



工程指示 / 要求簡箋 ENGINEER INSTRUCTIONS (E.I.)

工程指示編號:	EI- 7386 / 24	修改版本:	-
	HK- 0363 / 24		
工程編號:	J 857	工程名稱:	啟德6552
收件人:	生統	發件人:	Nero
工程項目:	提供J857工程項目鋁料料頭	日期:	04/03/2024

<input type="checkbox"/> 原合約工程包	<input type="checkbox"/> 原合約工程加 / 減脹 QT-	<input type="checkbox"/> 新工程報價 QT-
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信件批核號碼/圖紙參考編號:	批核模具圖紙編號:
客戶指示附件:	管理內部批簽署:

<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
<input type="checkbox"/> 其他:		

內容:  
煩請工廠提供J857工程以下項目鋁料料頭(長度: 30mm)  
(包括: 預製窗、後裝窗、FD門、趟門、百葉、幕牆單元件、欄河)  
請工廠盡量提供, 並送香港寫字樓。  
  
另附上附件資料供廠參考。  
  
完成上列要求日期: 13/03/2024

國內

<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"/> 採購部	<input type="checkbox"/> 連附件	<input checked="" type="checkbox"/> 生產統籌部	<input checked="" type="checkbox"/> 連附件	<input type="checkbox"/> 報關組	<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"/> 機械設計部	<input type="checkbox"/> 連附件
<input type="checkbox"/> 香港辦	<input type="checkbox"/> 連附件	<input type="checkbox"/> 其他:			

香港

<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	<input type="checkbox"/> 連附件
<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"/> 地盤管理	<input type="checkbox"/> 連附件	<input type="checkbox"/> 維修部	<input type="checkbox"/> 連附件

*發件人簽署:	<i>L</i>	*組別成員批核簽署:	<i>[Signature]</i>
傳遞編號:	<i>M 0363 / 24</i>	項目經理簽署:	<i>[Signature]</i> 4/3/24



美特鋁質有限公司  
MIDI ALUMINIUM FABRICATOR LTD.

Our ref. MC/41030/857

9<sup>th</sup> February 2022

E Man Construction Co. Ltd.  
29/F, AIA Tower, 183 Electric Road,  
North Point, Hong Kong

By Email & Hand

Attn.: Mr. Adam Wong

Dear Sir,

**Re: Design, Supply & Installation of Curtain Wall, Windows, Cladding and Glass Door for Residential Towers for Proposed Residential Development at NKIL6552, Area 4C, Site 2, Kai Tak, Kowloon**

**Material Submission of Aluminium Extrusion Sample for Precast Window**

Regarding the captioned project, we would like to submit 1 set of Aluminium Extrusion (Xingfa) sample for Precast Window for your comment and approval.

Remark:

- 1) 1 set of Aluminium Extrusion (Xingfa) sample will be delivered to Mr. Dante Lai directly.  
(九龍城區承豐道啟德 6552 地盤 (維港一號對面), 黎旨軒先生收, TEL: 9866 7084)
- 2) The drawings of Section Properties for Precast Aluminium Window are attached.  
(Drawing No: J857-PW-0004, J857-PW-0005)

Should you have any query, please don't hesitate to liaise with us for information.

Thank you for your kind attention.

Yours faithfully,  
MIDI ALUMINIUM FABRICATOR LTD.

Francis Mau  
Managing Director

Encl - 4 page(s)

cc. E Man - Mr. Daniel Chan / Mr. Dante Lai

(w/e) (Email Only)

EM/MT/HWS/YC/yl



PROPERTIES

MODEL NO.: A25  
GRADE 6063-T6  
FINISH: PVF2-3COATING  
ALUM. WINDOW FRAME

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ) :	401.9426
Perimeter (mm) :	356.9526
Bounding Box - X (mm) :	-32.9628 to 28.0372
Bounding Box - Y (mm) :	-32.4260 to 32.5740
Centroid - X (mm) :	0.0000
Centroid - Y (mm) :	0.0000
Moments of inertia - X (mm <sup>4</sup> ) :	275207.7591
Moments of inertia - Y (mm <sup>4</sup> ) :	77460.4211
Product of inertia - XY (mm <sup>4</sup> ) :	-6252.0058
Radii of gyration - X (mm) :	28.1667
Radii of gyration - Y (mm) :	13.8622
Principal moments along X-Y (mm <sup>4</sup> ) :	293772.9308 along (0.9608 -0.2773)
Principal moments along Y-X (mm <sup>4</sup> ) :	59495.2514 along (0.2773 0.9608)
Elastic Modulus - Zx (mm <sup>3</sup> ) :	1 / y <sub>max</sub> = 8448.7652
Elastic Modulus - Zy (mm <sup>3</sup> ) :	1 / x <sub>max</sub> = 2349.9359

B.D. REF :  
F.S.D. REF :  
Note :  
1.All dimensions are in mm.  
2.All elevations are viewed from outside.  
3.All dimensions to be verified on site before fabrication.

GENERAL NOTES

Legend :  
1. F.F.L.-- Finished Floor Level  
2. S.F.L.-- Structural Floor Level  
3. (R) --- Reversed Detail

X1 --- DETAIL MARK NO.  
X001 --- REFER SHEET NO.

V.F.-----

NO.	DATE	REVISED	BY
-	22.10.2021	BY ARCHITECT COMMENT	AN

CLIENT :  
**MARBLE EDGE INVESTMENT LTD.**

ARCHITECT :  
**RONALD LU & PARTNERS**  
ARCHITECTS | PLANNERS | INTERIOR DESIGNERS

STRUCTURAL ENGINEER :  
**CMA C-M WONG & ASSOCIATES LTD**  
11, 18701 18702 18703 18704  
E-mail: cma@cmawong.com

FACADE CONSULTANT :  
**Inhabit** Inhabit Group  
Hong Kong  
<http://www.inhabitgroup.com>

MAIN CONTRACTOR :  
**裕民建築有限公司**

**美特鋁質有限公司**  
MIDI ALUMINIUM FABRICATOR LTD.  
Units 6-8, Sunray Industrial Centre, 1/F  
610 Cha Kwo Ling Road, Kowloon  
Tel:23489211-4 Fax:(852)27727666

PROJECT :  
**PROPOSED RESIDENTIAL DEVELOPMENT AT NEW KOWLOON INLAND LOT. NO.6552**

TITLE :  
**SECTION PROPERTIES FOR PRECAST ALUM. WINDOW**

JOB NO. : J-857

DRAWN BY : Asing DATE : 22/10/2021

CHKD BY : SCALE A1: A3: 1:3

DWG. NO. : **J857-PW-0005** REV. : -



## MIDI ALUMINIUM FABRICATOR LTD.

Units 6, 7, 8 Sunray Industrial Centre, 1st Floor, 610 Cha Kwo Ling Road Kowloon.

Project : Proposed Residential Development at NKIL6552, Area 4C, Site 2,  
Kai Tak, Kowloon

Subject : Aluminium Extrusion Sample for Precast Window

Brand : Xingfa

Letter ref. : MC/41030/857

Date : 9<sup>th</sup> February 2022

MADI ALUMINIUM FABRICATOR LTD.  
Unit No. 11, Sarny, Industrial Estate, Plot No. 175, Kalyan, Dist. Thane, Maharashtra.

Project: Proposed Residential Development at NERUL, Sector 4, Area AC, Plot 2,  
East of the Extension  
Subject: Aluminium Extrusion Sample for Project: Windows  
Design: MADI/ALUM/01/01  
Drawn: MADI/ALUM/01/01  
Date: 04 February 2022



Model No : A1



Model No : A2



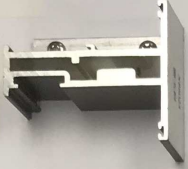
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Model No : A4



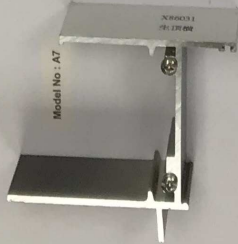
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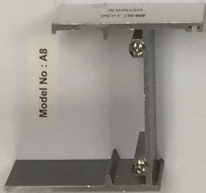
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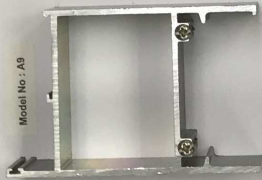
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Model No : A8



Model No : A9



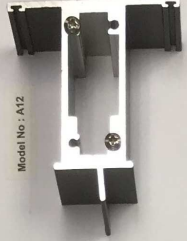
Model No : A10



Model No : A11



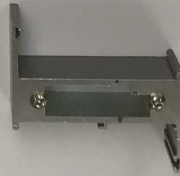
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Model No : A13



Model No : A14



Model No : A15



Model No : A16



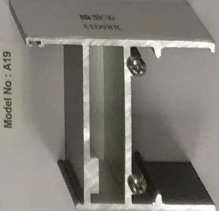
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Model No : A18



Model No : A19



Model No : A20



Model No : A21



Model No : A22



Model No : A23

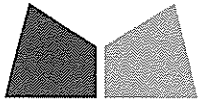


Model No : A24



Model No : A25





美特鋁質有限公司  
MIDI ALUMINIUM FABRICATOR LTD.

Our ref. MC/41164/857

31<sup>st</sup> March 2022

E Man Construction Co. Ltd.  
29/F, AIA Tower, 183 Electric Road,  
North Point, Hong Kong

By Email & Hand

Attn.: Mr. Adam Wong

Dear Sir,

**Re: Design, Supply & Installation of Curtain Wall, Windows, Cladding and Glass Door for Residential Towers for Proposed Residential Development at NKIL6552, Area 4C, Site 2, Kai Tak, Kowloon**  
**Material Submission of Aluminium Extrusion Sample for Curtain Wall**

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Remark:

- 1) 1 set of Aluminium Extrusion (Xingfa) sample will be delivered to Mr. Dante Lai directly. (九龍城區承豐道啟德 6552 地盤 (維港一號對面), 黎旨軒先生 收, TEL: 9866 7084)
- 2) The drawing of Section Properties for Curtain Wall is attached. (Dwg No: SD-SP-0005-1)

Should you have any query, please don't hesitate to liaise with us for information.

Thank you for your kind attention.

Yours faithfully,  
MIDI ALUMINIUM FABRICATOR LTD.

Marco Tam  
Director

Encl - 3 page(s)

cc. E Man - Mr. Daniel Chan / Mr. Dante Lai

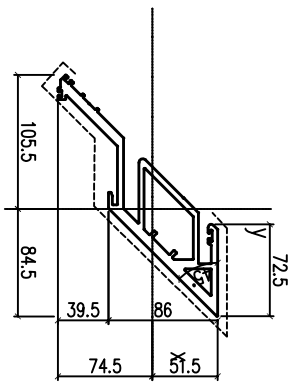
(w/e) (Email Only)

FM/MT/HWS/YC/yl

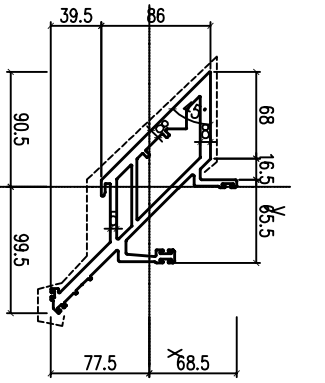
B.D. REF :  
F.S.D. REF :  
Note:  
1. All dimensions are in mm.  
2. All elevations are viewed from outside.  
3. All dimensions to be verified on site before fabrication.  
**GENERAL NOTES**

**Legend :**  
1. F.F.L. -- Finished Floor Level  
2. S.F.L. -- Structural Floor Level  
3. -- Reversed Detail

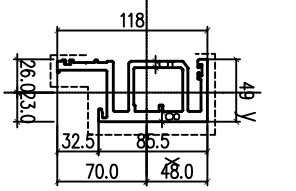
X1 -- DETAIL MARK NO.  
 X001 -- REFER SHEET NO.



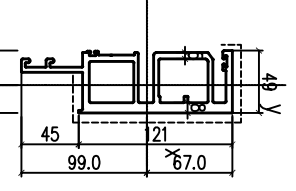
EXTRUSION MARK: EXTRUDED ALUM. OUTER CORNER FEMALE MULLION (A108)		EXTRUSION MARK: EXTRUDED ALUM. OUTER CORNER MALE MULLION (A107)	
WSS PROPERTIES (UM)	VALUES	WSS PROPERTIES (UM)	VALUES
Area (mm <sup>2</sup> ):	2830.6	Area (mm <sup>2</sup> ):	3043.3
Perimeter (mm):	105.5	Perimeter (mm):	701.6
Bounding Box - X (mm):	-105.5 to 84.7	Bounding Box - X (mm):	-80.0 to 23.0
Bounding Box - Y (mm):	-74.3 to 51.4	Bounding Box - Y (mm):	-72.0 to 47.8
Control - X (mm):	0	Control - X (mm):	0
Control - Y (mm):	0	Control - Y (mm):	0
Moment of Inertia - X (mm <sup>4</sup> ):	3583193.5	Moment of Inertia - X (mm <sup>4</sup> ):	1920792.5
Moment of Inertia - Y (mm <sup>4</sup> ):	6929294.4	Moment of Inertia - Y (mm <sup>4</sup> ):	986197.2
Moment of Inertia - Z (mm <sup>4</sup> ):	6929294.4	Moment of Inertia - Z (mm <sup>4</sup> ):	986197.2
Radius of Gyration - X (mm):	54.9	Radius of Gyration - X (mm):	50.0172
Radius of Gyration - Y (mm):	48.8	Radius of Gyration - Y (mm):	17.4
Principal moments along X'-X' (mm <sup>2</sup> ):	584444.5 along [0.0 0.0]	Principal moments along X'-X' (mm <sup>2</sup> ):	1298908.8 along [0.0 -0.5]
Principal moments along Y'-Y' (mm <sup>2</sup> ):	1432927.8 along [0.0 0.0]	Principal moments along Y'-Y' (mm <sup>2</sup> ):	1143292.7 along [0.2 1.0]
Static Modulus - Zx (mm <sup>3</sup> ):	1777777.8	Static Modulus - Zx (mm <sup>3</sup> ):	512075.5 along [0.0 0.0]
Static Modulus - Zy (mm <sup>3</sup> ):	4222222.2	Static Modulus - Zy (mm <sup>3</sup> ):	27282.3
Static Modulus - Zz (mm <sup>3</sup> ):	4222222.2	Static Modulus - Zz (mm <sup>3</sup> ):	27282.3



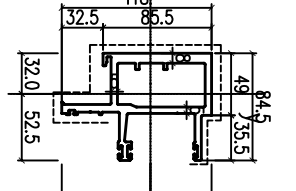
EXTRUSION MARK: EXTRUDED ALUM. OUTER CORNER MALE MULLION (A107)		EXTRUSION MARK: EXTRUDED ALUM. OUTER CORNER FEMALE MULLION (A108)	
WSS PROPERTIES (UM)	VALUES	WSS PROPERTIES (UM)	VALUES
Area (mm <sup>2</sup> ):	3043.3	Area (mm <sup>2</sup> ):	2830.6
Perimeter (mm):	701.6	Perimeter (mm):	105.5
Bounding Box - X (mm):	-80.0 to 23.0	Bounding Box - X (mm):	-105.5 to 84.7
Bounding Box - Y (mm):	-72.0 to 47.8	Bounding Box - Y (mm):	-74.3 to 51.4
Control - X (mm):	0	Control - X (mm):	0
Control - Y (mm):	0	Control - Y (mm):	0
Moment of Inertia - X (mm <sup>4</sup> ):	1920792.5	Moment of Inertia - X (mm <sup>4</sup> ):	4381518.1
Moment of Inertia - Y (mm <sup>4</sup> ):	986197.2	Moment of Inertia - Y (mm <sup>4</sup> ):	1829963.2
Moment of Inertia - Z (mm <sup>4</sup> ):	986197.2	Moment of Inertia - Z (mm <sup>4</sup> ):	1829963.2
Radius of Gyration - X (mm):	50.0172	Radius of Gyration - X (mm):	54.9
Radius of Gyration - Y (mm):	17.4	Radius of Gyration - Y (mm):	48.8
Principal moments along X'-X' (mm <sup>2</sup> ):	1298908.8 along [0.0 -0.5]	Principal moments along X'-X' (mm <sup>2</sup> ):	1298908.8 along [0.0 0.0]
Principal moments along Y'-Y' (mm <sup>2</sup> ):	1143292.7 along [0.2 1.0]	Principal moments along Y'-Y' (mm <sup>2</sup> ):	1432927.8 along [0.0 0.0]
Static Modulus - Zx (mm <sup>3</sup> ):	512075.5 along [0.0 0.0]	Static Modulus - Zx (mm <sup>3</sup> ):	1777777.8
Static Modulus - Zy (mm <sup>3</sup> ):	27282.3	Static Modulus - Zy (mm <sup>3</sup> ):	4222222.2
Static Modulus - Zz (mm <sup>3</sup> ):	27282.3	Static Modulus - Zz (mm <sup>3</sup> ):	4222222.2



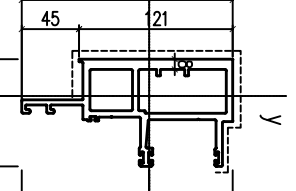
EXTRUSION MARK: EXTRUDED ALUM. FEMALE MULLION (A104)		EXTRUSION MARK: EXTRUDED ALUM. INTERMEDIATE TRANSOM (A119)	
WSS PROPERTIES (UM)	VALUES	WSS PROPERTIES (UM)	VALUES
Area (mm <sup>2</sup> ):	1891.1	Area (mm <sup>2</sup> ):	2192.4
Perimeter (mm):	701.6	Perimeter (mm):	138.8
Bounding Box - X (mm):	-80.0 to 23.0	Bounding Box - X (mm):	-87.0 to 70.3
Bounding Box - Y (mm):	-72.0 to 47.8	Bounding Box - Y (mm):	-8.6 to 43.4
Control - X (mm):	0	Control - X (mm):	0
Control - Y (mm):	0	Control - Y (mm):	0
Moment of Inertia - X (mm <sup>4</sup> ):	1920792.5	Moment of Inertia - X (mm <sup>4</sup> ):	113818.8
Moment of Inertia - Y (mm <sup>4</sup> ):	986197.2	Moment of Inertia - Y (mm <sup>4</sup> ):	253773.8
Moment of Inertia - Z (mm <sup>4</sup> ):	986197.2	Moment of Inertia - Z (mm <sup>4</sup> ):	253773.8
Radius of Gyration - X (mm):	50.0172	Radius of Gyration - X (mm):	11.80718
Radius of Gyration - Y (mm):	17.4	Radius of Gyration - Y (mm):	15.81523
Principal moments along X'-X' (mm <sup>2</sup> ):	1298908.8 along [0.0 -0.5]	Principal moments along X'-X' (mm <sup>2</sup> ):	242709.4 along [0.0 -0.3]
Principal moments along Y'-Y' (mm <sup>2</sup> ):	1143292.7 along [0.2 1.0]	Principal moments along Y'-Y' (mm <sup>2</sup> ):	992414.9 along [0.3 0.9]
Static Modulus - Zx (mm <sup>3</sup> ):	512075.5 along [0.0 0.0]	Static Modulus - Zx (mm <sup>3</sup> ):	492917.8
Static Modulus - Zy (mm <sup>3</sup> ):	27282.3	Static Modulus - Zy (mm <sup>3</sup> ):	492917.8
Static Modulus - Zz (mm <sup>3</sup> ):	27282.3	Static Modulus - Zz (mm <sup>3</sup> ):	492917.8



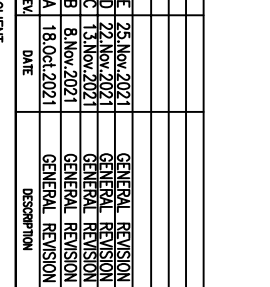
EXTRUSION MARK: EXTRUDED ALUM. FEMALE MULLION (A104)		EXTRUSION MARK: EXTRUDED ALUM. INTERMEDIATE TRANSOM (A119)	
WSS PROPERTIES (UM)	VALUES	WSS PROPERTIES (UM)	VALUES
Area (mm <sup>2</sup> ):	1891.1	Area (mm <sup>2</sup> ):	2192.4
Perimeter (mm):	701.6	Perimeter (mm):	138.8
Bounding Box - X (mm):	-80.0 to 23.0	Bounding Box - X (mm):	-87.0 to 70.3
Bounding Box - Y (mm):	-72.0 to 47.8	Bounding Box - Y (mm):	-8.6 to 43.4
Control - X (mm):	0	Control - X (mm):	0
Control - Y (mm):	0	Control - Y (mm):	0
Moment of Inertia - X (mm <sup>4</sup> ):	1920792.5	Moment of Inertia - X (mm <sup>4</sup> ):	113818.8
Moment of Inertia - Y (mm <sup>4</sup> ):	986197.2	Moment of Inertia - Y (mm <sup>4</sup> ):	253773.8
Moment of Inertia - Z (mm <sup>4</sup> ):	986197.2	Moment of Inertia - Z (mm <sup>4</sup> ):	253773.8
Radius of Gyration - X (mm):	50.0172	Radius of Gyration - X (mm):	11.80718
Radius of Gyration - Y (mm):	17.4	Radius of Gyration - Y (mm):	15.81523
Principal moments along X'-X' (mm <sup>2</sup> ):	1298908.8 along [0.0 -0.5]	Principal moments along X'-X' (mm <sup>2</sup> ):	242709.4 along [0.0 -0.3]
Principal moments along Y'-Y' (mm <sup>2</sup> ):	1143292.7 along [0.2 1.0]	Principal moments along Y'-Y' (mm <sup>2</sup> ):	992414.9 along [0.3 0.9]
Static Modulus - Zx (mm <sup>3</sup> ):	512075.5 along [0.0 0.0]	Static Modulus - Zx (mm <sup>3</sup> ):	492917.8
Static Modulus - Zy (mm <sup>3</sup> ):	27282.3	Static Modulus - Zy (mm <sup>3</sup> ):	492917.8
Static Modulus - Zz (mm <sup>3</sup> ):	27282.3	Static Modulus - Zz (mm <sup>3</sup> ):	492917.8



EXTRUSION MARK: EXTRUDED ALUM. FEMALE MULLION (A104)		EXTRUSION MARK: EXTRUDED ALUM. INTERMEDIATE TRANSOM (A119)	
WSS PROPERTIES (UM)	VALUES	WSS PROPERTIES (UM)	VALUES
Area (mm <sup>2</sup> ):	2118.9	Area (mm <sup>2</sup> ):	2192.4
Perimeter (mm):	784.1	Perimeter (mm):	138.8
Bounding Box - X (mm):	-92.0 to 52.3	Bounding Box - X (mm):	-87.0 to 80.0
Bounding Box - Y (mm):	-70.0 to 48.0	Bounding Box - Y (mm):	-8.6 to 43.4
Control - X (mm):	0	Control - X (mm):	0
Control - Y (mm):	0	Control - Y (mm):	0
Moment of Inertia - X (mm <sup>4</sup> ):	2219283.2	Moment of Inertia - X (mm <sup>4</sup> ):	113818.8
Moment of Inertia - Y (mm <sup>4</sup> ):	1223217.7	Moment of Inertia - Y (mm <sup>4</sup> ):	253773.8
Moment of Inertia - Z (mm <sup>4</sup> ):	1223217.7	Moment of Inertia - Z (mm <sup>4</sup> ):	253773.8
Radius of Gyration - X (mm):	53.0	Radius of Gyration - X (mm):	11.80718
Radius of Gyration - Y (mm):	34.0	Radius of Gyration - Y (mm):	15.81523
Principal moments along X'-X' (mm <sup>2</sup> ):	2242780.3 along [0.0 0.0]	Principal moments along X'-X' (mm <sup>2</sup> ):	242709.4 along [0.0 -0.3]
Principal moments along Y'-Y' (mm <sup>2</sup> ):	1159780.0 along [-0.2 1.0]	Principal moments along Y'-Y' (mm <sup>2</sup> ):	992414.9 along [0.3 0.9]
Static Modulus - Zx (mm <sup>3</sup> ):	328170.8	Static Modulus - Zx (mm <sup>3</sup> ):	492917.8
Static Modulus - Zy (mm <sup>3</sup> ):	23817.0	Static Modulus - Zy (mm <sup>3</sup> ):	492917.8
Static Modulus - Zz (mm <sup>3</sup> ):	23817.0	Static Modulus - Zz (mm <sup>3</sup> ):	492917.8



EXTRUSION MARK: EXTRUDED ALUM. MALE MULLION (A103)		EXTRUSION MARK: EXTRUDED ALUM. INTERMEDIATE TRANSOM (A119)	
WSS PROPERTIES (UM)	VALUES	WSS PROPERTIES (UM)	VALUES
Area (mm <sup>2</sup> ):	2773.4	Area (mm <sup>2</sup> ):	2192.4
Perimeter (mm):	1034.6	Perimeter (mm):	138.8
Bounding Box - X (mm):	-82.0 to 54.6	Bounding Box - X (mm):	-87.0 to 80.0
Bounding Box - Y (mm):	-100.3 to 63.7	Bounding Box - Y (mm):	-8.6 to 43.4
Control - X (mm):	0	Control - X (mm):	0
Control - Y (mm):	0	Control - Y (mm):	0
Moment of Inertia - X (mm <sup>4</sup> ):	327183.5	Moment of Inertia - X (mm <sup>4</sup> ):	113818.8
Moment of Inertia - Y (mm <sup>4</sup> ):	152891.3	Moment of Inertia - Y (mm <sup>4</sup> ):	253773.8
Moment of Inertia - Z (mm <sup>4</sup> ):	152891.3	Moment of Inertia - Z (mm <sup>4</sup> ):	253773.8
Radius of Gyration - X (mm):	43.8	Radius of Gyration - X (mm):	11.80718
Radius of Gyration - Y (mm):	22.8	Radius of Gyration - Y (mm):	15.81523
Principal moments along X'-X' (mm <sup>2</sup> ):	328183.5 along [0.0 0.0]	Principal moments along X'-X' (mm <sup>2</sup> ):	242709.4 along [0.0 -0.3]
Principal moments along Y'-Y' (mm <sup>2</sup> ):	143292.7 along [0.0 1.0]	Principal moments along Y'-Y' (mm <sup>2</sup> ):	992414.9 along [0.3 0.9]
Static Modulus - Zx (mm <sup>3</sup> ):	143292.7	Static Modulus - Zx (mm <sup>3</sup> ):	492917.8
Static Modulus - Zy (mm <sup>3</sup> ):	177777.8	Static Modulus - Zy (mm <sup>3</sup> ):	492917.8
Static Modulus - Zz (mm <sup>3</sup> ):	177777.8	Static Modulus - Zz (mm <sup>3</sup> ):	492917.8



EXTRUSION MARK: EXTRUDED ALUM. MALE MULLION (A103)		EXTRUSION MARK: EXTRUDED ALUM. FEMALE MULLION (A104)	
WSS PROPERTIES (UM)	VALUES	WSS PROPERTIES (UM)	VALUES
Area (mm <sup>2</sup> ):	2484.1	Area (mm <sup>2</sup> ):	2118.9
Perimeter (mm):	803.4	Perimeter (mm):	784.1
Bounding Box - X (mm):	-80.0 to 60.0	Bounding Box - X (mm):	-92.0 to 52.3
Bounding Box - Y (mm):	-80.0 to 53.8	Bounding Box - Y (mm):	-70.0 to 48.0
Control - X (mm):	0	Control - X (mm):	0
Control - Y (mm):	0	Control - Y (mm):	0
Moment of Inertia - X (mm <sup>4</sup> ):	231784.8	Moment of Inertia - X (mm <sup>4</sup> ):	2219283.2
Moment of Inertia - Y (mm <sup>4</sup> ):	1081944.5	Moment of Inertia - Y (mm <sup>4</sup> ):	1223217.7
Moment of Inertia - Z (mm <sup>4</sup> ):	1081944.5	Moment of Inertia - Z (mm <sup>4</sup> ):	1223217.7
Radius of Gyration - X (mm):	32.1	Radius of Gyration - X (mm):	53.0
Radius of Gyration - Y (mm):	27.8	Radius of Gyration - Y (mm):	34.0
Principal moments along X'-X' (mm <sup>2</sup> ):	133057.8 along [0.0 0.0]	Principal moments along X'-X' (mm <sup>2</sup> ):	2242780.3 along [0.0 0.0]
Principal moments along Y'-Y' (mm <sup>2</sup> ):	1130088.8 along [-0.8 0.0]	Principal moments along Y'-Y' (mm <sup>2</sup> ):	1159780.0 along [-0.2 1.0]
Static Modulus - Zx (mm <sup>3</sup> ):	177777.8	Static Modulus - Zx (mm <sup>3</sup> ):	328170.8
Static Modulus - Zy (mm <sup>3</sup> ):	177777.8	Static Modulus - Zy (mm <sup>3</sup> ):	23817.0
Static Modulus - Zz (mm <sup>3</sup> ):	177777.8	Static Modulus - Zz (mm <sup>3</sup> ):	23817.0



EXTRUSION MARK: EXTRUDED ALUM. FEMALE MULLION (A104)		EXTRUSION MARK: EXTRUDED ALUM. INTERMEDIATE TRANSOM (A119)	
WSS PROPERTIES (UM)	VALUES	WSS PROPERTIES (UM)	VALUES
Area (mm <sup>2</sup> ):	753	Area (mm <sup>2</sup> ):	2192.4
Perimeter (mm):	1144.9	Perimeter (mm):	138.8
Bounding Box - X (mm):	-50 to 42	Bounding Box - X (mm):	-87.0 to 80.0
Bounding Box - Y (mm):	-49 to 48	Bounding Box - Y (mm):	-8.6 to 43.4
Control - X (mm):	0	Control - X (mm):	0
Control - Y (mm):	0	Control - Y (mm):	0
Moment of Inertia - X (mm <sup>4</sup> ):	225159	Moment of Inertia - X (mm <sup>4</sup> ):	113818.8
Moment of Inertia - Y (mm <sup>4</sup> ):	225159	Moment of Inertia - Y (mm <sup>4</sup> ):	253773.8
Moment of Inertia - Z (mm <sup>4</sup> ):	225159	Moment of Inertia - Z (mm <sup>4</sup> ):	253773.8
Radius of Gyration - X (mm):	33	Radius of Gyration - X (mm):	11.80718
Radius of Gyration - Y (mm):	33	Radius of Gyration - Y (mm):	15.81523
Principal moments along X'-X' (mm <sup>2</sup> ):	50088.4 along [1 -1]	Principal moments along X'-X' (mm <sup>2</sup> ):	242709.4 along [0.0 -0.3]
Principal moments along Y'-Y' (mm <sup>2</sup> ):	50088.4 along [1 1]	Principal moments along Y'-Y' (mm <sup>2</sup> ):	992414.9 along [0.3 0.9]
Static Modulus - Zx (mm <sup>3</sup> ):	3333	Static Modulus - Zx (mm <sup>3</sup> ):	492917.8
Static Modulus - Zy (mm <sup>3</sup> ):	3333	Static Modulus - Zy (mm <sup>3</sup> ):	492917.8
Static Modulus - Zz (mm <sup>3</sup> ):	3333	Static Modulus - Zz (mm <sup>3</sup> ):	492917.8



EXTRUSION MARK: EXTRUDED ALUM. INTERMEDIATE TRANSOM (A119)		EXTRUSION MARK: EXTRUDED ALUM. INTERMEDIATE TRANSOM (A119)	
WSS PROPERTIES (UM)	VALUES	WSS PROPERTIES (UM)	VALUES
Area (mm <sup>2</sup> ):	3202	Area (mm <sup>2</sup> ):	3202
Perimeter (mm):	1144.9	Perimeter (mm):	1144.9
Bounding Box - X (mm):	-67 to 51.4	Bounding Box - X (mm):	-67 to 51.4
Bounding Box - Y (mm):	-67 to 51.4	Bounding Box - Y (mm):	-67 to 51.4
Control - X (mm):	0	Control - X (mm):	0
Control - Y (mm):	0	Control - Y (mm):	0
Moment of Inertia - X (mm <sup>4</sup> ):	692914.5	Moment of Inertia - X (mm <sup>4</sup> ):	692914.5
Moment of Inertia - Y (mm <sup>4</sup> ):	692914.5	Moment of Inertia - Y (mm <sup>4</sup> ):	692914.5
Moment of Inertia - Z (mm <sup>4</sup> ):	692914.5	Moment of Inertia - Z (mm <sup>4</sup> ):	692914.5
Radius of Gyration - X (mm):	41.80718	Radius of Gyration - X (mm):	41.80718
Radius of Gyration - Y (mm):	41.80718	Radius of Gyration - Y (mm):	41.80718
Principal moments along X'-X' (mm <sup>2</sup> ):	613284.1 along [0.7 -0.7]	Principal moments along X'-X' (mm <sup>2</sup> ):	613284.1 along [0.7 -0.7]
Principal moments along Y'-Y' (mm <sup>2</sup> ):	613284.1 along [0.7 0.7]	Principal moments along Y'-Y' (mm <sup>2</sup> ):	613284.1 along [0.7 0.7]
Static Modulus - Zx (mm <sup>3</sup> ):	41807.2	Static Modulus - Zx	





X8B060



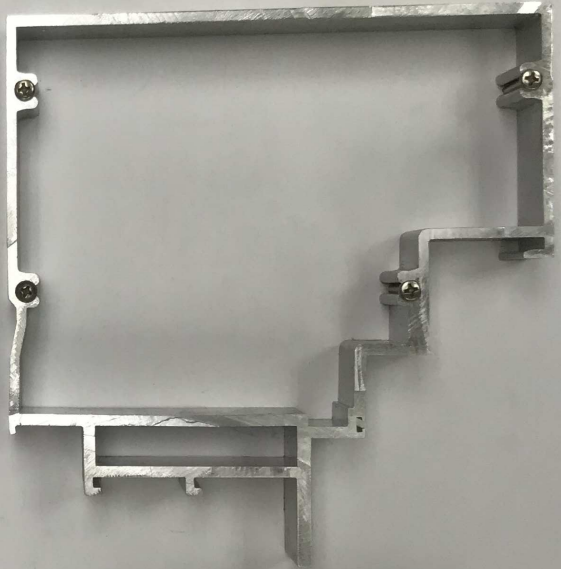
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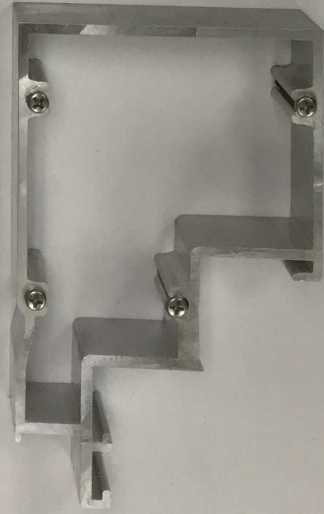
X8B062



X8B064



X8B063



**MIDI ALUMINIUM FABRICATORS LTD.**

Aluminium Extrusion, Casting, Fabrication, Finishing, Heat Treatment

Project: Proposed Development at NLE/652, Area C, Site 2,

RAF Tullis, Kewstoke

Subject: Aluminium Extrusion Sample for Curtain Wall

Brand: Xingfa

Letter ref: MCF1104837

Date: 31<sup>st</sup> March 2022



美特鋁質有限公司  
MIDI ALUMINIUM FABRICATOR LTD.

Our ref. MC/41174/857

4<sup>th</sup> April 2022

E Man Construction Co. Ltd.  
29/F, AIA Tower, 183 Electric Road,  
North Point, Hong Kong

By Email & Hand

Attn.: Mr. Adam Wong

Dear Sir,

**Re: Design, Supply & Installation of Curtain Wall, Windows, Cladding and Glass Door for Residential Towers for Proposed Residential Development at NKIL6552, Area 4C, Site 2, Kai Tak, Kowloon**  
**Material Submission of Aluminium Extrusion Sample (Batch 2) for Curtain Wall**

Regarding the captioned project, we would like to submit 2 pieces of Aluminium Extrusion (Xingfa) sample boards for Curtain Wall for your comment and approval.

Remark:

- 1) 2 pieces of Aluminium Extrusion (Xingfa) sample boards will be delivered to Mr. Dante Lai directly.(九龍城區承豐道啟德 6552 地盤 (維港一號對面), 黎旨軒先生收, TEL : 9866 7084)
- 2) The drawing of Section Properties for Curtain Wall is attached. (Dwg No: SD-SP-0006-1)

Should you have any query, please don't hesitate to liaise with us for information.

Thank you for your kind attention.

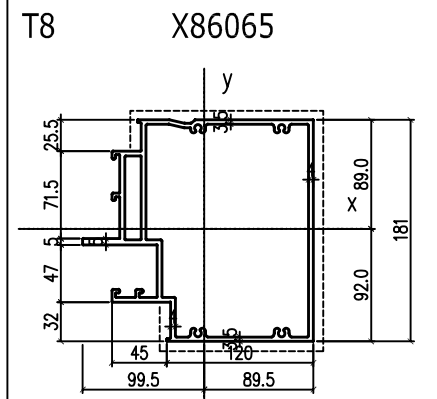
Yours faithfully,  
MIDI ALUMINIUM FABRICATOR LTD.

Francis Mau  
Managing Director

Encl - 3 page(s)

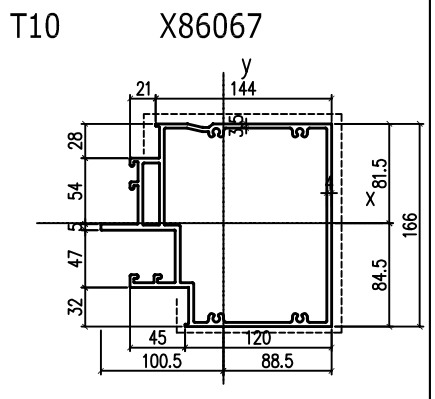
cc. E Man - Mr. Daniel Chan / Mr. Dante Lai (w/e) (Email Only)

FM/MT/HWS/YC/yl



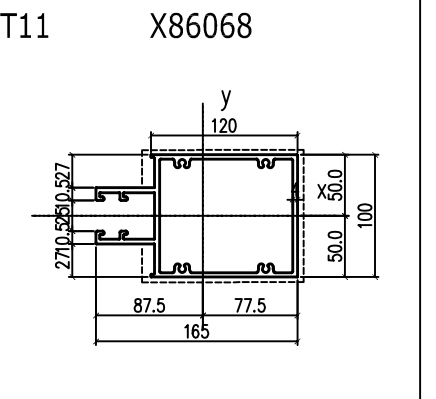
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GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ):	3458.7
Perimeter (mm):	1781.0
Bounding Box - X (mm):	-99.5 to 89.4
Bounding Box - Y (mm):	-92.0 to 89.2
Centroid - X (mm):	0
Centroid - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	13773053.4
Moments of inertia - Y (mm <sup>4</sup> ):	12978567.0
Product of inertia - XY (mm <sup>4</sup> ):	628447.1
Radius of gyration - X (mm):	63.1
Radius of gyration - Y (mm):	61.2
Principal moments along X-Y (mm <sup>4</sup> ):	14117198.6 along [0.9 0.9]
Principal moments along Y-X (mm <sup>4</sup> ):	12632463.8 along [-0.9 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> ):	1 / y-max= 14985.7
Elastic Modulus - Zy (mm <sup>2</sup> ):	1 / x-max= 130410.4



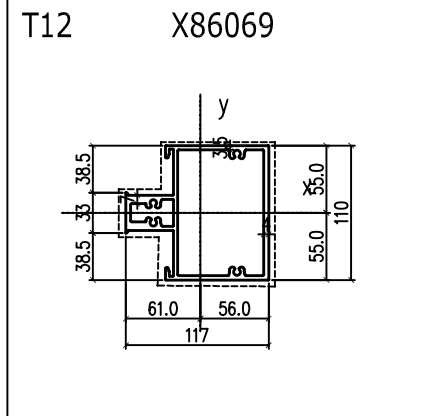
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GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ):	3284.3
Perimeter (mm):	1664.8
Bounding Box - X (mm):	-100.3 to 88.6
Bounding Box - Y (mm):	-84.6 to 81.4
Centroid - X (mm):	0
Centroid - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	11024824.8
Moments of inertia - Y (mm <sup>4</sup> ):	12041653.8
Product of inertia - XY (mm <sup>4</sup> ):	614603.0
Radius of gyration - X (mm):	58.1
Radius of gyration - Y (mm):	60.2
Principal moments along X-Y (mm <sup>4</sup> ):	10726894.0 along [0.9 -0.4]
Principal moments along Y-X (mm <sup>4</sup> ):	1233874.7 along [0.4 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> ):	1 / y-max= 130278.9
Elastic Modulus - Zy (mm <sup>2</sup> ):	1 / x-max= 120107.8



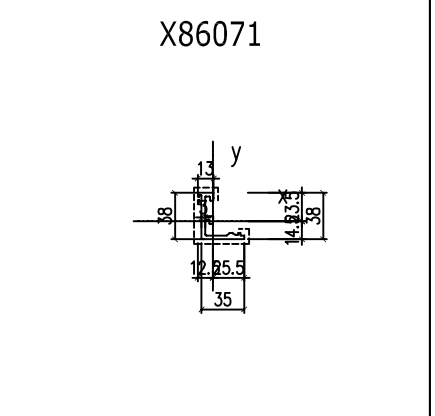
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GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ):	2287.6
Perimeter (mm):	1202.3
Bounding Box - X (mm):	-87.5 to 77.5
Bounding Box - Y (mm):	-50.0 to 50.0
Centroid - X (mm):	0.0000
Centroid - Y (mm):	0.0000
Moments of inertia - X (mm <sup>4</sup> ):	3089485.3
Moments of inertia - Y (mm <sup>4</sup> ):	6516552.1
Product of inertia - XY (mm <sup>4</sup> ):	132.5
Radius of gyration - X (mm):	36.7
Radius of gyration - Y (mm):	53.3
Principal moments along X-Y (mm <sup>4</sup> ):	3288485.3 along [1.0 0.0]
Principal moments along Y-X (mm <sup>4</sup> ):	6516552.1 along [0.0 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> ):	1 / y-max= 61788.8
Elastic Modulus - Zy (mm <sup>2</sup> ):	1 / x-max= 74483.2



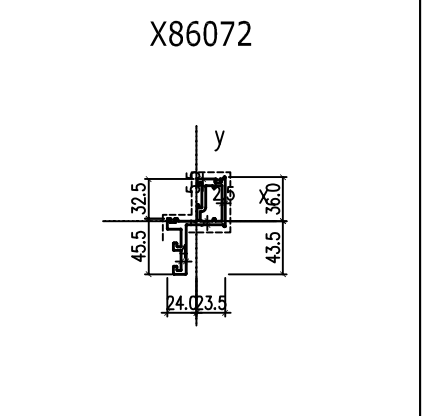
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GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ):	2071.3
Perimeter (mm):	1048.4
Bounding Box - X (mm):	-61.0 to 56.0
Bounding Box - Y (mm):	-55.0 to 55.0
Centroid - X (mm):	0
Centroid - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	2781010.3
Moments of inertia - Y (mm <sup>4</sup> ):	3160674.4
Product of inertia - XY (mm <sup>4</sup> ):	90.8
Radius of gyration - X (mm):	36.5
Radius of gyration - Y (mm):	38.1
Principal moments along X-Y (mm <sup>4</sup> ):	2781010.2 along [1.0 0.0]
Principal moments along Y-X (mm <sup>4</sup> ):	3160674.5 along [0.0 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> ):	1 / y-max= 50199.1
Elastic Modulus - Zy (mm <sup>2</sup> ):	1 / x-max= 61787.3



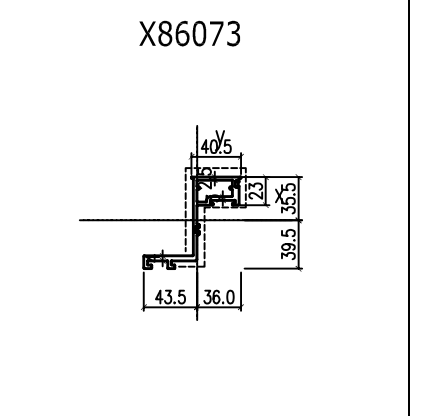
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GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ):	301
Perimeter (mm):	203
Bounding Box - X (mm):	-12 to 28
Bounding Box - Y (mm):	-15 to 23
Centroid - X (mm):	0
Centroid - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	53340
Moments of inertia - Y (mm <sup>4</sup> ):	31288
Product of inertia - XY (mm <sup>4</sup> ):	23569
Radius of gyration - X (mm):	13
Radius of gyration - Y (mm):	10
Principal moments along X-Y (mm <sup>4</sup> ):	68334 along [1 1]
Principal moments along Y-X (mm <sup>4</sup> ):	16294 along [-1 1]
Elastic Modulus - Zx (mm <sup>2</sup> ):	1 / y-max= 2294
Elastic Modulus - Zy (mm <sup>2</sup> ):	1 / x-max= 1219



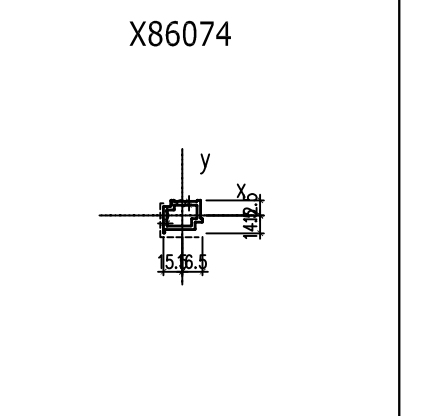
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GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ):	665.5
Perimeter (mm):	427.5
Bounding Box - X (mm):	-24.0 to 23.5
Bounding Box - Y (mm):	-43.5 to 36.0
Centroid - X (mm):	0.0000
Centroid - Y (mm):	0.0000
Moments of inertia - X (mm <sup>4</sup> ):	333616.8
Moments of inertia - Y (mm <sup>4</sup> ):	137986.1
Product of inertia - XY (mm <sup>4</sup> ):	-146308.9
Radius of gyration - X (mm):	21.9
Radius of gyration - Y (mm):	14.1
Principal moments along X-Y (mm <sup>4</sup> ):	411708.1 along [0.9 -0.5]
Principal moments along Y-X (mm <sup>4</sup> ):	58977.8 along [0.5 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> ):	1 / y-max= 787.5
Elastic Modulus - Zy (mm <sup>2</sup> ):	1 / x-max= 5735.9



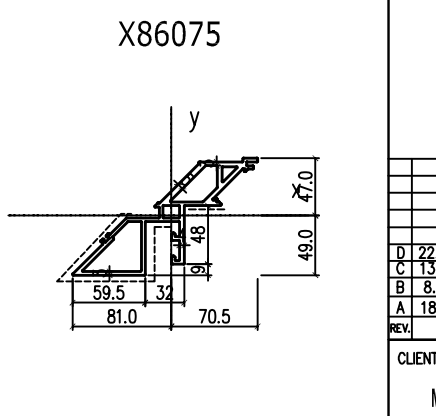
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GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ):	717.7
Perimeter (mm):	469.1
Bounding Box - X (mm):	-43.4 to 35.9
Bounding Box - Y (mm):	-39.5 to 35.5
Centroid - X (mm):	0
Centroid - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	502889.2
Moments of inertia - Y (mm <sup>4</sup> ):	332634.6
Product of inertia - XY (mm <sup>4</sup> ):	-329397.5
Radius of gyration - X (mm):	26.5
Radius of gyration - Y (mm):	21.5
Principal moments along X-Y (mm <sup>4</sup> ):	758119.0 along [0.9 -0.6]
Principal moments along Y-X (mm <sup>4</sup> ):	77704.9 along [0.6 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> ):	1 / y-max= 12727.9
Elastic Modulus - Zy (mm <sup>2</sup> ):	1 / x-max= 7625.5



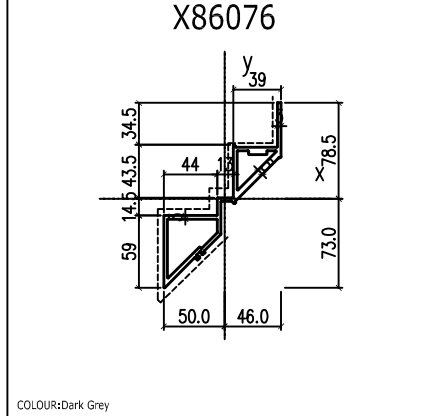
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GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ):	298.5
Perimeter (mm):	197.8
Bounding Box - X (mm):	-15.4 to 16.6
Bounding Box - Y (mm):	-14.6 to 12.4
Centroid - X (mm):	0.0000
Centroid - Y (mm):	0.0000
Moments of inertia - X (mm <sup>4</sup> ):	20099.7
Moments of inertia - Y (mm <sup>4</sup> ):	32688.4
Product of inertia - XY (mm <sup>4</sup> ):	-3344.2
Radius of gyration - X (mm):	8.2
Radius of gyration - Y (mm):	10.5
Principal moments along X-Y (mm <sup>4</sup> ):	19199.3 along [1.0 0.2]
Principal moments along Y-X (mm <sup>4</sup> ):	33488.8 along [-0.2 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> ):	1 / y-max= 1337.7
Elastic Modulus - Zy (mm <sup>2</sup> ):	1 / x-max= 1994.6



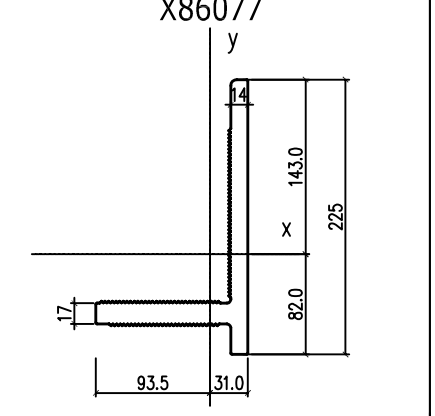
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GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ):	1717.2
Perimeter (mm):	842.6
Bounding Box - X (mm):	-80.9 to 75.6
Bounding Box - Y (mm):	-48.9 to 48.9
Centroid - X (mm):	0.0000
Centroid - Y (mm):	0.0000
Moments of inertia - X (mm <sup>4</sup> ):	156589.2
Moments of inertia - Y (mm <sup>4</sup> ):	2381975.4
Product of inertia - XY (mm <sup>4</sup> ):	-157001.3
Radius of gyration - X (mm):	29.6
Radius of gyration - Y (mm):	37.1
Principal moments along X-Y (mm <sup>4</sup> ):	306298.4 along [0.8 0.6]
Principal moments along Y-X (mm <sup>4</sup> ):	3581318.1 along [-0.8 0.8]
Elastic Modulus - Zx (mm <sup>2</sup> ):	1 / y-max= 3887.4
Elastic Modulus - Zy (mm <sup>2</sup> ):	1 / x-max= 29195.5



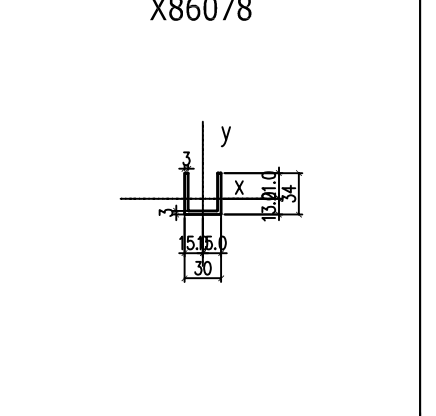
COLOUR:Dark Grey  
EXTRUSION MARK: EXTRUDED ALUMINIUM OUTER CORNER EDGE PROTECTION (AL39)  
GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ):	1234.4
Perimeter (mm):	726.7
Bounding Box - X (mm):	-48.8 to 46.2
Bounding Box - Y (mm):	-72.8 to 78.6
Centroid - X (mm):	0.0000
Centroid - Y (mm):	0.0000
Moments of inertia - X (mm <sup>4</sup> ):	180339.1
Moments of inertia - Y (mm <sup>4</sup> ):	1467372.4
Product of inertia - XY (mm <sup>4</sup> ):	-1168831.7
Radius of gyration - X (mm):	37.8
Radius of gyration - Y (mm):	31.5
Principal moments along X-Y (mm <sup>4</sup> ):	2928245.5 along [0.8 -0.6]
Principal moments along Y-X (mm <sup>4</sup> ):	1452419 along [0.6 0.8]
Elastic Modulus - Zx (mm <sup>2</sup> ):	1 / y-max= 2295.7
Elastic Modulus - Zy (mm <sup>2</sup> ):	1 / x-max= 25489.9



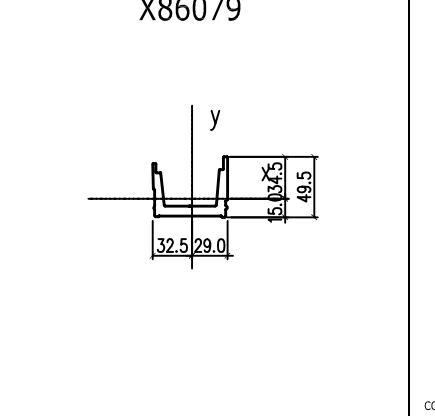
EXTRUSION MARK: EXTRUDED ALUM. ANGLE BRACKET (AL45)  
GRADE: 6061-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ):	5296.3
Perimeter (mm):	809.2
Bounding Box - X (mm):	-83.4 to 31.1
Bounding Box - Y (mm):	-82.1 to 142.9
Centroid - X (mm):	0
Centroid - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	21284372.5
Moments of inertia - Y (mm <sup>4</sup> ):	691308.4
Product of inertia - XY (mm <sup>4</sup> ):	-6130406.5
Radius of gyration - X (mm):	63.4
Radius of gyration - Y (mm):	36.1
Principal moments along X-Y (mm <sup>4</sup> ):	2352698.1 along [0.9 -0.3]
Principal moments along Y-X (mm <sup>4</sup> ):	4651580.0 along [0.3 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> ):	1 / y-max= 148768.2
Elastic Modulus - Zy (mm <sup>2</sup> ):	1 / x-max= 74028.4



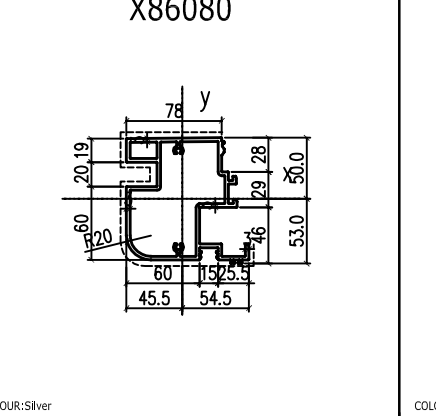
EXTRUSION MARK: EXTRUDED ALUM. U-CHANNEL (FOR GLASS BARRIER) (AL49)  
GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ):	278.8
Perimeter (mm):	189.3
Bounding Box - X (mm):	-15.0 to 15.0
Bounding Box - Y (mm):	-12.9 to 21.1
Centroid - X (mm):	0
Centroid - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	32390.1
Moments of inertia - Y (mm <sup>4</sup> ):	40739.9
Product of inertia - XY (mm <sup>4</sup> ):	0.0
Radius of gyration - X (mm):	10.8
Radius of gyration - Y (mm):	12.2
Principal moments along X-Y (mm <sup>4</sup> ):	32390.1 along [1.0 0.0]
Principal moments along Y-X (mm <sup>4</sup> ):	40739.9 along [0.0 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> ):	1 / y-max= 1536.1
Elastic Modulus - Zy (mm <sup>2</sup> ):	1 / x-max= 2716.0



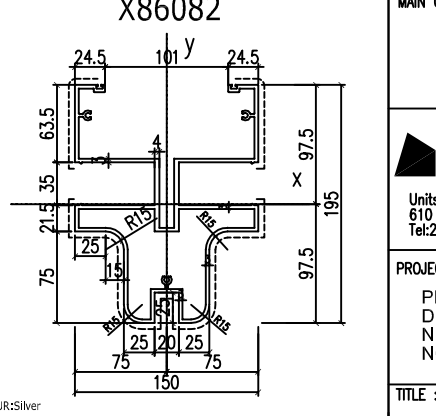
EXTRUSION MARK: EXTRUDED ALUM. GUTTER SLEEVE (AL58)  
GRADE: 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ):	955.5
Perimeter (mm):	282.9
Bounding Box - X (mm):	-32.3 to 29.0
Bounding Box - Y (mm):	-15.1 to 34.3
Centroid - X (mm):	0
Centroid - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	147744.3
Moments of inertia - Y (mm <sup>4</sup> ):	480025.4
Product of inertia - XY (mm <sup>4</sup> ):	-28780.7
Radius of gyration - X (mm):	12.4
Radius of gyration - Y (mm):	22.4
Principal moments along X-Y (mm <sup>4</sup> ):	145269.8 along [1.0 0.1]
Principal moments along Y-X (mm <sup>4</sup> ):	482499.8 along [-0.1 1.0]
Elastic Modulus - Zx (mm <sup>2</sup> ):	1 / y-max= 4307.9
Elastic Modulus - Zy (mm <sup>2</sup> ):	1 / x-max= 14883.5



COLOUR:Silver  
EXTRUSION MARK: ALUM. VERTICAL FEATURE (AL76A)  
GRADE: 6063-T5

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ):	1590.0
Perimeter (mm):	1058.7
Bounding Box - X (mm):	-45.6 to 54.7
Bounding Box - Y (mm):	-53.1 to 48.9
Centroid - X (mm):	0
Centroid - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	2037508.2
Moments of inertia - Y (mm <sup>4</sup> ):	1478971.8
Product of inertia - XY (mm <sup>4</sup> ):	320944.7
Radius of gyration - X (mm):	35.9
Radius of gyration - Y (mm):	30.8
Principal moments along X-Y (mm <sup>4</sup> ):	2182922.4 along [0.9 0.6]
Principal moments along Y-X (mm <sup>4</sup> ):	1329488.6 along [-0.4 0.9]
Elastic Modulus - Zx (mm <sup>2</sup> ):	1 / y-max= 39405.0
Elastic Modulus - Zy (mm <sup>2</sup> ):	1 / x-max= 28869.3



COLOUR:Silver  
EXTRUSION MARK: ALUM. VERTICAL FEATURE (AL78)  
GRADE: 6063-T5

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> ):	3003
Perimeter (mm):	1987
Bounding Box - X (mm):	-75 to 75
Bounding Box - Y (mm):	-87 to 98
Centroid - X (mm):	0
Centroid - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	686598
Moments of inertia - Y (mm <sup>4</sup> ):	6403190
Product of inertia - XY (mm <sup>4</sup> ):	-304
Radius of gyration - X (mm):	53
Radius of gyration - Y (mm):	46
Principal moments along X-Y (mm <sup>4</sup> ):	656598 along [1 0]
Principal moments along Y-X (mm <sup>4</sup> ):	6420190 along [0 1]
Elastic Modulus - Zx (mm <sup>2</sup> ):	1 / y-max= 87990
Elastic Modulus - Zy (mm <sup>2</sup> ):	1 / x-max= 85601

B.D. REF :  
F.S.D. REF :  
Note :  
1.All dimensions are in mm.  
2.All elevations are viewed from outside.  
3.All dimensions to be verified on site before fabrication.

GENERAL NOTES

Legend :  
1. F.F.L--- Finished Floor Level  
2. S.F.L--- Structural Floor Level  
3. (R) --- Reversed Detail

X1 --- DETAIL MARK NO.  
X001 --- REFER SHEET NO.

REV.	DATE	DESCRIPTION	BY
D	22.Nov.2021	GENERAL REVISION	
C	13.Nov.2021	GENERAL REVISION	
B	8.Nov.2021	GENERAL REVISION	
A	18.Oct.2021	GENERAL REVISION	

CLIENT :  
MARBLE EDGE INVESTMENT LTD.

ARCHITECT :  
RONALD LU & PARTNERS  
ARCHITECTS | PLANNERS | INTERIOR DESIGNERS

STRUCTURAL ENGINEER :  
CMA C M WONG & ASSOCIATES LTD

MAIN CONTRACTOR :  
裕民建築有限公司

美特鋁質有限公司  
MIDI ALUMINIUM FABRICATOR LTD.  
Units 6-8, Sunray Industrial Centre, 1/F  
610 Cho Kwo Ling Road, Kowloon  
Tel:23489211-4 Fax:(852)2727666

PROJECT :  
PROPOSED RESIDENTIAL DEVELOPMENT AT NEW KOWLOON INLAND LOT. NO.6552

TITLE :  
SECTION PROPERTIES (PAGE 2 OF 5)

JOB NO. :	J-857
DRAWN BY :	AN

MIDI ALUMINIUM FABRICATOR LTD.  
Units 1, 2 & 3, County Business Centre, 10, Green Lane, Killybeggs, Londonderry, BT40 1JG, Northern Ireland.

Project : Proposed Residential Development at N21L6512, Area AC, Site 2,  
Killybeggs, Northern Ireland.

Subject : Aluminium Extension Sample BC Curtain Wall (Block 2)

Brand : Xingfa

Letter ref : MCF1174877

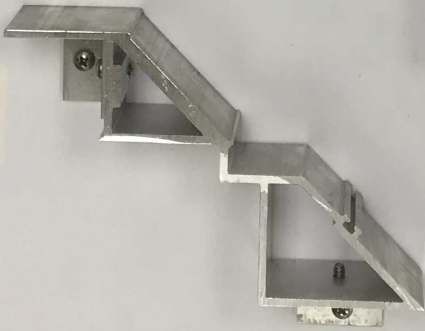
Date : 4<sup>th</sup> April 2022



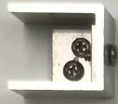
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XB6076



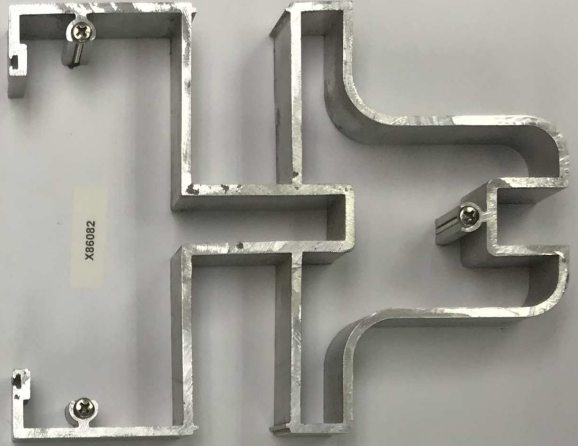
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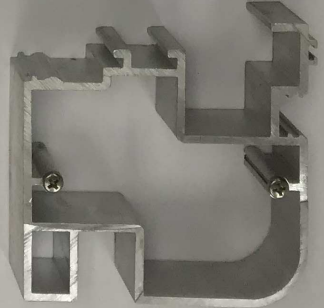
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XB6082



XB6080



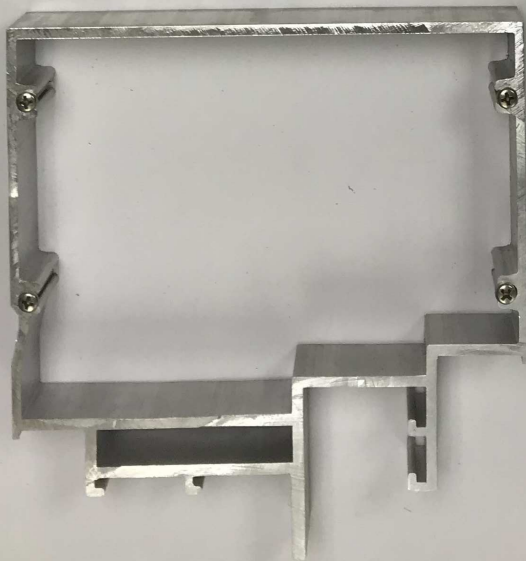
MIDI ALUMINIUM FABRICATOR LTD.  
Units 6, 7 & 8, Sarny Industrial Centre, 1st Floor, 6102 Chas Ave Indg Retail Park

Project: Polymer Encasement Development at NLSL652, Area C1, Site 2  
Subject: Aluminium Encasement Sample for Curtain Wall (BWB2)

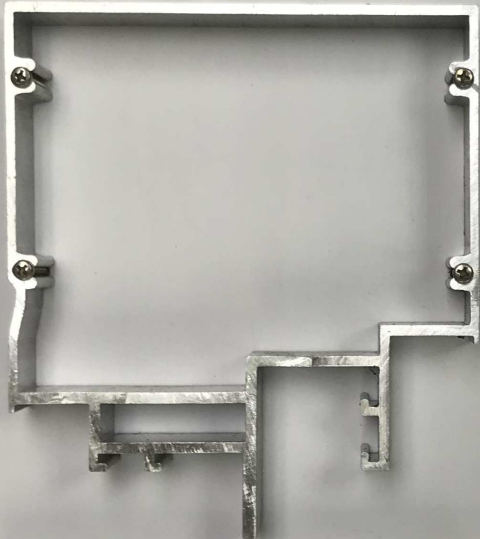
Brand: Singla  
Letter ref: NCH1174837  
Date: 4<sup>th</sup> April 2022



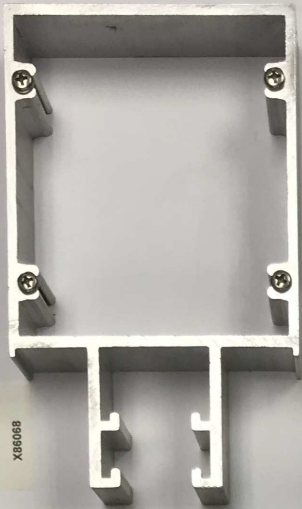
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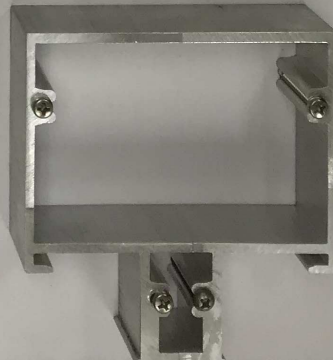
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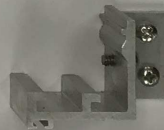
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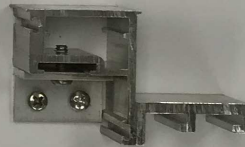
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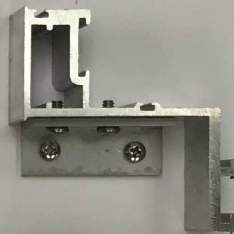
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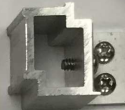
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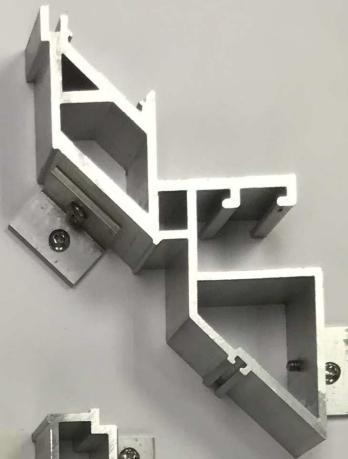
X86073



X86074



X86075





美特鋁質有限公司

MIDI ALUMINIUM FABRICATOR LTD.

Our ref. MC/41182/857

6<sup>th</sup> April 2022

E Man Construction Co. Ltd.  
29/F, AIA Tower, 183 Electric Road,  
North Point, Hong Kong

By Email & Hand

Attn.: Mr. Adam Wong

Dear Sir,

**Re: Design, Supply & Installation of Curtain Wall, Windows, Cladding and Glass Door for Residential Towers for Proposed Residential Development at NKIL6552, Area 4C, Site 2, Kai Tak, Kowloon**  
**Material Submission of Aluminium Extrusion Sample (Batch 3) for Curtain Wall**

Regarding the captioned project, we would like to submit 1 set of Aluminium Extrusion (Xingfa) sample board for Curtain Wall for your comment and approval.

Remark:

- 1) 1 set of Aluminium Extrusion (Xingfa) sample will be delivered to Mr. Dante Lai directly.  
(九龍城區承豐道啟德 6552 地盤 (維港一號對面), 黎旨軒先生收, TEL: 9866 7084)
- 2) The drawing of Section Properties for Curtain Wall is attached. (Dwg No: SD-SP-0007-1)

Should you have any query, please don't hesitate to liaise with us for information.

Thank you for your kind attention.

Yours faithfully,  
MIDI ALUMINIUM FABRICATOR LTD.

Francis Mau  
Managing Director

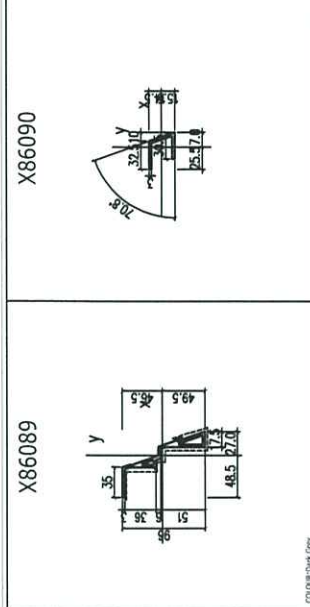
Encl - 2 page(s)

cc. E Man - Mr. Daniel Chan / Mr. Dante Lai

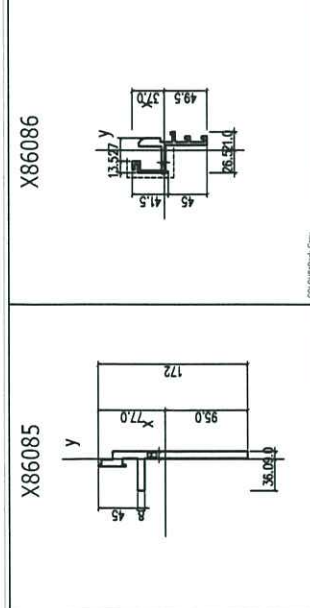
(w/e) (Email Only)

FM/MT/HWS/YC/yl

B.D. REF :  
F.S.D. REF :  
Title:  
1.M dimensions are in mm.  
2.M elevations are viewed from outside.  
3.M dimensions to be verified on site before fabrication.  
GENERAL NOTES  
Legend:  
1. FEEL - Finished Floor Level  
2. SFL - Structural Floor Level  
3. RL - Natural Level  
X1 - INITIAL MARK NO.  
X001 - REFER SHEET NO.



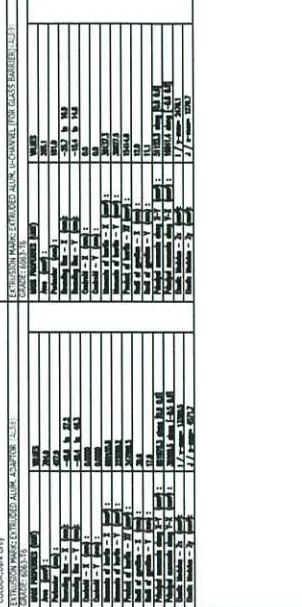
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1	Window Frame	m <sup>2</sup>	1.0	
2	Window Glass	m <sup>2</sup>	1.0	
3	Window Sill	m	1.0	
4	Window Lintel	m	1.0	
5	Window Frame	m <sup>2</sup>	1.0	
6	Window Glass	m <sup>2</sup>	1.0	
7	Window Sill	m	1.0	
8	Window Lintel	m	1.0	



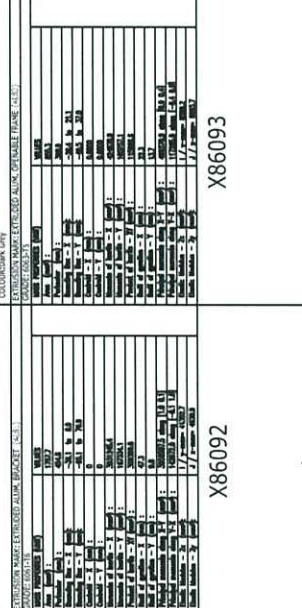
NO.	DESCRIPTION	UNIT	QTY	REMARKS
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2	Window Glass	m <sup>2</sup>	1.0	
3	Window Sill	m	1.0	
4	Window Lintel	m	1.0	
5	Window Frame	m <sup>2</sup>	1.0	
6	Window Glass	m <sup>2</sup>	1.0	
7	Window Sill	m	1.0	
8	Window Lintel	m	1.0	

COLOUR: Dark Grey  
EXTENSION MARK: EXTENDED ALUM. COLOUR: DARK GREY (2.5.21)  
GRADE: BRUSH

B.D. REF :  
F.S.D. REF :  
Title:  
1.M dimensions are in mm.  
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NO.	DESCRIPTION	UNIT	QTY	REMARKS
1	Window Frame	m <sup>2</sup>	1.0	
2	Window Glass	m <sup>2</sup>	1.0	
3	Window Sill	m	1.0	
4	Window Lintel	m	1.0	
5	Window Frame	m <sup>2</sup>	1.0	
6	Window Glass	m <sup>2</sup>	1.0	
7	Window Sill	m	1.0	
8	Window Lintel	m	1.0	



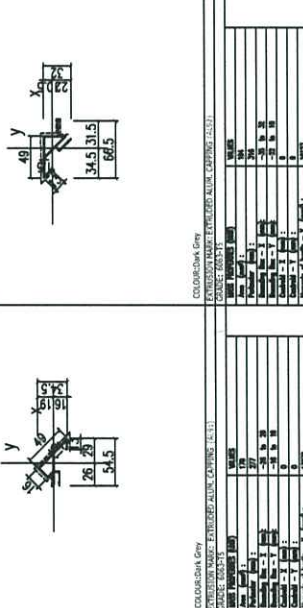
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2	Window Glass	m <sup>2</sup>	1.0	
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4	Window Lintel	m	1.0	
5	Window Frame	m <sup>2</sup>	1.0	
6	Window Glass	m <sup>2</sup>	1.0	
7	Window Sill	m	1.0	
8	Window Lintel	m	1.0	

COLOUR: Dark Grey  
EXTENSION MARK: EXTENDED ALUM. COLOUR: DARK GREY (2.5.21)  
GRADE: BRUSH

B.D. REF :  
F.S.D. REF :  
Title:  
1.M dimensions are in mm.  
2.M elevations are viewed from outside.  
3.M dimensions to be verified on site before fabrication.  
GENERAL NOTES  
Legend:  
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NO.	DESCRIPTION	UNIT	QTY	REMARKS
1	Window Frame	m <sup>2</sup>	1.0	
2	Window Glass	m <sup>2</sup>	1.0	
3	Window Sill	m	1.0	
4	Window Lintel	m	1.0	
5	Window Frame	m <sup>2</sup>	1.0	
6	Window Glass	m <sup>2</sup>	1.0	
7	Window Sill	m	1.0	
8	Window Lintel	m	1.0	



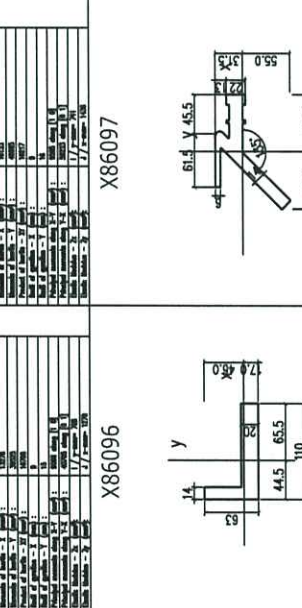
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5	Window Frame	m <sup>2</sup>	1.0	
6	Window Glass	m <sup>2</sup>	1.0	
7	Window Sill	m	1.0	
8	Window Lintel	m	1.0	

COLOUR: Dark Grey  
EXTENSION MARK: EXTENDED ALUM. COLOUR: DARK GREY (2.5.21)  
GRADE: BRUSH

B.D. REF :  
F.S.D. REF :  
Title:  
1.M dimensions are in mm.  
2.M elevations are viewed from outside.  
3.M dimensions to be verified on site before fabrication.  
GENERAL NOTES  
Legend:  
1. FEEL - Finished Floor Level  
2. SFL - Structural Floor Level  
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NO.	DESCRIPTION	UNIT	QTY	REMARKS
1	Window Frame	m <sup>2</sup>	1.0	
2	Window Glass	m <sup>2</sup>	1.0	
3	Window Sill	m	1.0	
4	Window Lintel	m	1.0	
5	Window Frame	m <sup>2</sup>	1.0	
6	Window Glass	m <sup>2</sup>	1.0	
7	Window Sill	m	1.0	
8	Window Lintel	m	1.0	



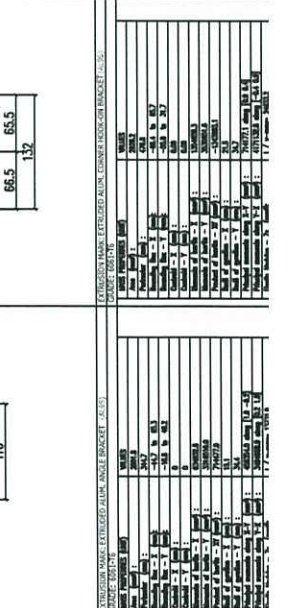
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2	Window Glass	m <sup>2</sup>	1.0	
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4	Window Lintel	m	1.0	
5	Window Frame	m <sup>2</sup>	1.0	
6	Window Glass	m <sup>2</sup>	1.0	
7	Window Sill	m	1.0	
8	Window Lintel	m	1.0	

COLOUR: Dark Grey  
EXTENSION MARK: EXTENDED ALUM. COLOUR: DARK GREY (2.5.21)  
GRADE: BRUSH

B.D. REF :  
F.S.D. REF :  
Title:  
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8	Window Lintel	m	1.0	

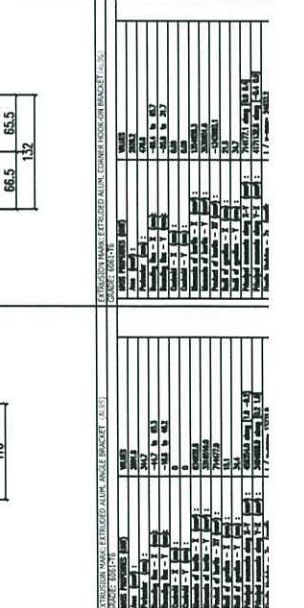


NO.	DESCRIPTION	UNIT	QTY	REMARKS
1	Window Frame	m <sup>2</sup>	1.0	
2	Window Glass	m <sup>2</sup>	1.0	
3	Window Sill	m	1.0	
4	Window Lintel	m	1.0	
5	Window Frame	m <sup>2</sup>	1.0	
6	Window Glass	m <sup>2</sup>	1.0	
7	Window Sill	m	1.0	
8	Window Lintel	m	1.0	

COLOUR: Dark Grey  
EXTENSION MARK: EXTENDED ALUM. COLOUR: DARK GREY (2.5.21)  
GRADE: BRUSH



NO.	DESCRIPTION	UNIT	QTY	REMARKS
1	Window Frame	m <sup>2</sup>	1.0	
2	Window Glass	m <sup>2</sup>	1.0	
3	Window Sill	m	1.0	
4	Window Lintel	m	1.0	
5	Window Frame	m <sup>2</sup>	1.0	
6	Window Glass	m <sup>2</sup>	1.0	
7	Window Sill	m	1.0	
8	Window Lintel	m	1.0	

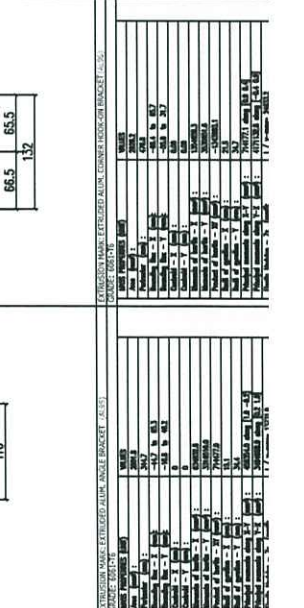


NO.	DESCRIPTION	UNIT	QTY	REMARKS
1	Window Frame	m <sup>2</sup>	1.0	
2	Window Glass	m <sup>2</sup>	1.0	
3	Window Sill	m	1.0	
4	Window Lintel	m	1.0	
5	Window Frame	m <sup>2</sup>	1.0	
6	Window Glass	m <sup>2</sup>	1.0	
7	Window Sill	m	1.0	
8	Window Lintel	m	1.0	

COLOUR: Dark Grey  
EXTENSION MARK: EXTENDED ALUM. COLOUR: DARK GREY (2.5.21)  
GRADE: BRUSH



NO.	DESCRIPTION	UNIT	QTY	REMARKS
1	Window Frame	m <sup>2</sup>	1.0	
2	Window Glass	m <sup>2</sup>	1.0	
3	Window Sill	m	1.0	
4	Window Lintel	m	1.0	
5	Window Frame	m <sup>2</sup>	1.0	
6	Window Glass	m <sup>2</sup>	1.0	
7	Window Sill	m	1.0	
8	Window Lintel	m	1.0	



NO.	DESCRIPTION	UNIT	QTY	REMARKS
1	Window Frame	m <sup>2</sup>	1.0	
2	Window Glass	m <sup>2</sup>	1.0	
3	Window Sill	m	1.0	
4	Window Lintel	m	1.0	
5	Window Frame	m <sup>2</sup>	1.0	
6	Window Glass	m <sup>2</sup>	1.0	
7	Window Sill	m	1.0	
8	Window Lintel	m	1.0	

COLOUR: Dark Grey  
EXTENSION MARK: EXTENDED ALUM. COLOUR: DARK GREY (2.5.21)  
GRADE: BRUSH

CLIENT :  
MARBLE EDGE INVESTMENT LTD.  
ARCHITECT :  
RONALD LU & PARTNERS  
ARCHITECT (PLANNING) ENGINEERS  
STRUCTURAL ENGINEER :  
C M WONG & ASSOCIATES LTD  
MVA CONTRACTOR :  
裕民建築有限公司  
美特鋁質有限公司  
Units 8-9, Sunny Industrial Centre, 1/F  
No. 6552, Inland Road, Kowloon  
Tel: 27981111 Fax: 27977866

PROJECT :  
PROPOSED RESIDENTIAL  
DEVELOPMENT AT  
NEW KOWLOON INLAND LOT,  
NO.6552.

TITLE :  
SECTION PROPERTIES  
(PAGE 3 OF 5)

JOB NO. : J-857  
DATE : 18.Oct.2021  
DRAWN BY : AM  
SCALE : A1: 1/3  
CNO BY : AS  
DWS. NO. : SD-SP-0007-1  
REV. : -

**MIDI ALUMINUM FABRICATOR LTD.**

Unit 10, 7 & 8, Sarnia Industrial Centre, 1st Floor, 403 Cheyenne Road, Sarnia, Ontario

Project: Proposed Residential Development at 821/4652, Area 4C, Site 2,  
Kia Taku, Kowloon

Subject: Aluminium Extrusion Sample for Curtain Wall (Detail 1)

Brand: Xingfa

Letter ref: MC24182857

Date: 6<sup>th</sup> April 2022



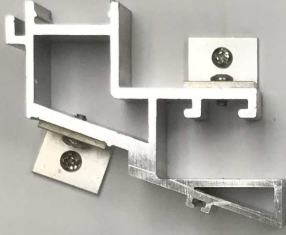
X86085



X86083



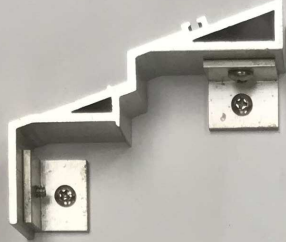
X86088



X86086



X86089



X86090



X86093



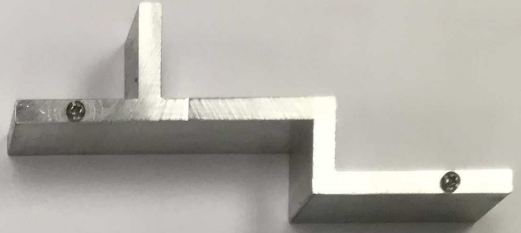
X86092



X86094



X86100



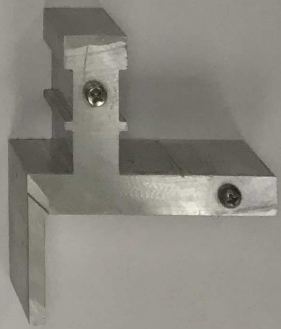
X86097



X86096



X86095





美特鋁質有限公司  
MIDI ALUMINIUM FABRICATOR LTD.

Our ref. MC/41278/857

19<sup>th</sup> May 2022

E Man Construction Co. Ltd.  
29/F, AIA Tower, 183 Electric Road,  
North Point, Hong Kong

By Email & Hand

Attn.: Mr. Adam Wong

Dear Sir,

**Re: Design, Supply & Installation of Curtain Wall, Windows, Cladding and Glass Door for Residential Towers for Proposed Residential Development at NKIL6552, Area 4C, Site 2, Kai Tak, Kowloon**  
**Material Submission of Aluminium Extrusion Sample for Curtain Wall (Batch 4)**

Regarding the captioned project, we would like to submit 1 set of Aluminium Extrusion (Xingfa) sample board for Curtain Wall for your comment and approval.

Remark:

- 1) 1 set of Aluminium Extrusion (Xingfa) sample will be delivered to Mr. Dante Lai directly. (九龍城區承豐道啟德 6552 地盤 (維港一號對面), 黎旨軒先生收, TEL: 9866 7084)
- 2) The drawing of Section Properties for Curtain Wall is attached. (Dwg No: SD-SP-0005-09)

Should you have any query, please don't hesitate to liaise with us for information.

Thank you for your kind attention.

Yours faithfully,  
MIDI ALUMINIUM FABRICATOR LTD.

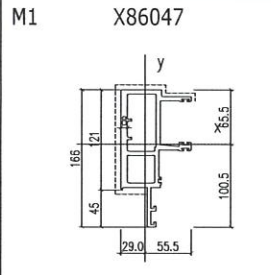
  
Francis Mau  
Managing Director

Encl - 6 page(s)

cc. E Man - Mr. Daniel Chan / Mr. Dante Lai

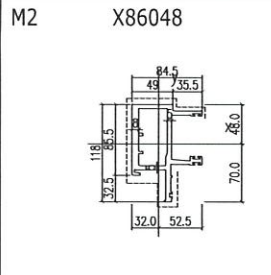
(w/e) (Email Only)

FM/MT/HWS/JK/JW/yl



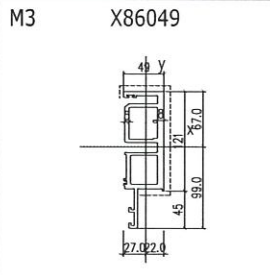
COLOUR:Dark Grey  
EXTRUSION MARK:EXTRUDED ALUM. MALE MULLION (1:20)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> ):	2773.4
Perimeter (mm):	1034.8
Spanning line - X (mm):	-26.2 to 58.8
Spanning line - Y (mm):	-180.5 to 85.2
Control - X (mm):	0
Control - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	2770346.3
Moments of inertia - Y (mm <sup>4</sup> ):	1438709.3
Product of inertia - XY (mm <sup>4</sup> ):	-137076.2
Radius of gyration - X (mm):	44.8
Radius of gyration - Y (mm):	32.8
Principal moments along 2-1 (mm <sup>4</sup> ):	3385383.4 along [1.0 0.1]
Principal moments along 1-2 (mm <sup>4</sup> ):	1120790.0 along [-4.3 0.8]
Static Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -2887.7
Static Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -2307.0



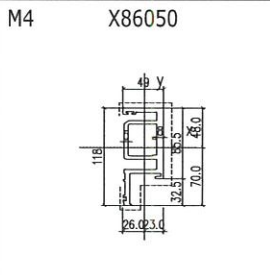
COLOUR:Dark Grey  
EXTRUSION MARK:EXTRUDED ALUM. MALE MULLION (1:20)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> ):	2188.8
Perimeter (mm):	798.1
Spanning line - X (mm):	-32.0 to 32.0
Spanning line - Y (mm):	-29.0 to 80.0
Control - X (mm):	0
Control - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	2770346.3
Moments of inertia - Y (mm <sup>4</sup> ):	1223217.7
Product of inertia - XY (mm <sup>4</sup> ):	-104062.4
Radius of gyration - X (mm):	44.8
Radius of gyration - Y (mm):	34.8
Principal moments along 2-1 (mm <sup>4</sup> ):	2702709.0 along [1.0 0.1]
Principal moments along 1-2 (mm <sup>4</sup> ):	1120790.0 along [-4.3 0.8]
Static Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -2887.7
Static Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -2307.0



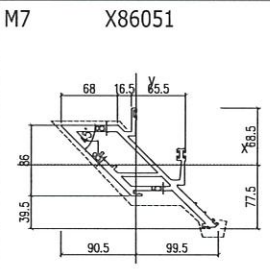
COLOUR:Dark Grey  
EXTRUSION MARK:EXTRUDED ALUM. FEMALE MULLION (1:20)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> ):	2188.8
Perimeter (mm):	843.3
Spanning line - X (mm):	-27.2 to 27.0
Spanning line - Y (mm):	-68.1 to 82.8
Control - X (mm):	0
Control - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	4000346.8
Moments of inertia - Y (mm <sup>4</sup> ):	890262.8
Product of inertia - XY (mm <sup>4</sup> ):	-304888.2
Radius of gyration - X (mm):	64.5
Radius of gyration - Y (mm):	31.8
Principal moments along 2-1 (mm <sup>4</sup> ):	4007099.0 along [1.0 -0.1]
Principal moments along 1-2 (mm <sup>4</sup> ):	1120790.0 along [0.1 1.0]
Static Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -4008.2
Static Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -2307.0



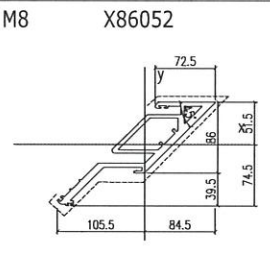
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EXTRUSION MARK:EXTRUDED ALUM. FEMALE MULLION (1:20)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> ):	2773.4
Perimeter (mm):	971.8
Spanning line - X (mm):	-26.0 to 31.0
Spanning line - Y (mm):	-70.2 to 42.8
Control - X (mm):	0
Control - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	1030046.8
Moments of inertia - Y (mm <sup>4</sup> ):	250217.2
Product of inertia - XY (mm <sup>4</sup> ):	-304888.2
Radius of gyration - X (mm):	32.1
Radius of gyration - Y (mm):	17.4
Principal moments along 2-1 (mm <sup>4</sup> ):	1106011.0 along [1.0 -0.2]
Principal moments along 1-2 (mm <sup>4</sup> ):	1120790.0 along [0.1 1.0]
Static Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -2307.0
Static Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -4008.2



COLOUR:Dark Grey  
EXTRUSION MARK:EXTRUDED ALUM. OUTER CORNER MALE MULLION (1:20)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> ):	3963.8
Perimeter (mm):	1170.8
Spanning line - X (mm):	-84.0 to 89.8
Spanning line - Y (mm):	-27.0 to 99.2
Control - X (mm):	0
Control - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	430010.1
Moments of inertia - Y (mm <sup>4</sup> ):	430010.2
Product of inertia - XY (mm <sup>4</sup> ):	430010.2
Radius of gyration - X (mm):	34.9
Radius of gyration - Y (mm):	46.3
Principal moments along 2-1 (mm <sup>4</sup> ):	1200084.0 along [0.8 -0.2]
Principal moments along 1-2 (mm <sup>4</sup> ):	1142837.0 along [0.3 0.8]
Static Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -3408.4
Static Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -4008.2



COLOUR:Dark Grey  
EXTRUSION MARK:EXTRUDED ALUM. OUTER CORNER FEMALE MULLION (1:20)  
GRADE: 6063-T6

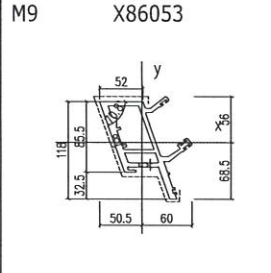
MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> ):	3963.8
Perimeter (mm):	1014.8
Spanning line - X (mm):	-105.0 to 84.7
Spanning line - Y (mm):	-28.5 to 51.4
Control - X (mm):	0
Control - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	320218.5
Moments of inertia - Y (mm <sup>4</sup> ):	400034.6
Product of inertia - XY (mm <sup>4</sup> ):	430010.2
Radius of gyration - X (mm):	34.9
Radius of gyration - Y (mm):	46.8
Principal moments along 2-1 (mm <sup>4</sup> ):	1200084.0 along [0.8 0.2]
Principal moments along 1-2 (mm <sup>4</sup> ):	1000184.0 along [0.3 0.8]
Static Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -4008.2
Static Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -3408.4

B.D. REF :  
F.S.D. REF :  
Note :  
1.All dimensions are in mm.  
2.All elevations are viewed from outside.  
3.All dimensions to be verified on site before fabrication.

GENERAL NOTES

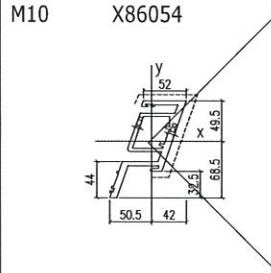
Legend :  
1. FFL --- Finished Floor Level  
2. S.F.L --- Structural Floor Level  
3. (R) --- Reversed Detail

X1 --- DETAIL MARK NO.  
X001 --- SHEET NO.



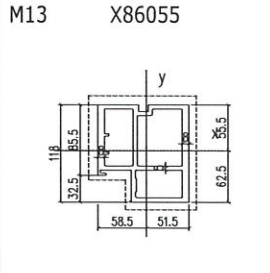
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EXTRUSION MARK:EXTRUDED ALUM. MALE MULLION (1:20)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> ):	2405.1
Perimeter (mm):	961.1
Spanning line - X (mm):	-26.0 to 60.0
Spanning line - Y (mm):	-48.0 to 58.0
Control - X (mm):	0
Control - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	2674786.2
Moments of inertia - Y (mm <sup>4</sup> ):	1500018.0
Product of inertia - XY (mm <sup>4</sup> ):	1061045.4
Radius of gyration - X (mm):	38.1
Radius of gyration - Y (mm):	32.8
Principal moments along 2-1 (mm <sup>4</sup> ):	3300217.0 along [0.8 0.2]
Principal moments along 1-2 (mm <sup>4</sup> ):	1120790.0 along [0.1 1.0]
Static Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -3208.0
Static Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -2307.0



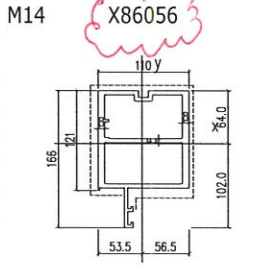
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GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> ):	2122
Perimeter (mm):	753
Spanning line - X (mm):	-26.0 to 48
Spanning line - Y (mm):	-48.0 to 58.0
Control - X (mm):	0
Control - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	2981520
Moments of inertia - Y (mm <sup>4</sup> ):	1570000
Product of inertia - XY (mm <sup>4</sup> ):	1100000
Radius of gyration - X (mm):	37.7
Radius of gyration - Y (mm):	32.8
Principal moments along 2-1 (mm <sup>4</sup> ):	3300217.0 along [0.7 -0.1]
Principal moments along 1-2 (mm <sup>4</sup> ):	1120790.0 along [1 1]
Static Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -3208.0
Static Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -2307.0



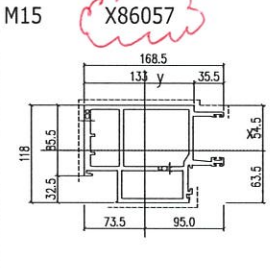
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EXTRUSION MARK:EXTRUDED ALUM. INTERDIGITATE MULLION (1:20)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> ):	2264.2
Perimeter (mm):	1144.8
Spanning line - X (mm):	-26.0 to 31.4
Spanning line - Y (mm):	-107.0 to 58.0
Control - X (mm):	0
Control - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	4000145
Moments of inertia - Y (mm <sup>4</sup> ):	3170049.5
Product of inertia - XY (mm <sup>4</sup> ):	-304888.2
Radius of gyration - X (mm):	37.7
Radius of gyration - Y (mm):	55.0
Principal moments along 2-1 (mm <sup>4</sup> ):	4133047.0 along [0.7 -0.1]
Principal moments along 1-2 (mm <sup>4</sup> ):	3170049.5 along [0.1 1.0]
Static Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -3208.0
Static Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -4008.2



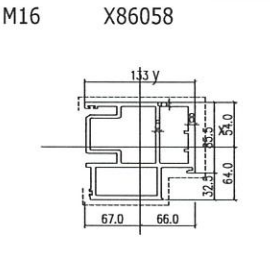
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EXTRUSION MARK:EXTRUDED ALUM. INTERDIGITATE MULLION (1:20)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> ):	2264.2
Perimeter (mm):	1207.3
Spanning line - X (mm):	-26.0 to 58.7
Spanning line - Y (mm):	-107.0 to 61.1
Control - X (mm):	0
Control - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	710211.8
Moments of inertia - Y (mm <sup>4</sup> ):	811407.0
Product of inertia - XY (mm <sup>4</sup> ):	-304888.2
Radius of gyration - X (mm):	44.3
Radius of gyration - Y (mm):	46.8
Principal moments along 2-1 (mm <sup>4</sup> ):	7000044.0 along [0.8 -0.2]
Principal moments along 1-2 (mm <sup>4</sup> ):	3170049.5 along [0.3 0.8]
Static Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -3208.0
Static Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -4008.2



COLOUR:Dark Grey  
EXTRUSION MARK:EXTRUDED ALUM. MALE MULLION (1:20)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> ):	2614.2
Perimeter (mm):	1407.0
Spanning line - X (mm):	-26.0 to 68.0
Spanning line - Y (mm):	-48.0 to 58.0
Control - X (mm):	0
Control - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	500170.2
Moments of inertia - Y (mm <sup>4</sup> ):	2000350.3
Product of inertia - XY (mm <sup>4</sup> ):	430010.2
Radius of gyration - X (mm):	38.2
Radius of gyration - Y (mm):	36.3
Principal moments along 2-1 (mm <sup>4</sup> ):	3100044.0 along [1.0 -0.2]
Principal moments along 1-2 (mm <sup>4</sup> ):	1120790.0 along [0.3 1.0]
Static Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -3208.0
Static Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -4008.2



COLOUR:Dark Grey  
EXTRUSION MARK:EXTRUDED ALUM. FEMALE MULLION (1:20)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> ):	2241.1
Perimeter (mm):	1426.0
Spanning line - X (mm):	-27.0 to 58.2
Spanning line - Y (mm):	-48.0 to 68.2
Control - X (mm):	0
Control - Y (mm):	0
Moments of inertia - X (mm <sup>4</sup> ):	340370.4
Moments of inertia - Y (mm <sup>4</sup> ):	2770000.1
Product of inertia - XY (mm <sup>4</sup> ):	-430010.2
Radius of gyration - X (mm):	38.2
Radius of gyration - Y (mm):	43.8
Principal moments along 2-1 (mm <sup>4</sup> ):	3100044.0 along [0.8 0.2]
Principal moments along 1-2 (mm <sup>4</sup> ):	2511004.0 along [-0.4 0.8]
Static Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -3208.0
Static Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> -10116.0

REV	DATE	DESCRIPTION	BY
F	25.Nov.2021	GENERAL REVISION	
D	22.Nov.2021	GENERAL REVISION	
C	13.Nov.2021	GENERAL REVISION	
B	8.Nov.2021	GENERAL REVISION	
A	18.Oct.2021	GENERAL REVISION	

CLIENT :  
MARBLE EDGE INVESTMENT LTD.

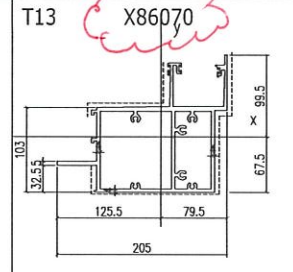
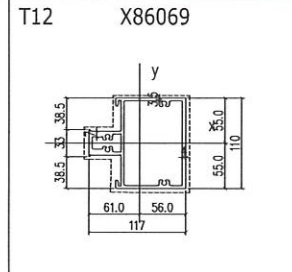
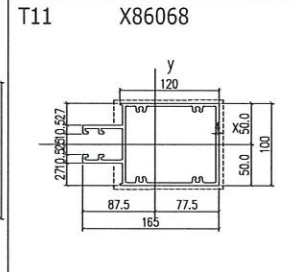
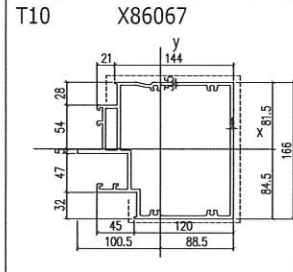
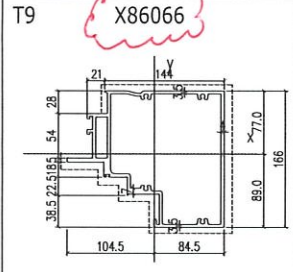
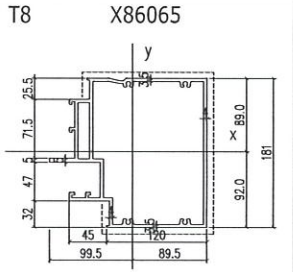
ARCHITECT :  
ARCHITECTS IN PARTNERSHIP  
STRUCTURAL ENGINEER :  
CMA C M WONG & ASSOCIATES LTD

MAIN CONTRACTOR :  
裕民建築有限公司  
美特鋁質有限公司  
MIDI ALUMINIUM FABRICATOR LTD.  
Units 6-8, Sunny Industrial Centre, 1/F  
610 Cheong Kwo Ling Road, Kwun Tong  
Tel:23489211-4, Fax:(852)27727666

PROJECT :  
PROPOSED RESIDENTIAL DEVELOPMENT AT NEW KOWLOON INLAND LOT. NO.6552

TITLE :  
SECTION PROPERTIES (PAGE 1 OF 5)

JOB NO. : J-857  
DRAWN BY : AN  
DATE : 18.Oct.2021  
CHKD BY :  
SCALE : A1: 13  
A3:  
DWG. NO. : SD-SP-0005  
REV. : -



COLOUR:Dark Grey  
EXTRUSION MARK: EXTRUDED ALUM. TRANSOM (20.1)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	2498.7
Perforator (mm)	1705.0
Bending line - X (mm)	-104.6 to 86.4
Bending line - Y (mm)	-88.1 to 28.8
Control - X (mm)	0
Control - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	1377083.4
Moments of inertia - Y (mm <sup>4</sup> )	1120670.0
Product of inertia - XY (mm <sup>4</sup> )	484919.3
Radius of gyration - X (mm)	36.1
Radius of gyration - Y (mm)	34.7
Principal moments along X-Y (mm <sup>4</sup> )	1411204.6 along [18.0 6.3]
Principal moments along X-Y (mm <sup>4</sup> )	1361883.3 along [-6.5 6.8]
Elastic Modulus - X (mm <sup>2</sup> )	1.7 / s-min= 100079.4
Elastic Modulus - Y (mm <sup>2</sup> )	1.7 / s-min= 100079.4

COLOUR:Dark Grey  
EXTRUSION MARK: EXTRUDED ALUM. TRANSOM (20.2)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	3161.8
Perforator (mm)	1705.0
Bending line - X (mm)	-104.6 to 86.4
Bending line - Y (mm)	-88.1 to 28.8
Control - X (mm)	0
Control - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	1120670.0
Moments of inertia - Y (mm <sup>4</sup> )	1377083.4
Product of inertia - XY (mm <sup>4</sup> )	484919.3
Radius of gyration - X (mm)	36.1
Radius of gyration - Y (mm)	34.7
Principal moments along X-Y (mm <sup>4</sup> )	1071204.6 along [18.0 6.3]
Principal moments along X-Y (mm <sup>4</sup> )	1361883.3 along [-6.5 6.8]
Elastic Modulus - X (mm <sup>2</sup> )	1.7 / s-min= 100079.4
Elastic Modulus - Y (mm <sup>2</sup> )	1.7 / s-min= 100079.4

COLOUR:Dark Grey  
EXTRUSION MARK: EXTRUDED ALUM. TRANSOM (20.3)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	3204.4
Perforator (mm)	1705.0
Bending line - X (mm)	-104.6 to 86.4
Bending line - Y (mm)	-88.1 to 28.8
Control - X (mm)	0
Control - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	1120670.0
Moments of inertia - Y (mm <sup>4</sup> )	1377083.4
Product of inertia - XY (mm <sup>4</sup> )	484919.3
Radius of gyration - X (mm)	36.1
Radius of gyration - Y (mm)	34.7
Principal moments along X-Y (mm <sup>4</sup> )	1071204.6 along [18.0 6.3]
Principal moments along X-Y (mm <sup>4</sup> )	1361883.3 along [-6.5 6.8]
Elastic Modulus - X (mm <sup>2</sup> )	1.7 / s-min= 100079.4
Elastic Modulus - Y (mm <sup>2</sup> )	1.7 / s-min= 100079.4

COLOUR:Dark Grey  
EXTRUSION MARK: EXTRUDED ALUM. INTERMEDIATE TRANSOM (20.4)  
GRADE: 6063-T6

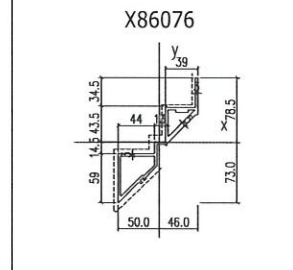
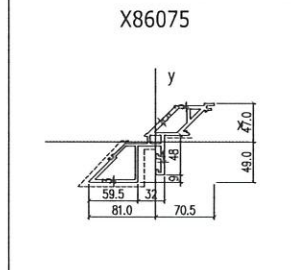
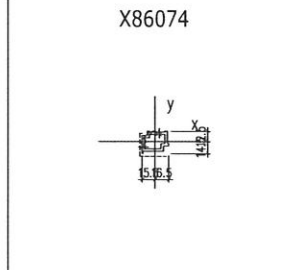
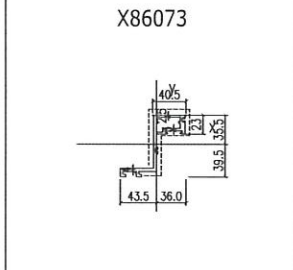
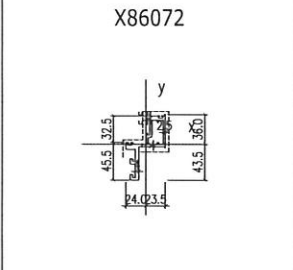
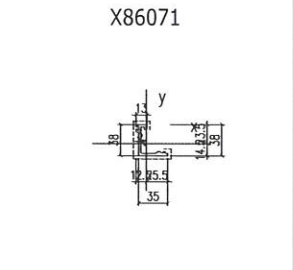
MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	2907.8
Perforator (mm)	1584.4
Bending line - X (mm)	-87.5 to 77.5
Bending line - Y (mm)	-50.0 to 50.0
Control - X (mm)	0.0000
Control - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	309092.0
Moments of inertia - Y (mm <sup>4</sup> )	309092.0
Product of inertia - XY (mm <sup>4</sup> )	0
Radius of gyration - X (mm)	35.3
Radius of gyration - Y (mm)	35.3
Principal moments along X-Y (mm <sup>4</sup> )	309092.0 along [18.0 6.3]
Principal moments along X-Y (mm <sup>4</sup> )	309092.0 along [-6.5 6.8]
Elastic Modulus - X (mm <sup>2</sup> )	1.7 / s-min= 67284.4
Elastic Modulus - Y (mm <sup>2</sup> )	1.7 / s-min= 67284.4

COLOUR:Dark Grey  
EXTRUSION MARK: EXTRUDED ALUM. INTERMEDIATE TRANSOM (20.5)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	2897.2
Perforator (mm)	1584.4
Bending line - X (mm)	-87.5 to 56.0
Bending line - Y (mm)	-50.0 to 50.0
Control - X (mm)	0
Control - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	270103.3
Moments of inertia - Y (mm <sup>4</sup> )	270103.4
Product of inertia - XY (mm <sup>4</sup> )	151.5
Radius of gyration - X (mm)	34.3
Radius of gyration - Y (mm)	34.1
Principal moments along X-Y (mm <sup>4</sup> )	270103.2 along [18.0 6.3]
Principal moments along X-Y (mm <sup>4</sup> )	270103.4 along [-6.5 6.8]
Elastic Modulus - X (mm <sup>2</sup> )	1.7 / s-min= 57682.2
Elastic Modulus - Y (mm <sup>2</sup> )	1.7 / s-min= 57682.2

COLOUR:Dark Grey  
EXTRUSION MARK: EXTRUDED ALUM. GUTTER STACK JOINT (21.1)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	3583.3
Perforator (mm)	1584.4
Bending line - X (mm)	-124.4 to 79.5
Bending line - Y (mm)	-42.3 to 29.3
Control - X (mm)	0.0000
Control - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	620053.3
Moments of inertia - Y (mm <sup>4</sup> )	1148095.5
Product of inertia - XY (mm <sup>4</sup> )	-286142.7
Radius of gyration - X (mm)	44.8
Radius of gyration - Y (mm)	54.8
Principal moments along X-Y (mm <sup>4</sup> )	668712 along [18.0 6.3]
Principal moments along X-Y (mm <sup>4</sup> )	1138873.3 along [-6.5 6.8]
Elastic Modulus - X (mm <sup>2</sup> )	1.7 / s-min= 69430.0
Elastic Modulus - Y (mm <sup>2</sup> )	1.7 / s-min= 69430.0



COLOUR:Dark Grey  
EXTRUSION MARK: EXTRUDED ALUM. CAP (21.1)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	361
Perforator (mm)	263
Bending line - X (mm)	-12 to 32
Bending line - Y (mm)	-15 to 23
Control - X (mm)	0
Control - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	33340
Moments of inertia - Y (mm <sup>4</sup> )	31080
Product of inertia - XY (mm <sup>4</sup> )	23640
Radius of gyration - X (mm)	31.9
Radius of gyration - Y (mm)	31.1
Principal moments along X-Y (mm <sup>4</sup> )	48331 along [1.1]
Principal moments along X-Y (mm <sup>4</sup> )	18267 along [-6.3 6.3]
Elastic Modulus - X (mm <sup>2</sup> )	1.7 / s-min= 1819
Elastic Modulus - Y (mm <sup>2</sup> )	1.7 / s-min= 1819

COLOUR:Dark Grey  
EXTRUSION MARK: EXTRUDED ALUM. OPERABLE WINDOW SASH (2)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	4215
Perforator (mm)	481
Bending line - X (mm)	-144 to 26.9
Bending line - Y (mm)	-43.5 to 36.5
Control - X (mm)	0
Control - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	333818
Moments of inertia - Y (mm <sup>4</sup> )	137081
Product of inertia - XY (mm <sup>4</sup> )	-23297.9
Radius of gyration - X (mm)	36.5
Radius of gyration - Y (mm)	37.9
Principal moments along X-Y (mm <sup>4</sup> )	77913.0 along [18.0 6.3]
Principal moments along X-Y (mm <sup>4</sup> )	137081 along [6.8 6.8]
Elastic Modulus - X (mm <sup>2</sup> )	1.7 / s-min= 1257.9
Elastic Modulus - Y (mm <sup>2</sup> )	1.7 / s-min= 785.5

COLOUR:Dark Grey  
EXTRUSION MARK: EXTRUDED ALUM. ADAPTOR (20.3)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	284.5
Perforator (mm)	187.8
Bending line - X (mm)	-144 to 12.4
Bending line - Y (mm)	0
Control - X (mm)	0.0000
Control - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	30909.2
Moments of inertia - Y (mm <sup>4</sup> )	30909.2
Product of inertia - XY (mm <sup>4</sup> )	-3364.2
Radius of gyration - X (mm)	35.3
Radius of gyration - Y (mm)	35.3
Principal moments along X-Y (mm <sup>4</sup> )	30909.2 along [18.0 6.3]
Principal moments along X-Y (mm <sup>4</sup> )	30909.2 along [-6.5 6.8]
Elastic Modulus - X (mm <sup>2</sup> )	1.7 / s-min= 1357.1
Elastic Modulus - Y (mm <sup>2</sup> )	1.7 / s-min= 1357.1

COLOUR:Dark Grey  
EXTRUSION MARK: EXTRUDED ALUMINUM GUTTER CORNER EDGE PROTECTION (21.1)  
GRADE: 6063-T6

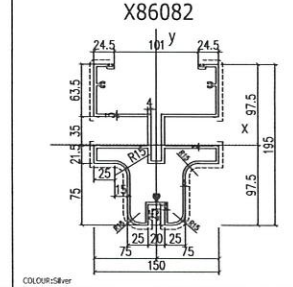
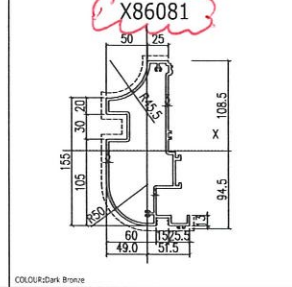
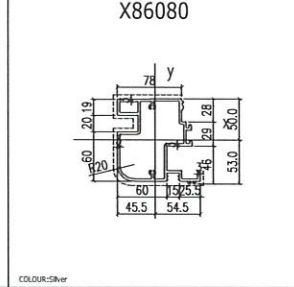
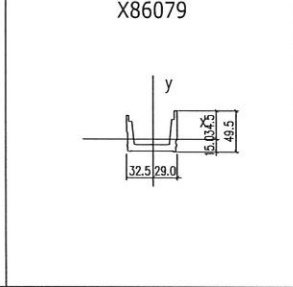
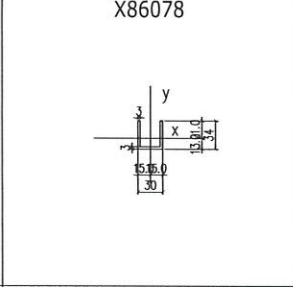
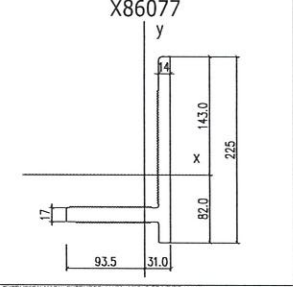
MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	1772.4
Perforator (mm)	947.8
Bending line - X (mm)	-88.8 to 20.6
Bending line - Y (mm)	-42.3 to 29.3
Control - X (mm)	0.0000
Control - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	309092.0
Moments of inertia - Y (mm <sup>4</sup> )	309092.0
Product of inertia - XY (mm <sup>4</sup> )	0
Radius of gyration - X (mm)	35.3
Radius of gyration - Y (mm)	35.3
Principal moments along X-Y (mm <sup>4</sup> )	309092.0 along [18.0 6.3]
Principal moments along X-Y (mm <sup>4</sup> )	309092.0 along [-6.5 6.8]
Elastic Modulus - X (mm <sup>2</sup> )	1.7 / s-min= 57682.2
Elastic Modulus - Y (mm <sup>2</sup> )	1.7 / s-min= 57682.2

COLOUR:Dark Grey  
EXTRUSION MARK: EXTRUDED ALUMINUM GUTTER CORNER EDGE PROTECTION (21.2)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	1772.4
Perforator (mm)	947.8
Bending line - X (mm)	-88.8 to 20.6
Bending line - Y (mm)	-42.3 to 29.3
Control - X (mm)	0.0000
Control - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	309092.0
Moments of inertia - Y (mm <sup>4</sup> )	309092.0
Product of inertia - XY (mm <sup>4</sup> )	0
Radius of gyration - X (mm)	35.3
Radius of gyration - Y (mm)	35.3
Principal moments along X-Y (mm <sup>4</sup> )	309092.0 along [18.0 6.3]
Principal moments along X-Y (mm <sup>4</sup> )	309092.0 along [-6.5 6.8]
Elastic Modulus - X (mm <sup>2</sup> )	1.7 / s-min= 57682.2
Elastic Modulus - Y (mm <sup>2</sup> )	1.7 / s-min= 57682.2

COLOUR:Dark Grey  
EXTRUSION MARK: EXTRUDED ALUMINUM GUTTER CORNER EDGE PROTECTION (21.3)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	1772.4
Perforator (mm)	947.8
Bending line - X (mm)	-88.8 to 20.6
Bending line - Y (mm)	-42.3 to 29.3
Control - X (mm)	0.0000
Control - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	309092.0
Moments of inertia - Y (mm <sup>4</sup> )	309092.0
Product of inertia - XY (mm <sup>4</sup> )	0
Radius of gyration - X (mm)	35.3
Radius of gyration - Y (mm)	35.3
Principal moments along X-Y (mm <sup>4</sup> )	309092.0 along [18.0 6.3]
Principal moments along X-Y (mm <sup>4</sup> )	309092.0 along [-6.5 6.8]
Elastic Modulus - X (mm <sup>2</sup> )	1.7 / s-min= 57682.2
Elastic Modulus - Y (mm <sup>2</sup> )	1.7 / s-min= 57682.2



EXTRUSION MARK: EXTRUDED ALUM. ANGLE BRACKET (20.1)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	5788.3
Perforator (mm)	666.7
Bending line - X (mm)	-84.6 to 31.1
Bending line - Y (mm)	-63.1 to 143.0
Control - X (mm)	0
Control - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	2128472.5
Moments of inertia - Y (mm <sup>4</sup> )	611266.1
Product of inertia - XY (mm <sup>4</sup> )	-413406.0
Radius of gyration - X (mm)	63.4
Radius of gyration - Y (mm)	34.1
Principal moments along X-Y (mm <sup>4</sup> )	2320268.1 along [18.0 6.3]
Principal moments along X-Y (mm <sup>4</sup> )	467963.0 along [-6.5 6.8]
Elastic Modulus - X (mm <sup>2</sup> )	1.7 / s-min= 14768.2
Elastic Modulus - Y (mm <sup>2</sup> )	1.7 / s-min= 7488.4

EXTRUSION MARK: EXTRUDED ALUM. U-CHANNEL (FOR GLASS BARRIERS) (20.1)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	778.8
Perforator (mm)	186.3
Bending line - X (mm)	-88.8 to 16.0
Bending line - Y (mm)	-12.9 to 21.1
Control - X (mm)	0
Control - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	32381
Moments of inertia - Y (mm <sup>4</sup> )	4278.9
Product of inertia - XY (mm <sup>4</sup> )	18.8
Radius of gyration - X (mm)	18.4
Radius of gyration - Y (mm)	12.1
Principal moments along X-Y (mm <sup>4</sup> )	32381.0 along [18.0 6.3]
Principal moments along X-Y (mm <sup>4</sup> )	4278.9 along [-6.5 6.8]
Elastic Modulus - X (mm <sup>2</sup> )	1.7 / s-min= 1528.1
Elastic Modulus - Y (mm <sup>2</sup> )	1.7 / s-min= 374.8

EXTRUSION MARK: EXTRUDED ALUM. GUTTER SLEEVE (20.5)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	665.5
Perforator (mm)	268.7
Bending line - X (mm)	-88.8 to 29.8
Bending line - Y (mm)	-12.9 to 21.1
Control - X (mm)	0
Control - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	147746.3
Moments of inertia - Y (mm <sup>4</sup> )	40055.6
Product of inertia - XY (mm <sup>4</sup> )	-26284.2
Radius of gyration - X (mm)	38.4
Radius of gyration - Y (mm)	12.4
Principal moments along X-Y (mm <sup>4</sup> )	147028.8 along [18.0 6.3]
Principal moments along X-Y (mm <sup>4</sup> )	40055.6 along [-6.5 6.8]
Elastic Modulus - X (mm <sup>2</sup> )	1.7 / s-min= 1488.3
Elastic Modulus - Y (mm <sup>2</sup> )	1.7 / s-min= 368.3

COLOUR:Silver  
EXTRUSION MARK: ALUM. VERTICAL FEATURE (20.7)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	1269.0
Perforator (mm)	166.7
Bending line - X (mm)	-68.8 to 54.7
Bending line - Y (mm)	-54.1 to 48.3
Control - X (mm)	0
Control - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	203208.2
Moments of inertia - Y (mm <sup>4</sup> )	189729.8
Product of inertia - XY (mm <sup>4</sup> )	20984.4
Radius of gyration - X (mm)	39.3
Radius of gyration - Y (mm)	36.9
Principal moments along X-Y (mm <sup>4</sup> )	212992.4 along [18.0 6.3]
Principal moments along X-Y (mm <sup>4</sup> )	189729.8 along [-6.5 6.8]
Elastic Modulus - X (mm <sup>2</sup> )	1.7 / s-min= 3262.1
Elastic Modulus - Y (mm <sup>2</sup> )	1.7 / s-min= 3088.3

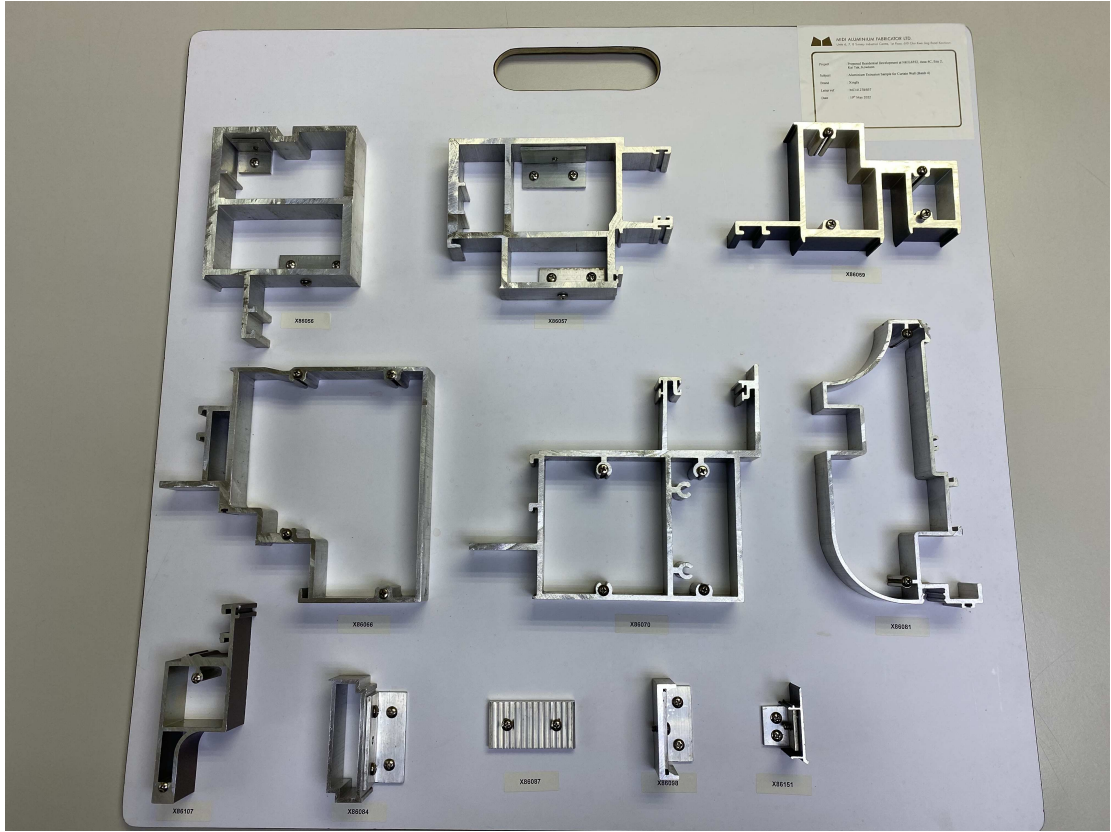
COLOUR:Silver  
EXTRUSION MARK: ALUM. VERTICAL FEATURE (20.7)  
GRADE: 6063-T6

MISC PROPERTIES (mm)	VALUES
Area (mm <sup>2</sup> )	2672
Perforator (mm)	1367
Bending line - X (mm)	-68.8 to 51.4
Bending line - Y (mm)	-54.1 to 108.8
Control - X (mm)	0
Control - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	616384.9
Moments of inertia - Y (mm <sup>4</sup> )	189729.8
Product of inertia - XY (mm <sup>4</sup> )	27078.8
Radius of gyration - X (mm)	64.5
Radius of gyration - Y (mm)	36.9
Principal moments along X-Y (mm	

<p><b>X86083</b></p>	<p><b>X86084</b></p>	<p><b>X86085</b></p>	<p><b>X86086</b></p>	<p><b>X86087</b></p>	<p><b>X86088</b></p>																																																																																																																																																																																																
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Slack Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> - 672.7																																																																																																																																																																																																				
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Area (mm <sup>2</sup> ):	258.9																																																																																																																																																																																																				
Perimeter (mm):	181.0																																																																																																																																																																																																				
Bounding Box - X (mm):	-28.1 to 18.8																																																																																																																																																																																																				
Bounding Box - Y (mm):	-28.1 to 18.8																																																																																																																																																																																																				
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Centroid - Y (mm):	0.0000																																																																																																																																																																																																				
Moments of Inertia - X (mm <sup>4</sup> ):	30124.4																																																																																																																																																																																																				
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Moments of Inertia - X (mm <sup>4</sup> ):	4243.3																																																																																																																																																																																																				
Moments of Inertia - Y (mm <sup>4</sup> ):	7965.3																																																																																																																																																																																																				
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Principal moments along Y-X (mm <sup>4</sup> ):	5053.6 along [-0.8 0.3]																																																																																																																																																																																																				
Slack Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> - 3084.3																																																																																																																																																																																																				
Slack Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> - 651.3																																																																																																																																																																																																				
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Perimeter (mm):	181																																																																																																																																																																																																				
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Principal moments along X-Y (mm <sup>4</sup> ):	9269 along [1 0]																																																																																																																																																																																																				
Principal moments along Y-X (mm <sup>4</sup> ):	46782 along [0 1]																																																																																																																																																																																																				
Slack Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> - 109																																																																																																																																																																																																				
Slack Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> - 1236																																																																																																																																																																																																				
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Perimeter (mm):	190																																																																																																																																																																																																				
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Principal moments along X-Y (mm <sup>4</sup> ):	9269 along [1 0]																																																																																																																																																																																																				
Principal moments along Y-X (mm <sup>4</sup> ):	56233 along [0 1]																																																																																																																																																																																																				
Slack Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> - 41																																																																																																																																																																																																				
Slack Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> - 128																																																																																																																																																																																																				
MISC PROPERTIES (mm)	VALUES																																																																																																																																																																																																				
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Perimeter (mm):	100																																																																																																																																																																																																				
Bounding Box - X (mm):	-17 to 17																																																																																																																																																																																																				
Bounding Box - Y (mm):	-6.2 to 6.2																																																																																																																																																																																																				
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Moments of Inertia - X (mm <sup>4</sup> ):	309																																																																																																																																																																																																				
Moments of Inertia - Y (mm <sup>4</sup> ):	3472																																																																																																																																																																																																				
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Radius of Gyration - X (mm):	5.5																																																																																																																																																																																																				
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Principal moments along X-Y (mm <sup>4</sup> ):	18 along [1 0]																																																																																																																																																																																																				
Principal moments along Y-X (mm <sup>4</sup> ):	3472 along [0 1]																																																																																																																																																																																																				
Slack Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> - 45																																																																																																																																																																																																				
Slack Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> - 545																																																																																																																																																																																																				
<p><b>X86095</b></p>	<p><b>X86096</b></p>	<p><b>X86097</b></p>	<p><b>X86098</b></p>	<p><b>H132048</b></p>	<p><b>X86100</b></p>																																																																																																																																																																																																
<p>COLOUR: Dark Grey</p>																																																																																																																																																																																																					
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CORNER/HOOK-ON BRACKET (1:1); GRADE: 6063-T6</p> <table border="1"> <thead> <tr> <th>MISC PROPERTIES (mm)</th> <th>VALUES</th> </tr> </thead> <tbody> <tr><td>Area (mm<sup>2</sup>):</td><td>2381.8</td></tr> <tr><td>Perimeter (mm):</td><td>290.3</td></tr> <tr><td>Bounding Box - X (mm):</td><td>-54.1 to 45.4</td></tr> <tr><td>Bounding Box - Y (mm):</td><td>-54.1 to 45.4</td></tr> <tr><td>Centroid - X (mm):</td><td>0.0000</td></tr> <tr><td>Centroid - Y (mm):</td><td>0.0000</td></tr> <tr><td>Moments of Inertia - X (mm<sup>4</sup>):</td><td>115092.9</td></tr> <tr><td>Moments of Inertia - Y (mm<sup>4</sup>):</td><td>150971.9</td></tr> <tr><td>Product of Inertia - XY (mm<sup>4</sup>):</td><td>-50521.8</td></tr> <tr><td>Radius of Gyration - X (mm):</td><td>22.5</td></tr> <tr><td>Radius of Gyration - Y (mm):</td><td>24.1</td></tr> <tr><td>Principal moments along X-Y (mm<sup>4</sup>):</td><td>117746.7 along [0.8 -0.4]</td></tr> <tr><td>Principal moments along Y-X (mm<sup>4</sup>):</td><td>130181.1 along [0.3 1.0]</td></tr> <tr><td>Slack Modulus - X (mm<sup>2</sup>):</td><td>17.7 mm<sup>2</sup> - 3285.5</td></tr> <tr><td>Slack Modulus - Y (mm<sup>2</sup>):</td><td>17.7 mm<sup>2</sup> - 1428.2</td></tr> </tbody> </table>	MISC PROPERTIES (mm)	VALUES	Area (mm <sup>2</sup> ):	2381.8	Perimeter (mm):	290.3	Bounding Box - X (mm):	-54.1 to 45.4	Bounding Box - Y (mm):	-54.1 to 45.4	Centroid - X (mm):	0.0000	Centroid - Y (mm):	0.0000	Moments of Inertia - X (mm <sup>4</sup> ):	115092.9	Moments of Inertia - Y (mm <sup>4</sup> ):	150971.9	Product of Inertia - XY (mm <sup>4</sup> ):	-50521.8	Radius of Gyration - X (mm):	22.5	Radius of Gyration - Y (mm):	24.1	Principal moments along X-Y (mm <sup>4</sup> ):	117746.7 along [0.8 -0.4]	Principal moments along Y-X (mm <sup>4</sup> ):	130181.1 along [0.3 1.0]	Slack Modulus - X (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> - 3285.5	Slack Modulus - Y (mm <sup>2</sup> ):	17.7 mm <sup>2</sup> - 1428.2	<p>EXTRUSION MARK: EXTRUDED ALUM. 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美特鋁質有限公司  
MIDI ALUMINIUM FABRICATOR LTD.

Our ref. MC/41342/857

4<sup>th</sup> July 2022

E Man Construction Co. Ltd.  
29/F, AIA Tower, 183 Electric Road,  
North Point, Hong Kong

By Email & Hand

Attn.: Mr. Adam Wong

Dear Sir,

**Re: Design, Supply & Installation of Curtain Wall, Windows, Cladding and Glass Door for Residential Towers for Proposed Residential Development at NKIL6552, Area 4C, Site 2, Kai Tak, Kowloon**  
**Material Submission of Aluminium Extrusion Sample for Glass Sliding Door (In-situ)**

Regarding the captioned project, we would like to submit 1 set of Aluminium Extrusion (Xingfa) sample boards for Glass Sliding Door for your comment and approval.

Remark:

1) 1 set of Aluminium Extrusion (Xingfa) sample boards will be delivered to Mr. Gareth Chan directly.

(Address: 九龍城區承豐道啟德 6552 地盤 (維港一號對面), 陳先生收, TEL: 6533 2451)

Should you have any query, please don't hesitate to liaise with us for information.

Thank you for your kind attention.

Yours faithfully,  
MIDI ALUMINIUM FABRICATOR LTD.

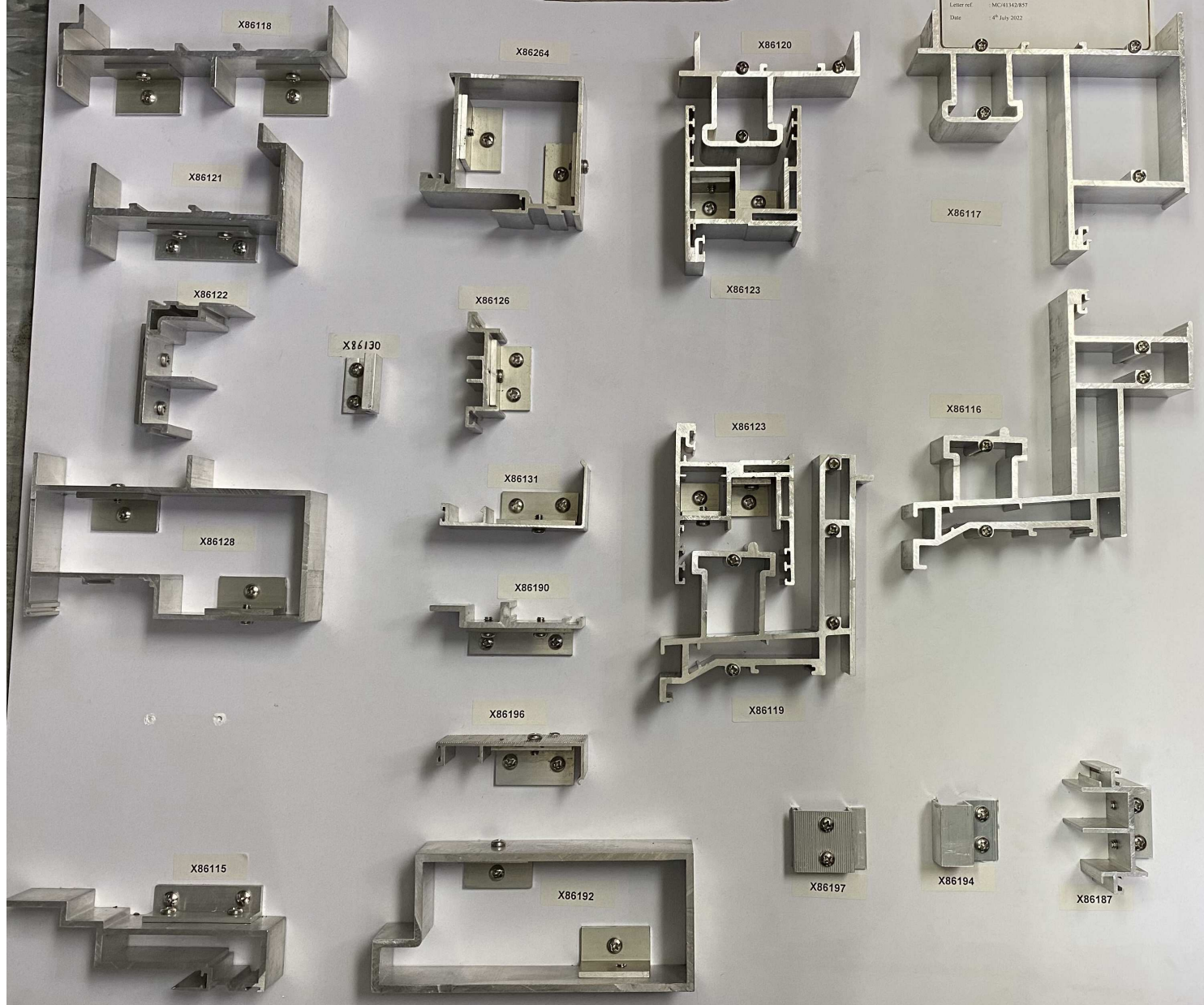
Marco Tam  
Director

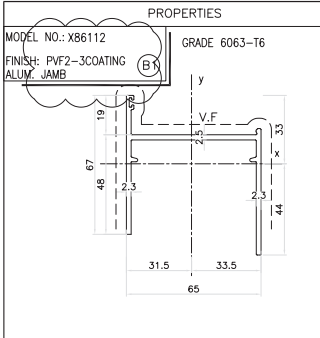
Encl - 4 page(s)

cc. E Man - Mr. Wilson Kwan / Mr. Alex Lee / Mr. Gareth Chan (w/e) (Email Only)

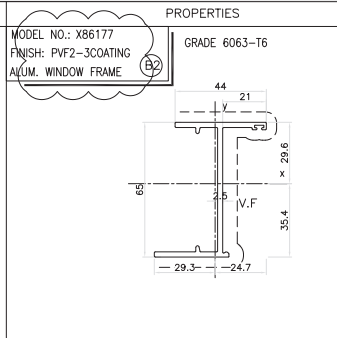
FM/MT/HWS/JK/3W/yl

Project : Proposed Residential Development at NKL 652,  
Area 8C, Site 2, Kall Tak, Kowloon  
Subject : Aluminium Extrusion Sample for Glass Sliding Door  
Brand : Xingfa  
Location : Glass Sliding Door  
Letter ref : MCH1342857  
Date : 07 July 2022

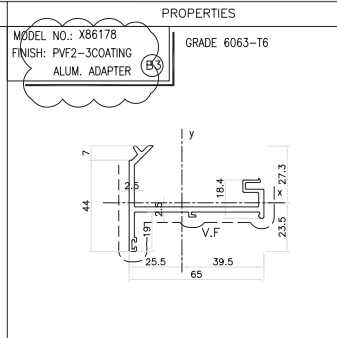




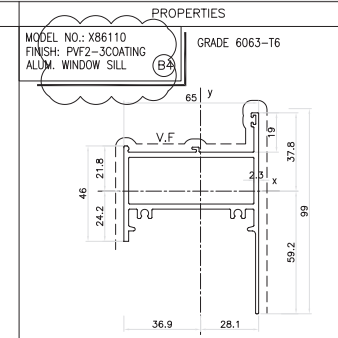
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	457.6301
Perimeter (mm)	399.3224
Bounding Box - X (mm)	-37.4575 to 33.5425
Bounding Box - Y (mm)	-44.0171 to 32.9829
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	152218.2426
Moments of inertia - Y (mm <sup>4</sup> )	34454.1762
Product of inertia - XY (mm <sup>4</sup> )	-57194.5269
Radii of gyration - X (mm)	18.2380
Radii of gyration - Y (mm)	27.1448
Principal moments along X-Y (mm <sup>4</sup> )	136139.4336 along (0.9636 -0.2675)
Principal moments along X-X (mm <sup>4</sup> )	366823.0014 along (0.2675 0.9636)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 3458.1633
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 10277.8347



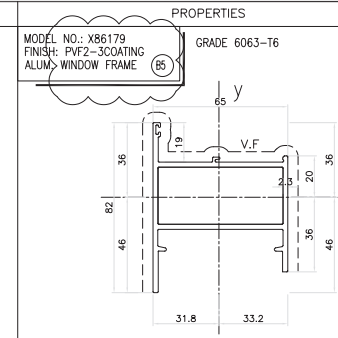
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	328.3235
Perimeter (mm)	304.6785
Bounding Box - X (mm)	-28.3207 to 24.6713
Bounding Box - Y (mm)	-33.3550 to 29.6450
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	214409.2904
Moments of inertia - Y (mm <sup>4</sup> )	31459.4852
Product of inertia - XY (mm <sup>4</sup> )	-4854.5963
Radii of gyration - X (mm)	9.9045
Radii of gyration - Y (mm)	23.8444
Principal moments along X-Y (mm <sup>4</sup> )	26295.9753 along (0.1641 0.9864)
Principal moments along X-X (mm <sup>4</sup> )	219817.8002 along (-0.9864 0.1641)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 6064.4756
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 1072.6509



MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	337.6438
Perimeter (mm)	317.6410
Bounding Box - X (mm)	-25.5077 to 39.4923
Bounding Box - Y (mm)	-23.4661 to 25.5339
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	33122.5305
Moments of inertia - Y (mm <sup>4</sup> )	191969.5883
Product of inertia - XY (mm <sup>4</sup> )	-6854.5963
Radii of gyration - X (mm)	9.9045
Radii of gyration - Y (mm)	23.8444
Principal moments along X-Y (mm <sup>4</sup> )	32627.2374 along (0.9991 -0.0430)
Principal moments along X-X (mm <sup>4</sup> )	192264.8515 along (0.0430 0.9991)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 1291.7985
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 4860.9287



MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	652
Perimeter (mm)	564
Bounding Box - X (mm)	-37 to 28
Bounding Box - Y (mm)	-59 to 38
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	232109
Moments of inertia - Y (mm <sup>4</sup> )	401611
Product of inertia - XY (mm <sup>4</sup> )	33527
Radii of gyration - X (mm)	19
Radii of gyration - Y (mm)	28
Principal moments along X-Y (mm <sup>4</sup> )	226837 along [0 0]
Principal moments along X-X (mm <sup>4</sup> )	406883 along [0 1]
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 320.9
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 10930



MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	2277.2
Perimeter (mm)	368.8
Bounding Box - X (mm)	-31.8 to 33.2
Bounding Box - Y (mm)	-46.0 to 36.0
Centroid - X (mm)	0.00
Centroid - Y (mm)	0.00
Moments of inertia - X (mm <sup>4</sup> )	310561.3
Moments of inertia - Y (mm <sup>4</sup> )	895000.8
Product of inertia - XY (mm <sup>4</sup> )	-14572.2
Radii of gyration - X (mm)	11.7
Radii of gyration - Y (mm)	19.8
Principal moments along X-Y (mm <sup>4</sup> )	310044.2 along (1.0 0.0)
Principal moments along X-X (mm <sup>4</sup> )	894770.0 along (0.0 1.0)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 6746.0
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 22940.3

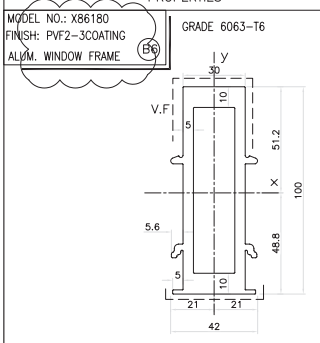
B.D. REF :  
F.S.D. REF :

Note :  
1.All dimensions are in mm.  
2.All elevations are viewed from outside.  
3.All dimensions to be verified on site before fabrication.

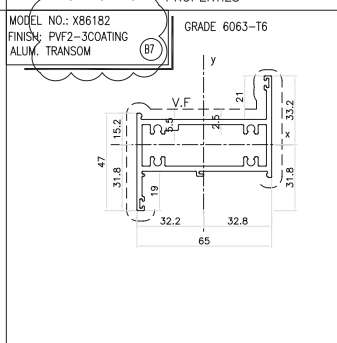
GENERAL NOTES

Legend :  
1. F.F.L.-- Finished Floor Level  
2. S.F.L.-- Structural Floor Level  
3. (R) -- Reversed Detail

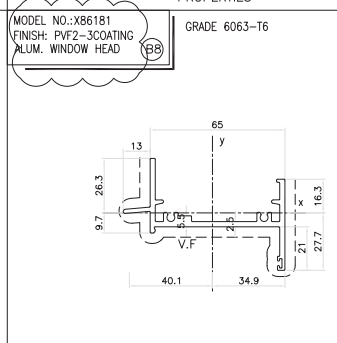
X1 -- DETAIL MARK NO.  
X001 -- REFER SHEET NO.



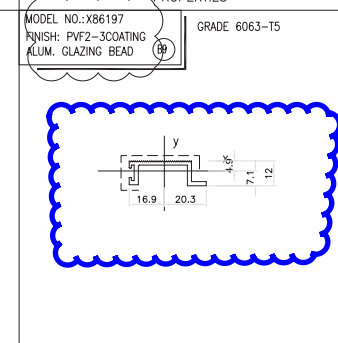
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1504.0360
Perimeter (mm)	529.4338
Bounding Box - X (mm)	-21.1533 to 21.0041
Bounding Box - Y (mm)	-48.7872 to 51.2128
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	1740251.2474
Moments of inertia - Y (mm <sup>4</sup> )	224418.8237
Product of inertia - XY (mm <sup>4</sup> )	0.0000
Radii of gyration - X (mm)	34.0155
Radii of gyration - Y (mm)	11.8169
Principal moments along X-Y (mm <sup>4</sup> )	20474.8237 along (0.0000 -1.0000)
Principal moments along X-X (mm <sup>4</sup> )	1740251.2474 along (1.0000 0.0000)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 3398.7679
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 9735.0088



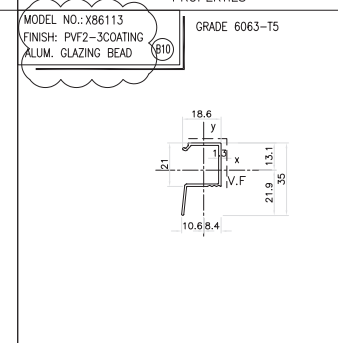
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	617.7749
Perimeter (mm)	525.1518
Bounding Box - X (mm)	-31.1533 to 32.8167
Bounding Box - Y (mm)	-31.8417 to 33.1583
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	105994.6328
Moments of inertia - Y (mm <sup>4</sup> )	325494.5298
Product of inertia - XY (mm <sup>4</sup> )	-59297.7099
Radii of gyration - X (mm)	13.0861
Radii of gyration - Y (mm)	23.8169
Principal moments along X-Y (mm <sup>4</sup> )	52096.1307 along (0.9747 0.2236)
Principal moments along X-X (mm <sup>4</sup> )	364007.0118 along (-0.2236 0.9747)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 3387.5761
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 10677.7568



MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	435
Perimeter (mm)	401
Bounding Box - X (mm)	-9.008 to 9.986
Bounding Box - Y (mm)	-39.28 to -38.54
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	75305
Moments of inertia - Y (mm <sup>4</sup> )	304644
Product of inertia - XY (mm <sup>4</sup> )	-49902
Radii of gyration - X (mm)	13
Radii of gyration - Y (mm)	28
Principal moments along X-Y (mm <sup>4</sup> )	56134 along [1 0]
Principal moments along X-X (mm <sup>4</sup> )	324015 along [0 1]
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 19
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 32



MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	140
Perimeter (mm)	140
Bounding Box - X (mm)	-17 to 20
Bounding Box - Y (mm)	-7 to 5
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	1248
Moments of inertia - Y (mm <sup>4</sup> )	8604.3927
Product of inertia - XY (mm <sup>4</sup> )	3602.7227
Radii of gyration - X (mm)	4
Radii of gyration - Y (mm)	12
Principal moments along X-Y (mm <sup>4</sup> )	1814 along [1 0]
Principal moments along X-X (mm <sup>4</sup> )	16753 along [0 1]
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 205
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 820



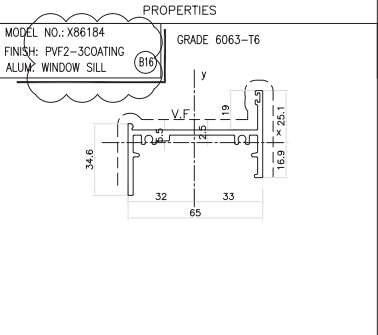
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	78.1693
Perimeter (mm)	141.9227
Bounding Box - X (mm)	-10.5968 to 6.4032
Bounding Box - Y (mm)	-21.8570 to 13.1430
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	8604.3927
Moments of inertia - Y (mm <sup>4</sup> )	3602.7227
Product of inertia - XY (mm <sup>4</sup> )	2251.2221
Radii of gyration - X (mm)	10.4251
Radii of gyration - Y (mm)	6.4328
Principal moments along X-Y (mm <sup>4</sup> )	2912.3945 along (0.3678 0.9299)
Principal moments along X-X (mm <sup>4</sup> )	8494.7374 along (-0.9299 0.3678)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 393.8663
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 358.8608

NO.	DATE	REVISED	BY
E	06.04.2022	GENERAL REVISION	
D	09.02.2022	GENERAL REVISION	
C	06.01.2022	GENERAL REVISION	
B	26.12.2021	GENERAL REVISION	
A	28.10.2021	GENERAL REVISION	

CLIENT :  
**MARBLE EDGE INVESTMENT LTD.**

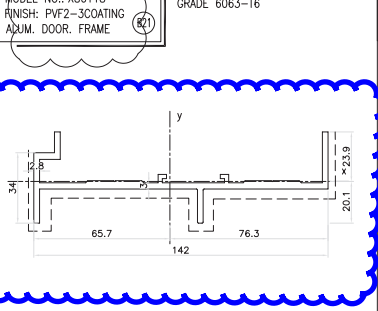
ARCHITECT :  
**RONALD LU & PARTNERS**  
ARCHITECTS | PLANNERS | INTERIOR DESIGNERS

STRUCTURAL ENGINEER :  
**CMA CHAN WONG & ASSOCIATES LTD**  
1201-1202, 1203, 1204, 1205, 1206, 1207, 1208, 1209, 1210, 1211, 1212, 1213, 1214, 1215, 1216, 1217, 1218, 1219, 1220, 1221, 1222, 1223, 1224, 1225, 1226, 1227, 1228, 1229, 1230, 1231, 1232, 1233, 1234, 1235, 1236, 1237, 1238, 1239, 1240, 1241, 1242, 1243, 1244, 1245, 1246, 1247, 1248, 1249, 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258, 1259, 1260, 1261, 1262, 1263, 1264, 1265, 1266, 1267, 1268, 1269, 1270, 1271, 1272, 1273, 1274, 1275, 1276, 1277, 1278, 1279, 1280, 1281, 1282, 1283, 1284, 1285, 1286, 1287, 1288, 1289, 1290, 1291, 1292, 1293, 1294, 1295, 1296, 1297, 1298, 1299, 1300, 1301, 1302, 1303, 1304, 1305, 1306, 1307, 1308, 1309, 1310, 1311, 1312, 1313, 1314, 1315, 1316, 1317, 1318, 1319, 1320, 1321, 1322, 1323, 1324, 1325, 1326, 1327, 1328, 1329, 1330, 1331, 1332, 1333, 1334, 1335, 1336, 1337, 1338, 1339, 1340, 1341, 1342, 1343, 1344, 1345, 1346, 1347, 1348, 1349, 1350, 1351, 1352, 1353, 1354, 1355, 1356, 1357, 1358, 1359, 1360, 1361, 1362, 1363, 1364, 1365, 1366, 1367, 1368, 1369, 1370, 1371, 1372, 1373, 1374, 1375, 1376, 1377, 1378, 1379, 1380, 1381, 1382, 1383, 1384, 1385, 1386, 1387, 1388, 1389, 1390, 1391, 1392, 1393, 1394, 1395, 1396, 1397, 1398, 1399, 1400, 1401, 1402, 1403, 1404, 1405, 1406, 1407, 1408, 1409, 1410, 1411, 1412, 1413, 1414, 1415, 1416, 1417, 1418, 1419, 1420, 1421, 1422, 1423, 1424, 1425, 1426, 1427, 1428, 1429, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1439, 1440, 1441, 1442, 1443, 1444, 1445, 1446, 1447, 1448, 1449, 1450, 1451, 1452, 1453, 1454, 1455, 1456, 1457, 1458, 1459, 1460, 1461, 1462, 1463, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1474, 1475, 1476, 1477, 1478, 1479, 1480, 1481, 1482, 1483, 1484, 1485, 1486, 1487, 1488, 1489, 1490, 1491, 1492, 1493, 1494, 1495, 1496, 1497, 1498, 1499, 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1519, 1520, 1521, 1522, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 1531, 1532, 1533, 1534, 1535, 1536, 1537, 1538, 1539, 1540, 1541, 1542, 1543, 1544, 1545, 1546, 1547, 1548, 1549, 1550, 1551, 1552, 1553, 1554, 1555, 1556, 1557, 1558, 1559, 1560, 1561, 1562, 1563, 1564, 1565, 1566, 1567, 1568, 1569, 1570, 1571, 1572, 1573, 1574, 1575, 1576, 1577, 1578, 1579, 1580, 1581, 1582, 1583, 1584, 1585, 1586, 1587, 1588, 1589, 1590, 1591, 1592, 1593, 1594, 1595, 1596, 1597, 1598, 1599, 1600, 1601, 1602, 1603, 1604, 1605, 1606, 1607, 1608, 1609, 1610, 1611, 1612, 1613, 1614, 1615, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1636, 1637, 1638, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1646, 1647, 1648, 1649, 1650, 1651, 1652, 1653, 1654, 1655, 1656, 1657, 1658, 1659, 1660, 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678, 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1718, 1719, 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 1751, 1752, 1753, 1754, 1755, 1756, 1757, 1758, 1759, 1760, 1761, 1762, 1763, 1764, 1765, 1766, 1767, 1768, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1780, 1781, 1782, 1783, 1784, 1785, 1786, 1787, 1788, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1796, 1797, 1798, 1799, 1800, 1801, 1802, 1803, 1804, 1805, 1806, 1807, 1808, 1809, 1810, 1811, 1812, 1813, 1814, 1815, 1816, 1817, 1818, 1819, 1820, 1821, 1822, 1823, 1824, 1825, 1826, 1827, 1828, 1829, 1830, 1831, 1832, 1833, 1834, 1835, 1836, 1837, 1838, 1839, 1840, 1841, 1842, 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, 1860, 1861, 1862,



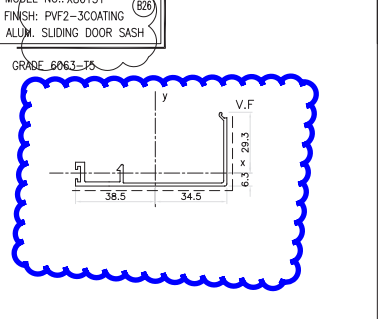
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	386.8018
Perimeter (mm)	261.7503
Bounding Box - X (mm)	-31.9648 to 33.0352
Bounding Box - Y (mm)	-41.8746 to 25.1279
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	57372.4408
Moments of inertia - Y (mm <sup>4</sup> )	227244.4129
Product of inertia - XY (mm <sup>4</sup> )	6366.6272
Radius of gyration - X (mm)	12.0244
Radius of gyration - Y (mm)	25.4667
Principal moments along X-Y (mm <sup>4</sup> )	43892.7562 along (0.9698 0.2438)
Principal moments along X-X (mm <sup>4</sup> )	270636.0973 along (-0.2438 0.9698)
Elastic Modulus - 2x (mm <sup>2</sup> )	I / y-max= 1370.1002
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 7790.0592

PROPERTIES



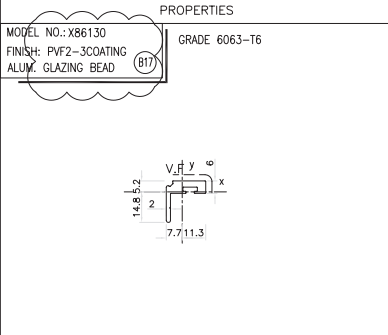
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	761.3606
Perimeter (mm)	499.5339
Bounding Box - X (mm)	-65.6614 to 76.2921
Bounding Box - Y (mm)	-20.1480 to 23.8520
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	4707.5152
Moments of inertia - Y (mm <sup>4</sup> )	175603.0291
Product of inertia - XY (mm <sup>4</sup> )	-12796.1029
Radius of gyration - X (mm)	47.2664
Radius of gyration - Y (mm)	41.9979
Principal moments along X-Y (mm <sup>4</sup> )	4892.5970 along (1.0000 0.0070)
Principal moments along X-X (mm <sup>4</sup> )	175609.9704 along (-0.0070 1.0000)
Elastic Modulus - 2x (mm <sup>2</sup> )	I / y-max= 1911.2224
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 22990.6143

PROPERTIES



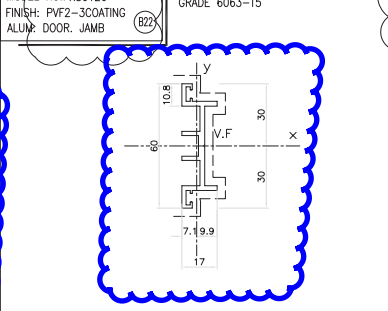
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	213.1026
Perimeter (mm)	266.8683
Bounding Box - X (mm)	-36.5041 to 34.4959
Bounding Box - Y (mm)	-6.7265 to 29.3235
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	18065.4932
Moments of inertia - Y (mm <sup>4</sup> )	154025.1942
Product of inertia - XY (mm <sup>4</sup> )	-2291.2268
Radius of gyration - X (mm)	8.8187
Radius of gyration - Y (mm)	28.9927
Principal moments along X-Y (mm <sup>4</sup> )	12947.3774 along (0.9874 0.1581)
Principal moments along X-X (mm <sup>4</sup> )	157623.3108 along (-0.1581 0.9874)
Elastic Modulus - 2x (mm <sup>2</sup> )	I / y-max= 564.6215
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 3999.7113

PROPERTIES



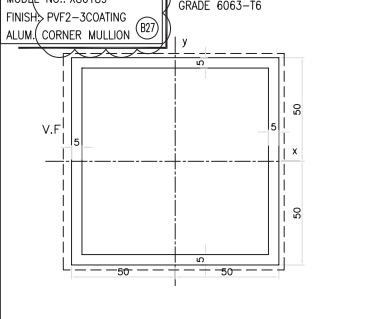
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	116.6294
Perimeter (mm)	87.3417
Bounding Box - X (mm)	-7.6645 to 11.3355
Bounding Box - Y (mm)	-14.7578 to 5.2422
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	2814.7570
Moments of inertia - Y (mm <sup>4</sup> )	4438.0783
Product of inertia - XY (mm <sup>4</sup> )	-1587.9829
Radius of gyration - X (mm)	4.9189
Radius of gyration - Y (mm)	6.1740
Principal moments along X-Y (mm <sup>4</sup> )	1479.9423 along (0.8301 0.5576)
Principal moments along X-X (mm <sup>4</sup> )	5772.8930 along (-0.5576 0.8301)
Elastic Modulus - 2x (mm <sup>2</sup> )	I / y-max= 190.7301
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 391.5190

PROPERTIES



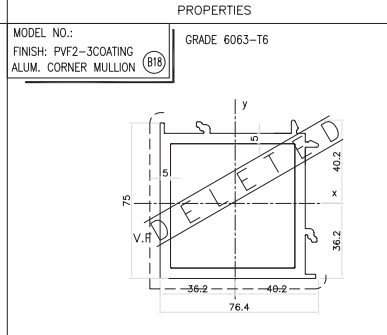
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	256.9155
Perimeter (mm)	246.1841
Bounding Box - X (mm)	-7.1369 to 9.8631
Bounding Box - Y (mm)	-30.0000 to 30.0000
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	78744.1990
Moments of inertia - Y (mm <sup>4</sup> )	101941.5168
Product of inertia - XY (mm <sup>4</sup> )	-16071.6610
Radius of gyration - X (mm)	21.4079
Radius of gyration - Y (mm)	14.8478
Principal moments along X-Y (mm <sup>4</sup> )	46733.5442 along (0.0000 -1.0000)
Principal moments along X-X (mm <sup>4</sup> )	78744.1990 along (1.0000 0.0000)
Elastic Modulus - 2x (mm <sup>2</sup> )	I / y-max= 2624.8663
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 473.8217

PROPERTIES



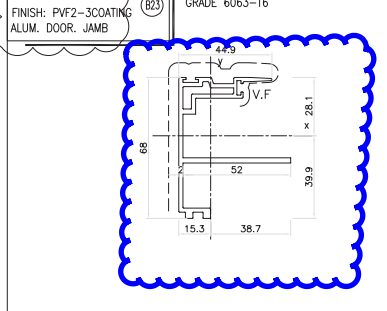
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1800.0000
Perimeter (mm)	81
Bounding Box - X (mm)	-50.0000 to 50.0000
Bounding Box - Y (mm)	-50.0000 to 50.0000
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	2806533.3333
Moments of inertia - Y (mm <sup>4</sup> )	2806533.3333
Product of inertia - XY (mm <sup>4</sup> )	0.0000
Radius of gyration - X (mm)	38.8373
Radius of gyration - Y (mm)	38.8373
Principal moments along X-Y (mm <sup>4</sup> )	2806533.3333 along (1.0000 0.0000)
Principal moments along X-X (mm <sup>4</sup> )	2806533.3333 along (0.0000 1.0000)
Elastic Modulus - 2x (mm <sup>2</sup> )	I / y-max= 5216.6667
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 5216.6667

PROPERTIES



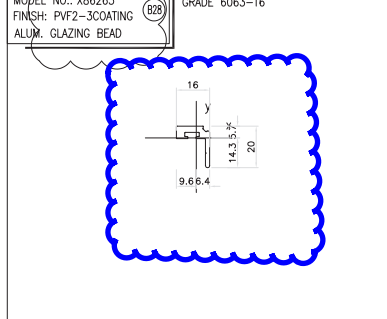
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1388.5989
Perimeter (mm)	391.3072
Bounding Box - X (mm)	-38.1916 to 40.2084
Bounding Box - Y (mm)	-38.1916 to 40.2078
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	101955.0686
Moments of inertia - Y (mm <sup>4</sup> )	101955.0716
Product of inertia - XY (mm <sup>4</sup> )	-16391.6293
Radius of gyration - X (mm)	26.9994
Radius of gyration - Y (mm)	26.9992
Principal moments along X-Y (mm <sup>4</sup> )	100333.9814 along (0.7089 -0.7073)
Principal moments along X-X (mm <sup>4</sup> )	103571.8053 along (0.7073 0.7089)
Elastic Modulus - 2x (mm <sup>2</sup> )	I / y-max= 25368.6716
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 25355.7963

PROPERTIES



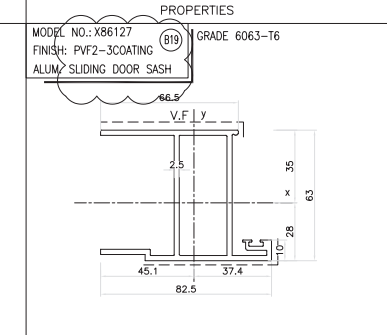
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	486.0154
Perimeter (mm)	486.1533
Bounding Box - X (mm)	-13.3399 to 38.6601
Bounding Box - Y (mm)	-39.3639 to 28.1361
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	222280.9428
Moments of inertia - Y (mm <sup>4</sup> )	101941.5168
Product of inertia - XY (mm <sup>4</sup> )	-16071.6610
Radius of gyration - X (mm)	21.4079
Radius of gyration - Y (mm)	14.8478
Principal moments along X-Y (mm <sup>4</sup> )	224393.2791 along (0.9115 -0.3101)
Principal moments along X-X (mm <sup>4</sup> )	99337.8803 along (0.3101 0.9115)
Elastic Modulus - 2x (mm <sup>2</sup> )	I / y-max= 5075.9989
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 2636.8633

PROPERTIES



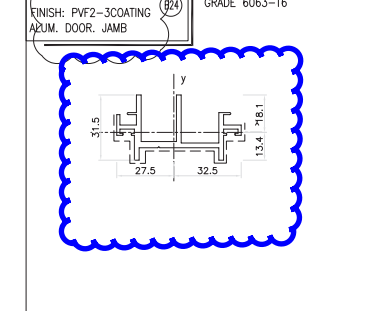
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	88
Perimeter (mm)	81
Bounding Box - X (mm)	-10 to 6
Bounding Box - Y (mm)	0
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	2654
Moments of inertia - Y (mm <sup>4</sup> )	2724
Product of inertia - XY (mm <sup>4</sup> )	1589
Radius of gyration - X (mm)	5
Radius of gyration - Y (mm)	5
Principal moments along X-Y (mm <sup>4</sup> )	1129 along (1 -1)
Principal moments along X-X (mm <sup>4</sup> )	439 along (1 1)
Elastic Modulus - 2x (mm <sup>2</sup> )	I / y-max= 185
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 291

PROPERTIES



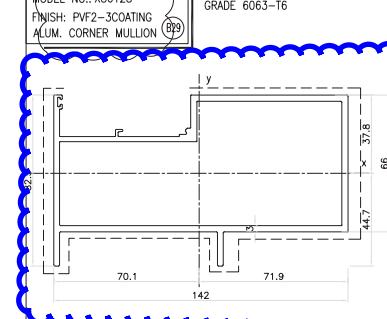
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1388.5989
Perimeter (mm)	391.3072
Bounding Box - X (mm)	-38.1916 to 40.2084
Bounding Box - Y (mm)	-38.1916 to 40.2078
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	101955.0686
Moments of inertia - Y (mm <sup>4</sup> )	101955.0716
Product of inertia - XY (mm <sup>4</sup> )	-16391.6293
Radius of gyration - X (mm)	26.9994
Radius of gyration - Y (mm)	26.9992
Principal moments along X-Y (mm <sup>4</sup> )	100333.9814 along (0.7089 -0.7073)
Principal moments along X-X (mm <sup>4</sup> )	103571.8053 along (0.7073 0.7089)
Elastic Modulus - 2x (mm <sup>2</sup> )	I / y-max= 25368.6716
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 25355.7963

PROPERTIES



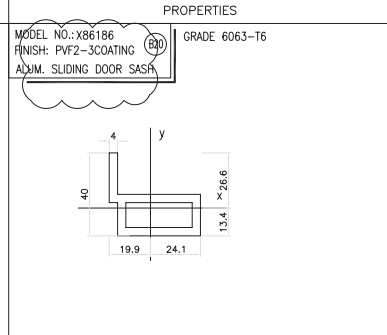
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	351.0259
Perimeter (mm)	313.8257
Bounding Box - X (mm)	-27.4954 to 32.5046
Bounding Box - Y (mm)	-13.5110 to 18.0890
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	18552.3096
Moments of inertia - Y (mm <sup>4</sup> )	109114.6340
Product of inertia - XY (mm <sup>4</sup> )	-6061.7860
Radius of gyration - X (mm)	7.0999
Radius of gyration - Y (mm)	11.5665
Principal moments along X-Y (mm <sup>4</sup> )	18144.8205 along (0.9927 -0.0697)
Principal moments along X-X (mm <sup>4</sup> )	109271.1217 along (0.0697 0.9927)
Elastic Modulus - 2x (mm <sup>2</sup> )	I / y-max= 1026.6115
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 3332.4358

PROPERTIES



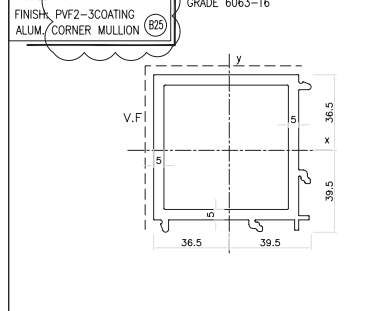
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1334.5298
Perimeter (mm)	831.6036
Bounding Box - X (mm)	-70.0839 to 71.8696
Bounding Box - Y (mm)	-14 to 6
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	839755.7822
Moments of inertia - Y (mm <sup>4</sup> )	329762.1815
Product of inertia - XY (mm <sup>4</sup> )	-245061.6694
Radius of gyration - X (mm)	26.3362
Radius of gyration - Y (mm)	18.4197
Principal moments along X-Y (mm <sup>4</sup> )	914226.1273 along (0.9947 0.1032)
Principal moments along X-X (mm <sup>4</sup> )	331274.8263 along (-0.1032 0.9947)
Elastic Modulus - 2x (mm <sup>2</sup> )	I / y-max= 2106.3031
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 45718.4378

PROPERTIES



MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	512
Perimeter (mm)	256
Bounding Box - X (mm)	-20 to 24
Bounding Box - Y (mm)	-13 to 27
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	51939
Moments of inertia - Y (mm <sup>4</sup> )	111779
Product of inertia - XY (mm <sup>4</sup> )	30688
Radius of gyration - X (mm)	10
Radius of gyration - Y (mm)	15
Principal moments along X-Y (mm <sup>4</sup> )	38655 along (1 0)
Principal moments along X-X (mm <sup>4</sup> )	124862 along (0 1)
Elastic Modulus - 2x (mm <sup>2</sup> )	I / y-max= 1261
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 4633

PROPERTIES



MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1403.6618
Perimeter (mm)	589.9514
Bounding Box - X (mm)	-36.4894 to 39.5131
Bounding Box - Y (mm)	-39.5131 to 36.4894
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	1023673.5154
Moments of inertia - Y (mm <sup>4</sup> )	1023673.5154
Product of inertia - XY (mm <sup>4</sup> )	-6712.3488
Radius of gyration - X (mm)	27.0053
Radius of gyration - Y (mm)	27.0053
Principal moments along X-Y (mm <sup>4</sup> )	1019602.2023 along (0.7071 -0.7072)
Principal moments along X-X (mm <sup>4</sup> )	1033506.8003 along (0.7072 0.7071)
Elastic Modulus - 2x (mm <sup>2</sup> )	I / y-max= 2507.2046
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 2507.1725

PROPERTIES

MODEL NO.: X86121  
FINISH: PVF2-3COATING ALUM. DOOR FRAME (B31)

GRADE 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	612.7500
Perimeter (mm)	414.1589
Bounding Box - X (mm)	-23.4103 to 20.5897
Bounding Box - Y (mm)	-49.5623 to 50.6877
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	854607.0307
Moments of inertia - Y (mm <sup>4</sup> )	46265.9107
Product of inertia - XY (mm <sup>4</sup> )	-10972.3092
Radius of gyration - X (mm)	37.4505
Radius of gyration - Y (mm)	8.6584
Principal moments along X-Y (mm <sup>4</sup> )	859562.3756 along (0.9999 -0.0134)
Principal moments along Y-X (mm <sup>4</sup> )	46103.5658 along (0.0134 0.9999)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 1094.9333
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 1978.3079

PROPERTIES

MODEL NO.: X86192  
FINISH: PVF2-3COATING ALUM. ADAPTER (B37)

GRADE 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1686.0000
Perimeter (mm)	848.0000
Bounding Box - X (mm)	-25.6132 to 79.3868
Bounding Box - Y (mm)	-34.3868 to 30.6132
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	120587.5975
Moments of inertia - Y (mm <sup>4</sup> )	465229.2975
Product of inertia - XY (mm <sup>4</sup> )	-249637.5368
Radius of gyration - X (mm)	26.8584
Radius of gyration - Y (mm)	52.4038
Principal moments along X-Y (mm <sup>4</sup> )	1197484.6193 along (0.9974 0.0716)
Principal moments along Y-X (mm <sup>4</sup> )	4675170.5757 along (-0.0716 0.9974)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 3003.7957
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 58665.5217

PROPERTIES

MODEL NO.: X86238  
FINISH: PVF2-3COATING ALUM. WINDOW SILL (B48)

GRADE 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	341.6546
Perimeter (mm)	290.3449
Bounding Box - X (mm)	-24.0093 to 30.0530
Bounding Box - Y (mm)	-24.3446 to 40.6554
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	206801.8007
Moments of inertia - Y (mm <sup>4</sup> )	386349.6989
Product of inertia - XY (mm <sup>4</sup> )	19185.3192
Radius of gyration - X (mm)	24.6027
Radius of gyration - Y (mm)	10.5310
Principal moments along X-Y (mm <sup>4</sup> )	209985.7243 along (0.9934 0.1148)
Principal moments along Y-X (mm <sup>4</sup> )	35750.6133 along (-0.1148 0.9934)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 5086.0998
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 1265.5837

PROPERTIES

MODEL NO.: X86119  
FINISH: PVF2-3COATING ALUM. WINDOW SILL (B33)

GRADE 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1933.5371
Perimeter (mm)	1239.8999
Bounding Box - X (mm)	-59.4613 to 46.8687
Bounding Box - Y (mm)	-54.3894 to 70.6106
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	2049405.3174
Moments of inertia - Y (mm <sup>4</sup> )	1817507.9199
Product of inertia - XY (mm <sup>4</sup> )	-974927.6242
Radius of gyration - X (mm)	32.5565
Radius of gyration - Y (mm)	33.6597
Principal moments along X-Y (mm <sup>4</sup> )	2392576.6838 along (0.7477 -0.6641)
Principal moments along Y-X (mm <sup>4</sup> )	951696.3537 along (0.6641 0.7477)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 29034.0432
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 30556.7764

PROPERTIES

MODEL NO.: X86193  
FINISH: PVF2-3COATING ALUM. CORNER MULLION (B34)

GRADE 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	864.0000
Perimeter (mm)	576.0000
Bounding Box - X (mm)	-37.5000 to 37.5000
Bounding Box - Y (mm)	-37.5000 to 37.5000
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	747792.0000
Moments of inertia - Y (mm <sup>4</sup> )	747792.0000
Product of inertia - XY (mm <sup>4</sup> )	0.0000
Radius of gyration - X (mm)	29.4194
Radius of gyration - Y (mm)	29.4194
Principal moments along X-Y (mm <sup>4</sup> )	747792.0000 along (1.0000 0.0000)
Principal moments along Y-X (mm <sup>4</sup> )	747792.0000 along (0.0000 1.0000)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 19941.1200
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 19941.1200

PROPERTIES

MODEL NO.: X86115  
FINISH: PVF2-3COATING ALUM. SLIDING DOOR SASH (B35)

GRADE 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	841.5247
Perimeter (mm)	593.0335
Bounding Box - X (mm)	-76.9148 to 53.6135
Bounding Box - Y (mm)	-20.7595 to 20.2405
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	114734.9628
Moments of inertia - Y (mm <sup>4</sup> )	1074854.1941
Product of inertia - XY (mm <sup>4</sup> )	216116.6898
Radius of gyration - X (mm)	11.6765
Radius of gyration - Y (mm)	35.7389
Principal moments along X-Y (mm <sup>4</sup> )	683313.1500 along (0.9777 -0.2099)
Principal moments along Y-X (mm <sup>4</sup> )	1121257.8419 along (0.2099 0.9777)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 5526.8668
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 13974.6641

PROPERTIES

MODEL NO.: X86194  
FINISH: PVF2-3COATING ALUM. SLIDING DOOR BEAD (B36)

GRADE 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	75.1
Perimeter (mm)	135.9
Bounding Box - X (mm)	-8.8 to 10.1
Bounding Box - Y (mm)	-22.7 to 11.8
Centroid - X (mm)	0.0
Centroid - Y (mm)	0.0
Moments of inertia - X (mm <sup>4</sup> )	7490.0
Moments of inertia - Y (mm <sup>4</sup> )	3222.1
Product of inertia - XY (mm <sup>4</sup> )	-38.8
Radius of gyration - X (mm)	10.0
Radius of gyration - Y (mm)	6.8
Principal moments along X-Y (mm <sup>4</sup> )	7232.4 along (0.4 -0.6)
Principal moments along Y-X (mm <sup>4</sup> )	8499.8 along (0.6 0.4)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 330.6
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 300.3

PROPERTIES

MODEL NO.: X86116  
FINISH: PVF2-3COATING ALUM. SLIDING DOOR SILL (B37)

GRADE 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	2276.7161
Perimeter (mm)	1905.4418
Bounding Box - X (mm)	-71.9901 to 70.0545
Bounding Box - Y (mm)	-64.6502 to 70.3400
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	3221436.2387
Moments of inertia - Y (mm <sup>4</sup> )	3317945.8057
Product of inertia - XY (mm <sup>4</sup> )	-2053204.2793
Radius of gyration - X (mm)	37.6158
Radius of gyration - Y (mm)	36.1795
Principal moments along X-Y (mm <sup>4</sup> )	1218019.8024 along (0.7154 0.6986)
Principal moments along Y-X (mm <sup>4</sup> )	532562.2420 along (-0.6986 0.7154)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 40602.9162
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 46147.2666

PROPERTIES

MODEL NO.: X86117  
FINISH: PVF2-3COATING ALUM. HEAD (B38)

GRADE 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1715.5027
Perimeter (mm)	1180.5611
Bounding Box - X (mm)	-77.2863 to 61.6667
Bounding Box - Y (mm)	-76.9004 to 51.5996
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	178581.1160
Moments of inertia - Y (mm <sup>4</sup> )	304652.0609
Product of inertia - XY (mm <sup>4</sup> )	564926.2089
Radius of gyration - X (mm)	32.2887
Radius of gyration - Y (mm)	42.1414
Principal moments along X-Y (mm <sup>4</sup> )	1587244.0222 along (0.9342 -0.3568)
Principal moments along Y-X (mm <sup>4</sup> )	3628289.1747 along (0.3568 0.9342)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 2185.5066
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 39418.7638

PROPERTIES

MODEL NO.: X86111  
FINISH: PVF2-3COATING ALUM. WINDOW SILL (B39)

GRADE 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	990.1
Perimeter (mm)	804.0
Bounding Box - X (mm)	-31.4 to 33.6
Bounding Box - Y (mm)	-68.3 to 78.7
Centroid - X (mm)	0.0
Centroid - Y (mm)	0.0
Moments of inertia - X (mm <sup>4</sup> )	212713.2
Moments of inertia - Y (mm <sup>4</sup> )	74372.8
Product of inertia - XY (mm <sup>4</sup> )	-92483.1
Radius of gyration - X (mm)	46.4
Radius of gyration - Y (mm)	27.6
Principal moments along X-Y (mm <sup>4</sup> )	23589.0 along (0.1 -1.0)
Principal moments along Y-X (mm <sup>4</sup> )	213468.9 along (1.0 0.1)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 2022.2
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 22128.4

PROPERTIES

MODEL NO.: X86111  
FINISH: PVF2-3COATING ALUM. WINDOW SILL (B39)

GRADE 6063-T6

PROPERTIES

MODEL NO.: X86119  
FINISH: PVF2-3COATING ALUM. WINDOW FRAME (B40)

GRADE 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	306
Perimeter (mm)	318
Bounding Box - X (mm)	9320 to 9374
Bounding Box - Y (mm)	-3897 to -3862
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	29404
Moments of inertia - Y (mm <sup>4</sup> )	33588
Product of inertia - XY (mm <sup>4</sup> )	-8524
Radius of gyration - X (mm)	26
Radius of gyration - Y (mm)	19
Principal moments along X-Y (mm <sup>4</sup> )	33190 along (0 -1)
Principal moments along Y-X (mm <sup>4</sup> )	204450 along (1 0)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 92
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 4

PROPERTIES

MODEL NO.: X86196  
FINISH: PVF2-3COATING ALUM. SLIDING DOOR SASH (B41)

GRADE 6063-T6

MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	191
Perimeter (mm)	246
Bounding Box - X (mm)	-28 to 37
Bounding Box - Y (mm)	-17 to 4
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	4284
Moments of inertia - Y (mm <sup>4</sup> )	12057
Product of inertia - XY (mm <sup>4</sup> )	3655
Radius of gyration - X (mm)	6
Radius of gyration - Y (mm)	35
Principal moments along X-Y (mm <sup>4</sup> )	3919 along (1 0)
Principal moments along Y-X (mm <sup>4</sup> )	12648 along (0 1)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 12
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 387

B.D. REF :

F.S.D. REF :

Note :

- All dimensions are in mm.
- All elevations are viewed from outside.
- All dimensions to be verified on site before fabrication.

GENERAL NOTES

Legend :

- F.F.L.-- Finished Floor Level
- S.F.L.-- Structural Floor Level
- (R) -- Reversed Detail

X1 -- DETAIL MARK NO.  
X001 -- REFER SHEET NO.

NO.	DATE	REVISED	BY
E	06.04.2022		
D	01.02.2022		
C	06.01.2022		
B	08.12.2021		
A	28.10.2021		

CLIENT : MARBLE EDGE INVESTMENT LTD.

ARCHITECT : RONALD LU & PARTNERS ARCHITECTS | PLANNERS | INTERIOR DESIGNERS

STRUCTURAL ENGINEER : CMA C-M WONG & ASSOCIATES LTD

MAIN CONTRACTOR : 裕民建築有限公司

美特鋁質有限公司  
MIDI ALUMINIUM FABRICATOR LTD.  
Units 6-B, Sunray Industrial Centre, 1/F  
610 Cha Kwo Ling Road, Kowloon  
Tel: 23469211-4 Fax: (852) 27727666

PROJECT : PROPOSED RESIDENTIAL DEVELOPMENT AT NEW KOWLOON INLAND LOT. NO.6552

TITLE : SECTION PROPERTIES

JOB NO. : J-857

DRAWN BY : AN DATE : 18.OCT.2021

CHKD BY : SCALE A1: AS: 1:3

DWG. NO. : J857-IW-0005 REV. : E



美特鋁質有限公司  
MIDI ALUMINIUM FABRICATOR LTD.

Our ref. MC/41353/857

8<sup>th</sup> July 2022

E Man Construction Co. Ltd.  
29/F, AIA Tower, 183 Electric Road,  
North Point, Hong Kong

By Email & Hand

Attn.: Mr. Adam Wong

Dear Sir,

**Re: Design, Supply & Installation of Curtain Wall, Windows, Cladding and Glass Door for Residential Towers for Proposed Residential Development at NKIL6552, Area 4C, Site 2, Kai Tak, Kowloon**  
**Material Submission of Aluminium Extrusion Sample for French Door, Window and Louver (In-situ)**

Regarding the captioned project, we would like to submit 1 set of Aluminium Extrusion (Xingfa) sample boards for Glass French Door, Window and Louver for your comment and approval.

Remark:

1) 1 set of Aluminium Extrusion (Xingfa) sample boards will be delivered to Mr. Gareth Chan directly.

(Address: 九龍城區承豐道啟德 6552 地盤 (維港一號對面), 陳先生收, TEL: 6533 2451)

Should you have any query, please don't hesitate to liaise with us for information.

Thank you for your kind attention.

Yours faithfully,  
MIDI ALUMINIUM FABRICATOR LTD.

Francis Mau  
Managing Director

Encl - 6 page(s)

cc. E Man - Mr. Wilson Kwan / Mr. Alex Lee / Mr. Gareth Chan (w/e) (Email Only)

FM/MT/HWS/JK/JW/yl

Project : Proposed Residential Development at NK11552,  
Area 4C, Site 2, Kai Tak, Kowloon  
Subject : Aluminium Extrusion Sample for French Door, Window  
and Louver (In-situ)  
Brand : Xingfa  
Location : French Door, Window and Louver (In-situ)  
Letter ref. : MC/41353/857  
Date : 18<sup>th</sup> July 2022



X86112



X86113



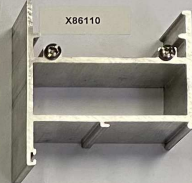
X86114



X86181



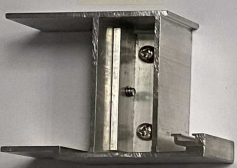
X86184



X86110



X86111



X86127



X86027



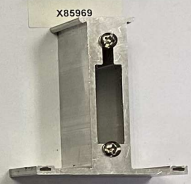
X86179



X86186



X86177



X85969



X86188



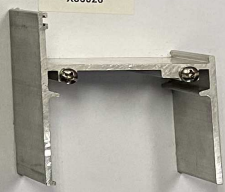
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X86180



X86183



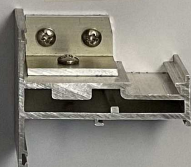
X86026



X85970



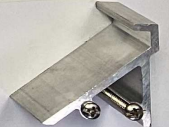
X86182



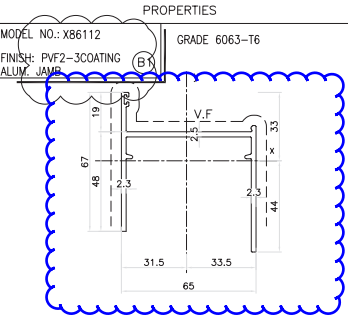
X86025



X86037

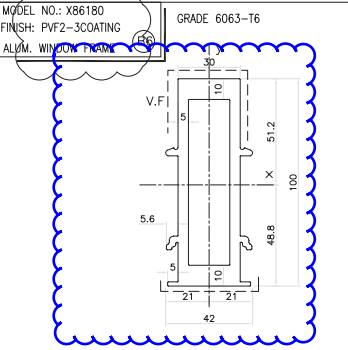


X86107



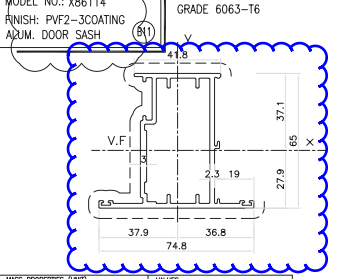
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	457.6301
Perimeter (mm)	399.3204
Bounding Box - X (mm)	-31.4575 to 33.5425
Bounding Box - Y (mm)	-44.0171 to 32.9829
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	152218.2426
Moments of inertia - Y (mm <sup>4</sup> )	34454.1765
Product of inertia - XY (mm <sup>4</sup> )	-5794.1529
Radius of gyration - X (mm)	18.2380
Radius of gyration - Y (mm)	27.1448
Principal moments along X-Y (mm <sup>4</sup> )	156139.4536 along (0.9636 -0.2675)
Principal moments along X-X (mm <sup>4</sup> )	36623.0014 along (0.2675 0.9636)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 5458.1633
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 10277.8347

PROPERTIES

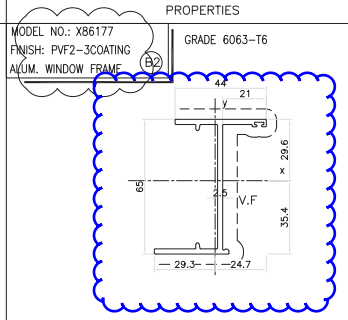


MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1504.0360
Perimeter (mm)	529.4938
Bounding Box - X (mm)	-31.4575 to 21.0041
Bounding Box - Y (mm)	-48.7872 to 51.2128
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	1740251.2474
Moments of inertia - Y (mm <sup>4</sup> )	224418.8237
Product of inertia - XY (mm <sup>4</sup> )	0.0000
Radius of gyration - X (mm)	34.0155
Radius of gyration - Y (mm)	11.6189
Principal moments along X-Y (mm <sup>4</sup> )	20474.8237 along (0.0000 -1.0000)
Principal moments along X-X (mm <sup>4</sup> )	1740251.2474 along (1.0000 0.0000)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 3398.7679
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 9735.0088

PROPERTIES

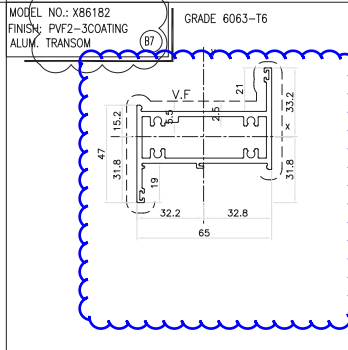


MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	608.0126
Perimeter (mm)	682.9483
Bounding Box - X (mm)	-37.9127 to 36.8472
Bounding Box - Y (mm)	-27.8742 to 37.0996
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	205927.9049
Moments of inertia - Y (mm <sup>4</sup> )	58203.9155
Product of inertia - XY (mm <sup>4</sup> )	8836.7289
Radius of gyration - X (mm)	24.2986
Radius of gyration - Y (mm)	17.6207
Principal moments along X-Y (mm <sup>4</sup> )	175005.1153 along (0.0533 0.9986)
Principal moments along X-X (mm <sup>4</sup> )	360122.9811 along (-0.9986 0.0533)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 6622.7677
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 4635.1284



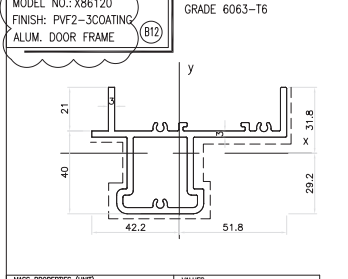
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	328.3235
Perimeter (mm)	304.6785
Bounding Box - X (mm)	-28.5387 to 24.6713
Bounding Box - Y (mm)	-33.3550 to 28.6450
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	214409.2904
Moments of inertia - Y (mm <sup>4</sup> )	31459.4852
Product of inertia - XY (mm <sup>4</sup> )	-8336.3420
Radius of gyration - X (mm)	25.6329
Radius of gyration - Y (mm)	13.9186
Principal moments along X-Y (mm <sup>4</sup> )	26295.9753 along (0.1641 0.9864)
Principal moments along X-X (mm <sup>4</sup> )	219817.8002 along (-0.9864 0.1641)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 6064.4756
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 1072.6509

PROPERTIES

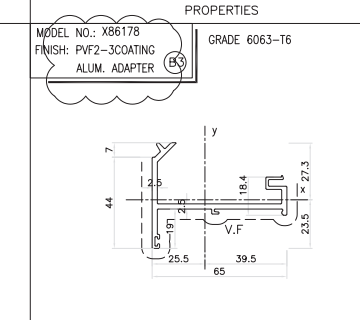


MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	617.7749
Perimeter (mm)	525.1518
Bounding Box - X (mm)	-31.1533 to 32.8167
Bounding Box - Y (mm)	-31.8417 to 33.1583
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	105994.6328
Moments of inertia - Y (mm <sup>4</sup> )	355004.5098
Product of inertia - XY (mm <sup>4</sup> )	-59287.7099
Radius of gyration - X (mm)	13.0861
Radius of gyration - Y (mm)	23.8169
Principal moments along X-Y (mm <sup>4</sup> )	92096.1307 along (0.9747 0.2236)
Principal moments along X-X (mm <sup>4</sup> )	364007.0118 along (-0.2236 0.9747)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 3387.5761
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 10677.7568

PROPERTIES

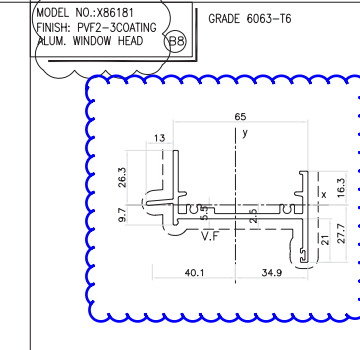


MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	819.8345
Perimeter (mm)	545.6532
Bounding Box - X (mm)	-40.1927 to 51.8073
Bounding Box - Y (mm)	-29.2560 to 31.7640
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	238410.9920
Moments of inertia - Y (mm <sup>4</sup> )	582041.4137
Product of inertia - XY (mm <sup>4</sup> )	-80663.8606
Radius of gyration - X (mm)	17.0550
Radius of gyration - Y (mm)	24.5991
Principal moments along X-Y (mm <sup>4</sup> )	210956.0612 along (0.9648 0.2631)
Principal moments along X-X (mm <sup>4</sup> )	607496.3445 along (-0.2631 0.9648)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 7502.6243
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 11196.1426



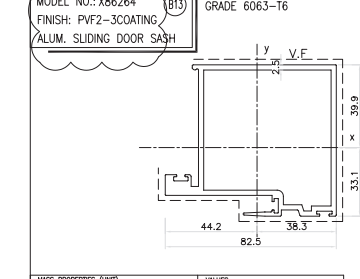
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	337.6438
Perimeter (mm)	317.6410
Bounding Box - X (mm)	-25.5077 to 39.4923
Bounding Box - Y (mm)	-33.3550 to 28.6450
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	33122.5305
Moments of inertia - Y (mm <sup>4</sup> )	191969.5983
Product of inertia - XY (mm <sup>4</sup> )	-4864.5863
Radius of gyration - X (mm)	9.9045
Radius of gyration - Y (mm)	23.8444
Principal moments along X-Y (mm <sup>4</sup> )	32827.2374 along (0.9991 -0.0430)
Principal moments along X-X (mm <sup>4</sup> )	192284.8515 along (0.0430 0.9991)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 1291.7985
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 4860.9287

PROPERTIES

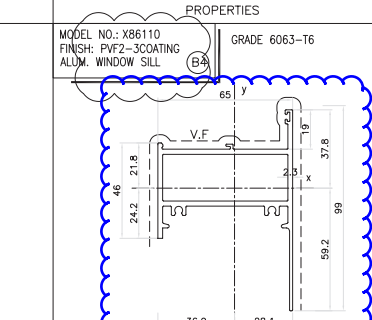


MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	435
Perimeter (mm)	401
Bounding Box - X (mm)	-9.008 to 9.986
Bounding Box - Y (mm)	-39.28 to -38.54
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	75305
Moments of inertia - Y (mm <sup>4</sup> )	304444
Product of inertia - XY (mm <sup>4</sup> )	-49602
Radius of gyration - X (mm)	13
Radius of gyration - Y (mm)	28
Principal moments along X-Y (mm <sup>4</sup> )	56134 along (1 0)
Principal moments along X-X (mm <sup>4</sup> )	364007.0118 along (0 1)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 32
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 32

PROPERTIES

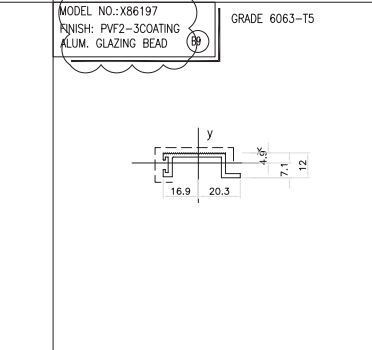


MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	843.2682
Perimeter (mm)	642.2552
Bounding Box - X (mm)	-44.4492 to 38.2508
Bounding Box - Y (mm)	-33.0796 to 39.9205
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	589205.2697
Moments of inertia - Y (mm <sup>4</sup> )	68842.7165
Product of inertia - XY (mm <sup>4</sup> )	-44849.1534
Radius of gyration - X (mm)	28.4331
Radius of gyration - Y (mm)	27.0453
Principal moments along X-Y (mm <sup>4</sup> )	565873.1289 along (0.8339 0.4484)
Principal moments along X-X (mm <sup>4</sup> )	891869.4194 along (-0.4484 0.8339)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 14759.5374
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 14882.5040



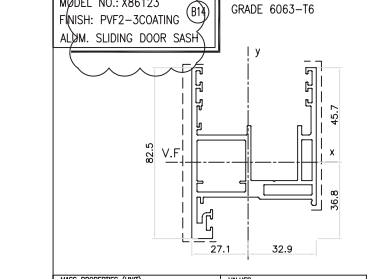
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	652
Perimeter (mm)	564
Bounding Box - X (mm)	-37 to 28
Bounding Box - Y (mm)	-59 to 38
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	232109
Moments of inertia - Y (mm <sup>4</sup> )	401611
Product of inertia - XY (mm <sup>4</sup> )	33257
Radius of gyration - X (mm)	19
Radius of gyration - Y (mm)	28
Principal moments along X-Y (mm <sup>4</sup> )	226837 along [0 0]
Principal moments along X-X (mm <sup>4</sup> )	406883 along [0 1]
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 3209
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 10930

PROPERTIES

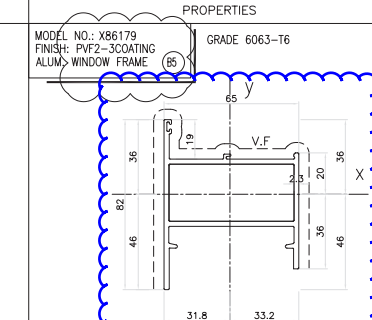


MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	140
Perimeter (mm)	140
Bounding Box - X (mm)	-17 to 20
Bounding Box - Y (mm)	-7 to 6
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	1248
Moments of inertia - Y (mm <sup>4</sup> )	1603
Product of inertia - XY (mm <sup>4</sup> )	1405
Radius of gyration - X (mm)	4
Radius of gyration - Y (mm)	12
Principal moments along X-Y (mm <sup>4</sup> )	1814 along [1 0]
Principal moments along X-X (mm <sup>4</sup> )	16753 along [0 1]
Elastic Modulus - 2x (mm <sup>2</sup> )	J / y-max= 215
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 820

PROPERTIES

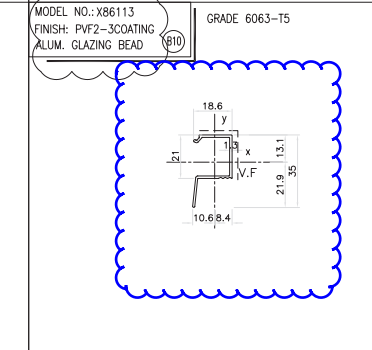


MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	866.9237
Perimeter (mm)	737.2665
Bounding Box - X (mm)	-27.1468 to 32.8532
Bounding Box - Y (mm)	-36.8109 to 45.6891
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	369725.7988
Moments of inertia - Y (mm <sup>4</sup> )	444674.9649
Product of inertia - XY (mm <sup>4</sup> )	-13068.5143
Radius of gyration - X (mm)	20.5674
Radius of gyration - Y (mm)	22.4328
Principal moments along X-Y (mm <sup>4</sup> )	322777.9489 along (0.8517 0.5719)
Principal moments along X-X (mm <sup>4</sup> )	480272.8147 along (-0.5158 0.8519)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 8206.1536
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 13516.9341

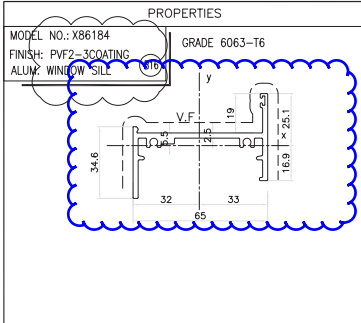


MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	2277.2
Perimeter (mm)	368.8
Bounding Box - X (mm)	-31.8 to 33.2
Bounding Box - Y (mm)	-46.0 to 36.0
Centroid - X (mm)	0.0
Centroid - Y (mm)	0.0
Moments of inertia - X (mm <sup>4</sup> )	310611.3
Moments of inertia - Y (mm <sup>4</sup> )	890500.8
Product of inertia - XY (mm <sup>4</sup> )	-14572.2
Radius of gyration - X (mm)	11.7
Radius of gyration - Y (mm)	19.8
Principal moments along X-Y (mm <sup>4</sup> )	310044.2 along (1.0 0.0)
Principal moments along X-X (mm <sup>4</sup> )	890477.0 along (0.0 1.0)
Elastic Modulus - 2x (mm <sup>2</sup> )	1.7 / y-max= 4746.0
Elastic Modulus - 2y (mm <sup>2</sup> )	J / x-max= 22940.3

PROPERTIES

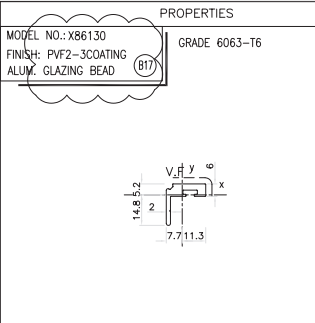


MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	78.1693
Perimeter (mm)	141.9027
Bounding Box - X (mm)	-10.5968 to 6.4032
Bounding Box - Y (mm)	-21.8570 to 13.1430
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	8604.3592
Moments of inertia - Y (mm <sup>4</sup> )	3602.7227</



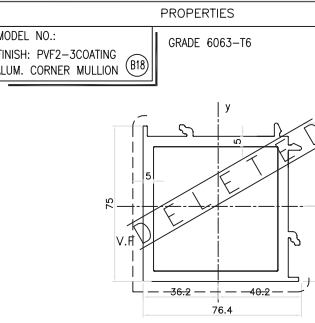
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	386.8018
Perimeter (mm)	261.7503
Bounding Box - X (mm)	-31.8498 to 33.0352
Bounding Box - Y (mm)	-41.8746 to 25.1279
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	57372.4408
Moments of inertia - Y (mm <sup>4</sup> )	27244.4719
Product of inertia - XY (mm <sup>4</sup> )	63661.6272
Radius of gyration - X (mm)	12.0244
Radius of gyration - Y (mm)	25.4667
Principal moments along X-Y (mm <sup>4</sup> )	43892.7562 along (0.9698 0.2438)
Principal moments along Y-X (mm <sup>4</sup> )	27086.0973 along (-0.2438 0.9698)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 370.1000
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / I x-max= 7790.0592

PROPERTIES



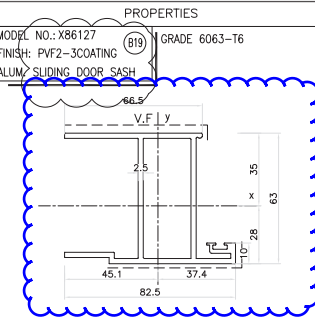
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	118.6294
Perimeter (mm)	87.3417
Bounding Box - X (mm)	-27.6645 to 11.3355
Bounding Box - Y (mm)	-14.7578 to 5.2425
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	2814.7570
Moments of inertia - Y (mm <sup>4</sup> )	4430.0763
Product of inertia - XY (mm <sup>4</sup> )	1587.0893
Radius of gyration - X (mm)	4.9189
Radius of gyration - Y (mm)	6.1740
Principal moments along X-Y (mm <sup>4</sup> )	1479.9423 along (0.8301 0.5576)
Principal moments along Y-X (mm <sup>4</sup> )	5772.8930 along (-0.5576 0.8301)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 197.7001
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / I x-max= 391.5190

PROPERTIES



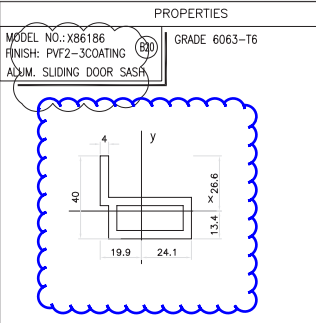
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1388.5989
Perimeter (mm)	391.9072
Bounding Box - X (mm)	-35.1916 to 40.2084
Bounding Box - Y (mm)	-36.1922 to 40.2078
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	101955.0686
Moments of inertia - Y (mm <sup>4</sup> )	101955.1716
Product of inertia - XY (mm <sup>4</sup> )	1587.0893
Radius of gyration - X (mm)	26.9994
Radius of gyration - Y (mm)	26.9992
Principal moments along X-Y (mm <sup>4</sup> )	100333.9814 along (0.7089 -0.7073)
Principal moments along Y-X (mm <sup>4</sup> )	103571.8057 along (0.7073 0.7089)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 25368.0716
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / I x-max= 25355.7863

PROPERTIES



MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	720.6376
Perimeter (mm)	562.4042
Bounding Box - X (mm)	-45.9630 to 37.4370
Bounding Box - Y (mm)	-27.9663 to 35.0437
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	46411.9169
Moments of inertia - Y (mm <sup>4</sup> )	31480.8021
Product of inertia - XY (mm <sup>4</sup> )	7584.0494
Radius of gyration - X (mm)	24.7213
Radius of gyration - Y (mm)	20.8688
Principal moments along X-Y (mm <sup>4</sup> )	477555.1373 along (0.9025 0.4307)
Principal moments along Y-X (mm <sup>4</sup> )	27790.5817 along (-0.4307 0.9025)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 12567.6997
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / I x-max= 6977.7192

PROPERTIES



MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	512
Perimeter (mm)	256
Bounding Box - X (mm)	-20 to 24
Bounding Box - Y (mm)	-13 to 27
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	51939
Moments of inertia - Y (mm <sup>4</sup> )	117799
Product of inertia - XY (mm <sup>4</sup> )	30688
Radius of gyration - X (mm)	10
Radius of gyration - Y (mm)	15
Principal moments along X-Y (mm <sup>4</sup> )	38655 along [1 0]
Principal moments along Y-X (mm <sup>4</sup> )	124862 along [0 1]
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 1261
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / I x-max= 4633

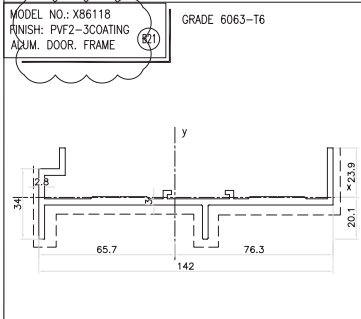
PROPERTIES

B.D. REF :  
 F.S.D. REF :  
 Note :  
 1. All dimensions are in mm.  
 2. All elevations are viewed from outside.  
 3. All dimensions to be verified on site before fabrication.

GENERAL NOTES

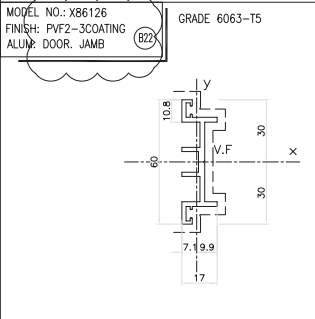
Legend :  
 1. F.F.L. -- Finished Floor Level  
 2. S.F.L. -- Structural Floor Level  
 3. (R) -- Reversed Detail

X1 -- DETAIL MARK NO.  
 X001 -- REFER SHEET NO.



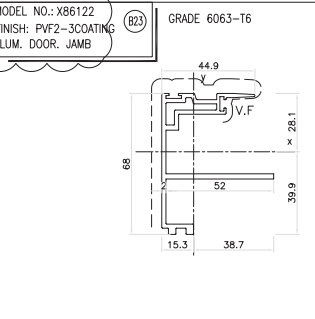
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	761.3656
Perimeter (mm)	499.5339
Bounding Box - X (mm)	-65.6614 to 76.2921
Bounding Box - Y (mm)	-20.1480 to 23.8520
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	4707.5152
Moments of inertia - Y (mm <sup>4</sup> )	175403.0921
Product of inertia - XY (mm <sup>4</sup> )	-12796.1029
Radius of gyration - X (mm)	47.2664
Radius of gyration - Y (mm)	41.8979
Principal moments along X-Y (mm <sup>4</sup> )	4892.5970 along [1.0000 0.0070]
Principal moments along Y-X (mm <sup>4</sup> )	175406.9704 along [-0.0070 1.0000]
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 1911.2224
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / I x-max= 22990.6143

PROPERTIES



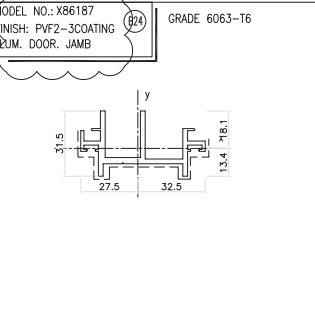
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	256.9155
Perimeter (mm)	246.1841
Bounding Box - X (mm)	-13.3399 to 38.6601
Bounding Box - Y (mm)	-30.9000 to 30.0000
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	78744.1990
Moments of inertia - Y (mm <sup>4</sup> )	44752.9242
Product of inertia - XY (mm <sup>4</sup> )	-18071.6610
Radius of gyration - X (mm)	21.4079
Radius of gyration - Y (mm)	14.8478
Principal moments along X-Y (mm <sup>4</sup> )	224390.2797 along (0.9915 -0.1301)
Principal moments along Y-X (mm <sup>4</sup> )	99837.8803 along (0.1301 0.9915)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 5075.9982
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / I x-max= 2636.6633

PROPERTIES



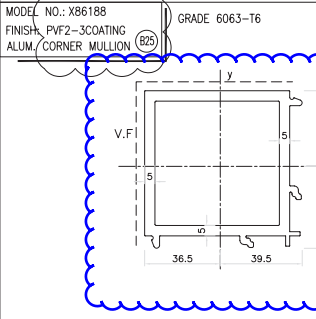
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	485.0154
Perimeter (mm)	458.1533
Bounding Box - X (mm)	-15.3399 to 38.6601
Bounding Box - Y (mm)	-30.9639 to 28.1361
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	222280.9428
Moments of inertia - Y (mm <sup>4</sup> )	101941.5168
Product of inertia - XY (mm <sup>4</sup> )	-16071.6610
Radius of gyration - X (mm)	21.4079
Radius of gyration - Y (mm)	14.8478
Principal moments along X-Y (mm <sup>4</sup> )	224390.2797 along (0.9915 -0.1301)
Principal moments along Y-X (mm <sup>4</sup> )	99837.8803 along (0.1301 0.9915)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 5075.9982
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / I x-max= 2636.6633

PROPERTIES



MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	351.0259
Perimeter (mm)	312.8257
Bounding Box - X (mm)	-27.4954 to 32.5046
Bounding Box - Y (mm)	-13.5110 to 18.0890
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	18552.3096
Moments of inertia - Y (mm <sup>4</sup> )	102931.5810
Product of inertia - XY (mm <sup>4</sup> )	-6061.7860
Radius of gyration - X (mm)	7.0699
Radius of gyration - Y (mm)	11.5665
Principal moments along X-Y (mm <sup>4</sup> )	18144.8205 along (0.9927 -0.0697)
Principal moments along Y-X (mm <sup>4</sup> )	102927.1217 along (0.0697 0.9927)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 1026.6115
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / I x-max= 3332.4358

PROPERTIES



MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1403.6618
Perimeter (mm)	589.5514
Bounding Box - X (mm)	-36.4894 to 39.5131
Bounding Box - Y (mm)	-39.5131 to 36.4894
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	1023675.5154
Moments of inertia - Y (mm <sup>4</sup> )	1023675.5154
Product of inertia - XY (mm <sup>4</sup> )	-6712.3488
Radius of gyration - X (mm)	27.0053
Radius of gyration - Y (mm)	27.0053
Principal moments along X-Y (mm <sup>4</sup> )	101660.2023 along (0.7071 -0.7072)
Principal moments along Y-X (mm <sup>4</sup> )	101660.2023 along (0.7072 0.7071)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 2507.2046
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / I x-max= 2507.1725

PROPERTIES

NO.	DATE	REVISED	BY
E	06.04.2022		
D	09.02.2022		
C	06.01.2022		
B	08.12.2021		
A	28.10.2021		

CLIENT : MARBLE EDGE INVESTMENT LTD.

ARCHITECT : RONALD LU & PARTNERS ARCHITECTS | PLANNERS | INTERIOR DESIGNERS

STRUCTURAL ENGINEER : CMA CHAM WONG & ASSOCIATES LTD

MAIN CONTRACTOR : 裕民建築有限公司

美特鋁質有限公司  
 MIDI ALUMINIUM FABRICATOR LTD.  
 Units 6-B, Sunray Industrial Centre, 1/F  
 610 Cho Kwo Ling Road, Kowloon  
 Tel:23469211-4 Fax:8522727666

PROJECT : PROPOSED RESIDENTIAL DEVELOPMENT AT NEW KWLOON INLAND LOT. NO.6552

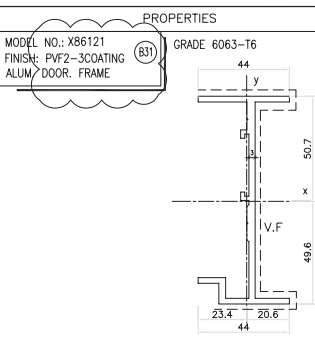
TITLE : SECTION PROPERTIES

JOB NO. : J-857

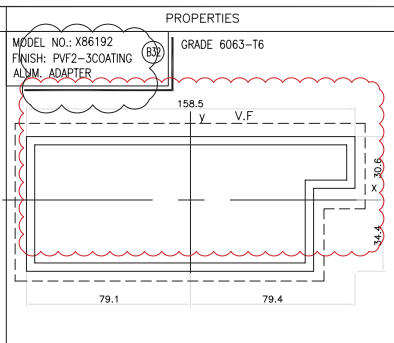
DRAWN BY : AN DATE : 18.OCT.2021

CHKD BY : SCALE : A1: 1:3

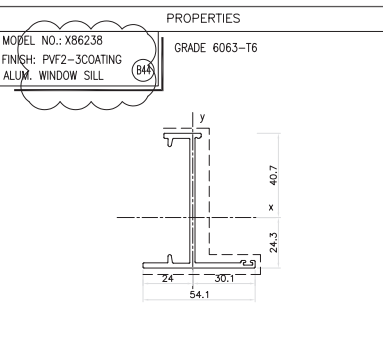
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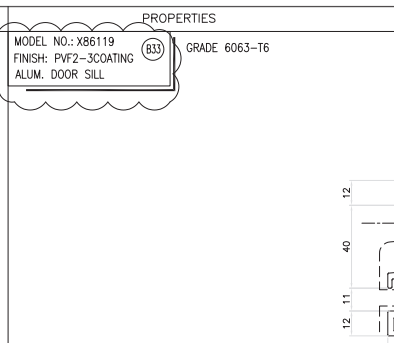
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	612.7500
Perimeter (mm)	414.1568
Bounding Box - X (mm)	-23.4103 to 20.5897
Bounding Box - Y (mm)	-49.5623 to 50.6877
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	859407.0307
Moments of inertia - Y (mm <sup>4</sup> )	46265.9107
Product of inertia - XY (mm <sup>4</sup> )	-10972.5092
Radii of gyration - X (mm)	37.4505
Radii of gyration - Y (mm)	6.6694
Principal moments along X-Y (mm <sup>4</sup> )	859562.3756 along (0.9999 -0.0134)
Principal moments along Y-X (mm <sup>4</sup> )	46120.5658 along (0.0134 0.9999)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 10594.9333
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 1978.3079



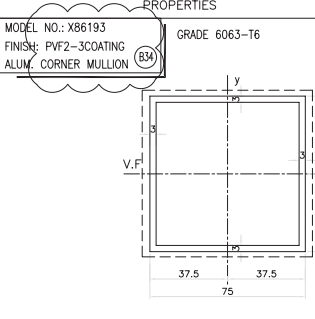
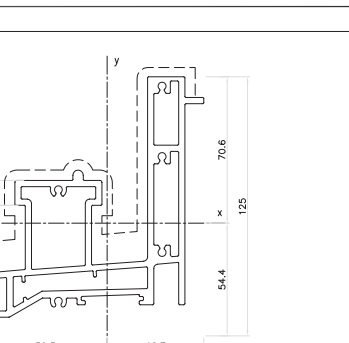
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1686.0000
Perimeter (mm)	848.0000
Bounding Box - X (mm)	-25.6132 to 79.3868
Bounding Box - Y (mm)	-34.3868 to 30.6132
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	1205367.5975
Moments of inertia - Y (mm <sup>4</sup> )	4652267.2975
Product of inertia - XY (mm <sup>4</sup> )	-249637.5368
Radii of gyration - X (mm)	26.6584
Radii of gyration - Y (mm)	52.4038
Principal moments along X-Y (mm <sup>4</sup> )	1197484.6193 along (0.9974 0.0716)
Principal moments along Y-X (mm <sup>4</sup> )	4675170.5757 along (-0.0716 0.9974)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 3003.7907
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 58665.5217



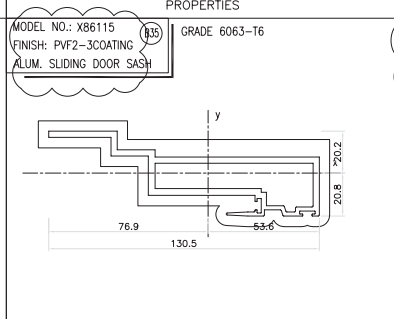
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	341.6546
Perimeter (mm)	290.3449
Bounding Box - X (mm)	-24.0093 to 30.0530
Bounding Box - Y (mm)	-24.3446 to 40.6554
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	206801.8007
Moments of inertia - Y (mm <sup>4</sup> )	386396.6969
Product of inertia - XY (mm <sup>4</sup> )	19185.5192
Radii of gyration - X (mm)	24.6027
Radii of gyration - Y (mm)	13.5510
Principal moments along X-Y (mm <sup>4</sup> )	209985.7243 along (0.9934 0.1148)
Principal moments along Y-X (mm <sup>4</sup> )	3570.6133 along (-0.1148 0.9934)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 5086.9998
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 1265.5837



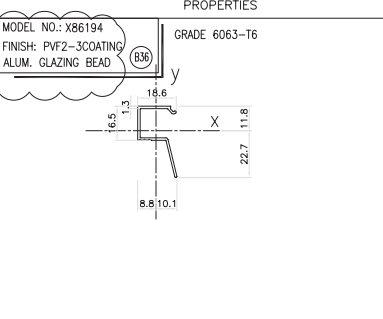
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1933.5371
Perimeter (mm)	1239.8999
Bounding Box - X (mm)	-59.4613 to 46.6687
Bounding Box - Y (mm)	-54.3894 to 70.6106
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	2049405.3174
Moments of inertia - Y (mm <sup>4</sup> )	1817503.9199
Product of inertia - XY (mm <sup>4</sup> )	-374902.6542
Radii of gyration - X (mm)	32.5665
Radii of gyration - Y (mm)	33.6597
Principal moments along X-Y (mm <sup>4</sup> )	2015276.6836 along (0.7477 -0.6641)
Principal moments along Y-X (mm <sup>4</sup> )	951696.3537 along (0.6641 0.7477)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 29024.0432
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 30566.7764



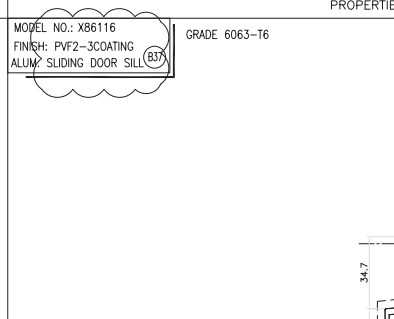
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	864.0000
Perimeter (mm)	576.0000
Bounding Box - X (mm)	-37.5000 to 37.5000
Bounding Box - Y (mm)	-37.5000 to 37.5000
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	747792.0000
Moments of inertia - Y (mm <sup>4</sup> )	747792.0000
Product of inertia - XY (mm <sup>4</sup> )	0.0000
Radii of gyration - X (mm)	29.4194
Radii of gyration - Y (mm)	29.4194
Principal moments along X-Y (mm <sup>4</sup> )	747792.0000 along (1.0000 0.0000)
Principal moments along Y-X (mm <sup>4</sup> )	747792.0000 along (0.0000 1.0000)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 19941.1200
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 19941.1200



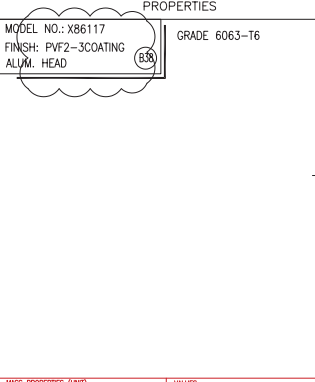
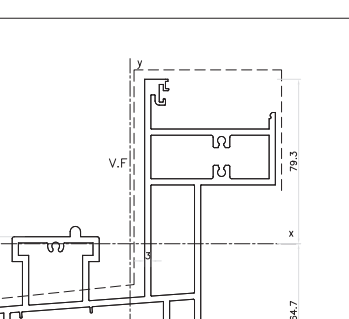
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	841.5247
Perimeter (mm)	593.0335
Bounding Box - X (mm)	-76.9148 to 53.6135
Bounding Box - Y (mm)	-20.7595 to 20.2405
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	114734.9628
Moments of inertia - Y (mm <sup>4</sup> )	1074854.1941
Product of inertia - XY (mm <sup>4</sup> )	216116.4898
Radii of gyration - X (mm)	11.6765
Radii of gyration - Y (mm)	35.7399
Principal moments along X-Y (mm <sup>4</sup> )	683313.1510 along (0.9377 -0.2099)
Principal moments along Y-X (mm <sup>4</sup> )	1121257.8419 along (0.2099 0.9377)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 5526.8608
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 13974.6641



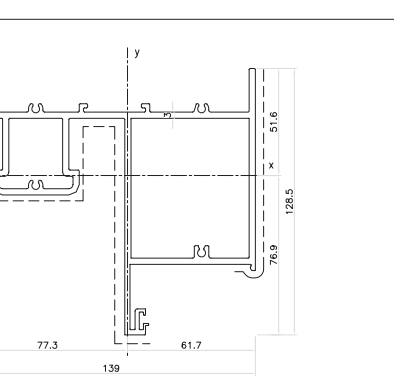
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	75.1
Perimeter (mm)	135.9
Bounding Box - X (mm)	-6.8 to 10.1
Bounding Box - Y (mm)	-22.7 to 11.8
Centroid - X (mm)	0.0
Centroid - Y (mm)	0.0
Moments of inertia - X (mm <sup>4</sup> )	7490.0
Moments of inertia - Y (mm <sup>4</sup> )	3222.1
Product of inertia - XY (mm <sup>4</sup> )	38.8
Radii of gyration - X (mm)	10.0
Radii of gyration - Y (mm)	10.0
Principal moments along X-Y (mm <sup>4</sup> )	7232.4 along (0.4 -0.9)
Principal moments along Y-X (mm <sup>4</sup> )	8499.8 along (0.9 0.4)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 330.6
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 330.3



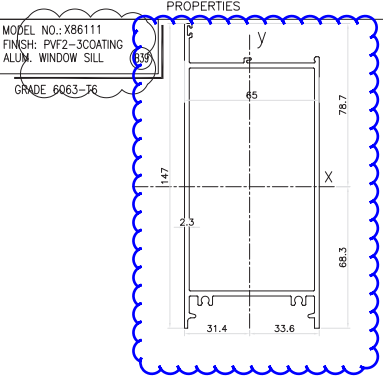
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	2278.7161
Perimeter (mm)	1505.4418
Bounding Box - X (mm)	-71.8991 to 70.0545
Bounding Box - Y (mm)	-64.6502 to 70.3400
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	3221436.2367
Moments of inertia - Y (mm <sup>4</sup> )	3317945.8057
Product of inertia - XY (mm <sup>4</sup> )	-2052024.2933
Radii of gyration - X (mm)	37.6158
Radii of gyration - Y (mm)	36.1795
Principal moments along X-Y (mm <sup>4</sup> )	1216819.8204 along (0.7154 0.6986)
Principal moments along Y-X (mm <sup>4</sup> )	5323562.2420 along (-0.6986 0.7154)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 40602.9162
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 46147.2666



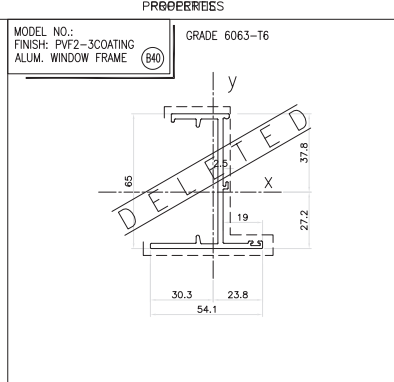
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1715.5027
Perimeter (mm)	1180.5611
Bounding Box - X (mm)	-77.2868 to 61.6667
Bounding Box - Y (mm)	-76.9004 to 51.5996
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	178581.1160
Moments of inertia - Y (mm <sup>4</sup> )	304652.0609
Product of inertia - XY (mm <sup>4</sup> )	564926.2089
Radii of gyration - X (mm)	32.2887
Radii of gyration - Y (mm)	42.1414
Principal moments along X-Y (mm <sup>4</sup> )	1587244.0222 along (0.9342 -0.3568)
Principal moments along Y-X (mm <sup>4</sup> )	3262289.1747 along (0.3568 0.9342)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 23185.5806
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 39418.7638



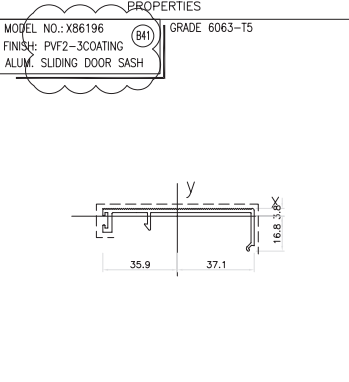
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	995.1
Perimeter (mm)	864.0
Bounding Box - X (mm)	-31.4 to 33.6
Bounding Box - Y (mm)	-68.3 to 78.7
Centroid - X (mm)	0.0
Centroid - Y (mm)	0.0
Moments of inertia - X (mm <sup>4</sup> )	212313.2
Moments of inertia - Y (mm <sup>4</sup> )	74372.9
Product of inertia - XY (mm <sup>4</sup> )	-92483.1
Radii of gyration - X (mm)	46.4
Radii of gyration - Y (mm)	27.6
Principal moments along X-Y (mm <sup>4</sup> )	23569.0 along (0.1 -1.0)
Principal moments along Y-X (mm <sup>4</sup> )	213446.5 along (1.0 0.1)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 2022.2
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 22128.4



MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	306
Perimeter (mm)	318
Bounding Box - X (mm)	9320 to 9374
Bounding Box - Y (mm)	-3927 to -3982
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	29404
Moments of inertia - Y (mm <sup>4</sup> )	33588
Product of inertia - XY (mm <sup>4</sup> )	-4824
Radii of gyration - X (mm)	26
Radii of gyration - Y (mm)	35
Principal moments along X-Y (mm <sup>4</sup> )	33190 along (0 -1)
Principal moments along Y-X (mm <sup>4</sup> )	204450 along (1 0)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 92
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 4



MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	139
Perimeter (mm)	246
Bounding Box - X (mm)	-28 to 37
Bounding Box - Y (mm)	-17 to 4
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	408
Moments of inertia - Y (mm <sup>4</sup> )	12057
Product of inertia - XY (mm <sup>4</sup> )	5
Radii of gyration - X (mm)	5
Radii of gyration - Y (mm)	35
Principal moments along X-Y (mm <sup>4</sup> )	393 along (1 0)
Principal moments along Y-X (mm <sup>4</sup> )	12058 along (0 1)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / I y-max= 12
Elastic Modulus - 2y (mm <sup>2</sup> )	I / x-max= 3387



B.D. REF :  
F.S.D. REF :  
Note :  
1.All dimensions are in mm.  
2.All elevations are viewed from outside.  
3.All dimensions to be verified on site before fabrication.

GENERAL NOTES

Legend :  
1. F.F.L.-- Finished Floor Level  
2. S.F.L.-- Structural Floor Level  
3. (R) -- Reversed Detail  
X1 -- DETAIL MARK NO.  
X001 -- REFER SHEET NO.

NO.	DATE	REVISED	BY
E	06.04.2022	GENERAL REVISION	
D	09.02.2022	GENERAL REVISION	
C	06.01.2022	GENERAL REVISION	
B	08.12.2021	GENERAL REVISION	
A	28.10.2021	GENERAL REVISION	

CLIENT :  
**MARBLE EDGE INVESTMENT LTD.**

ARCHITECT :  
**RONALD LU & PARTNERS**  
ARCHITECTS | PLANNERS | INTERIOR DESIGNERS

STRUCTURAL ENGINEER :  
**CMA C-M WONG & ASSOCIATES LTD**

MAIN CONTRACTOR :  
**裕民建築有限公司**

**美特鋁質有限公司**  
MIDI ALUMINIUM FABRICATOR LTD.  
Units 6-8, Sunray Industrial Centre, 1/F  
610 Cho Kwo Ling Road, Kowloon  
Tel:23489211-4 Fax:(852)27727666

PROJECT :  
PROPOSED RESIDENTIAL DEVELOPMENT AT  
NEW KOWLOON INLAND LOT.  
NO.6552

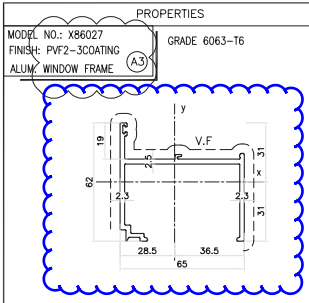
TITLE :  
SECTION PROPERTIES

JOB NO. : J-857

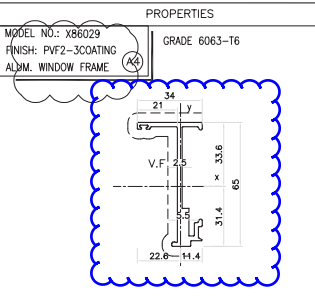
DRAWN BY : AN DATE : 18.OCT.2021

CHKD BY : SCALE A1: A3: 1:3

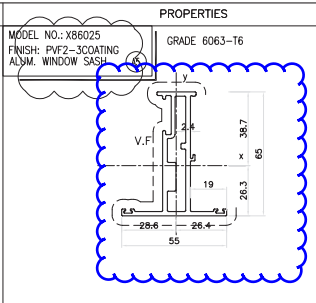
DWG. NO. : J857-IW-0005 REV. : E



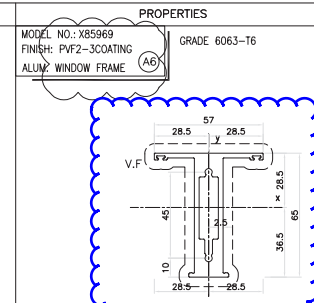
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	458.6462
Perimeter (mm)	384.9001
Bounding Box - X (mm)	-28.798 to 36.502
Bounding Box - Y (mm)	-33.023 to 33.9627
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	11407.7722
Moments of inertia - Y (mm <sup>4</sup> )	329934.9716
Product of inertia - XY (mm <sup>4</sup> )	-13265.5265
Radius of gyration - X (mm)	16.1573
Radius of gyration - Y (mm)	38.8889
Principal moments along X-Y (mm <sup>4</sup> )	13178.5889 along (0.9975 -0.0707)
Principal moments along Y-X (mm <sup>4</sup> )	320874.1538 along (0.0707 0.9975)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / y-max= 3675.1718
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / x-max= 6212.8409



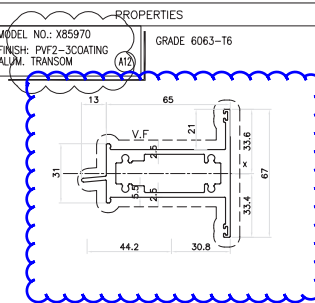
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	34.2488
Perimeter (mm)	25.6500
Bounding Box - X (mm)	-22.6121 to 11.3879
Bounding Box - Y (mm)	-26.5231 to 26.3878
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	251195.4445
Moments of inertia - Y (mm <sup>4</sup> )	14207.2815
Product of inertia - XY (mm <sup>4</sup> )	-24777.4027
Radius of gyration - X (mm)	23.8922
Radius of gyration - Y (mm)	43.2688
Principal moments along X-Y (mm <sup>4</sup> )	107978556 along (0.1292 -0.9918)
Principal moments along Y-X (mm <sup>4</sup> )	264249.8702 along (0.9918 0.1292)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / y-max= 5985.4259
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / x-max= 628.3041



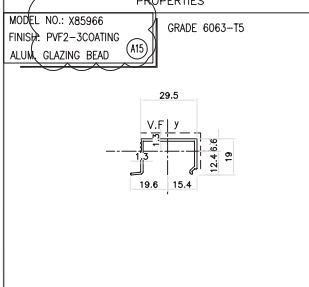
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	542.5192
Perimeter (mm)	444.4979
Bounding Box - X (mm)	-28.5960 to 26.4140
Bounding Box - Y (mm)	-26.5231 to 26.3878
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	245011.1638
Moments of inertia - Y (mm <sup>4</sup> )	45424.1443
Product of inertia - XY (mm <sup>4</sup> )	10453.2089
Radius of gyration - X (mm)	21.2611
Radius of gyration - Y (mm)	6.2653
Principal moments along X-Y (mm <sup>4</sup> )	44663.3309 along (0.0512 0.9987)
Principal moments along Y-X (mm <sup>4</sup> )	248936.9772 along (-0.9987 0.0512)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / y-max= 4622.5330
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / x-max= 1589.2112



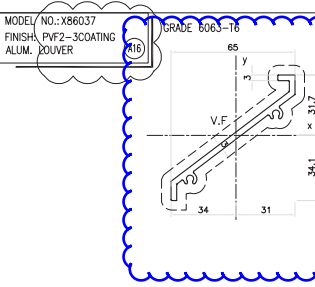
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	651.5270
Perimeter (mm)	397.0716
Bounding Box - X (mm)	-28.5000 to 28.5000
Bounding Box - Y (mm)	-34.5488 to 28.4516
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	377981.4477
Moments of inertia - Y (mm <sup>4</sup> )	51983.1924
Product of inertia - XY (mm <sup>4</sup> )	0.0000
Radius of gyration - X (mm)	23.8429
Radius of gyration - Y (mm)	6.8859
Principal moments along X-Y (mm <sup>4</sup> )	51983.1924 along (0.0000 1.0000)
Principal moments along Y-X (mm <sup>4</sup> )	377981.4477 along (-1.0000 0.0000)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / y-max= 1027.0396
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / x-max= 1820.8139



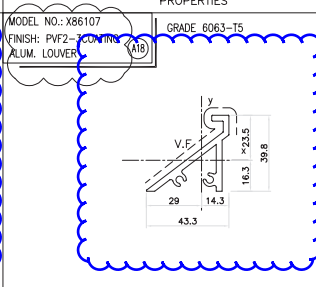
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	809
Perimeter (mm)	486
Bounding Box - X (mm)	9303 to 9381
Bounding Box - Y (mm)	-3353 to -3668
Centroid - X (mm)	0
Centroid - Y (mm)	0
Moments of inertia - X (mm <sup>4</sup> )	118930
Moments of inertia - Y (mm <sup>4</sup> )	512685
Product of inertia - XY (mm <sup>4</sup> )	3198
Radius of gyration - X (mm)	12
Radius of gyration - Y (mm)	25
Principal moments along X-Y (mm <sup>4</sup> )	178904 along [1 0]
Principal moments along Y-X (mm <sup>4</sup> )	512171 along [0 1]
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / y-max= 50
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / x-max= 55



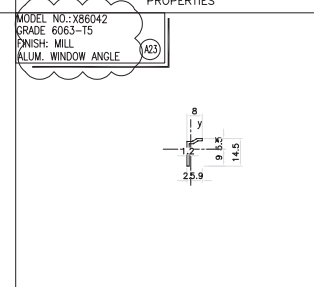
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	62.6649
Perimeter (mm)	143.6854
Bounding Box - X (mm)	-18.4114 to 15.8486
Bounding Box - Y (mm)	-12.5021 to 4.4979
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	3508.3383
Moments of inertia - Y (mm <sup>4</sup> )	12408.0176
Product of inertia - XY (mm <sup>4</sup> )	-868.2609
Radius of gyration - X (mm)	6.5369
Radius of gyration - Y (mm)	13.2117
Principal moments along X-Y (mm <sup>4</sup> )	2403.4369 along (0.9944 0.1060)
Principal moments along Y-X (mm <sup>4</sup> )	12561.9183 along (-0.1060 0.9944)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / y-max= 282.4940
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / x-max= 641.7894



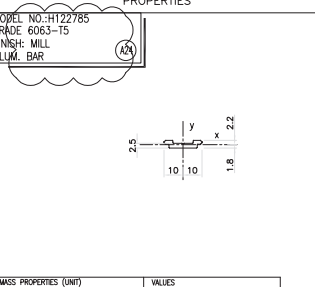
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	363.7380
Perimeter (mm)	244.3922
Bounding Box - X (mm)	-18.0719 to 30.0731
Bounding Box - Y (mm)	-34.0621 to 31.6922
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	115273.1588
Moments of inertia - Y (mm <sup>4</sup> )	132765.9402
Product of inertia - XY (mm <sup>4</sup> )	-18.4278
Radius of gyration - X (mm)	18.4278
Radius of gyration - Y (mm)	21.5319
Principal moments along X-Y (mm <sup>4</sup> )	2433.7324 along (0.7807 0.6849)
Principal moments along Y-X (mm <sup>4</sup> )	21312.9787 along (-0.6849 0.7807)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / y-max= 3397.4161
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / x-max= 4643.9234



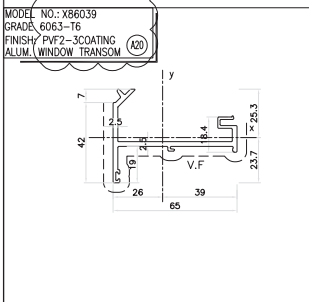
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	331.3788
Perimeter (mm)	227.5399
Bounding Box - X (mm)	-26.0719 to 14.3589
Bounding Box - Y (mm)	-16.7874 to 23.9790
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	40966.3128
Moments of inertia - Y (mm <sup>4</sup> )	44485.5898
Product of inertia - XY (mm <sup>4</sup> )	-25448.4038
Radius of gyration - X (mm)	11.2768
Radius of gyration - Y (mm)	13.3601
Principal moments along X-Y (mm <sup>4</sup> )	17188.3348 along (0.7316 0.6818)
Principal moments along Y-X (mm <sup>4</sup> )	48215.5318 along (-0.6818 0.7316)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / y-max= 1742.2540
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / x-max= 1535.0834



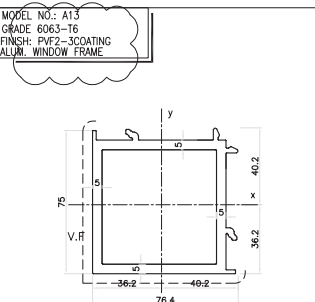
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	24.6521
Perimeter (mm)	42.7355
Bounding Box - X (mm)	-23.0550 to 8.9445
Bounding Box - Y (mm)	-8.9506 to 5.5404
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	482.2178
Moments of inertia - Y (mm <sup>4</sup> )	123.8644
Product of inertia - XY (mm <sup>4</sup> )	162.5258
Radius of gyration - X (mm)	4.4252
Radius of gyration - Y (mm)	2.4949
Principal moments along X-Y (mm <sup>4</sup> )	611.296 along (0.5607 0.8329)
Principal moments along Y-X (mm <sup>4</sup> )	54.9253 along (-0.8329 0.5607)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / y-max= 53.8214
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / x-max= 20.8367



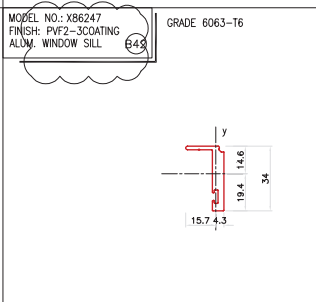
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	52.1517
Perimeter (mm)	48.3805
Bounding Box - X (mm)	-10.0000 to 10.0000
Bounding Box - Y (mm)	-1.7922 to 2.2078
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	62.3789
Moments of inertia - Y (mm <sup>4</sup> )	1602.0286
Product of inertia - XY (mm <sup>4</sup> )	0.0000
Radius of gyration - X (mm)	1.0790
Radius of gyration - Y (mm)	5.5425
Principal moments along X-Y (mm <sup>4</sup> )	603.780 along [1.0000 0.0000]
Principal moments along Y-X (mm <sup>4</sup> )	1602.0286 along [0.0000 1.0000]
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / y-max= 27.3477
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / x-max= 160.2030



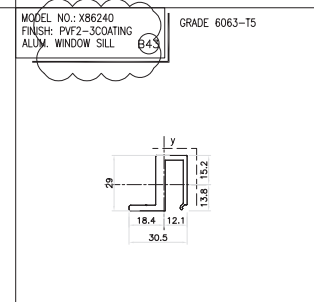
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	342.2438
Perimeter (mm)	321.8410
Bounding Box - X (mm)	-24.0230 to 38.9770
Bounding Box - Y (mm)	-23.8923 to 25.1077
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	33972.2096
Moments of inertia - Y (mm <sup>4</sup> )	198464.1063
Product of inertia - XY (mm <sup>4</sup> )	4203.3535
Radius of gyration - X (mm)	18.4843
Radius of gyration - Y (mm)	34.0918
Principal moments along X-Y (mm <sup>4</sup> )	33884.8828 along (0.9997 -0.0226)
Principal moments along Y-X (mm <sup>4</sup> )	198153.7850 along (0.0226 0.9997)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / y-max= 1342.3687
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / x-max= 5098.6221



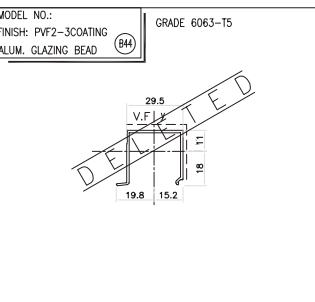
MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	1398.5989
Perimeter (mm)	591.9072
Bounding Box - X (mm)	-36.1916 to 40.2084
Bounding Box - Y (mm)	-36.1922 to 40.2078
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	101935.0996
Moments of inertia - Y (mm <sup>4</sup> )	101951.7176
Product of inertia - XY (mm <sup>4</sup> )	-15192.4023
Radius of gyration - X (mm)	26.9939
Radius of gyration - Y (mm)	26.9932
Principal moments along X-Y (mm <sup>4</sup> )	100332.9814 along (0.7088 -0.7073)
Principal moments along Y-X (mm <sup>4</sup> )	103717.8501 along (0.7073 0.7088)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / y-max= 25366.6776
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / x-max= 25355.7963



MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	206.4294
Perimeter (mm)	117.5417
Bounding Box - X (mm)	-19.7650 to 4.2648
Bounding Box - Y (mm)	-19.4543 to 14.5657
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	22960.9894
Moments of inertia - Y (mm <sup>4</sup> )	14568.6716
Product of inertia - XY (mm <sup>4</sup> )	-8263.9293
Radius of gyration - X (mm)	9.8691
Radius of gyration - Y (mm)	7.5097
Principal moments along X-Y (mm <sup>4</sup> )	22960.9894 along (0.9783 0.2070)
Principal moments along Y-X (mm <sup>4</sup> )	2461.9863 along (-0.2070 0.9783)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / y-max= 1136.3887
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / x-max= 212.8652



MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	265.6459
Perimeter (mm)	171.5157
Bounding Box - X (mm)	-18.3604 to 12.1396
Bounding Box - Y (mm)	-13.7926 to 15.2174
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	24835.0946
Moments of inertia - Y (mm <sup>4</sup> )	14568.6716
Product of inertia - XY (mm <sup>4</sup> )	-8263.9293
Radius of gyration - X (mm)	9.8691
Radius of gyration - Y (mm)	7.5097
Principal moments along X-Y (mm <sup>4</sup> )	22960.9894 along (0.9789 -0.4025)
Principal moments along Y-X (mm <sup>4</sup> )	963.7216 along (0.4025 0.9789)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / y-max= 1832.0629
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / x-max= 783.0794



MASS PROPERTIES (UNIT)	VALUES
Area (mm <sup>2</sup> )	114.0837
Perimeter (mm)	183.4459
Bounding Box - X (mm)	-19.7646 to 15.3334
Bounding Box - Y (mm)	-17.8814 to 11.0186
Centroid - X (mm)	0.0000
Centroid - Y (mm)	0.0000
Moments of inertia - X (mm <sup>4</sup> )	11291.9944
Moments of inertia - Y (mm <sup>4</sup> )	11291.9944
Product of inertia - XY (mm <sup>4</sup> )	-15889.9106
Radius of gyration - X (mm)	9.8691
Radius of gyration - Y (mm)	12.6003
Principal moments along X-Y (mm <sup>4</sup> )	10041.4674 along (0.9786 0.2176)
Principal moments along Y-X (mm <sup>4</sup> )	1602.0286 along (-0.2176 0.9786)
Elastic Modulus - 2x (mm <sup>2</sup> )	1 / y-max= 638.3146
Elastic Modulus - 2y (mm <sup>2</sup> )	1 / x-max= 916.4385

B.D. REF :  
F.S.D. REF :  
Note :  
1. All dimensions are in mm.  
2. All elevations are viewed from outside.  
3. All dimensions to section line before fabrication.

GENERAL NOTES  
Legend :  
1. F.F.L. = Finished Floor Level  
2. S.F.L. = Structural Floor Level  
3. = Reversed Detail  
X1 = DETAIL MARK NO.  
X001 = REFER SHEET NO.

REV.	DATE	REVISION	BY
C	06.04.2022	GENERAL REVISION	
B	10.02.2022	GENERAL REVISION	
A	29.10.2021	GENERAL REVISION	

CLIENT :  
**MARBLE EDGE INVESTMENT LTD.**

ARCHITECT :  
**RONALD LUI & PARTNERS**  
ARCHITECTS | PLANNERS | INTERIOR DESIGNERS

STRUCTURAL ENGINEER :  
**GMA C M WONG & ASSOCIATES LTD**

MAIN CONTRACTOR :  
**裕民建築有限公司**

**美特鋁質有限公司**  
MIDI ALUMINIUM FABRICATOR LTD.  
Units 6-8, Sunray Industrial Centre, 1/F  
610 Cho Kwo Ling Road, Kowloon  
Tel: 23489211-4 Fax: (852) 27727666

PROJECT :  
PROPOSED RESIDENTIAL DEVELOPMENT AT NEW KOWLOON INLAND LOT NO. 6552

TITLE :  
SECTION PROPERTIES

JOB NO. : J-857  
DATE : 18.OCT.2021  
DRAWN BY : AN  
SCALE : A1:  
CHKD BY :  
A3: 1:3  
DWG. NO. : J857-IV-0006  
REV. : C

