



工程指示 / 要求簡箋(E.I.)

工程指示編號：EI / 5386 / 22

修改版次：

工程編號：J - 858

工程名稱：將軍澳日出康城

工程項目：吊機吊船 地盤用鐵件 (買街料)

收件人：Maggie

發件人：Ant Yeung

日期：23/11/2022

要求提供 / 確認 事項：

- | | | |
|------------------------------------|-------------------------------------|-------------------------------|
| <input type="checkbox"/> 初步鋁料 B.M. | <input type="checkbox"/> 加工拆圖，然後生產 | <input type="checkbox"/> 尺寸表 |
| <input type="checkbox"/> 正式鋁料 B.M. | <input type="checkbox"/> 技術上資料 / 指示 | <input type="checkbox"/> 報價 |
| <input type="checkbox"/> 配件 B.M. | <input type="checkbox"/> 樣辦或貨品說明書 | <input type="checkbox"/> 分判合約 |

內容：

請準備以下鐵料到送地盤 (買街料) (不用熱浸鋅) A: 500x500x16 厚：90 件

每輛計

B: 850x850x16 厚：25 件

按 Aecom R.E comment 需要加鐵板，由 point load 轉 Area Load

覆數已計到尺寸最細，最薄

供第一批來船來機。

現來 11 winch 和 5 船

請在 2022. 11. 25 前完成上列要求。

附：

以上項目為：

- 原合約工程包 原合約工程加 / 減賬 新工程報價

分發東莞各部門：

- | | | | |
|--|---|--|--|
| <input type="checkbox"/> 生產技術總監 <input type="checkbox"/> 連附件 | <input type="checkbox"/> 技術部 <input type="checkbox"/> 連附件 | <input type="checkbox"/> 生產部 <input type="checkbox"/> 連附件 | <input type="checkbox"/> 機械設計部 <input type="checkbox"/> 連附件 |
| <input type="checkbox"/> 採購部 <input type="checkbox"/> 連附件 | <input type="checkbox"/> 生產統籌部 <input type="checkbox"/> 連附件 | <input type="checkbox"/> 小羅 & 清 <input type="checkbox"/> 連附件 | |
| <input type="checkbox"/> 質檢部 <input type="checkbox"/> 連附件 | <input type="checkbox"/> 會計部 <input type="checkbox"/> 連附件 | <input type="checkbox"/> 報關組 <input type="checkbox"/> 連附件 | <input type="checkbox"/> 其他 <u>水洪</u> <input type="checkbox"/> 連附件 |

分發其他分判：

連附件 檳

分發香港各部門：

- | | | | |
|--|--|--|---|
| <input type="checkbox"/> 行政部 <input type="checkbox"/> 連附件 | <input type="checkbox"/> 會計部 <input type="checkbox"/> 連附件 | <input checked="" type="checkbox"/> 統籌部 <input type="checkbox"/> 連附件 | <input checked="" type="checkbox"/> 工程部地盤科文 <u>積哥</u> <input checked="" type="checkbox"/> 連附件 |
| <input checked="" type="checkbox"/> 採購部 <input type="checkbox"/> 連附件 | <input type="checkbox"/> QS 部 <input type="checkbox"/> 連附件 | <input type="checkbox"/> 維修部 <input type="checkbox"/> 連附件 | <input type="checkbox"/> 其他 _____ <input type="checkbox"/> 連附件 |

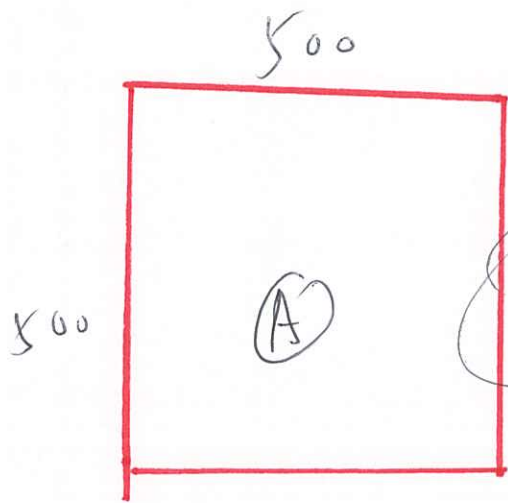
傳遞編號：

HK / 22

發件人簽署：

項目經理簽署：

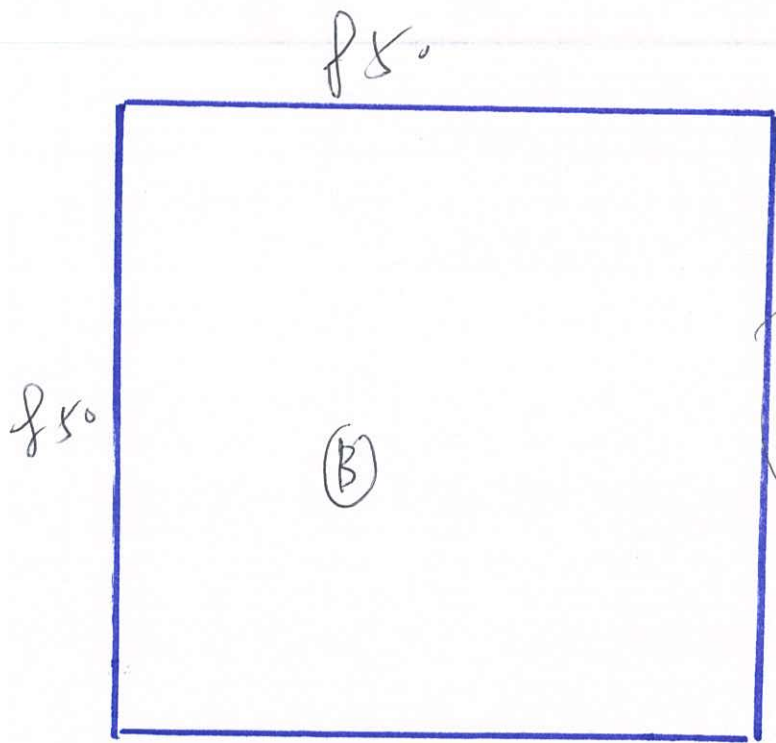
J858



16mm厚

90件

尾端用 (每車底一塊)

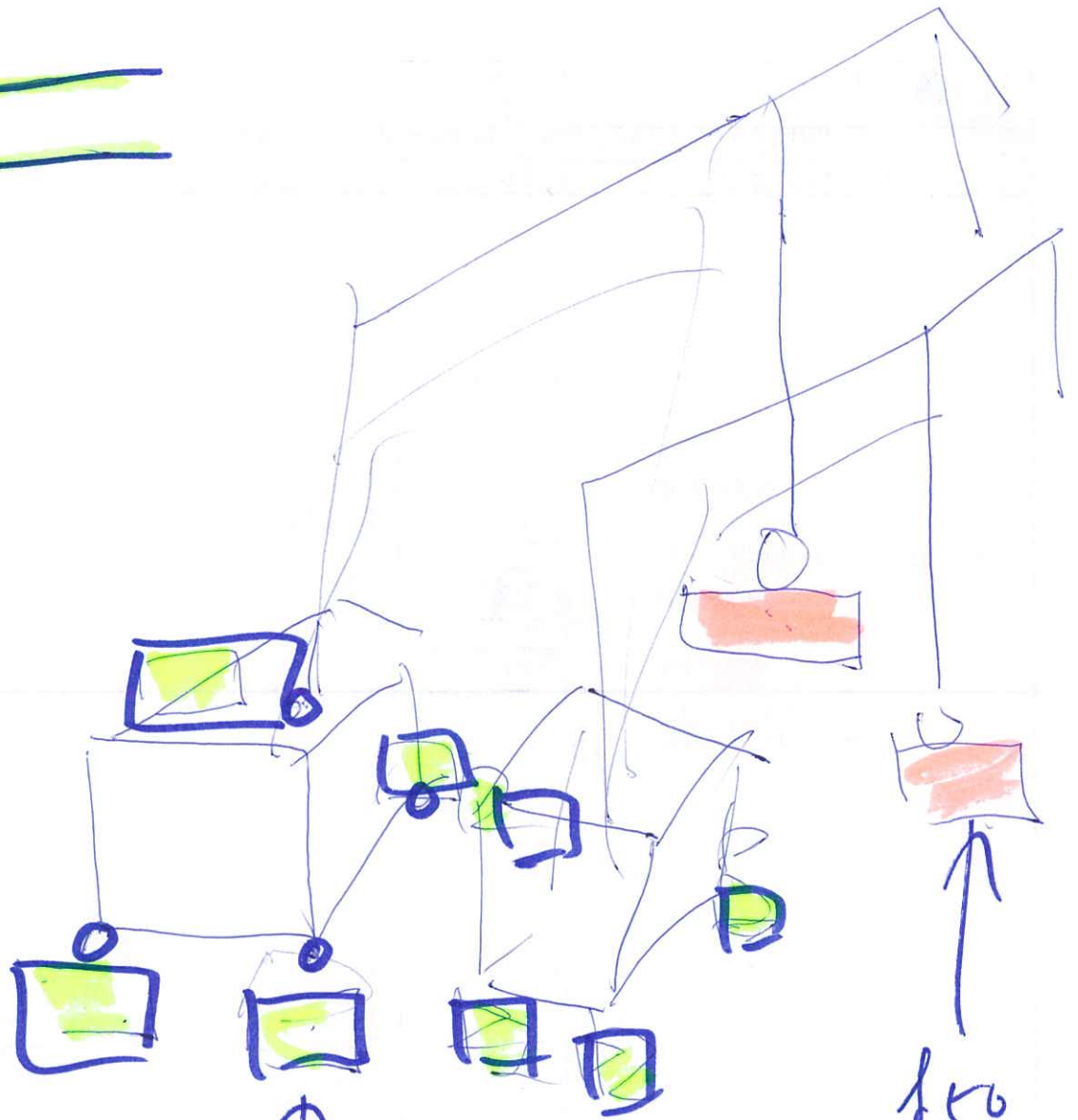
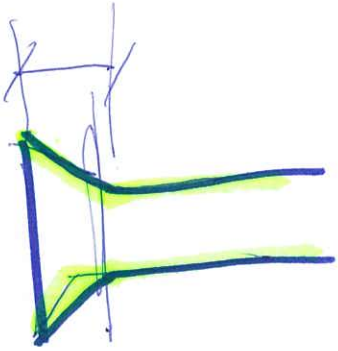


16mm厚

25件

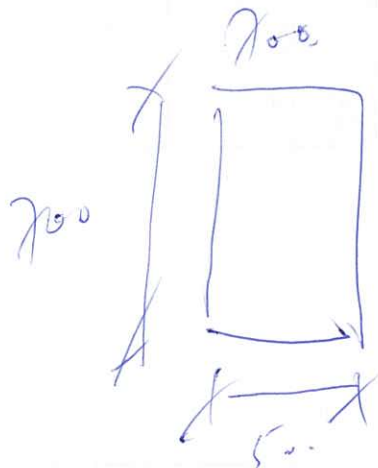
前掌用

	A 500x500	B 850x850	記錄 only
⑩ Winch	11 x 4 = 44	⑪	
⑪ 吊	5 x 2 x 4 = 40	5 x 2 = 10	
	84 + 6	21 + 4	



500 x 500 x 16

150
x
150
x
16



CAGE MARK	CAGE SIZE	FRONT ARM LENGTH (<=mm)	REAR ARM LENGTH (>=mm)	FRONT/REAR RATIO	COUNTER WEIGHTS (KG) (TOTAL)
T1-C01	5.5M L-SHAPE	1400	2450	1.75	20KG x 60 PCS = 1200KG
		1800	5400	3	20KG x 35 PCS = 700KG
T1-C02	4.5M	1000	3500	3.5	20KG x 29 PCS = 580KG
		1000	3000	3	20KG x 33 PCS = 660KG
T1-C03	4.5M L-SHAPE	1400	2800	2	20KG x 50 PCS = 1000KG
		1400	3500	2.5	20KG x 40 PCS = 800KG
T1-C04	2.0M	1200	3000	2.5	20KG x 36 PCS = 720KG
		1200	2400	2	20KG x 45 PCS = 900KG
T1-C05	5.0M L-SHAPE	1500	2625	1.75	20KG x 58 PCS = 1160KG
		1800	4500	2.5	20KG x 41 PCS = 820KG
T1-C06	5.5M L-SHAPE	1800	5400	3	20KG x 35 PCS = 700KG
		1500	3000	2	20KG x 52 PCS = 1040KG
T1-C07	3.0M	1200	3000	2.5	20KG x 38 PCS = 760KG
		1200	3000	2.5	20KG x 38 PCS = 760KG
T1-C08	3.0M	1200	3000	2.5	20KG x 38 PCS = 760KG
		1200	2000	1.67	20KG x 63 PCS = 1260KG
T1-C09	3.0M	1200	3000	2.5	20KG x 38 PCS = 760KG
		1800	4950	2.75	20KG x 34 PCS = 680KG
T1-C10	5.0M	1200	3600	3	20KG x 34 PCS = 680KG
		1200	3000	2.5	20KG x 41 PCS = 820KG
T1-C11	4.0M	1600	3200	2	20KG x 49 PCS = 980KG
		1200	2400	2	20KG x 49 PCS = 980KG
T1-C12	4.5M	1000	2000	2	20KG x 50 PCS = 1000KG
		1000	3000	3	20KG x 33 PCS = 660KG
T1-C13	3.0M	1400	2450	1.75	20KG x 54 PCS = 1080KG
		1200	3000	2.5	20KG x 38 PCS = 760KG
T1-C14	3.0M	1200	4800	4	20KG x 25 PCS = 500KG
		1200	4800	4	20KG x 25 PCS = 500KG

CAGE MARK	CAGE SIZE	FRONT ARM LENGTH (<=mm)	REAR ARM LENGTH (>=mm)	FRONT/REAR RATIO	COUNTER WEIGHTS (KG) (TOTAL)
T2-C01	5.5M L-SHAPE	1400	2100	1.5	20KG x 69 PCS = 1380KG
		1800	5400	3	20KG x 35 PCS = 700KG
T2-C02	4.5M	1000	3200	3.2	20KG x 33 PCS = 660KG
		1000	2500	2.5	20KG x 40 PCS = 800KG
T2-C03	3.0M	1200	2400	2	20KG x 47 PCS = 940KG
		1000	2500	2.5	20KG x 38 PCS = 760KG
T2-C04	5.5M L-SHAPE	1800	5400	3	20KG x 35 PCS = 700KG
		1600	3000	1.88	20KG x 60 PCS = 1200KG
T2-C05	5.5M L-SHAPE	1800	3600	2	20KG x 52 PCS = 1040KG
		2000	4000	2	20KG x 52 PCS = 1040KG
T2-C06	3.0M	1200	3000	2.5	20KG x 38 PCS = 760KG
		1200	3600	3	20KG x 32 PCS = 640KG
T2-C07	3.0M	1200	3600	3	20KG x 32 PCS = 640KG
		1200	2400	2	20KG x 47 PCS = 940KG
T2-C08	3.0M	1000	2500	2.5	20KG x 38 PCS = 760KG
		1800	4950	2.75	20KG x 34 PCS = 680KG
T2-C09	5.0M	1200	3000	2.5	20KG x 41 PCS = 820KG
		1200	3600	3	20KG x 34 PCS = 680KG
T2-C10	4.0M	1200	3600	3	20KG x 33 PCS = 660KG
		2000	5000	2.5	20KG x 39 PCS = 780KG
T2-C11	2.5M	1000	2000	2	20KG x 46 PCS = 920KG
		1000	2300	2.3	20KG x 41 PCS = 820KG
T2-C12	1.5M	1800	4500	2.5	20KG x 36 PCS = 720KG
		1200	2300	1.92	20KG x 52 PCS = 1040KG
T2-C13	3.0M	1300	4000	3.1	20KG x 32 PCS = 640KG
		1300	4000	3.1	20KG x 32 PCS = 640KG

CAGE MARK	CAGE SIZE	FRONT ARM LENGTH (\leq mm)	REAR ARM LENGTH (\geq mm)	FRONT/REAR RATIO	COUNTER WEIGHTS (KG) (TOTAL)
T3-C01	5.5M L-SHAPE	1400	2100	1.5	20KG x 69 PCS = 1380KG
		1800	5400	3	20KG x 35 PCS = 700KG
T3-C02	4.5M	1000	3000	3	20KG x 33 PCS = 660KG
		1000	3000	3	20KG x 33 PCS = 660KG
T3-C03	3.0M	1100	2700	2.45	20KG x 42 PCS = 840KG
		1000	3500	3.5	20KG x 27 PCS = 540KG
T3-C04	2.0M	1200	2400	2	20KG x 45 PCS = 900KG
		1200	2400	2	20KG x 45 PCS = 900KG
T3-C05	5.0M L-SHAPE	1800	4500	2.5	20KG x 41 PCS = 820KG
		1500	2625	1.75	20KG x 58 PCS = 1160KG
T3-C06	3.5M L-SHAPE	1800	4050	2.25	20KG x 43 PCS = 860KG
		1200	2400	2	20KG x 48 PCS = 960KG
T3-C07	3.0M	1200	3000	2.5	20KG x 38 PCS = 760KG
		1200	3000	2.5	20KG x 38 PCS = 760KG
T3-C08	3.0M	1200	2500	2.08	20KG x 47 PCS = 940KG
		1200	4000	3.3	20KG x 29 PCS = 580KG
T3-C09	3.0M	1800	4950	2.75	20KG x 34 PCS = 680KG
		1200	2500	2.08	20KG x 47 PCS = 940KG
T3-C10	5.0M	1200	3000	2.5	20KG x 41 PCS = 820KG
		1200	3600	3	20KG x 34 PCS = 680KG
T3-C11	4.0M	1200	3600	3	20KG x 33 PCS = 660KG
		2000	5000	2.5	20KG x 39 PCS = 780KG
T3-C12	2.5M	1000	2000	2	20KG x 46 PCS = 920KG
		1000	2300	2.3	20KG x 41 PCS = 820KG
T3-C13	3.0M	1200	2500	2.08	20KG x 47 PCS = 940KG
		1200	2500	2.08	20KG x 47 PCS = 940KG

華光租賃服務有限公司
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Reaction force on front and rear support

Front / rear ratio (D_B / D_A)	Ra (In-operation) = $P \cdot (D_A + D_B) / D_B$	Rb (In-operation) = $P + (CW \times 9.81) - R_a$	Ra (In-parking) = 0	Rb (In-parking) = $CW \times 9.81$
3.75	8.58 kN	3.88 kN	0	5.69 kN
3.5	8.7 kN	4.15 kN	0	6.08 kN
3.25	8.85 kN	4.59 kN	0	6.67 kN
3	9.03 kN	5 kN	0	7.26 kN
2.75	9.23 kN	5.39 kN	0	7.85 kN
2.5	9.48 kN	5.92 kN	0	8.63 kN
2.25	9.78 kN	6.6 kN	0	9.61 kN
2	10.16 kN	7.4 kN	0	10.79 kN
1.75	10.64 kN	8.29 kN	0	12.16 kN
1.5	11.28 kN	9.81 kN	0	14.32 kN
1.25	12.19 kN	11.65 kN	0	17.07 kN

$$\begin{aligned} \text{Two support at front (near parapet), each support load} &= R_a / 2 \\ &= 12.19 \text{ kN} / 2 \\ &= 6.1 \text{ kN} \end{aligned}$$

$$\begin{aligned} \text{Eight support at rear (away parapet), each support load} &= R_b / 8 \\ &= 17.07 \text{ kN} / 8 \\ &= 2.13 \text{ kN} \end{aligned}$$

- a) Check bearing of concrete for suspension beam hanger (at typical floor)

For installation of suspension beam hanger type, the outrigger should be seated on / nearby the existing r.c. wall. The loading of outrigger is significant small with the structural strength of r.c. wall. Therefore, it is not significant to check the existing structure.

$$f_{cu} = 45 \text{ N/mm}^2$$

$$\begin{aligned} \text{Area of outrigger base plate, } A &= 100 \times 100 \\ &= 10000 \text{ mm}^2 \end{aligned}$$

$$\begin{aligned} f_{bc} &= R_a / A \\ &= 6100 \text{ N} / 10000 \text{ mm}^2 \\ &= 0.61 \text{ N/mm}^2 \\ &< 0.35 \cdot f_{cu} \end{aligned}$$

∴ Pass

For counterweight ≥ 700 kg, use double counterweight containers.

Critical case: T2-C01 & T3-C01.

Front/rear ratio = 1.5.

Max $R_b = 14.32$ kN.

Eight supports at rear (away parapet), each support load = $R_b/8 = 1.79$ kN.

Use a $500 \times 500 \times 16$ mm THK steel plate.

Spread loading area = $(0.5 + 0.15 \times 2) \times (0.5 + 0.15 \times 2) = 0.64$ m².

Design load on slab = 1.79 kN / 0.64 m² = 2.8 kPa.

As 2.8 kPa < 4.3 kPa \Rightarrow O.K.

Max $R_a = 11.28$ kN.

Two supports at front (near parapet), each support load = $R_a/2 = 5.64$ kN.

Use a $850 \times 850 \times 16$ mm -

Spread loading area = $(0.85 + 0.15 \times 2) \times (0.85 + 0.15 \times 2) = 1.33$ m².

Design load on slab = 5.64 kN / 1.33 m² = 4.26 kPa.

As 4.26 kPa < 4.3 kPa \Rightarrow O.K.

For counterweight < 700 kg, use single counterweight containers.

Critical case : T1-C09 / T1-C10 ; etc.

Front / rear ratio = 2.75

Max $R_b = 7.85$ kN.

Four supports at rear (away parapet), each support load = $7.85 / 4 = 1.96$ kN

Use a $300 \times 300 \times 16$ mm THK steel plate.

Spread loading area = $(0.5 + 0.15 \times 2) \times (0.5 + 0.15 \times 2) = 0.64 \text{ m}^2$.

Design load on slab = $1.96 \text{ kN} / 0.64 \text{ m}^2 = 3.06 \text{ kPa}$.

As $3.06 \text{ kPa} < 4.3 \text{ kPa} \Rightarrow \text{OK}$.

Max $R_a = 9.23$ kN.

Two supports at front (near parapet), each support load = $R_a / 2 = 4.62$ kN.

Use a $850 \times 850 \times 16$ mm THK steel plate.

Spread loading area = $(0.85 + 0.15 \times 2)^2 = 1.33 \text{ m}^2$

Design load on slab = 3.47 kPa .

As $3.47 \text{ kPa} < 4.3 \text{ kPa} \Rightarrow \text{OK}$.