



工程指示 / 要求簡箋(E.I.)

工程指示編號：EI / 0666 / 19 修改版次：-
 工程編號：J837 平台 工程名稱：觀塘 裕民坊平台
 工程項目：安排地盤驗焊和驗拉爆 (Alum. Feature and cladding 項目)
 收件人：Maggie 發件人：Leung Hin Wai 日期：06/06/2019

要求提供 / 確認 事項：

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

內容：

地盤驗焊 100%目測、20%磁粉

地盤驗拉爆 M12 HST3-R 75 粒 Test Load :11.89kN

地盤驗拉爆 M10 HST3-R 40 粒 Test Load :7.104kN

驗焊和驗拉爆的時間將由地盤同事安排

請在_____前完成上列要求。

附：-

1 + 1 頁

以上項目為：

- 原合約工程包 原合約工程加 / 減賬 新工程報價

原因：-

分發東莞各部門：

- 生產技術總監 連附件 技術部 連附件 生產部 連附件 機械設計部 連附件
 採購部 連附件 生產統籌部 連附件
 質檢部 連附件 會計部 連附件 報關組 連附件 其他 _____ 連附件

分發香港各部門：

- 行政部 連附件 會計部 連附件 統籌部 連附件 工程部地盤科文(柄) 連附件
 採購部 連附件 QS 部 連附件 維修部 連附件 其他 _____ 連附件

傳遞編號：

發件人簽署：

項目經理簽署：

EE/0666

GENERAL NOTES FOR ALUMINIUM FEATURE AND CLADDING

- (A) DESIGN CODE AND STANDARDS
- HONG KONG BUILDING (CONSTRUCTION) REGULATIONS
 - CODE OF PRACTICE FOR DEAD & IMPOSED LOADS 2011
 - CODE OF PRACTICE ON WIND EFFECTS IN HONG KONG 2004
 - CODE OF PRACTICE FOR THE STRUCTURAL USE OF STEEL 2011
 - CODE OF PRACTICE FOR THE STRUCTURAL USE OF CONCRETE 2013
 - BS 8118 : 1991 - STRUCTURAL USE OF ALUMINIUM (PARTIAL LOAD FACTOR OF 1.4 FOR WIND LOAD AS PER PNAP-APPS3)
 - PNAP APP-016 CLADDING WORKS

- (B) DESIGN LOAD
- DESIGN WIND LOAD SHALL COMPLY WITH THE "CODE OF PRACTICE ON WIND EFFECTS IN HONG KONG 2004", BUILDINGS DEPARTMENT, HONG KONG.
- FOR BUILDING WIDTH = 80m
- BASIC WIND PRESSURE = 2.76 kPa
- MAX DESIGN WIND PRESSURE FOR ALUM CLADDING = $2.76 \text{ kPa} \times +1.0/-1.4 = +2.76 \text{ kPa}/-4.24 \text{ kPa}$
- MAX DESIGN WIND PRESSURE FOR ALUM FEATURE = $2.76 \text{ kPa} \times +2.0/-2.0 = +5.52 \text{ kPa}/-5.52 \text{ kPa}$

- (C) MATERIAL WEIGHT
- 77 kN/m³
27.2 kN/m³
- DENSITY OF STRUCTURAL STEEL
 - DENSITY OF ALUMINIUM ALLOY

- (D) MATERIAL USED
- STRUCTURAL STEEL
THE EXTRUDED SECTION TO BE GRADE S275JRH (CLASS 1) TO COMPLY WITH BS EN 10210 PART 1:2006.
UNLESS OTHERWISE STATED.
 - THE OTHER STEEL TO BE GRADE S275J0 COMPLY WITH BS EN 10025:2004
 - MODULUS OF ELASTICITY = 205000 MPa
 - DESIGN STRENGTH = 275 MPa (FOR MEMBER THICKNESS ≤ 16mm)
 - DESIGN STRENGTH = 265 MPa (FOR 16mm < MEMBER THICKNESS ≤ 40mm)
- ALL STRUCTURAL STEEL TO BE HOT DIP GALVANIZED COMPLY WITH BS EN ISO 1461:2009

- ALUMINIUM
THE EXTRUDED SECTION FOR ALLOY GRADE 6063-T6 (MECHANICAL PROPERTIES TO BE EN-755-2:2008)
(CHEMICAL COMPOSITION TO BE EN573-3 : 2009)
LIMITING STRESSES (BASED ON TABLE 4.1 OF BS 8118:PART 1:1991)
- | | |
|----------------------------------|-----------|
| FOR BENDING AND OVERALL YIELDING | = 160 MPa |
| FOR LOCAL TENSION OR COMPRESSION | = 175 MPa |
| FOR SHEAR | = 95 MPa |
| 0.2% TENSILE PROOF STRESS | = 170 MPa |
| ULTIMATED TENSILE STRENGTH | = 215 MPa |
- THE ALUMINIUM SHEET TO BE GRADE 3003-H14 (CHEMICAL COMPOSITION TO BE EN573-3 : 2009)
- LIMITING STRESSES (BASED ON TABLE TO OF EN485-2 : 2013)
- | | |
|----------------------------------|-----------|
| FOR BENDING AND OVERALL YIELDING | = 125 MPa |
| FOR LOCAL TENSION OR COMPRESSION | = 135 MPa |
| FOR SHEAR | = 75 MPa |
| 0.2% TENSILE PROOF STRENGTH | = 125 MPa |
| ULTIMATED TENSILE STRENGTH | = 145 MPa |
- MODULUS OF ELASTICITY OF ALUMINIUM = 70000 MPa

- (E) STAINLESS STEEL BOLT & SCREW
- STAINLESS STEEL BOLT & SCREW TO BE A4-70 COMPLY WITH BS EN ISO 3506-1:2009 FOR MECHANICAL PROPERTIES, UNLESS OTHERWISE SPECIFIED.
 - ULTIMATE TENSILE STRENGTH (f_u) = 700 MPa
 - STRESS AT 0.2% PERMANENT STRAIN $(f_{0.2})$ = 450 MPa
- UNLESS OTHER SPECIFIED, ALL SCREWS SHALL BE M6 AT 300 C/C GRADE A4-70 STAINLESS STEEL COMPLIED WITH BS EN ISO 3506:2009
- A4-70
TENSILE STRENGTH = 450 MPa
SHEAR STRENGTH = 311 MPa
BEARING STRENGTH = 828 MPa

(F) WELDING

- ALL WELDING TO BE CARRIED OUT IN CONFORMITY WITH BS EN 1011-1:2009 & BS EN 1011-2:2009
- DESIGN STRENGTH OF FILLET WELDS = 220 MPa
- 2 COATS OF ZINC CHROMATE SHALL BE APPLIED ON WELDED SURFACE TO BS 4562 :2003
- 4mm FILLET WELD UNLESS OTHERWISE.
- ELECTRODES USED IN WELD SHALL BE E35 & COMPLY WITH BS EN ISO 2560 : 2009.
- ALL WELD PROCEDURES TO BE COMPLIED WITH BS EN ISO 15614-1:2004+AI:2003

(G) ISOLATION OF DISSIMILAR MATERIAL

BIFURMINOUS PAINT WILL BE APPLIED BETWEEN TWO DISSIMILAR METALS TO PREVENT BI-METALLIC CORROSION.

(H) ANCHOR BOLT

- ALL ANCHOR BOLT USED TO BE "HILT", HST-R M12 ANCHOR BOLT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION & RECOMMENDATION.
- THE INSTALLATION OF ANCHOR BOLTS SHOULD BE STRICTLY IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION & RECOMMENDATION.

| BD REF | "HILT" | MIN. SPACING | MIN. EDGE DISTANCE | EFFECTIVE EMBEDMENT DEPTH | RECOMMENDED TENSILE | RECOMMENDED SHEAR | TEST LOAD TENSILE |
|-----------|------------|--------------|--------------------|---------------------------|---------------------|-------------------|-----------------------|
| BD-AF-149 | HST3-R M12 | 50mm | 55mm | 70mm | 6.7kN | 12.2kN | 1.18kx1.5x6.7=11.99kN |
| BD-AF-148 | HST-R M10 | 40mm | 45mm | 60mm | 4kN | 8.4kN | 1.18kx1.5x4=7.08kN |

INFLUENCING FACTORS FOR CONCRETE STRENGTH $f_{bc} = \sqrt{f_c} = 1.183$
(1) CONCRETE GRADE (UNDER SEPARATED SUBMISSION)

1. CONCRETE GRADE = 350

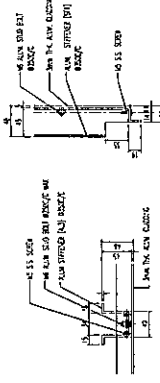
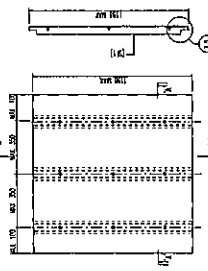
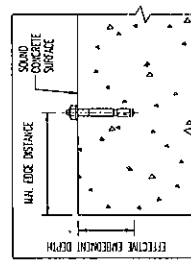
(J) ALUMINIUM STUD BOLT

- ALL ALUMINIUM STUD BOLT SHALL BE GRADE EN AW-5754 H-14 AS EN AW-5754 IS NOT INCLUDED IN THE BS 8118 SO IF DESIGN TO BS 8118-PZA SHOULD BE LIMITED TO GRADE 5454-PZA
- BS 8118 TABLE 6.3 LIMITING STRESS FOR ALUMINIUM GRADE 5454, $P_{0.2}=95$

- THE ALUMINIUM STUD AND THE BASE PANEL SHALL BE CONNECTED TO DRAWN ARC STUD WELDING COMPLYING WITH BS8118 PART 1:1991.

- DESIGN AND QUALITY ASSURANCE OF THE DRAWN ARC STUD WELDING PROCESS SHALL FULLY SATISFY THE REQUIREMENT IF BS EN ISO 14553:2017.

- THE STUD SHALL FOLLOW THE DEFINED PROFILE AS SPECIFIED UNDER TABLE 14 OF BS EN ISO 13918:2008



TYPICAL DETAIL
TYPICAL DETAIL
TYPICAL DETAIL
TYPICAL DETAIL
TYPICAL DETAIL

BS REF

CURT: 信和置業有限公司
Sino Land Company Limited

PROJECT: WONG TUNG & PARTNERS LIMITED
WONG TUNG & PARTNERS LIMITED

MAIN CONTRACTOR: CN Construction Company Limited

STRUCTURAL ENGINEER: AECOM

FAÇADE CONSULTANT: AECOM

NOTE:
1. ALL DIMENSIONS ARE IN mm
2. ALL DIMENSIONS TO BE CHECKED ON SITE
3. ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE FABRICATION

LEGEND:
KT - DETAIL WORK NO.
REVS SHEET NO.

1. F.F.L. - FINISHED FLOOR LEVEL
2. S.F.L. - STRUCTURAL FLOOR LEVEL
3. R.O. - REVERSED DETAIL

| NO. | DATE | REVISION |
|-----|------|----------|
| 1 | | |

JOB NO.: J-837

PROJECT: LURA KWUN TONG TOWN CENTRE
REDEVELOPMENT (AREA 2 & 3) AT
MKUL 6514, KWUN TONG, KWLOON

GENERAL NOTES FOR 5F
ALUM. FEATURE AND CLADDING

DATE: 2018-11-6 SCALE: 1:4 (A1)

DRAWN BY: LONG CHECKED BY:

FOR AMENDMENT

FOR BO SUBMISSION

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REV: A