

工程指示 / 要求簡箋(E.I.)

工程指示編號：EI / 5207 / 22

修改版次： -

工程編號：J - 858

工程名稱：將軍澳日出康城 11

工程項目：趟門 9/F 修補方案 鐵角 地盆用

收件人：Maggie

發件人：Ant Yeung

日期：14/10/2022

□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：

因應 9/F 的留碼向下沉太多，原本的留碼不能使用。需打拉爆 M16

1. 附石矢報告

2. 附 Remedial 計數 195

3. 油瀝清油

4. 無焊

5. 沿水油厚度 符合 EI5136 指示 100um

請在 2022.10.20 前完成上列要求。

附：(頁

 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 | 楊榮輝 <input type="checkbox"/> 連附件 |

 BUN 連附件

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 type="checkbox"/> 統籌部 | <input type="checkbox"/> 連附件 | <input type="checkbox"/> 工程部地盤科文 | <input type="checkbox"/> 連附件 | 積哥 |
| <input 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

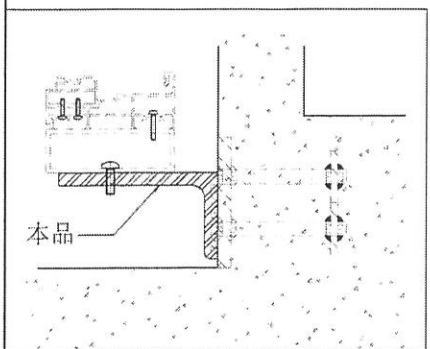
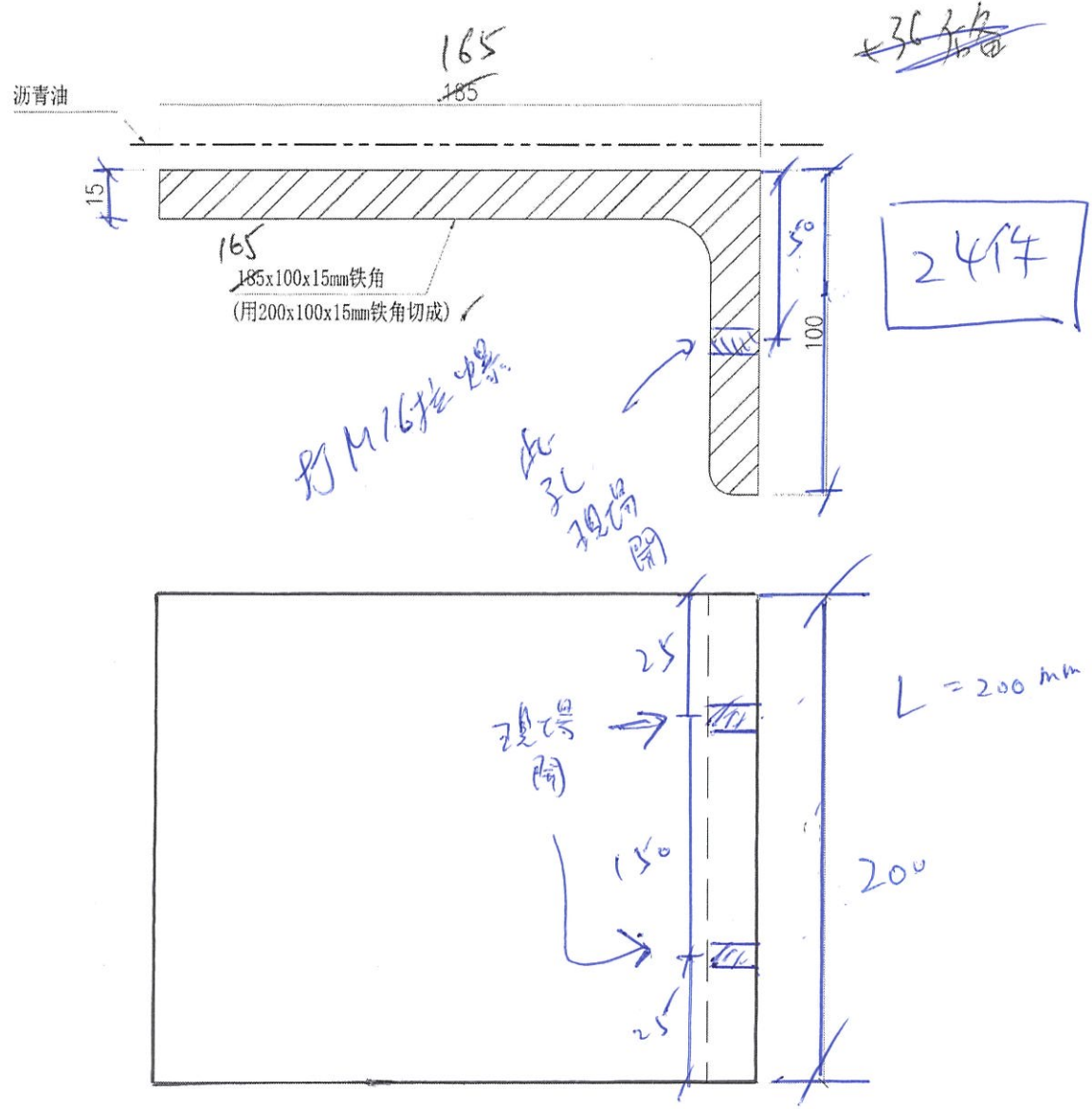
發件人簽署：

項目經理簽署：

EL 5207

美特鋁質有限公司 MIDI Aluminium Fabricator Ltd.		工程號 J858	類別	物料號 - SD-RE-200L
修改	採用工廠	地盤 康城11期	制圖 W. E. X	圖號 SD-GS04
日期	材料顏色 熱浸鋅	圖紙名稱 鐵料加工圖	復核 -	數量 -
		材料 S-275	批准 -	單件重量 4.81 (KG)

	位置	QTY
1794	T1	1716
1950	T2	1872
1950	T3	1872
= 5694	合計:	5460



門框

每幅門3只
BL



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內容：

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2. 附 Remedial 計數 19頁

3. 油瀝清油

4. 無焊

5. 沿水油厚度 符合 EI5136 指示 100um

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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：

- | | | | | | | | |
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BUN 連附件

分發香港各部門：

- | | | | | | | | | |
|------------------------------|------------------------------|-------------------------------|------------------------------|------------------------------|------------------------------|----------------------------------|------------------------------|------------------------------|
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| <input 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 |

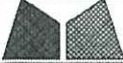
傳遞編號：

HK / 22

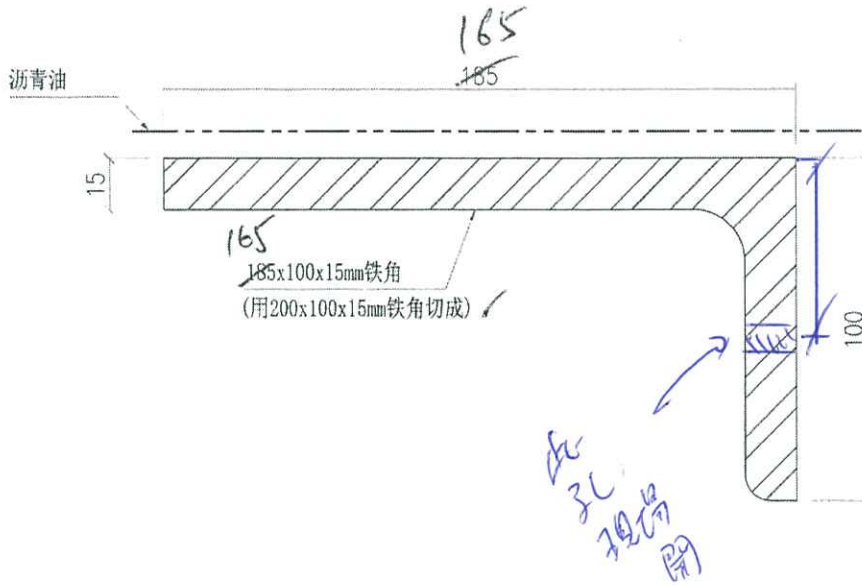
發件人簽署：

項目經理簽署：

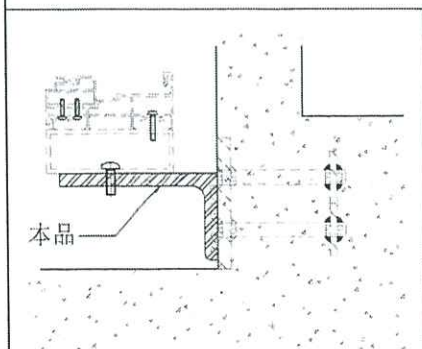
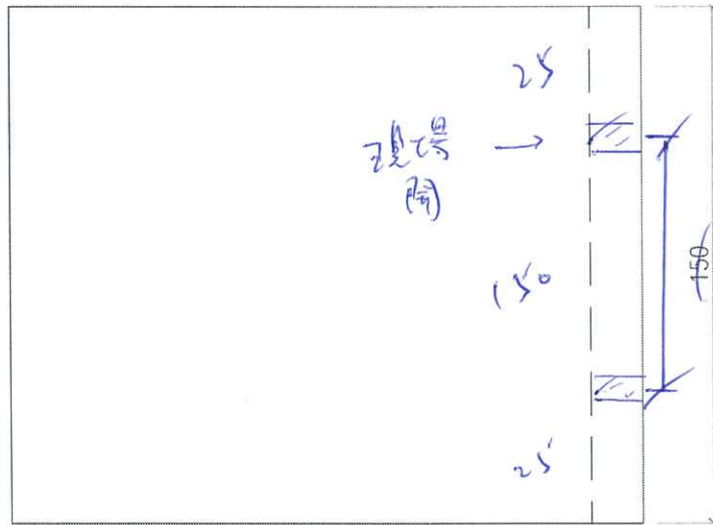
EL 5207

 美特鋁質有限公司 MIDI Aluminium Fabricator Ltd.		工程號 J858 地盘 康城11期	類別 制圖 W. E. X	物料號 - SD-RE-200L 圖號 SD-ES04
修改 日期	採用工廠 材料颜色 热浸锌	图纸名称 铁料加工图 材料 S-275	復核 - 批准 -	數量 - 單件重量 4.81 (KG)

	位置	QTY
1794	T1	1716
1950	T2	1872
1950	T3	1872
= 5694	合计:	5460



24个



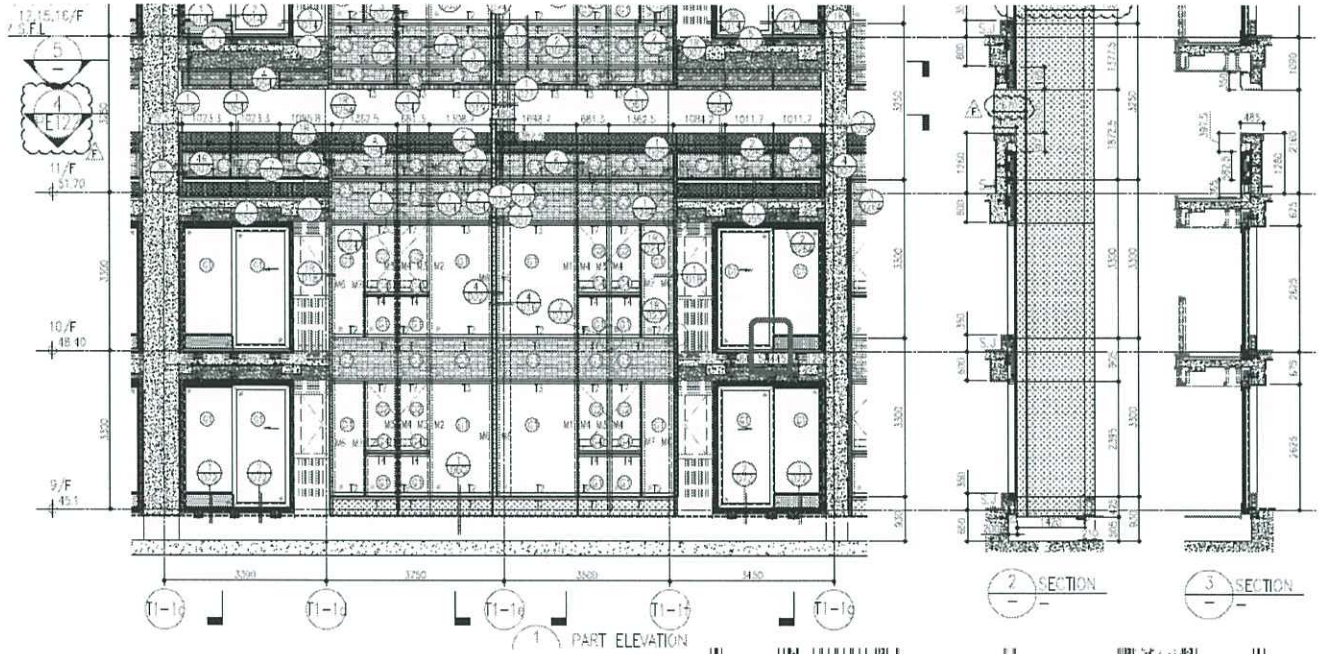
门槛

9/7

每幅門3只
PL

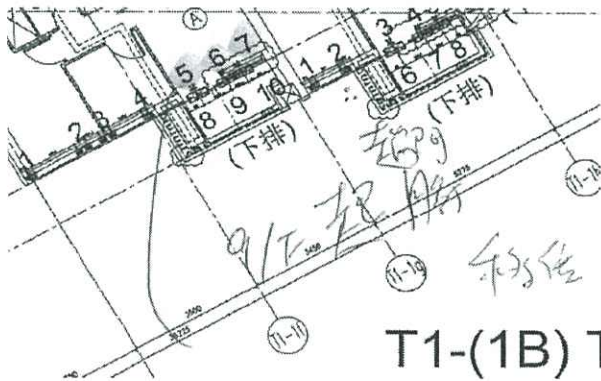
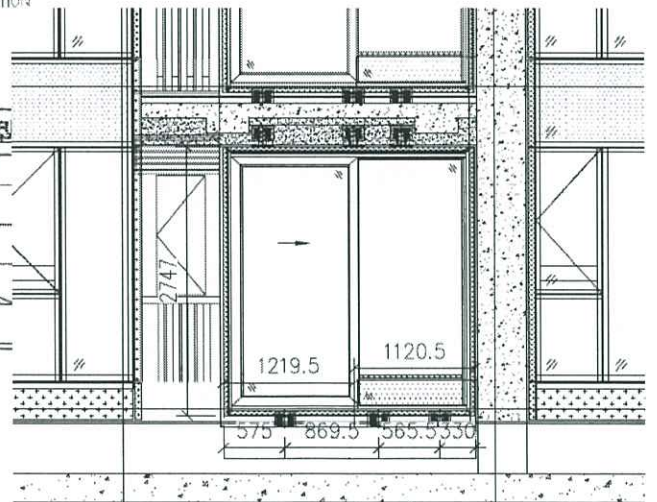
RM6- Sliding Door Bottom Fixing

Refer to J858-CW-PE102 & D65



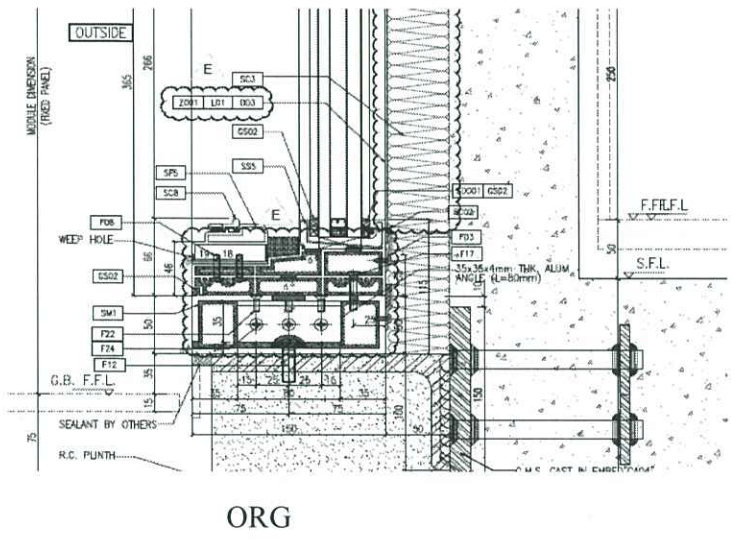
工程 J858-LP-11 日出康成11期

位置	T 1 - (1B)	樓層	9 /F	預留碼/絲桿	類型				
單位	預留碼位編號	1	2	3	4	5	6	7	8
A	W: 絲桿中至中								
	X: 左右								
	Y: 上下								
	Z: 出/入								
單位	預留碼位編號	1	2	3	4	5	6	7	8

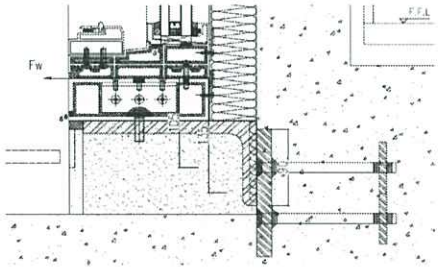


T1-1f

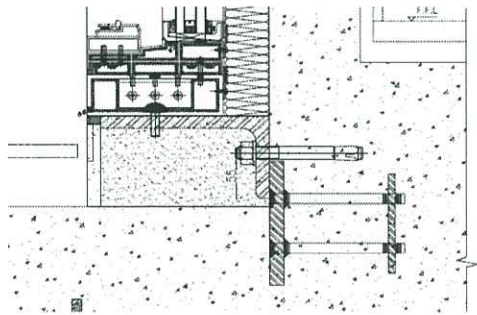
T1-1g



ORG



No. 5 & No.6

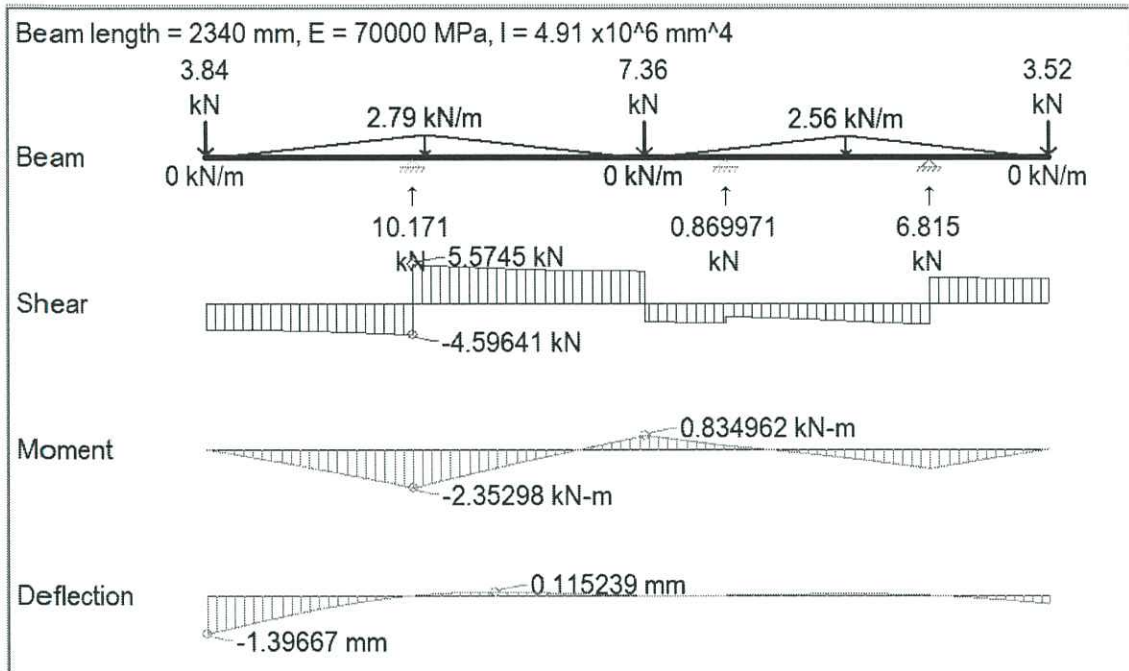


No.7

Load Analysis

Design wind load	WL = 4.57	Kpa
Load width	B1 = 1219.5	mm
	B2 = 1120.5	mm
Effective width	B = (B1+B2)/2	
	= 1170.0	mm
Height of glass	H = 2750	mm (support to support)
Liner load	q1 = WL*min(B1/2, H/2)	
	= 2.79	KN/m
Concentrated load from mullion	q2 = WL*min(B2/2, H/2)	
	= 2.56	KN/m
Concentrated load from mullion	F1 = q1*H/2	
	= 3.83	KN
Concentrated load from mullion	F2 = q2*H/2	
	= 3.520	KN
Concentrated at centre	Fc = F1+F2	
	= 7.352	KN

Dead load of glass transfers to backfill concrete directly, so no need to consider dead load.



Max. def

$$\delta = 1.40 \text{ mm}$$

Allowable def

$$\begin{aligned} \delta_a &= 575 \cdot 2 / 180 \\ &= 6.39 \text{ mm} \\ &> \delta \end{aligned}$$

O.K.

1) Check No.5 & No.6 with 50mm downward

Check 10mm thk fillet weld @ 2 side

Reaction $F_w = 10.20$ KN

Ecc. $e = 105$ mm

Ecc. Moment $M_y = F_w * e = 1.07$ KNm

Weld thickness $t_w = 10.0$ mm

Weld size $D = 90$ mm

$B = 150$ mm

Effective weld length $\Sigma L = 2D - 2 * t_w = 160$ mm

Moment of inertia $I_x = D * (0.5B)^2 = 506250.0$ mm³

$I_y = \frac{2D^3}{12} = 121500.0$ mm³

Section modulus $Z_x = \frac{2I_x}{B} = 6750.0$ mm²

$Z_y = \frac{2I_y}{D} = 2700.0$ mm²

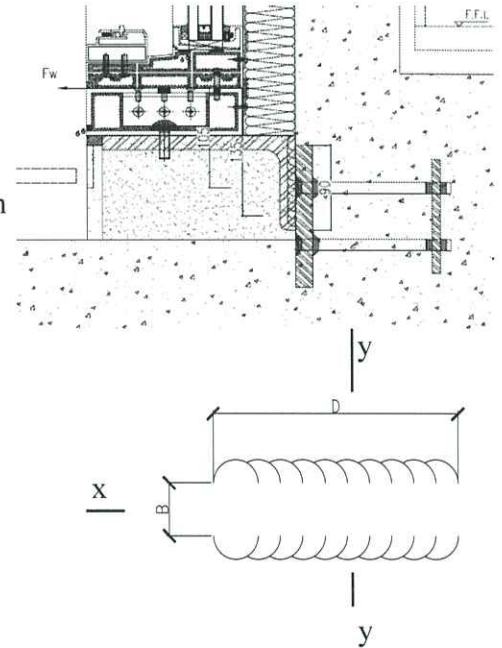
Weld strength $P_w = 220$ MPa

Tensile / shear capacity $F_{vc} = 0.707 * P_w * t_w * \Sigma L = 248.9$ kN

Moment capacity $M_{cx} = 0.707 * P_w * t_w * Z_x = 10.50$ KNm

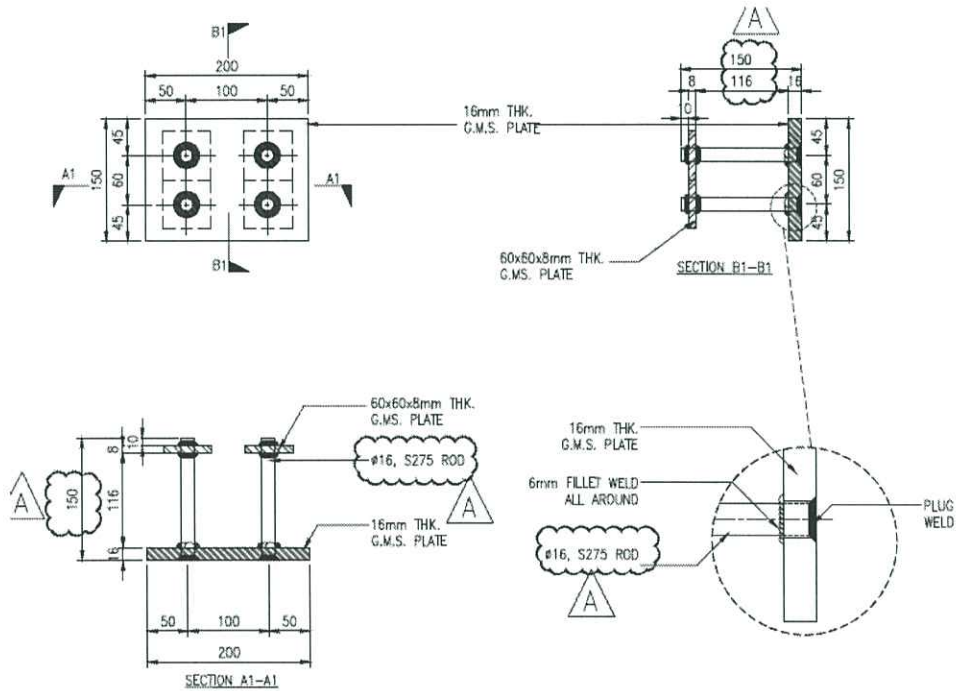
$M_{cy} = 0.707 * P_w * t_w * Z_y = 4.20$ KNm

Welding Check $k = \frac{1.4 * F_w}{F_{vc}} + \frac{1.4 * M_y}{M_{cy}} = 0.41 < 1$



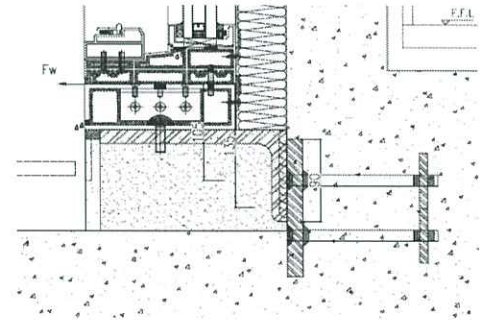
O.K.

Check cast in Embed CA04



Shear force
Ecc.
RC Tolerance
Ecc. Moment

$$\begin{aligned}
 F_w &= 10.20 && \text{KN} \\
 e &= 135 && \text{mm} \\
 e_t &= 25 && \text{mm} \\
 M_x &= F_w * e && \\
 &= 1.38 && \text{KNm} \\
 T &= F_w * e_t && \\
 &= 0.26 && \text{KNm}
 \end{aligned}$$



a) Check the RC Compression

Consider bending on X-X axis

Bearing strength of RC

$$p_c = 0.4 \cdot 45 \text{ MPa} \\ = 18.0 \text{ Mpa}$$

Modular ratio = E_{st}/E_{rc}

$$m_o = 15$$

Design strength of Rod

$$p_y = 275 \text{ Mpa}$$

Tension rebar to edge plate

$$d_1 = 105 \text{ mm}$$

$$d_{n1} = \left(\frac{p_c \cdot m_o}{p_c \cdot m_o + p_y} \right) \cdot d_1 \\ = 52.02 \text{ mm}$$

Lever arm to moment

$$l_{a1} = d_1 - d_{n1}/3 \\ = 87.66 \text{ mm}$$

Tension force of per rod

$$T_1 = C_1 = M_x / l_{a1} \\ = 15.7 \text{ KN}$$

Consider bending on Y-Y axis

Tension rebar to edge plate

$$d_2 = 150 \text{ mm}$$

$$d_{n2} = \left(\frac{p_c \cdot m_o}{p_c \cdot m_o + p_y} \right) \cdot d_2 \\ = 74.31 \text{ mm}$$

Lever arm to moment

$$l_{a2} = d_2 - d_{n2}/3 \\ = 125.23 \text{ mm}$$

Tension force of per rod

$$T_2 = C_2 = M_y / l_{a2} \\ = 2.0 \text{ KN}$$

Total Tension force

$$F_{total} = T_1 + T_2 \\ = 17.7 \text{ KN}$$

Total Factored Compression force

$$C = (C_1 + C_2) \cdot 1.4 \\ = 24.8 \text{ KN}$$

Embed plate size

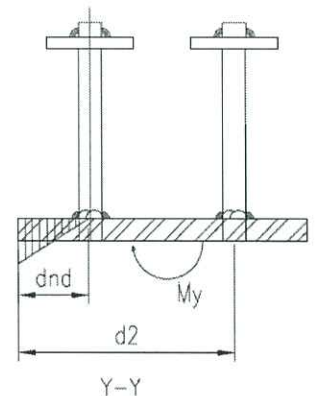
$$b = 200 \text{ mm}$$

$$d = 150 \text{ mm}$$

Compression stress of concrete

$$f_c = 2 \cdot C / d_{n1} \cdot b \\ = 4.78 \text{ Mpa} \\ < f_{cc} = 0.6 \cdot 45 \text{ MPa} \\ = 27.0 \text{ Mpa}$$

O.K.

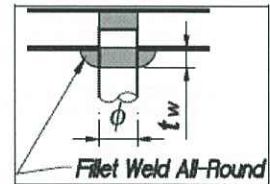


b) Check 4nos ψ 16mm GMS Rod

Factored Tension force per rod	F_t	$= 1.4 * F_w / 4 + C/2$	
		$= 15.99$	KN
Rod spacing	s	$= 100$	mm
Shear force per rod	F_s	$= \frac{1.4 * T}{s * 2}$	
		$= 1.79$	KN
Diameter of bar:	ψ	$= 16$	mm
Area	A	$= \psi^2 * \pi / 4$	
		$= 201$	mm ²
Shear Capacity:	P_s	$= 0.6 * p_y * A$	
		$= 33.2$	KN
		$> F_s$	
		$= 1.8$	KN
Check Shear	k	$= F_s / P_s$	
		$= 0.05$	
		< 1.00	O.K.
Tension Capacity:	P_t	$= p_y * A$	
		$= 55.3$	KN
		$> F_t$	
		$= 16.0$	KN
Check shear	k	$= F_t / P_t$	
		$= 0.29$	
		< 1.0	O.K.
Combined Check	k	$= \frac{F_s}{F_{cs}} + \frac{F_t}{F_{ct}}$	
		$= 0.34$	
		< 1.40	O.K.

c) Check the 6mm fillet weld to fix the bar to embed

Weld thickness	$t_w = 6$	mm
Diameter of bar:	$\psi = 16$	mm
Weld effective thickness	$t_e = t_w / \sqrt{2}$ $= 4.24$	mm
Weld Length	$L_w = \psi * \pi$ $= 50.2$	mm
Tension stress	$P_{rt} = F_t / L_w$ $= 318$	N/m
Shear stress	$P_{rv} = F_s / L_w$ $= 35.5$	N/m
Resultant force	$P_r = (P_{rt}^2 + P_{rv}^2)^{0.5}$ $= 320$	KN/m
Design weld strength	$p_w = 220$	Mpa
Weld capacity	$W_c = 0.707 * t_w * p_w$ $= 933$	KN/m
Check weld strength	$k = P_r / W_c$ $= 0.34$ < 1.00	



O.K.

d) Check 8mm thk GMS Washer

Shear Force

$$F_s = 3 \cdot F_t / 8$$

$$= 6.00 \quad \text{KN}$$

Length of section

$$L_a = 60 \quad \text{mm}$$

Ecc

$$e = (L_a - \psi) / 4$$

$$= 11.00 \quad \text{mm}$$

Ecc. Moment

$$M_e = F_s \cdot e$$

$$= 0.066 \quad \text{KNm}$$

Section Properties

Section width

$$b = 60 \quad \text{mm}$$

Thickness

$$t = 8 \quad \text{mm}$$

Area

$$A = b \cdot t$$

$$= 480 \quad \text{mm}^2$$

Elastic Modulus

$$Z_y = b \cdot t^2 / 6$$

$$= 640.00 \quad \text{mm}^3$$

Design strength of S275

$$p_y = 275 \quad \text{Mpa}$$

Shear Capacity

$$F_{cs} = 0.6 \cdot p_y \cdot A$$

$$= 79.20 \quad \text{KN}$$

Moment capacity

$$M_{cy} = p_y \cdot Z_y$$

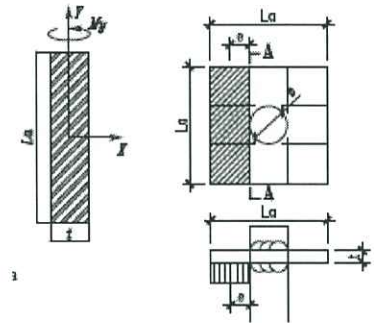
$$= 0.18 \quad \text{KNm}$$

Combined check

$$k = \frac{M_e}{M_{cy}} + \frac{F_s}{F_{cs}}$$

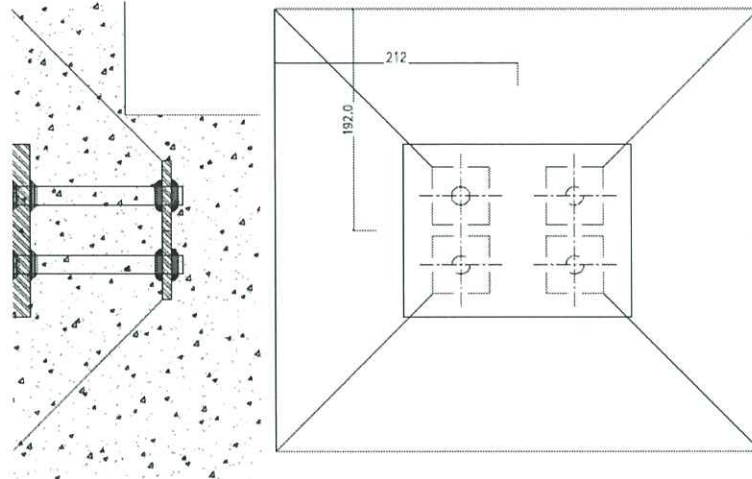
$$= 0.45$$

$$< 1.0$$



O.K.

e) Check Pull out resistance



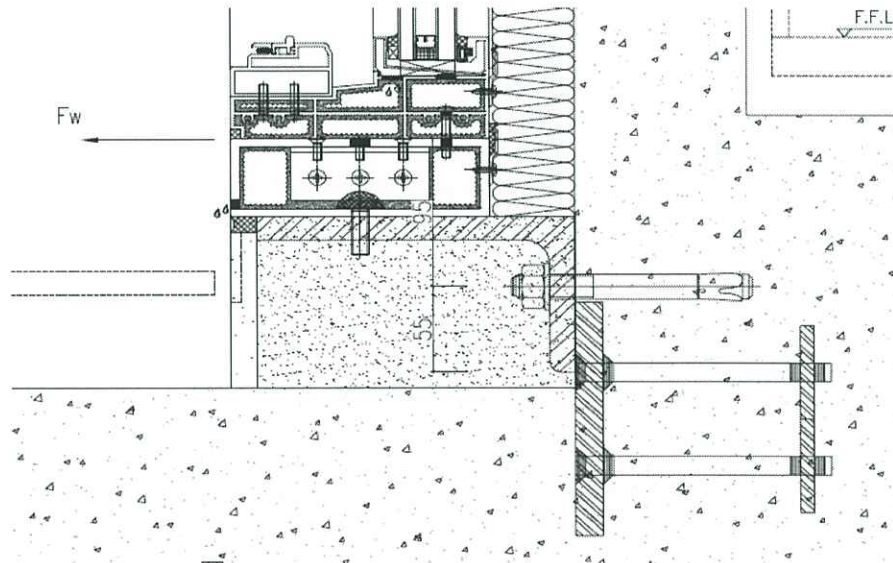
Max. tension force per bar	$F_t = 15.99$	KN
Total length of bar	$L_{eff} = 132$	mm
Conservative take	$\frac{100A_s}{P*L} = 0.15$	
Concrete strength	$f_{cu} = 45$	Mpa
Design concrete shear strength	$v_c = \frac{0.79}{1.25} * \left(\frac{100A_s}{P*L}\right)^{1/3} * \left(\frac{400}{L_{eff}}\right)^{1/4} * \left(\frac{f_{cu}}{25}\right)^{1/3}$	
	$= 0.54$	Mpa
Washer Area	$A_w = 60\text{mm} * 60\text{mm}$	
Plan Area	$A_p = 192\text{mm} * 212\text{mm}$	
Total Area	$A_{cp} = A_p - A_w$	
	$= 44304$	mm^2
Shear Cone Capacity	$F_{cp} = v_c * A_{cp} / \sin(45\text{deg})$	
	$= 33.8$	KN
Check cone pull out	$k = F_t / F_{cp}$	
	$= 0.47$	
	< 1.0	O.K.

g) Check the bonding stress

Tension force per rod	Ft	=	15.99	KN
Diameter of bar:	ψ	=	16	mm
Effective anchor length	Leff	=	150	mm
Bond stress	fb	=	$\frac{Ft}{\psi * \pi * Leff}$	
		=	2.12	Mpa
Concrete Grade	fcu	=	45	Mpa
Design Ultimate bond stress	fbu	=	$0.65 * (fcu)^{0.5}$	
		=	4.36	Mpa
Check Bonding	k	=	fb/fbu	
		=	0.49	
		<	1.0	

O.K.

2) Check No. 7 remedial 2nos M16 HST3-R Anchor



Reaction at no.7	$R = 6.815$	KN
Factored Tension	$F_t = 2 * R$	
	$= 13.63$	KN
Ecc.	$e = 95$	mm
Ecc. Moment	$M_e = F_t * e$	
	$= 1.29$	KNm


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Company:
 Address:
 Phone | Fax:
 Design: Concrete - Oct 9, 2022
 Fastening point:

Page: 14
 Specifier:
 E-Mail:
 Date: 12/10/2022

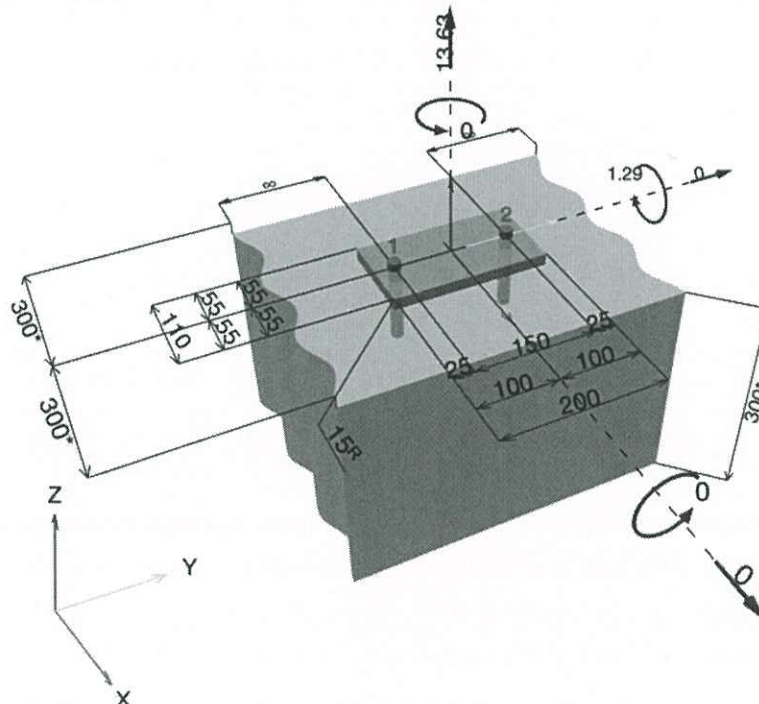
Specifier's comments:

1 Input data

Anchor type and diameter:	HST3-R M16 hef2	
Return period (service life in years):	50	
Item number:	2105876 HST3-R M16x135 35/15	
Effective embedment depth:	$h_{ef} = 85.0 \text{ mm}$, $h_{nom} = 98.0 \text{ mm}$	
Material:	A4	
Evaluation Service Report:	ETA-98/0001	
Issued Valid:	13/7/2020 -	
Proof:	Design Method ETAG (No. 001 Annex C/2010)	
Stand-off installation:	$e_b = 0.0 \text{ mm}$ (no stand-off); $t = 15.0 \text{ mm}$	
Anchor plate ^R :	$l_x \times l_y \times t = 110.0 \text{ mm} \times 200.0 \text{ mm} \times 15.0 \text{ mm}$; (Recommended plate thickness: not calculated)	
Profile:	no profile	
Base material:	cracked concrete, C35/45, $f_{c,cube} = 45.00 \text{ N/mm}^2$; $h = 300.0 \text{ mm}$	
Installation:	hammer drilled hole, Installation condition: Dry	
Reinforcement:	no reinforcement or reinforcement spacing $\geq 150 \text{ mm}$ (any \emptyset) or $\geq 100 \text{ mm}$ ($\emptyset \leq 10 \text{ mm}$) no longitudinal edge reinforcement	

^R - The anchor calculation is based on a rigid anchor plate assumption.

Geometry [mm] & Loading [kN, kNm]



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1.1 Load combination

Case	Description	Forces [kN] / Moments [kNm]	Seismic	Fire	Max. Util. Anchor [%]
1	Combination 1	N = 13.630; V _x = 0.000; V _y = 0.000; M _x = 0.000; M _y = 1.290; M _z = 0.000;	no	no	100

2 Load case/Resulting anchor forces

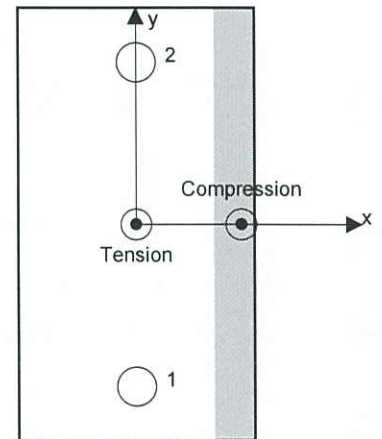
Anchor reactions [kN]

Tension force: (+Tension, -Compression)

Anchor	Tension force	Shear force	Shear force x	Shear force y
1	20.005	0.000	0.000	0.000
2	20.005	0.000	0.000	0.000

max. concrete compressive strain: 0.48 [%]
 max. concrete compressive stress: 14.42 [N/mm²]
 resulting tension force in (x/y)=(0.0/0.0): 40.010 [kN]
 resulting compression force in (x/y)=(48.9/0.0): 26.380 [kN]

Anchor forces are calculated based on the assumption of a rigid anchor plate.



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3 Tension load (ETAG, Annex C, Section 5.2.2)

	Load [kN]	Capacity [kN]	Utilization β_N [%]	Status
Steel Strength*	20.005	49.571	41	OK
Pullout Strength*	20.005	24.150	83	OK
Concrete Breakout Failure**	40.010	40.077	100	OK
Splitting failure**	N/A	N/A	N/A	N/A

* highest loaded anchor **anchor group (anchors in tension)

3.1 Steel Strength

$$N_{Sd} \leq N_{Rd,s} = \frac{N_{Rk,s}}{\gamma_{M,s}} \quad \text{ETAG 001 Annex C, Table 5.2.2.1}$$

$N_{Rk,s}$ [kN]	$\gamma_{M,s}$	$N_{Rd,s}$ [kN]	N_{Sd} [kN]
69.400	1.400	49.571	20.005

3.2 Pullout Strength

$$N_{Sd} \leq N_{Rd,p} = \frac{\psi_c \cdot N_{Rk,p}}{\gamma_{M,p}} \quad \text{ETAG 001 Annex C, Table 5.2.2.1}$$

$N_{Rk,p}$ [kN]	ψ_c	$\gamma_{M,p}$	$N_{Rd,p}$ [kN]	N_{Sd} [kN]
27.000	1.342	1.500	24.150	20.005

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3.3 Concrete Breakout Failure

$$N_{Sd} \leq N_{Rd,c} = \frac{N_{Rk,c}}{\gamma_{M,c}} \quad \text{ETAG 001 Annex C, Table 5.2.2.1}$$

$$N_{Rk,c} = N_{Rk,c}^0 \cdot \frac{A_{c,N}}{A_{c,N}^0} \cdot \psi_{s,N} \cdot \psi_{re,N} \cdot \psi_{ec1,N} \cdot \psi_{ec2,N} \quad \text{ETAG 001 Annex C, Eq. (5.2)}$$

$$N_{Rk,c}^0 = k_1 \cdot \sqrt{f_{ck,cube}} \cdot h_{ef}^{1.5} \quad \text{ETAG 001 Annex C, Eq. (5.2a)}$$

$$A_{c,N}^0 = s_{cr,N} \cdot s_{cr,N} \quad \text{ETAG 001 Annex C, Eq. (5.2b)}$$

$$\psi_{s,N} = 0.7 + 0.3 \cdot \frac{c}{c_{cr,N}} \leq 1.00 \quad \text{ETAG 001 Annex C, Eq. (5.2c)}$$

$$\psi_{re,N} = 0.5 + \frac{h_{ef}}{200} \leq 1.00 \quad \text{ETAG 001 Annex C, Eq. (5.2d)}$$

$$\psi_{ec1,N} = \frac{1}{1 + \frac{2 \cdot e_{c1,N}}{s_{cr,N}}} \leq 1.00 \quad \text{ETAG 001 Annex C, Eq. (5.2e)}$$

$$\psi_{ec2,N} = \frac{1}{1 + \frac{2 \cdot e_{c2,N}}{s_{cr,N}}} \leq 1.00 \quad \text{ETAG 001 Annex C, Eq. (5.2e)}$$

$A_{c,N}$ [mm ²]	$A_{c,N}^0$ [mm ²]	$c_{cr,N}$ [mm]	$s_{cr,N}$ [mm]		
103,275	65,025	127.5	255.0		
$e_{c1,N}$ [mm]	$\psi_{ec1,N}$	$e_{c2,N}$ [mm]	$\psi_{ec2,N}$	$\psi_{s,N}$	$\psi_{re,N}$
0.0	1.000	0.0	1.000	1.000	1.000
k_1	$N_{Rk,c}^0$ [kN]	$\gamma_{M,c}$	$N_{Rd,c}$ [kN]	N_{Sd} [kN]	
7.200	37.850	1.500	40.077	40.010	

Group anchor ID
 1, 2



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4 Shear load (ETAG, Annex C, Section 5.2.3)

	Load [kN]	Capacity [kN]	Utilization β_v [%]	Status
Steel Strength (without lever arm)*	N/A	N/A	N/A	N/A
Steel failure (with lever arm)*	N/A	N/A	N/A	N/A
Pryout Strength*	N/A	N/A	N/A	N/A
Concrete edge failure in direction **	N/A	N/A	N/A	N/A

* highest loaded anchor **anchor group (relevant anchors)

5 Displacements (highest loaded anchor)

Short term loading:

N_{Sk} = 14.819 [kN]	δ_N = 1.9906 [mm]
V_{Sk} = 0.000 [kN]	δ_V = 0.0000 [mm]
	δ_{NV} = 1.9906 [mm]

Long term loading:

N_{Sk} = 14.819 [kN]	δ_N = 1.8800 [mm]
V_{Sk} = 0.000 [kN]	δ_V = 0.0000 [mm]
	δ_{NV} = 1.8800 [mm]

Comments: Tension displacements are valid with half of the required installation torque moment for uncracked concrete! Shear displacements are valid without friction between the concrete and the anchor plate! The gap due to the drilled hole and clearance hole tolerances are not included in this calculation!

The acceptable anchor displacements depend on the fastened construction and must be defined by the designer!

6 Warnings

- The anchor design methods in PROFIS Engineering require rigid anchor plates per current regulations (AS 5216:2021, ETAG 001/Annex C, EOTA TR029 etc.). This means load re-distribution on the anchors due to elastic deformations of the anchor plate are not considered - the anchor plate is assumed to be sufficiently stiff, in order not to be deformed when subjected to the design loading. PROFIS Engineering calculates the minimum required anchor plate thickness with CBFEM to limit the stress of the anchor plate based on the assumptions explained above. The proof if the rigid anchor plate assumption is valid is not carried out by PROFIS Engineering. Input data and results must be checked for agreement with the existing conditions and for plausibility!
- Checking the transfer of loads into the base material is required in accordance with ETAG 001, Annex C(2010)Section 7! The software considers that the grout is installed under the anchor plate without creating air voids and before application of the loads.
- The design is only valid if the clearance hole in the fixture is not larger than the value given in Table 4.1 of ETAG 001, Annex C! For larger diameters of the clearance hole see Chapter 1.1. of ETAG 001, Annex C!
- The accessory list in this report is for the information of the user only. In any case, the instructions for use provided with the product have to be followed to ensure a proper installation.
- The characteristic bond resistances depend on the return period (service life in years): 50

Fastening meets the design criteria!

7 Installation data

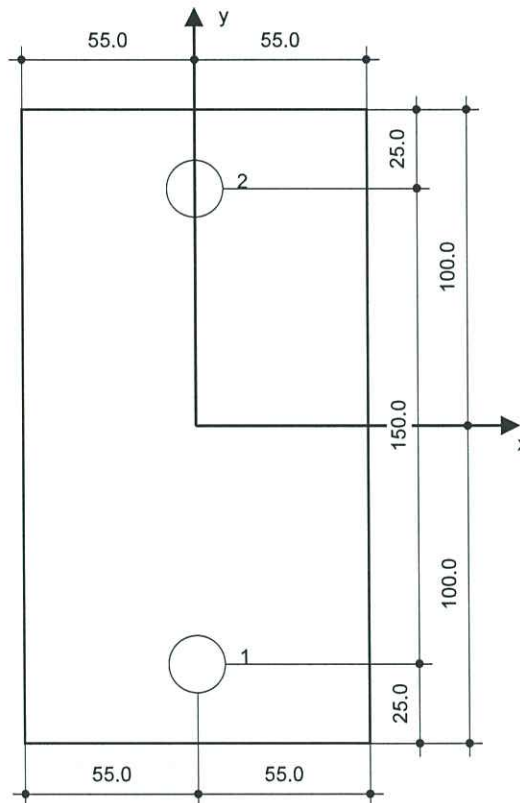
Anchor plate, steel: GB Q390; $E = 205,000.00 \text{ N/mm}^2$; $f_{yk} = 350.00 \text{ N/mm}^2$
 Profile: no profile
 Hole diameter in the fixture: $d_f = 18.0 \text{ mm}$
 Plate thickness (input): 15.0 mm
 Recommended plate thickness: not calculated
 Drilling method: Hammer drilled
 Cleaning: Manual cleaning of the drilled hole according to instructions for use is required.

Anchor type and diameter: HST3-R M16 hef2
 Item number: 2105876 HST3-R M16x135 35/15
 Maximum installation torque: 110 Nm
 Hole diameter in the base material: 16.0 mm
 Hole depth in the base material: 106.0 mm
 Minimum thickness of the base material: 160.0 mm

Hilti HST3 stud anchor with 98 mm embedment, M16 hef2, Stainless steel, installation per ETA-98/0001

7.1 Recommended accessories

Drilling	Cleaning	Setting
<ul style="list-style-type: none"> • Suitable Rotary Hammer • Property sized drill bit 	<ul style="list-style-type: none"> • Manual blow-out pump 	<ul style="list-style-type: none"> • Torque wrench • Hammer

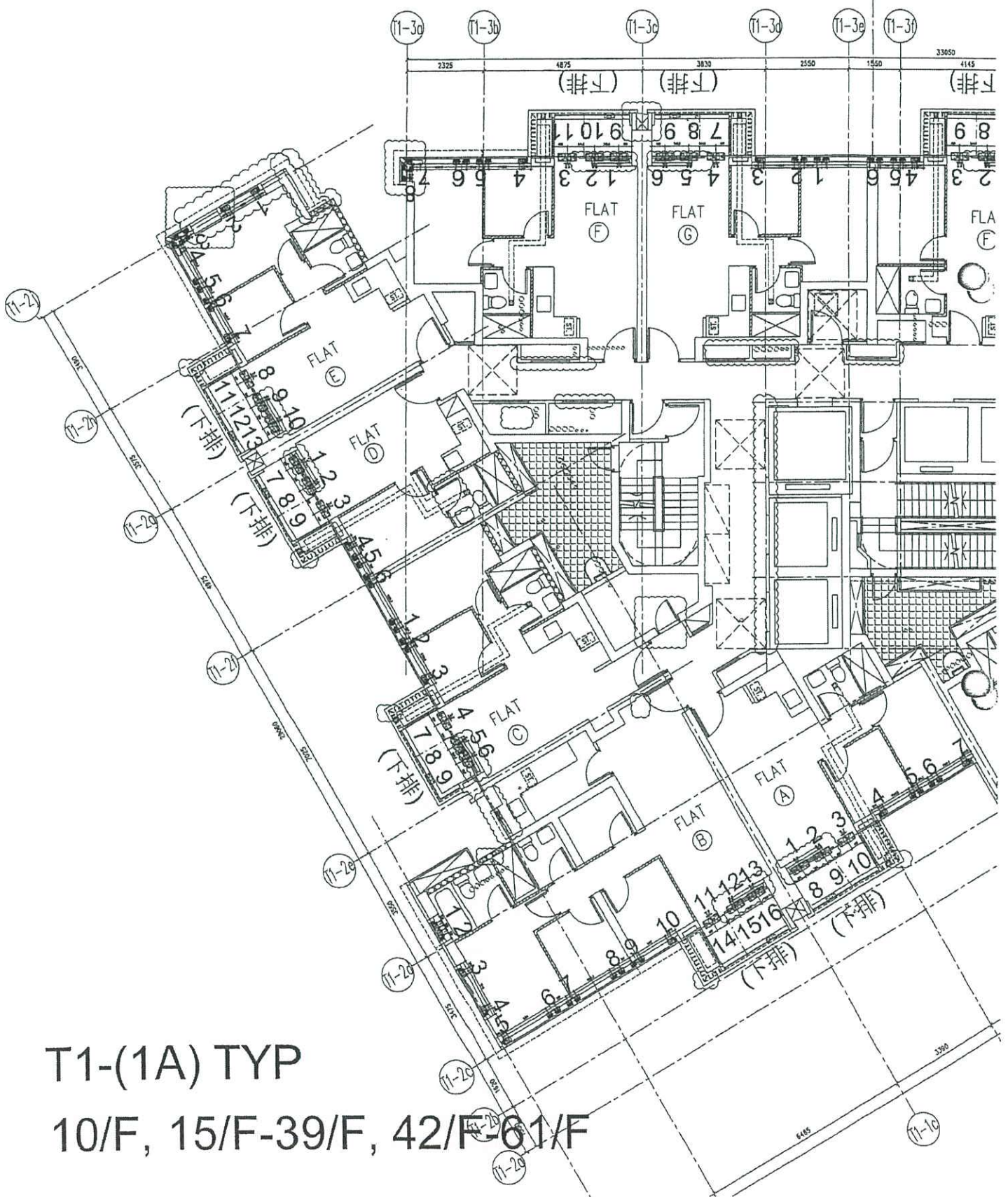


Coordinates Anchor [mm]

Anchor	x	y	c _{-x}	c _{+x}	c _{-y}	c _{+y}
1	0.0	-75.0	300.0	300.0	-	-
2	0.0	75.0	300.0	300.0	-	-

幕牆/趟門預留碼位置編號圖

TOWER 1(1A) TOWER 1(1B)



T1-(1A) TYP

10/F, 15/F-39/F, 42/F-61/F

工程 J858-IP-11 日出康城11期

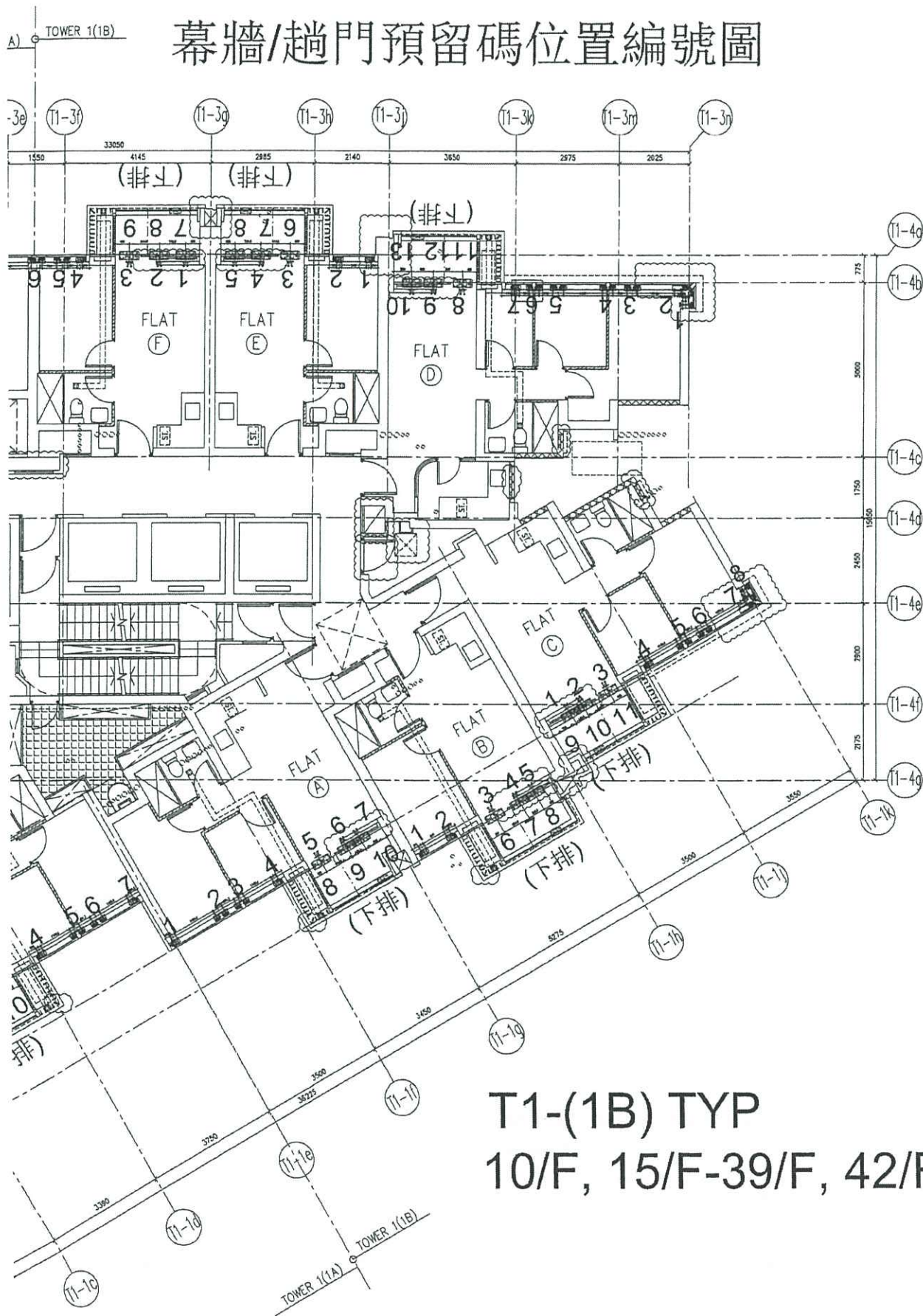
發件人: 馬 (Signature)

收件人: Wandy

日期: 14-9-2022

位置	T 1 - (1B)	樓層	9 / F	預留碼/絲桿	類型編號	: chok chok		附碼位置圖	張	備註	
單位	預留碼位編號	1	2	3	4	5	6	7	8		
	W: 絲桿中至中										
E	X: 左/右	<45	<40	<40	<25	<50					
	Y: 上/下	130	125	117	110	115					
	Z: 出/入	8	4	10	5	20					
單位	預留碼位編號	1	2	3	4	5	6	7	8		
	W: 絲桿中至中										
F	X: 左/右	15	15	20	<3	<25	<15				
	Y: 上/下	110	113	111	108	113	120				
	Z: 出/入	12	11	8	4	9	10				
<p>備註</p> <p>1 方格內數目字是偏離尺寸(以mm計)</p> <p>2 碼位置編號室外看每個單位由左至右排列</p> <p>3. "0" 數目字表示預留碼正確沒有偏差</p> <p>4 X=欠預留碼</p>											
<p>符號說明</p> <p>W: 絲桿中至中 距離 +/-</p> <p>X: 預留碼 ← 偏左 偏右 →</p> <p>Y: 預留碼 ↑ 偏上 偏下 ↓</p> <p>Z: 預留碼 ← 偏出 偏入 →</p>											
簽署: (Signature)					簽署: (Signature)					美特鋁質有限公司	金門建築有限公司

幕牆/趟門預留碼位置編號圖



T1-(1B) TYP
10/F, 15/F-39/F, 42/F-61/F