0 26-Sep-16		33 CAL 2 - 6 day Area 4,200 m2	26-Stp.16 •
CONS.C1.8280 Top Soil to Landscaped Areas	26 26-Sep-16	27-0ct-16	33 CAL 2 - 6 day 2,520 m3 / 100 m3 / day	
CONS.C1.8290 Install Irrigation Main Line	36 28-Oct-16	08-Dec-16	33 CAL 2 - 6 day	0
CONS.C1.8300 Install Lateral Irrigation Pipes / Sprinklers	36 18-Nov-16	31-Dec-16	33 CAL 2 - 6 day	
CONS.C1.8310 Irrigation Coverage Test	6 03-Jan-17	09-Jan-17	33 CAL 2 - 6 day	
CONS.C1.8320 Soft Landscaping - Shrubs Planting / Ground Cover	28 21-Feb-17	24-Mar-17	0 CAL 2 - 6 day 4,200 m2 / 10 m2 / 15 workers	
CONS.C1.8330 Complete Landscape Works in Zone	0	24-Mar-17	0 CAL 2 - 6 day	◆ Zel-Not-IT
Zone EC4				
CONS.C1.8340 Commence Landscape Works	0 28-Oct-16		64 CAL 2 - 6 day Area 2,400 m2	28-0ct-15 •
CONS.C1.8350 Top Soil to Landscaped Areas	15 28-Oct-16	14-Nov-16	64 CAL 2 - 6 day 1,440 m3 / 100 m3 / day	
CONS.C1.8360 Install Irrigation Nain Line	24 15-Nov-16	12-Dec-16	64 CAL 2 - 6 day	0
CONS.C1.8370 Install Lateral Irrigation Pipes / Sprinklers	15 13-Dec-16	31-Dec-16	64 CAL 2 - 6 day	
CONS.C1.8380 Irrigation Coverage Test	3 03-Jan-17	05-Jan-17	64 CAL 2 - 6 day	
CONS.C1.8390 Soft Landscaping - Shrubs Planting / Ground Cover	20 25-Mar-17	21-Apr-17	0 CAL 2 - 6 day 2400 m2 / 10 m2 / 12 workers	

	14 O+Jan-17 19-Jan-17 37 CAL 2 - 6 day 1380 m3 / 100 m3 / day	CONS.A1.8450 Top Soil to Landscaped Areas
0+Jan J7 •	0 04-Jan-17 37 CAL 2 - 6 day Area 2300 m2	CONS.A1.8440 Commence Landscape Works in Zone EC4
		Zone EC4
◆ 15-kg-17	0 15-May-17 0 CAL2-6 day	CONS.A1.8420 Complete Landscape Works in Portion C1 (West Section)
	3 12-May-17 15-May-17 0 CAL 2 - 6 day 130 m2 / 10 m2 / 5 workers	CONS.A1.8410 Soft Landscaping - Shrubs Planting / Ground Cover
	2 04-feb-17 06-feb-17 75 CAL2-6 day	CONS.A1.8400 Irrigation Coverage Test
	12 18-Jan-17 03-Feb-17 75 CAL 2 - 6 day	CONS.A1.8390 Install Lateral Irrigation Pipes & Sprinklers
	12 04-Jan-17 17-Jan-17 75 CAL 2-6 day	CONS.A1.8380 Install Irrigation System Main Lines (900mm dia)
	2 31-Dec-16 03-Jan-17 37 CAL 2-6 day 78 m3	CONS.A1.8370 Top Soil to Landscaped Areas
3j-0ec16 ◆	0 31-Dec-16 37 CAL 2 - 6 day. Area 130 m2	CONS.A1.8360 Commence Landscape Works in DC4
		Zone DC4
◆ 11-lbpy-17	0 11-Nay-17 0 CAL2-6 day	CONS.A1.8340 Complete Landscape Works in Zone CC4
	20 13-Apr-17 11-May-17 0 CAL 2 - 6 day 7000 m2 / 10 m2 / 30 Workers	CONS.A1.8330 Soft Landscaping - Shrubs Planting / Ground Cover
	6 16-Mar-17 22-Mar-17 17 CAL 2 - 6 day	CONS.A1.8320 Irrigation Coverage Test
0	30 09-Feb-17 15-Mar-17 17 CAL 2 - 6 day	CONS A1.8310 Install Lateral Irrigation Pipes & Sprinkers
	30 31-Dec:16 08-Feb-17 17 CAL 2 - 6 day	CONS.A1.8300 Install Irrigation System Nain Lines (900mm dia)
	10-Nov-16 30-Dec-16 17	CONS.A1.8290 Top Soil to Landscaped Areas
10-lox/15 (•	0 10-Nov-16 17 CAL 2 - 6 day, Area 7000 m2	CONS.A1.8280 Commence Landscape Works in Zone CC4
		Zone CC4
◆ 12.4pr.17	0 12-Apr-17 0 CAL2-6 day	CONS.A1.8260 Complete Landscape Works in Zone BC4
	56 06-Feb-17 12-Apr-17 0 CAL2 - 6 day Area 22,400 m2 / 10 m2 / manday / 40 workers	CONS.A1.8250 Soft Landscaping - Shrubs Planting / Ground Cover
	12 18-Jan-17 03-Feb-17 1 CAL 2 - 6 day	CONS.A1.8240 Irrigation Coverage Test
	60 05-Nov-16 17-Jan-17 1 CAL 2 - 6 day	CONS.A1.8230 Install Lateral Trigation Pipes & Sprinkers
	60 03-0ct-16 12-Dec-16 1 CAL 2 - 6 day	CONS.A1.8220 Install Irrigation System Main Lines (900mm dia)
	90 23-Ju-15 09-Yov-16 1 CAL2 - 6 day 13,440 m3 / 150m3 / day	CONS.A1.8210 Top Soil to Landscaped Areas
25-)u-1.6 •	0 23-Jul+16 1 CAL 2 - 6 day Area 22,400 m2	CONS.A1.8200 Commence Landscape Works in Zone BC4
		Zone BC4
	365 11-May-18 10-May-19 0 CAL1-7-day KD16	CONS.A1.8660 Establishment Works for Landscape Softworks in Portion A6 and B5
◆ ID-May-18	0 10-May-18 0 CAL 2 - 6 day KD14	CONS.A1.8650 Complete Landscape Works Zone AC4 (KD16)
	90 17-Jan-18 10-May-18 0 CAL 2 - 6 day Area 13,890 m2 / 10 m2 / mandav / 20 workers	CONS.A1.8640 Soft Landscaping - Shrubs Planting / Ground Cover
	12 03-Jan-18 16-Jan-18 0 CAL 2-6 day	CONS.A1.8630 Irrigation Coverage Test
	60 20-Oct-17 02-Jan-18 0 CAL 2 - 6 day	CONS.A1.8620 Install Lateral Irrigation Pipes & Sprinkers
	70 28-Jul-17 19-Oct-17 0 CAL 2 - 6 day	CONS.A.1.8610 Install Irrigation System Main Lines (900mm dia)
	74 28-Apr-17 27-Jul-17 0 CAL 2 - 6 day 8,334 m3 / 100 m3 / day	CONS.A1.8600 Top Soil to Landscaped Areas
	36 13-Mar-17 27-Apr-17 0 CAL2-6 day	CONS.A1.8595 Clearing of unsuitable materials
13-ku₁7.◆	0 13-Var-17* 0 CAL 2 - 6 day Area 13,890 m2	CONS.A1.8590 Commence Landscape Works in Zone AC4 in Portion A6 & B5
		Landscape Softworks in Portion A6 and B5
◆ 04-Feb-17	0 04-Feb-17 0 CAL2-6 day KD8	CONS.A1.8180 Complete Landscape Works Zone AC4
	81 27-Oct-16 04-Feb-17 0 CAL 2 - 6 day Area 32,410 m2 / 10 m2 / manday / 40 workers	CONS.A1.8170 Soft Landscaping - Shrubs Planting / Ground Cover
	18 05-Oct-16 26-Oct-16 0 CAL2-6 day	CONS.A1.8160 Irrigation Coverage Test
	60 23-Jul-16 04-Oct-16 0 CAL2-6 day	CONS.A.1.8150 Install Lateral Irrigation Pipes & Sprinklers
	60 17-Jun-16 26-Aug-16 0 CAL2-6 day	CONS.A1.8140 Install Irrigation System Main Lines (900mm dia)
	98 22-War-16 22-Jul-16 0 CAL 2 - 6 day 19,446 m3 / 200 m3 / day	CONS.A1.8130 Top Soil to Landscaped Areas (600mm)
A S O N N D D D D D D D D D D D D D D D D D	0 22-Mar-16 0 CAL2-6 day Area 32,410 m2 0 N D J F M A M J J J J A M	CONS A1.8120 Commence Landscape Works in Zone AC4
2016 2017 2018	Calendar Remarks 2015	Activity Name

to FC4) 126 06-Dec-16 15-May-17	Irrigation & Landscape Works WW02 - Install Irrigation Lives (Main & 179 12-Aug-16 20-Mar-17 0	ks WM02 - Top Soll 130 21-Jul-16 23-Dec-16	FC4) Works - Water Meter 02	Lateral) Irrigation & Landscape Works WM04 - Soft Landscaping Works (AC4 to 453 27-Oct-16 10-May-18 0	LSW.ES.1020 Impation & Landscape Worls WM04 - Install Impation Lines (Nan & 459 17-Jun-16 02-Jan-18 0 CAL 2 - 6 day	397 22-Mar-16 27-Jul-17	Landscape Works - Water Meter 04	Trrigation and Landscape	RWW.ES.1030 Retaining Walls in Porton C - Back/III and Reinstate Road 87 03-Sep-16 17-Dec-16 23 CAL 2 - 6 day	RWW.ES.1020 Retaining Wals in Portion C - Construct Base + Wall Stem 99 09-Jul-16 05-Nov-16 23 CAL 2 - 6 day	RWW.ES.1010 Retaining Wals in Portion C - Excavation 81 17-Jun-16 22-Sep-16 23 CAL2 - 6 day	Retaining Walls in Portion C (West)	28-Nov-16 0	Retaining Wals in Portion A - Construct Base + Wall Stem 354 19-Aug-15 28-Oct-16 0	RWW.ES.1040 Retaining Wals in Portion A - Excavation 358 22-Jul-15 04-Oct-16 0 CAL2-6-day	Retaining Walis	SGW ES.1030 Sign Cantry - Erection of Sign Cantry 90 03-May-16 18-Aug-16 0 CAL2 - 6 day	SOWES.1020 Styn Gantry - Pile caps 140 07-18n-16 29-Jun-16 0 CAL 2 - 6 day	SGW.ES.1010 Sgn Gantay - Davien H-Pile 213 14-Sep-15 04-Jun-16 0 CAL2 - 6-day	Sign Gentry	Doed Host of Doe Calcade D. Escalbasico a Doed Maridon 8 CO 10 Each 17 15 Nov. 17 0	Road Works West of Box Culvert D - Road Formation to Box Course 154 31-May-16 02-Dec-16 24	80W ES 2000 Road Works West of Box Culvert D - Road Formation to Sub-base + Kinthio 148 23-March 21-Son-16 48 CAL 2 - 6 day	Road Works West of Box Culvert D - Road Formation + Drainage 228 14-5ep-15 23-jun-16 11	s - West of Box Culvert D	ert D - Fhail Paving + Road Monking & Spnages 428 25-Nov-16 10-May-18 0 CAL2 - 6 day	Ong Dur Enn'y Shart Enn'y Friesh Total Cabbridar Remarks OND JFMAMJAMJSOND JFMAMJAMJSOND JFMAMJAMJSOND JF	Find Date: 23-Apr-15 13:05	
																												Southern Portion) Page: 24/24	

Miy ID Ac	civity Name	Orig Dur Early Start Early Finish Total	Calendar Remarks
Zone FC4			0 Z Z D D D D D D D D D D D D D D D D D
CONS.C1.8410 Co	Commence Landscape Works	0 15-Nov-16 76	CAL 2 - 6 day Area 1,800 m2
CONS.C1.8420 To	Top Soil to Landscaped Areas	12 15-Nov-16 28-Nov-16 76	CAL 2 - 6 day 1080 m3 / 100 m3 / day
	Install Irrigation Main Line	24 29-Nov-16 28-Dec-16 76	CAL 2 · 6 day
	Install Lateral Irrigation Pipes / Sprinklers	29-Dec-16 12-Jan-17	CAL 2 - 6 day
	Irrigation Coverage Test	13-Jan-17 14-Jan-17	CAL 2 - 6 day
CONS.C1.8450 Sol	Soft Landscaping - Shrubs Planting / Ground Cover Complete Landscape Works in Zone FC4 W02	18 22-Apr-17 15-May-17 0	CAL 2 - 6 day 1800 m2 / 10 m2 / 10 workers CAL 2 - 6 day
Irrigation Water T	Irrigation Water Tanks and Booster Pumps		a seel
CONS.C1.8790 Ide	Identify and Agree location with Engineer	12 21-Jul-16 03-Aug-16 4	CAL 2 - 6 day
CONS.C1.8800 Co	Construct Irrigation Water Tanks and Booster Pump Chamber	04-Aug-16 30-Sep-16	CAL 2 - 6 day
CONS.C1.8810 ME	MEP Works - Bectrical and Mechanical Installation + T&C	36 03-Oct-16 14-Nov-16 4	CAL 2 - 6 day
Establishment Period (1 year)	iod (1 year)		
CONS.C1.8190 Est	Establishment of Landscape Works	365 16-May-17 15-May-18 0	CAL1-7 day
Executive Summary	ary		
Box Culverts			
Box Culvert D			
BCD.ES.1010 Box	Box Cullvert D - Bored Pling, Testing + Pile caps (Bay 1-15)	18-Jun-15 13-Jan-16	CAL 2 - 6 day
	Box Culvert D - Bored Piling + Pile Testing (Bay 1-3)	89 21-Dec-15 13-Apr-16 0	CAL2-6 day
	Box Culvert D - Cofferdam + ELS (Bay 1-3 + Outflow)	14-Apr-16 30-Sep-16	CAL2-6 day
BCD.ES.1050 Box	Box Culvert D - Pile Caps+ RC Box Structure (Bay 1-3 + Outflow)	03-Oct-16 15-May-17	CAL 2 - 6 day
Box Culvert C			
	Box Culvert C - Driven H Pile + Pile caps (Bay 4-9)	146 06-Nov-15 06-May-16 0	CAL 2 - 6 day
	Box Culvert C - Construct RC Box Structure (Bay 4-9)	96 07-Mar-16 05-Jul-16 0	CAL 2 - 6 day
	Box Culvert C - Driven H Pile + Load Testing (Bay 1-3)	09-Apr-16 02-Jul-16	CAL 2 · 6 day
BCC.ES.2040 Box	Box Culwert C - Cofferdam + ELS (Bay 1-3 + Outflow) Box Culwert C - Piecaps + RC Box Structure (Bay 1-3 + Outflow)	126 06-Jul-16 03-Dec-16 0	CAL 2 - 6 day
S			
Bridges in Portion A & B	A & B		
	Bridges in Portion A & B - Bored Piling + Pilecaps	20-May-15	CAL2-6 day
	Bridges in Portion A & B - Column / Pier Head + Bearings	24-Oct-15 30-Jul-16	CAL 2 - 6 day
BRG.ES.1030 Brid	Bridges in Portion A & B - Decking / Segments Erection + Stitching Revious in Portion A & B - Decking + Aprillary Works	309 30-Nov-15 14-Dec-16 25	CAL 2 - 6 day
Porti	C & D	01-1501-10 03-FE0-17	CALZ-6 day
BRG.ES.2010 Brid	Bridges in Portion C & D - Bored Piling + Pilecaps	172 26-Sep-15 28-Apr-16 0	CAL 2 - 6 day
BRG.ES.2020 Brid	Bridges in Portion C & D - Column, Pier Head + Bearings	77 23-Feb-16 28-May-16 0	CAL 2 - 6 day
BRG.ES.2030 Brid	Bridges in Portion C & D - Decking / Segments Erection + Stitching	79 23-Apr-16 28-Jul-16 0	CAL 2 - 6 day
	Bridges in Porton C & D - Parapet + Ancillary Works	218 22-Jun-16 15-Mar-17 11	CAL 2 - 6 day
Road Works - East of Box Culvert D	of Box Culvert D		
RDE FS 1010 Roa	Road Works East of Box Culturet D - Road Formation + Prainage	20-Mar-16 23-Apr-16	
	Road Works East of Box Culvert D - U/G Utilities	235 21-Jul-15 05-Nay-16 0	CAL 2 - 6 day
	Road Works East of Box Culvert D - Road Formation to Sub-base + Kerbing	20-Nov-15 23-May-16	CAL 2 - 6 day
	Board Works East of Box Citizent D. Board Formation to Board Courses	26-1an-16 08-1in-16	CAL 2 - 6 day

Event/Action Plan for Air Quality

EVENT		ACTI	ON	
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
Exceedance for one sample	Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC and ER; Repeat measurement to confirm finding; Increase monitoring frequency to daily.	Check monitoring data submitted by ET; Check Contractor's working method.	Notify Contractor.	Rectify any unacceptable practice; Amend working methods if appropriate.
Exceedance for two or more consecutive samples	 Identify source; Inform IEC and ER; Advise the ER on the effectiveness of the proposed remedial measures; Repeat measurement s to confirm findings; Increase monitoring frequency to daily; Discuss with IEC and Contractor on remedial actions required; If exceedance continues, arrange meeting with IEC and ER; If exceedance stops, cease additional monitoring. 	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures.	Confirm receipt of notification of failure in writing; Notify Contractor; Ensure remedial measures properly implemented.	1. Submit proposals for remedial to ER within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.



Monthly EM&A Report for August 2015

Appendix D. Event and Action Plan

	EVENT		ACTI	ON	
		ET	IEC	ER	CONTRACTOR
L	IMIT LEVEL				
1.	Exceedance for one sample	 Identify source, investigate the causes of exceedance and propose remedial measures; Inform ER, Contractor and EPD; Repeat measurement to confirm finding; Increase monitoring frequency to daily; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. 	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures.	Confirm receipt of notification of failure in writing; Notify Contractor; Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.
2.	Exceedance for two or more consecutive samples	 Notify IEC, ER, Contractor and EPD; Identify source; Repeat measurement to confirm findings; Increase monitoring frequency to daily; Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; Arrange meeting with IEC and ER to discuss the remedial actions to be taken; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; If exceedance stops, cease additional monitoring. 	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	Confirm receipt of notification of failure in writing; Notify Contractor; In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented; Ensure remedial measures properly implemented; If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	 Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within 3 working days of notification; Implement the agreed proposals; Resubmit proposals if problem still not under control; Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event / Action Plan for Construction Noise Monitoring

EVENT	ACTION						
	ET	IEC	ER	CONTRACTOR			
Action Level	1. Notify IEC and Contractor; 2. Identify source, investigate the causes of exceedance and propose remedial measures; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5 Increase monitoring frequency to check mitigation effectiveness.	1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	 Confirm receipt of notification of failure in writing; Notify Contractor; Require Contractor to propose remedial measures for the analysed noise problem; Ensure remedial measures are properly implemented. 	1. Submit noise mitigation proposals to IEC; 2. Implement noise mitigation proposals.			
Limit Level	1. Inform IEC, ER, EPD and Contractor; 2. Identify source; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	 Discuss amongst ER, ET, and Contractor on the potential remedial actions; Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; Supervise the implementation of remedial measures. 	 Confirm receipt of notification of failure in writing; Notify Contractor; Require Contractor to propose remedial measures for the analysed noise problem; Ensure remedial measures properly implemented; If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. 	 Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within 3 working days of notification; Implement the agreed proposals; Resubmit proposals if problem still not under control; Stop the relevant portion of works as determined by the ER until the exceedance is abated. 			



Monthly EM&A Report for August 2015

Appendix E. Waste Flow Table

Monthly Summary Waste Flow Table for 2015 (Year)

Total	Dec	Nov	Oct	Sep	Aug	Jul	Sub-total	Jun	May	Apr	Mar	Feb	Jan		Month	
0					0	0	0	\setminus	\		\setminus	\ \		(in '000m³)	Total Quantity Generated	
0					0	0	0							(in '000m ³)	Hard Rock and Large Broken Concrete	Actual Qua
0					0	0	0							(in '000m³)	Reused in the Contract	Actual Quantities of Inert C&D Materials Generated Monthly
0					0	0	0							(in '000m³)	Reused in other Projects	Materials Generate
0					0	0	0							(in '000m³)	Disposed as Public Fill	ed Monthly
0					0	0	0							(in '000m³)	Imported Fill	
0					0	0	0				\			(in '000kg)	Metals	
0					0	0	0			\	\setminus			(in '000kg)	Paper/ cardboard packaging	Actual Quantities
0					0	0	0					\		(in '000kg)	Plastics (Note 1)	Actual Quantities of C&D Wastes Generated Monthly
0					0	0	0		\setminus					(in '000kg)	Plastics (Note 1) Chemical Waste	enerated Monthly
0					0	0	0							(in '000m³)	Others, e.g. general refuse	

(1) Plastics refer to plastic bottles / containers, plastic sheets / foam from packaging material

Note:



Monthly EM&A Report for August 2015

Appendix F. Environmental Licenses and Permits

Environmental Licenses and Permits

Item No.	Type of Permit / Licence	Reference No.	Application Date	Date of Issue	Date of Expiry	Remark
1	Environmental Permit under EIAO	EP-353/2009/I	30 Jun 2015	17 Jul 2015	N/A	Issued
2	Construction Dust Notification (HKBCF Southern Portion)	387156	26 Mar 2015	1 Apr 2015	N/A	Notified
3	Construction Waste Disposal Account	7022038	16 Mar 2015	1 Apr 2015	N/A	Account approved
4	Registration as a Chemical Waste Producer (HKBCF Southern Portion)	Waste Producer Number (WPN): 5213-951-C3952-01	27 Mar 2015	27 Apr 2015	N/A	Registration completed
5	Discharge Licence under WPCO (Works Area WA3)	WT00022316-2015	1 Jun 2015	14 Aug 2015	31 Aug 2020	Issued
6	Construction Noise Permit	GW-RS0874-15	24 Jul 2015	7 Aug 2015	1 Feb 2016	Issued



Monthly EM&A Report for August 2015

Appendix G. Implementation Schedule for Environmental Mitigation Measures (EMIS)

Appendix G – Implementation Schedule of Environmental Mitigation Measures (EMIS)

	EM&A			
EIA Ref.	Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
Air Quality				
S5.5.6.1	A1	The Contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation	All construction sites	V
S5.5.6.2	A2	Proper watering of exposed spoil should be undertaken throughout the construction phase:	All construction sites	V
		 Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading; 		
		 Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; 		
		 A stockpile of dusty material should not be extend beyond the pedestrian barriers, fencing or traffic cones. 		
		 The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle; 		
		 Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores; 		
S5.5.6.2	A2	When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period;	All construction sites	V
		 The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials; 		
		 Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously; 		
		 Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet; 		
		 Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding; 		
		 Any skip hoist for material transport should be totally enclosed by impervious sheeting; 		
		 Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides 		
S5.5.6.2	A2	 Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed; 	All construction sites	V
		 Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and 		

	EM&A		1		
EIA Ref.	Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status	
		 Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies. 			
S5.5.6.3	А3	The Contractor should undertake proper watering on all exposed spoil (with at least 8 times per day) throughout the construction phase.	All construction sites	V	
S5.5.6.4	A4	4) Engineer to incorporate the controlled measures into the Particular Specification (PS) for the civil work. The PS should also draw the Contractor's attention to the relevant latest Practice Notes issued by EPD.	All construction sites	V	
S5.5.6.4	A5	5) Implement regular dust monitoring under EM&A programme during the construction stage.	Selected representative dust monitoring station	N/A	
S5.5.7.1	A6	The following mitigation measures should be adopted to prevent fugitive dust emissions for concrete batching plant:	Selected representative dust	N/A	
		 Loading, unloading, handling, transfer or storage of any dusty materials should be carried out in totally enclosed system; 	monitoring station		
		 All dust-laden air or waste gas generated by the process operations should be properly extracted and vented to fabric filtering system to meet the emission limits for TSP; 			
		 Vents for all silos and cement/pulverised fuel ash (PFA) weighing scale should be fitted with fabric filtering system; 			
		 The materials which may generate airborne dusty emissions should be wetted by water spray system; 			
		 All receiving hoppers should be enclosed on three sides up to 3m above unloading point; 			
		 All conveyor transfer points should be totally enclosed; 			
		 All access and route roads within the premises should be paved and wetted; and 			
		 Vehicle cleaning facilities should be provided and used by all concrete trucks before leaving the premises to wash off any dust on the wheels and/or body. 			
S5.5.2.7	A7	The following mitigation measures should be adopted to prevent fugitive dust emissions at barging point:	All construction sites	N/A	
		 All road surface within the barging facilities will be paved; 			
		 Dust enclosures will be provided for the loading ramp; 			
		 Vehicles will be required to pass through designated wheels wash facilities; and 			
		Continuous water spray at the loading points.			
Construction					
S6.4.10	N1	 Use of good site practices to limit noise emissions by considering the following: 	All construction sites	V	
		 only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; 			
		 machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; 			
		 plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; 			
		 silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; 			
		· mobile plant should be sited as far away from NSRs as possible			

	EM&A			
EIA Ref.	Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
EII-TINGIS	NO.	and practicable;	measures	Olatus
		 material stockpiles, mobile container site officer and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities. 		
S6.4.11	N2	 Install temporary hoarding located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period. 	All construction sites	N/A
S6.4.12	N3	3) Install movable noise barriers (typically density @14kg/m²), acoustic mat or full enclosure close to noisy plants including air compressor, generators, saw.	For plant items listed in Appendix 6D of the EIA report at all construction sites	N/A
S6.4.13	N4	4) Select "Quiet plants" which comply with the BS 5228 Part 1 or TM standards.	For plant items listed in Appendix 6D of the EIA report at all construction sites	V
S6.4.14	N5	5) Sequencing operation of construction plants where practicable.	All construction sites where practicable	V
	N6	6) Implement a noise monitoring under EM&A programme.	Selected representative noise monitoring station	N/A
Sediment				
S7.3	S1	1) The requirements as recommended in ETWB TC(W) 34/2002 Management of Dredged/Excavated Sediment shall be included in the Particular Specification as appropriate.	All construction sites	V
Waste Mana	agement (C	onstruction Noise)		
S8.3.8	WM1	Construction and Demolition Material The following mitigation measures should be implemented in handling the waste: • Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement;	All construction sites	V
		Carry out on-site sorting;		
		 Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; 		
		 Adopt 'Selective Demolition' technique to demolish the existing structures and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible; 		
		 Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified; and 		
		 Implement an enhanced W aste Management Plan similar to ETWB TC(W) No. 19/2005 – "Environmental Management on Construction Sites" to encourage on-site sorting of C&D materials and to minimize their generation during the course of construction. 		
		 In addition, disposal of the C&D materials onto any sensitive locations such as agricultural lands, etc. should be avoided. The Contractor shall propose the final disposal sites to the Project Proponent and get its approval before implementation. 		
S8.3.9-	WM2	C&D Waste	All construction sites	N/A
S8.3.11		 Standard formwork or pre-fabrication should be used as far as practicable in order to minimise the arising of C&D materials. The use of more durable formwork or plastic facing for the construction works should be considered. Use of wooden hoardings should not be used, as in other projects. Metal hoarding should be used to enhance the possibility of recycling. The purchasing of construction materials will be carefully planned in order to avoid over ordering 		

	EM&A Log		Location of the	Implementatio
EIA Ref.	Ref.	Recommended Mitigation Measures	measures	Status
		and wastage.		
		 The Contractor should recycle as much of the C&D materials as possible on-site. Public fill and C&D waste should be segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal. Where practicable, concrete and masonry can be crushed and used as fill. Steel reinforcement bar can be used by scrap steel mills. Different areas of the sites should be considered for such segregation and storage. 		
S8.2.12-	WM3	Chemical Waste	All construction sites	N/A
\$8.3.15		 Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Containers used for the storage of chemical Wastes should be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; have a capacity of less than 450 liters unless the specification has been approved by the EPD; and display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the regulation. The storage area for chemical wastes should be clearly labelled and used solely for the storage of chemical waste; enclosed on at least 3 sides; have an impermeable floor and bunding of sufficient capacity to accommodate 110% of the volume of the largest container or 20 % of the total volume of waste stored in that area, whichever is the greatest; have adequate ventilation; covered to prevent rainfall entering; and arranged so that incompatible materials are adequately separated. Disposal of chemical waste should be via a licensed waste collector; be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Centre which also offers a chemical waste collection service and can supply the necessary storage containers; or be to a reuser of the waste, under approval from the EPD. 		
S8.3.16	WM4	Sewage	All construction sites	V
25,5,10		Adequate numbers of portable toilets should be provided for the workers. The portable toilets should be maintained in a state, which will not deter the workers from utilizing these portable toilets. Night soil should be collected by licensed collectors regularly.	, iii ooristi dollott siles	*
S8.3.17	WM5	General Refuse	All construction sites	V
		 General refuse generated on-site should be stored in enclosed bins or compaction units separately from construction and chemical wastes. 		
		 A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimize odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by law. 		
		 Aluminium cans are often recovered from the waste stream by individual collectors if they are segregated and made easily accessible. Separate labelled bins for their deposit should be provided if feasible. 		
		 Office wastes can be reduced through the recycling of paper if volumes are large enough to warrant collection. Participation in a local collection scheme should be considered by the Contractor. In addition, waste separation facilities for paper, aluminium cans, plastic bottles etc., should be provided. 		
		· Training should be provided to workers about the concepts of site		

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		cleanliness and appropriate waste management procedure,		

including reduction, reuse and recycling of wastes.

Water Quality (Construction Phase)

S9.11.1.7 W2 Land Works

General construction activities on land should also be governed by standard good working practice. Specific measures to be written into the works contracts should include:

- wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters;
- sewage effluent and discharges from on-site kitchen facilities shall be directed to Government sewer in accordance with the requirements of the W PCO or collected for disposal offsite. The use of soakaways shall be avoided;
- storm drainage shall be directed to storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. Channels, earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks:
- silt removal facilities, channels and manholes shall be maintained and any deposited silt and grit shall be removed regularly, including specifically at the onset of and after each rainstorm:
- temporary access roads should be surfaced with crushed stone or gravel;
- rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities;
- measures should be taken to prevent the washout of construction materials, soil, silt or debris into any drainage system;
- open stockpiles of construction materials (e.g. aggregates and sand) on site should be covered with tarpaulin or similar fabric during rainstorms;
- manholes (including any newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers;
- discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system;
- all vehicles and plant should be cleaned before they leave the construction site to ensure that no earth, mud or debris is deposited by them on roads. A wheel washing bay should be provided at every site exit;
- wheel wash overflow shall be directed to silt removal facilities before being discharged to the storm drain;
- the section of construction road between the wheel washing bay and the public road should be surfaced with crushed stone or coarse gravel;
- wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities, shall be screened to remove large objects;
- vehicle and plant servicing areas, vehicle wash bays and lubrication facilities shall be located under roofed areas. The drainage in these covered areas shall be connected to foul sewers via a petrol interceptor in accordance with the requirements of the W PCO or collected for off site disposal;
- the Contractors shall prepare an oil / chemical cleanup plan and ensure that leakages or spillages are contained and cleaned up

Land-based works areas

٧

	EM&A			
EIADos	Log	Programmed at William Co.	Location of the	Implementatio
EIA Ref.	Ref.	Recommended Mitigation Measures	measures	Status
		immediately;		
		 waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance; 		
		 all fuel tanks and chemical storage areas should be provided with locks and be sited on sealed areas. The storage areas should be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank; and 		
		 surface run-off from bunded areas should pass through oil/grease traps prior to discharge to the stormwater system. 		
Ecology (Co	onstruction	n Phase)		
S10.7	E4	Watering to reduce dust generation; prevention of siltation of freshwater habitats; Site runoff should be desilted, to reduce the potential for suspended sediments, organics and other contaminants to enter streams and standing freshwater	Land-based works areas	V
S10.7	E5	Good site practices, including strictly following the permitted works hours, using quieter machines where practicable, and avoiding excessive lightings during night time	Land-based works areas	V
S10.7	E8	Control vessel speed	Marine Traffic	N/A
		Skipper training		
		 Predefined and regular routes for working vessels; avoid Brother Islands. 		
Fisheries				
S11.7	F4	Maritime Oil Spill Response Plan (MOSRP);	HKBCF	V
		Contingency plan.		
Landscape	& Visual (D	Detailed Design Phase)		
S14.3.3.1	LV1	General design measures include:	HKBCF	V
		Roadside planting and planting along the edge of the HKBCF Island is proposed;		
		 Transplanting of mature trees in good health and amenity value where appropriate and reinstatement of areas disturbed during construction by compensatory hydro-seeding and planting; 		
		 Protection measures for the trees to be retained during construction activities; 		
		 Optimizing the sizes and spacing of the bridge columns; Fine- tuning the location of the bridge columns to avoid visually-sensitive locations; 		
		 Maximizing new tree, shrub and other vegetation planting to compensate tree felled and vegetation removed; 		
		 Providing planting area around peripheral of HKBCF for tree planting screening effect; 		
		 Providing salt-tolerant native trees along the planter strip at affected seawall and newly reclaimed coastline; 		
		 For HKBCF, providing aesthetic architectural design on the related buildings (e.g. similar materials for PCB building facade to Airport buildings, roof planting and subtle materials for other facilities buildings and so on), and the related infrastructure (e.g. parapet planting and transparent cover for elevated footbridges) to provide harmonious atmosphere of the HKBCF; and 		
		 Fine-tuning the sizes of the structural members to minimize the bulkiness of buildings and adjustment of building arrangement to minimise disturbance to surrounding vegetation in the HKBCF. 		
Landscape	& Visual (C	Construction Phase)		
S14.3.3.3	LV2	Mitigate both Landscape and Visual Impacts	HKBCF	N/A
		G1. Grass-hydroseed bare soil surface and stock pile areas.		ING
		, and a second prior director.		

	EM&A Log		Location of the	Implementation
EIA Ref.	Ref.	Recommended Mitigation Measures	measures	Status
		G2. Add planting strip and automatic irrigation system if appropriate at some portions of bridge footbridge to screen bridge and traffic.		
		G3. Not applicable as this is for HKLR.		
		G4. For HKBCF, providing aesthetic architectural design on the related buildings (e.g. similar materials for PCB building facade to Airport buildings, roof planting and subtle materials for other facilities buildings and so on), and the related infrastructure (e.g. parapet planting and transparent cover for elevated footbridges) to provide harmonious atmosphere of the HKBCF		
		G5. Vegetation reinstatement and upgrading to disturbed areas		
		G6. Maximizing new tree shrub and other vegetation planting to compensate tree felled and vegetation removed		
		G7. Providing planting area around peripheral of HKBCF for tree planting screening effect;		
		G8. Plant salt-tolerant native and shrubs etc along the planter strip at affected seawall.		
		G9. Reserve of loose natural granite rocks for re-use. Provide new coastline to adopt "natural-look" by means of using armour rocks in the form of natural rock materials and planting strip area accommodating screen buffer to enhance "natural-look" of the new coastline.		
S14.3.3.3	LV3	Mitigate Visual Impacts		N/A
		V1.Minimize time for construction activities during construction period.		
		V2.Provide screen hoarding at the portion of the project site / works areas / storage areas near VSRs who have close low-level views to the Project during HKBCF construction.		
EM&A				
S15.2.2	EM1	An Independent Environmental Checker needs to be employed as per the EM&A Manual.	All construction sites	V
S15.5 - S15.6	EM2	1) An Environmental Team needs to be employed as per the EM&A Manual.	All construction sites	V
		Prepare a systematic Environmental Management Plan to ensure effective implementation of the mitigation measures.		
		3) An environmental impact monitoring needs to be implementing by the Environmental Team to ensure all the requirements given in the EM&A Manual are fully complied with.		



Monthly EM&A Report for August 2015

Appendix H. Statistics on Environmental Complaints, Notification of Summons and Successful Prosecutions

Statistics on Environmental Complaints, Notifications of Summons and Successful Prosecutions

		Cumulative Statistics	
Reporting Period	Complaints	Notifications of Summons	Successful Prosecutions
This reporting period	0	0	0
From commencement date of construction to end of reporting month	1	0	0



Monthly EM&A Report for August 2015

Appendix I. Environmental Site Inspection Schedule

Environmental Site Inspection Schedule for August 2015

			Aug-15			
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	No.	6	7	8
			Weekly Audit			
9	10	11	12	13	14	15
				Weekly Audit		
16	17	18	19		21	22
				Weekly Audit		
23	24		26	27	28	29
		Weekly Audit				
30	31					

Tentative Environmental Site Inspection Schedule for September 2015

Sep-15						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	Weekly Audit	3 Public Holiday	4	5
6	7	8	9	10 Weekly Audit	11	12
13	14	15	16	17 Weekly Audit	18	19
20	21	22	23	24 Weekly Audit	25	26
27	28 Public Holiday	29	30 Weekly Audit			