



工程和物業管理安全約章暨安全研討會2007 推行工地安全的實務經驗分享

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2007年7月27日



- 施工前
- 施工期間
- 完工後



施工前

- 涵蓋的相關工程
- 評估風險、識別危害
- 制訂安全政策、目標
- 尋找合適的分判商 / 合作伙伴
- 制訂分區管理制度

施工前 - 涵蓋的相關工程

- 涉及的範疇
- 地理限制
- 難度





Sky Pier
CONTRACT No. P522

London Job No.: LP-01

Updated 01 July 2007

Risk Register (Health, Safety & Environment)

Ref	Risk Description and Cause	Consequences before mitigation	Probability of Occurrence					Cost	Mitigation measures	Likelihood	Severity	Residual Risk	Risk Owner
			P	D	S	C	R						
1.1	Failure of lifting appliance causes as a result of lack of maintenance i.e. overloading / defective fall arrestor / crane or poor ground conditions / use of inexperienced operators / inclement weather - building contractor & mutual safety Ref Project Risk Assessment Page no. 14 to 16.	May cause multiple injuries and/or fatalities; loss of production capability; suspension of works; environmental damage	2	5	5	2	100	TN	Lifting appliances are inspected on a weekly basis & Form 1's completed; load charts are checked prior to connecting lift; designated barriers are applied to protect ground conditions inspected prior to lift; cranes are fully serviced & loading gear used; fall checks regularly; only skilled, experienced & competent operators are used; requirements of CCRP, FMA, L6 GLO regulations are complied with; lifting appliances are inspected prior to use after inclement weather conditions; TW certificate to be issued; Designated barrier is applied to signal crane operator; Competent person aware & working; Follow CM procedures for Summer Gaze Power To Stopper Pair Regulator - Pair diverging	100	RC	N/A	
1.2	Failure of tower crane causes as a result of defective erection process or defective or overloaded parts of lift / maintenance i.e. overloading / defective fall arrestor / crane or poor ground conditions / use of inexperienced operators / inclement weather - building contractor & mutual safety Ref Project Risk Assessment Page no. 14 to 16.	May cause multiple injuries and/or fatalities; loss of production capability; suspension of works; environmental damage	2	5	5	2	100	TN	Consult manufacturer of crane erection; inspect on a weekly basis & Form 1's completed; load charts are checked prior to connecting lift; ground conditions inspected prior to lift; fall's are anti-collapse device checked regularly; only skilled, experienced & competent operators are used; requirements of CCRP, FMA, L6 GLO regulations are complied with; duration of tower crane is checked; Designated barrier is applied to signal crane operator; Competent person aware & working; Follow CM procedures for Summer Gaze Power To Stopper Pair Regulator - Pair diverging	100	RC	N/A	
1.3	Failure of lifting gear causes as a result of failure to provide correct use of lifting gear - lifting gear used to move materials in the building Ref Project Risk Assessment Page no. 14 to 16.	May cause multiple injuries and/or fatalities; loss of production capability; suspension of works; environmental damage	2	5	5	2	100	CCM	Lifting gear is inspected before use; monthly inspection of lifting gear carried out by competent persons; use of lifting gear without correct markings prohibited; movement of loads in excess of SWL prohibited; Form 6 GT completed & displayed; lifting problems on contact use of lifting gear; Follow CM procedures for Summer Gaze Power To Stopper Pair Regulator - Pair diverging	100	RC	N/A	
1.4	Object of lifting entry lifting operation causes as a result of failure to apply force correctly i.e. failure of equipment / use of inappropriate lifting technique to provide operation - lifting of correcting machine - loss to be moved in the building Ref Project Risk Assessment Page no. 14 to 16.	May cause multiple injuries and/or fatalities; loss of production capability; suspension of works; environmental damage	2	5	5	2	100	CCM	Weight of lifting pole assessed prior to lift; rigging team to control load; correct lifting & rigging techniques provided; analysis of lifting barrier to signal crane operator; number of all occurring significant lifts	100	RC	N/A	

施工前 - 制訂安全政策、目標

- 公司 + 業主 -- 地盤安全政策
- 宏觀風險 + 危害 -- 確立目標、制度及控制計劃
- 臨時工程控制措施、機械操作、保養及維修計劃

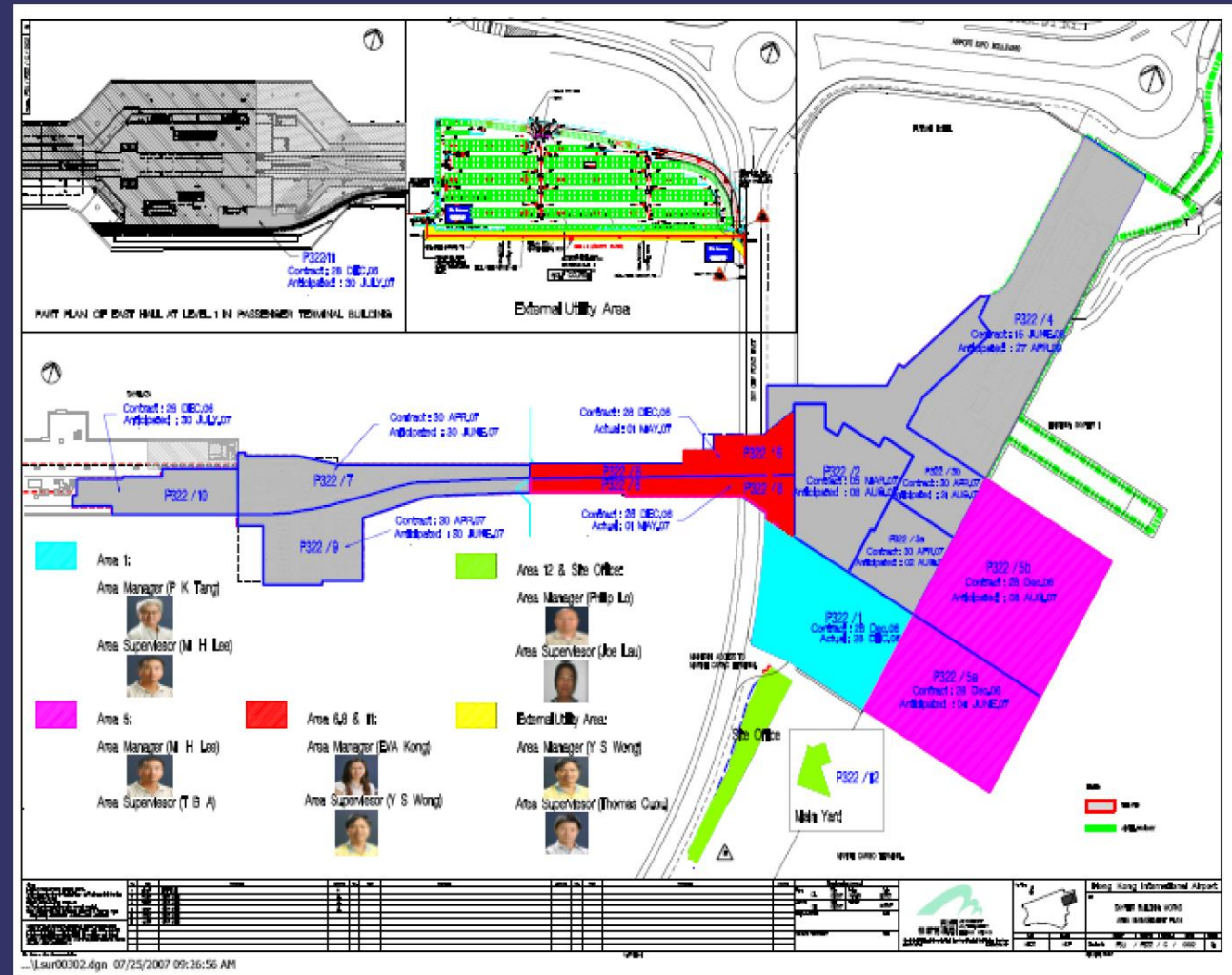


施工前 - 尋找合適的分判商 / 合作伙伴

- 中央管理制度 – 核准分判商 / 合作伙伴
- 篩選 – 強調地盤安全所需的資源
- 尋找有相同安全理念及管理優良的合作伙伴

施工前 - 制訂分區管理制度

- 目的
- 制度
- 成效



施工期間

- 風險評估 / 危害識別
- 訓練
- 溝通
- 巡查、監管、監察
- 獎勵
- 意外報告
- 檢討成效

施工期間 - 風險評估 / 危害識別

- 施工方案的風險評估
 - 地盤施工監控表
 - 工地風險評估
- 互動性

Gammon WORK FACE RISK ASSESSMENT 工地風險評估

Contract: Nan Shan Tunnel and
合約名稱: 南山隧道工程
Number of workers in team: 2
工作小組人數: 2人

Name of person completing assessment: LAU ING HEI
風險評估人員名稱: 劉英輝
Name of direct supervisor: TONY WONG
直接主管名稱: 黃國輝

Date: 22 June 07
日期: 22 June 07
Subcontractor (if any): Pak Fai, Shen Jie
分判名稱 (如有): 柏輝, 陳傑

Works Location 工作地點	Associated Hazards / Risks 有關之危害 / 風險	Control measure required 所需之控制措施
路面控制大樓 - 樓上	使用梯架或腳手架	梯架或腳手架須有護欄及設置個人防墜裝置
同上	使用梯子或工作平台	必須使用此類認可的梯子, 工作平台或梯架設備
路面控制大樓 - 樓下	使用梯架或腳手架	必須有熱工作許可證及工作範圍減減火管
路面控制大樓 - 外面	高空工作人體下墜	必須配戴安全帶及獨立繫索
Work being carried out 有關進行之工序		
安裝天花及牆板		
安裝牆身間隔板		
安裝牆身磚		
安裝玻璃磚牆		

Signature of person conducting assessment: [Signature]
風險評估人員簽署

Signature of direct supervisor reviewing assessment: [Signature]
進行風險評估檢討之直接主管簽署

Project: KCR BRELLC300 - Lok Ma Chau Tunnel FCS No: [Blank]

Team: [Blank] Operation: [Blank] Location: [Blank]

Prepared by: [Blank] Prepared by To remove: [Blank]

Date: [Blank] Period of FCS Validity: [Blank]

Hazard Control Sheet Attached: Yes No Activity Control Sheet: [Blank]

Document/Items Required: [Blank] Certified Skills and Training Required: [Blank]

Harm, Material, Dangerous & Corrosive Substance

Key Environmental Controls	Yes	No	Key Quality Controls	Yes	No
[Blank]			[Blank]		

Significant Health & Safety Hazard and Control	Yes	No	Significant Health & Safety Hazard and Control	Yes	No
[Blank]			[Blank]		

施工期間 - 訓練

- 訓練分析
- 安全技能訓練
(工序安全)
- 安全意識訓練
(工地座談)
- 獨特危害訓練
(施工監控表
、工地風險評
估、施工前工
作坊)



施工期間 - 溝通

- 不同級別的會議及工作坊
- 早會
- 安全通訊
- 不同渠道收集意見



施工期間 – 巡查、監管、監察

- 動員各部門員工定期巡查
- 分區經理負責地盤安全 – 有效監管及運用資源
- 安全顧問、項目經理負責監察
- 分判商及個人安全表現分析

Summary of Formal Site and Env. Safety Inspections 2007						
Person Carrying Out Inspection		No. of Inspections (Target & Actual) Carried Out Monthly				
		May-07	Cumm. Target	Cumm. % Performance		
Richard Ellis	Construction Manager	2	2	10	10	100%
K.W. Lee	Sr. Project Manager	4	4	20	18	86%
P. K. Tang	Site Agent	4	7	20	38	186%
Bai Kong	Sr. Project Engineer	4	3	20	26	126%
Lee Man Ho	Sr. Construction Supervisor	4	4	20	18	86%
Thomas Chou	Engineer	4	4	20	23	140%
Joe Lau	Technician	4	3	20	27	136%
Phillip Lo	Chief Surveyor	2	2	10	12	120%
Kenny Ng	Sr. Surveyor	2	1	10	16	160%
Cliff Lai	Surveyor	2	2	10	16	160%
Kwan Chik Nga	Foreman	4	6	12	22	182%
Wong Kam Tin	Foreman	4	8	20	31	166%
Alan Yan	Project Manager	2	2	10	11	110%
Edwin Leung	Engineer	2	2	10	12	120%
Judy Qin	Engineer	2	2	10	3	30%
Paul Wong	Engineer	2	2	10	14	140%
Phillip Lam	Construction Supervisor	2	2	10	12	120%
John Chiu	Engineer	2	3	8	8	100%
Victor Lau	Ass. Engineer	2	2	10	11	110%
Lau Chun Yu	Sr. Safety Advisor	4	8	20	27	136%
Leo Yue	Safety Advisor	4	3	14	24	171%
Leo Chow	HSE Engineer	4	6	20	43	216%
Eric Hung	Managing Quantity Surveyor	1	1	6	6	100%
ASTEL	Subcontractor	4	1	4	3	76%
Amen	Subcontractor	4	7	3	12	182%
Monthly Total Target		76	28	228	467	
Monthly % Performance				116%		

 Gammon		Safety KPI for Individual Staff									
KPI Result and Comments for March 2007											
KPI for Richard Ellis (CM)											
Key Performance Indicators		Target	Output	Yes/No	Mar-07		Scores	Weighting	Total	Comments	
1	Chair L1 meeting	1/ month	X					10%			
2	Attend AA monthly meeting	1/ month	X					10%			
3	Chair Risk Register Review Meeting	1/ month	X					10%			
4	Chair Weekly team meeting	1/ week	X					10%			
5	Chair Sub-contractor start-up meeting	before new sub-conc. starts	X					10%			
6	Chair Ad-hoc safety meeting	On request	X					10%			
7	Chair Accident/incident review meeting	On request	X					10%			
8	Participate safe working cycle	1/ month	X					10%			
9	Carry out General safety inspection	2/ month	X					10%			
10	Attend internal safety training	1/3 months	X					10%			
11	Submission of safety innovation							10% per submission			
								Total Score:			
Prepared by:				Date:							

施工期間－獎勵

- 個人獎勵
- 分判商獎勵
- 分區管理獎勵
- 訓練獎勵



施工期間 - 意外報告

- 意外、事故
- 險失
- 不安全環境



施工期間 - 檢討成效

- 分項安全指標表現
- 地盤實況
- 訓練
- 投訴
- 分判商 / 個人積極性

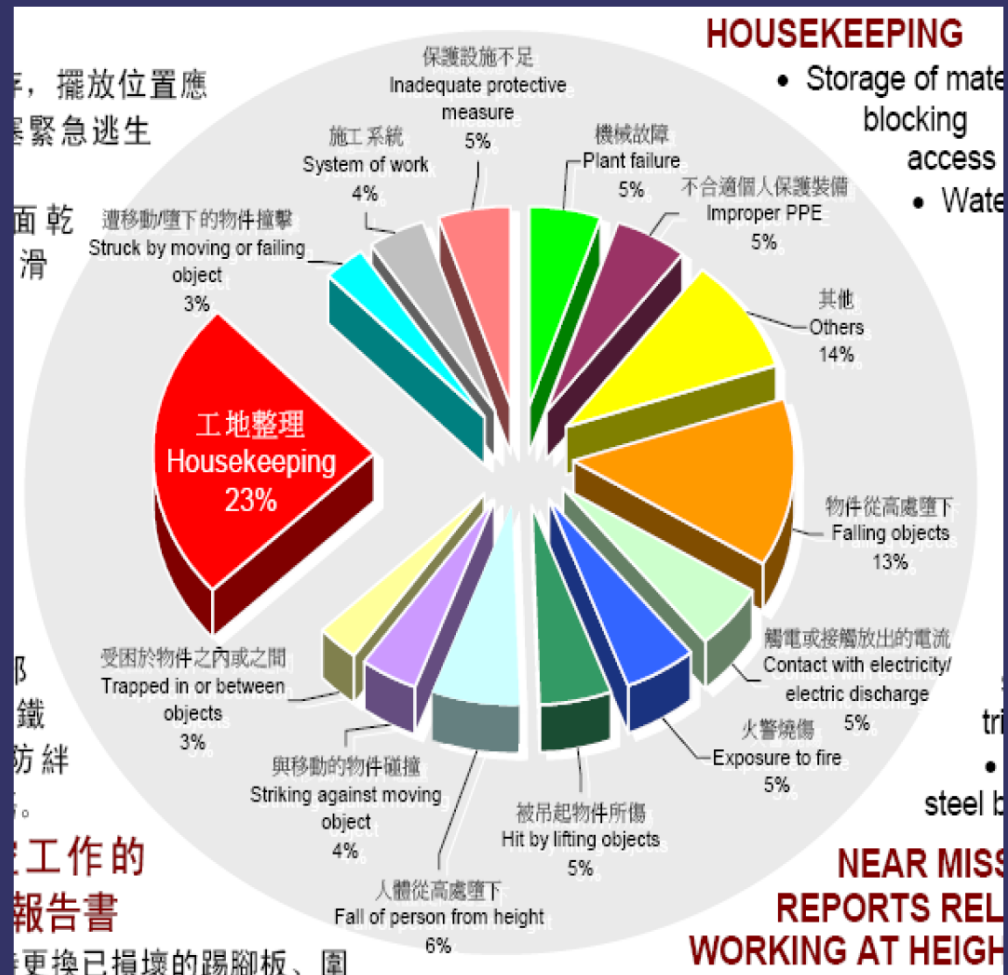


完工後

- 分析資料、意見、作全面檢討
- 資料分享

完工後 – 分析資料、意見、作全面檢討

- 分判商表現
- 意外分析
- 管理效率
- 員工表現
- 值得學習及警惕的地方



完工後 - 資料分享

- 內聯網



The screenshot displays the Gammon website's Civil homepage. The header features the Gammon logo and the tagline "Leading through quality for 50 years" alongside a photo of two workers. A navigation bar includes links for Home, Document, Gallery, Video Archive, and Risks. The main content area is titled "Civil" and includes a welcome message, a photo of construction workers, and a "Read More" link. A sidebar on the left lists various services, with "Civil" highlighted under "Hong Kong Operation". A right sidebar contains "Common" links (Key Personnel, FAQ, Grade Structure, Knowledge Management) and "Useful Links" (Hong Kong Observatory, HyD Major Projects, CEDD Major Projects). The "Knowledge Management" link is circled in red.

Gammon Leading through quality for 50 years

Home Document Gallery Video Archive Risks

HKG Time : 25 Jul 2007 09:11:11 HKG Weather : 29°C API : 10-40/Lo to Me

Civil

WELCOME TO OUR NEW CIVIL HOMEPAGE!

[Read More](#)

Common

- Key Personnel
- FAQ
- Grade Structure
- Knowledge Management**

Useful Links

- Hong Kong Observatory
- HyD Major Projects
- CEDD Major Projects

Left Sidebar:

- CITE
- Commercial, Legal & Insurance
- + Construction Services
- Corporate Communications
- Entasis
- Environment and Sustainability
- Finance
- Gammon Academy
- Gammon Shenzhen
- GSRC
- ~ Hong Kong Operation
 - Building
 - Civil**
 - Foundations