**LEGEND:**

	W	WALL MOUNTED LAMPS
	P	LAMPS SUSPENDED FROM CEILING
	E	LAMPS WITH EMERGENCY LIGHTING UNIT
		LIGHTING SWITCH
	F/G	FAN CONTROL PANEL
	LRTU	LV MONITORING PANEL
		MCB BOARD
		300x300x200(D) RECESS AT TRENCH BOTTOM FOR SUMP PIT

J	SWAP POSITION OF MASTER CHECK METER AND BATTERY CHARGER, RECESS FOR SUMP PIT ADDED.
H	SYMBOLS, G.I. SLEEVE SIZE AND DEPTH OF CABLE TRENCH UPDATED. MASTER CHECK METER ADDED.
G	FUSE CUTOFF ADDED, DOOR, TRANSFORMER, HV SWITCHGEAR AND G.I. SLEEVE SIZE UPDATED. EMERGENCY LIGHTING ADDED.
F	CHAIN BOX ADDED AND CABLE TRENCH LADDER DELETED
E	UPDATED PHASE IDENTIFICATION, CABLE TRENCH LADDER AND E. LIGHTING ADDED
D	EMERGENCY LIGHTING UNIT DELETED. AIR INTAKE LOUVRE AND FAN CONTROL PANEL RELOCATED.
C	LRTU ADDED
B	GENERAL LAYOUT REVISION



REVS.	3.4.03	3.12.04	21.12.05	3.1.06	08.08.07	16.12.09	22.03.12	18.03.14	23.02.17		
INITIAL	A	B	C	D	E	F	G	H	J	K	L
	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	H.T.YU	H.T.YU		

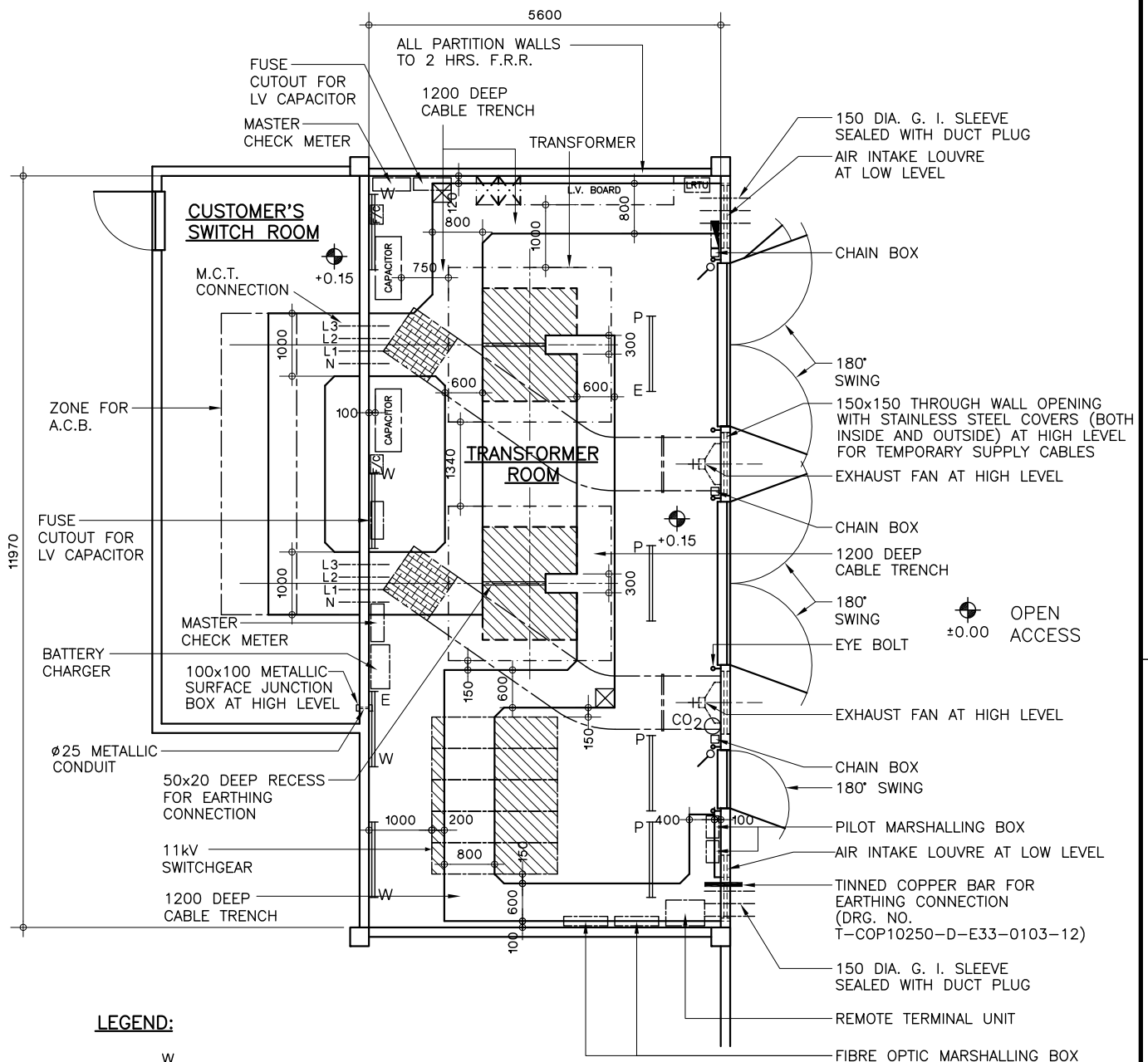
TITLE :

## TYPICAL GROUND FLOOR SUBSTATION LAYOUT FOR ONE TRANSFORMER AND 11kV SWITCHGEAR

DRAWN: S. C. TO	DATE: 18-07-2002
CHECKED: K. C. CHENG	APPROVED: W. C. HO
SCALE: 1 : 100 (mm)	SHEET(S) IN SET:

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 0 2 J A



J	GENERAL LAYOUT REVISION
H	SYMBOL, G.I. SLEEVE SIZE AND DEPTH OF CABLE TRENCH UPDATED. MASTER CHECK METER ADDED.
G	FUSE CUTOFF ADDED, DOOR, TRANSFORMER, HV SWITCHGEAR AND G.I. SLEEVE SIZE UPDATED. EMERGENCY LIGHTING ADDED.
F	CHAIN BOX ADDED AND CABLE TRENCH LADDER DELETED
E	UPDATED PHASE IDENTIFICATION, CABLE TRENCH LADDER AND E. LIGHTING ADDED.
D	EMERGENCY LIGHTING UNIT DELETED. AIR INTAKE LOUVRE AND FAN CONTROL PANEL RELOCATED.
C	LRTU ADDED



REVS.	3.4.03	6.12.04	21.12.05	3.1.06	08.08.07	16.12.09	22.03.12	18.03.14	18.05.17		
INITIAL	A	B	C	D	E	F	G	H	J	K	L
	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	H.T.YU	H.T.YU		

TITLE :

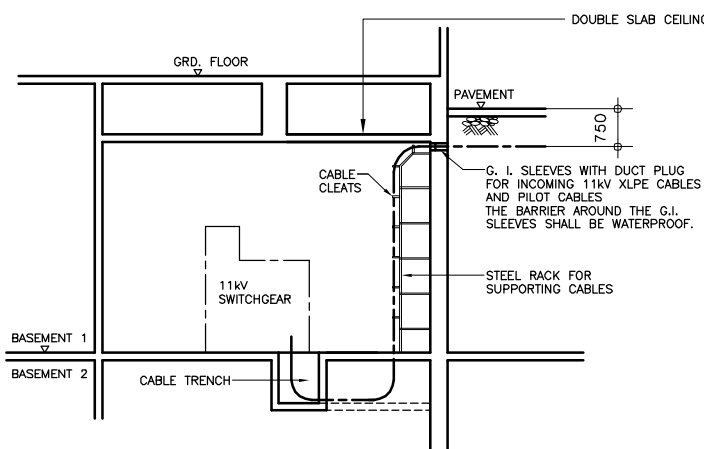
## TYPICAL GROUND FLOOR SUBSTATION LAYOUT FOR TWO TRANSFORMERS AND 11kV SWITCHGEAR

DRAWN:	S. C. TO	DATE:	19-07-2002
CHECKED:	K. C. CHENG	APPROVED:	W. C. HO
SCALE:	1 : 100 (mm)	SHEET(S) IN SET:	

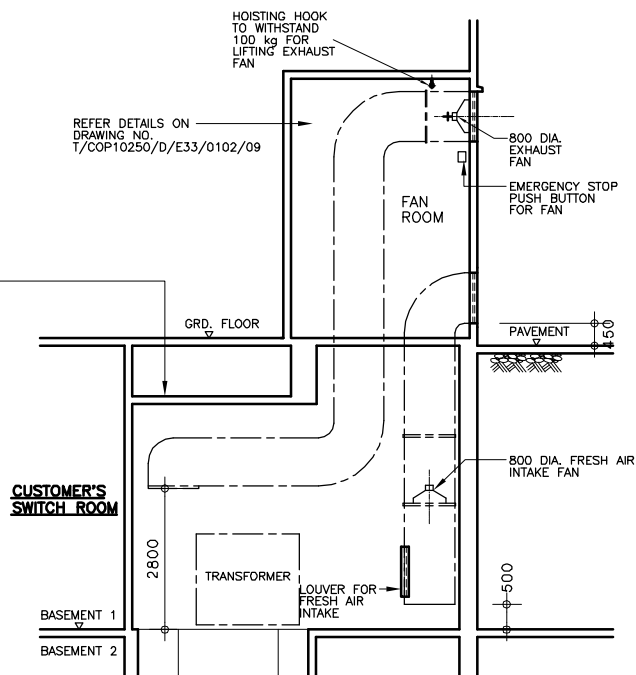
ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 0 3 J A

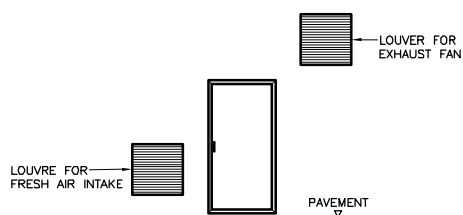




**TYPICAL SECTIONAL VIEW OF CABLE RACK FOR BASEMENT SUBSTATION**



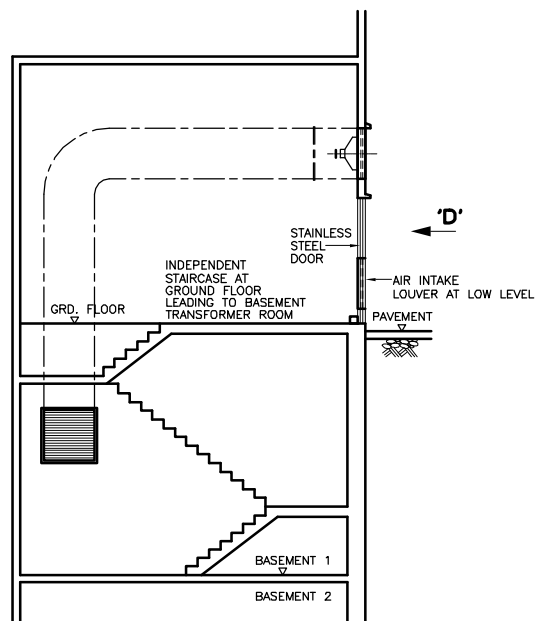
**TYPICAL SECTIONAL VIEW OF AIR DUCTS FOR BASEMENT SUBSTATION**



**TYPICAL VENTILATION LOUVRE ELEVATION**

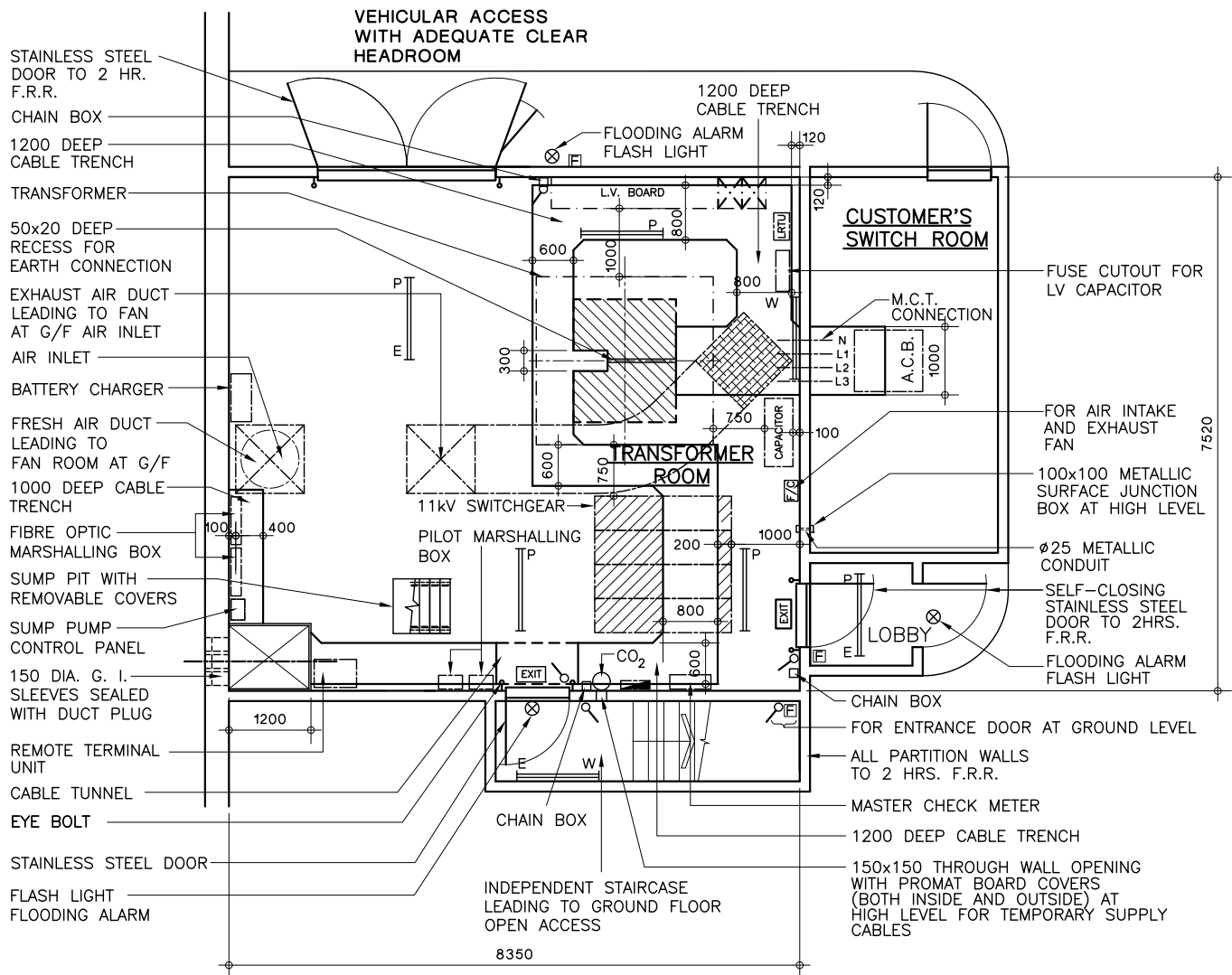
**NOTE:**

MECHANICAL VENTILATION SYSTEM SHALL BE INSTALLED TO ADEQUATELY VENTILATE THE ACCESS CORRIDOR AND STAIR LEADING TO BASEMENT SUBSTATION.



**TYPICAL SECTION OF STAIRS FOR SUBSTATION ACCESS**

<b>F</b>	WATERPROOF REQUIREMENT FOR G.I. SLEEVES ADDED	<b>E</b>	LOUVER LEVEL UPDATED.					<b>D</b>	SCALE CHANGED TO NOT TO SCALE					
<b>C</b>	DOUBLE SLAB CEILING ADDED	<b>B</b>	NOTES ADDED					<b>A</b>	VENT. AIR DUCT ADDED IN STAIRCASE					
<div>CLP 中電</div>			REVS.	14.09.04	13.08.07	08.01.10	22.03.12	18.03.14	23.02.17					
				A	B	C	D	E	F	G	H	J	K	L
			INITIAL	K.C.C.	K.C.C.	K.C.C.	K.C.C.	H.T.YU	H.T.YU					
			TITLE :											
DRAWN: S. C. TO			DATE: 22-07-2002			TYPICAL BASEMENT SUBSTATION SECTIONS								
CHECKED: K. C. CHENG			APPROVED: W. C. HO											
SCALE: N. T. S.			SHEET(S) IN SET:											
ASSET MANAGEMENT			DRG. NO. T / COP10250 / D / E33 / 0101 / 05 / F / A											

**LEGEND:**

	WALL MOUNTED LAMPS
	LAMPS SUSPENDED FROM CEILING
	LAMPS WITH EMERGENCY LIGHTING UNIT
	LIGHTING SWITCH (2-WAY/INTERMEDIATE SWITCHING CONTROL FOR MULTIPLE ENTRANCE DOORS)
	FAN AUTO/MANUAL OPERATION SWITCH
	FAN CONTROL PANEL
	LV MONITORING PANEL
	MCB BOARD

J	GENERAL LAYOUT REVISION
H	SYMBOLS, G.I. SLEEVE SIZE AND DEPTH OF CABLE TRENCH UPDATED. MASTER CHECK METER ADDED.
G	FUSE CUTOUT ADDED, DOOR, TRANSFORMER, HV SWITCHGEAR AND G.I. SLEEVE SIZE UPDATED
F	CHAIN BOX ADDED AND CABLE TRENCH LADDER DELETED
E	PHASE IDENTIFICATION UPDATED SECTIONAL VIEWS AND CABLE TRENCH LADDER ADDED.
D	FAN CONTROL PANEL FOR AIR INTAKE AND EXHAUST FAN RELOCATED
C	LRTU ADDED
B	GENERAL LAYOUT REVISION



REVS.	03.08.04	08.12.04	21.12.05	5.1.06	08.08.07	16.12.09	26.03.12	18.03.14	24.02.17		
INITIAL	A	B	C	D	E	F	G	H	J	K	L
	K.C.C	K.C.C	K.C.C	K.C.C	K.C.C	K.C.C	K.C.C	H.T.YU	H.T.YU		

TITLE :

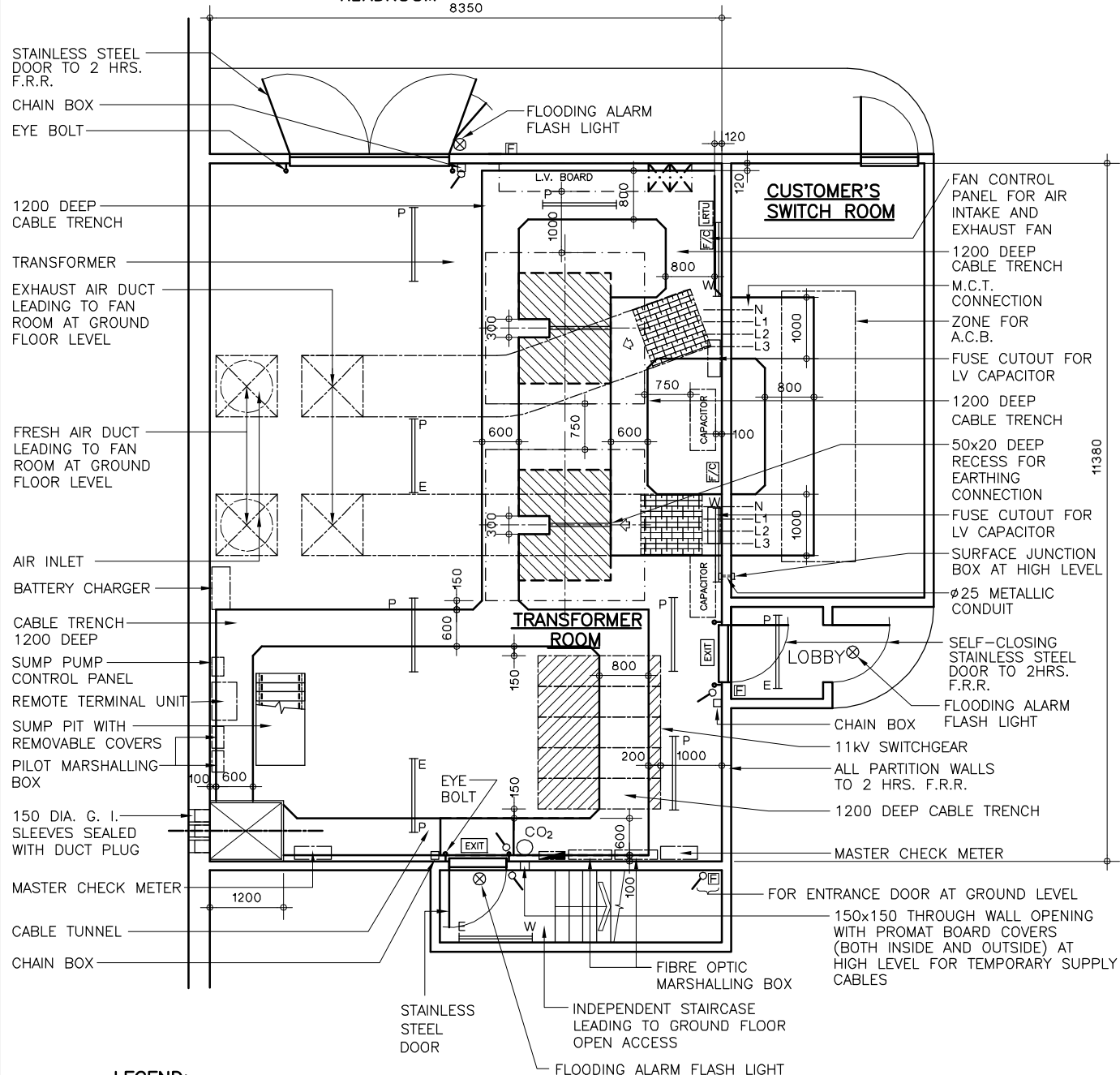
## TYPICAL BASEMENT SUBSTATION LAYOUT FOR ONE TRANSFORMER AND 11kV SWITCHGEAR

DRAWN:	S. C. TO	DATE:	22-07-2002
CHECKED:	K. C. CHENG	APPROVED:	W. C. HO
SCALE:	1 : 100 (mm)	SHEET(S) IN SET:	

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 0 6 J A

# VEHICULAR ACCESS WITH ADEQUATE CLEAR HEADROOM



J	GENERAL LAYOUT REVISION
H	SYMBOLS, G.I. SLEEVE SIZE AND DEPTH OF CABLE TRENCH UPDATED, FIRE EXTINGUISHER ADDED. MASTER CHECK METER ADDED.
G	FUSE CUTOFF ADDED, DOOR, TRANSFORMER, HV SWITCHGEAR AND G.I. SLEEVE SIZE UPDATED
F	CHAIN BOX ADDED AND CABLE TRENCH LADDER DELETED
E	PHASE IDENTIFICATION UPDATED, FAN SWITCH AND CABLE TRENCH LADDER ADDED
D	FAN CONTROL PANEL FOR AIR INTAKE AND EXHAUST FAN RELOCATED
C	LRTU ADDED



REVS.	03-9-04	09-12-04	21-12-05	5-1-06	16-08-07	16-12-09	26-03-12	18-03-14	23-02-17		
INITIAL	A	B	C	D	E	F	G	H	J	K	L
	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	H.T.YU	H.T.YU		

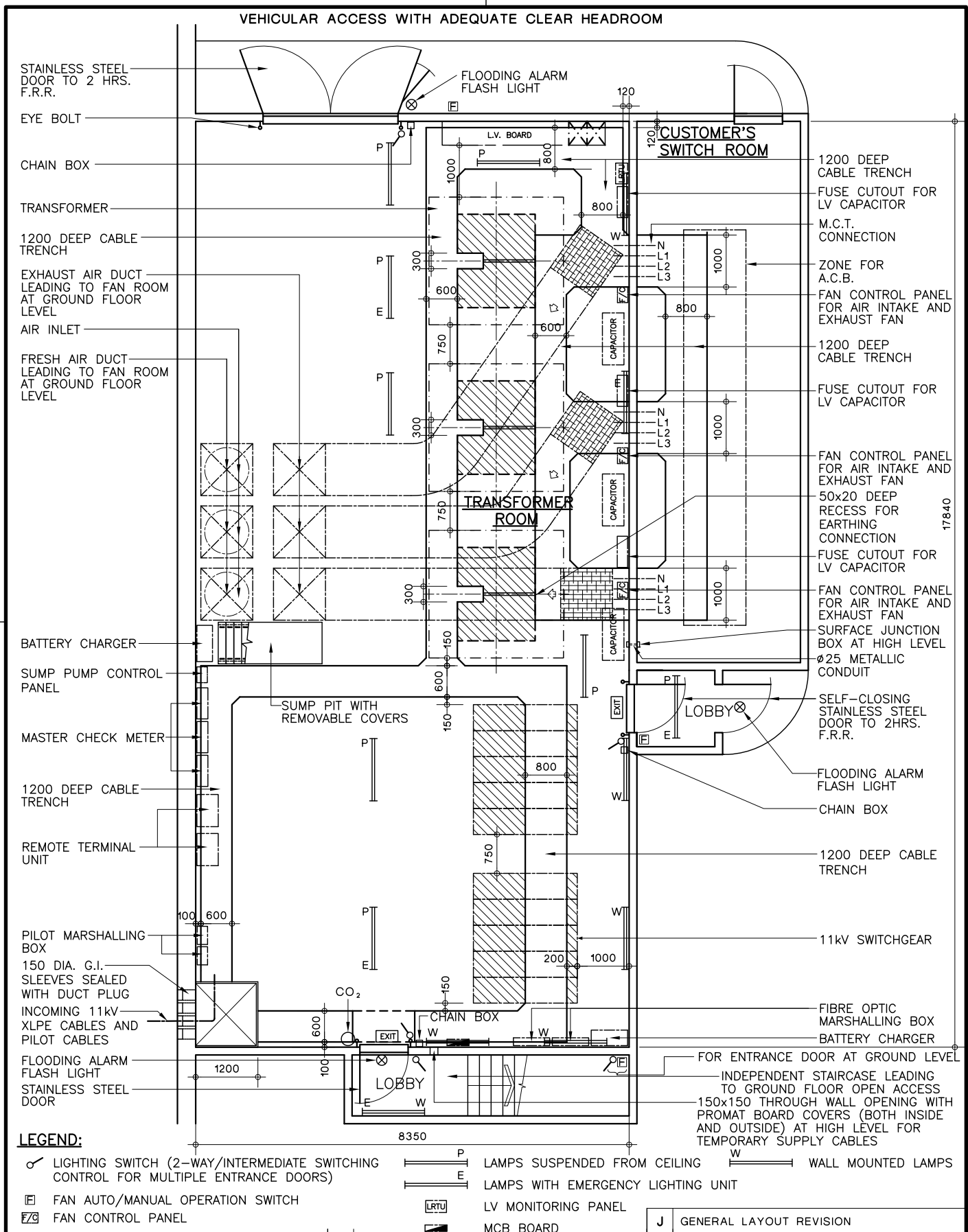
TITLE :

## TYPICAL BASEMENT SUBSTATION LAYOUT FOR TWO TRANSFORMERS AND 11KV SWITCHGEAR

DRAWN:	S. C. TO	DATE:	22-07-2002
CHECKED:	K. C. CHENG	APPROVED:	W. C. HO
SCALE:	1 : 100 (mm)	SHEET(S) IN SET:	

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 0 7 J A



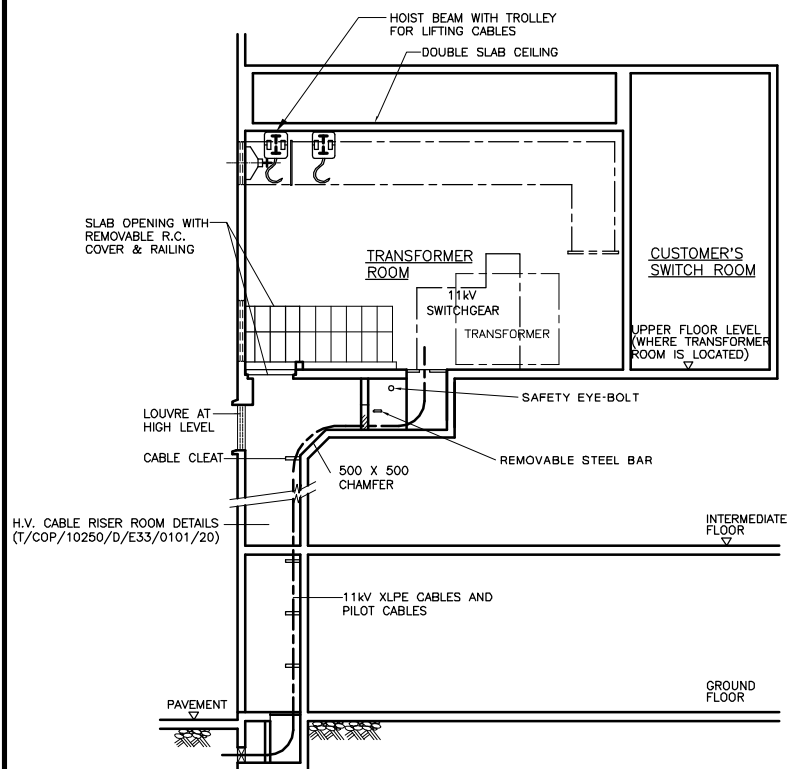
DRAWN: S. C. TO      DATE: 22-07-2002

CHECKED: K. C. CHENG      APPROVED: W. C. HO

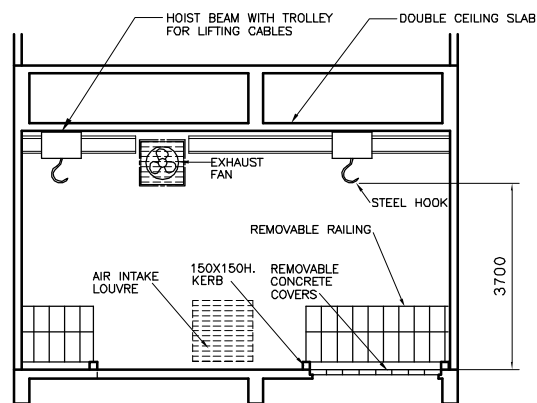
SCALE: 1 : 100 (mm)      SHEET(S) IN SET:

**ASSET MANAGEMENT**

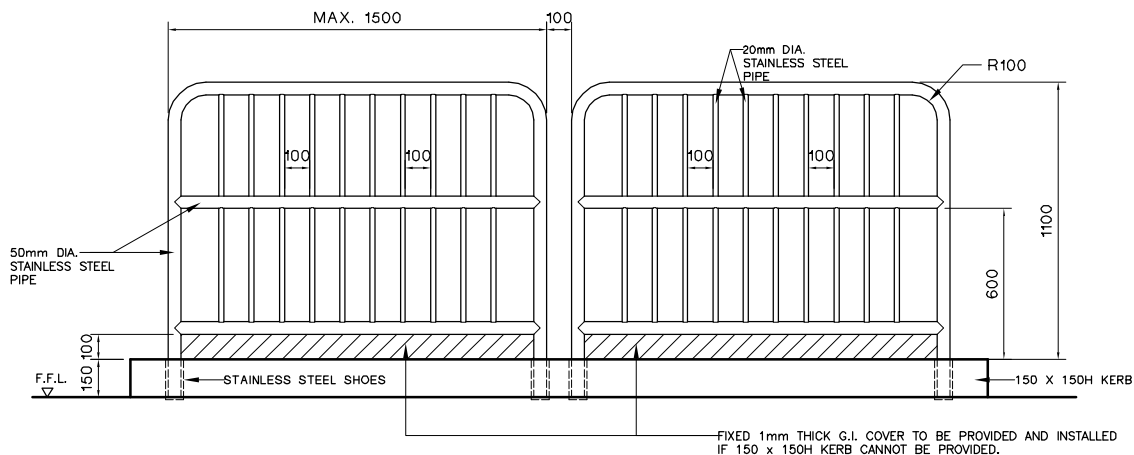
DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 0 8 J A



TYPICAL SECTION OF H.V. CABLE RISER



TYPICAL SECTIONAL VIEW OF UPPER FLOOR SUBSTATION WITH LIFTING SHAFT



TYPICAL ELEVATION OF REMOVABLE STAINLESS STEEL RAILING

## NOTES:

- ALL METAL WORKS MUST BE BONDED TO THE EARTHING TERMINAL AT THE DISTRIBUTION BOARD WITH COPPER CONNECTOR NOT LESS THAN 6mm<sup>2</sup>.
- ALL DIMENSIONS ARE IN mm

C TYPICAL DETAIL OF REMOVABLE RAILING AND NOTE ADDED.

D DETAILS OF HOIST BEAM & AIR TRUNK UPDATED  
 B SAFETY EYE-BOLT, REMOVABLE STEEL BAR AND HOISTING HOOK ADDED



REV.	08.01.10	26.03.12	18.03.14	17.03.17									
INITIAL	A	B	C	D	E	F	G	H	J	K	L		
	KCC	KCC	H.T.YU	H.T.YU									

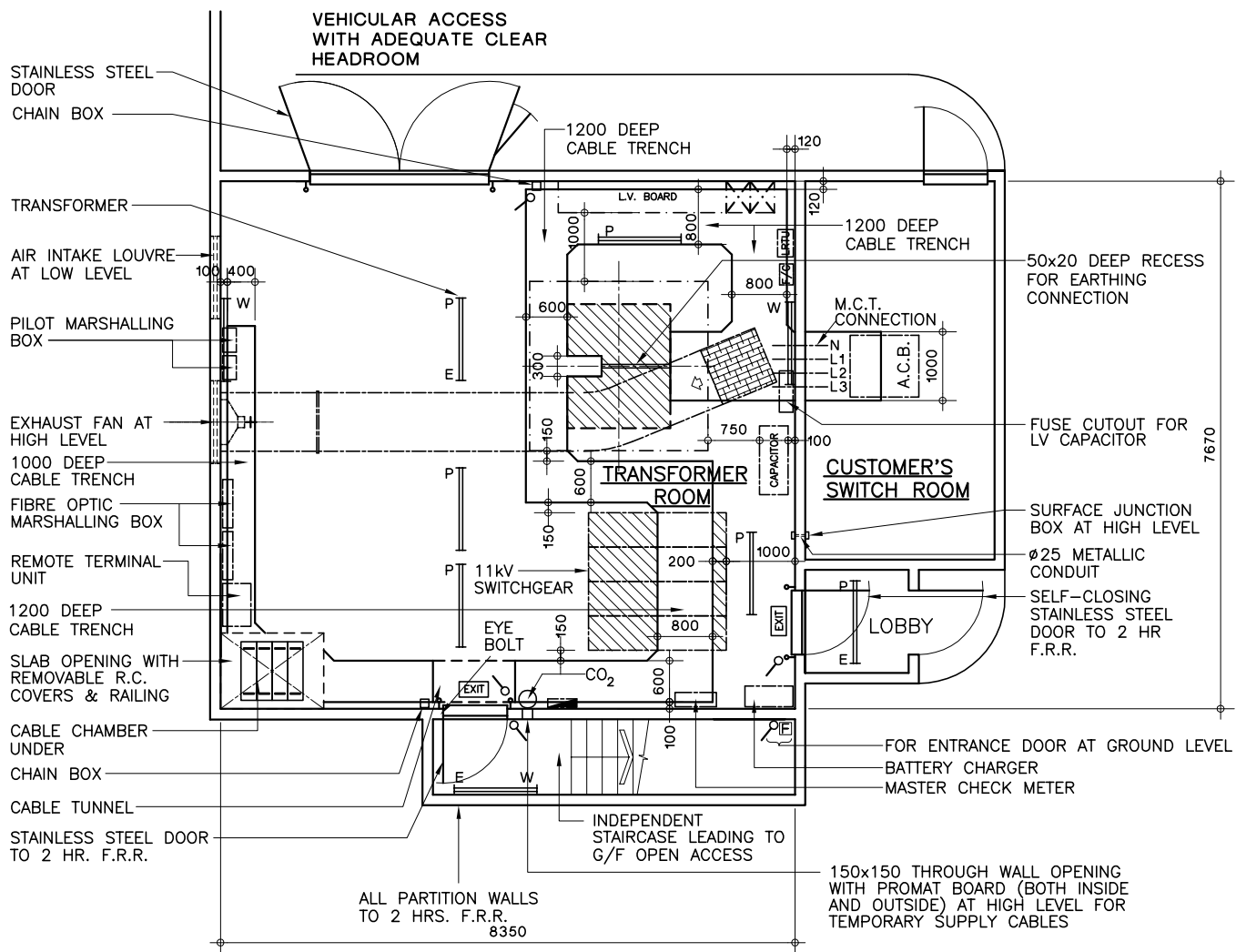
TITLE :

## TYPICAL UPPER FLOOR SUBSTATION SECTIONS

DRAWN: S. C. TO DATE: 22-07-2002  
 CHECKED: K. C. CHENG APPROVED: K. W. WONG  
 SCALE: N. T. S. SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 0 9 D A

**LEGEND:**

	W	WALL MOUNTED LAMPS
	P	LAMPS SUSPENDED FROM CEILING
	E	LAMPS WITH EMERGENCY LIGHTING UNIT
		LIGHTING SWITCH (2-WAY/INTERMEDIATE SWITCHING CONTROL FOR MULTIPLE ENTRANCE DOORS)
	FZG	FAN CONTROL PANEL
	LRTU	LV MONITORING PANEL
		MCB BOARD
		FAN AUTO/MANUAL OPERATION SWITCH

J	GENERAL LAYOUT REVISION
H	SYMBOLS, DEPTH OF CABLE TRENCH UPDATED. FIRE EXTINGUISHER, MASTER CHECK METER ADDED.
G	FUSE CUTOUT ADDED, DOOR, TRANSFORMER, HV SWITCHGEAR AND G.I. SLEEVE SIZE UPDATED
F	CHAIN BOX ADDED AND CABLE TRENCH LADDER DELETED
E	PHASE IDENTIFICATION UPDATED AND CABLE TRENCH LADDER ADDED
D	AIR INTAKE LOUVRE AND FAN CONTROL PANEL RELOCATED
C	LRTU ADDED
B	GENERAL LAYOUT REVISION



REVS.	7.9.04	9.12.04	21.12.05	5.1.06	16.08.07	16.12.09	26.03.12	18.03.14	23.02.17		
INITIAL	A	B	C	D	E	F	G	H	J	K	L
	K.C.C	K.C.C	K.C.C	K.C.C	K.C.C	K.C.C	K.C.C	H.T.YU	H.T.YU		

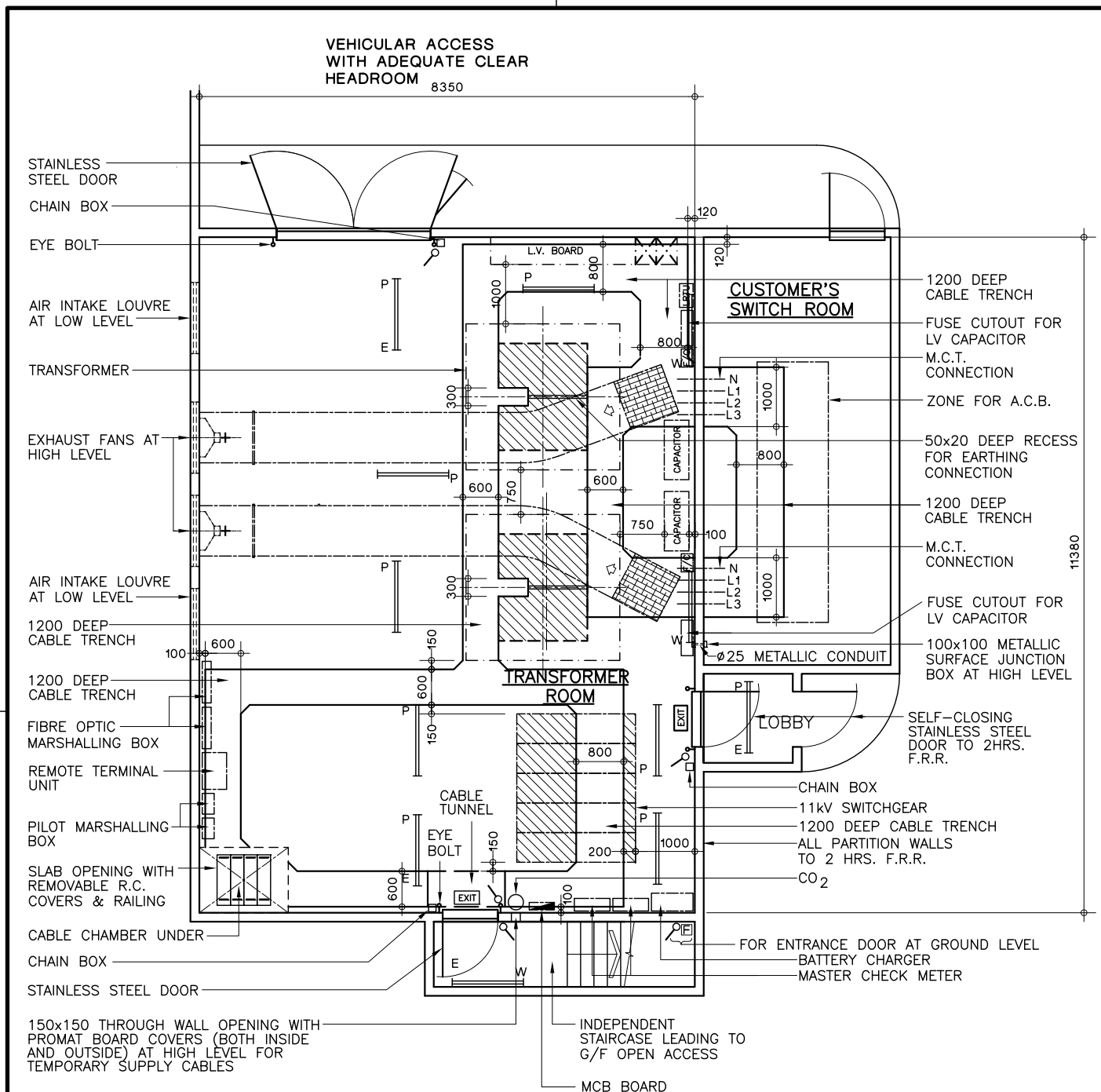
TITLE :

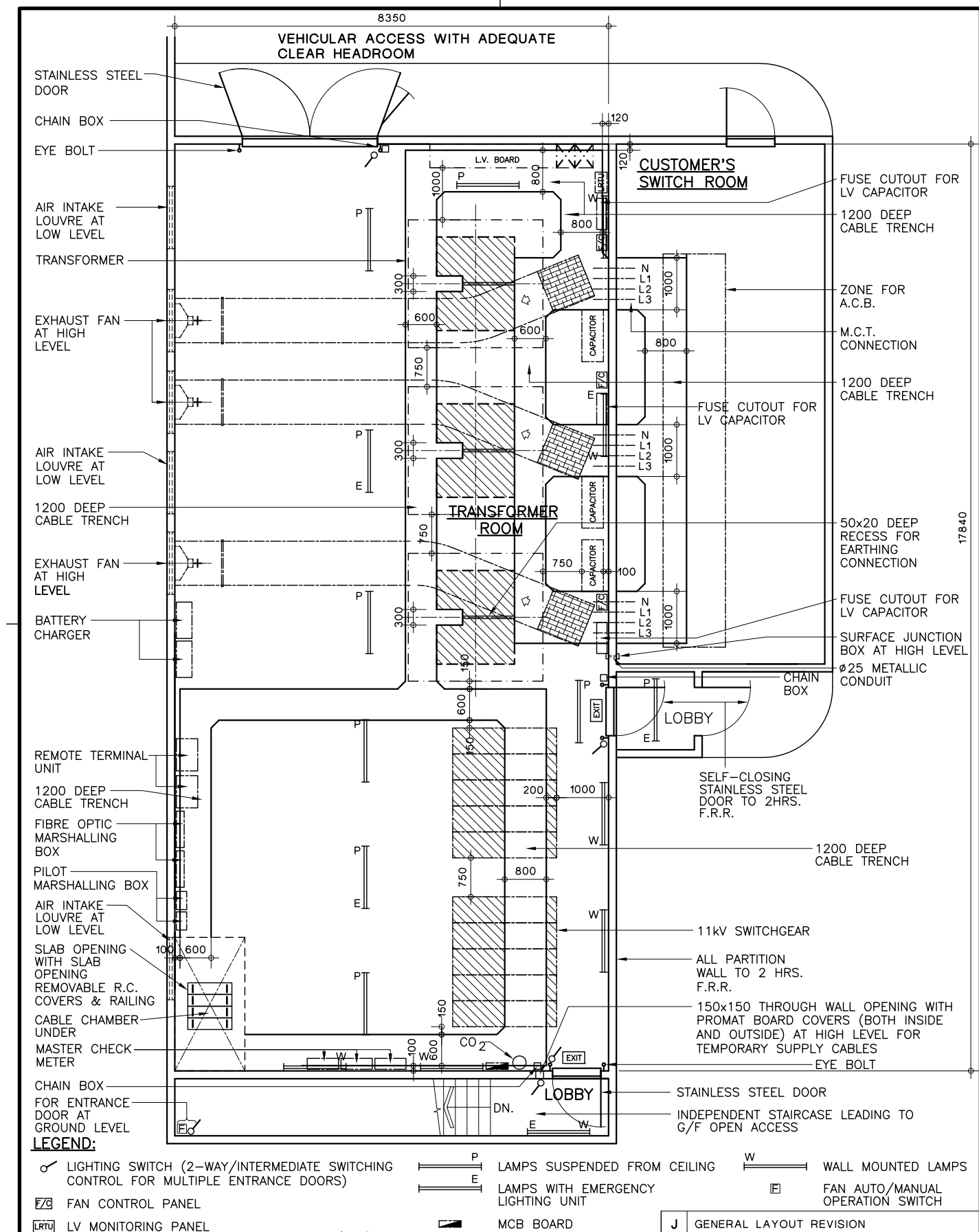
TYPICAL UPPER FLOOR SUBSTATION LAYOUT FOR  
ONE TRANSFORMER AND 11kV SWITCHGEAR  
(INDEPENDENT STAIRCASE)

DRAWN: S. C. TO	DATE: 22-07-2002
CHECKED: K. C. CHENG	APPROVED: W.C.HO
SCALE: 1 : 100 (mm)	SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 1 0 J A





REVS.	3.4.03	10.12.04	21.12.05	5.1.06	20.08.07	16.12.09	26.03.12	18.03.14	23.02.17		
	A	B	C	D	E	F	G	H	J	K	L
INITIAL	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	H.T.YU	H.T.YU		

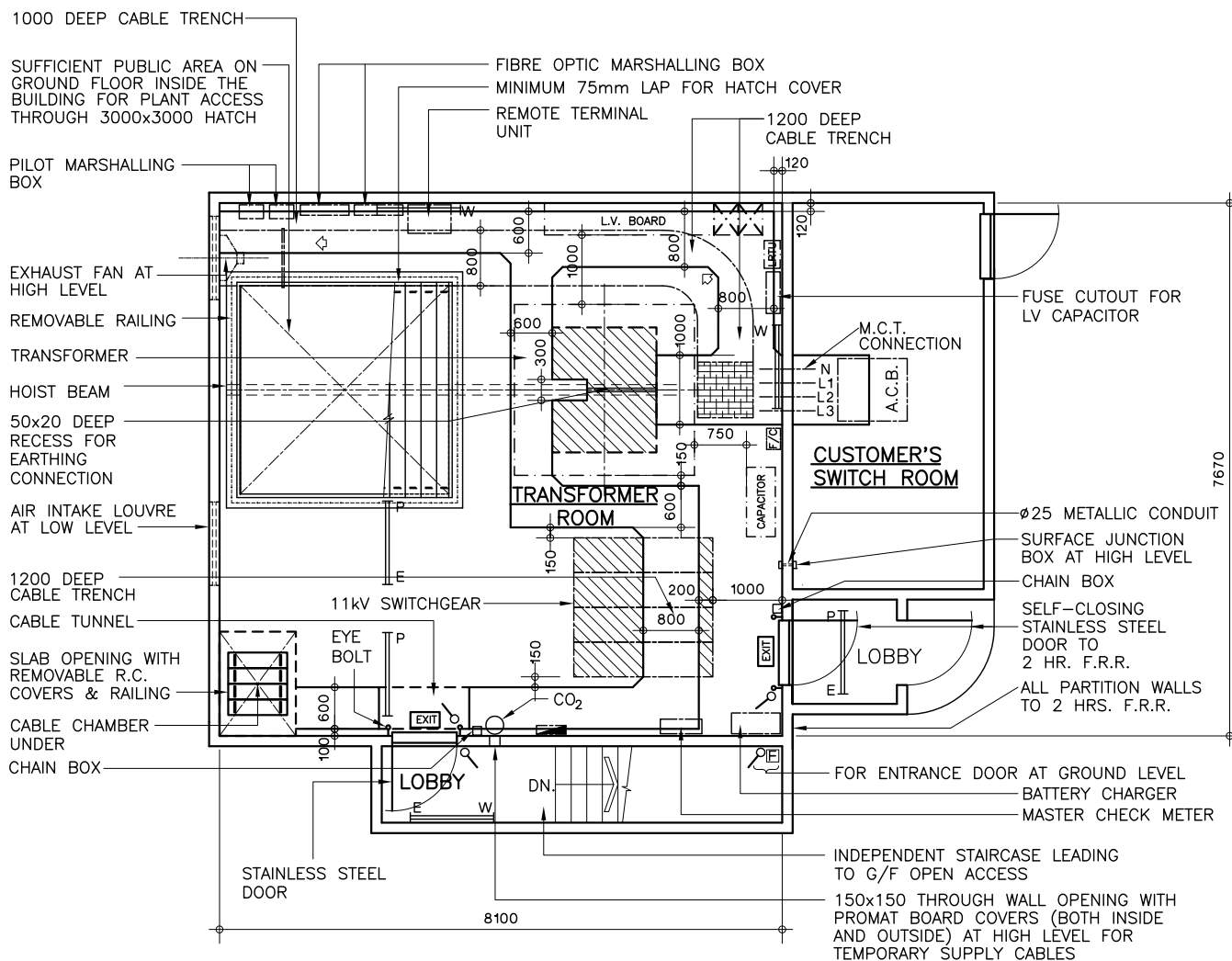
TITLE :

TYPICAL UPPER FLOOR SUBSTATION LAYOUT FOR  
THREE TRANSFORMERS AND 11kV SWITCHGEAR  
(INDEPENDENT STAIRCASE)

DRAWN: S. C. TO	DATE: 22-07-2002
CHECKED: K. C. CHENG	APPROVED: W. C. HO
SCALE: 1 : 100 (mm)	SHEET(S) IN SET:

## ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 1 2 J A

**LEGEND:**

	W	WALL MOUNTED LAMPS
	P	LAMPS SUSPENDED FROM CEILING
	E	LAMPS WITH EMERGENCY LIGHTING UNIT
		LIGHTING SWITCH (2-WAY/INTERMEDIATE SWITCHING CONTROL FOR MULTIPLE ENTRANCE DOORS)
	F/G	FAN CONTROL PANEL
	LRTU	LV MONITORING PANEL
		MCB BOARD
		FAN AUTO/MANUAL OPERATION SWITCH

J	GENERAL LAYOUT REVISION
H	SYMBOLS, DEPTH OF CABLE TRENCH CONDUIT, FIRE EXTINGUISHER, MASTER CHECK METER ADDED.
G	FUSE CUTOUT ADDED, DOOR, TRANSFORMER, HV SWITCHGEAR AND G.I. SLEEVE SIZE UPD.
F	CHAIN BOX ADDED AND CABLE TRENCH LADDER DELETED
E	PHASE IDENTIFICATION UPDATED AND CABLE TRENCH LADDER ADDED
D	AIR INTAKE LOUVRE AND FAN CONTROL PANEL RELOCATED
C	LRTU ADDED
B	GENERAL LAYOUT REVISION



REVS.	7.9.04	7.12.04	21.12.05	5.1.06	16.08.07	16.12.09	26.03.12	18.03.14	23.02.17		
INITIAL	A	B	C	D	E	F	G	H	J	K	L
	K.C.C	K.C.C	K.C.C	K.C.C	K.C.C	K.C.C	K.C.C	H.T.YU	H.T.YU		

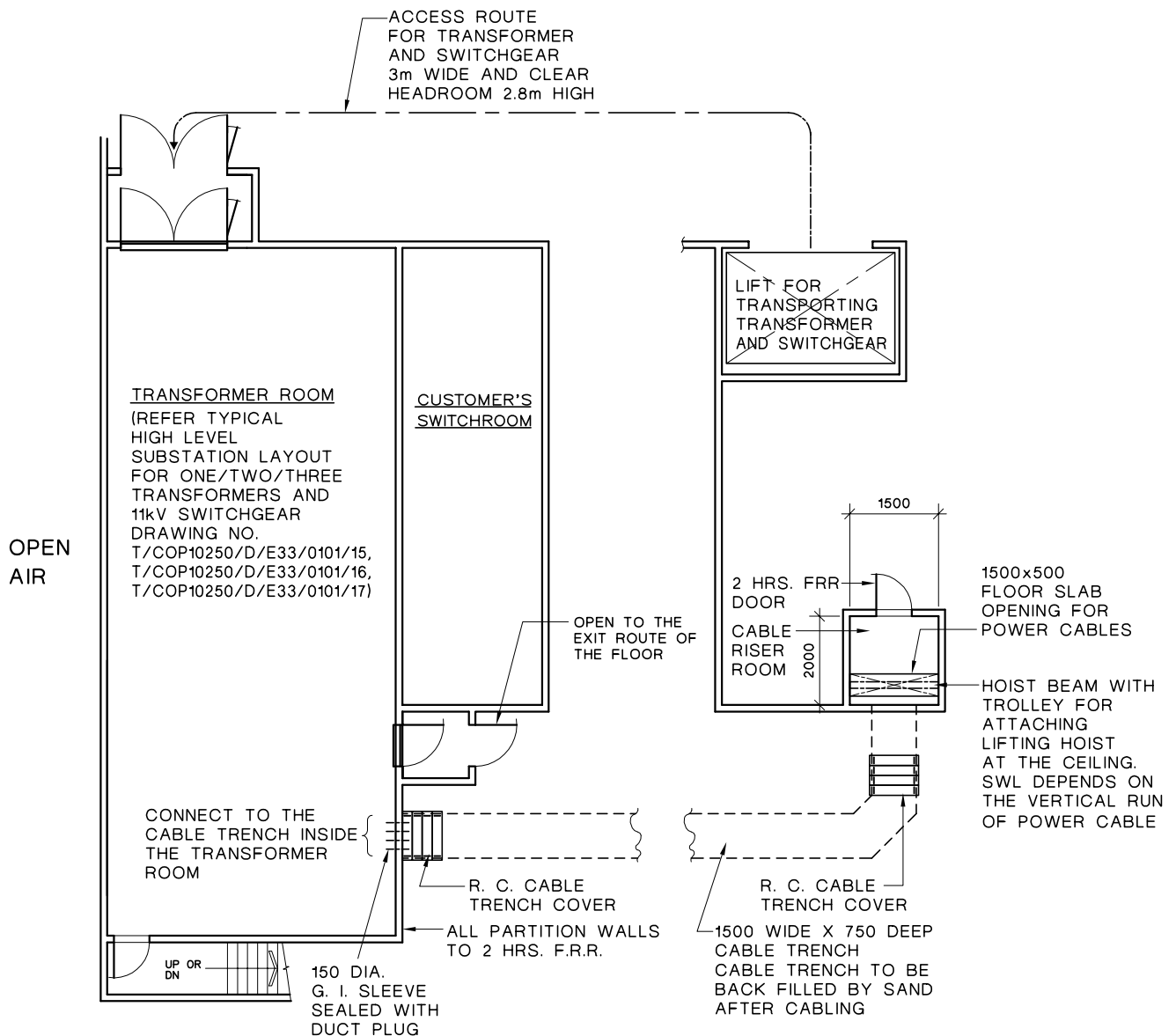
TITLE :

TYPICAL UPPER FLOOR SUBSTATION LAYOUT FOR  
HOUSING ONE TRANSFORMER WITHOUT VEHICULAR  
ACCESS (INDEPENDENT STAIRCASE)

DRAWN: S. C. TO	DATE: 22-07-2002
CHECKED: K. C. CHENG	APPROVED: W.C.HO
SCALE: 1 : 100 (mm)	SHEET(S) IN SET:

ASSET MANAGEMENT

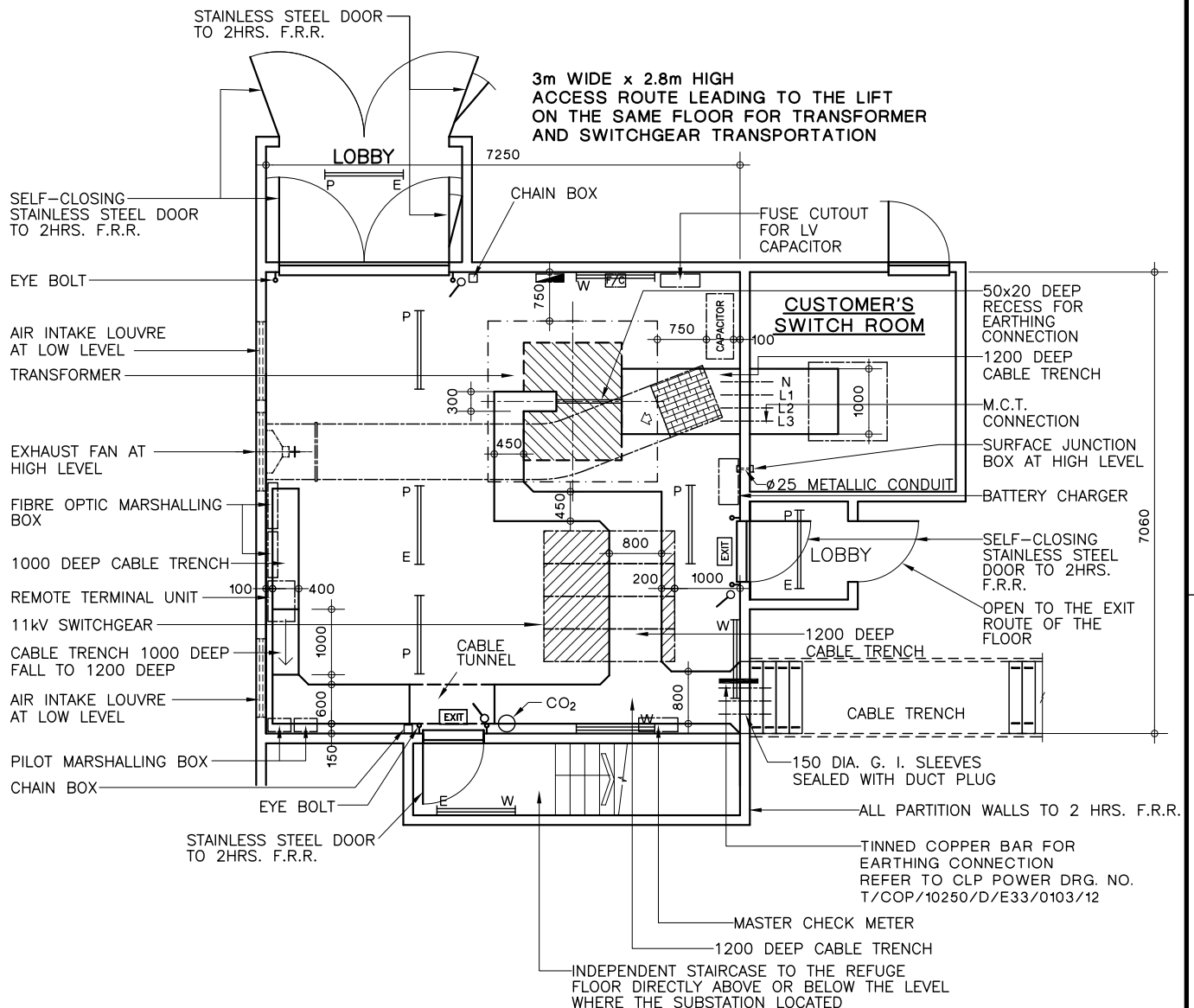
DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 1 3 J A



NOTES:

1. THE TRANSFORMER ROOM SHALL BE LOCATED ON THE PERIPHERY OF THE BUILDING.
2. ALL FLOOR OPENINGS IN THE CABLE RISER ROOM TO BE SEALED UP BY CUSTOMER AFTER CABLING.
3. HOIST BEAM WITH TROLLEY FOR ATTACHING LIFTING HOIST TO BE PROVIDED BY CUSTOMER.

												A		GENERAL AMENDMENT													
<div>CLP 中電</div>														REVS.	18.03.14												
															A	B	C	D	E	F	G	H	J	K	L		
														INITIAL	H.T.YU												
														TITLE :													
														TYPICAL HIGH LEVEL SUBSTATION LAYOUT FOR ONE/TWO/THREE TRANSFORMERS AND 11kV SWITCHGEAR IN HIGH RISE BUILDING													
DRAWN: T. Y. IP				DATE: 24-07-2002																							
CHECKED: K. C. CHENG				APPROVED: K. W. WONG																							
SCALE: N.T.S.				SHEET(S) IN SET:																							
A S S E T M A N A G E M E N T														DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 1 4 A A													

**LEGEND:**

W	WALL MOUNTED LAMPS
P	LAMPS SUSPENDED FROM CEILING
E	LAMPS WITH EMERGENCY LIGHTING UNIT
⏻	LIGHTING SWITCH (2-WAY/INTERMEDIATE SWITCHING CONTROL FOR MULTIPLE ENTRANCE DOORS)
F/C	FAN CONTROL PANEL
MCB	MCB BOARD

**NOTES:**

WIND SHIELD DESIGN SHALL BE PROVIDED TO THE LOUVRES IN HIGH LEVEL FLOOR OF THE BUILDING IN ORDER TO PREVENT RAIN WATER INGRESS CAUSED BY STRONG WIND.

H	GENERAL LAYOUT REVISION
G	MASTER CHECK METER, FIRE EXTINGUISHER ADDED, SYMBOLS, G.I. SLEEVE SIZE AND DEPTH OF CABLE TRENCH UPDATED.

F	FUSE CUTOUT ADDED, DOOR, TRANSFORMER, HV SWITCHGEAR AND G.I. SLEEVE SIZE UPD.
E	CHAIN BOX ADDED AND CABLE TRENCH LADDER DELETED
D	PHASE IDENTIFICATION UPDATED AND CABLE TRENCH LADDER ADDED



REV.	3.4.03	8.12.04	5.1.06	16.08.07	17.12.09	26.03.12	18.03.14	24.02.17			
INITIAL	A	B	C	D	E	F	G	H	J	K	L
	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	H.T.YU	H.T.YU			

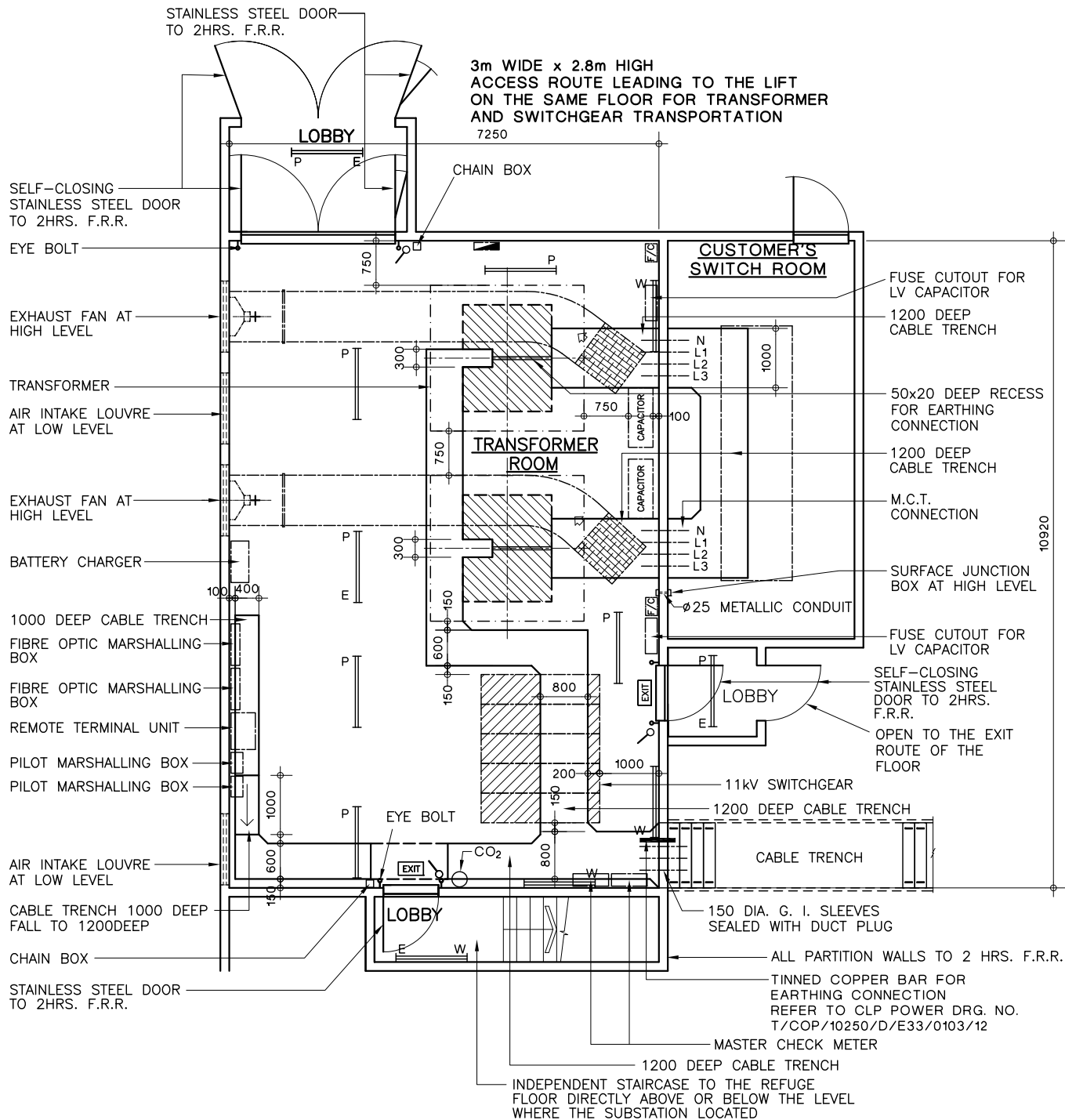
TITLE :

TYPICAL HIGH LEVEL SUBSTATION LAYOUT FOR ONE TRANSFORMER AND 11kV SWITCHGEAR IN HIGH RISE BUILDING

DRAWN: S. C. TO	DATE: 8-8-2002
CHECKED: K. C. CHENG	APPROVED: W. C. HO
SCALE: 1 : 100 (mm)	SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T/COP/10250/D/E33/0101/15/H/A

**LEGEND:**

	W	WALL MOUNTED LAMPS
	P	LAMPS SUSPENDED FROM CEILING
	E	LAMPS WITH EMERGENCY LIGHTING UNIT
		LIGHTING SWITCH (2-WAY/INTERMEDIATE SWITCHING CONTROL FOR MULTIPLE ENTRANCE DOORS)
	F/C	FAN CONTROL PANEL
		MCB BOARD

**NOTES:**

WIND SHIELD DESIGN SHALL BE PROVIDED TO THE LOUVRES IN HIGH LEVEL FLOOR OF THE BUILDING IN ORDER TO PREVENT RAIN WATER INGRESS CAUSED BY STRONG WIND.

H	GENERAL LAYOUT REVISION	F	FUSE CUTOUT ADDED, DOOR, TRANSFORMER, HV SWITCHGEAR AND G.I. SLEEVE SIZE UPD.
G	MASTER CHECK METER, FIRE EXTINGUISHER ADDED, SYMBOLS, G.I. SLEEVE SIZE AND DEPTH OF CABLE TRENCH UPDATED.	E	CHAIN BOX ADDED AND CABLE TRENCH LADDER DELETED
		D	PHASE IDENTIFICATION UPDATED AND CABLE TRENCH LADDER ADDED



REVS.	3.4.03	8.12.04	16.08.07	16.10.07	16.12.09	26.03.12	18.03.14	24.02.17			
INITIAL	A	B	C	D	E	F	G	H	J	K	L
	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	H.T.YU	H.T.YU			

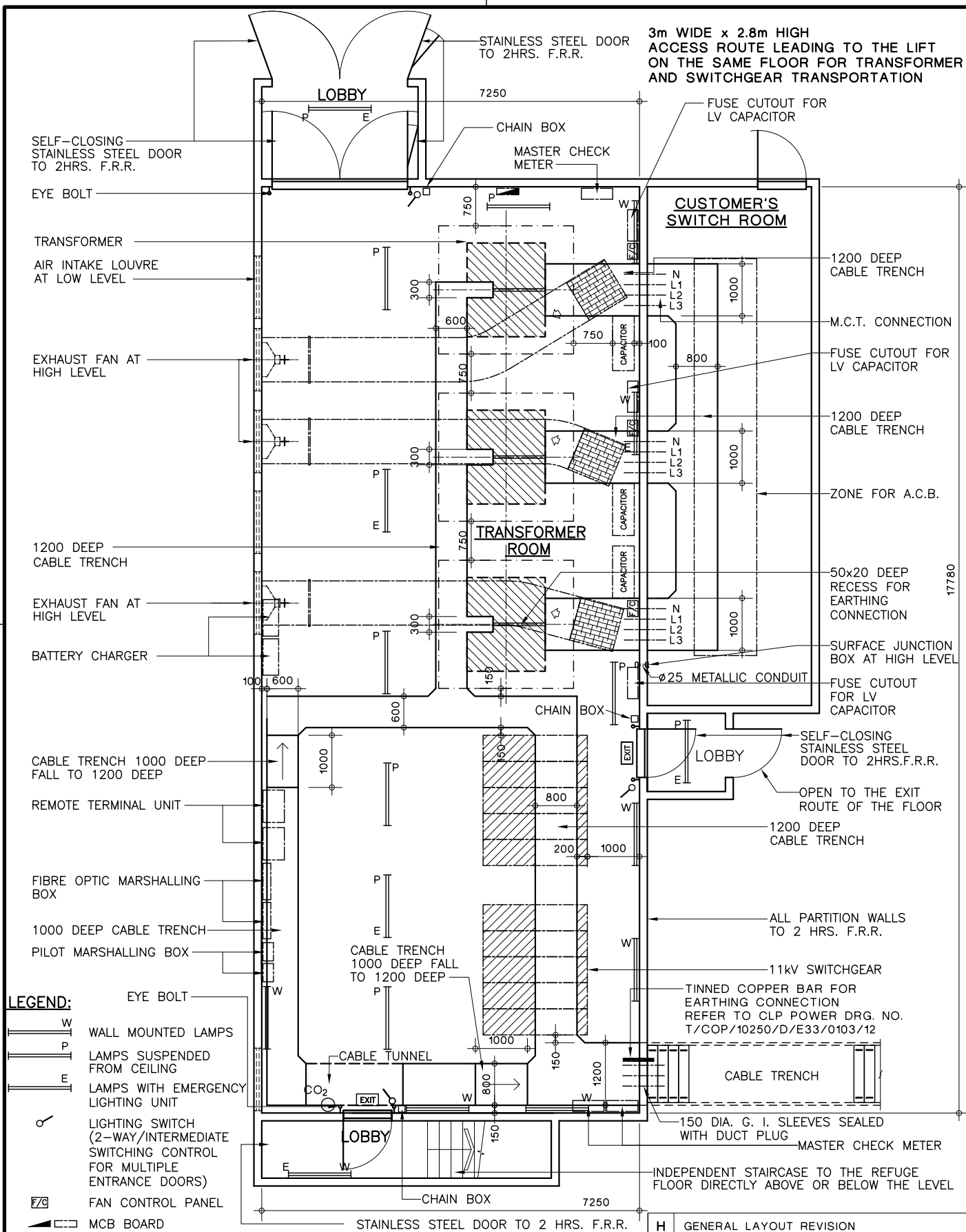
TITLE :

TYPICAL HIGH LEVEL SUBSTATION LAYOUT FOR TWO TRANSFORMERS AND 11kV SWITCHGEAR IN HIGH RISE BUILDING

DRAWN: S. C. TO	DATE: 8-8-2002
CHECKED: K. C. CHENG	APPROVED: W. C. HO
SCALE: 1 : 100 (mm)	SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 1 6 H A



H	GENERAL LAYOUT REVISION
---	-------------------------



REVS.	3.4.03	10.12.04	5.1.06	16.08.07	17.12.09	26.03.12	18.03.14	23.02.17			
	A	B	C	D	E	F	G	H	J	K	L
INITIAL	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	K.C.C.	HIYU	HIYU			

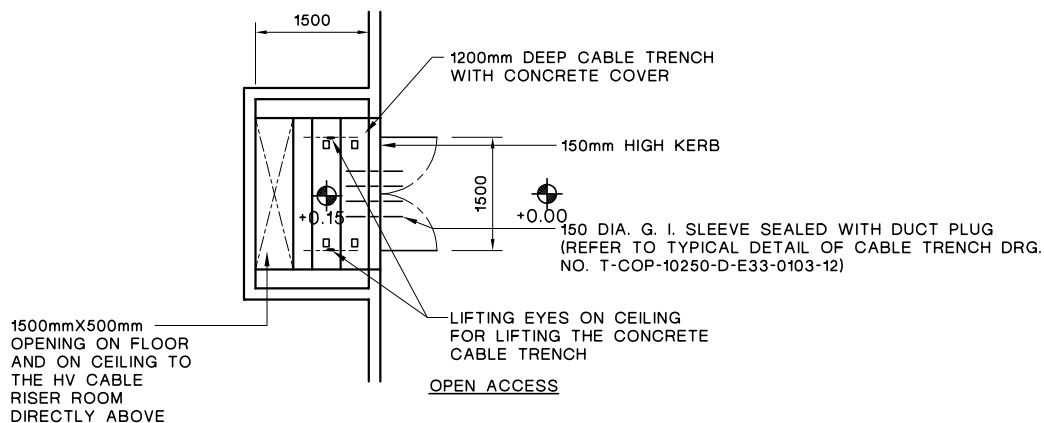
TITLE :

### TYPICAL HIGH LEVEL SUBSTATION LAYOUT FOR THREE TRANSFORMERS AND 11kV SWITCHGEAR IN HIGH RISE BUILDING

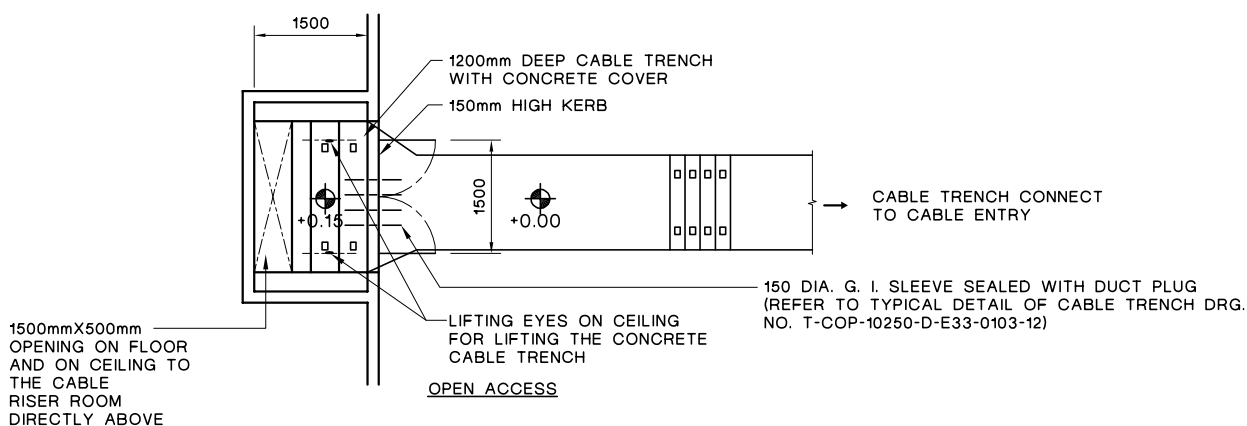
DRAWN: S. C. TO	DATE: 8-8-2002
CHECKED: K. C. CHENG	APPROVED: W. C. HO
SCALE: 1 : 100 (mm)	SHEET(S) IN SET:

## ASSET MANAGEMENT

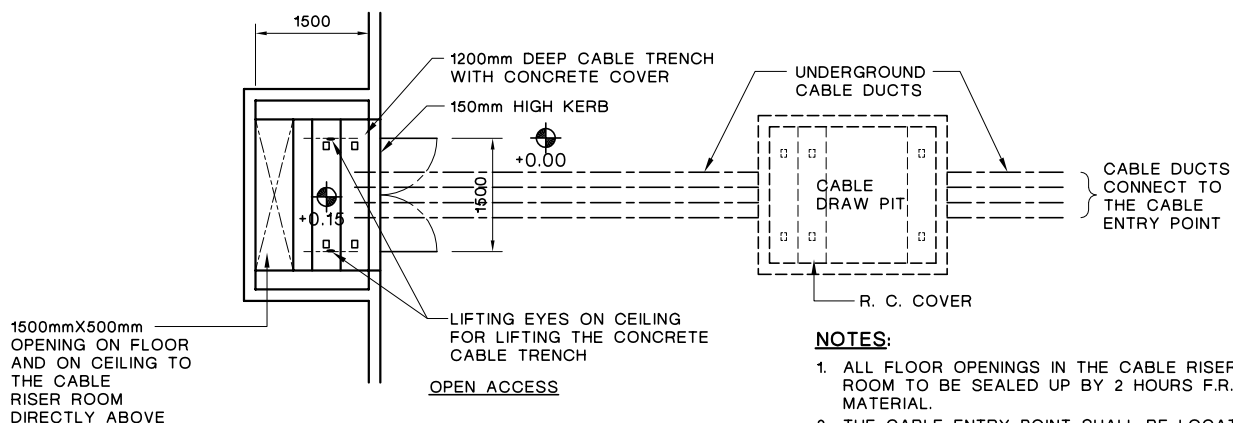
DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 1 7 H A



**PART PLAN OF CABLE RISER ROOM LOCATED  
ON GROUND FLOOR AND PERIPHERY OF THE BUILDING**



**PART PLAN OF CABLE RISER ROOM LOCATED  
ON GROUND FLOOR OF THE BUILDING AND  
CONNECTED TO CABLE ENTRY POINT BY CABLE TRENCH**



**PART PLAN OF CABLE RISER ROOM LOCATED  
ON GROUND FLOOR OF THE BUILDING AND  
CONNECTED TO CABLE ENTRY POINT  
BY UNDERGROUND CABLE DUCTS**

**NOTES:**

1. ALL FLOOR OPENINGS IN THE CABLE RISER ROOM TO BE SEALED UP BY 2 HOURS F.R.R. MATERIAL.
2. THE CABLE ENTRY POINT SHALL BE LOCATED AT THE SITE BOUNDARY OF THE CUSTOMER'S SITE.
3. THE DIMENSIONS AND LAYOUT OF THE CABLE TRENCH AND UNDERGROUND CABLE DUCTS CONNECTING TO THE CABLE ENTRY POINT OF THE SITE TO BE DETERMINED SUBJECT TO THE NUMBER OF CABLE LAYING TO THE HIGH LEVEL SUBSTATION.

C G.I. SLEEVE SIZE UPDATED.



REVS.	3.4.03	09.07.12	09.06.14										
INITIAL	A K.C.C.	B E. YU	C H.T.YU	D	E	F	G	H	J	K	L		

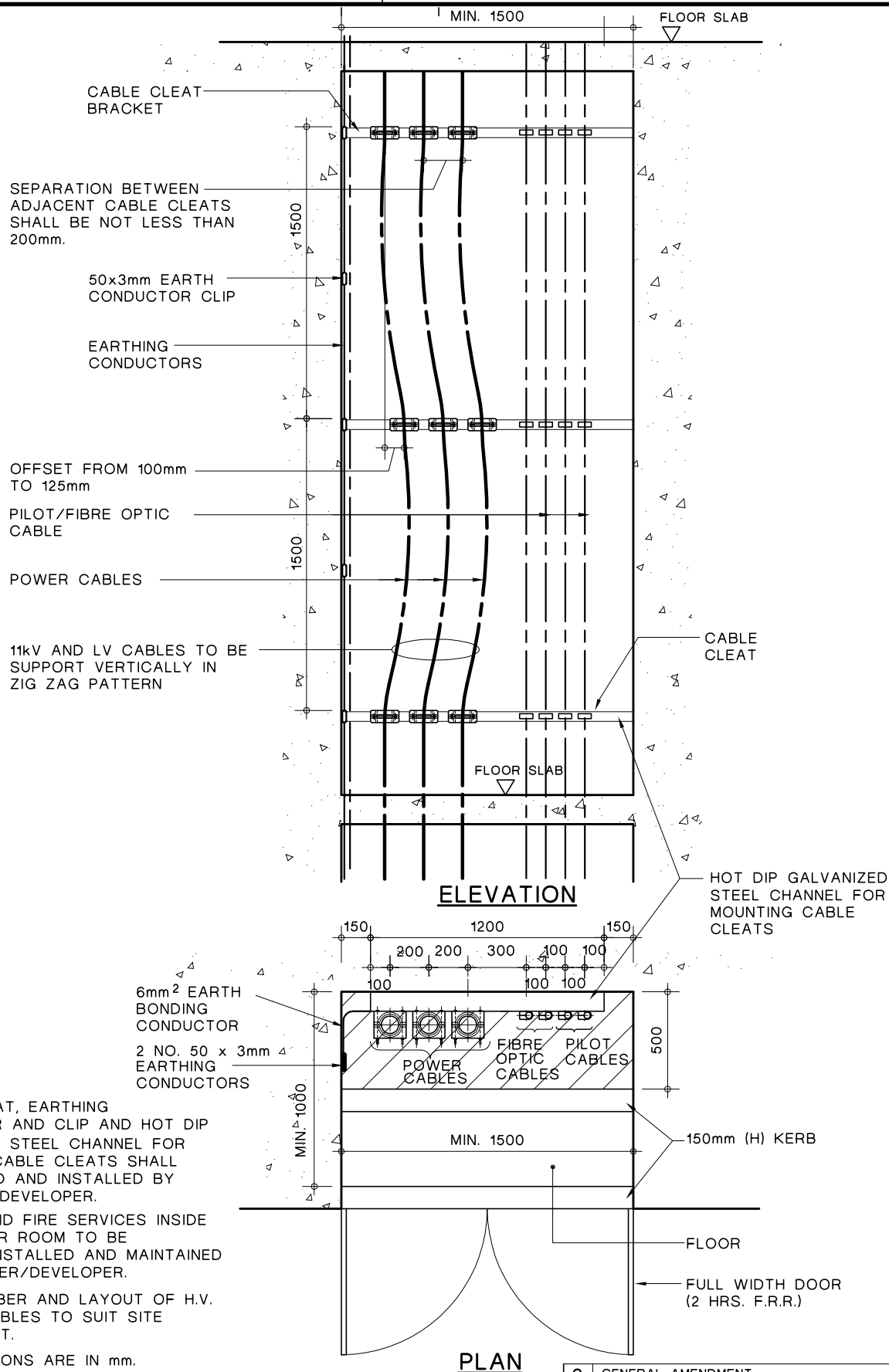
TITLE :

TYPICAL PLAN OF CABLE RISER ROOM ON GROUND  
FLOOR OR FLOOR LEVEL WHERE CABLE ENTRY  
(SHEET 1 OF 4)

DRAWN: T. Y. IP DATE: 9-8-2002  
CHECKED: K. C. CHENG APPROVED: K. W. WONG  
SCALE: 1 : 100 (mm) SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 1 8 C A

**NOTES :-**

1. CABLE CLEAT, EARTHING CONDUCTOR AND CLIP AND HOT DIP GALVANIZED STEEL CHANNEL FOR MOUNTING CABLE CLEATS SHALL BE SUPPLIED AND INSTALLED BY CUSTOMER/DEVELOPER.
2. LIGHTING AND FIRE SERVICES INSIDE CABLE RISER ROOM TO BE SUPPLIED, INSTALLED AND MAINTAINED BY CUSTOMER/DEVELOPER.
3. EXACT NUMBER AND LAYOUT OF H.V. AND L.V. CABLES TO SUIT SITE REQUIREMENT.
4. ALL DIMENSIONS ARE IN mm.



DRAWN: T. C. AU	DATE: 17-09-2002
CHECKED: K. C. CHENG	APPROVED: K. W. WONG
SCALE: 1 : 30 (mm)	SHEET(S) IN SET:

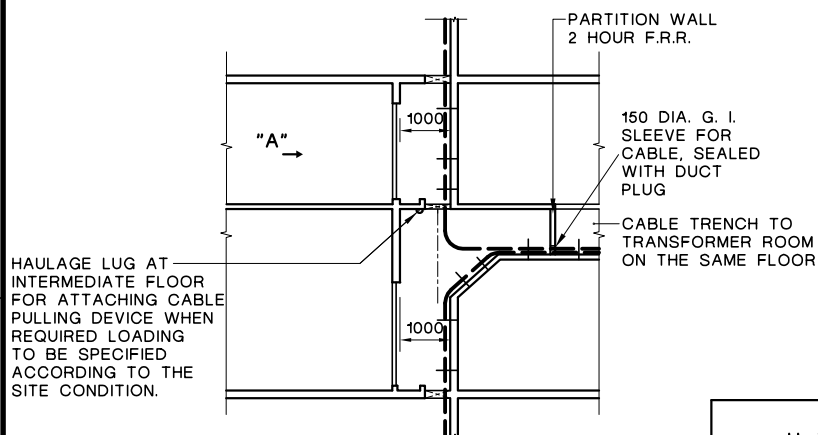
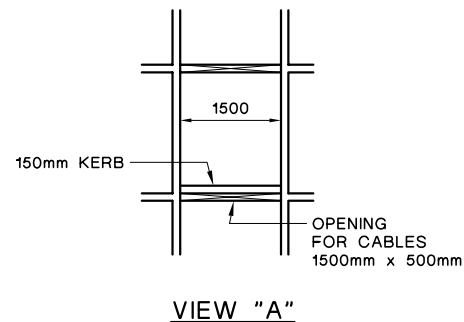
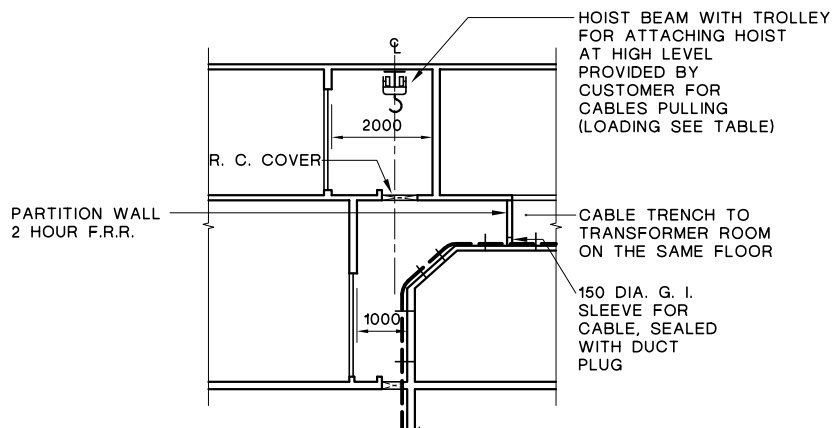
REV.	30-7-08	02-05-12	18.03.14										
INITIAL	A	B	C	D	E	F	G	H	J	K	L		
	KCC	KCC	H.T.YU										

TITLE :

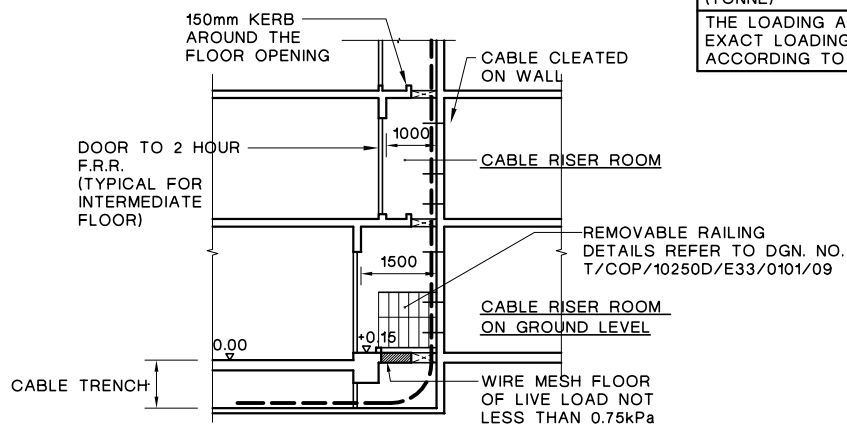
TYPICAL LAYOUT OF CABLE RISER ROOM  
(SHEET 2 OF 4)

ASSET MANAGEMENT

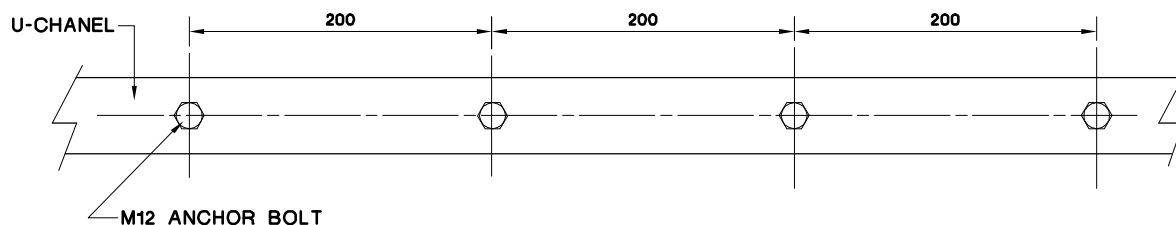
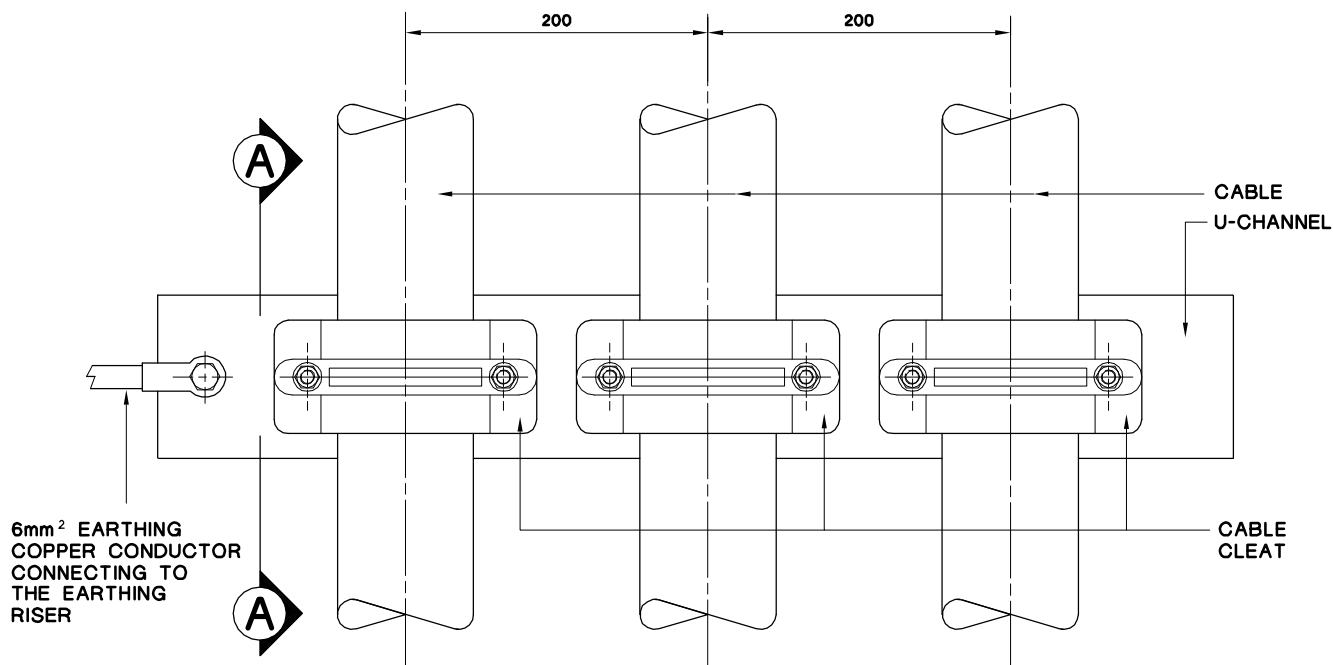
DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 1 9 C A



LOADING OF HOIST BEAM IN THE H. V. CABLE RISER ROOM FOR CABLE PULLING								
TOTAL VERTICAL CABLE RISER LENGTH (m)	10	20	30	60	130	200	260	330
HOIST BEAM LOADING (TONNE)	0.5	1	2	3	4	5	6	7
THE LOADING ARE FOR REFERENCE ONLY. EXACT LOADING TO BE DETERMINED BY CLPP ACCORDING TO SITE CONDITIONS AND CABLE USED.								

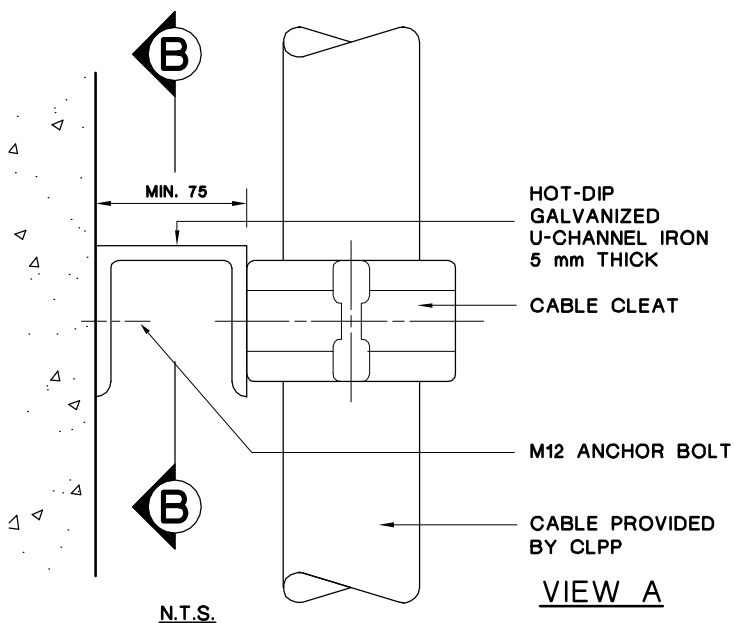


				E				REMOVABLE RAILING, WIRE MESH FLOOR ADDED AND TABLE UPDATED.																		
D	G.I. SLEEVE SIZE UPDATED.				C	G.I. SLEEVE SIZE UPDATED.				B	HAULAGE LUG ADDED.															
<div>CLP 中電</div>					REV.	03.12.04	30.10.07	09.07.12	09.06.14	17.03.17																
						A	B	C	D	E	F	G	H	J	K	L										
					INITIAL	K.C.C	K.C.C	E. YU	H.T.YU	H.T.YU																
<div>DRAWN: T. W. LAU</div> <div>CHECKED: K. C. CHENG</div> <div>SCALE: 1 : 150 (mm)</div>					TITLE :																					
					<div>TYPICAL SECTIONS OF CABLE RISER ROOM (SHEET 3 OF 4)</div>																					
ASSET MANAGEMENT					DRG. NO.	T	C	O	P	1	0	2	5	0	D	E	3	3	0	1	0	1	2	0	E	A



## NOTES :

1. TECHNICAL INFORMATION AND SAMPLES OF CABLE CLEATS SHALL BE SUBMITTED TO CLPP FOR APPROVAL.
2. WEIGHT OF POWER CABLE SHALL BE 16kg/m.
3. MATERIAL OF CABLE CLEAT AND THE ASSOCIATED BOLTS, NUTS, WASHER AND SPRING WASHERS, ETC. TO BE ALUMINIUM ALLOY OR OTHER METALS OR ALLOY WITH CORROSION RESISTANT COATING/PLATING.
4. EACH CABLE CLEAT SHALL BE TYPE TESTED TO WITHSTAND A VERTICAL SAFE WORKING LOAD (SWL) OF NOT LESS THAN 360kg (i.e. 15 x 16 kg/m x 1.5m).
5. THE HORIZONTAL MOUNTING STEEL CHANNEL SHALL BE OF HOT DIP GALVANISED STEEL OR OTHER CORROSION RESISTANT MATERIAL AND BE DESIGNED AND CONSTRUCTED TO WITHSTAND A VERTICAL SWL OF THE TOTAL NUMBER CABLE ON IT.
6. ALL DIMENSIONS ARE IN mm



B GENERAL LAYOUT REVISION

CLP 中電

REVS.	3.4.03	23.02.17											
INITIAL	A	B	C	D	E	F	G	H	J	K	L		
	K.C.C.	H.T.YU											

TITLE :

TYPICAL LAYOUT OF CABLE RISER ROOM  
CABLE MOUNTING DETAILS (SHEET 4 OF 4)

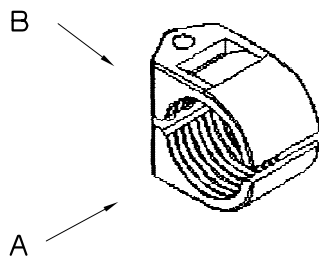
DRAWN: T. W. LAU      DATE: 1-11-2002

CHECKED: K. C. CHENG      APPROVED: K. W. WONG

SCALE: AS SHOWN      SHEET(S) IN SET:

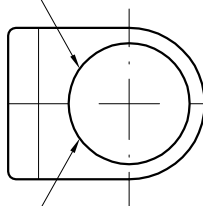
ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 2 1 B A

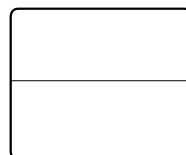


PILOT CABLE DIAMETER  
32mm - 46mm

FIBRE OPTIC CABLE  
DIAMETER 16mm - 25mm

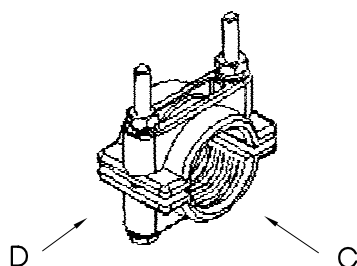


VIEW A

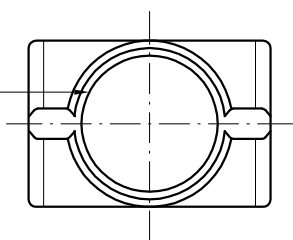


VIEW B

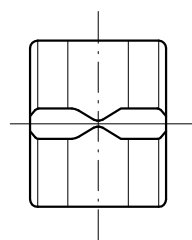
### PILOT AND FIBRE OPTIC CABLE CLEATS



CABLE DIAMETER  
70mm - 90mm



VIEW C



VIEW D

### HV CABLES CLEATS



REVS.

INITIAL

TITLE :








TYPICAL CABLE CLEATS FOR HV CABLES,  
PILOT CABLES AND FIBRE OPTIC CABLES

DRAWN: T. W. LAU	DATE: 21-9-2004
CHECKED: K. C. CHENG	APPROVED: W. C. HO
SCALE: N.T.S	SHEET(S) IN SET:

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 2 2 - A



- |   |  |
|---|--|
|  | WALL MOUNTED LAMPS   |
|  | LAMPS SUSPENDED FROM CEILING   |
|  | LAMPS WITH EMERGENCY LIGHTING UNIT   |
|  | LIGHTING SWITCH (2-WAY/INTERMEDIATE SWITCHING CONTROL FOR MULTIPLE ENTRANCE DOORS) |
|  | FAN CONTROL PANEL  |
|  | LV MONITORING PANEL  |
|  | MCB BOARD  |

C	EMERGENCY LIGHTING ADDED
B	MASTER CHECK METER, FIRE EXTINGUISHER ADDED. SYMBOLS, G.I. SLEEVE SIZE AND DEPTH OF CABLE TRENCH UPDATED.
A	FUSE CUTOUT ADDED, DOOR, TRANSFORMER, HV SWITCHGEAR AND G.I. SLEEVE SIZE UPDATED



REVS.	24.4.12	18.03.14	23.02.17								
	A	B	C	D	E	F	G	H	J	K	L
INITIAL	K.C.C.	H.I.Y.U	H.I.Y.U								



TYPICAL GROUND FLOOR SUBSTATION  
LAYOUT FOR TWO TRANSFORMERS AND  
11kV SWITCHGEAR (WITH TWO LV BOARDS)

DRAWN: C W WONG	DATE: 17 SEP., 2009
CHECKED: K C CHENG	APPROVED: W C HO
SCALE: 1 : 100 (mm)	SHEET(S) IN SET:

## ASSET MANAGEMENT

DRG. NO.	T	C	O	P	1	0	2	5	0	D	E	3	3	0	1	0	1	2	3	C	A
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- |   |                     |
|---|---------------------|
|  | FAN CONTROL PANEL   |
|  | LV MONITORING PANEL |
|  | MCB BOARD           |

<b>C</b>	GENERAL LAYOUT REVISION
<b>B</b>	MASTER CHECK METER, FIRE EXTINGUISHER ADDED. SYMBOLS, G.I. SLEEVE SIZE AND DEPTH OF CABLE TRENCH UPDATED.
<b>A</b>	FUSE CUTOUT ADDED, DOOR, TRANSFORMER, HV SWITCHGEAR AND G.I. SLEEVE SIZE UPDATED



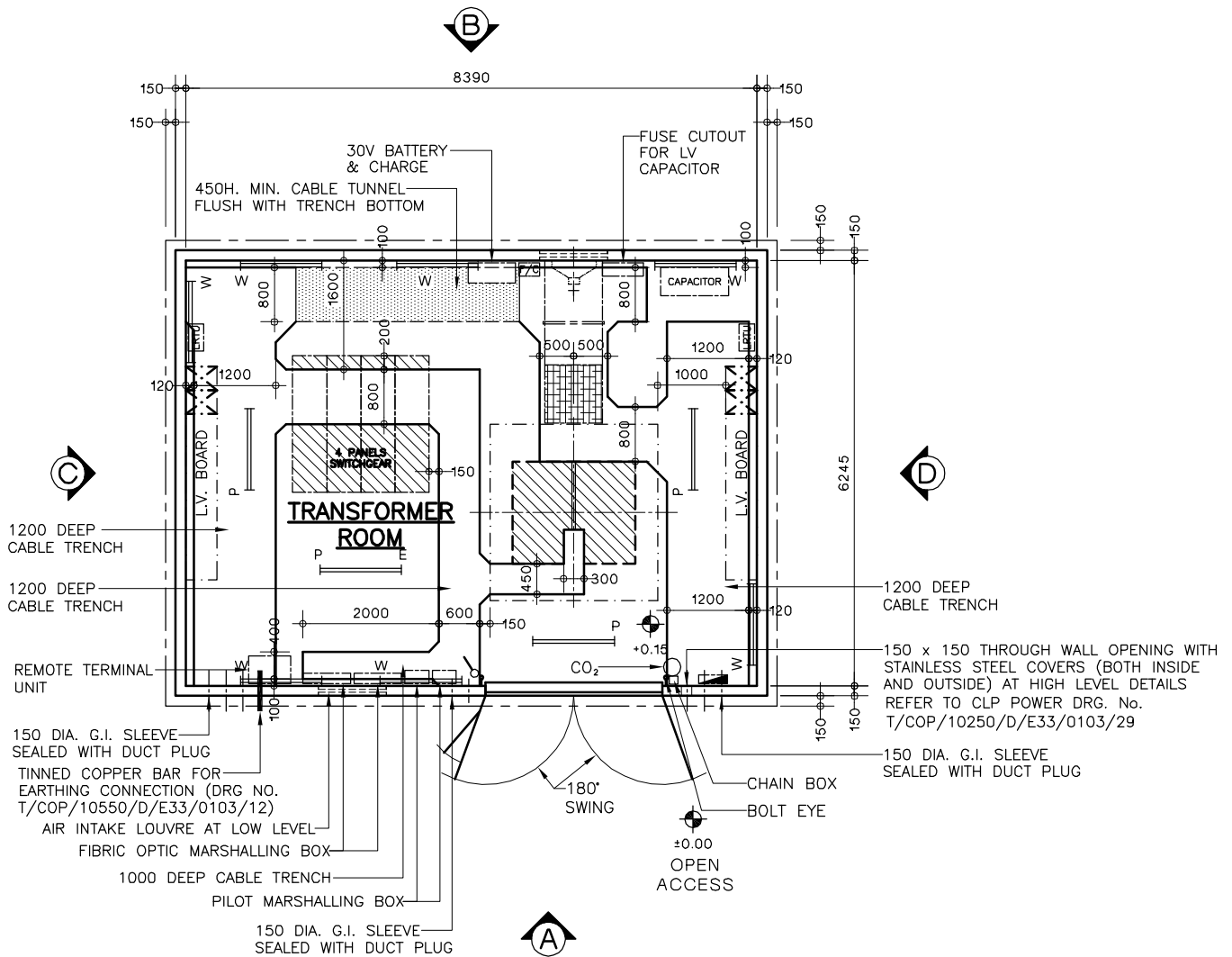
TITLE :

TYPICAL GROUND FLOOR SUBSTATION  
LAYOUT FOR THREE TRANSFORMERS AND  
11kV SWITCHGEAR (WITH THREE LV BOARDS)

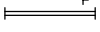





DRAWN: C W WONG	DATE: 17 SEP., 2009
CHECKED: K C CHENG	APPROVED: W C HO
SCALE: 1 : 125 (mm)	SHEET(S) IN SET:

## ASSET MANAGEMENT

DRG. NO.	T	C	O	P	1	0	2	5	0	D	E	3	3	0	1	0	1	2	4	C	A
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**LEGEND:**

- |   |                                    |
|---|------------------------------------|
|  | WALL MOUNTED LAMPS                 |
|  | LAMPS SUSPENDED FROM CEILING       |
|  | LAMPS WITH EMERGENCY LIGHTING UNIT |
|  | LIGHTING SWITCH                    |
|  | FAN CONTROL PANEL                  |
|  | LV MONITORING PANEL                |
|  | MCB BOARD                          |

<b>B</b>	GENERAL LAYOUT REVISED	<b>A</b>	SYMBOLS, G.I. SLEEVE SIZE AND DEPTH OF CABLE TRENCH UPDATED.
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[illegible]

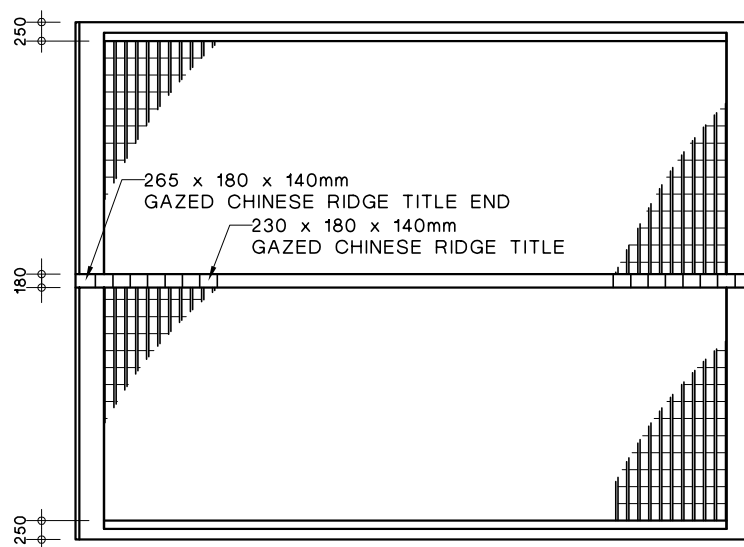
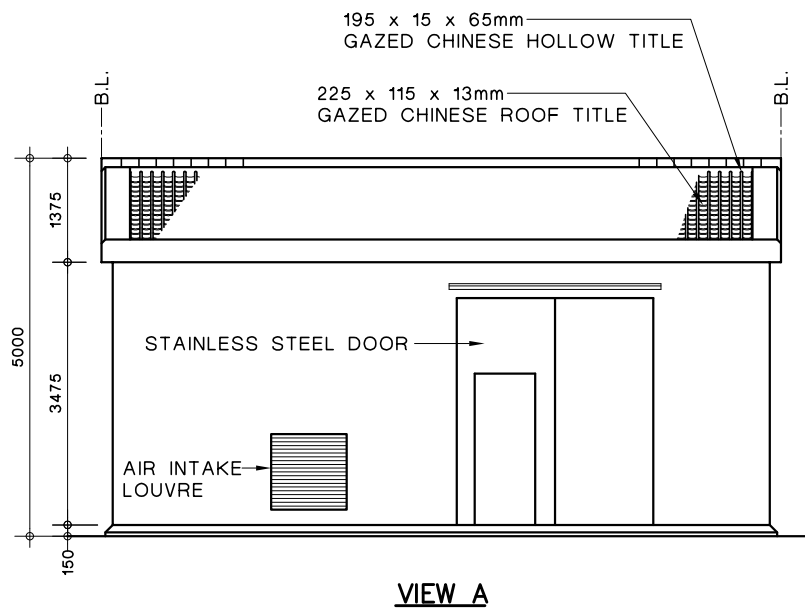
TITLE :

TYPICAL DRAWING FOR STANDALONE  
SUBSTATION (SHEET 1 OF 3)

DRAWN: C W WONG	DATE: 16 APR., 2012
CHECKED: EDMOND YU	APPROVED: W. C. HO
SCALE: 1 : 100 (mm)	SHEET(S) IN SET:

## ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 2 5 B A



DRAWN: C W WONG	DATE: 16 APR., 2012
CHECKED: EDMOND YU	APPROVED: W. C. HO
SCALE: 1 : 100 (mm)	SHEET(S) IN SET:

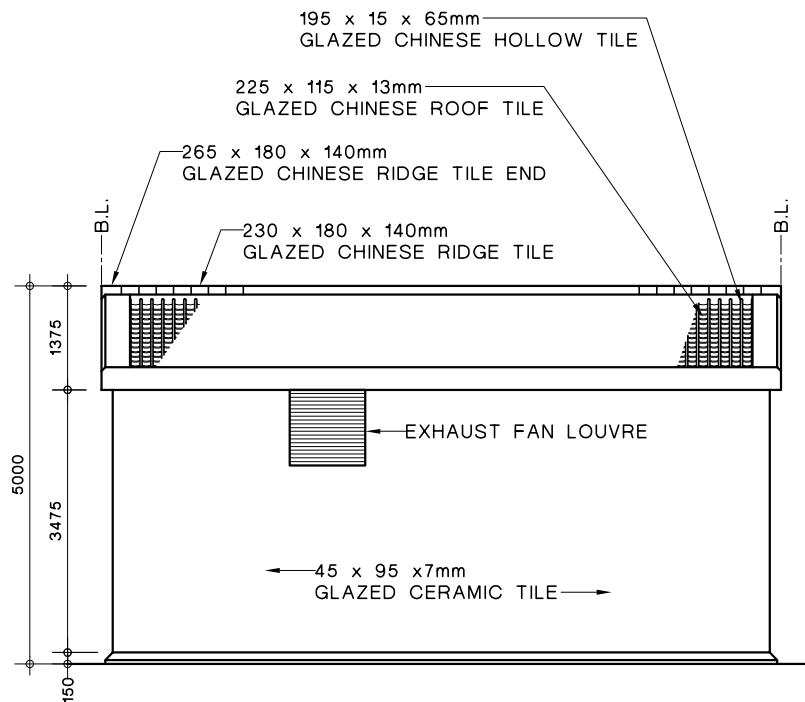
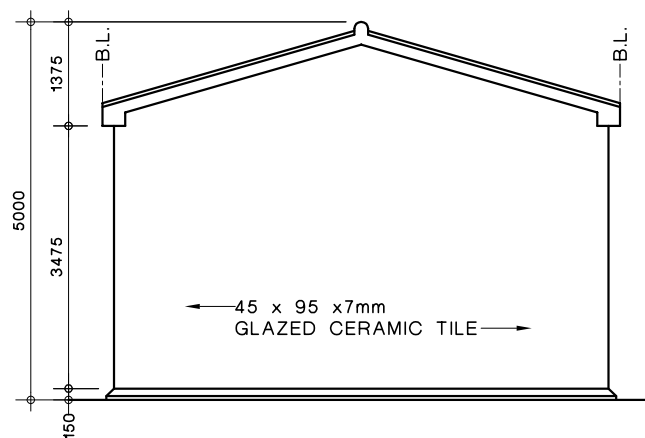
REVS.	A	B	C	D	E	F	G	H	J	K	L
INITIAL											

TITLE :

TYPICAL DRAWING FOR STANDALONE  
SUBSTATION (SHEET 2 OF 3)

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 2 6 - A

VIEW BVIEW C & D

REVS.	A	B	C	D	E	F	G	H	J	K	L
INITIAL											

TITLE :

TYPICAL DRAWING FOR STANDALONE  
SUBSTATION (SHEET 3 OF 3)

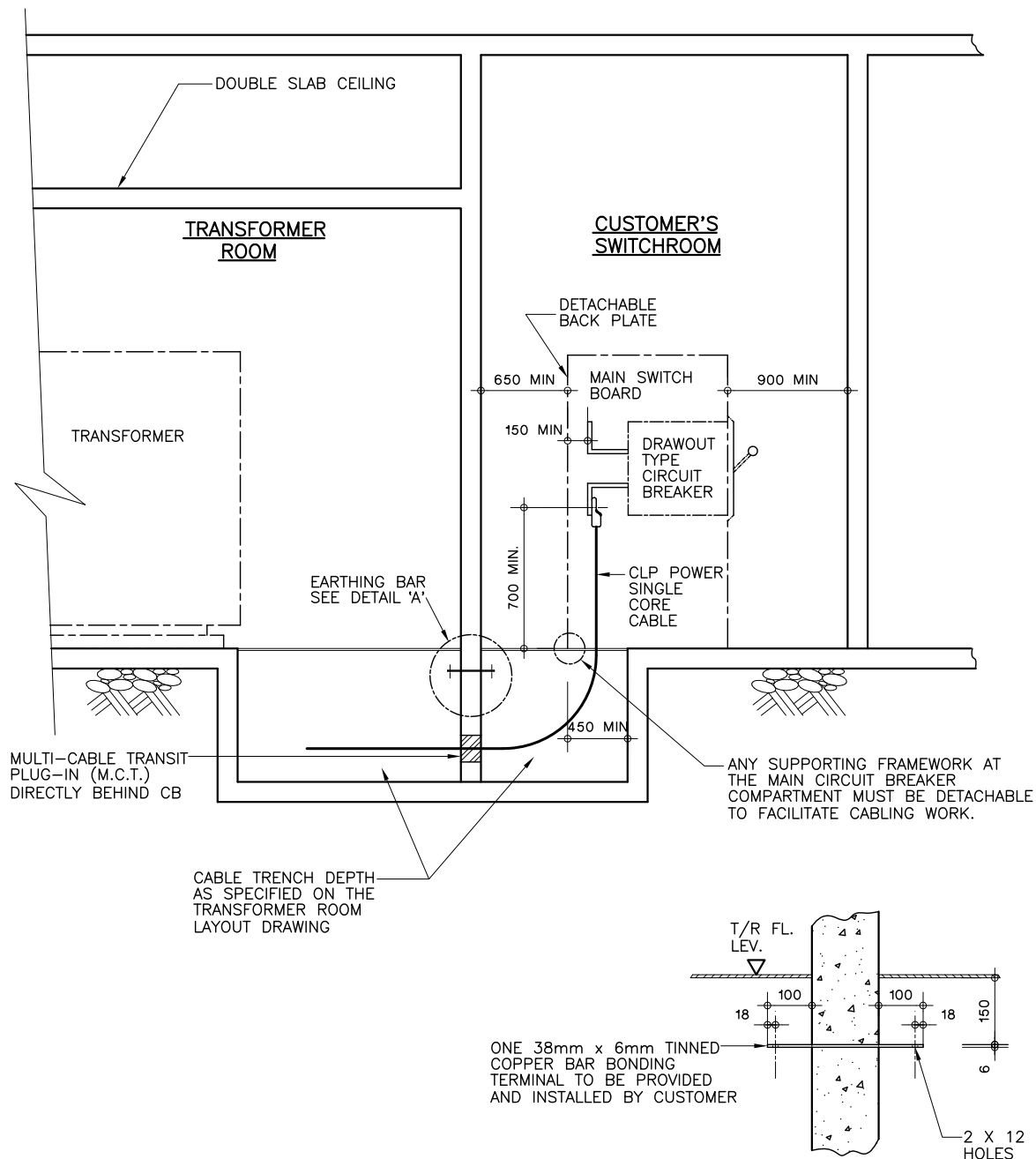
DRAWN: C W WONG DATE: 16 APR., 2012

CHECKED: EDMOND YU APPROVED: W. C. HO

SCALE: 1 : 100 (mm) SHEET(S) IN SET:

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 2 7 - A

**NOTES:**

1. EXACT POSITION OF ALL MAIN INCOMING CIRCUIT BREAKERS AND DETAILED CABLE TRENCH LAYOUT WITHIN CUSTOMER'S SWITCHROOM MUST BE SUBMITTED TO CLP POWER FOR APPROVAL PRIOR TO INSTALLATION.
2. REFER TO DRAWING NO. T/COP/10250/D/E33/0103/13 FOR THE CLEARANCE BEHIND THE MAIN SWITCH BOARD.
3. WATERPROOFING SHALL BE APPLIED TO THE SLAB BETWEEN THE CEILING OF THE SUBSTATION AND THE VOID.
4. DRAIN SHALL BE PROVIDED IN THE VOID TO DRAIN AWAY WATER LEAKED INTO THE VOID.
5. NO DRAIN OR OTHER WATER SERVICES PIPE SHALL RUN INTO OR CONCEAL IN THE CEILING SLAB OF THE SUBSTATION.

**DETAIL 'A'**  
SCALE 1 : 15

D	GENERAL AMENDMENT
C	DOUBLE SLAB HEIGHT CHANGED
B	DOUBLE SLAB CEILING ADDED
A	NOTE 2 ADDED



REVS.	21.11.07	08.01.10	26.03.12	23.05.17										
	A	B	C	D	E	F	G	H	J	K	L			
INITIAL	K.C.C.	K.C.C.	K.C.C.	H.T.YU										

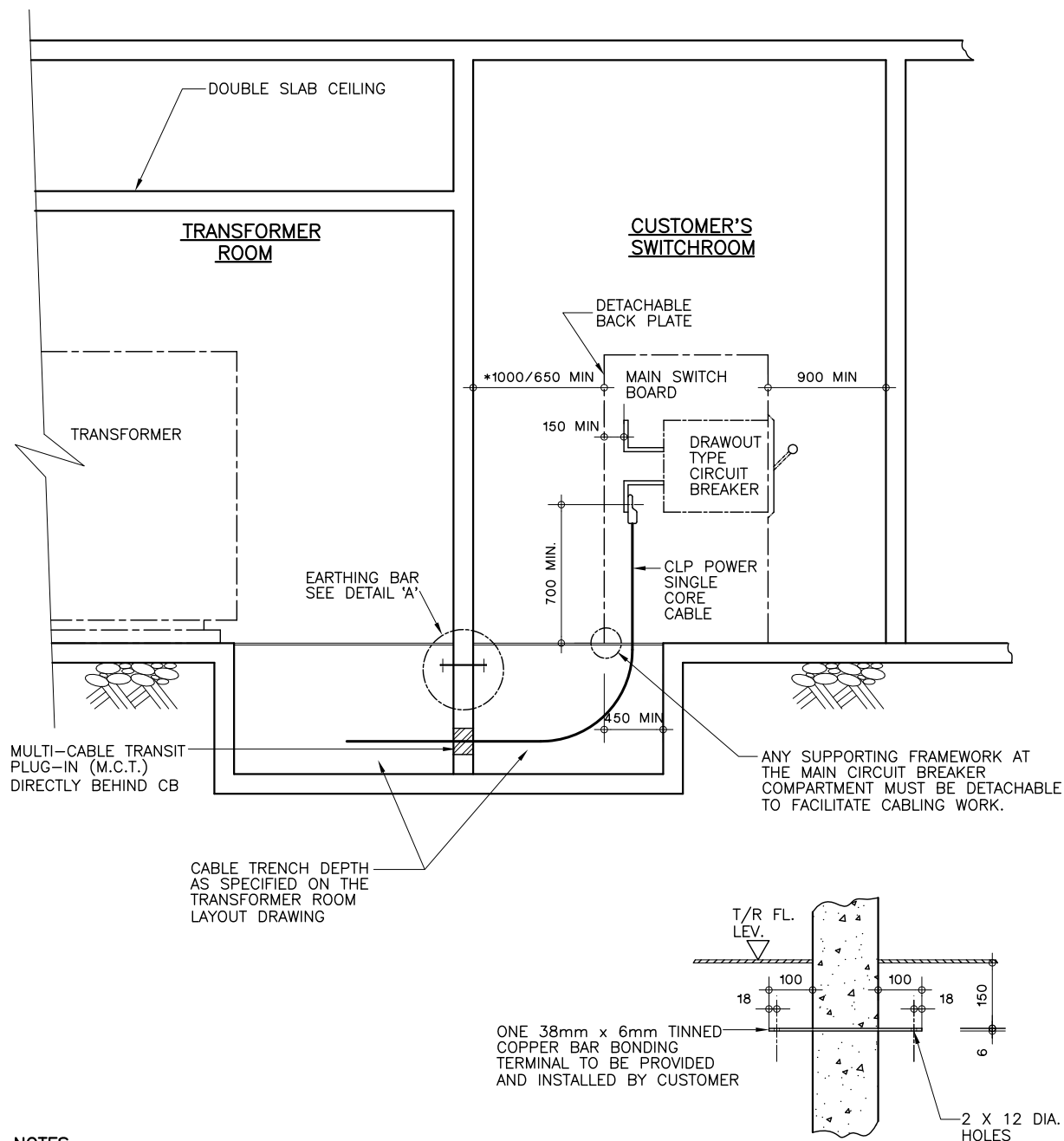
TITLE :

MINIMUM REQUIREMENTS FOR CUSTOMER MAIN  
SWITCHROOM ADJACENT TO SUBSTATION FOR  
SINGLE TRANSFORMER INSTALLATION

DRAWN:	S. C. TO	DATE:	12-8-2002
CHECKED:	K. C. CHENG	APPROVED:	K. W. WONG
SCALE:	1 : 50 (mm)	SHEET(S) IN SET:	

**ASSET MANAGEMENT**

DRG. NO. T/COP/10250/D/E33/0103/13

**NOTES:**

1. EXACT POSITION OF ALL MAIN INCOMING CIRCUIT BREAKERS AND DETAILED CABLE TRENCH LAYOUT WITHIN CUSTOMER'S SWITCHROOM MUST BE SUBMITTED TO CLP POWER FOR APPROVAL PRIOR TO INSTALLATION.
  2. REFER TO DRAWING NO. T-COP-10250-D-E33-0103-13 FOR THE CLEARANCE BEHIND THE MAIN SWITCH BOARD.
  3. WATERPROOFING SHALL BE APPLIED TO THE SLAB BETWEEN THE CEILING OF THE SUBSTATION AND THE VOID.
  4. DRAIN SHALL BE PROVIDED IN THE VOID TO DRAIN AWAY WATER LEAKED INTO THE VOID.
  5. NO DRAIN OR OTHER WATER SERVICES PIPE SHALL RUN INTO OR CONCEAL IN THE CEILING SLAB OF THE SUBSTATION.
- \* IF THE POSITION OF THE DRAWOUT TYPE CIRCUIT BREAKER IS NOT IN LINE WITH THE RESPECTIVE TRANSFORMER, THE MINIMUM DISTANCE SHALL BE KEPT AT 1000mm.

**DETAIL 'A'**

SCALE 1 : 15

E	GENERAL AMENDMENT
D	NOTE ADDED
C	DOUBLE SLAB HEIGHT CHANGED
B	DOUBLE SLAB CEILING ADDED
A	NOTE 2 ADDED



REVS.	21.11.07	08.01.10	26.03.12	04.06.14	23.05.17								
INITIAL	A	B	C	D	E	F	G	H	J	K	L		
	K.C.C.	K.C.C.	K.C.C.	H.T.YU	H.T.YU								

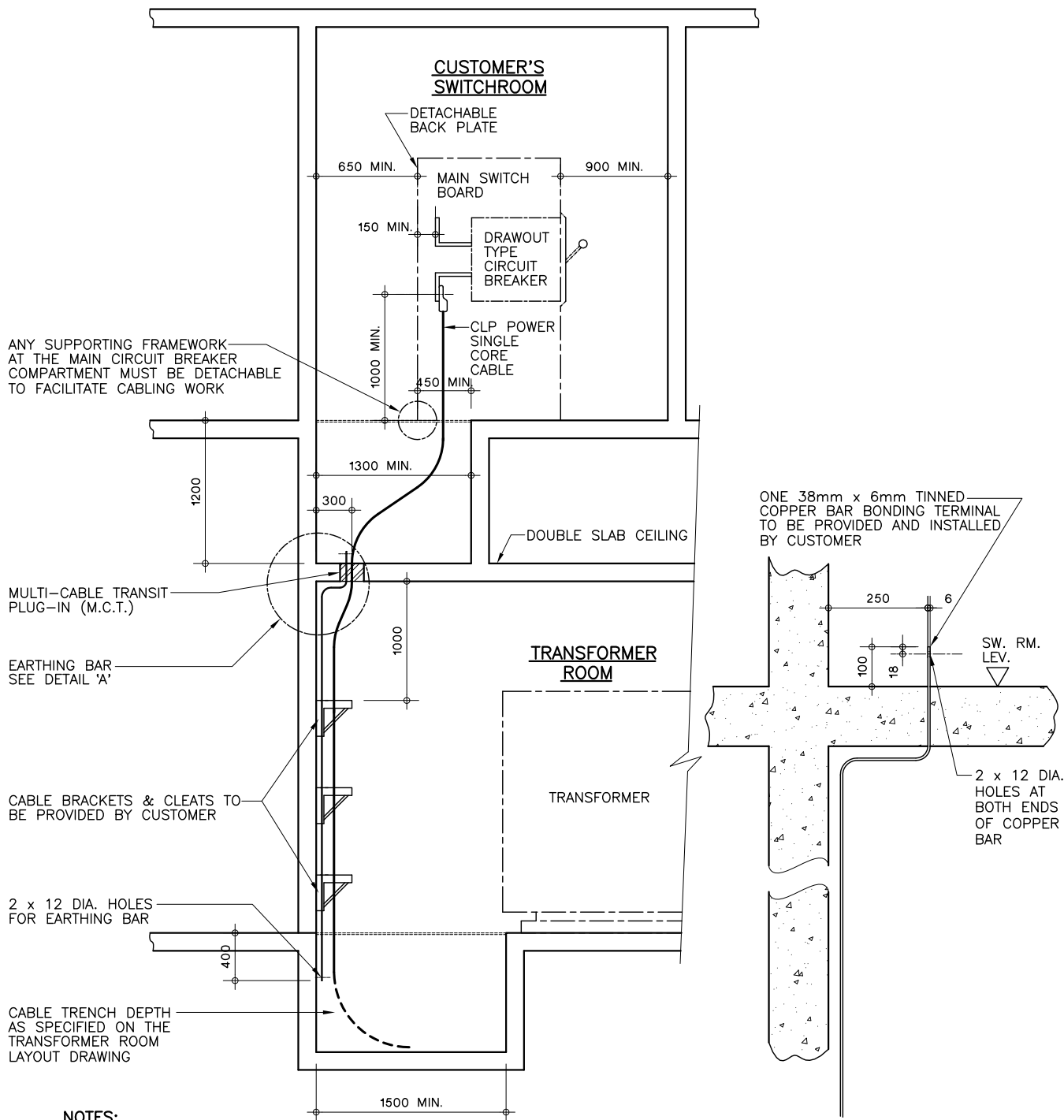
TITLE :

MINIMUM REQUIREMENTS FOR CUSTOMER MAIN  
SWITCHROOM ADJACENT TO SUBSTATION FOR  
MULTI-TRANSFORMER INSTALLATION

DRAWN: T. Y. IP	DATE: 19-07-2002
CHECKED: K. C. CHENG	APPROVED: K. W. WONG
SCALE: 1 : 50 (mm)	SHEET(S) IN SET:

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 2 0 2 E A

**NOTES:**

1. EXACT POSITION OF ALL MAIN INCOMING CIRCUIT BREAKERS AND DETAILED CABLE TRENCH LAYOUT WITHIN CUSTOMER'S SWITCHROOM MUST BE SUBMITTED TO CLP POWER FOR APPROVAL PRIOR TO INSTALLATION.
2. REFER TO DRAWING NO. T-COP-10250-D-E33-0103-13 FOR THE CLEARANCE BEHIND THE MAIN SWITCH BOARD.
3. WATERPROOFING SHALL BE APPLIED TO THE SLAB BETWEEN THE CEILING OF THE SUBSTATION AND THE VOID.
4. DRAIN SHALL BE PROVIDED IN THE VOID TO DRAIN AWAY WATER LEAKED INTO THE VOID.
5. NO DRAIN OR OTHER WATER SERVICES PIPE SHALL RUN INTO OR CONCEAL IN THE CEILING SLAB OF THE SUBSTATION.

**DETAIL 'A'**

SCALE 1 : 15

D	CABLE TRENCH AND FACILITY FOR CUSTOMER MAIN SWITCHROOM UPDATED
C	DIMENSION OF CABLE TRENCH ADDED AND DOUBLE SLAB HEIGHT CHANGED
B	DOUBLE SLAB CEILING ADDED
A	NOTE 2 ADDED



REVS.	21.11.07	08.01.10	23.03.12	23.02.17								
	A	B	C	D	E	F	G	H	J	K	L	
INITIAL	K.C.C.	K.C.C.	K.C.C.	H.T.YU								

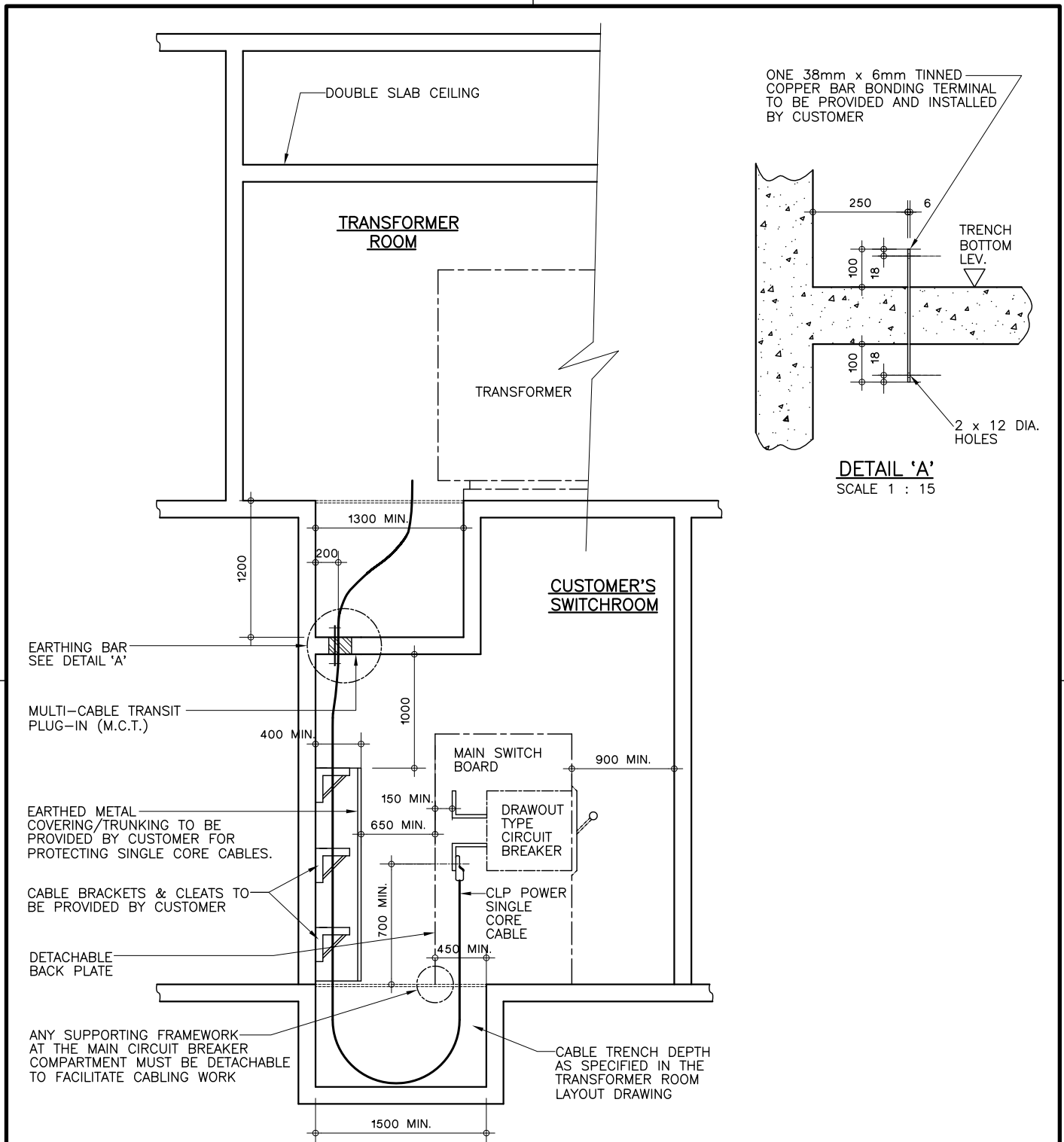
TITLE :

## MINIMUM REQUIREMENTS FOR CUSTOMER MAIN SWITCHROOM ABOVE TRANSFORMER ROOM

DRAWN:	S. C. TO	DATE:	12-8-2002
CHECKED:	K. C. CHENG	APPROVED:	K. W. WONG
SCALE:	1 : 50 (mm)	SHEET(S) IN SET:	

**ASSET MANAGEMENT**

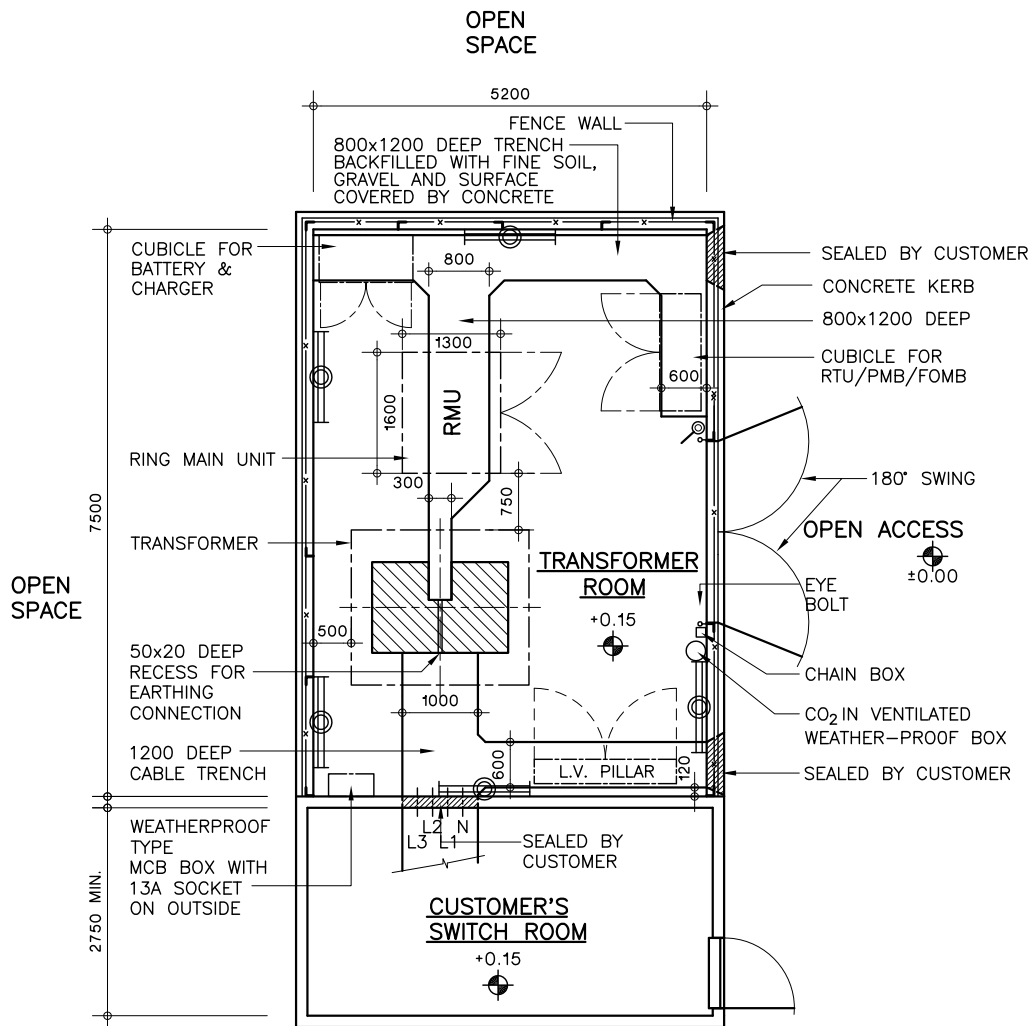
DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 2 0 3 D A



## NOTES:

1. EXACT POSITION OF ALL MAIN INCOMING CIRCUIT BREAKERS AND DETAILED CABLE TRENCH LAYOUT WITHIN CUSTOMER'S SWITCHROOM MUST BE SUBMITTED TO CLP POWER FOR APPROVAL PRIOR TO INSTALLATION.
2. REFER TO DRAWING NO. T-COP-10250-D-E33-0103-13 FOR THE CLEARANCE BEHIND THE MAIN SWITCH BOARD.
3. WATERPROOFING SHALL BE APPLIED TO THE SLAB BETWEEN THE CEILING OF THE SUBSTATION AND THE VOID.
4. DRAIN SHALL BE PROVIDED IN THE VOID TO DRAIN AWAY WATER LEAKED INTO THE VOID.
5. NO DRAIN OR OTHER WATER SERVICES PIPE SHALL RUN INTO OR CONCEAL IN THE CEILING SLAB OF THE SUBSTATION.

D	CABLE TRENCH AND FACILITY FOR CUSTOMER MAIN SWITCHROOM UPDATED.	C	DIMENSION OF CABLE TRENCH ADDED AND DOUBLE SLAB HEIGHT CHANGED				B	DOUBLE SLAB CEILING ADDED																
<div>CLP 中電</div>			REVS.	21.11.07	08.01.10	23.03.12	17.03.17																	
				A	B	C	D	E	F	G	H	J	K	L										
			INITIAL	K.C.C.	K.C.C.	K.C.C.	H.T.YU																	
<div>DRAWN: T. Y. IP</div> <div>CHECKED: K. C. CHENG</div> <div>SCALE: 1 : 50 (mm)</div>			TITLE :																					
			MINIMUM REQUIREMENTS FOR CUSTOMER MAIN SWITCHROOM BELOW TRANSFORMER ROOM																					
ASSET MANAGEMENT			DRG. NO.	T	C	O	P	1	0	2	5	0	D	E	3	3	0	1	0	2	0	4	D	A

**LEGEND:**

WEATHERPROOF FLUORESCENT LAMPS



WEATHERPROOF LIGHTING SWITCH

E	SIZE OF RMU UPDATED.
D	DEPTH OF CABLE TRENCH AND DOOR SIZE UPDATED.
C	CHAIN BOX ADDED
B	PHASE IDENTIFICATION UPDATED



REVS.	3.4.03	16.08.07	16.12.09	18.03.14	28.06.17						
INITIAL	A	B	C	D	E	F	G	H	J	K	L
	K.C.C.	K.C.C.	K.C.C.	H.T.YU	H.T.YU						

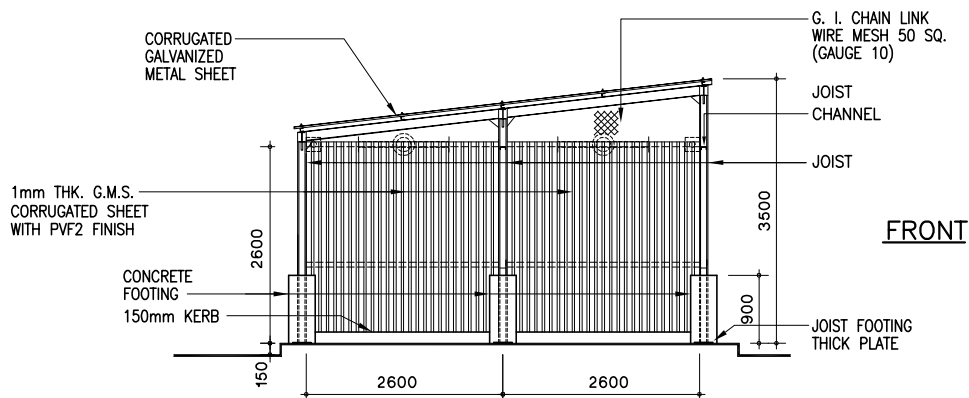
TITLE :

TYPICAL TEMPORARY OUTDOOR SUBSTATION  
LAYOUT FOR ONE TRANSFORMER AND 11kV  
RING MAIN UNIT

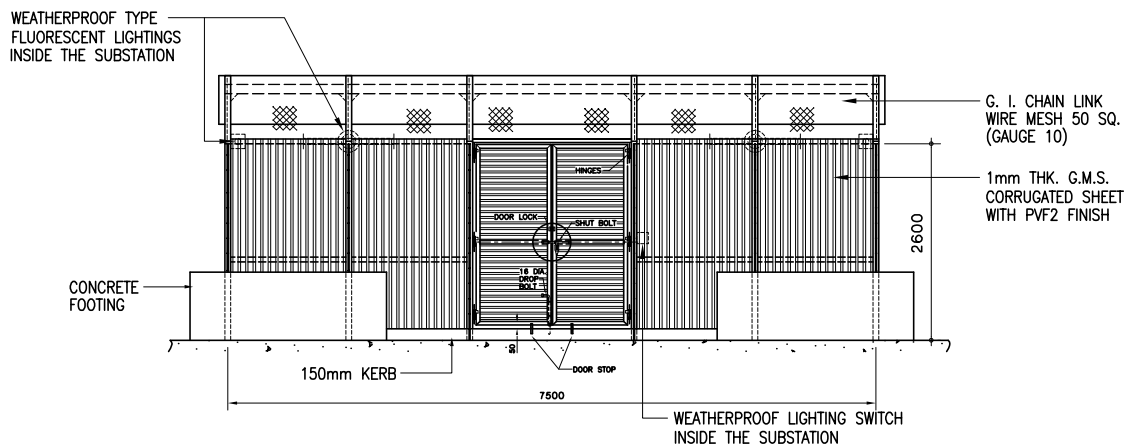
DRAWN: S. C. TO	DATE: 18-07-2002
CHECKED: K. C. CHENG	APPROVED: K. W. WONG
SCALE: 1 : 100 (mm)	SHEET(S) IN SET:

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 1 0 1 E A



SIDE VIEW

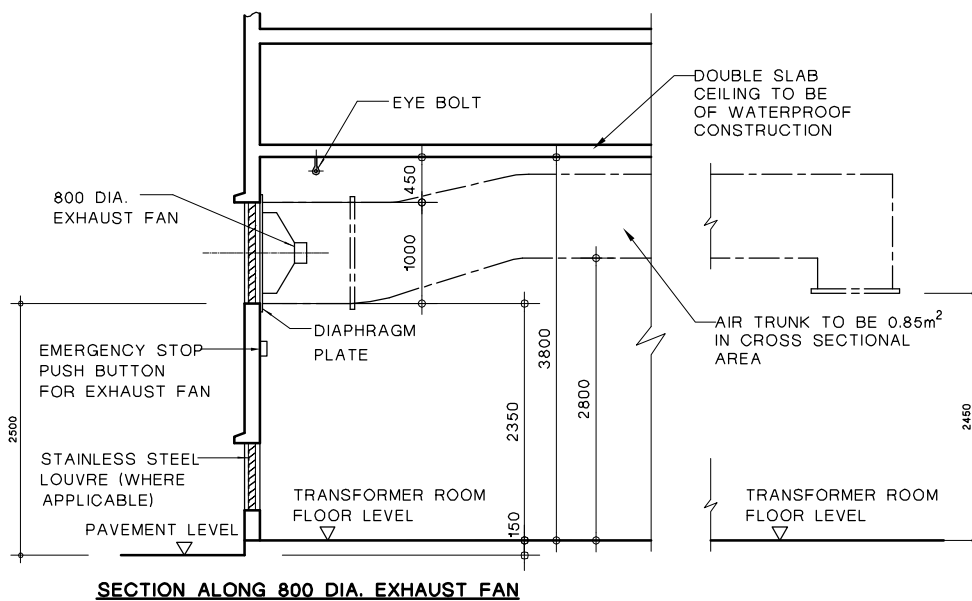
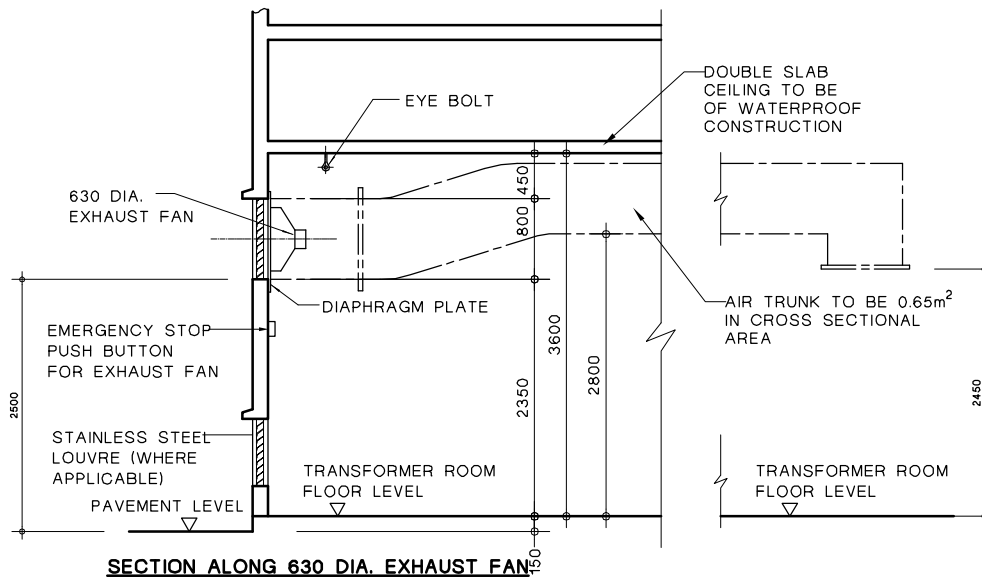


FRONT VIEW

**NOTES:**

1. DETAIL STRUCTURE SHALL BE DESIGNED BY COMPETENT PROFESSIONAL HIRED BY THE CUSTOMER/DEVELOPER.
2. DETAILS OF METAL GATE, DRAIN PIPE, EARTHING BAR ARRANGEMENT REFER TO DRG. NO. T-COP-10250-D-E33-0104-01
3. SUPPORTING METAL STRUCTURE SHALL BE APPLIED WITH ANTI-RUST PAINTING.
4. FLOOESCENT LIGHTINGS (WEATHERPROOF TYPE) SHALL BE INSTALLED INSIDE THE SUBSTATION.

C	DIMENSION UPDATED.					B	CHANGE FENCE WALL MATERIAL					A	CHANGE FENCE WALL														
<div>CLP 中電</div>						REVS.	21.12.05	16.08.07	18.03.14																		
							A	B	C	D	E	F	G	H	J	K	L										
						INITIAL	K.C.C.	K.C.C.	H.T.YU																		
<div></div>						TITLE :																					
						COVER FOR OUTDOOR SUBSTATION LOCATED INSIDE CONSTRUCTION SITE																					
						DRAWN: T. Y. IP		DATE: 21 Dec., 2005																			
						CHECKED: K. C. CHENG		APPROVED: W. C. HO																			
						SCALE: 1 : 100 (mm)		SHEET(S) IN SET:																			
A S S E T M A N A G E M E N T						DRG. NO.	T	C	O	P	1	0	2	5	0	D	E	3	3	0	1	0	2	0	5	C	A

**NOTES:**

1. WATERPROOFING SHALL BE APPLIED TO THE SLAB BETWEEN THE CEILING OF THE SUBSTATION AND THE VOID.

2. DRAIN SHALL BE PROVIDED IN THE VOID TO DRAIN AWAY WATER LEAKED INTO THE VOID.

3. NO DRAIN OR OTHER WATER SERVICES PIPE SHALL RUN INTO OR CONCEAL IN THE CEILING SLAB OF THE SUBSTATION.

**E** AIR TRUNK UPDATED

**D** GENERAL AMENDMENT



REVS.	16.08.07	08.01.10	26.04.12	06.06.14	23.02.17								
INITIAL	A	B	C	D	E	F	G	H	J	K	L		
	K.C.C.	K.C.C.	K.C.C.	H.T.YU	H.T.YU								

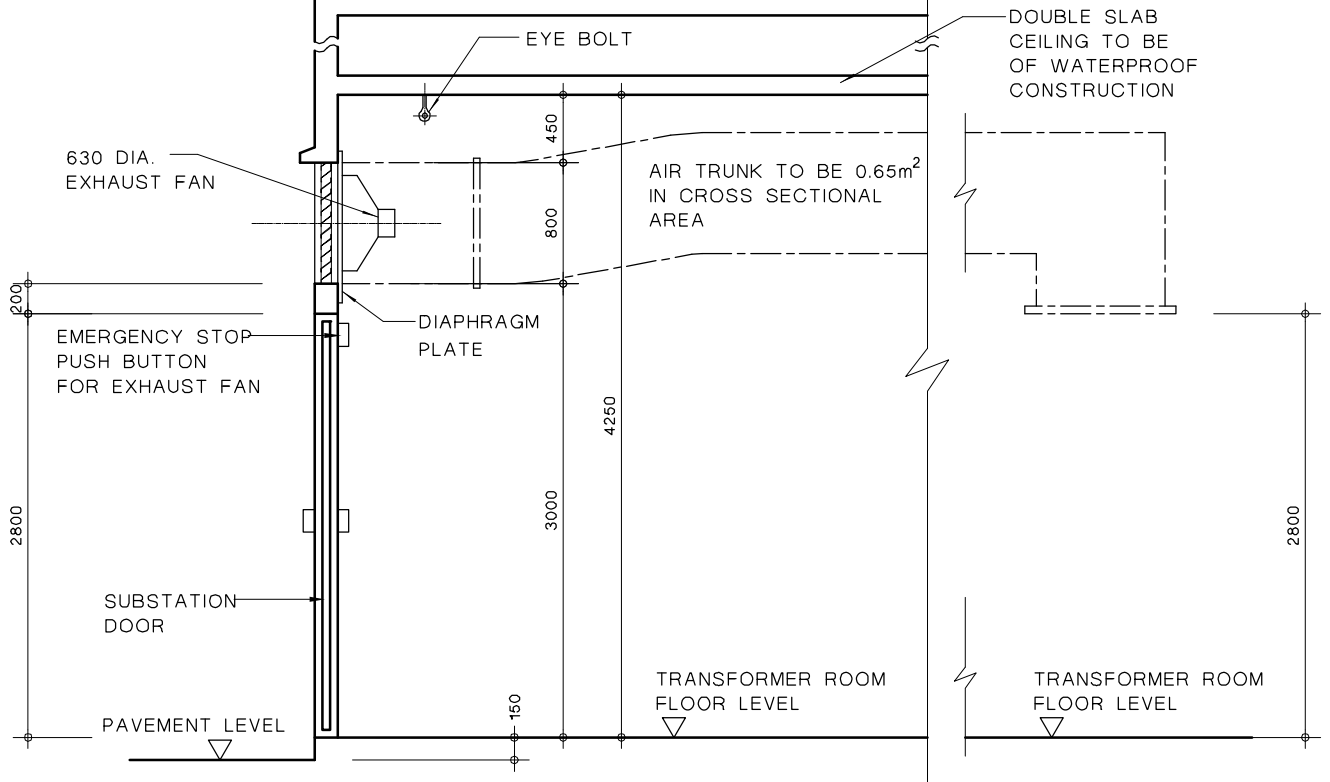
TITLE :

**TYPICAL SECTIONS OF TRANSFORMER ROOM AT EXHAUST FAN POSITION (NOT DIRECTLY ABOVE SUBSTATION DOOR) (SHEET 1 OF 3)**

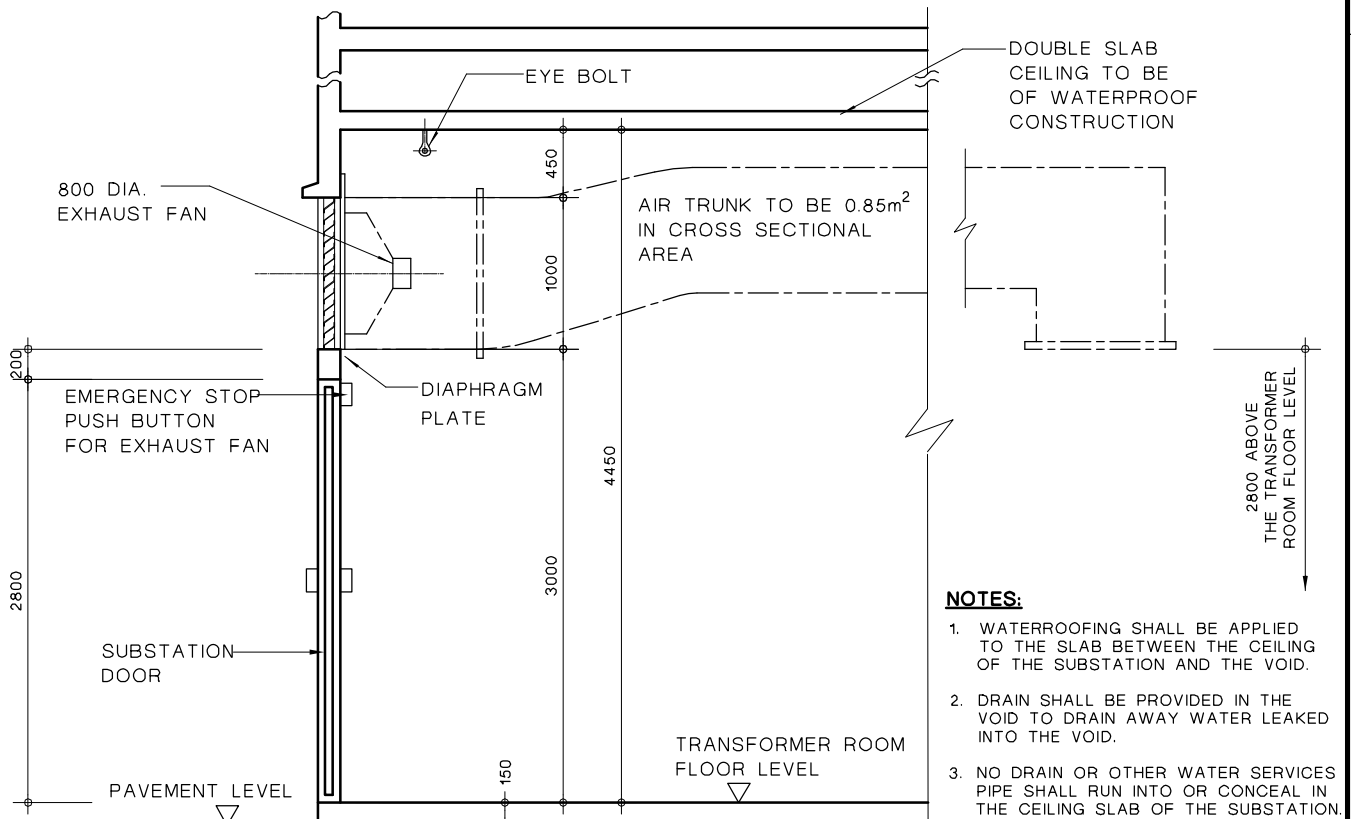
DRAWN: S. C. TO DATE: 23-07-2002  
 CHECKED: K. C. CHENG APPROVED: K. W. WONG  
 SCALE: 1 : 75 (mm) SHEET(S) IN SET:

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 2 0 7 E A



SECTION ALONG 630 DIA. EXHAUST FAN



SECTION ALONG 800 DIA. EXHAUST FAN

**NOTES:**

1. WATERPROOFING SHALL BE APPLIED TO THE SLAB BETWEEN THE CEILING OF THE SUBSTATION AND THE VOID.
2. DRAIN SHALL BE PROVIDED IN THE VOID TO DRAIN AWAY WATER LEAKED INTO THE VOID.
3. NO DRAIN OR OTHER WATER SERVICES PIPE SHALL RUN INTO OR CONCEAL IN THE CEILING SLAB OF THE SUBSTATION.

C GENERAL AMENDMENT

B DOUBLE SLAB HEIGHT CHANGED

D AIR TRUNK UPDATED



REVS.	08.01.10	02.05.12	18.03.14	23.02.17										
INITIAL	A K.C.C	B K.C.C	C H.T.YU	D H.T.YU	E	F	G	H	J	K	L			

TITLE :

TYPICAL SECTIONS OF TRANSFORMER ROOM AT  
EXHAUST FAN POSITION (DIRECTLY ABOVE  
SUBSTATION DOOR) (SHEET 2 OF 3)

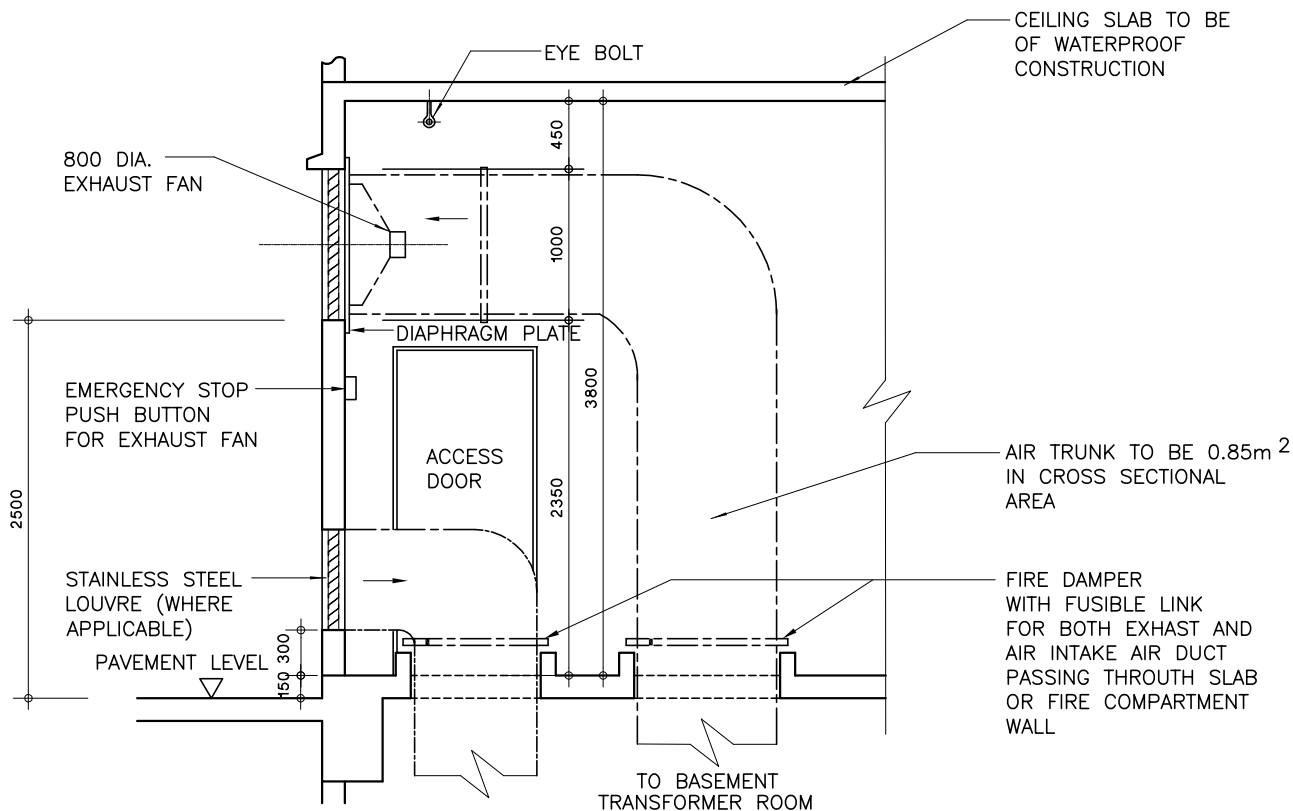
DRAWN: S. C. TO DATE: 23-07-2002

CHECKED: K. C. CHENG APPROVED: K. W. WONG

SCALE: 1 : 50 (mm) SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 2 0 8 D A



SECTION ALONG 800 DIA. EXHAUST FAN

**NOTES:**

THE FOLLOWING ITEMS SHALL BE PROVIDED FOR THE FAN ROOM:

1. ACCESS DOOR WITH PROPER NOTICE
2. ADEQUATE WORKING SPACE FOR MAINTENANCE
3. ADEQUATE LIGHTING AND POWER SOCKET
4. FIRE DAMPER CAN BE OMITTED WHEN FIRE RESISTANCE AIR DUCT IS USED IN ACCORDANCE WITH THE REGULATIONS

B	LOUVRE REVISED
A	NOTE 4 ADDED



REVS.	01.12.04	16.08.07												
INITIAL	A K.C.C	B K.C.C	C	D	E	F	G	H	J	K	L			

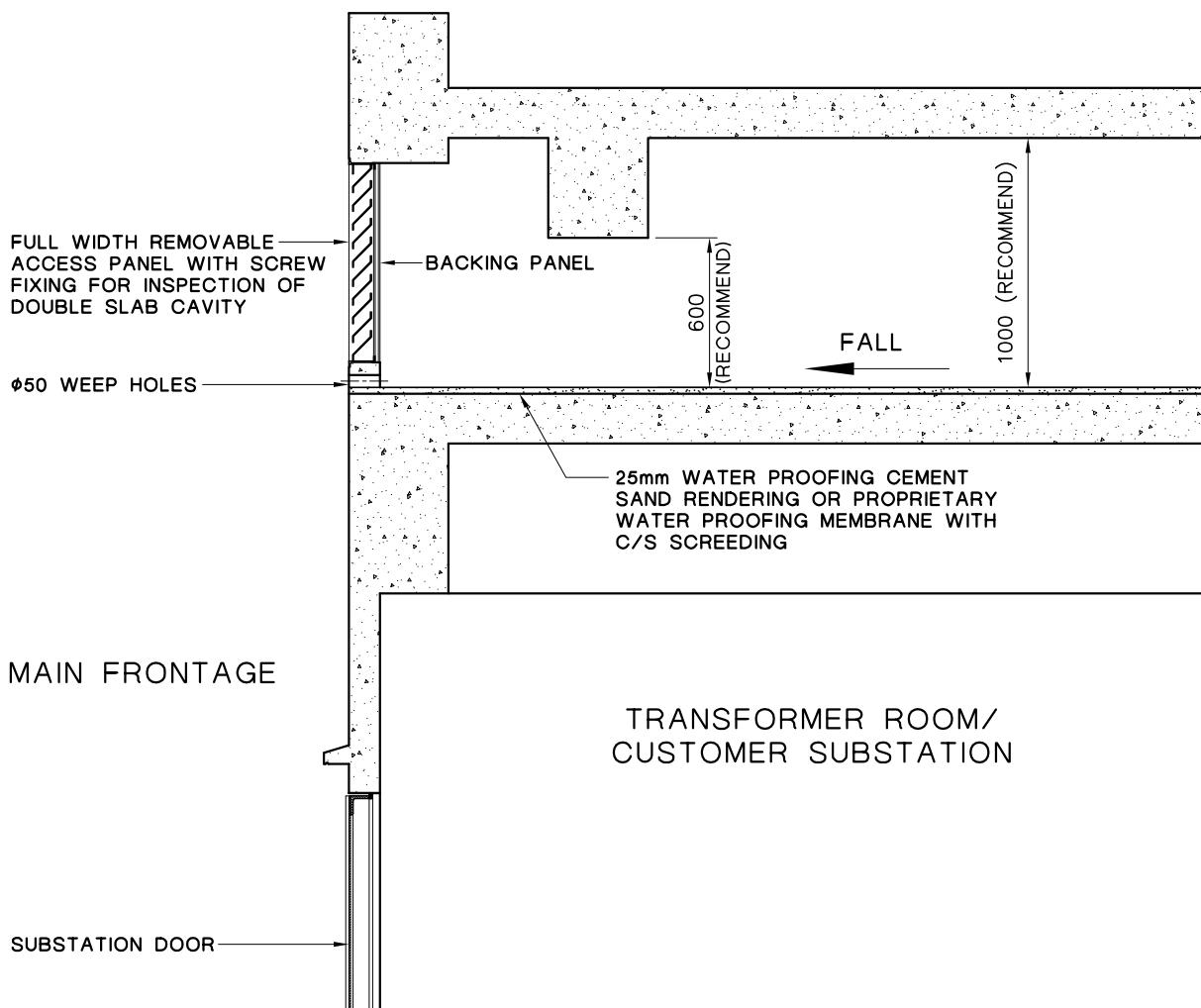
TITLE :

TYPICAL SECTION OF FAN ROOM  
(SHEET 3 OF 3)

DRAWN: S. C. TO	DATE: 23-07-2002
CHECKED: K. C. CHENG	APPROVED: W. C. HO
SCALE: 1 : 50 (mm)	SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 2 0 9 B A



## NOTES:

1. NO LEFT IN TIMBER FORM WORK INSIDE THE VOID AFTER CASTING THE CONCRETE.
2. 50mm DIAMETER WEEP HOLE IS REQUIRED AT THE LOWER POINT OF FALL OR AT LEAST 2 HOLES TO BE PROVIDED WHEN IT IS NOT FALLING TO A SINGLE POINT. ALLOW AT LEAST A SLEEVE OPENING FOR EACH VOID COMPARTMENT.
3. THE FOLLOWING TESTS SHALL BE CARRIED OUT AT THE TIME OF SUBSTATION INSPECTION:
  - i. SEAL ALL OUTLETS AND CONSTRUCT SUITABLE DAM WALLS TO COMPARTMENTALISE THE TEST AREAS. DO NOT PERMIT ANY DEBRIS TO ENTER INTO DRAINAGE PIPEWORKS;
  - ii CAREFULLY FLOOD THE LEVELS NO LESS THAN 50mm FOR UPPER SLAB AND 150mm FOR LOWER SLAB AND MAINTAIN FOR 24 HOURS;
  - iii MARK THE TOP WATER LEVEL AT CLEARLY VISIBLE LOCATIONS AND REGULARLY INSPECT FOR LEAKS;
  - iv SLOWLY DRAIN AND REMOVE ALL OUTLET BLOCKAGES AFTER LEST.
4. ALL DIMENSIONS ARE IN mm.

A GENERAL NOTES ADDED.



REVS.	18.03.14												
INITIAL	A	B	C	D	E	F	G	H	J	K	L		

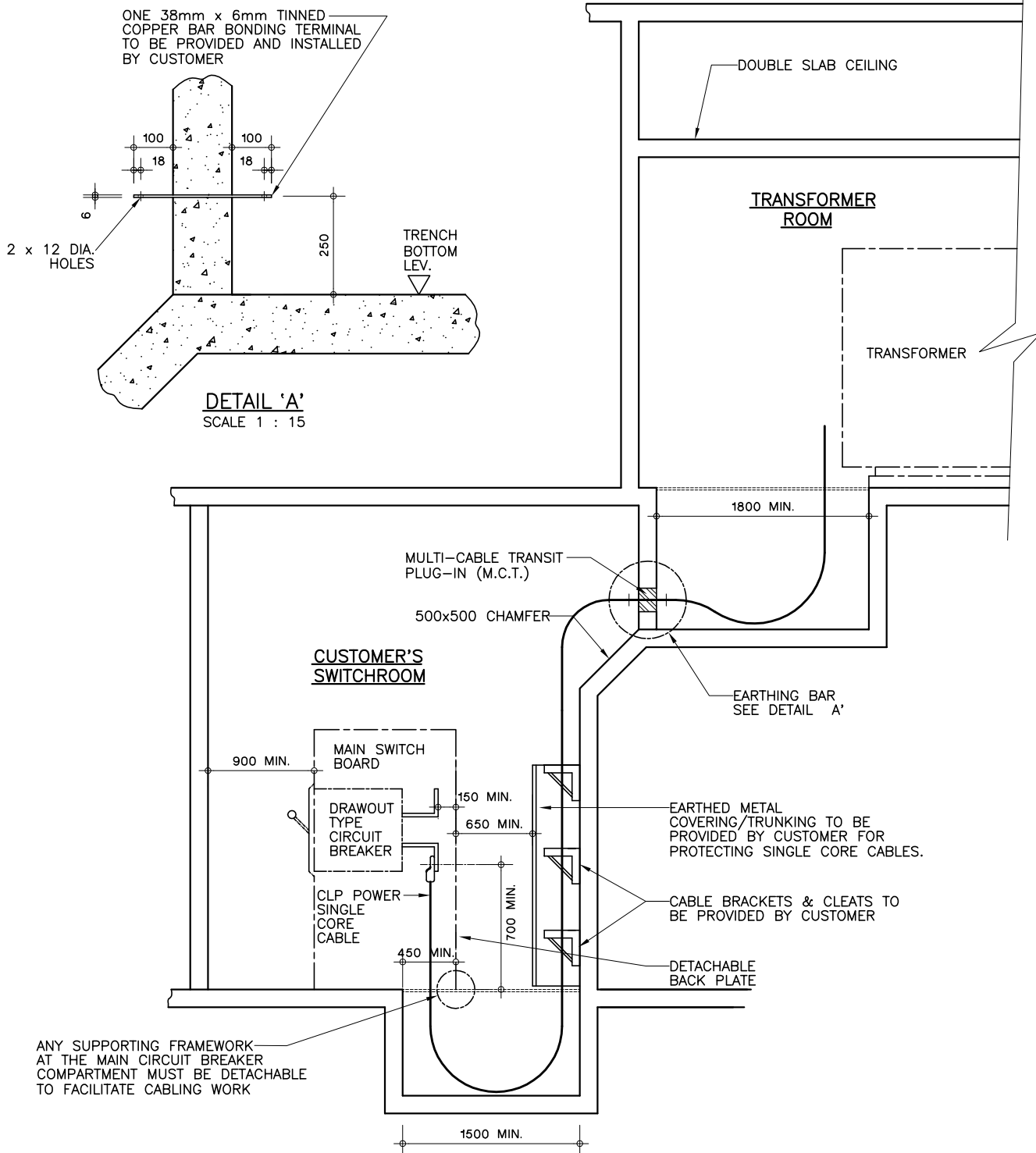
TITLE :

DOUBLE SLAB ARRANGEMENT FOR  
TRANSFORMER ROOM

DRAWN: C W WONG	DATE: 2 APR., 2012
CHECKED: GARY KWOK	APPROVED: GARY KWOK
SCALE: N. T. S.	SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 2 1 0 A A

**NOTES:**

1. EXACT POSITION OF ALL MAIN INCOMING CIRCUIT BREAKERS AND DETAILED CABLE TRENCH LAYOUT WITHIN CUSTOMER'S SWITCHROOM MUST BE SUBMITTED TO CLP POWER FOR APPROVAL PRIOR TO INSTALLATION.
2. REFER TO DRAWING NO. T-COP-10250-D-E33-0103-13 FOR THE CLEARANCE BEHIND THE MAIN SWITCH BOARD.
3. WATERPROOFING SHALL BE APPLIED TO THE SLAB BETWEEN THE CEILING OF THE SUBSTATION AND THE VOID.
4. DRAIN SHALL BE PROVIDED IN THE VOID TO DRAIN AWAY WATER LEAKED INTO THE VOID.
5. NO DRAIN OR OTHER WATER SERVICES PIPE SHALL RUN INTO OR CONCEAL IN THE CEILING SLAB OF THE SUBSTATION.



DRAWN: C W WONG	DATE: 7 APR., 2017
CHECKED: EDMOND YU	APPROVED: W C HO
SCALE: 1 : 1 (mm)	SHEET(S) IN SET:

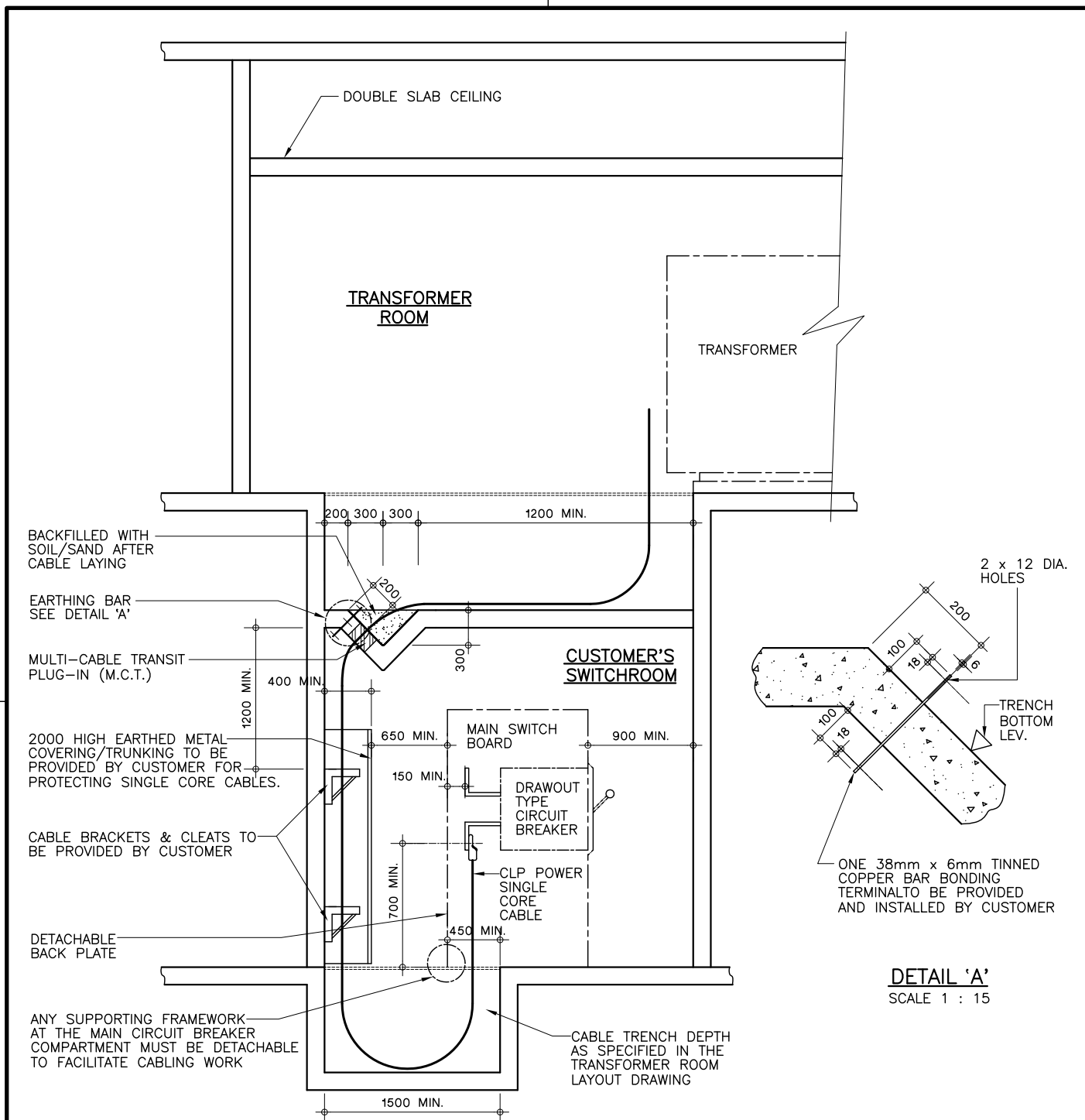
REVS.	A	B	C	D	E	F	G	H	J	K	L
INITIAL											

TITLE :

MINIMUM REQUIREMENTS FOR CUSTOMER  
MAIN SWITCH ROOM NOT DIRECT BELOW  
TRANSFORMER ROOM (SHEET 1 OF 2)

ASSET MANAGEMENT

DRG. NO. T-COP-10250-D-E33-0102-11-A

**NOTE:**

1. EXACT POSITION OF ALL MAIN INCOMING CIRCUIT BREAKERS AND DETAILED CABLE TRENCH LAYOUT WITHIN CUSTOMER'S SWITCHROOM MUST BE SUBMITTED TO CLP POWER FOR APPROVAL PRIOR TO INSTALLATION.
2. REFER TO DRAWING NO. T-COP-10250-D-E33-0103-13 FOR THE CLEARANCE BEHIND THE MAIN SWITCH BOARD.
3. WATERPROOF SHALL BE APPLIED TO THE SLAB BETWEEN THE CEILING OF THE SUBSTATION AND THE VOID.
4. DRAIN SHALL BE PROVIDED IN THE VOID TO DRAIN AWAY WATER LEAKED INTO THE VOID.
5. NO DRAIN OR OTHER WATER SERVICES PIPE SHALL BE RUN INTO OR CONCEAL IN THE CEILING SLAB OF THE SUBSTATION.



**DRAWN:** T. W. LAU **DATE:** 11-05-2017

**CHECKED:** EDMOND YU **APPROVED:** W. C. HO

**SCALE:** 1 : 50 (mm) **SHEET(S) IN SET:**

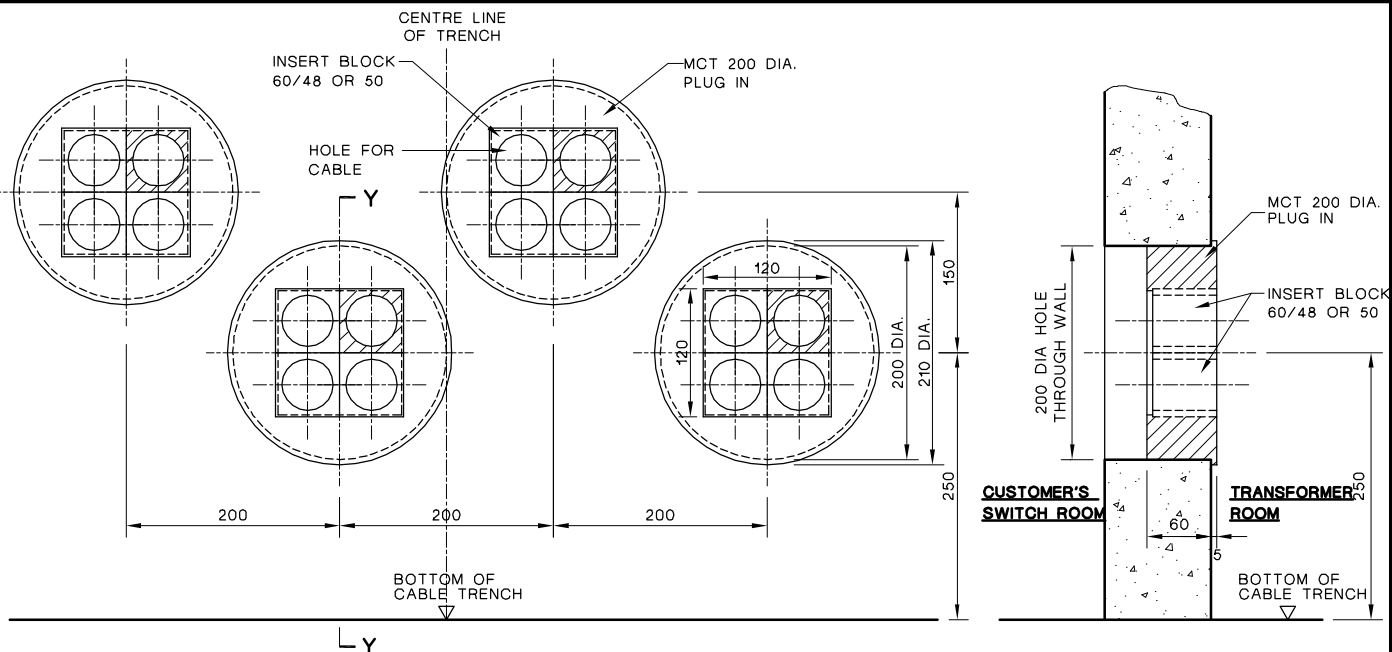
REVS.	A	B	C	D	E	F	G	H	J	K	L
INITIAL											

TITLE :

**MINIMUM REQUIREMENTS FOR CUSTOMER MAIN SWITCHROOM NOT DIRECT BELOW TRANSFORMER ROOM (SHEET 2 OF 2)**

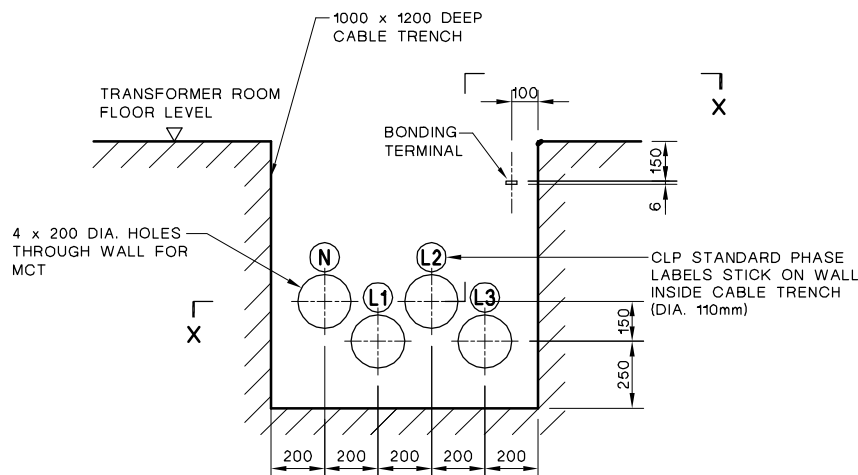
**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 2 1 2 - A

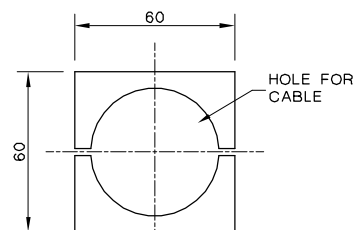


**ARRANGEMENT OF MULTI-CABLE TRANSIT**  
(VIEW LOOKING TOWARDS WALL INSIDE TRANSFORMER ROOM)

**SECTION Y-Y**



**ELEVATION** NOTE: CHEQUER PLATE  
(VIEW IN TRANSFORMER ROOM) NOT SHOWN



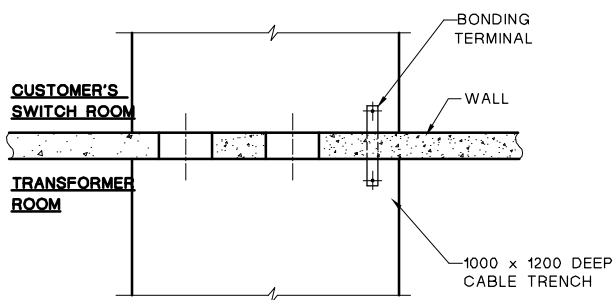
**DETAIL FOR INSERT  
BLOCK 60/48 OR 50**

**PHASE IDENTIFICATION:**

- L1 (BROWN)  
L2 (BLACK)  
L3 (GREY)  
N : (NEUTRAL/BLUE)

**NOTES:**

- MULTI-CABLE TRANSIT PLUG-IN TO BE PROVIDED AND INSTALLED BY CLP POWER.
- THE 4 x 200 DIA. HOLES THROUGH WALL TO BE PROVIDED BY CUSTOMER.
- SOLID CABLE  $\phi 48$ , STRANDED CABLE  $\phi 50$ .
- USE SPARE INSERT BLOCK 30/0 WHEN ONLY 3 CABLES PER PHASE ARE USED.
- PHASE IDENTIFICATION LABELS TO BE APPLIED ON TRANSFORMER RM. AND CUSTOMER MAIN SWITCH RM.
- ALL DIMENSIONS ARE IN mm.



**SECTION X-X**

**C** SPARE INSERT BLOCK DELETED

**B** PHASE LABELS ADDED

**A** PHASE IDENTIFICATION UPDATED



REVS.	20.08.07	12.10.09	23.02.17										
INITIAL	A	B	C	D	E	F	G	H	J	K	L		
	K.C.C.	K.C.C.	H.T.YU										

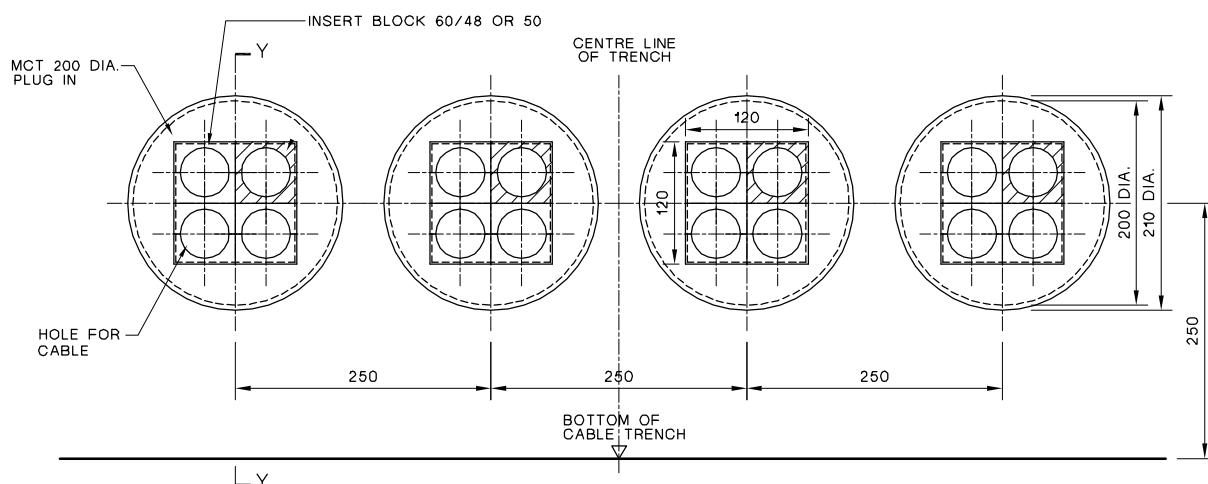
TITLE :

INSTALLATION OF FOUR "MULTI-CABLE TRANSIT"  
PLUG-IN IN CABLE TRENCH IN TWO LAYERS  
(FOR FULL NEUTRAL ARRANGEMENT)

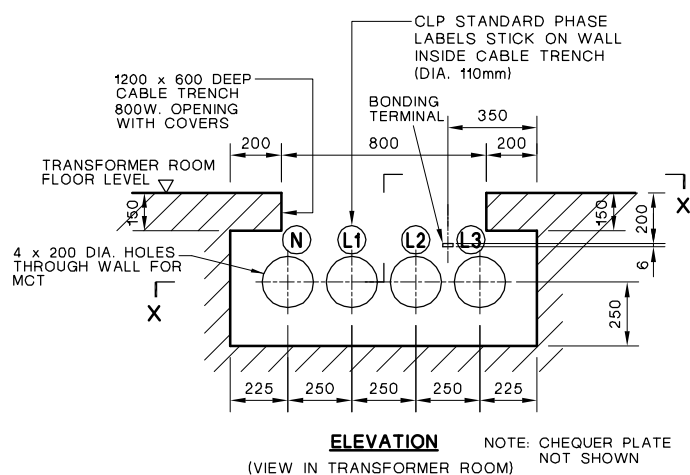
DRAWN: S. C. TO DATE: 22-07-2002  
CHECKED: K. C. CHENG APPROVED: K. W. WONG  
SCALE: N.T.S. SHEET(S) IN SET:

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 0 1 C A

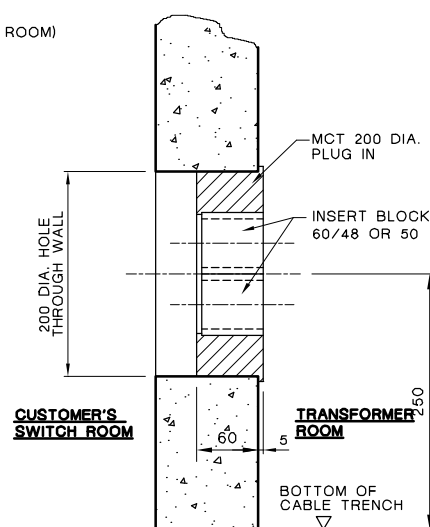


**ARRANGEMENT OF MULTI-CABLE TRANSIT**  
(VIEW LOOKING TOWARDS WALL INSIDE TRANSFORMER ROOM)

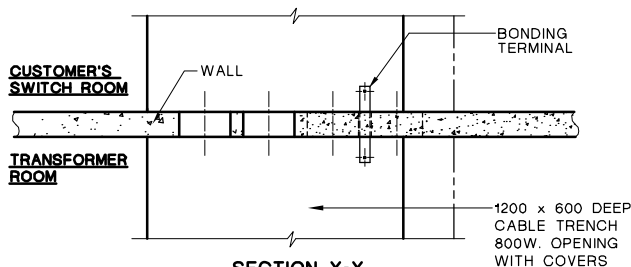


**ELEVATION**  
(VIEW IN TRANSFORMER ROOM)

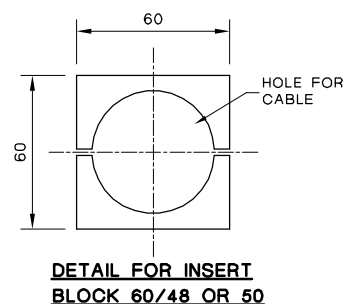
NOTE: CHEQUER PLATE NOT SHOWN



**SECTION Y-Y**



**SECTION X-X**



**DETAIL FOR INSERT BLOCK 60/48 OR 50**

**NOTES:**

- MULTI-CABLE TRANSIT PLUG-IN TO BE PROVIDED AND INSTALLED BY CLP POWER.
- THE 4 x 200 DIA. HOLES THROUGH WALL TO BE PROVIDED BY CUSTOMER.
- SOLID CABLE  $\phi 48$ , STRANDED CABLE  $\phi 50$ .
- ☐ USE SPARE INSERT BLOCK 30/0 WHEN ONLY 3 CABLES PER PHASE ARE USED.
- PHASE IDENTIFICATION LABELS TO BE APPLIED ON TRANSFORMER RM. AND CUSTOMER MAIN SWITCH RM.
- ALL DIMENSIONS ARE IN mm.

**PHASE IDENTIFICATION:**

- L1 (BROWN)  
L2 (BLACK)  
L3 (GREY)  
N : (NEUTRAL/BLUE)

C	SPARE INSERT BLOCK DELETED
A	PHASE IDENTIFICATION UPDATED



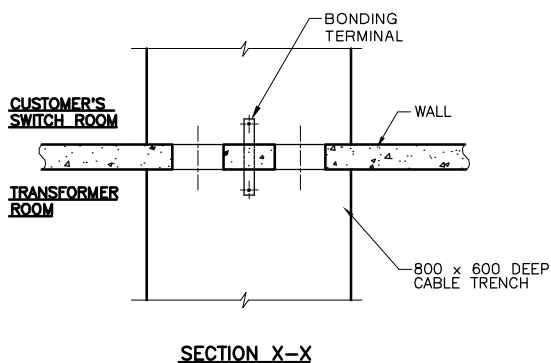
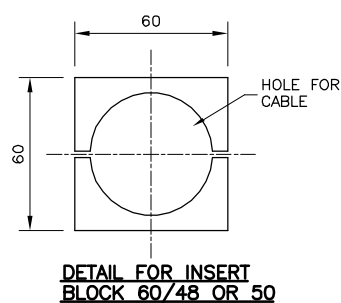
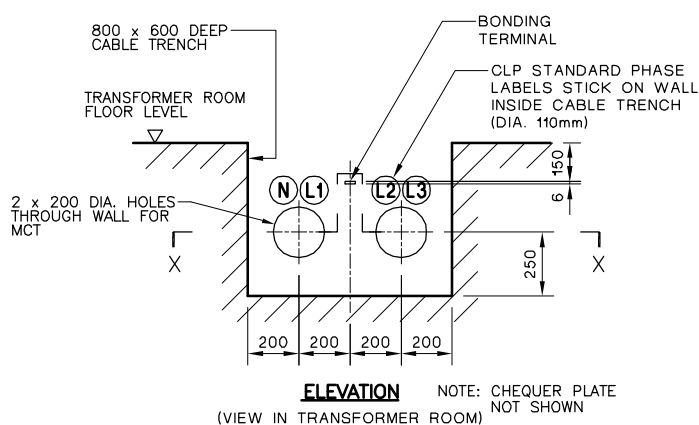
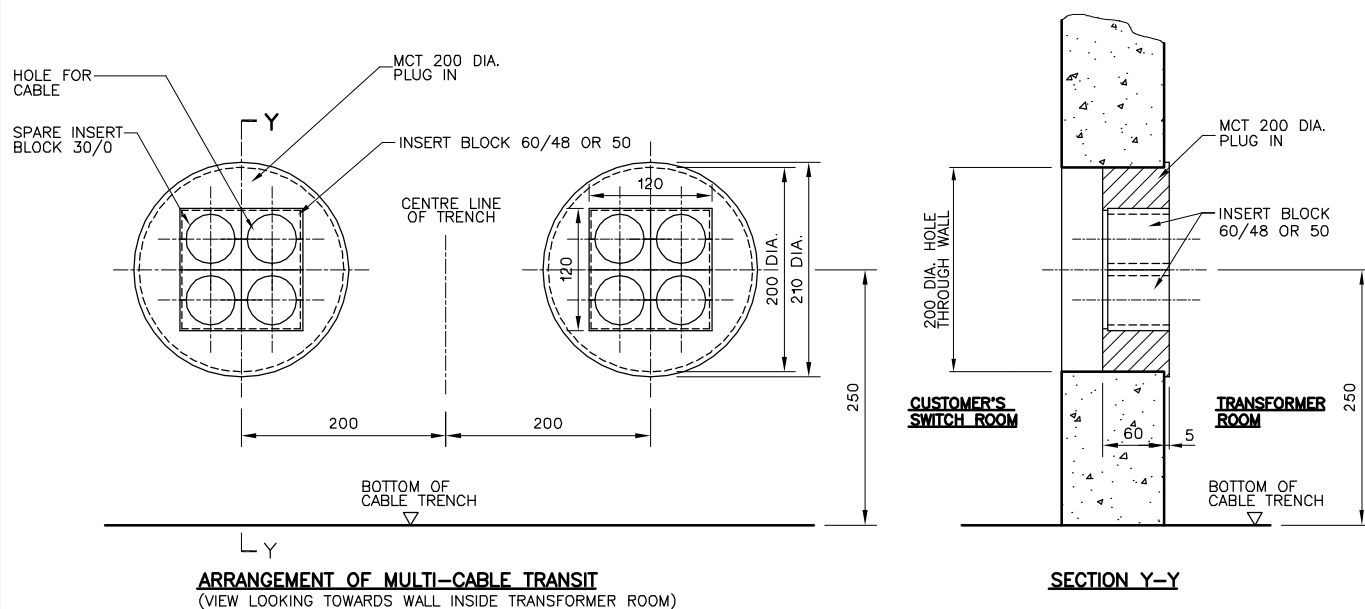
DRAWN: S. C. TO	DATE: 26-07-2002
CHECKED: K. C. CHENG	APPROVED: K. W. WONG
SCALE: N. T. S.	SHEET(S) IN SET:

REVS.	20.08.07	12.10.09	23.02.17										
INITIAL	A	B	C	D	E	F	G	H	J	K	L		
	K.C.C.	K.C.C.	H.T.YU										

TITLE :

INSTALLATION OF FOUR "MULTI-CABLE TRANSIT"  
PLUG-IN IN CABLE TRENCH IN LINE  
(FOR FULL NEUTRAL ARRANGEMENT)

ASSET MANAGEMENT	DRG. NO. T	C	O	P	1	0	2	5	0	D	E	3	3	0	1	0	3	0	2	C	A
------------------	------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

**PHASE IDENTIFICATION:**

- L1 (BROWN)
- L2 (BLACK)
- L3 (GREY)
- N : (NEUTRAL/BLUE)

**NOTES:**

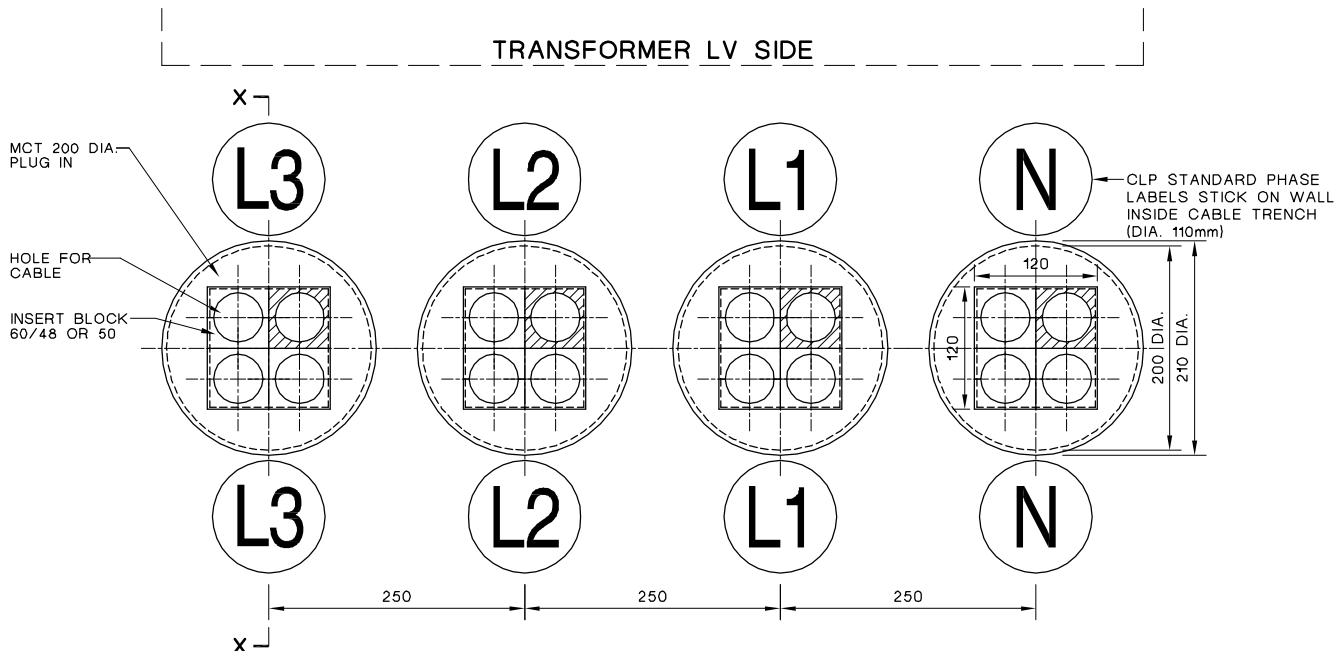
1. MULTI-CABLE TRANSIT PLUG-IN TO BE PROVIDED AND INSTALLED BY CLP POWER.
2. THE 2 x 200 DIA. HOLES THROUGH WALL TO BE PROVIDED BY CUSTOMER.
3. SOLID CABLE  $\phi 48$ , STRANDED CABLE  $\phi 50$ .
4. PHASE IDENTIFICATION LABELS TO BE APPLIED ON TRANSFORMER RM. AND CUSTOMER MAIN SWITCH RM.
5. ALL DIMENSIONS ARE IN mm.

B NOTES UPDATED				A PHASE LABELS ADDED											
REV.	12.10.09	23.02.17													
INITIAL	A	B	C	D	E	F	G	H	J	K	L				
	K.C.C.	H.T.YU													
TITLE :															
INSTALLATION OF TWO "MULTI-CABLE TRANSIT" PLUG-IN IN CABLE TRENCH IN LINE (1000kVA OR BELOW TRANSFORMER)															
DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 0 3 B A															

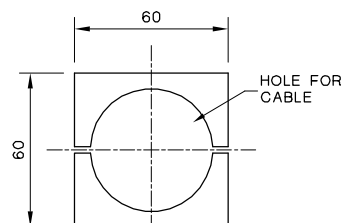
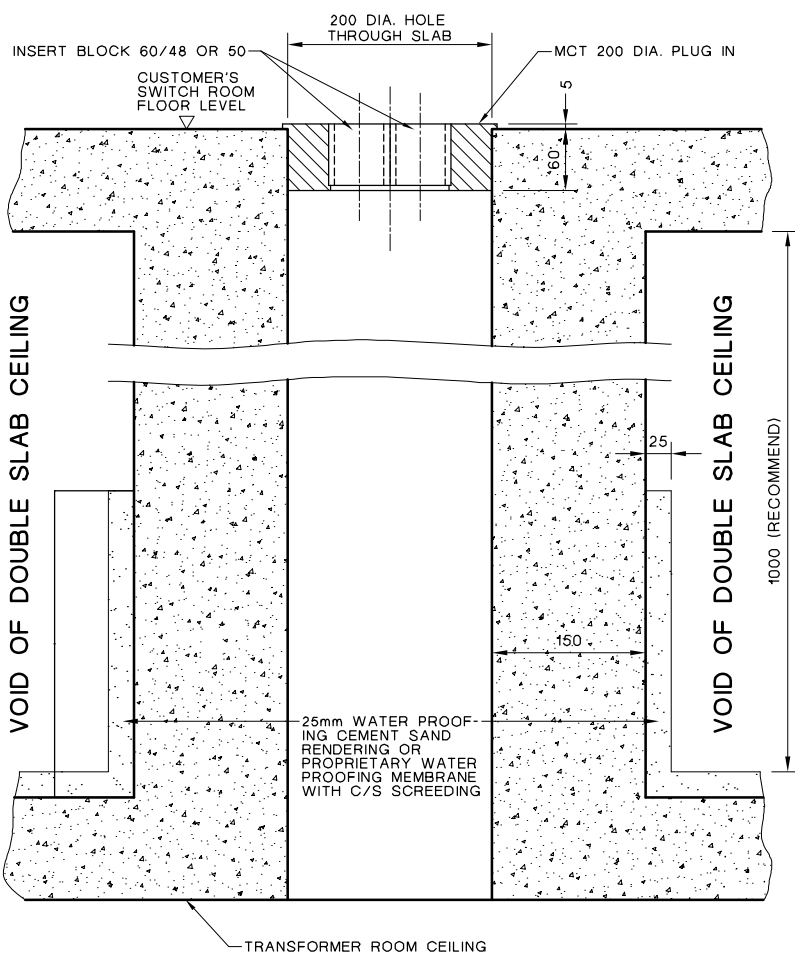
**CLP 中電**

DRAWN: S. C. TO DATE: 12-8-2002  
 CHECKED: K. C. CHENG APPROVED: K. W. WONG  
 SCALE: N.T.S. SHEET(S) IN SET:

**ASSET MANAGEMENT**



**PLAN VIEW SHOWING ARRANGEMENT OF MULTI-CABLE TRANSIT**  
(LOOKING TOWARDS FLOOR INSIDE CUSTOMER SWITCHROOM)



**DETAIL FOR INSERT BLOCK 60/48 OR 50**

**PHASE IDENTIFICATION:**

- L1 (BROWN)  
L2 (BLACK)  
L3 (GREY)  
N : (NEUTRAL/BLUE)

**NOTES:**

- MULTI-CABLE TRANSIT PLUG-IN TO BE PROVIDED AND INSTALLED BY CLP POWER.
- THE 4 x 200 DIA. HOLES THROUGH WALL TO BE PROVIDED BY CUSTOMER.
- SOLID CABLE  $\phi 48$ , STRANDED CABLE  $\phi 50$ .
- ☒ USE SPARE INSERT BLOCK 30/0 WHEN ONLY 3 CABLES PER PHASE ARE USED.
- PHASE IDENTIFICATION LABELS TO BE APPLIED ON TRANSFORMER RM. AND CUSTOMER MAIN SWITCH RM.
- DETAIL AND LOCATION OF EARTHING BAR REFER TO DRAWING NO. T/COP/10250/D/E33/0102/03.
- ALL DIMENSIONS ARE IN mm.

**C** NOTE 7 ADDED, SECTION X-X REVISED

**E** SPARE INSERT BLOCK DETELED

**D** GENERAL AMANDMENT



REVS.	20.08.07	12.10.09	23.03.12	18.03.14	23.02.17						
INITIAL	A	B	C	D	E	F	G	H	J	K	L
	K.C.C.	K.C.C.	E. YU	H.T.YU	H.T.YU						

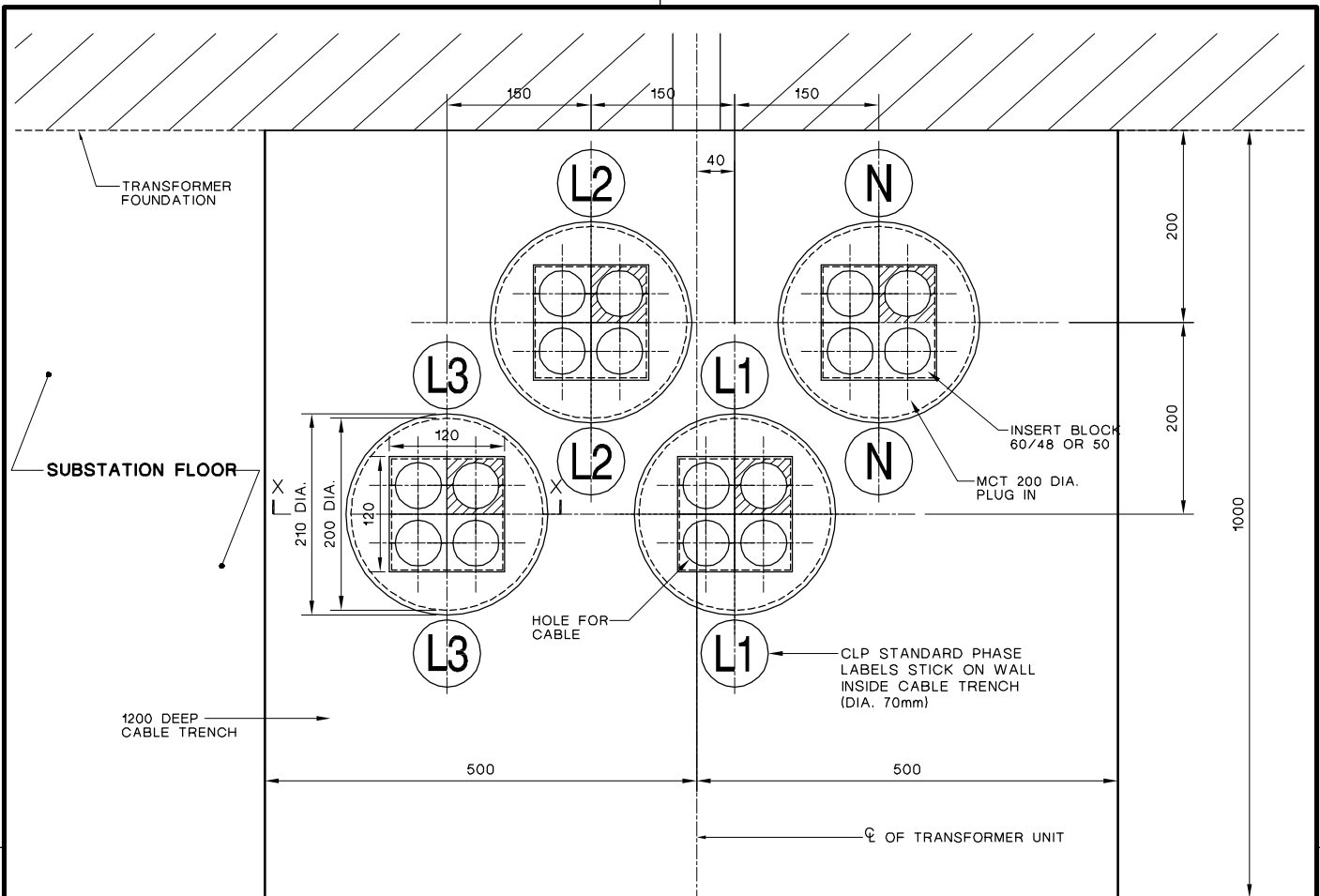
TITLE :

**INSTALLATION OF "MULTI-CABLE TRANSIT"  
PLUG-IN THROUGH SUBSTATION CEILING**

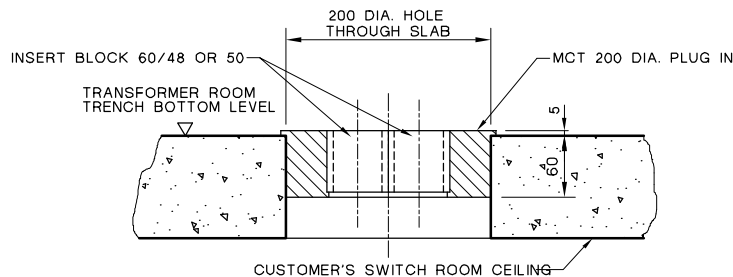
DRAWN: S. C. TO      DATE: 22-07-2002  
CHECKED: K. C. CHENG      APPROVED: K. W. WONG  
SCALE: N. T. S.      SHEET(S) IN SET:

**ASSET MANAGEMENT**

DRG. NO. T/COP/10250/D/E33/0103/04/E/A



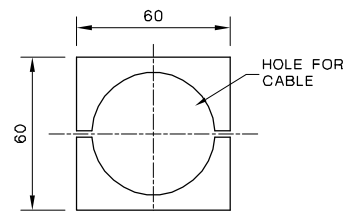
**PLAN VIEW SHOWING ARRANGEMENT OF MULTI-CABLE TRANSIT  
(VIEW TOWARDS FLOOR INSIDE TRANSFORMER ROOM)**



**SECTION X - X**

**PHASE IDENTIFICATION:**

L1 (BROWN)  
L2 (BLACK)  
L3 (GREY)  
N : (NEUTRAL/BLUE)

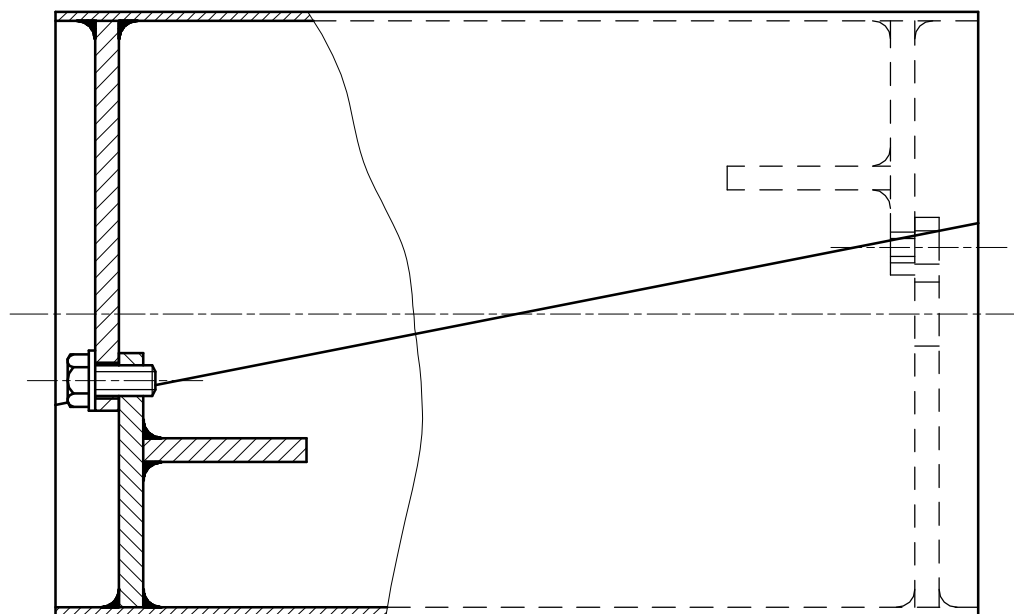
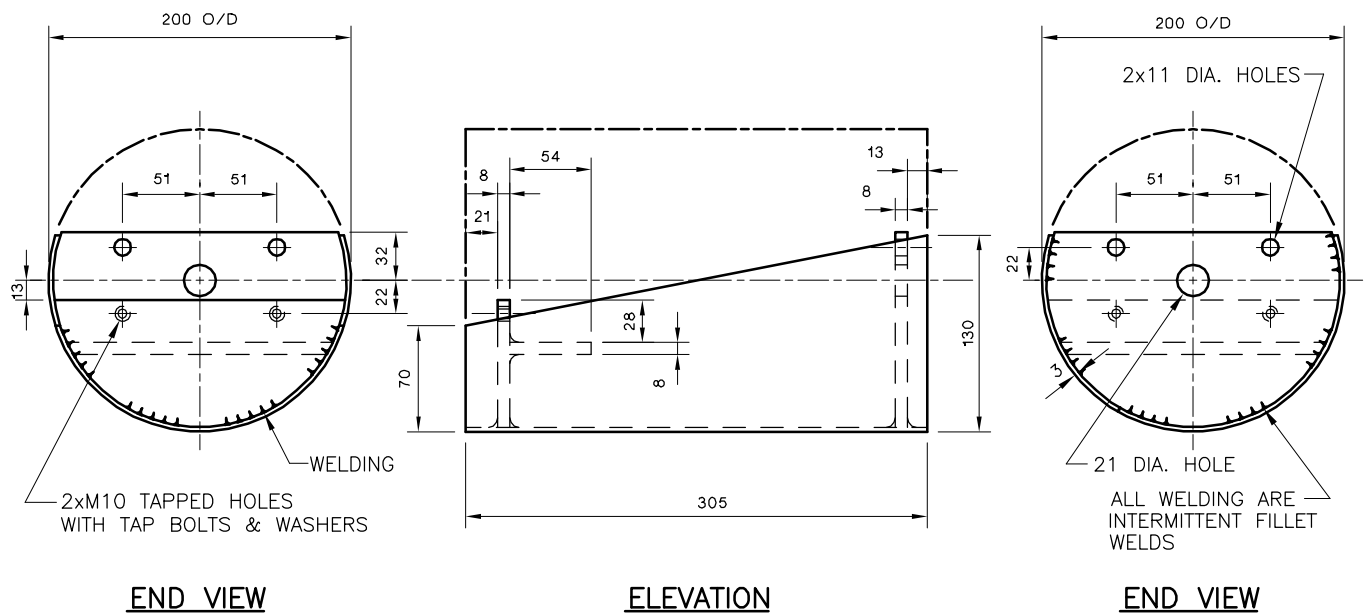


**DETAIL FOR INSERT  
BLOCK 60/48 OR 50**

**NOTES:**

1. MULTI-CABLE TRANSIT PLUG-IN TO BE PROVIDED AND INSTALLED BY CLP POWER.
2. THE 4 x 200 DIA. HOLES THROUGH WALL TO BE PROVIDED BY CUSTOMER.
3. SOLID CABLE  $\phi 48$ , STRANDED CABLE  $\phi 50$ .
4. ☒ USE SPARE INSERT BLOCK 30/0 WHEN ONLY 3 CABLES PER PHASE ARE USED.
5. PHASE IDENTIFICATION LABELS TO BE APPLIED ON TRANSFORMER RM. AND CUSTOMER MAIN SWITCH RM.
6. DETAIL AND LOCATION OF EARTHING BAR REFER TO DRAWING NO. T/COP/10250/D/E33/0102/04.
7. ALL DIMENSIONS ARE IN mm.

<b>C</b> NOTE 7 ADDED		<b>B</b> PHASE LABELS ADDED				<b>D</b> SPARE INSERT BLOCK DELETED							
		REVS.	16.08.07	12.10.09	23.03.12	23.02.17							
		INITIAL	A	B	C	D	E	F	G	H	J	K	L
			K.C.C.	K.C.C.	K.C.C.	H.T.YU							
		TITLE :											
		INSTALLATION OF "MULTI-CABLE TRANSIT" PLUG-IN THROUGH SUBSTATION FLOOR											
DRAWN: S. C. TO		DATE: 22-07-2002											
CHECKED: K. C. CHENG		APPROVED: K. W. WONG											
SCALE: N. T. S.		SHEET(S) IN SET:											
<b>ASSET MANAGEMENT</b>		DRG. NO. T/COP/10250/D/E33/0103/05/D/A											



**ASSEMBLY VIEW ( PART SECTIONED )**

SCALE: 1 : 2.5

**NOTE:**

THE COMPLETE FORMER CONSISTS OF TWO IDENTICAL HALVES.

**A** NOTES 2 DELETED



REVS.	23.02.17												
INITIAL	A	B	C	D	E	F	G	H	J	K	L		

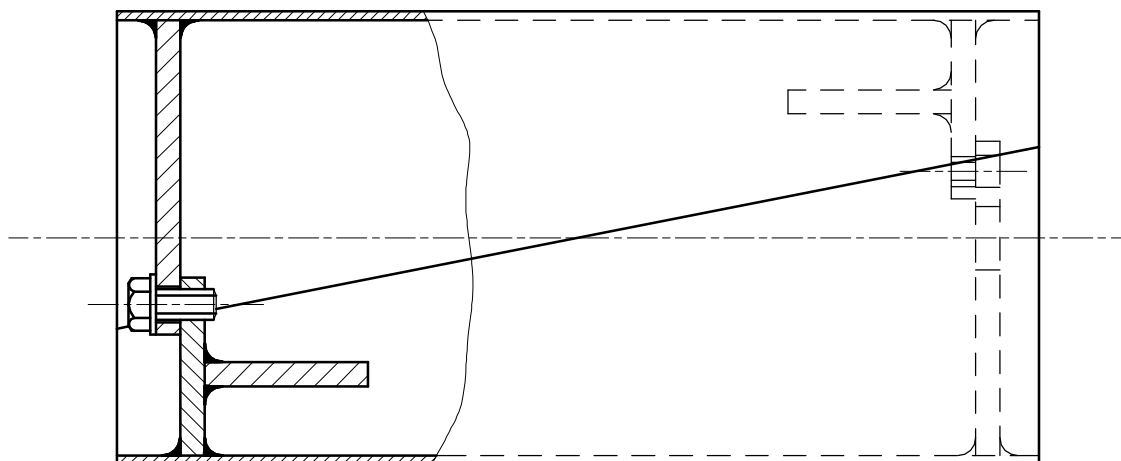
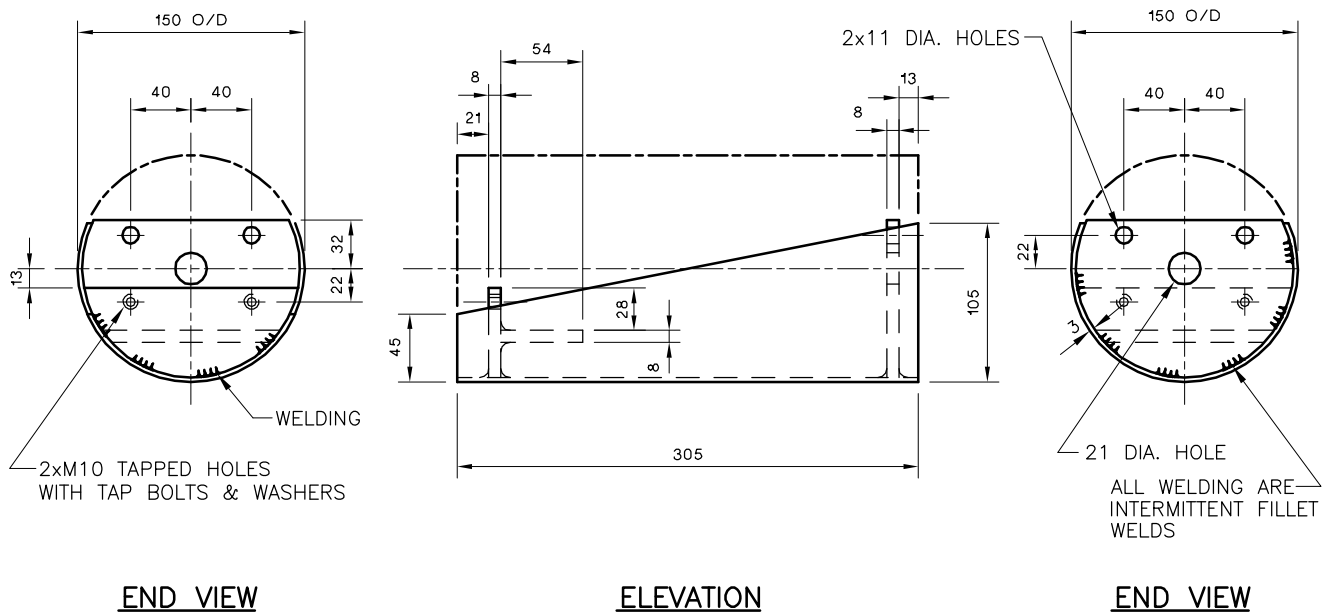
TITLE :

STEEL FORMER FOR 200mm DIA.  
"MULTI-CABLE TRANSIT" HOLE

DRAWN: S. C. TO DATE: 12-8-2002  
CHECKED: K. C. CHENG APPROVED: K. W. WONG  
SCALE: 1 : 5 (mm) SHEET(S) IN SET:

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 0 6 A A



**ASSEMBLY VIEW ( PART SECTIONED )**

SCALE: 1 : 2.5

**NOTE:**

THE COMPLETE FORMER CONSISTS OF TWO IDENTICAL HALVES.

**A** NOTES 2 DELETED



REVS.	23.02.17												
INITIAL	A	B	C	D	E	F	G	H	J	K	L		

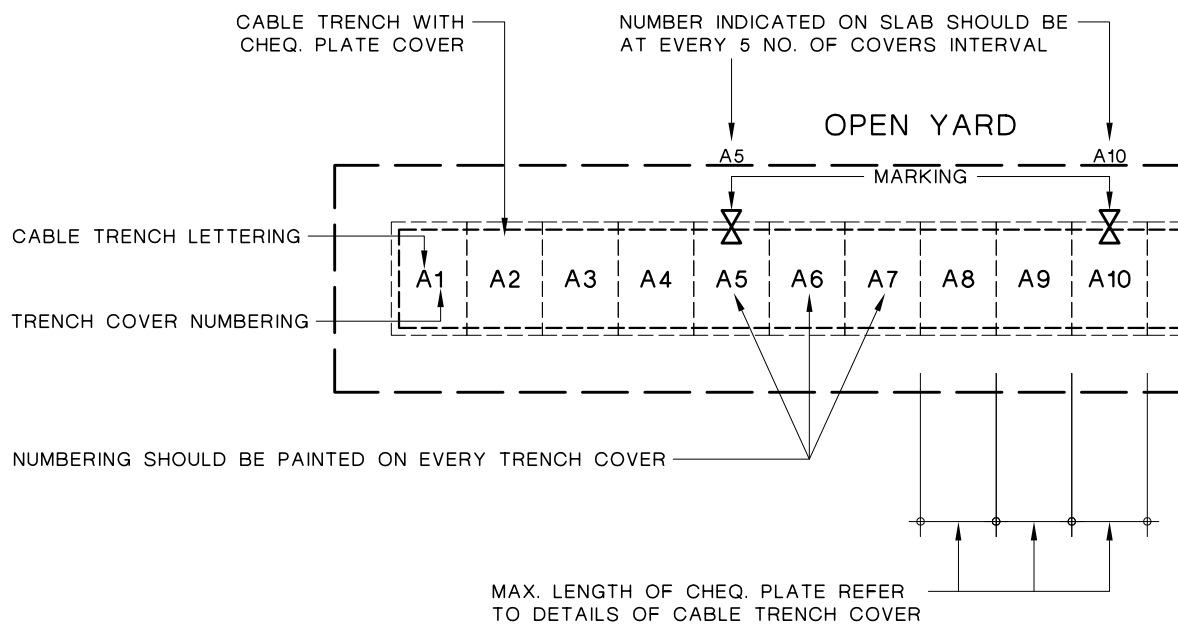
TITLE :

**STEEL FORMER FOR 150mm DIA.  
"MULTI-CABLE TRANSIT" HOLE**

DRAWN: S. C. TO	DATE: 12-8-2002
CHECKED: K. C. CHENG	APPROVED: K. W. WONG
SCALE: 1 : 5 (mm)	SHEET(S) IN SET:

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 0 7 A A



B	STEP IRON DELETED
---	-------------------



REVS.	30.10.05	16.08.07											
INITIAL	A	B	C	D	E	F	G	H	J	K	L		
	K.C.C.	K.C.C.											

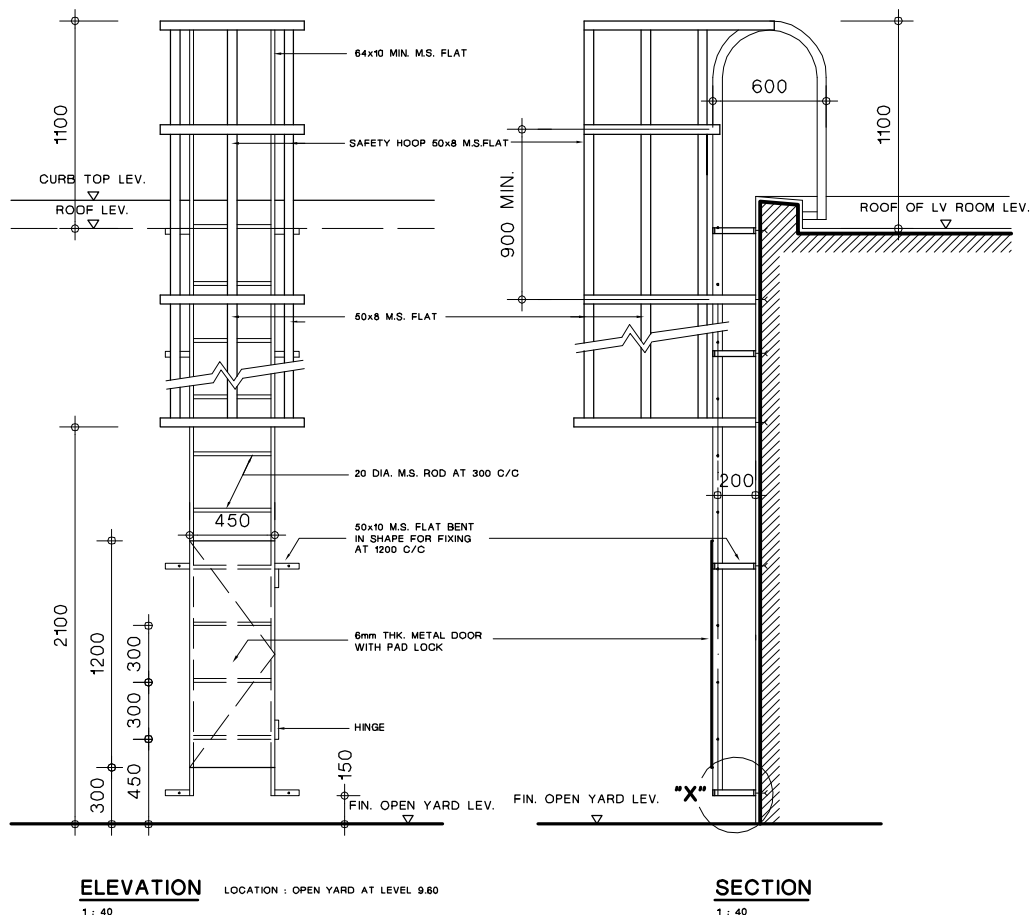
TITLE :

TYPICAL DETAILS OF NUMBER MARKED ON  
THE CABLE TRENCH COVER

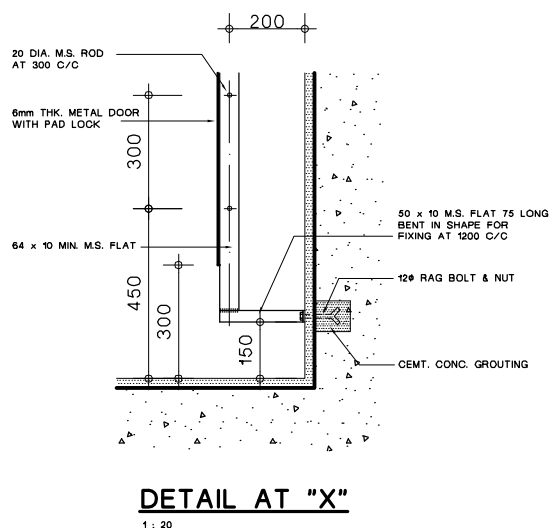
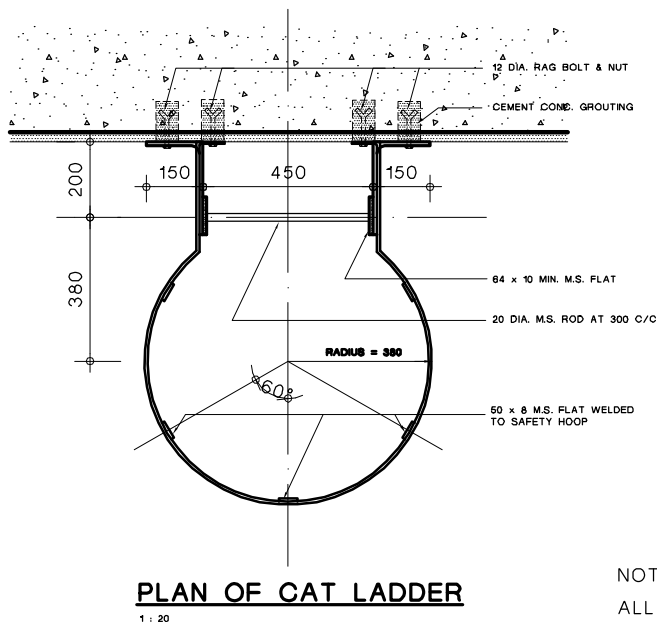
DRAWN: C. W. WONG	DATE: 16 Sep., 2002
CHECKED: K. C. CHENG	APPROVED: K. W. WONG
SCALE: N. T. S.	SHEET(S) IN SET:

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 0 8 B A



### CAT LADDER WITH SAFETY HOOP AT OPEN YARD (TYPE '1')



NOTE:

ALL METAL WORKS MUST BE BONDED TO THE EARTHING TERMINAL AT THE DISTRIBUTION BOARD WITH COPPER CONDUCTOR NOT LESS THAN 6mm<sup>2</sup>.

D GENERAL AMENDMENT

C GENERAL NOTES ADDED.

B BRACE HOOP INTERNAL



REVS.	13.09.04	13.08.07	18.03.14	23.02.17									
INITIAL	A	B	C	D	E	F	G	H	J	K	L		
	K.C.C.	K.C.C.	H.T.YU	H.T.YU									

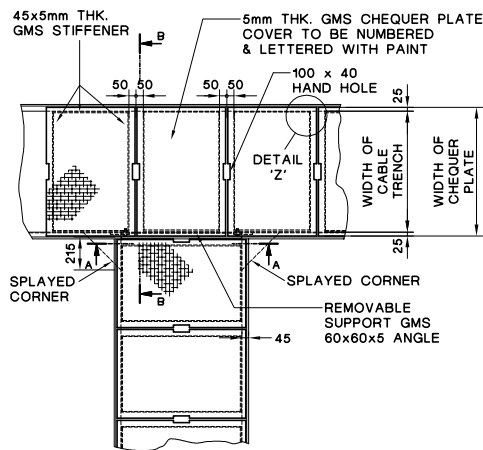
TITLE :

### TYPICAL DETAILS OF CAT LADDER

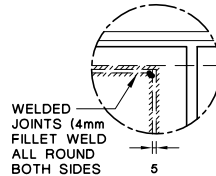
DRAWN: T. Y. IP DATE: 17-09-2002  
 CHECKED: K. C. CHENG APPROVED: W. C. HO  
 SCALE: 1 : 20 (mm) SHEET(S) IN SET:

ASSET MANAGEMENT

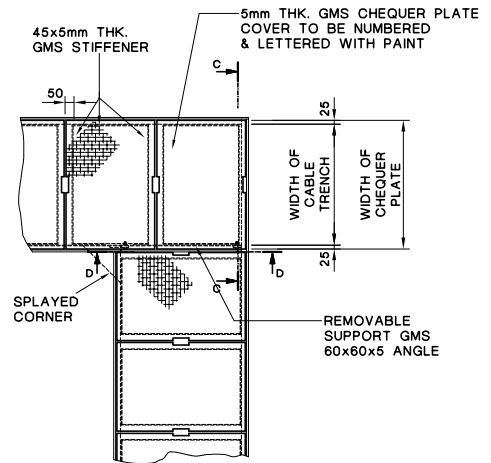
DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 0 9 D A



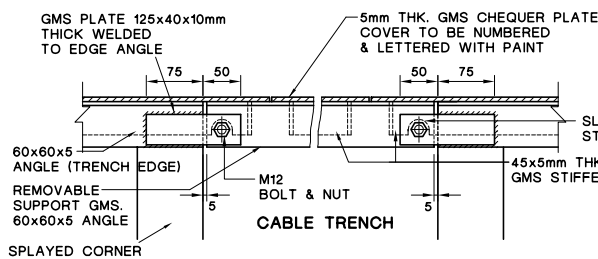
**DETAILS OF CHEQUER PLATE SUPPORT AT  
TEE POINT OF THE TRENCHES**



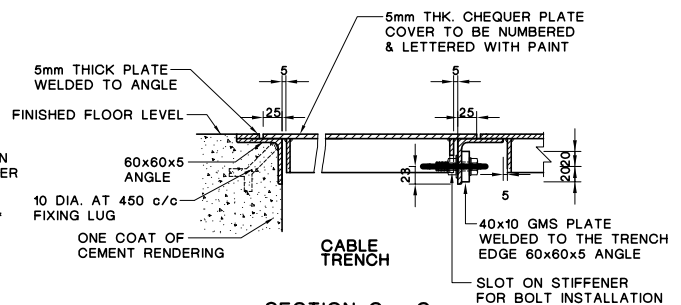
**DETAIL 'Z'**



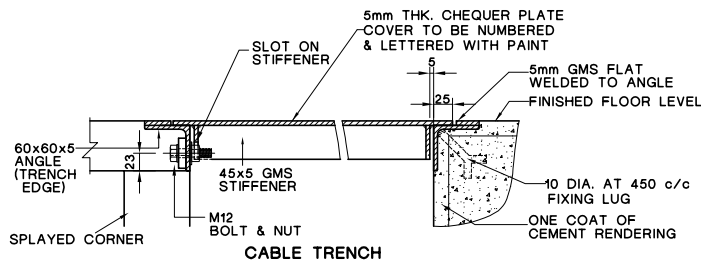
**CHEQUER PLATE ARRANGEMENT  
AT 90° BEND OF THE TRENCH**



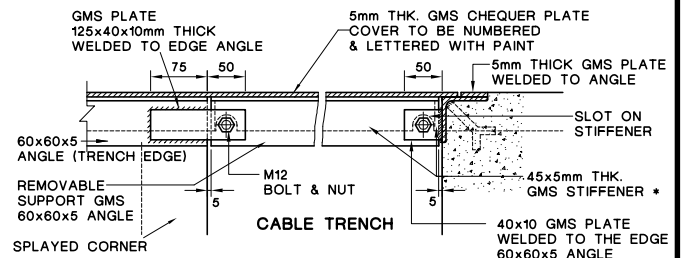
**SECTION A - A  
(SCALE 1 : 10)**



**SECTION C - C  
(SCALE 1 : 10)**



**SECTION B - B  
(SCALE 1 : 10)**



**SECTION D - D  
(SCALE 1 : 10)**

**NOTES:**

- CHEQUER PLATE TO BE CUT TO SIZE AND FITTED IN POSITION UNDER THE DIRECTION OF CLP POWER ON SITE.
- ALL CHEQUER PLATES SHALL BE NUMBERED IN SEQUENCE.
- ALL STEELWORK SHALL BE HOT DIP GALVANISED AND FINISHED WITH ONE COAT OF CALCIUM PLUMBATE OR ZINC PHOSPHATE PRIMER AND TWO FINISHING COATS OF SYNTHETIC PAINT.
- CONCRETE STRENGTH MINIMUM 30N/mm<sup>2</sup> IN 28 DAYS.
- ALL STRUCTURAL STEEL WORKS SHALL BE GRADE 275 TO BS EN 10025.
- WELDING FOR ALL STRUCTURAL STEEL JOINTS SHALL BE 4mm FILLET WELD TO BS EN 729-3:1995.
- \* DENOTES TO PROVIDE SLOT ON GMS STIFFENER FOR M12 BOLT INSTANTION WHERE REQUIRED.

B	GENERALLY REVISED
A	ZINC PRIMER ADDED



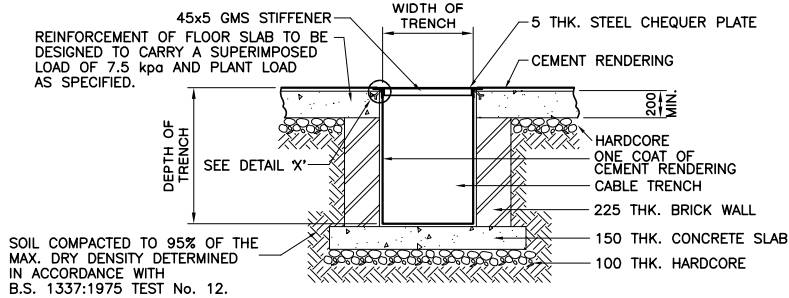
REVS.	15.11.07	25.05.17												
INITIAL	A	B	C	D	E	F	G	H	J	K	L			
	K.C.C.	MS FONG												

TITLE :

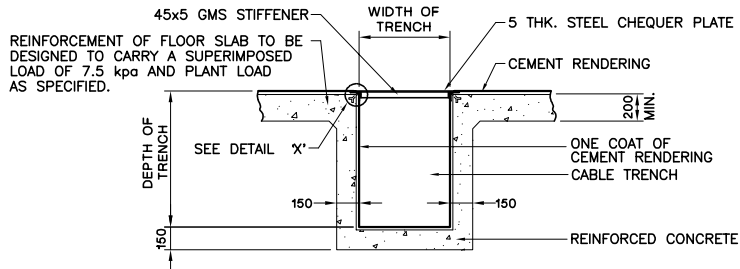
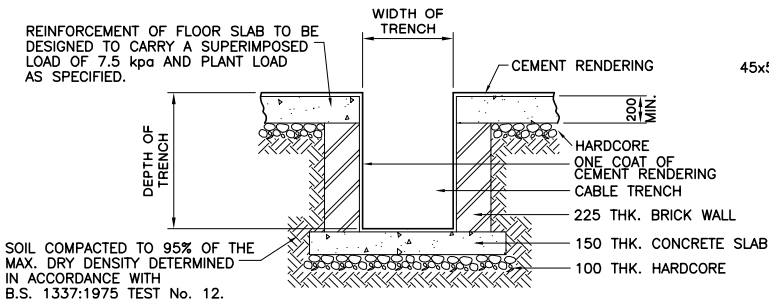
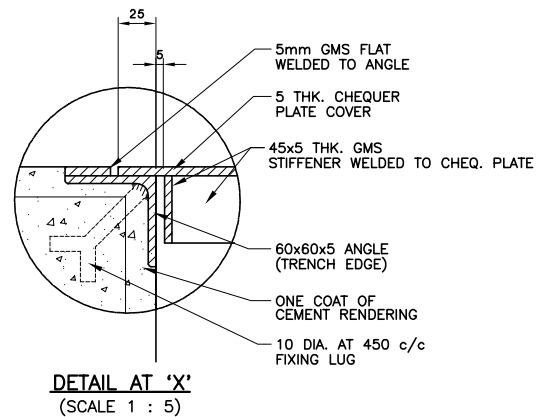
**TYPICAL DETAILS OF CABLE TRENCH  
(SHEET 1 OF 3)**

DRAWN: M. S. FONG	DATE: 25-05-2017
CHECKED: M. S. FONG	APPROVED: Gary KWOK
SCALE: 1 : 50	SHEET(S) IN SET:

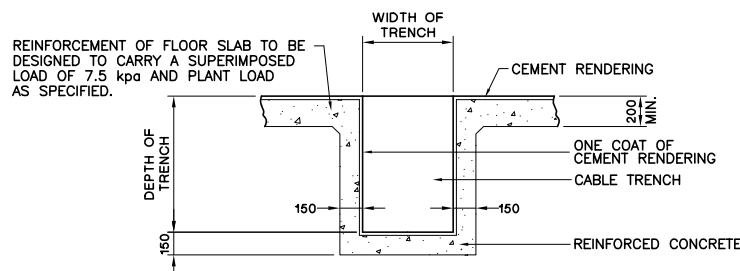
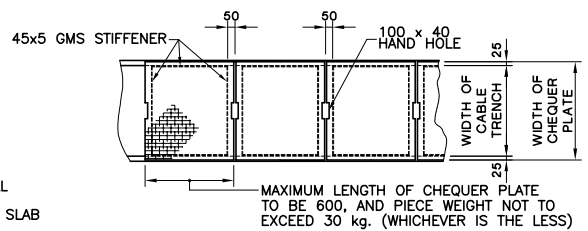
ASSET MANAGEMENT	DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 1 0 B A
------------------	--



TYPICAL CROSS SECTION OF TRENCH ON SOLID GROUND

TYPICAL CROSS SECTION OF SUSPENDED TRENCH  
CABLE TRENCH FOR INDOOR SUBSTATION

TYPICAL CROSS SECTION OF TRENCH ON SOLID GROUND

TYPICAL CROSS SECTION OF R.C. TRENCH  
CABLE TRENCH FOR OUTDOOR SUBSTATION

## NOTES:

- CHEQUER PLATE TO BE CUT TO SIZE AND FITTED IN POSITION UNDER THE DIRECTION OF CLP POWER ON SITE.
- ALL CHEQUER PLATES SHALL BE NUMBERED IN SEQUENCE.
- ALL STEELWORK SHALL BE HOT DIP GALVANISED AND FINISHED WITH ONE COAT OF CALCIUM PLUMBATE OR ZINC PHOSPHATE PRIMER AND TWO FINISHING COATS OF SYNTHETIC PAINT.
- CONCRETE STRENGTH MINIMUM 30N/mm<sup>2</sup> IN 28 DAYS.

C	NOTES 5 DELETED & TRENCH COVER REVISED
B	ZINC PRIMER ADDED



REVS.	13-9-04	15.11.07	25.05.17										
INITIAL	A K.C.C	B K.C.C	C MS FONG	D	E	F	G	H	J	K	L		

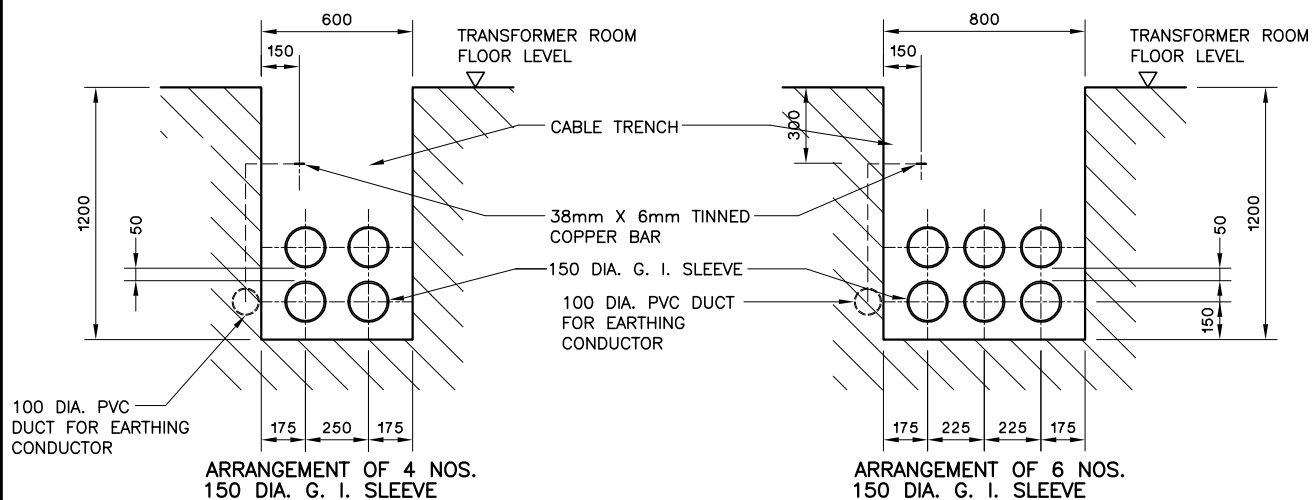
TITLE :

TYPICAL DETAILS OF CABLE TRENCH  
(SHEET 2 OF 3)

DRAWN: M. S. Fong	DATE: 25-05-2017
CHECKED: M. S. Fong	APPROVED: Gary Kwok
SCALE: 1 : 50	SHEET(S) IN SET:

ASSET MANAGEMENT

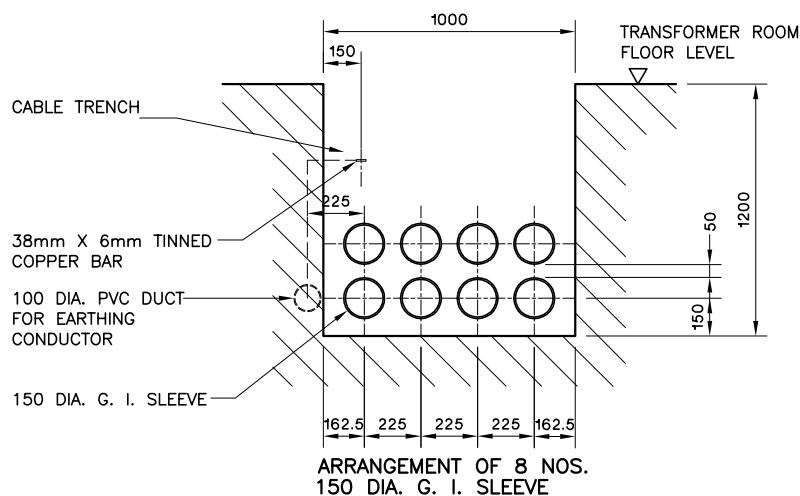
DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 1 1 C A

**ELEVATION**

(LOOKING FROM INSIDE OF TRANSFORMER ROOM)

**ELEVATION**

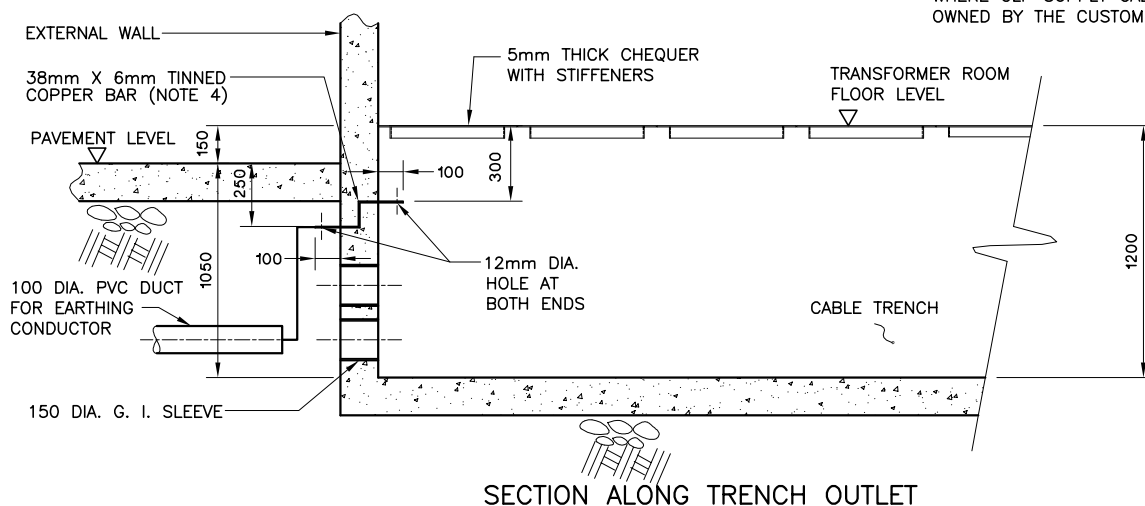
(LOOKING FROM INSIDE OF TRANSFORMER ROOM)

**ELEVATION**

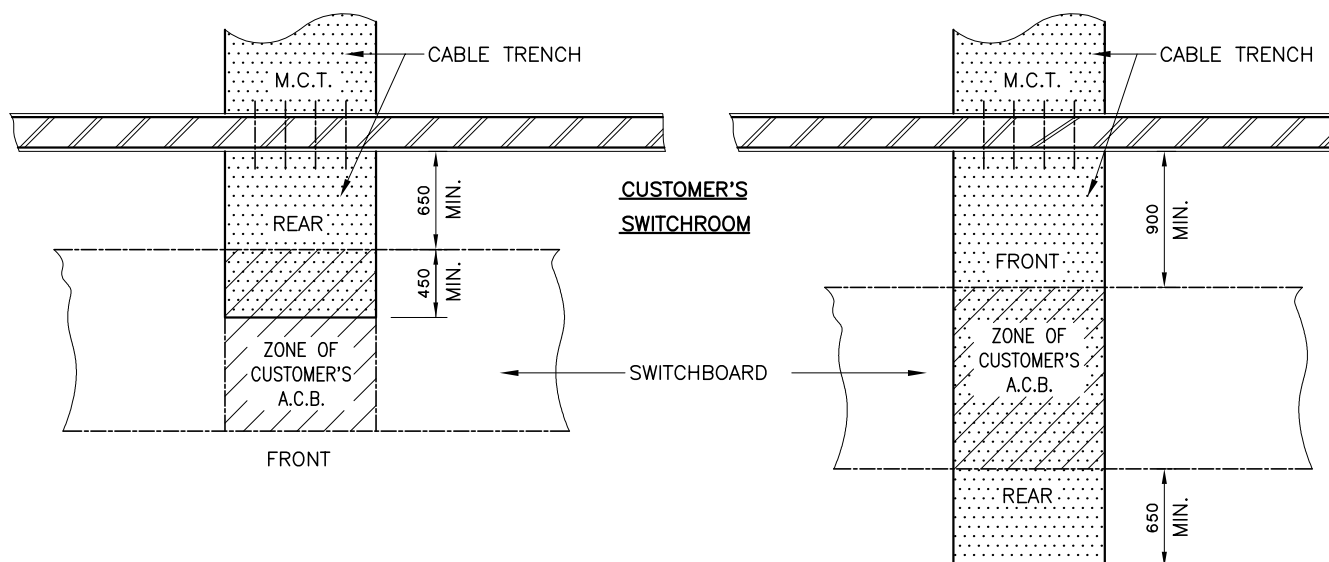
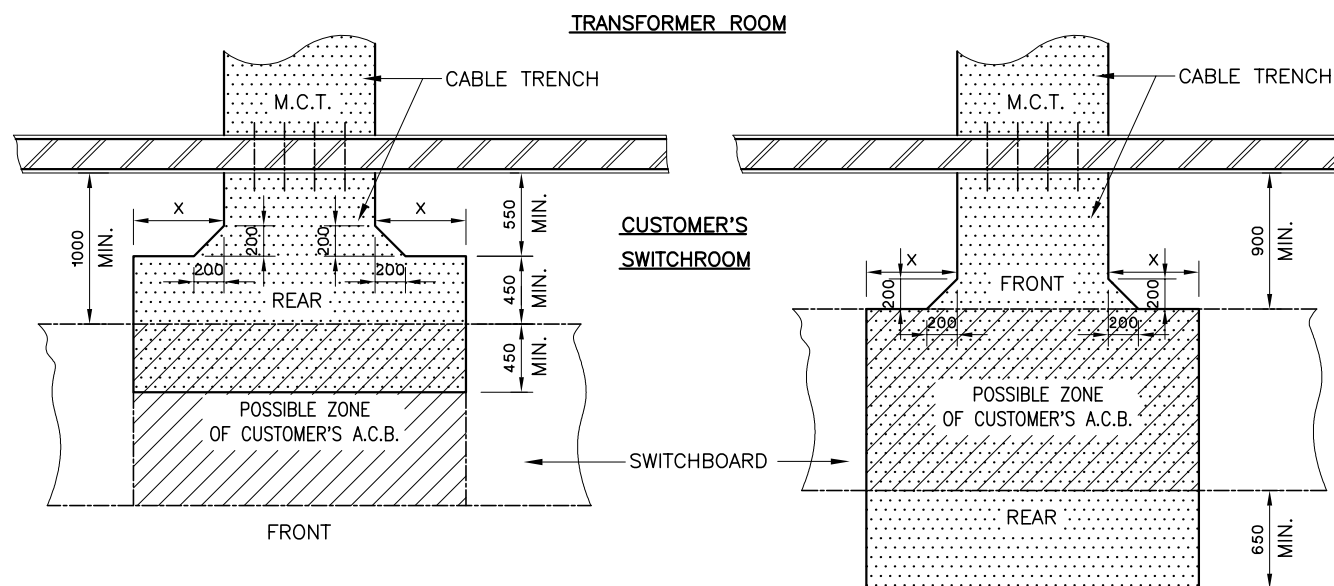
(LOOKING FROM INSIDE OF TRANSFORMER ROOM)

**NOTES:**

1. THE BARRIER AROUND THE G. I. SLEEVES SHALL BE WATERPROOF.
2. 38mm X 6mm TINNED COPPER EARTHING BAR TO BE PROVIDED AND INSTALLED BY CUSTOMER.
3. DEPTH OF CABLE TRENCH IS 1200mm ACCORDING TO THE TRANSFORMER ROOM LAYOUT PLAN.
4. AN EARTHING CONDUCTOR NOT LESS THAN 38mm X 6mm IN SIZE SHALL BE EXTENDED VIA DUCTS AND DRAW-PITS TO THE LOCATION(S) WHERE CLP SUPPLY CABLES ENTER THE SITE OWNED BY THE CUSTOMER.



F	CHEQUER PLATE DETAILS REVISED	E	G.I. SLEEVE SIZE AND DEPTH OF CABLE TRENCH UPDATED, EARTHING DETAIL ADDED.					D	G. I. SLEEVE SIZE UPDATED															
<div>CLP 中電</div>			REVS.	14-9-04	28-01-05	05-11-07	26-03-12	18.03.14	25.05.17															
				A	B	C	D	E	F	G	H	J	K	L										
			INITIAL	K.C.C	K.C.C	K.C.C	K.C.C	H.T.YU	MS FONG															
<div>DRAWN: M. S. FONG</div> <div>DATE: 25-05-2017</div> <div>CHECKED: M. S. FONG</div> <div>APPROVED: GARY KWOK</div> <div>SCALE: 30:</div> <div>SHEET(S) IN SET:</div>			TITLE :																					
			TYPICAL DETAILS OF CABLE TRENCH																					
			(SHEET 3 OF 3)																					
ASSET MANAGEMENT			DRG. NO.	T	C	O	P	1	0	2	5	0	D	E	3	3	0	1	0	3	1	2	F	A

**TRANSFORMER ROOM****CUSTOMER'S A.C.B. IN LINE WITH M.C.T.****CUSTOMER'S A.C.B. NOT IN LINE WITH M.C.T.****NOTES:**

1. X TO BE EXTENDED TO THE POSSIBLE ZONE OF CUSTOMER'S MAIN A.C.B..
2. WIDTH AND DEPTH OF CABLE TRENCH, IF NOT SPECIFIED, SHOULD CORRESPOND TO THAT IN THE TRANSFORMER ROOM.



REVS.	A	B	C	D	E	F	G	H	J	K	L
INITIAL											

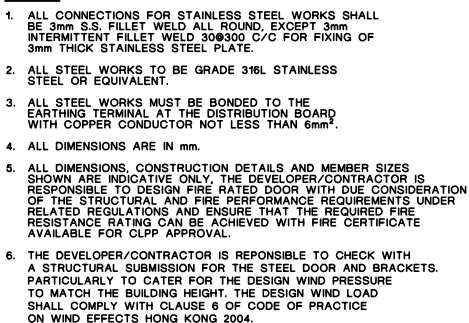
TITLE :

CABLE TRENCH FOR ACCOMMODATING CLP  
POWER SINGLE-CORE CABLES IN CUSTOMER  
MAIN SWITCHROOM

DRAWN: S. C. TO	DATE: 26-07-2002
CHECKED: K. C. CHENG	APPROVED: K. W. WONG
SCALE: 1 : 50 (mm)	SHEET(S) IN SET:

**ASSET MANAGEMENT**

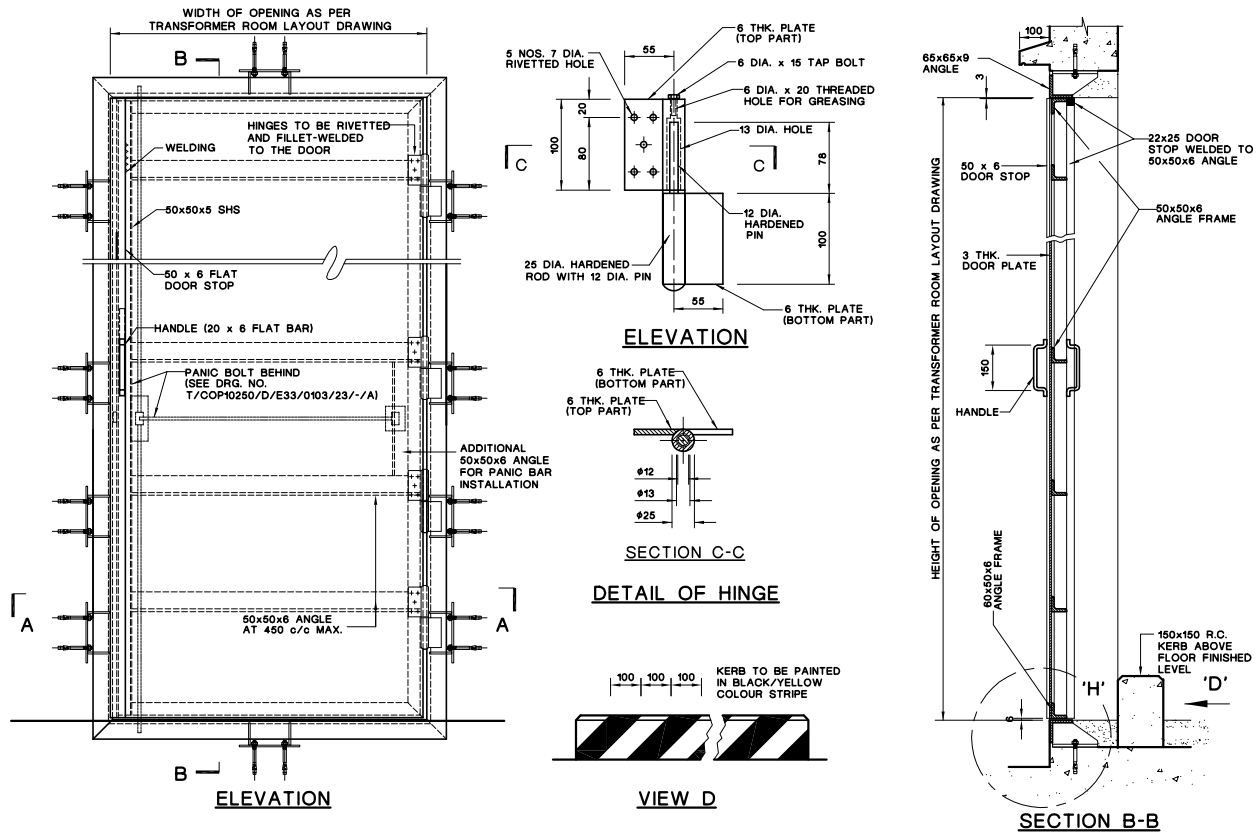
DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 1 3 - A



NOTE: SPACING OF STEEL BRACKET TO BE 450 c/c.

TITLE :  
TYPICAL DETAILS OF SINGLE LEAF STAINLESS  
STEEL DOOR

DRG. NO.	T	C	O	P	1	0	2	5	0	D	E	3	3	0	1	0	3	1	4	D	A
----------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

**NOTES:**

1. ALL CONNECTIONS FOR STAINLESS STEEL WORKS SHALL BE 3mm S.S. FILLET WELD ALL ROUND, EXCEPT 3mm INTERMITTENT FILLET WELD 300x300 C/C FOR FIXING OF 3mm THICK STAINLESS STEEL PLATE.
2. ALL STEEL WORKS TO BE GRADE 316L STAINLESS STEEL OR EQUIVALENT.
3. ALL STEEL WORKS MUST BE BONDED TO THE EARTHING TERMINAL AT THE DISTRIBUTION BOARD WITH COPPER CONDUCTOR NOT LESS THAN 6mm<sup>2</sup>.
4. ALL DIMENSIONS ARE IN mm.
5. ALL DIMENSIONS, CONSTRUCTION DETAILS AND MEMBER SIZES SHOWN ARE INDICATIVE ONLY. THE DEVELOPER/CONTRACTOR IS RESPONSIBLE TO DESIGN FIRE RATED DOOR WITH DUE CONSIDERATION OF THE STRUCTURAL AND FIRE PERFORMANCE REQUIREMENTS UNDER RELATED REGULATIONS AND ENSURE THAT THE REQUIRED FIRE RESISTANCE RATING CAN BE ACHIEVED WITH FIRE CERTIFICATE AVAILABLE FOR CLP APPROVAL.
6. THE DEVELOPER/CONTRACTOR IS RESPONSIBLE TO CHECK WITH A STRUCTURAL SUBMISSION FOR THE STEEL DOOR AND BRACKETS, PARTICULARLY TO CATER FOR THE DESIGN WIND PRESSURE TO MATCH THE BUILDING HEIGHT. THE DESIGN WIND LOAD SHALL COMPLY WITH CLAUSE 6 OF CODE OF PRACTICE ON WIND EFFECTS HONG KONG 2004.

**DETAIL 'G'****TYPICAL STEEL BRACKET FIXING DETAIL**

NOTE: SPACING OF STEEL BRACKET TO BE 450 c/c.

**DETAIL 'H'****BASE PLATE OF S.S. STEEL BRACKET**

D	GENERALLY REVISED
A	PAINTING ON THE DOOR KERB AND DOOR LOCK DETAIL ADDED

C AMENDMENT OF DESCRIPTION TO VIEW 'C'

B S.S. ANGLE BRACKETS ON DOOR ADDED



REV.	13.9.04	13.10.09	18.03.14	01.06.17								
INITIAL	A	B	C	D	E	F	G	H	J	K	L	
	K.C.C	K.C.C	H.T.YU	M.S.FONG								

TITLE :

**TYPICAL DETAILS OF SINGLE LEAF STAINLESS STEEL DOOR FOR WITHOUT LOCK**

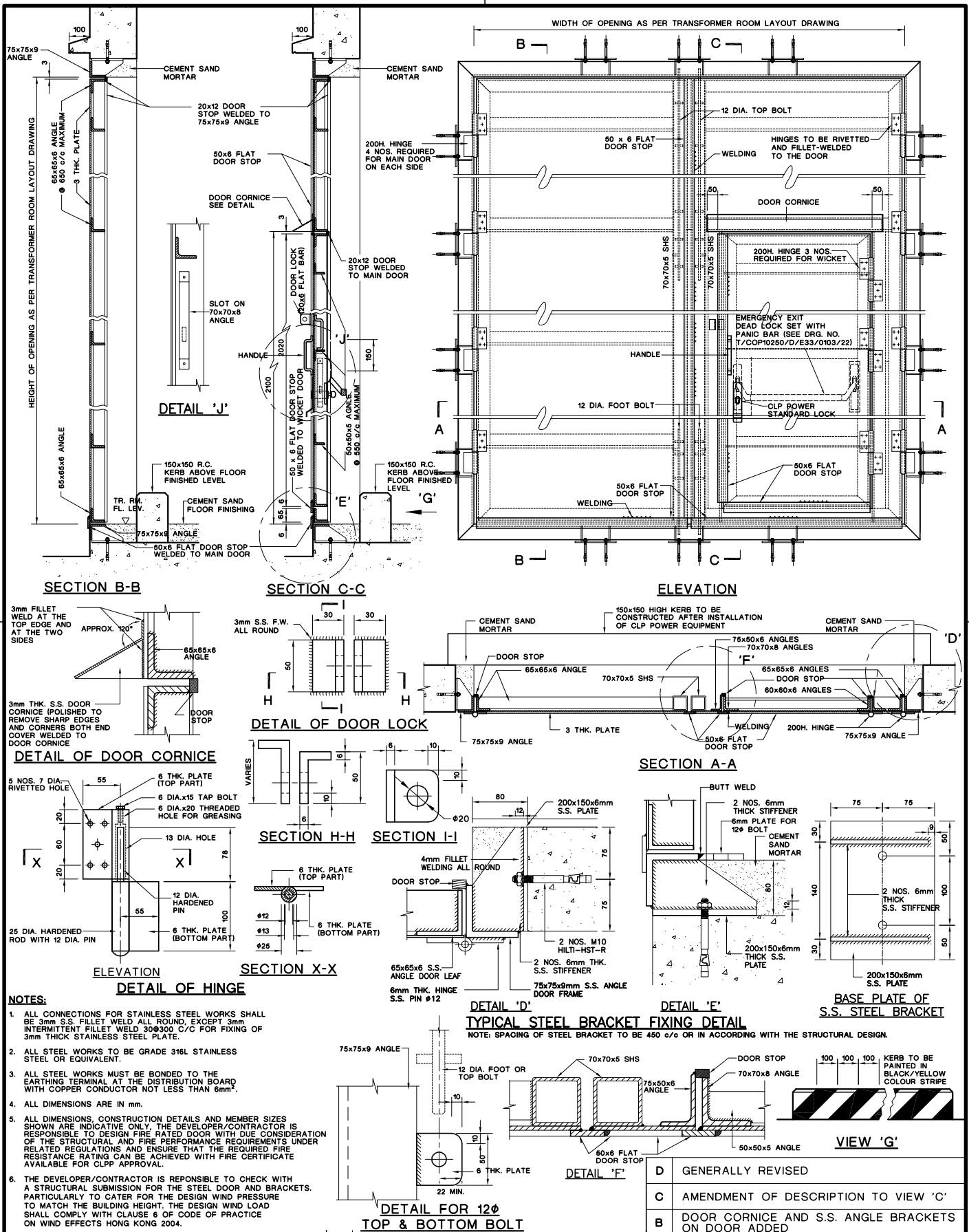
DRAWN: M. S. FONG	DATE: 01-03-2016
CHECKED: M. S. FONG	APPROVED: GARY KWOK
SCALE: AS SHOWN	SHEET(S) IN SET:

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 1 5 D A

INFORMATION CLASS: PROPRIETARY

ALL RIGHTS RESERVED AND REPRODUCTION IN ANY FORM MUST BE APPROVED BY CLP POWER



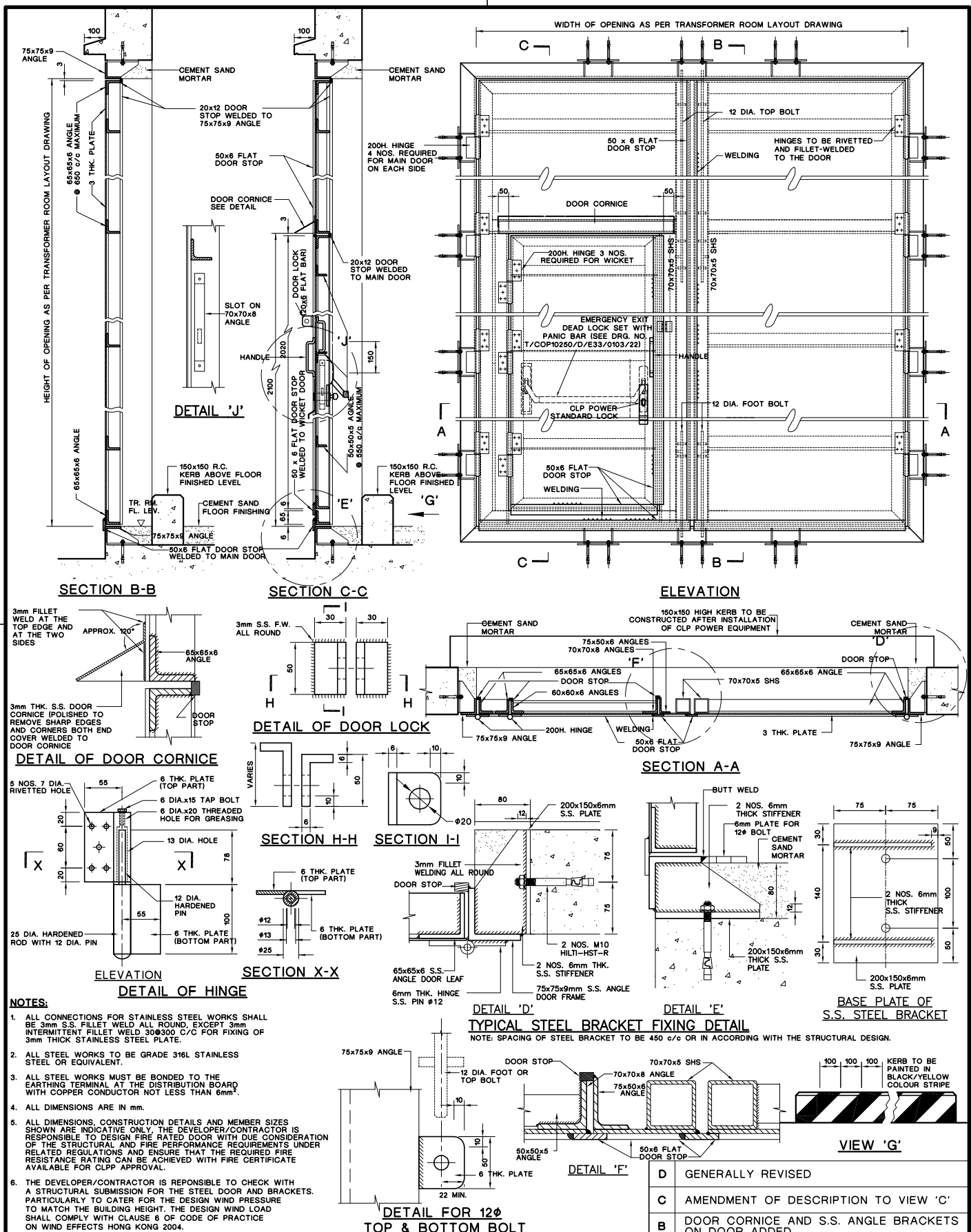
REVS.	13-9-04	10-8-09	18-03-14	01.06.17							
	A	B	C	D	E	F	G	H	J	K	L
INITIAL	K.C.C.	K.C.C.	H.T.YU	M.S.FONG							

**TITLE :**

TYPICAL DETAILS OF DOUBLE LEAF  
STAINLESS STEEL DOOR WITH WICKET ON  
THE RIGHT

DRAWN: FONG, MING SUM	DATE: 01-03-2016
CHECKED: FONG, MING SUM	APPROVED: GARY KWOK
SCALE: N. T. S.	SHEET(S) IN SET:

ASSET MANAGEMENT DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 1 6 D A



REVS.	13-9-04	10-8-09	18-03-14	01-06-17							
	A	B	C	D	E	F	G	H	J	K	L
INITIAL	K.C.C.	K.C.C.	H.T.YU	M.S.FONG							

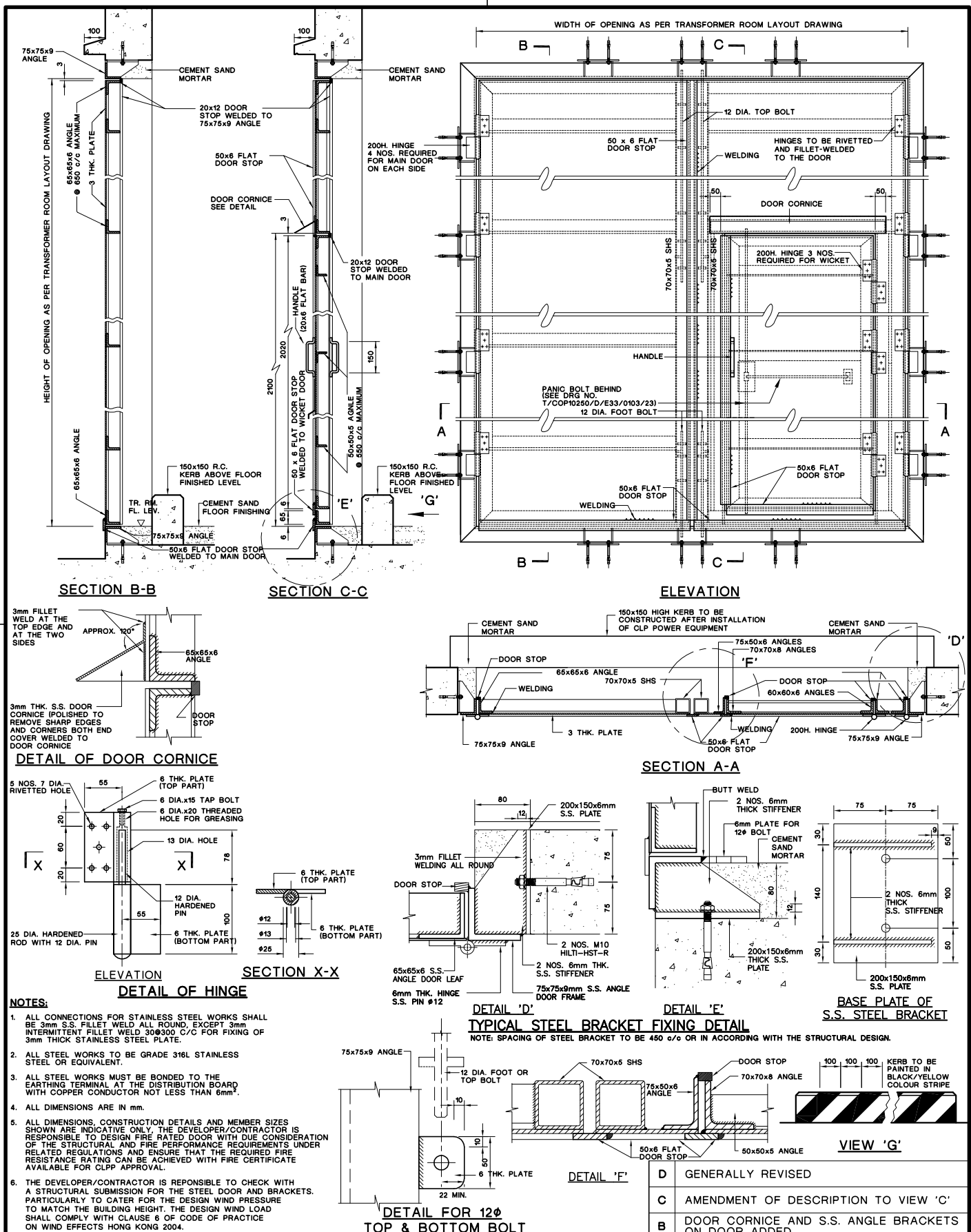
**TITLE :**

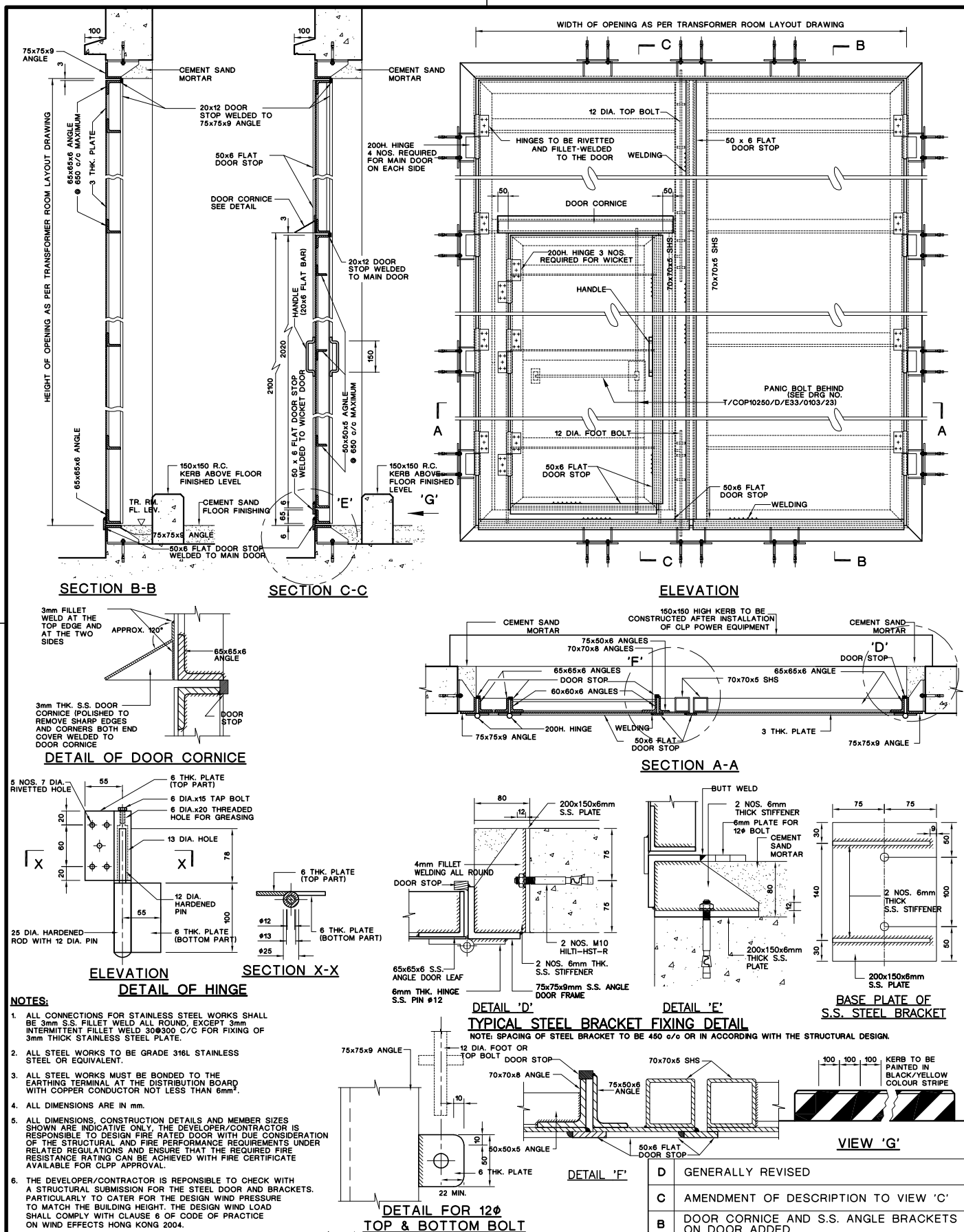
TYPICAL DETAILS OF DOUBLE LEAF  
STAINLESS STEEL DOOR WITH WICKET ON  
THE LEFT

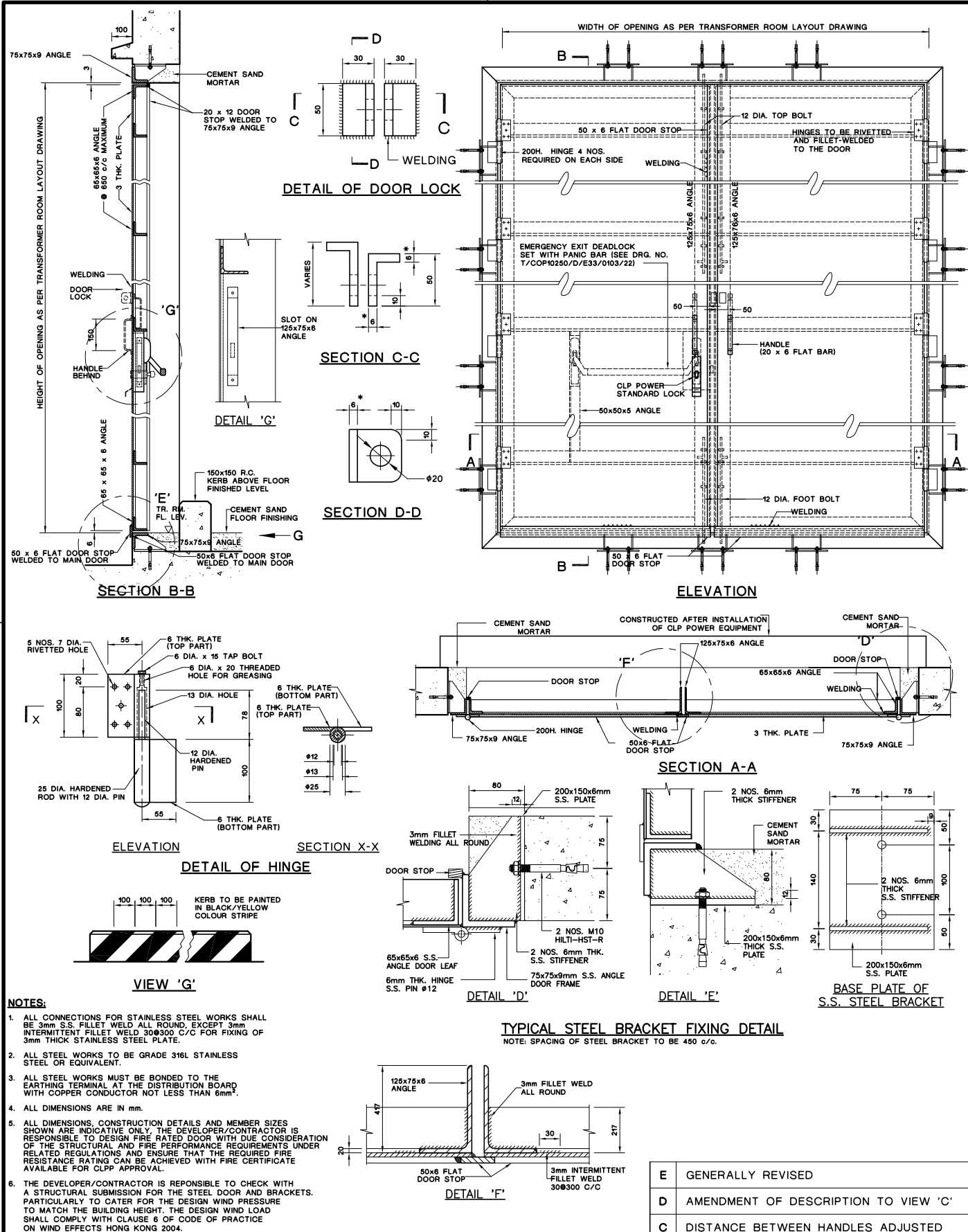
DRAWN: FONG, MING SUM	DATE: 01-03-2016
CHECKED: FONG, MING SUM	APPROVED: GARY KWOK
SCALE: N. T. S.	SHEET(S) IN SET:

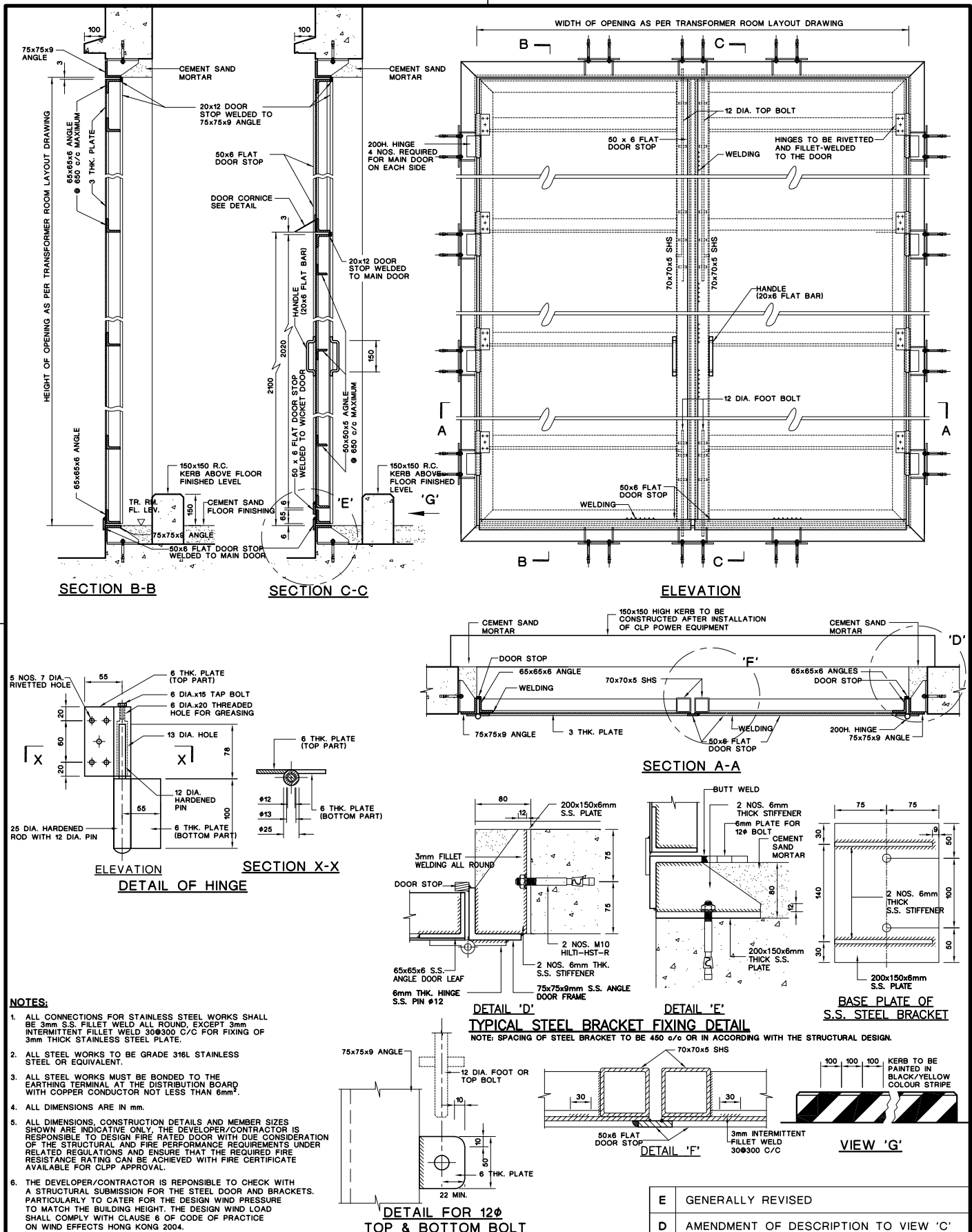
## ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 1 7 D A









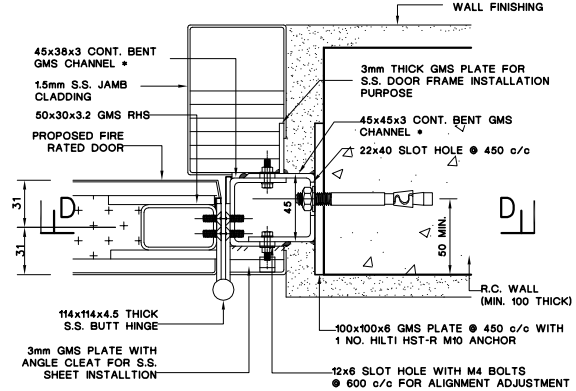
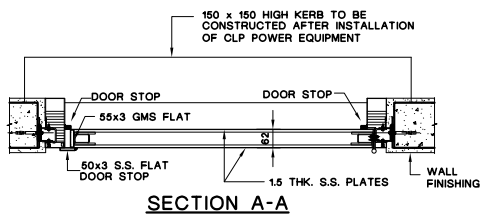
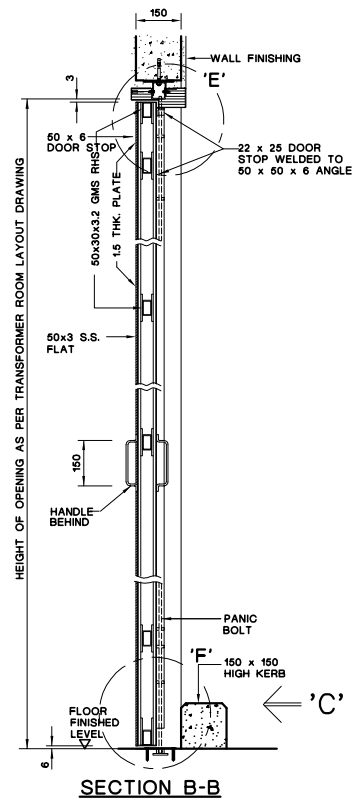
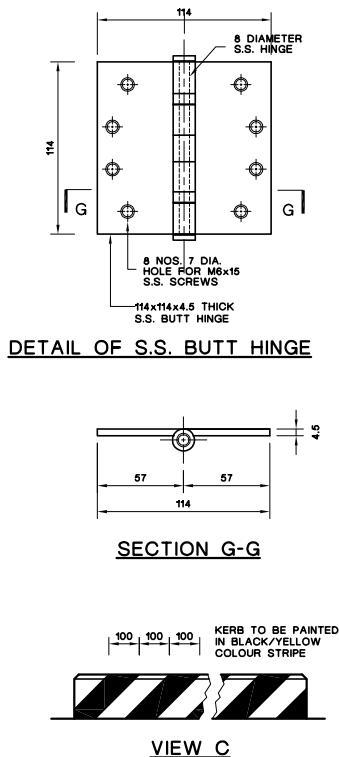
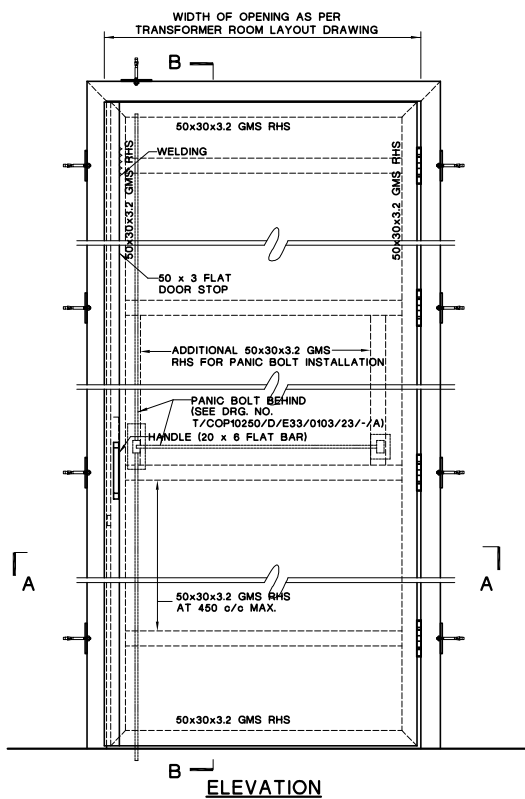
REVS.	13-9-04	13-10-09	26-03-12	18-03-14	01-08-17						
INITIAL	A	B	C	D	E	F	G	H	J	K	L
	K.C.C.	K.C.C.	K.C.C.	H.T.YU	M.S.FONG						

TITLE :

## TYPICAL DETAILS OF DOUBLE LEAF STAINLESS STEEL DOOR WITHOUT LOCK

DRAWN: FONG, MING SUM	DATE: 01-03-2016
CHECKED: FONG, MING SUM	APPROVED: GARY KWOK
SCALE: N. T. S.	SHEET(S) IN SET:

ASSET MANAGEMENT	DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 2 1 E A
------------------	--

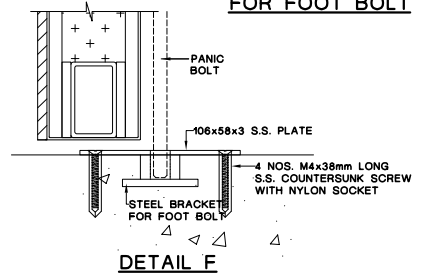
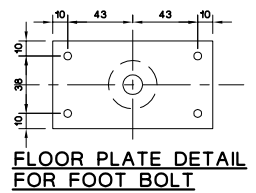
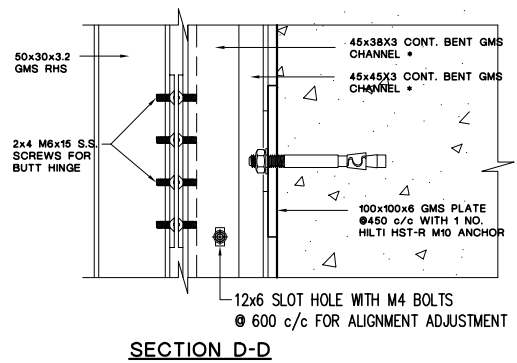
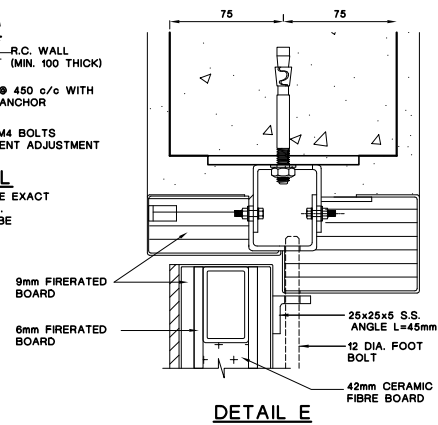


### DOOR JAMB/FRAME FIXING DETAIL

- NOTES: 1. \* DENOTES SIZE OF STEEL CHANNEL TO SUIT THE EXACT DIMENSION OF S.S. BUTT HINGE SCREW POSITION.  
2. S.S. JAMB CLADDING SUPPORTING DETAIL SHALL BE DESIGNED BY THE CONTRACTOR.

NOTES:

1. ALL CONNECTIONS FOR STEELNESS AND G.M.S. STEEL WORKS SHALL BE 3mm S.S. FILLET WELD, OR 3mm FILLET WELDED FOR G.M.S. ALL ROUND.
2. ALL STEEL WORKS TO BE GRADE 316L STEELNESS STEEL OR EQUIVALENT.
3. ALL STEEL WORKS MUST BE BONDED TO THE EARTHING TERMINAL AT THE DISTRIBUTION BOARD WITH COPPER CONDUCTOR NOT LESS THAN 6mm<sup>2</sup>.
4. ALL DIMENSIONS ARE IN mm.
5. ALL DIMENSIONS, CONSTRUCTION DETAILS AND MEMBER SIZES SHOWN ARE INDICATIVE ONLY. THE DEVELOPER/CONTRACTOR IS RESPONSIBLE TO DESIGN FIRE RATED DOOR WITH DUE CONSIDERATION OF THE STRUCTURAL AND FIRE PERFORMANCE REQUIREMENTS UNDER RELATED REGULATIONS AND ENSURE THE REQUIRED FIRE RESISTANCE CAN BE ACHIEVED WITH FIRE CERTIFICATE AVAILABLE FOR CLPP APPROVAL.

[illegible]

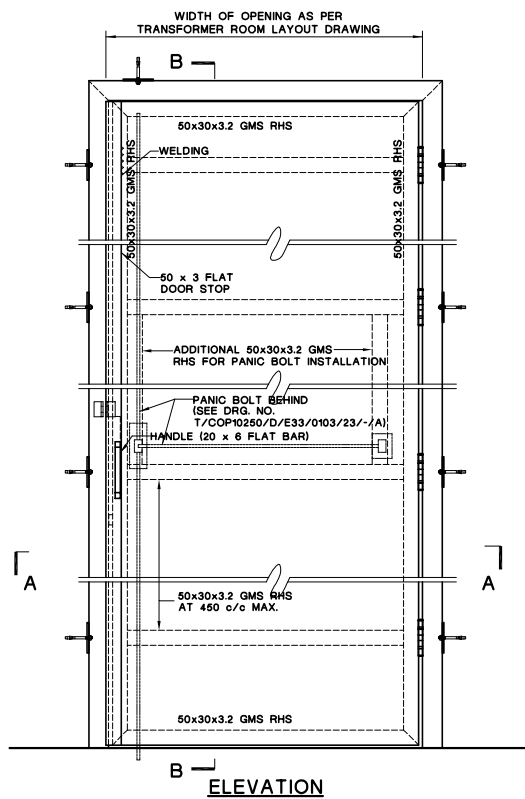
**TITLE :**

FOR FIRE RATED DOOR WITH INSULATION  
TYPICAL DETAILS OF SINGLE LEAF LAMINATED  
STEEL DOOR WITHOUT LOCK

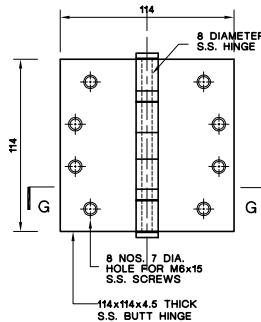
DRAWN: M. S. FONG	DATE: 01-03-2016
CHECKED: M. S. FONG	APPROVED: GARY KWOK
SCALE: AS SHOWN	SHEET(S) IN SET:

## ASSET MANAGEMENT

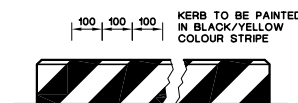
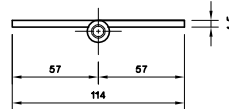
DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 3 3 - A



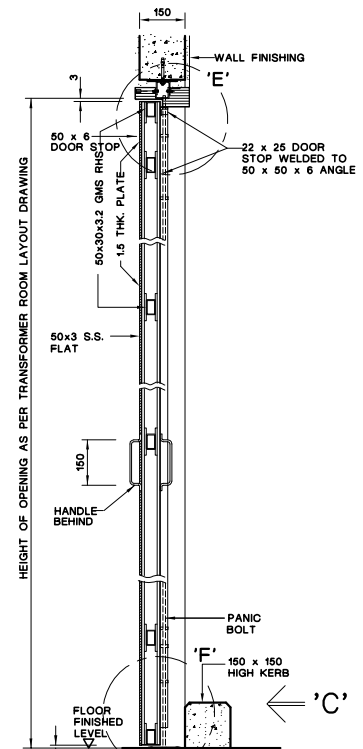
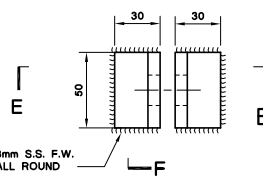
DETAIL OF S.S. BUTT HINGE



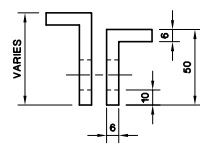
SECTION G-G



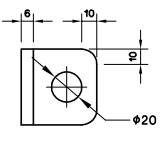
DETAIL OF DOOR LOCK



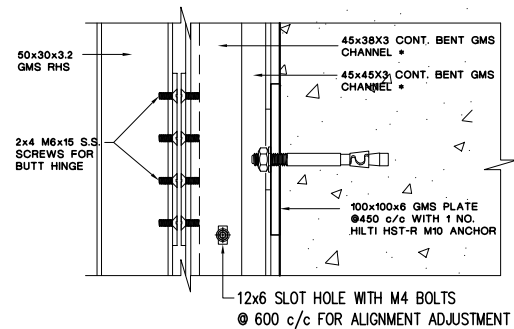
SECTION E-E



SECTION F-F



SECTION D-D

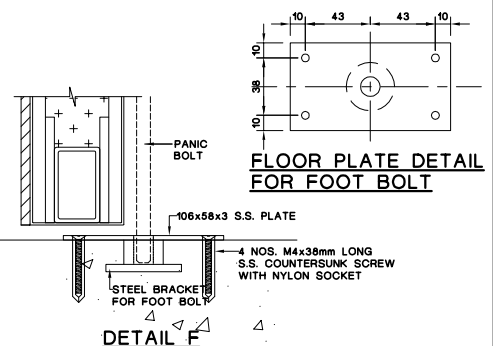
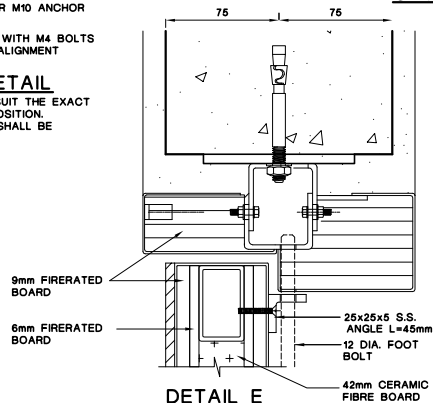


## DOOR JAMB/FRAME FIXING DETAIL

- NOTES:
- \* DENOTES SIZE OF STEEL CHANNEL TO SUIT THE EXACT DIMENSION OF S.S. BUTT HINGE SCREW POSITION.
  - S.S. JAMB CLADDING SUPPORTING DETAIL SHALL BE DESIGNED BY THE CONTRACTOR.

## NOTES:

- ALL CONNECTIONS FOR STAINLESS AND G.M.S. STEEL WORKS SHALL BE 3mm S.S. FILLET WELD, OR 3mm FILLET WELDED FOR G.M.S. ALL ROUND.
- ALL STEEL WORKS TO BE GRADE 316L STAINLESS STEEL OR EQUIVALENT.
- ALL STEEL WORKS MUST BE BONDED TO THE EARTHING TERMINAL AT THE DISTRIBUTION BOARD WITH COPPER CONDUCTOR NOT LESS THAN 6mm<sup>2</sup>.
- ALL DIMENSIONS ARE IN mm.
- ALL DIMENSIONS, CONSTRUCTION DETAILS AND MEMBER SIZES SHOWN ARE INDICATIVE ONLY. THE DEVELOPER/CONTRACTOR IS RESPONSIBLE TO DESIGN FIRE RATED DOOR WITH DUE CONSIDERATION OF THE STRUCTURAL AND FIRE PERFORMANCE REQUIREMENTS UNDER RELATED REGULATIONS AND ENSURE THAT THE REQUIRED FIRE RESISTANCE RATING CAN BE ACHIEVED WITH FIRE CERTIFICATE AVAILABLE FOR CLPP APPROVAL.



FLOOR PLATE DETAIL FOR FOOT BOLT



REVS.

INITIAL

TITLE :

FOR FIRE RATED DOOR WITH INSULATION  
TYPICAL DETAILS OF SINGLE LEAF LAMINATED  
STEEL DOOR

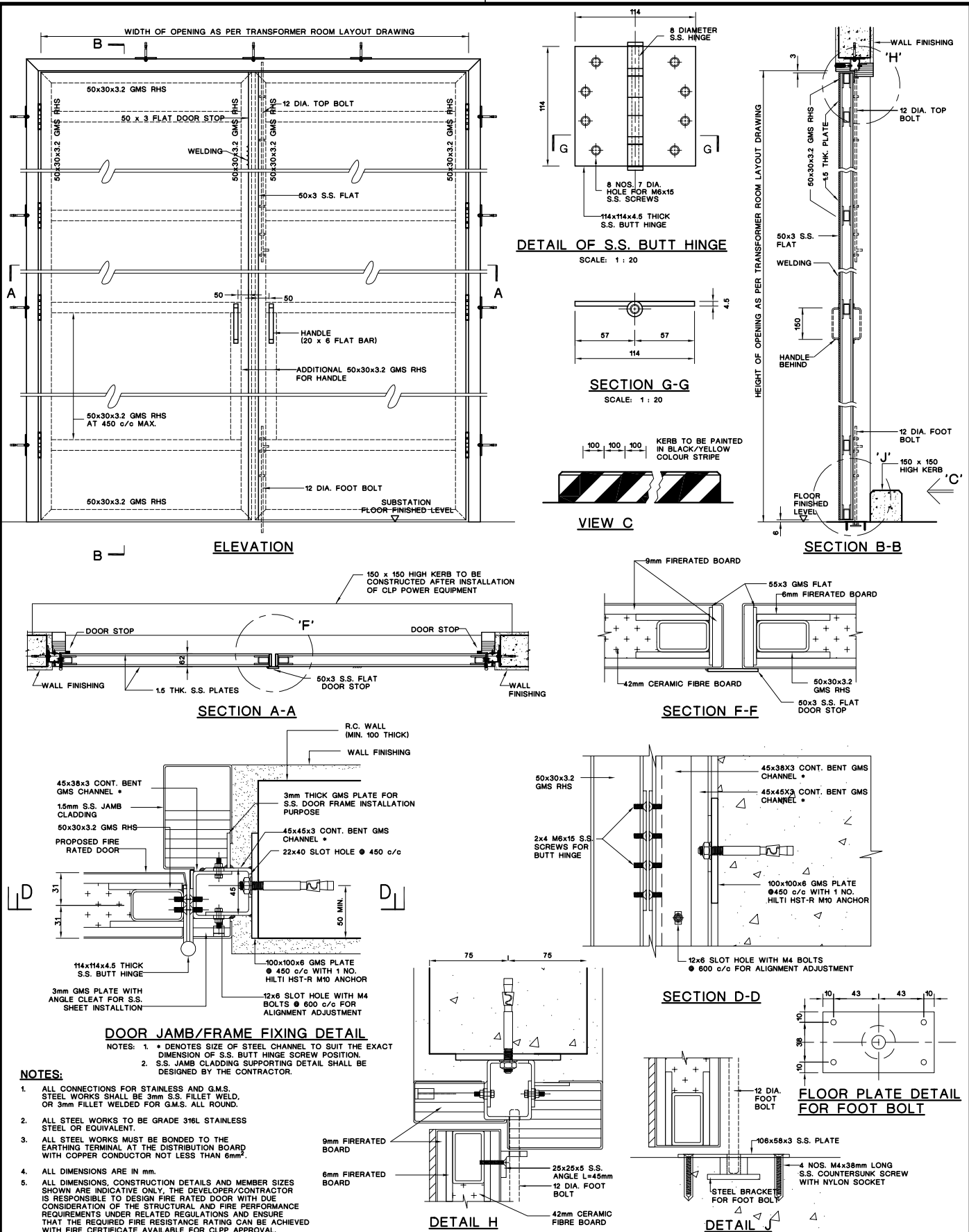
DRAWN: FONG, MING SUM DATE: 01-03-2016  
CHECKED: FONG, MING SUM APPROVED: GARY KWOK  
SCALE: AS SHOWN SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 3 4 - A

INFORMATION CLASS: PROPRIETARY

ALL RIGHTS RESERVED AND REPRODUCTION IN ANY FORM MUST BE APPROVED BY CLP POWER

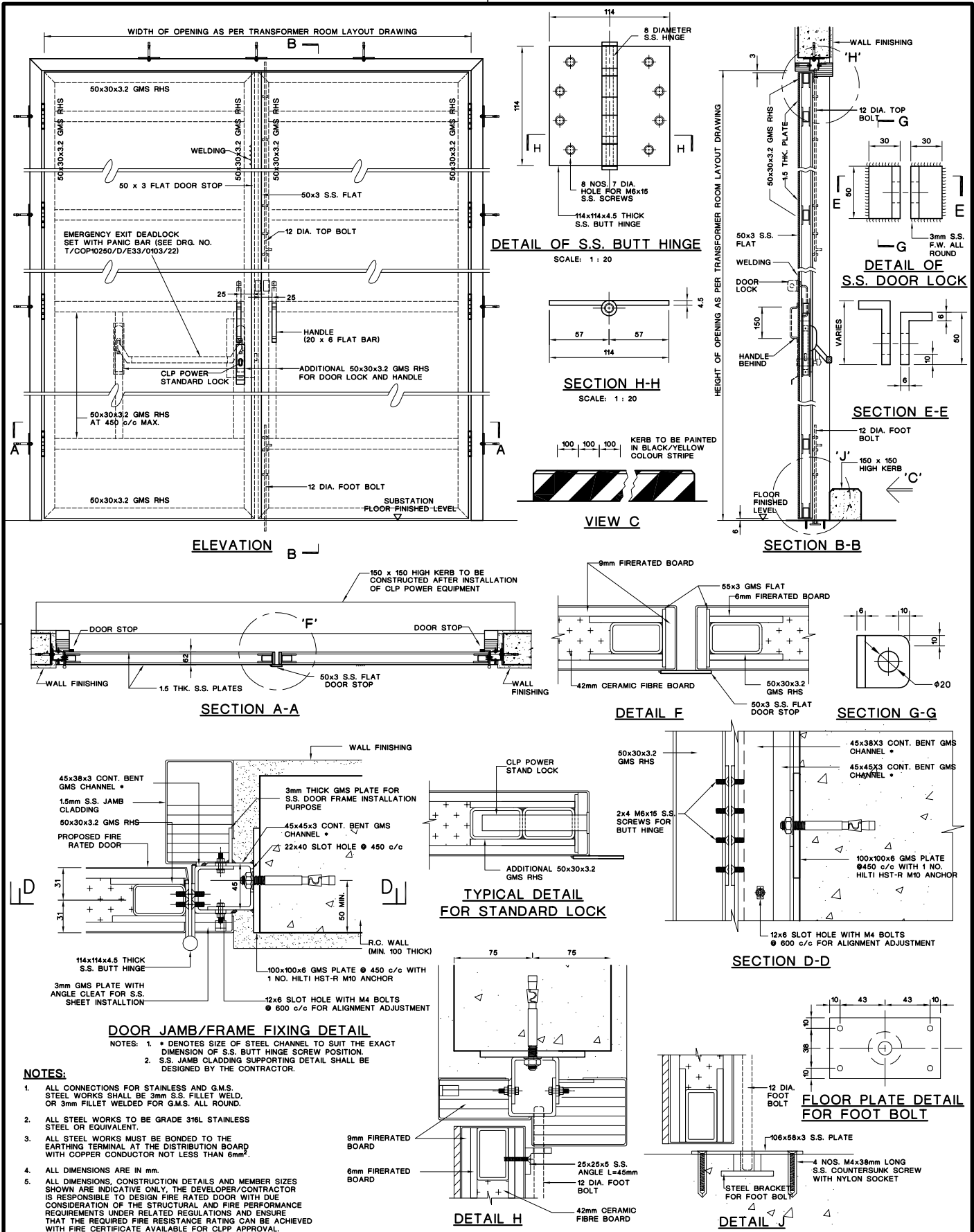
[illegible]

**TITLE :**

FOR FIRE RATED DOOR WITH INSULATION  
TYPICAL DETAILS OF DOUBLE LEAF  
LAMINATED STEEL DOOR AND WITHOUT LOCK

DRAWN: M. S. FONG	DATE: 01-03-2016
CHECKED: M. S. FONG	APPROVED: GARY KWOK
SCALE: N.T.S.	SHEET(S) IN SET:

ASSET MANAGEMENT DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 3 5 - A



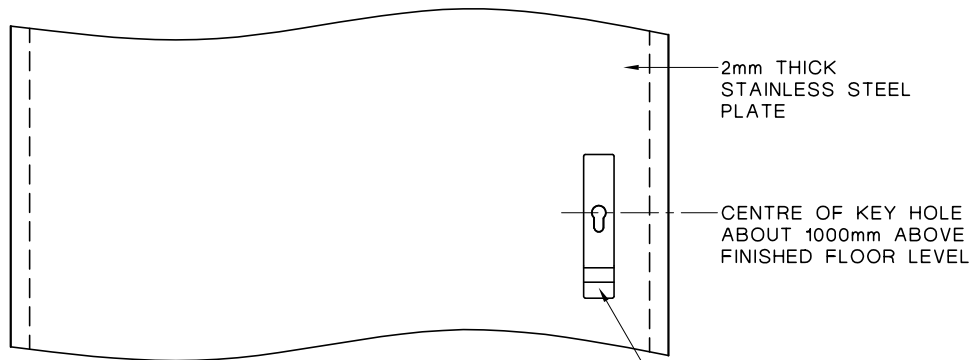
REVS.	A	B	C	D	E	F	G	H	J	K	L
INITIAL											

TITLE :

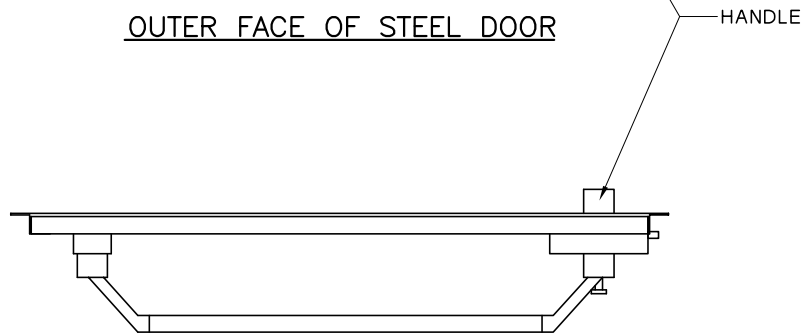
FOR FIRE RATED DOOR WITH INSULATION  
TYPICAL DETAILS OF DOUBLE LEAF  
LAMINATED STEEL DOOR

DRAWN: M. S. FONG	DATE: 01-03-2016
CHECKED: M. S. FONG	APPROVED: GARY KWOK
SCALE: AS SHOWN	SHEET(S) IN SET:

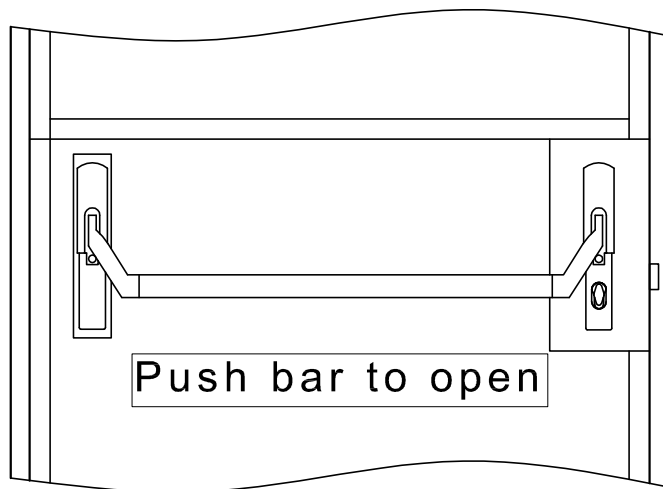
ASSET MANAGEMENT	DRG. NO. T/COP10250/D/E33/0103/36-A
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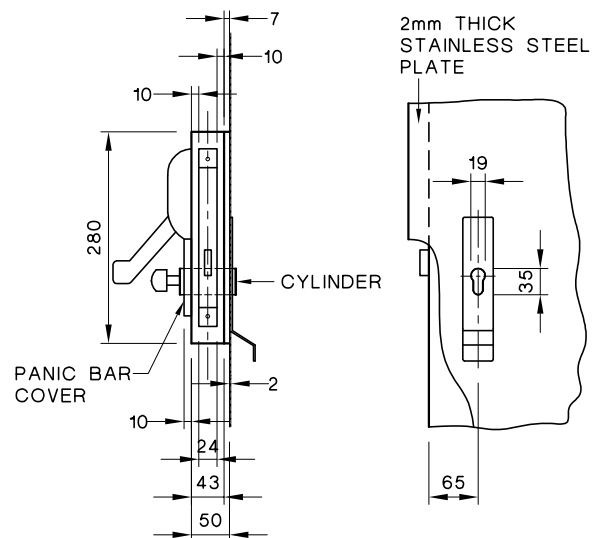
OUTER FACE OF STEEL DOOR



PLAN



INNER FACE OF STEEL DOOR



SIDE VIEW



REVS.	A	B	C	D	E	F	G	H	J	K	L
INITIAL											

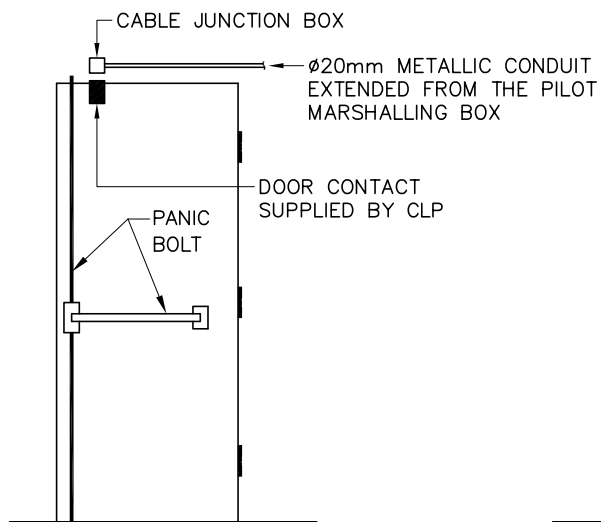
TITLE :

DETAILS OF EMERGENCY EXIT DEADLOCK  
SET WITH PANIC BAR

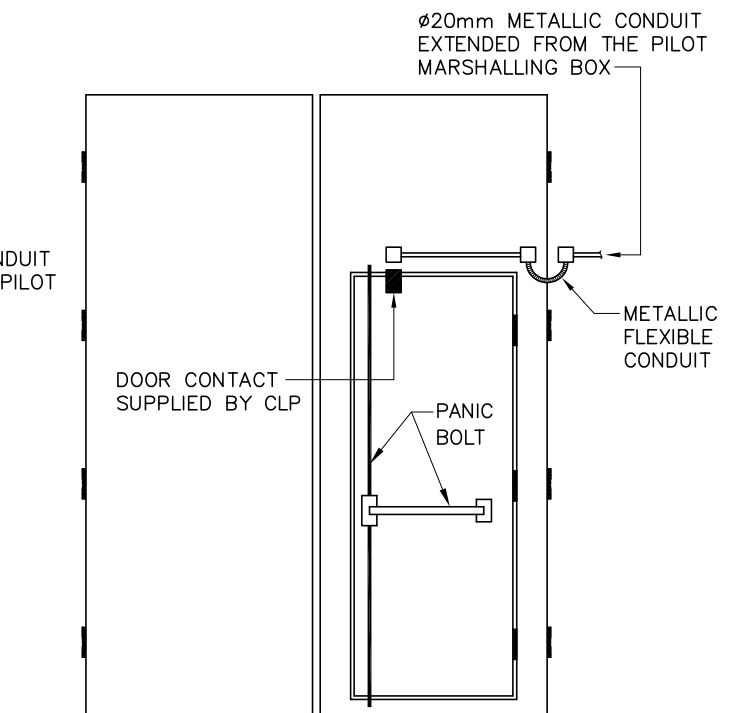
DRAWN: C W WONG	DATE: 28 OCT., 2009
CHECKED: K C CHENG	APPROVED: W C HO
SCALE: 1 : 10 (mm)	SHEET(S) IN SET: 1

ASSET MANAGEMENT

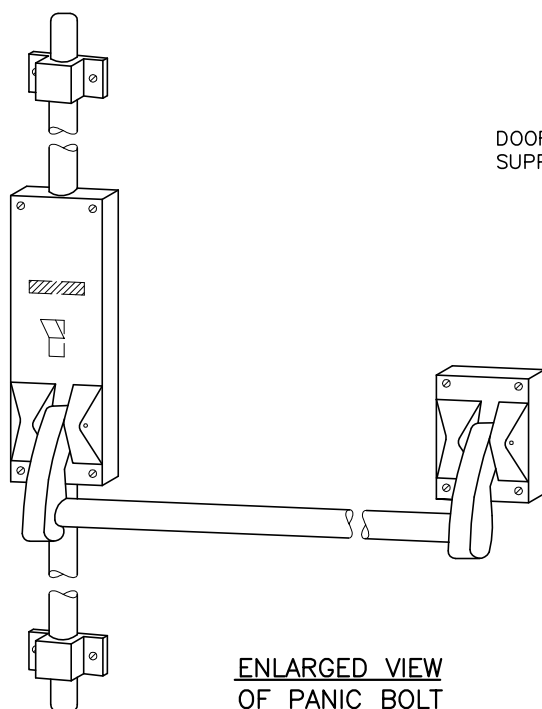
DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 2 2 - A



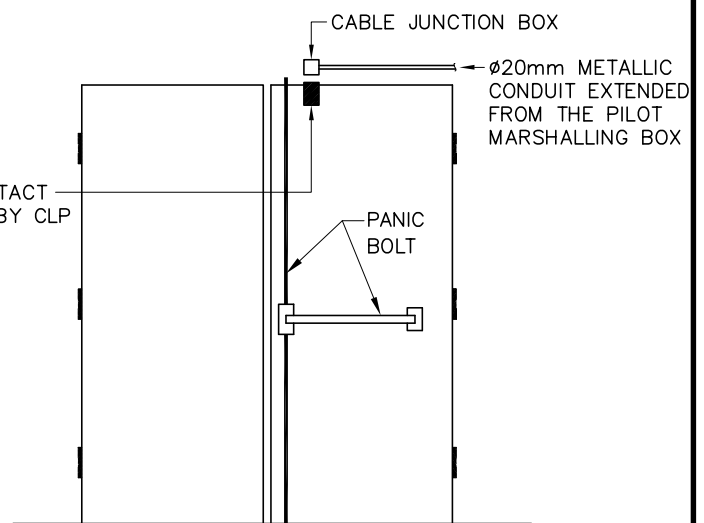
**PANIC BOLT FOR  
SINGLE STEEL DOOR**  
(LOOKING FROM INSIDE  
OF TRANSFORMER RM.)



**PANIC BOLT FOR  
WICKET OF DOUBLE  
LEAF DOOR**  
(LOOKING FROM INSIDE  
OF TRANSFORMER RM.)



**ENLARGED VIEW  
OF PANIC BOLT**



**PANIC BOLT FOR  
DOUBLE LEAF  
STAINLESS STEEL DOOR**  
(LOOKING FROM INSIDE  
OF TRANSFORMER RM.)

A GENERAL REVISION



REVS.	08.05.12												
INITIAL	A	B	C	D	E	F	G	H	J	K	L		
	E. YU												

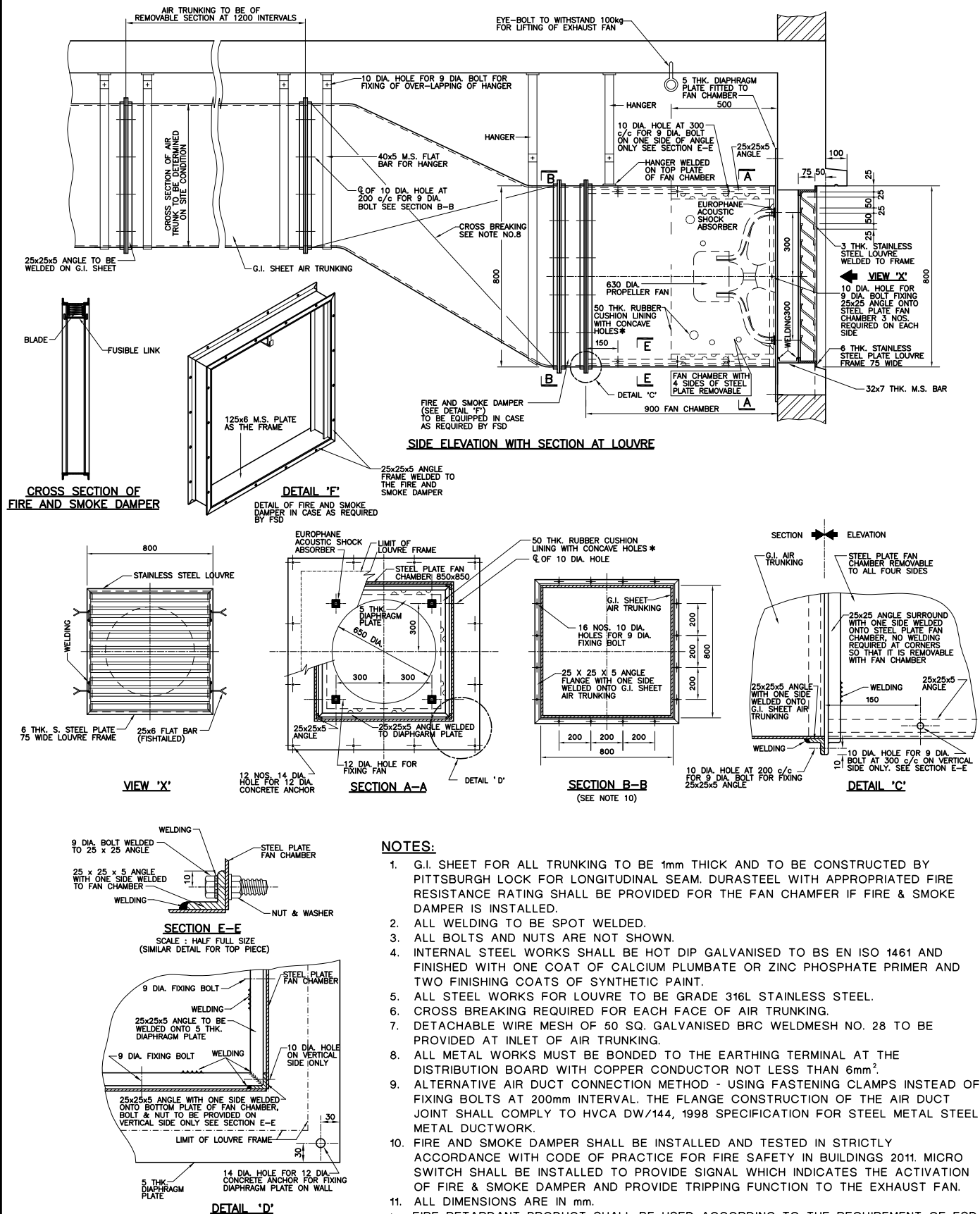
TITLE :

TYPICAL ARRANGEMENT OF PANIC BOLT  
AND DOOR CONTACT INSTALLATION FOR  
TRANSFORMER ROOM DOORS

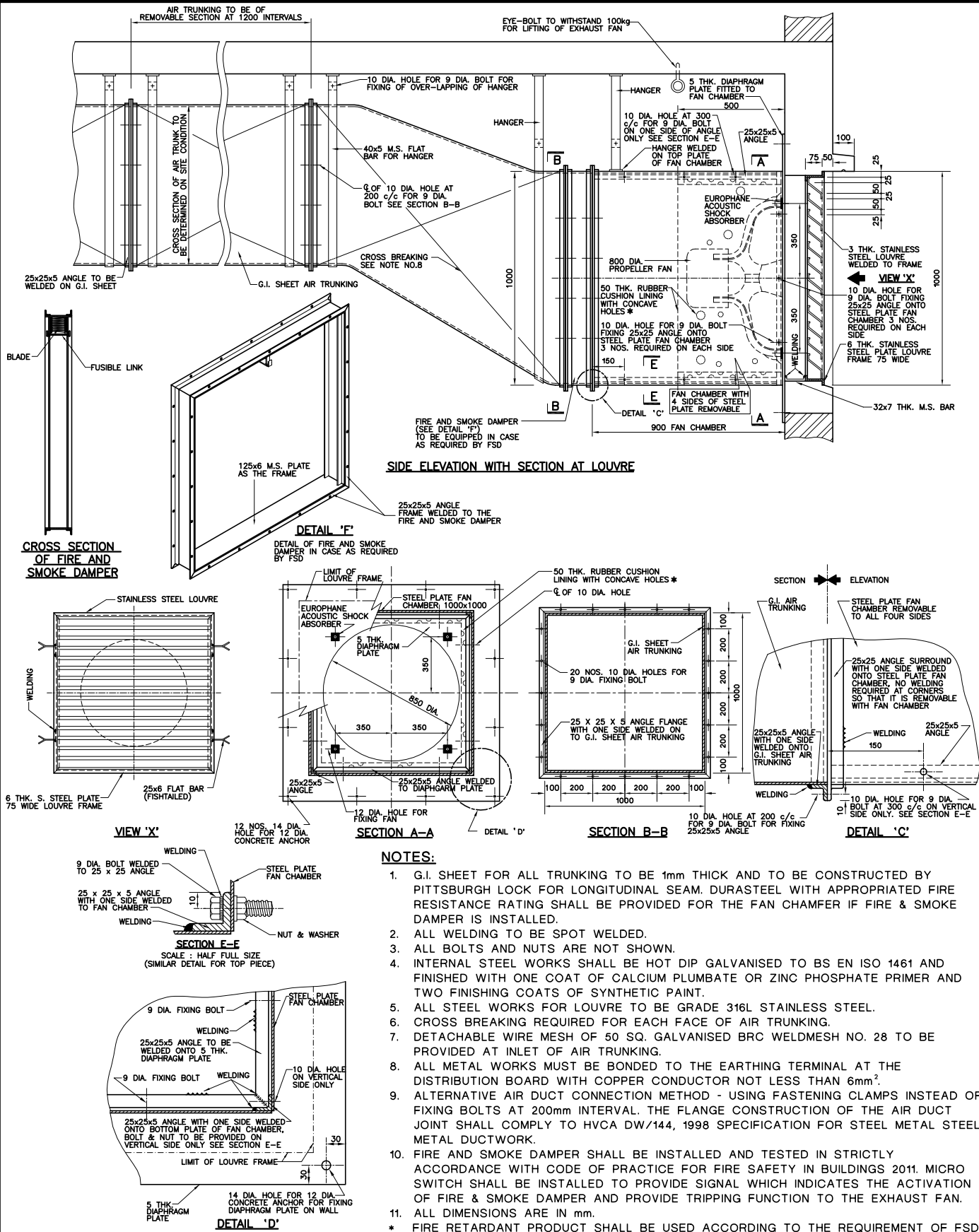
DRAWN: S. C. TO DATE: 26-07-2002  
CHECKED: K. C. CHENG APPROVED: K. W. WONG  
SCALE: N. T. S. SHEET(S) IN SET: 1

ASSET MANAGEMENT

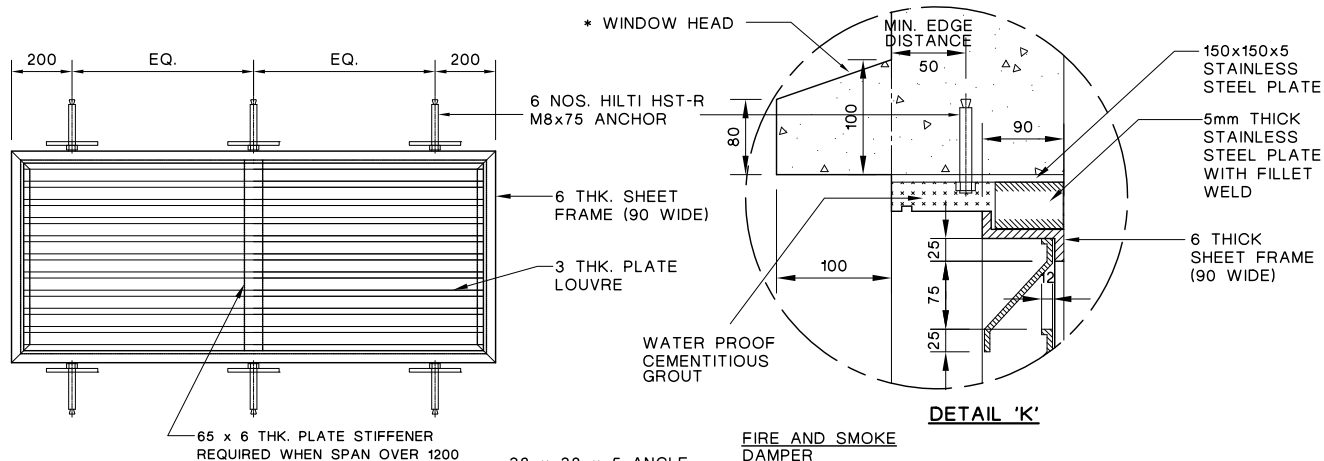
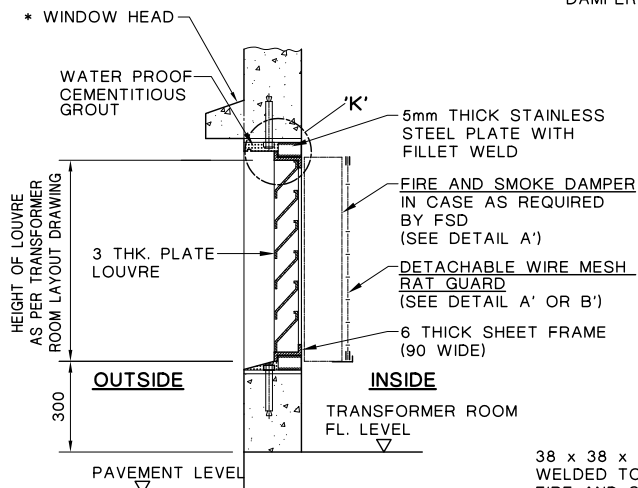
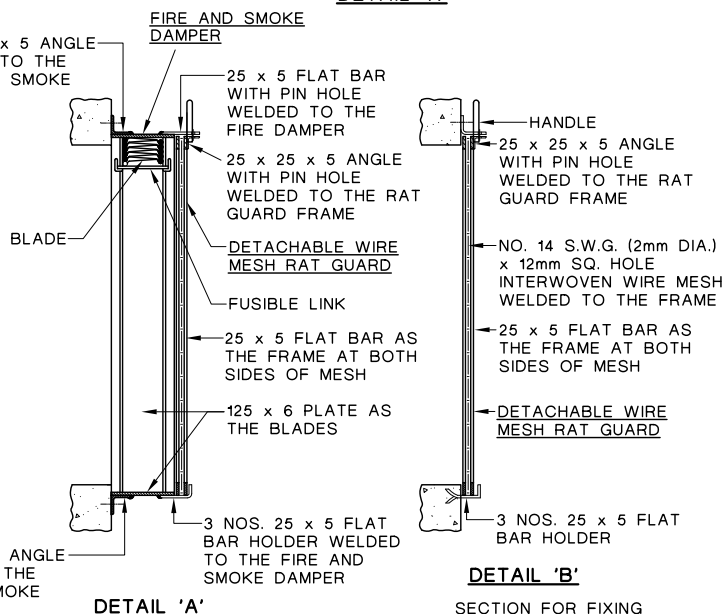
DRG. NO. T C O P 7 2 0 0 0 D E 3 3 0 1 0 3 2 3 A A



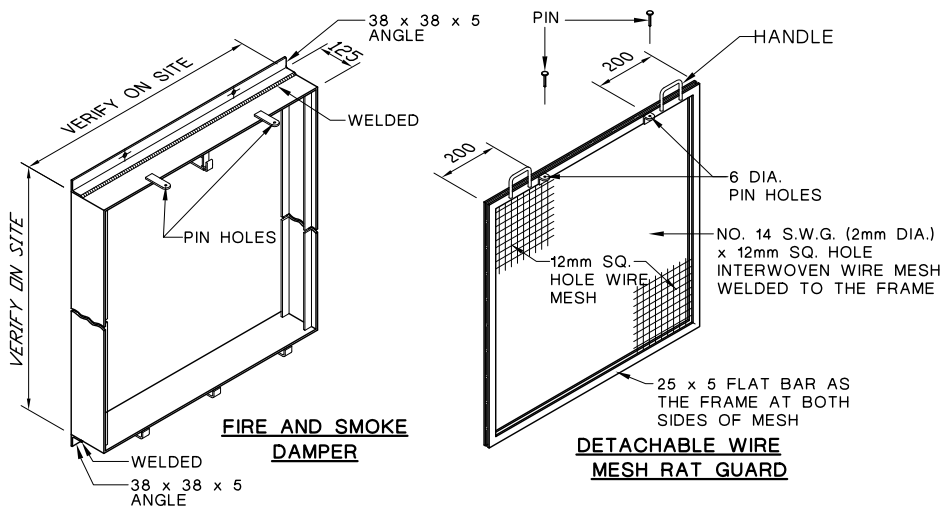
C	FIRE AND SMOKE DAMPER ADDED					B	ZINC PRIMER AND NOTE 10 ADDED.					A	LOUVRE BLADES REVISED														
<div>CLP 中電</div>						REVS.	21.12.05	15.11.07	07.04.17																		
							A	B	C	D	E	F	G	H	J	K	L										
						INITIAL	K.C.C.	K.C.C.	E. YU																		
						TITLE :																					
						TYPICAL DETAILS OF METAL TRUNKING & STAINLESS STEEL LOUVRE FOR 630mm DIA. WALL MOUNTED EXHAUST FAN																					
DRAWN:		S. C. TO		DATE:		21 Dec., 2005																					
CHECKED:		K. C. CHENG		APPROVED:		W. C. HO																					
SCALE:		AS SHOWN		SHEET(S) IN SET:																							
A S S E T M A N A G E M E N T						DRG. NO.	T	C	O	P	1	0	2	5	0	D	E	3	3	0	1	0	3	2	4	C	A



C	FIRE AND SMOKE DAMPER ADDED				B	ZINC PRIMER AND NOTE 10 ADDED				A	LOUVRE BLADES REVISED					
<div>CLP 中電</div>					REVS.	21.12.05 A	15.11.07 B	09.09.16 C	D	E	F	G	H	J	K	L
					INITIAL	K.C.C.	K.C.C.	E. YU								
					TITLE :											
					TYPICAL DETAILS OF METAL TRUNKING & STAINLESS STEEL LOUVRE FOR 800mm DIA. WALL MOUNTED EXHAUST FAN											
DRAWN: S. C. TO		DATE: 21 Dec., 2005														
CHECKED: K. C. CHENG		APPROVED: W. C. HO														
SCALE: AS SHOWN		SHEET(S) IN SET:														
A S S E T M A N A G E M E N T					DRG. NO.	T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 2 5 C A										

**ELEVATION****CROSS SECTION OF WALL SHOWING STAINLESS STEEL LOUVRE****NOTES:**

1. \* IF THE WINDOW HEAD IS PROJECTED BEYOND THE SITE BOUNDARY AND THE HEIGHT IS LESS THAN 2.5 METRES, THIS PORTION OF WINDOW HEAD MAY BE OMITTED.
2. ALL CONNECTIONS OF STAINLESS STEEL WORKS TO BE 3mm S.S. FILLET WELDED ALL ROUND.
3. ALL STEEL WORKS TO BE GRADE 316L STAINLESS STEEL.
4. ALL STEEL WORKS MUST BE BONDED TO THE EARTHING TERMINAL AT THE DISTRIBUTION BOARD WITH COPPER CONDUCTOR NOT LESS THAN 6 mm<sup>2</sup>.
5. FIRE AND SMOKE DAMPER SHALL BE INSTALLED AND TESTED IN STRICTLY ACCORDANCE WITH CODE OF PRACTICE FOR FIRE SAFETY IN BUILDINGS 2011.

**ISOMETRIC VIEW AND ASSEMBLY OF FIRE AND SMOKE DAMPER & WIRE MESH RAT GUARD (NOT TO SCALE)**

B	FIRE AND SMOKE DAMPER, WINDOW HEAD ADDED	A	LOUVRE BLADES REVISED
---	--	---	-----------------------



REVS.	21.12.05	17.03.17												
INITIAL	A	B	C	D	E	F	G	H	J	K	L			
	K.C.C.	H.T.YU												

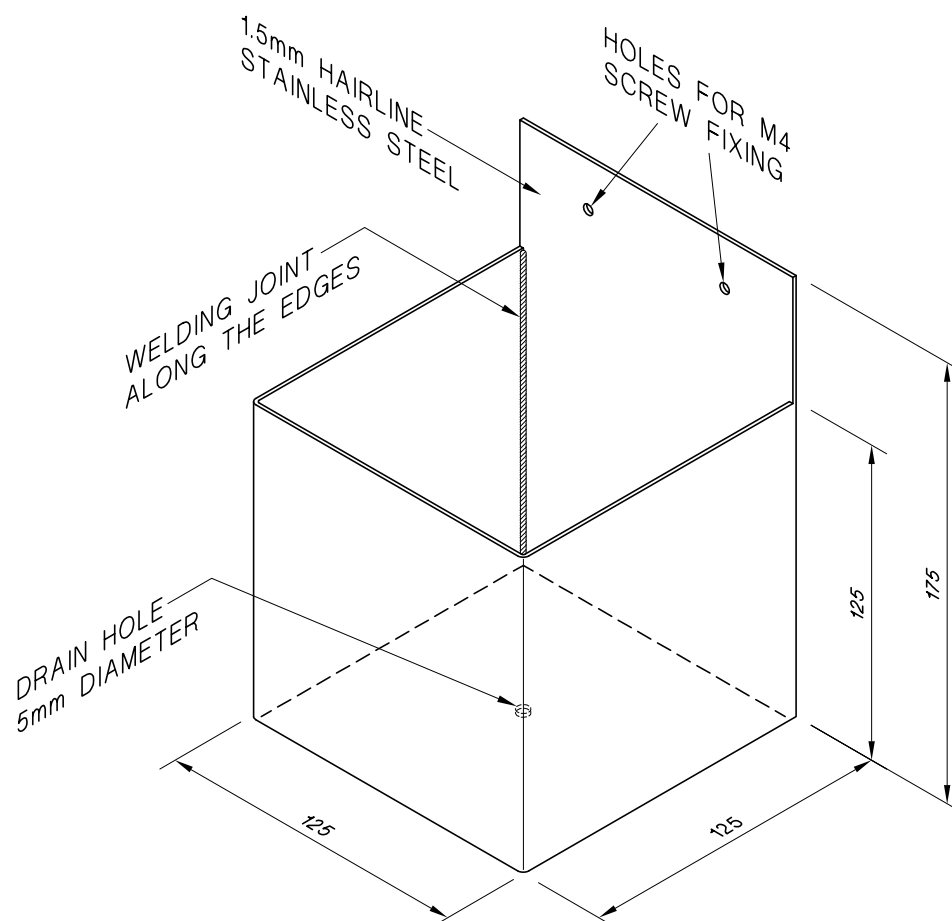
TITLE :

**TYPICAL DETAILS OF STAINLESS STEEL LOUVRE**

DRAWN: S. C. TO	DATE: 21 Dec., 2005
CHECKED: K. C. CHENG	APPROVED: W. C. HO
SCALE: 1 : 25 (mm)	SHEET(S) IN SET: 1

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 2 6 B A



REVS.	A	B	C	D	E	F	G	H	J	K	L
INITIAL											

TITLE :

PLASTIC CHAIN STORAGE BOX

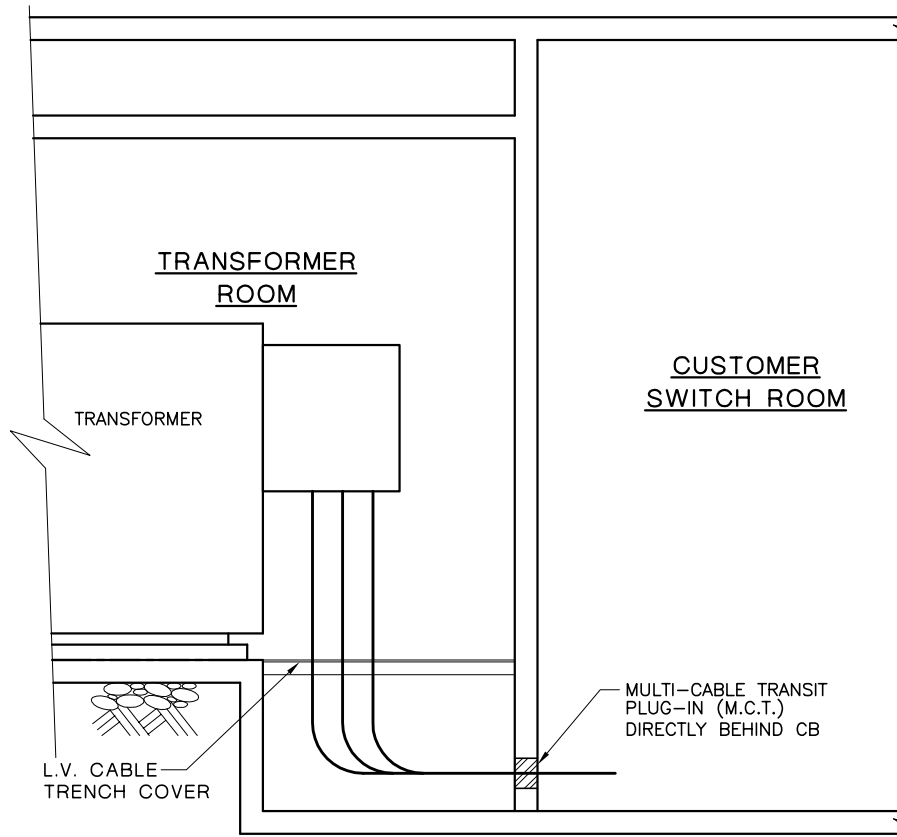
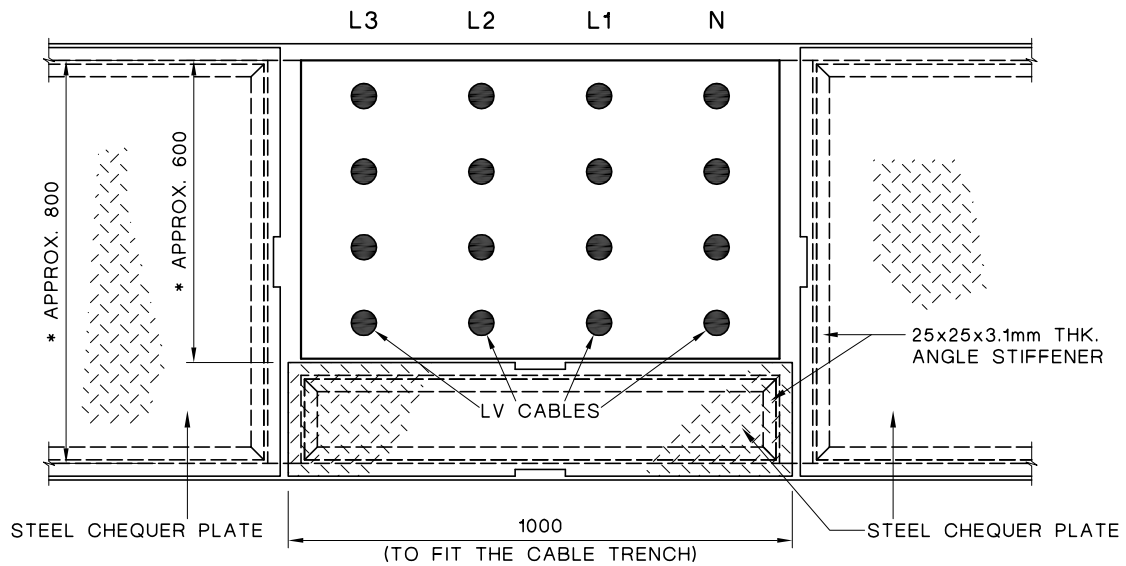
DRAWN: C W WONG DATE: 9 Jul., 2007

CHECKED: K C CHENG APPROVED: W C HO

SCALE: 1 : 3 SHEET(S) IN SET: 1

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 2 7 - A



## NOTES:

- \* EXACT DIMENSION TO BE DETERMINED ACCORDING TO SITE CONDITIONS.
- ALL DIMENSIONS ARE IN mm

B CONFIGURATION OF CHEQUER PLATE UPDATED



REVS.	26.03.12	18.03.14												
INITIAL	A	B	C	D	E	F	G	H	J	K	L			
	K.C.C.	H.T.YU												

TITLE :

CABLE TRENCH COVER FOR  
L.V. CABLES DROPPING FROM TRANSFORMER  
L.V. TERMINALS INTO THE CABLE TRENCH

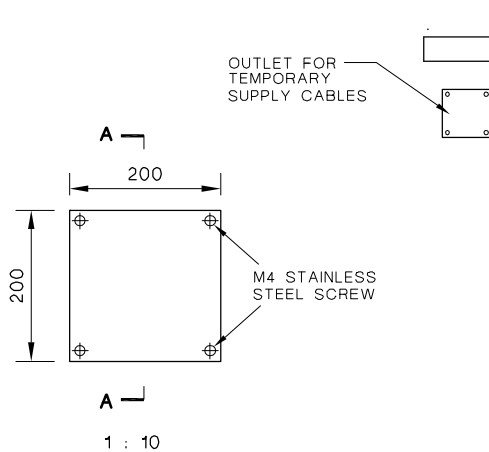
DRAWN: C W WONG DATE: 21 Aug., 2007

CHECKED: K C CHENG APPROVED: W C HO

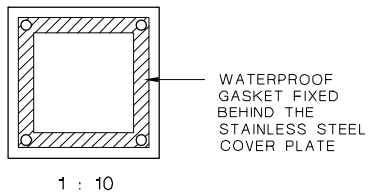
SCALE: N. T. S. SHEET(S) IN SET:

ASSET MANAGEMENT

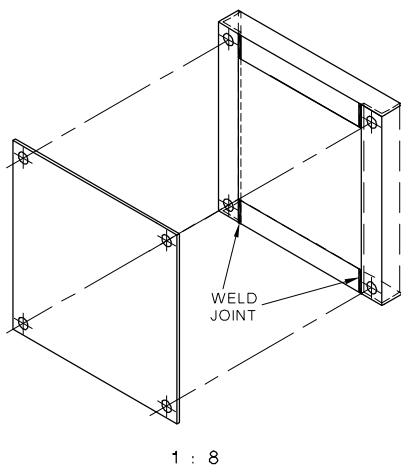
DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 2 8 B A



**FRONT VIEW OF  
STAINLESS STEEL COVER**



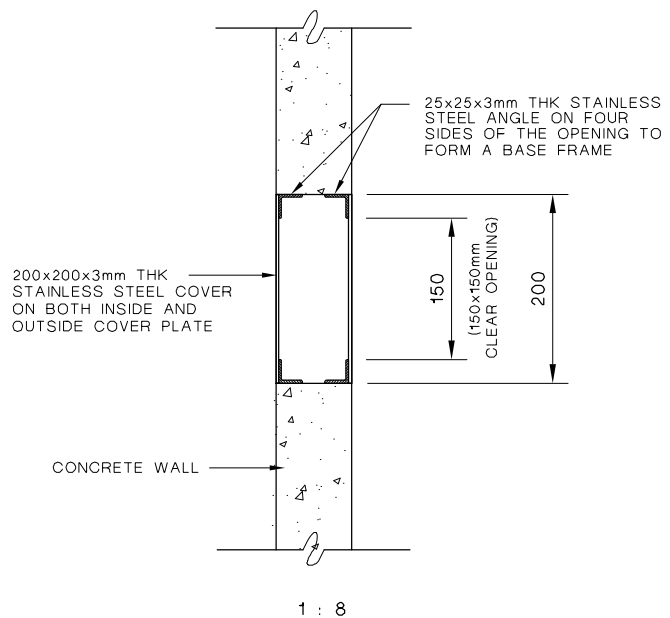
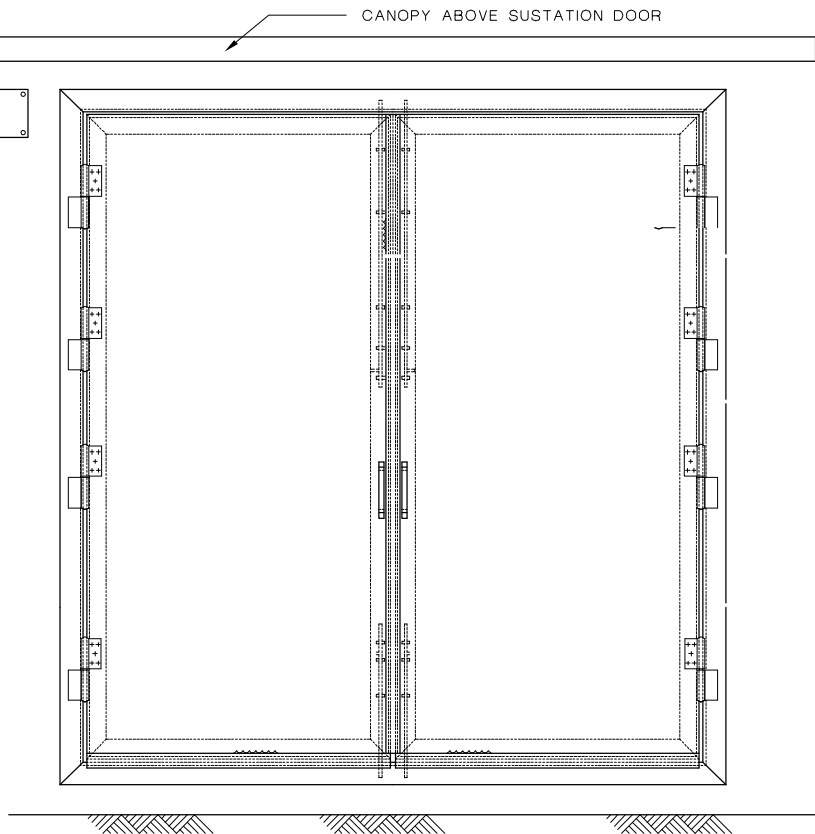
**BACK VIEW OF  
STAINLESS STEEL COVER**



**BASE FRAME ISOMATIC VIEW**

**NOTES:**

1. HAIRLINE STAINLESS STEEL SHALL BE USED FOR THE COVER AND FRAME, IN CASE THE OUTLET IS LOCATED INSIDE THE INDEPENDENT STAIRCASE, FIRE RATED PROMAT BOARD SHALL BE USED FOR THE COVER.
2. STAINLESS STEEL FIXING SCREW SHALL BE USED
3. ALL DIMENSIONS ARE IN mm



**SECTION A - A**

**A** NOTES 1 UPDATED



DRAWN: T. W. LAU DATE: 14-09-2007

CHECKED: K. C. CHENG APPROVED: W. C. HO

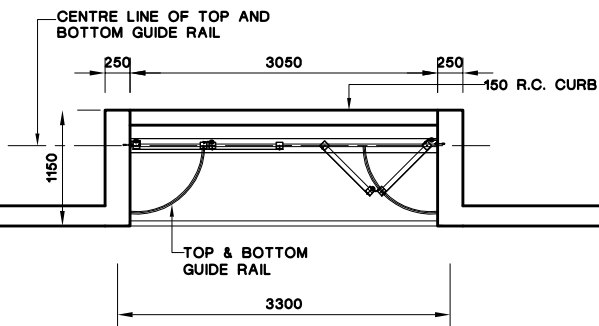
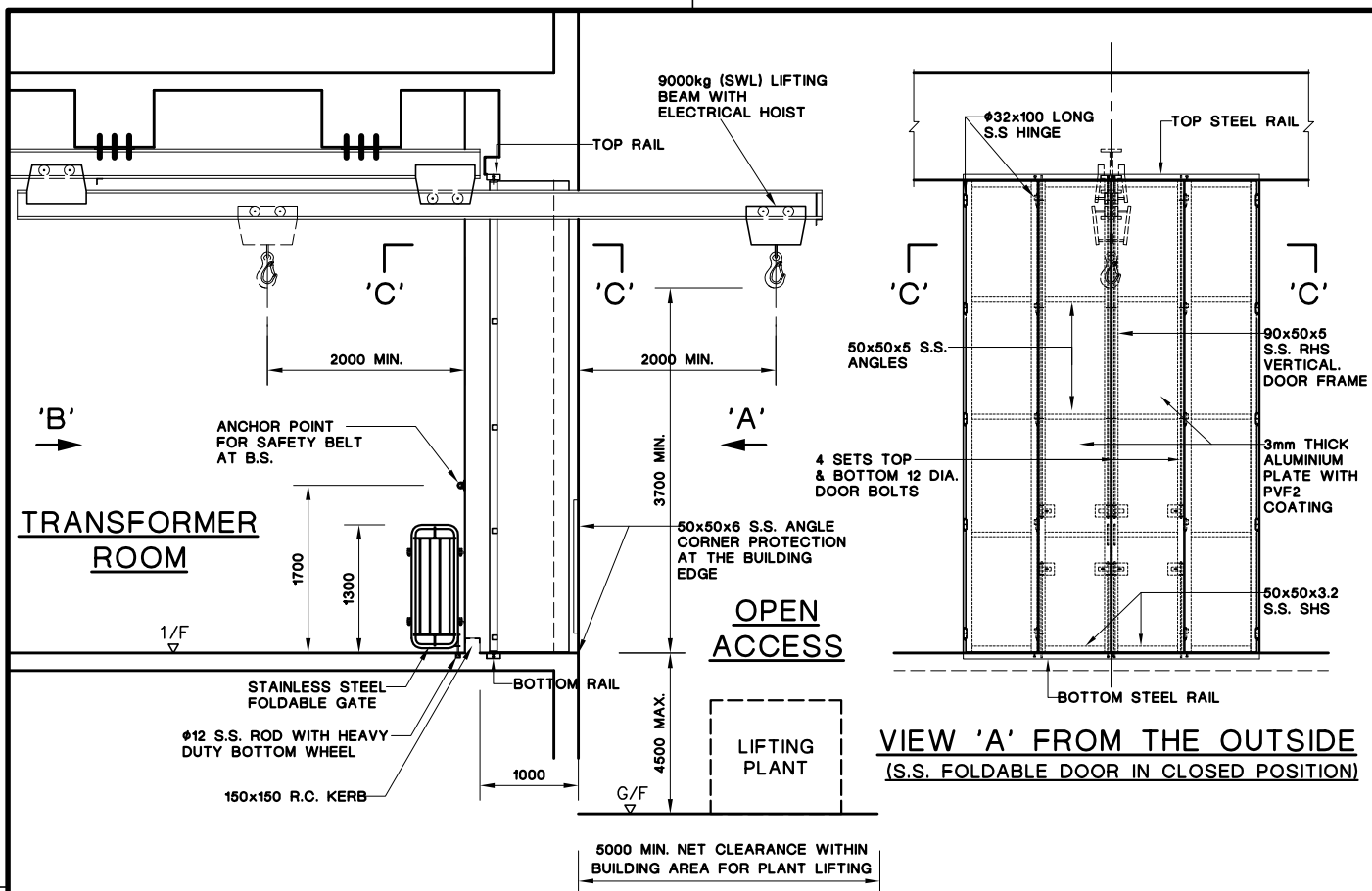
SCALE: N.T.S. SHEET(S) IN SET:

REVS.	17.03.17												
INITIAL	A	B	C	D	E	F	G	H	J	K	L		

TITLE :

**DETAILS OF OUTLET FOR TEMPORARY  
SUPPLY CABLES**

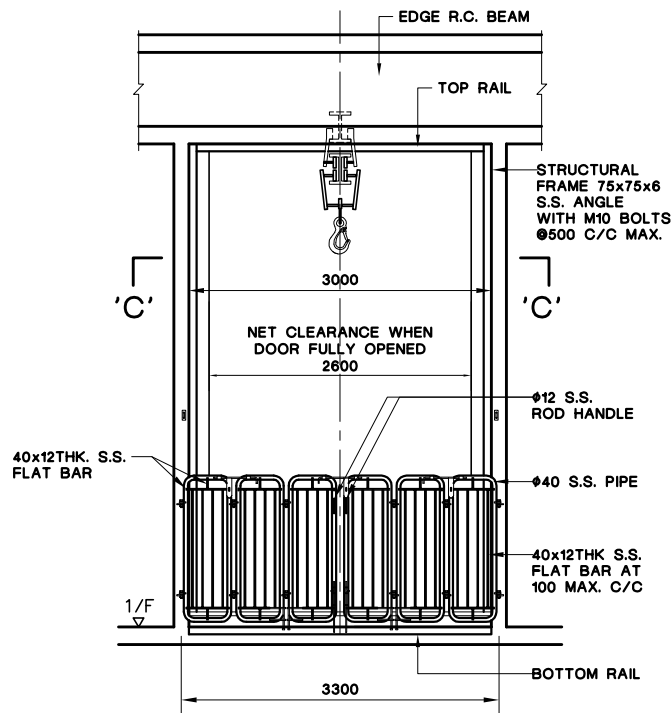
**ASSET MANAGEMENT** DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 2 9 A A



- Notes:**
1. STEEL FOLDABLE GATE IS NOT SHOWN FOR CLARITY.
  2. STEEL FOLDABLE DOOR IN CLOSED AND SEMI-OPEN POSITION.

**NOTES:**

1. ALL CONNECTIONS FOR STAINLESS AND G.M.S. STEEL WORKS SHALL BE 3mm S.S. FILLET WELD, OR 3mm FILLET WELDED FOR G.M.S., ALL ROUND.
2. ALL STEEL WORKS TO BE GRADE 316L STAINLESS STEEL OR EQUIVALENT.
3. ALL STEEL WORKS MUST BE BONDED TO THE EARTHING TERMINAL AT THE DISTRIBUTION BOARD WITH COPPER CONDUCTOR NOT LESS THAN 6mm.
4. ALL DIMENSIONS AND MEMBER SIZES SHOWN ARE INDICATIVE ONLY. THE CONTRACTOR IS RESPONSIBLE TO CHECK AND SUBMIT THE DESIGN ACCORDING TO MATCH THEIR GENERAL BUILDING PLAN AND THEIR PROPOSED FIRE RATED DOOR.
5. RUBBER WEATHER PROOF STRIPES SHALL BE PROVIDED TO PREVENT INGRESS OF RAIN WATER DURING THE SEVERE RAINING CONDITION.
6. ALL DIMENSIONS ARE IN mm.



REVS.	A	B	C	D	E	F	G	H	J	K	L
INITIAL											

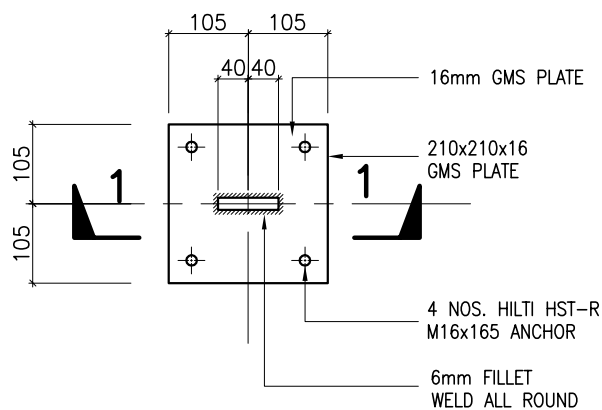
TITLE :

TYPICAL DETAILS FOR UPPER FLOOR  
SUBSTATION WITH RETRACTABLE HOIST  
BEAM AND TROLLEY

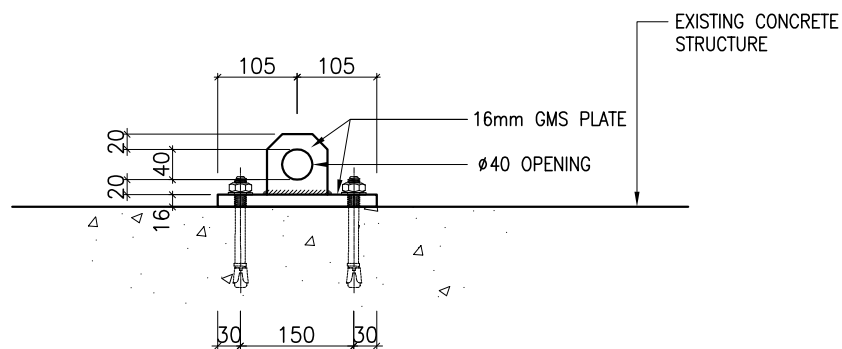
DRAWN: M. S. FONG	DATE: 27 APR., 2017
CHECKED: M. S. FONG	APPROVED: GARY KWOK
SCALE: 1 : 75	SHEET(S) IN SET: 1

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 3 2 - A



## 2 TONNES STEEL BRACKET



## SECTION 1 - 1

### NOTES FOR STRUCTURAL STEEL WORKS :-

1. ALL STRUCTURAL STEEL SHALL BE WELDABLE STRUCTURAL STEEL OF GRADE S275 CLASS 1 IN ACCORDANCE WITH BS EN 10025:2004.
2. ALL STRUCTURAL STEEL WORK INCLUDING STEEL SHALL BE HOT DIP GALVANIZED TO 85µm IN ACCORDANCE WITH BS EN ISO 1461:2009.
3. ALL WELDINGS SHALL BE 6mm FILLET WELD CONTINUOUSLY, UNLESS OTHERWISE STATED.



REVS.	A	B	C	D	E	F	G	H	J	K	L
INITIAL											

TITLE :

TYPICAL DETAILS OF HOOK FOR  
INDEPENDENT LIFELINE

DRAWN: M S FONG DATE: 30 JUN 2017

CHECKED: M S FONG APPROVED: GARY KWOK

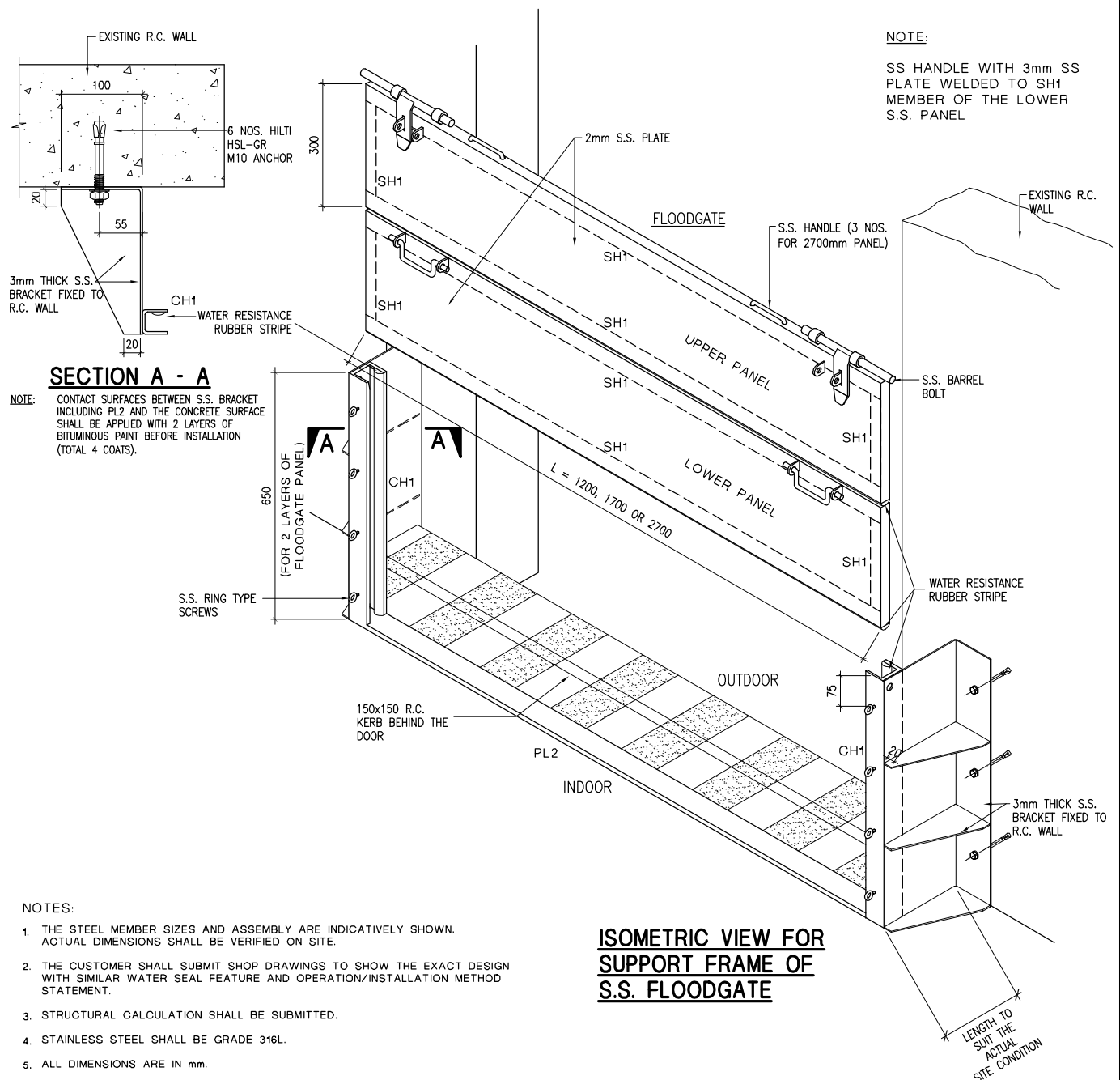
SCALE: N. T. S. SHEET(S) IN SET: 1

PROJECT NO.

CONTRACT NO.

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 3 3 7 - A



REVS.

INITIAL

TITLE :

**DETAILS OF STAINLESS STEEL FLOODGATE  
FOR SINGLE/DOUBLE LEAF DOOR**

DRAWN: M S FONG

DATE: 4 SEP, 2015

CHECKED: M S FONG

APPROVED: GARY KWOK

SCALE: N. T. S.

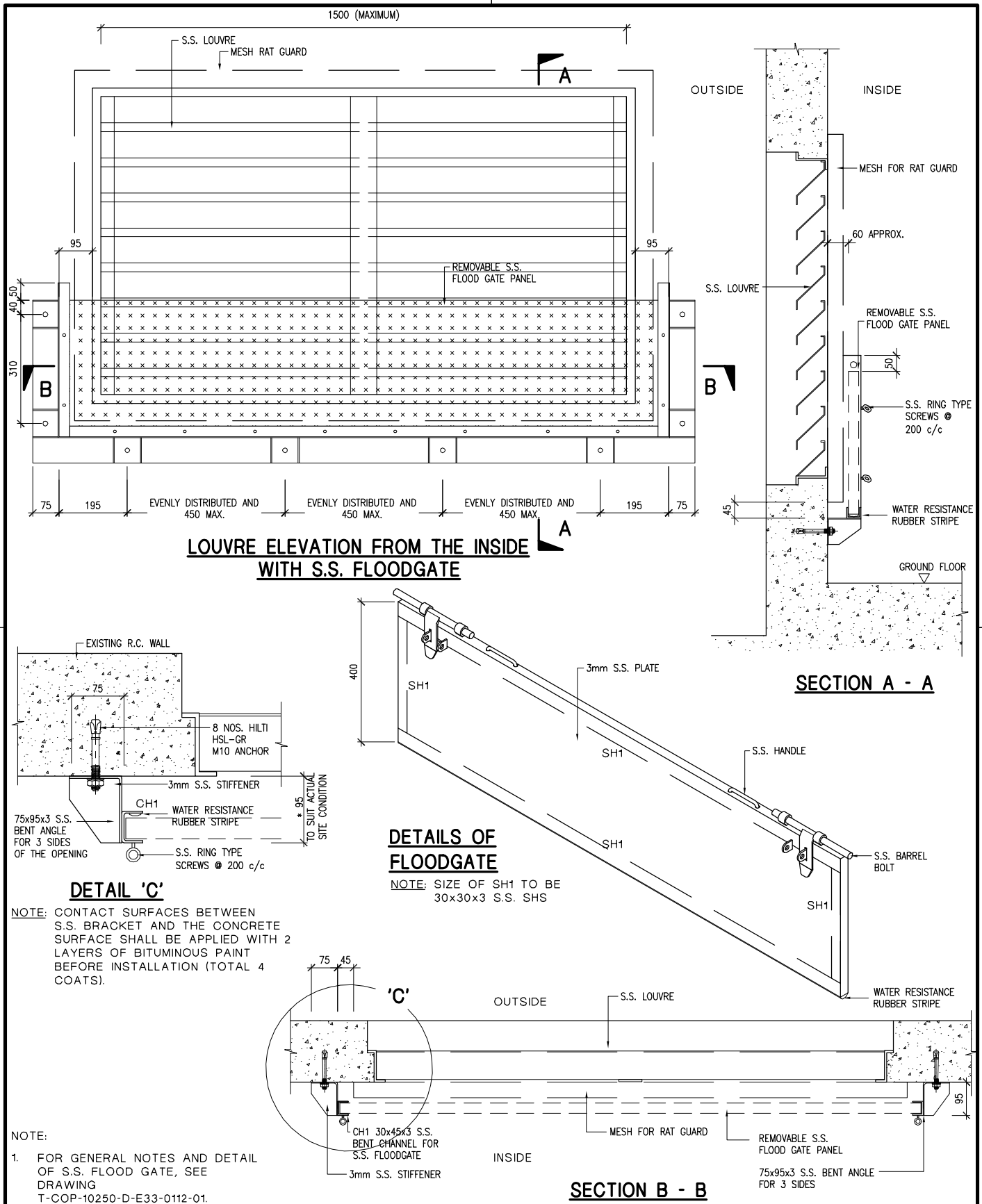
SHEET(S) IN SET: 3

PROJECT NO.

CONTRACT NO.

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 1 2 0 1 - A



**CLP 中電**

DRAWN: M S FONG DATE: 4 SEP., 2015

CHECKED: M S FONG APPROVED: GARY KWOK

SCALE: N.T.S. SHEET(S) IN SET: 3

REVS.	A	B	C	D	E	F	G	H	J	K	L
INITIAL											

TITLE : DETAILS OF STAINLESS STEEL FLOODGATE FOR GROUND FLOOR LOUVRE

PROJECT NO. CONTRACT NO.

ASSET MANAGEMENT DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 1 2 0 2 - A

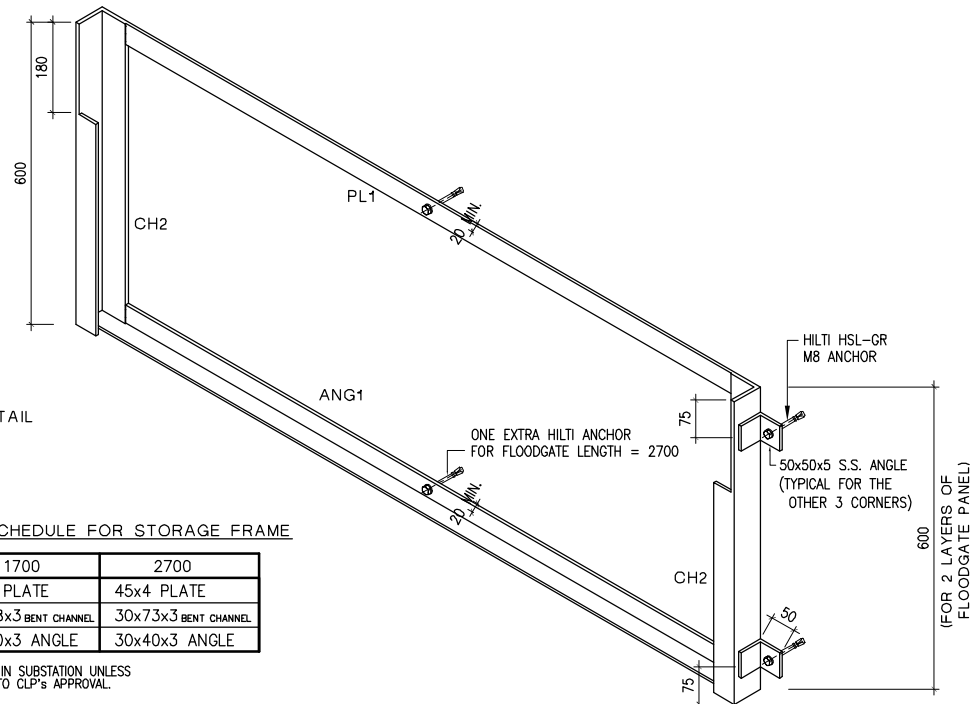
NOTE:

1. FOR GENERAL NOTES AND DETAIL OF S.S. FLOOD GATE, SEE DRAWING T-COP-10250-D-E33-0112-01.

## STAINLESS STEEL MEMBER SIZE SCHEDULE FOR STORAGE FRAME

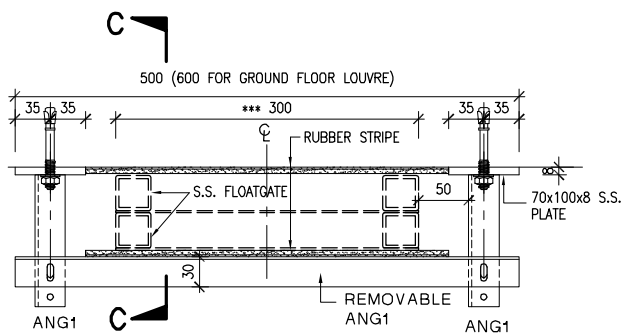
MEMBER MARK	LENGTH (L)	1200	1700	2700
PL1		25x4 PLATE	30x4 PLATE	45x4 PLATE
CH2		30x38x3 BENT CHANNEL	30x48x3 BENT CHANNEL	30x73x3 BENT CHANNEL
ANG1		30x30x3 ANGLE	30x30x3 ANGLE	30x40x3 ANGLE

NOTE: \* OPTION 1 IS PREFERRED TO BE INSTALLED IN SUBSTATION UNLESS THERE IS SPACE LIMITATION AND SUBJECT TO CLP'S APPROVAL.



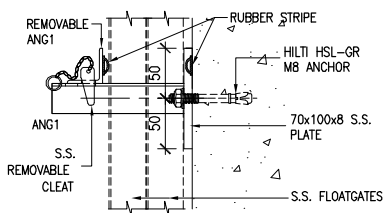
## OPTION 1 \*

## ISOMETRIC VIEW OF STORAGE FRAME FOR S.S. FLOODGATE IN HORIZONTAL ARRANGEMENT

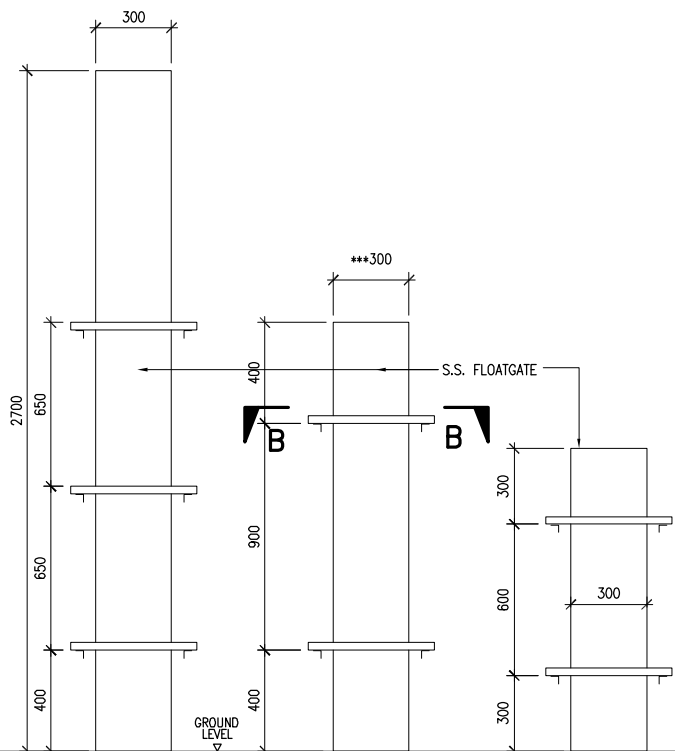


## SECTION B - B (FOR OPTION 2)

NOTE: \*\*\* DENOTES 400 FOR S.S. FLOATGATE FOR GROUND FLOOR LOUVRE.



## SECTION C - C (FOR OPTION 2)



## OPTION 2 \*\* FRONT VIEW FOR STORAGE FRAME FOR S.S. FLOODGATE IN VERTICAL ARRANGEMENT

NOTE: \*\*\* DENOTES 400 FOR S.S. FLOATGATE FOR GROUND FLOOR LOUVRE.



DRAWN: M S FONG DATE: 4 SEP., 2015  
 CHECKED: M S FONG APPROVED: GARY KWOK  
 SCALE: N. T. S. SHEET(S) IN SET: 3

REVS.	A	B	C	D	E	F	G	H	J	K	L
INITIAL											

TITLE :

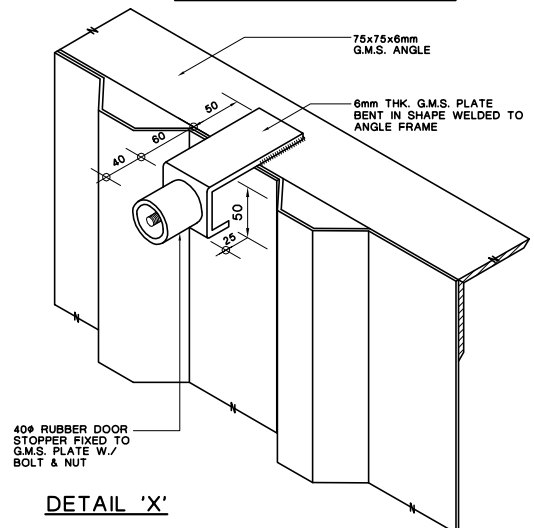
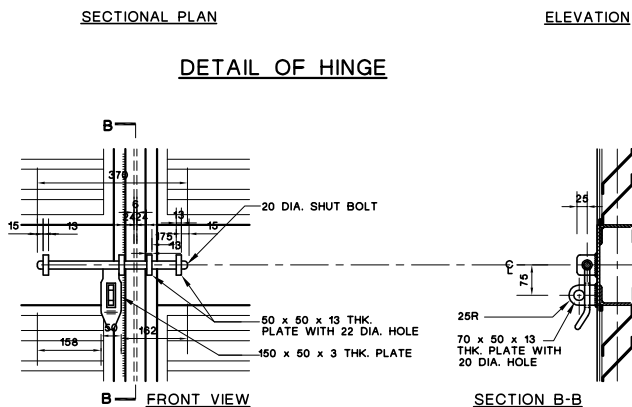
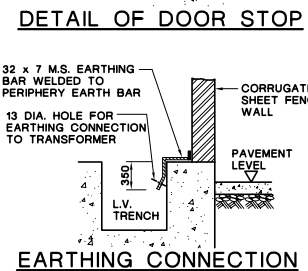
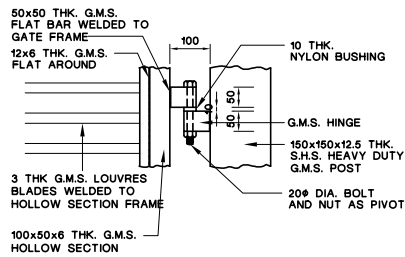
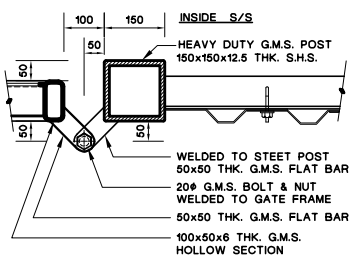
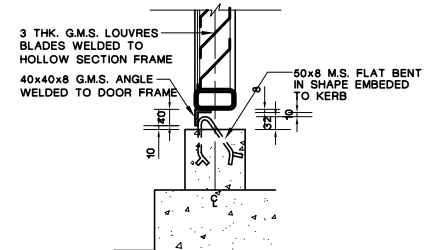
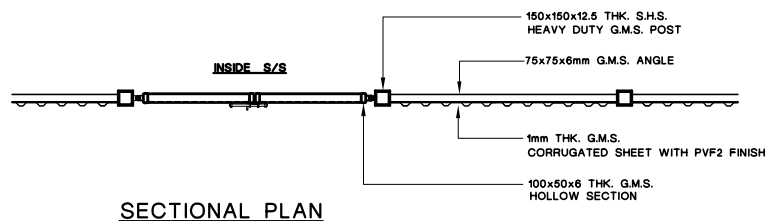
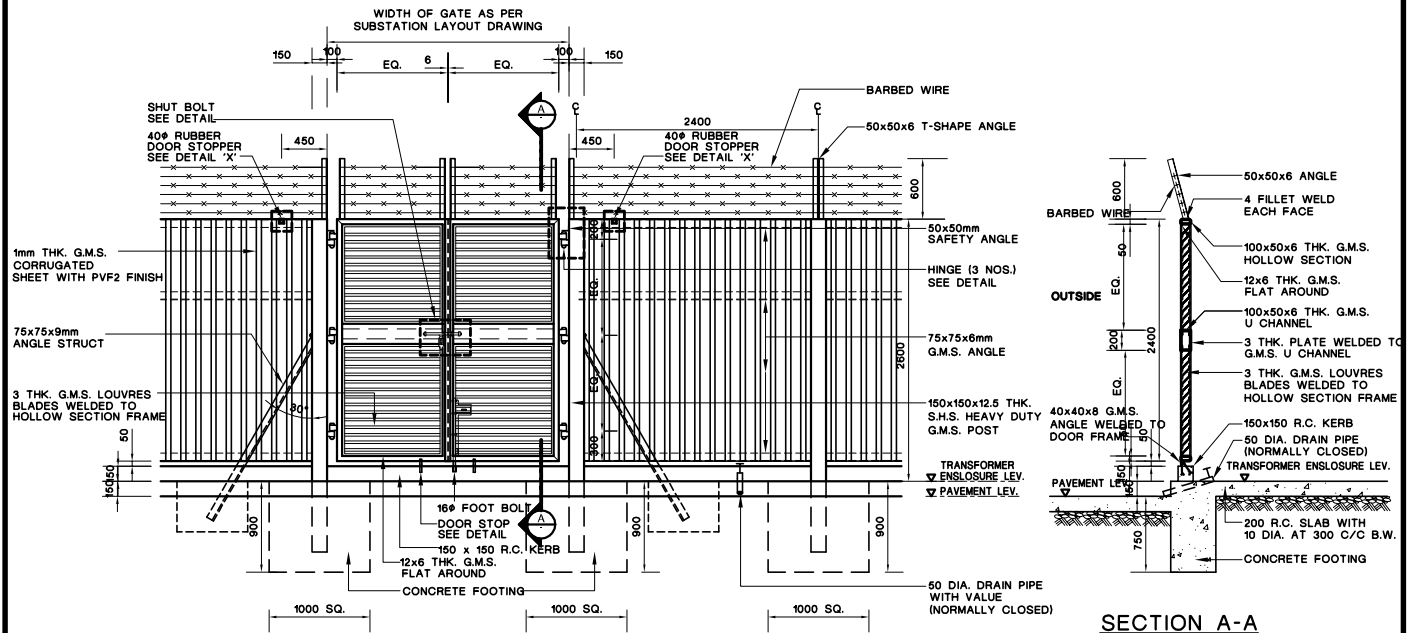
STAINLESS STEEL FLOODGATE  
STORAGE FRAME INSTALLATION DETAILS

PROJECT NO.

CONTRACT NO.

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 1 2 0 3 - A



## NOTES:

- ALL STEELWORKS SHALL BE HOT DIP GALVANISED TO B.S. EN ISO 1461 AND FINISHED WITH ONE COAT OF CALCIUM PLUMBATE OR ZINC PHOSPHATE PRIMER AND TWO FINISHING COATS OF SYNTHETIC PAINT.
- ALL DIMENSIONS ARE IN mm.

C ZINC PRIMER ADDED



REVS.	21.12.05	9.11.06	20.08.07											
INITIAL	A	B	C	D	E	F	G	H	J	K	L			
	K.C.C.	C.H.F.	K.C.C.											

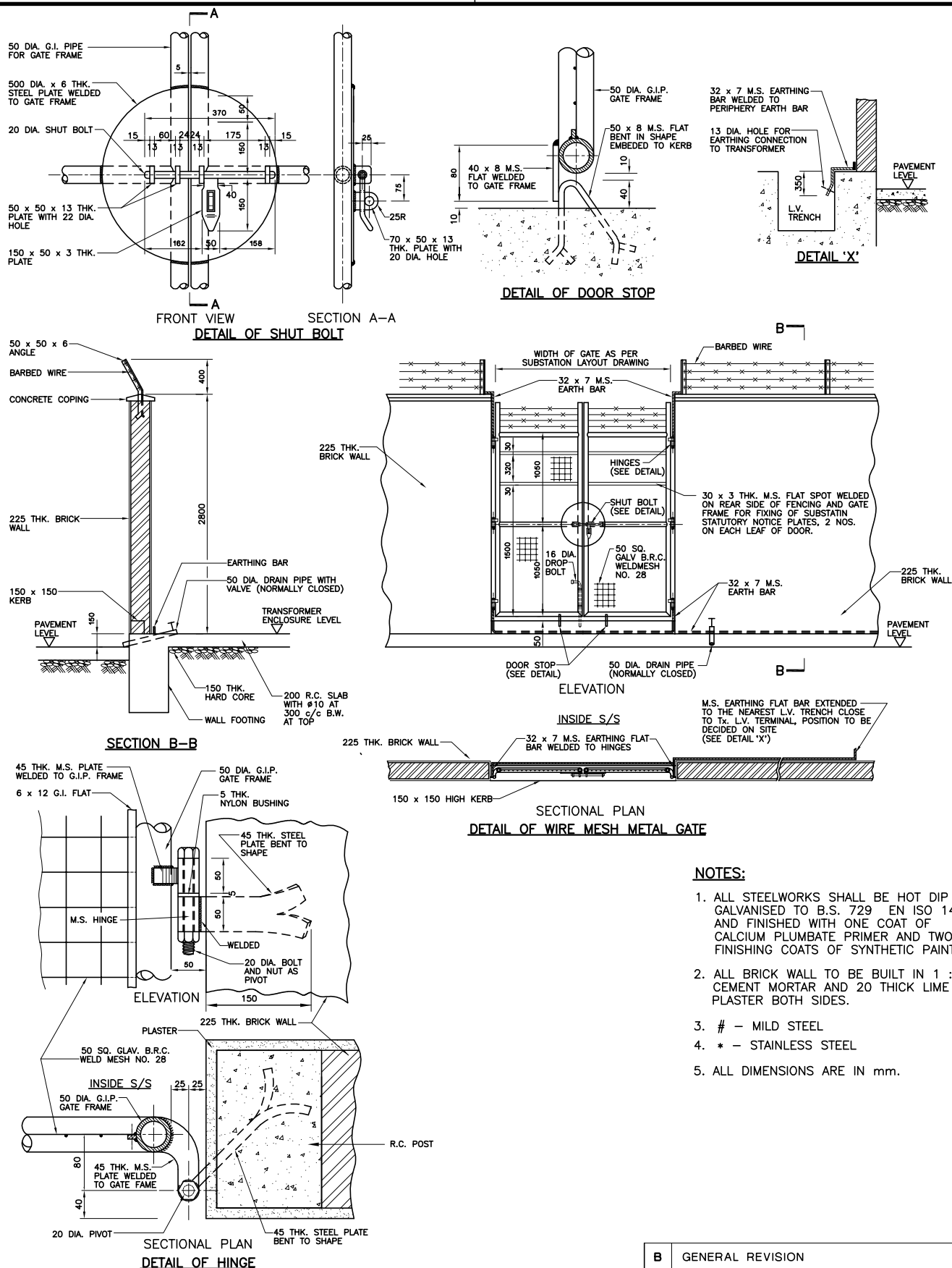
TITLE :

DETAILS OF METAL GATE AND FENCE WITH  
STEEL POST FOR OUTDOOR SUBSTATION

DRAWN: O. S. YIP	DATE: 21 Dec., 2005
CHECKED: C. H. FUNG	APPROVED: W. C. HO
SCALE: N. T. S.	SHEET(S) IN SET: 1

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 4 0 1 C A



B	GENERAL REVISION
A	ZINC PRIMER ADDED

CLP 中電

REVS.	15.11.07	15.12.09												
INITIAL	A	B	C	D	E	F	G	H	J	K	L			
	K.C.C.	K.C.C.												

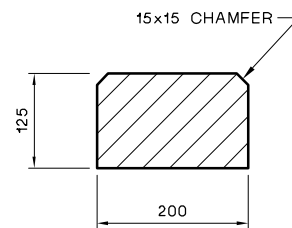
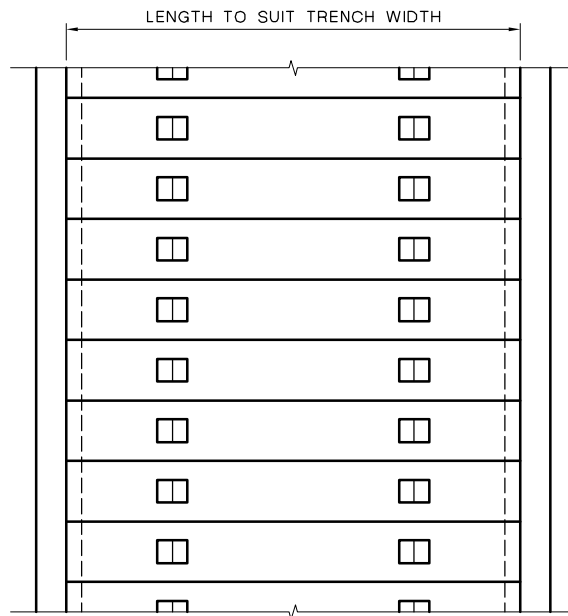
TITLE :

DETAILS OF METAL GATE AND BRICK WALL  
SURROUND FOR OUTDOOR SUBSTATION

DRAWN:	K. F. CHEUNG	DATE:	26-07-2002
CHECKED:	K. C. CHENG	APPROVED:	K. W. WONG
SCALE:	N. T. S.	SHEET(S) IN SET:	

ASSET MANAGEMENT

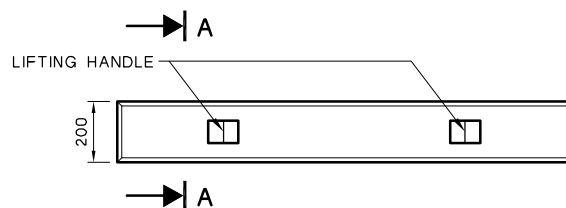
DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 4 0 3 B A



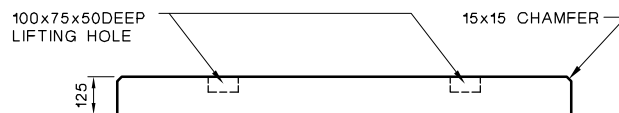
SECTION A-A

SCALE 1:10

### TYPICAL ARRANGEMENT OF REINFORCED CONCRETE COVER



PLAN VIEW



ELEVATION

### TYPICAL DETAILS OF REINFORCED CONCRETE COVER

#### NOTES:

1. THE MAX. WEIGHT OF THE CONCRETE COVER SHALL NOT EXCEED 75kg FOR EASY HANDLING.
2. THE COVERS SHALL BE DESIGNED BY THE BUILDING OWNER TO WITHSTAND THE REQUIRED LOADING OF THE SITE. (MIN. LOADING SHALL BE NOT LESS THAN 7.5kPa)

B	GENERAL AMENDMENT	A	NOTES ADDED
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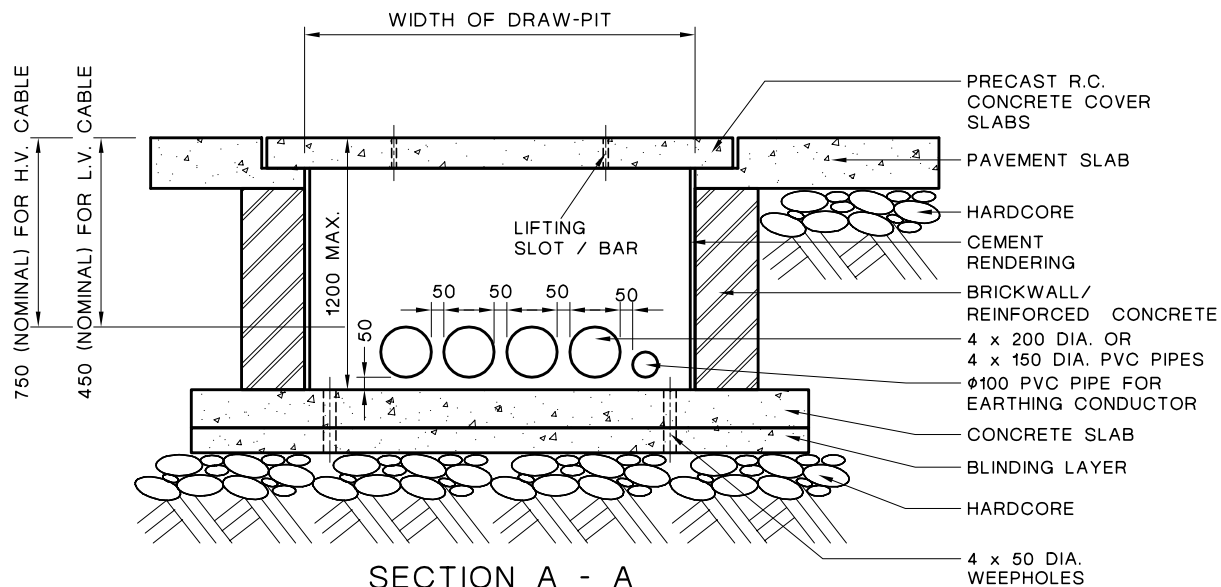
REVS.	20.08.07	23.02.17												
INITIAL	A	B	C	D	E	F	G	H	J	K	L			
	K.C.C.	H.T.YU												

TITLE :

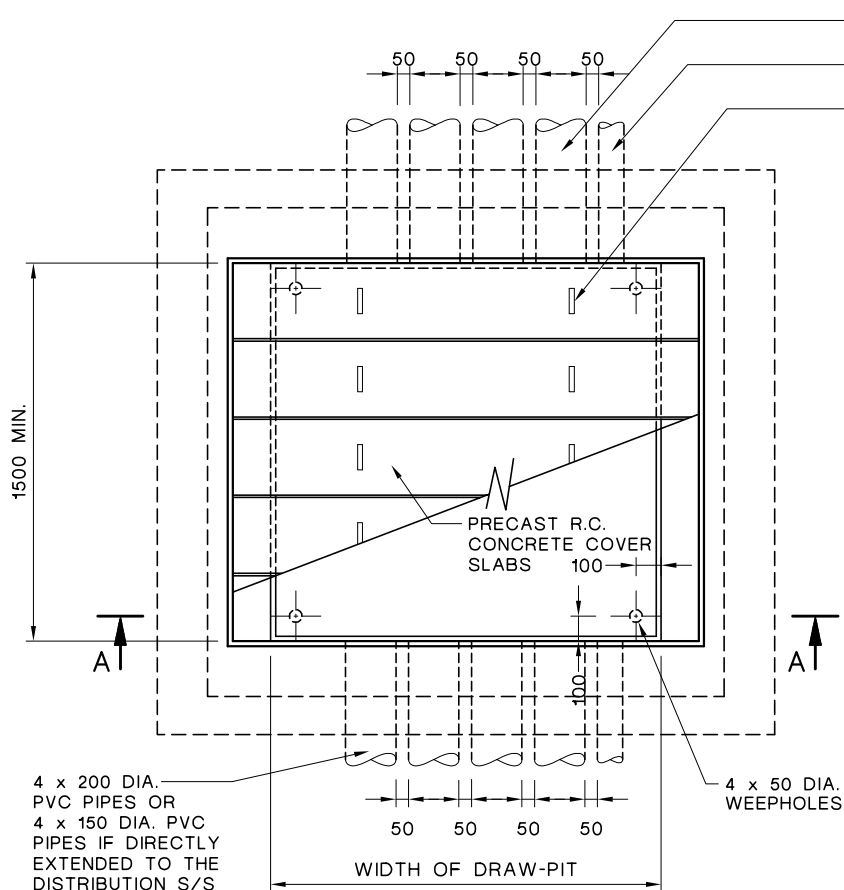
TYPICAL DETAILS OF CABLE TRENCH  
R. C. COVER

DRAWN: T. Y. IP	DATE: 8-8-2002
CHECKED: K. C. CHENG	APPROVED: K. W. WONG
SCALE: 1 : 25 (mm)	SHEET(S) IN SET:

ASSET MANAGEMENT	DRG. NO. T	C	O	P	1	0	2	5	0	D	E	3	3	0	1	0	4	0	4	B	A
------------------	------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---



SECTION A - A



PLAN

**NOTES :**

1. CIVIL ENGINEERING AND STRUCTURE OF DRAW-PIT AND COVERS TO BE DESIGNED TO WITHSTAND THE REQUIRED LOADING ON SITE BY CUSTOMER'S/DEVELOPER'S ARCHITECT OR CONSULTANT. (MIN. LOADING SHALL BE NOT LESS THAN 7.5kPa)
2. WIDTH AND LENGTH OF DRAW-PIT AND NO. OF CABLE DUCTS TO BE VARIED AS REQUIRED.
3. PVC PIPES WITH CONCRETE SURROUND.
4. THE PVC PIPE SHALL BE SEALED BY WATERTIGHT DUCT PLUG.
5. DRAW WIRE/ROPE SHALL BE LAID IN THE PVC PIPE.
6. DRAW PIT SHALL BE BACKFILLED WITH SOIL/SAND AFTER CABLE LAYING.
7. THE EARTHING BARS WHICH ARE PROVIDED AND INSTALLED BY THE CUSTOMER FOR THE DISTRIBUTION SUBSTATION SHALL BE EXTENDED VIA DUCTS AND DRAW-PITS TO THE LOCATION(S) WHERE CLP SUPPLY CABLES ENTER THE SITE OWNED BY THE CUSTOMER.
8. ALL DIMENSIONS ARE IN mm.

D	PVC PIPE SIZE UPDATED, G.I. PIPE DELETED.
C	PVC/G.I. PIPE SIZE CHANGED



REVS.	20.08.07	21.10.08	26.03.12	18.03.14										
INITIAL	A K.C.C.	B K.C.C.	C K.C.C.	D H.T.YU	E	F	G	H	J	K	L			

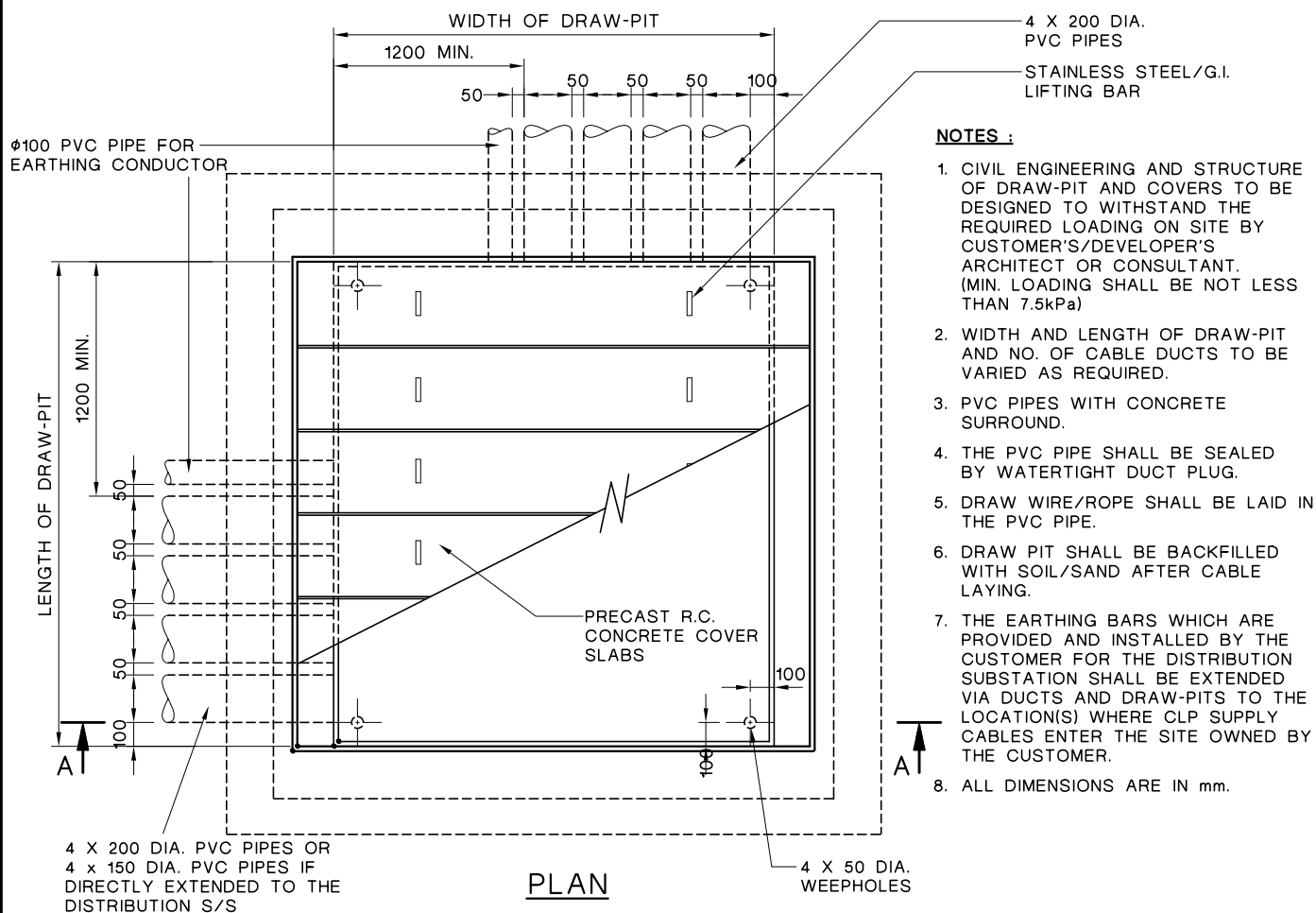
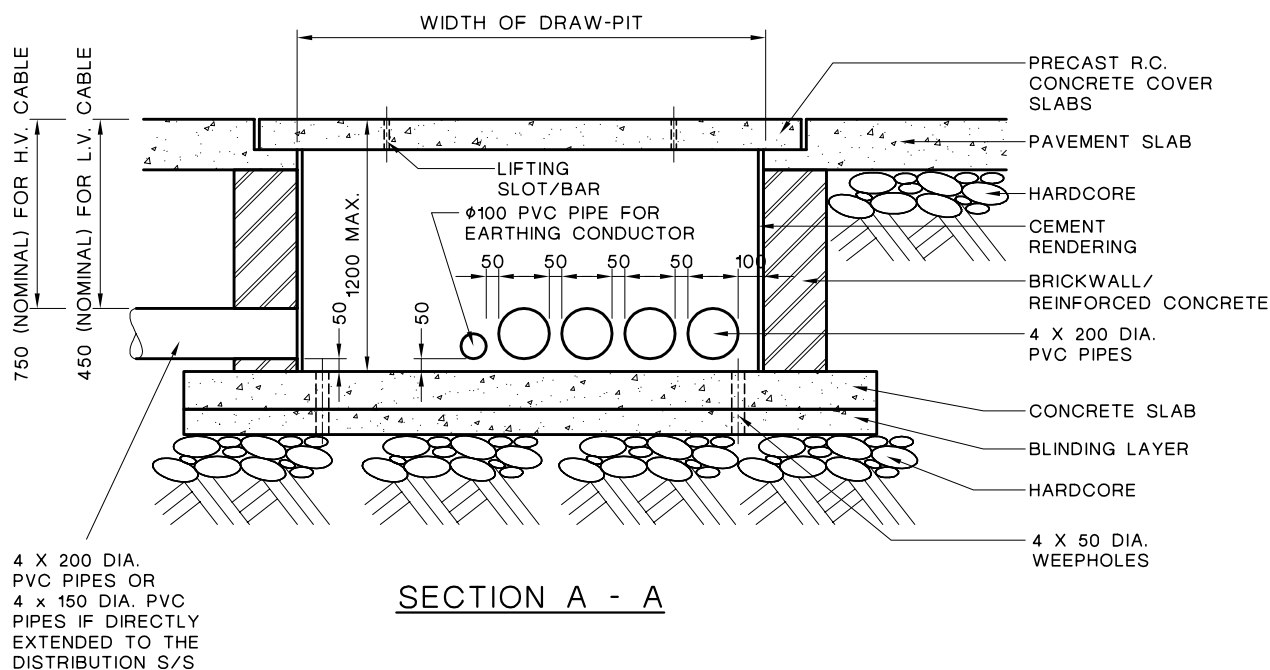
TITLE :

### TYPICAL DETAILS OF CABLE DRAW-PIT ( STRAIGHT APPLICATION )

DRAWN: C. W. WONG	DATE: 17 Sep., 2002
CHECKED: K. C. CHENG	APPROVED: K. W. WONG
SCALE: N. T. S.	SHEET(S) IN SET: 1

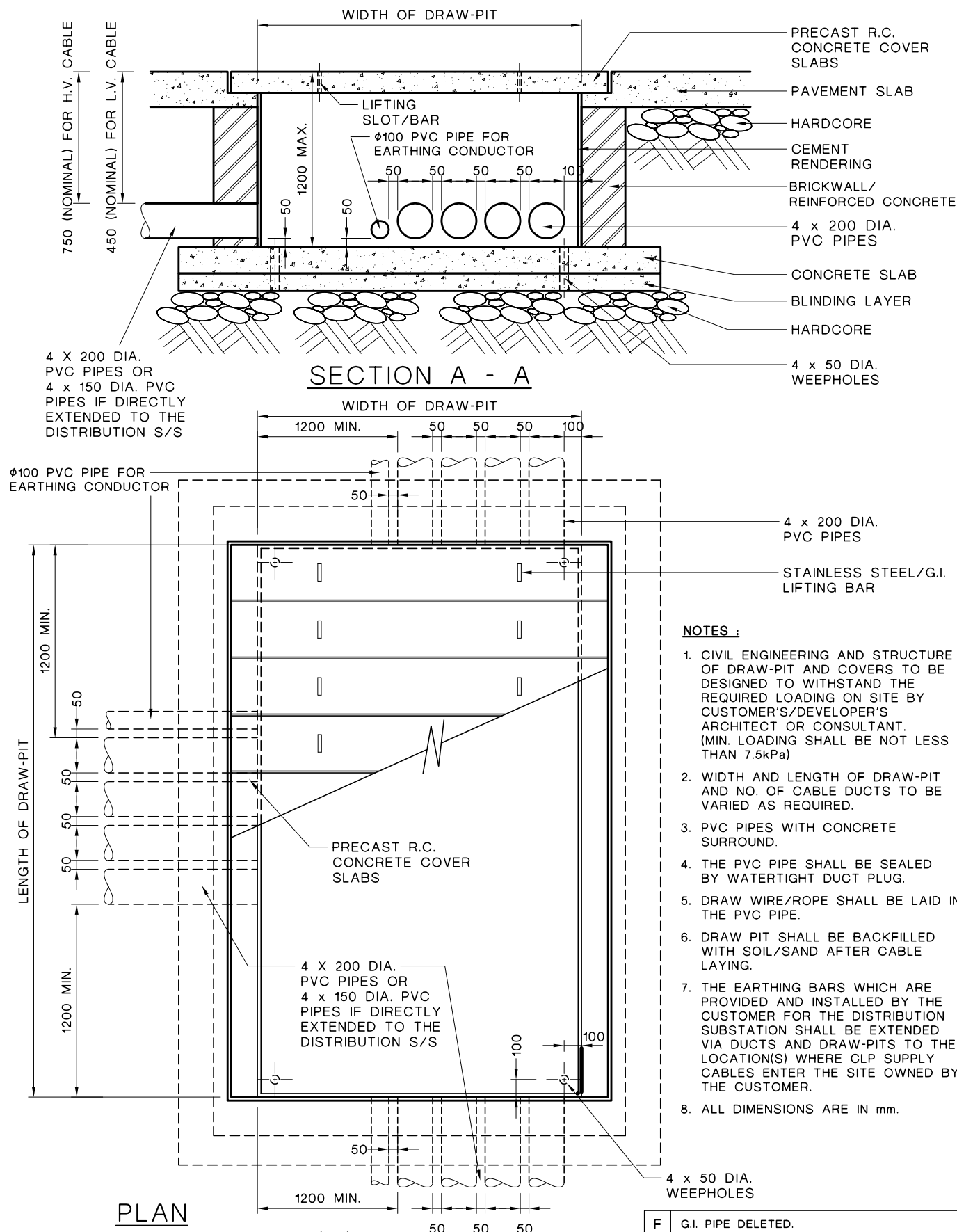
**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 4 0 5 D A



E	G.I. PIPE DELETED.	D	PVC PIPE SIZE UPDATED, G.I. PIPE DELETED.
---	--------------------	---	---

<div>CLP 中電</div>		REVS.									
		20.08.07	21.10.08	26.03.12	18.03.14	27.06.17					
		A	B	C	D	E	F	G	H	J	K
INITIAL		K.C.C.	K.C.C.	K.C.C.	H.T.YU	H.T.YU					
		TITLE :									
		TYPICAL DETAILS OF CABLE DRAW-PIT (ANGLE APPLICATION)									
DRAWN: C. W. WONG		DATE: 16 Sep., 2002									
CHECKED: K. C. CHENG		APPROVED: K. W. WONG									
SCALE: N. T. S.		SHEET(S) IN SET:									
ASSET MANAGEMENT				DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 4 0 6 E A							



DRAWN: C. W. WONG	DATE: 17 Sep., 2002
CHECKED: K. C. CHENG	APPROVED: K. W. WONG
SCALE: N. T. S.	SHEET(S) IN SET:

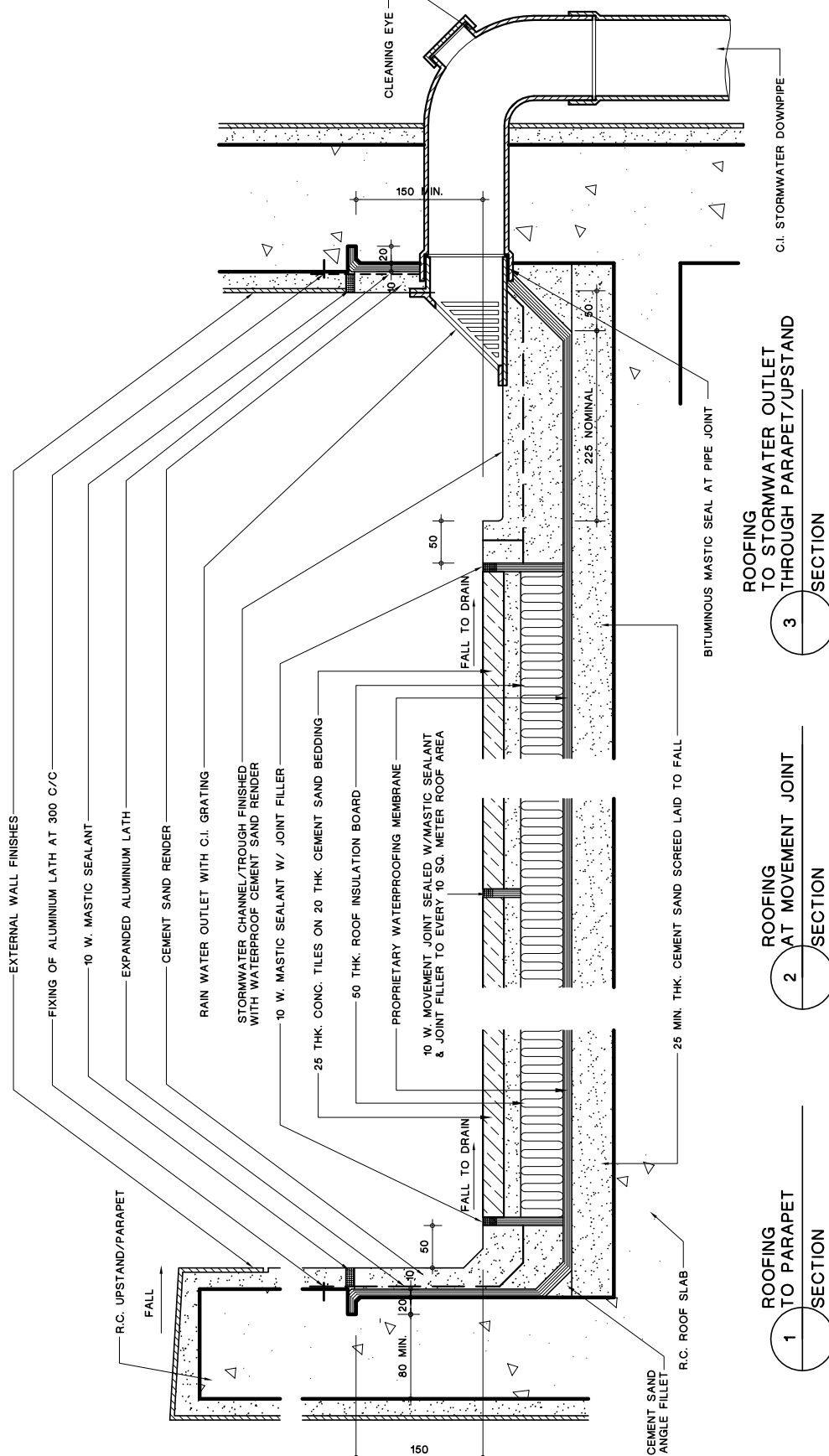
REVS.	10.3.03	20.08.07	21.10.08	26.03.12	18.03.14	27.06.17					
INITIAL	A K.C.C.	B K.C.C.	C K.C.C.	D K.C.C.	E H.T.YU	F H.T.YU	G	H	J	K	L

TITLE :

### TYPICAL DETAILS OF CABLE DRAW-PIT (TEE APPLICATION)

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 4 0 7 F A



ALL DIMENSIONS ARE IN mm



REVS.

INITIAL

TITLE :

# ROOFING WITH INSULATION PARAPET & WALL DETAILS

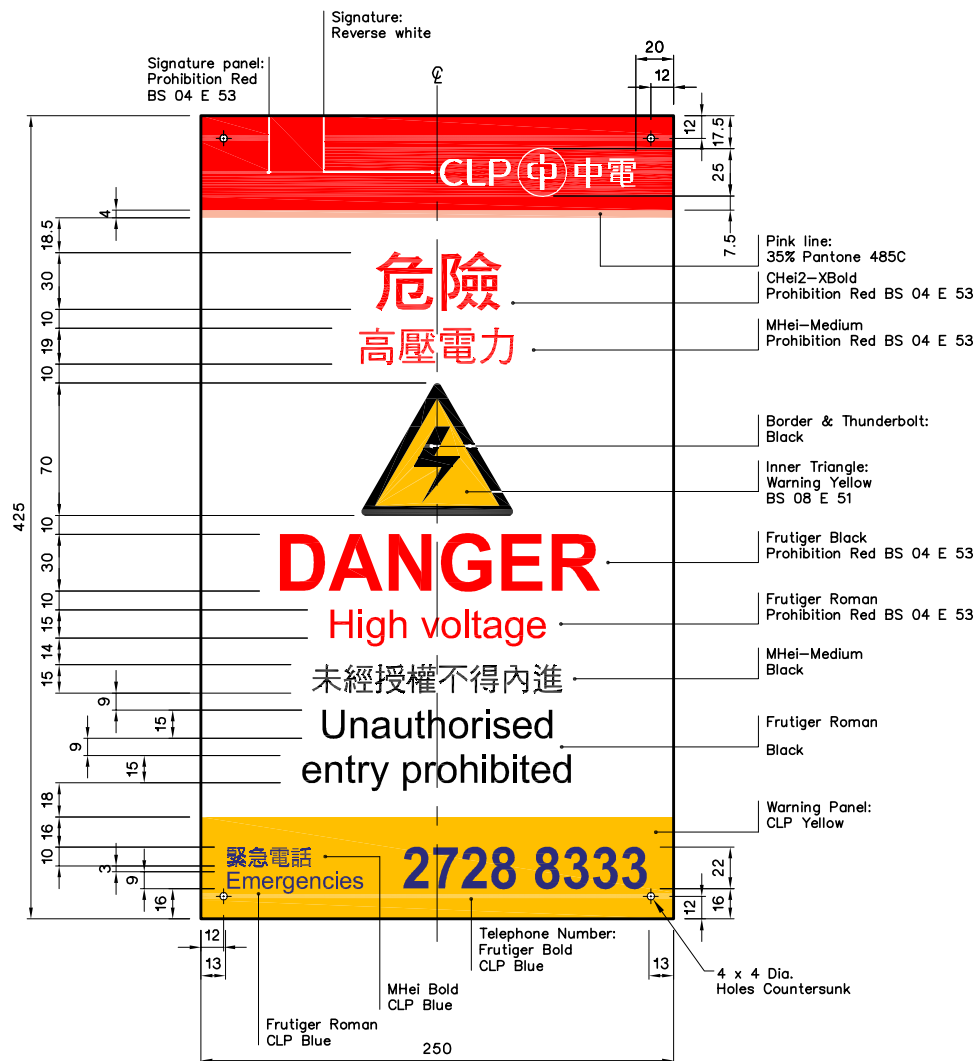
DRAWN: C W WONG DATE: 22 Aug., 2007

CHECKED: K C CHENG APPROVED: W C HO

SCALE: N. T. S. SHEET(S) IN SET: 1

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 4 0 8 - A



C TEXT SIZE UPDATED

B GENERAL LAYOUT REVISION

A GENERAL LAYOUT REVISION



REVS.	01-12-04	20-12-06	26-03-12										
INITIAL	A K.C.C.	B K.C.C.	C K.C.C.	D	E	F	G	H	J	K	L		

TITLE :

DETAILS OF SUBSTATION STATUTORY NOTICE  
PLATE - DANGER WARNING

DRAWN: S. C. TO DATE: 13-8-2002

CHECKED: K. C. CHENG APPROVED: W. C. HO

SCALE: 1 : 4 (mm) SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 5 0 1 C A



C TEXT SIZE UPDATED

B GENERAL LAYOUT REVISION

A GENERAL LAYOUT REVISION



REVS.	01.12.04	20.12.06	26.03.12										
INITIAL	A	B	C	D	E	F	G	H	J	K	L		
	K.C.C.	K.C.C.	K.C.C.										

TITLE :

DETAILS OF SUBSTATION STATUTORY NOTICE  
PLATE - DANGER & SF<sub>6</sub> GAS-FILLED EQUIPMENT  
WARNING

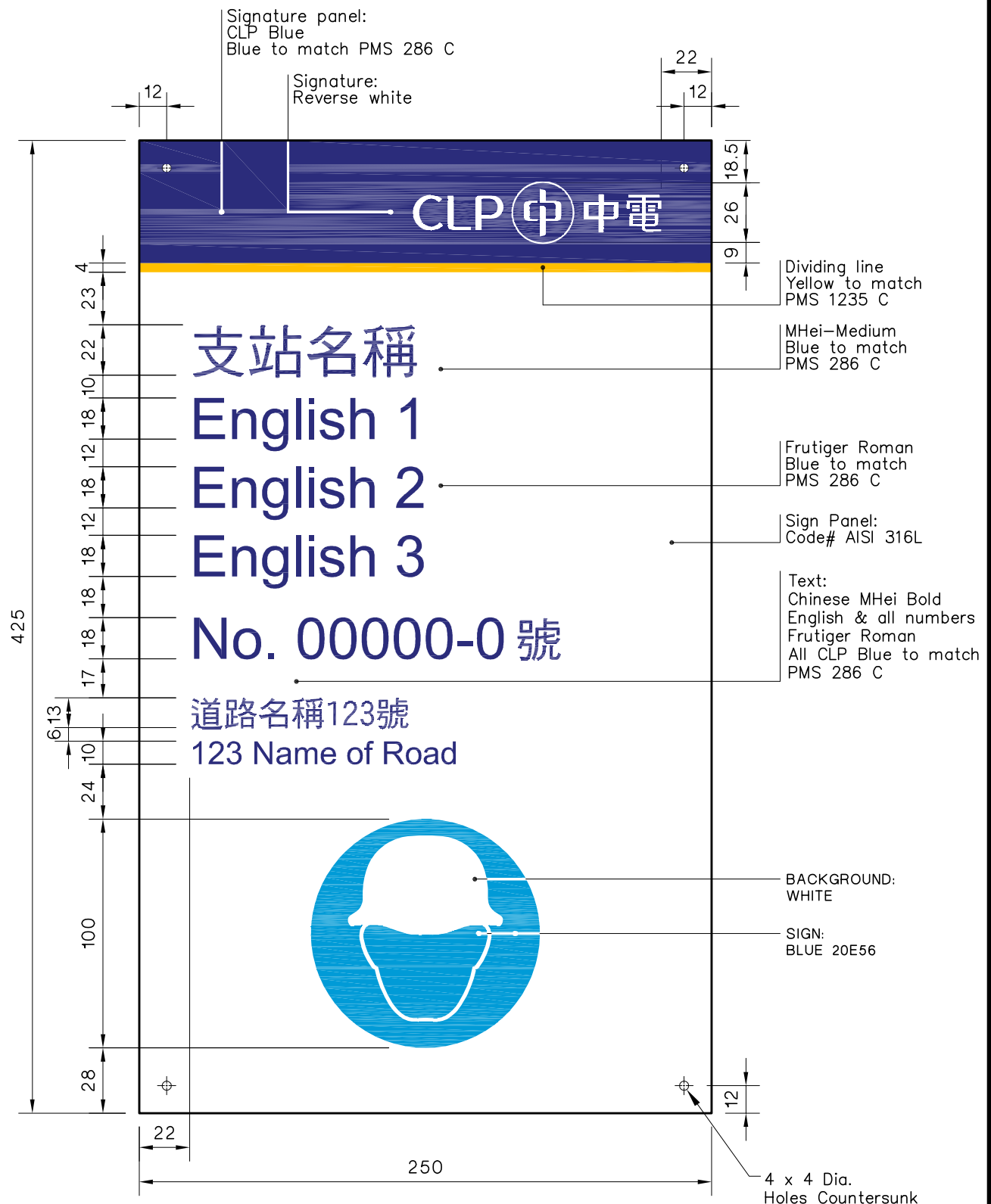
DRAWN: T. Y. IP DATE: 15-8-2002

CHECKED: K. C. CHENG APPROVED: W. C. HO

SCALE: 1 : 4 (mm) SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 5 0 2 C A



B GENERAL LAYOUT REVISION

A GENERAL LAYOUT REVISION



REVS.	01-12-04	27-12-06												
INITIAL	A	B	C	D	E	F	G	H	J	K	L			
	K.C.C.	K.C.C.												

TITLE :

DETAILS OF SUBSTATION STATUTORY NOTICE  
PLATE - SUBSTATION NAME

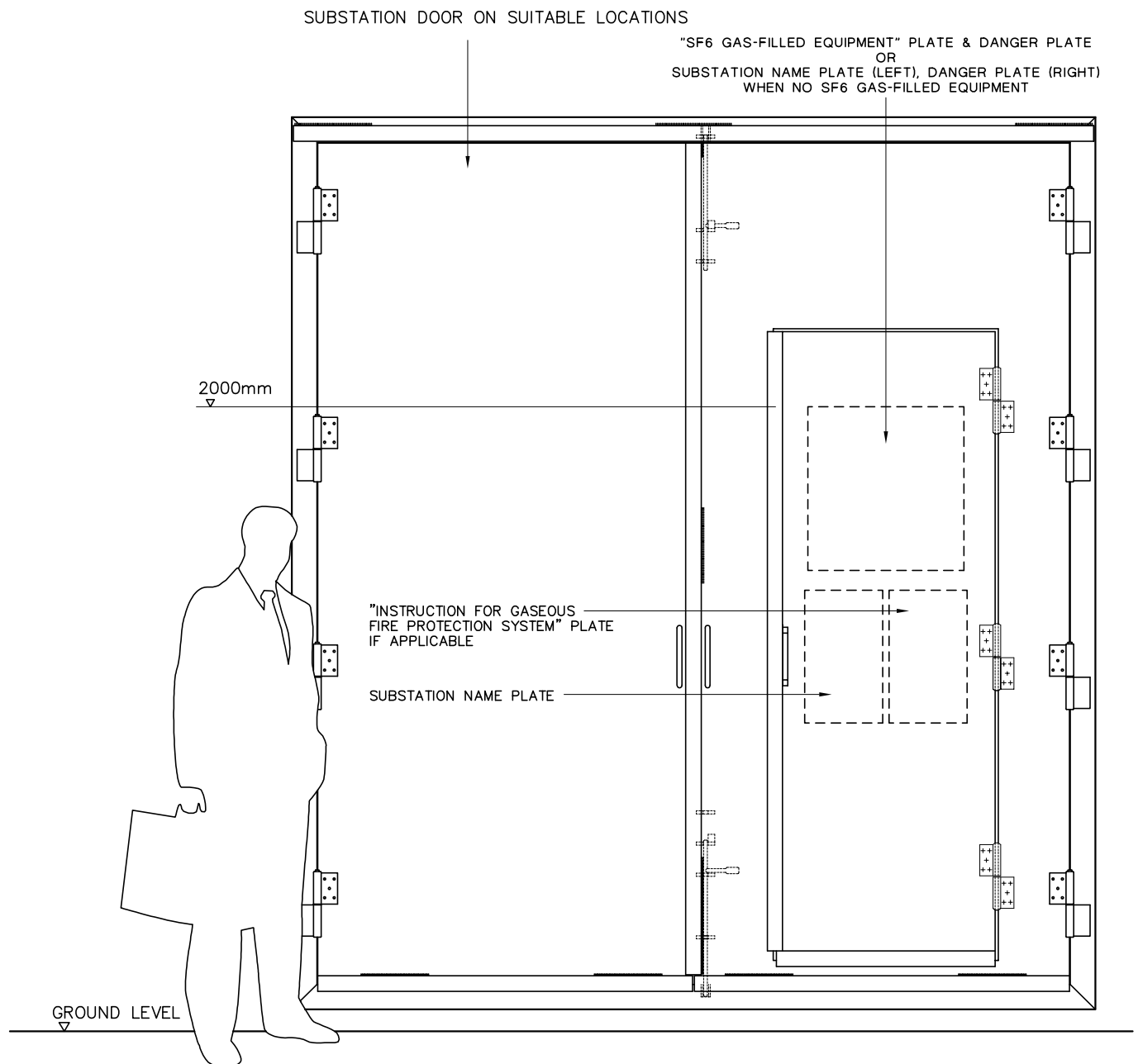
DRAWN: T. Y. IP DATE: 04-09-2002

CHECKED: K. C. CHENG APPROVED: W. C. HO

SCALE: 1 : 2.5 (mm) SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 5 0 3 B A

**NOTES**

1. NOTICE PLATES SHALL BE ON THE WICKET DOOR WHEN IT IS USED AS THE NORMAL ENTRANCE.
2. THE DANGER PLATE AND SUBSTATION NAME PLATE SHALL BE ARRANGED AND DISPLAYED CONSISTENTLY AT ALL SUBSTATIONS.

A NOTICE PLATE REVISION



REVS.	13.09.04												
INITIAL	A	B	C	D	E	F	G	H	J	K	L		

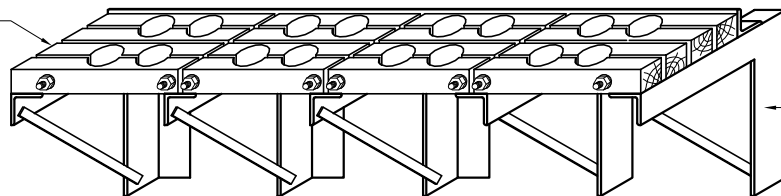
TITLE :

DISPOSITION OF THE DANGER PLATE AND  
SUBSTATION NAME PLATE

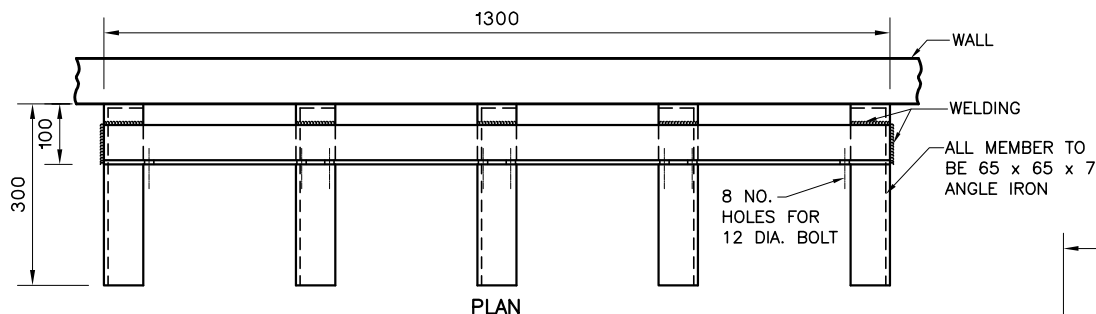
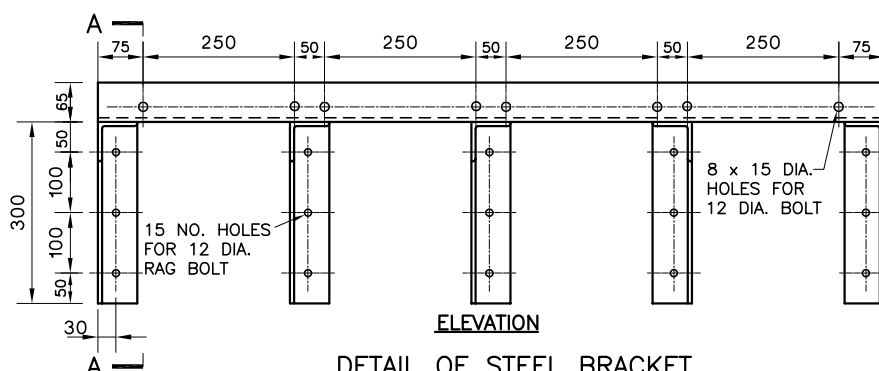
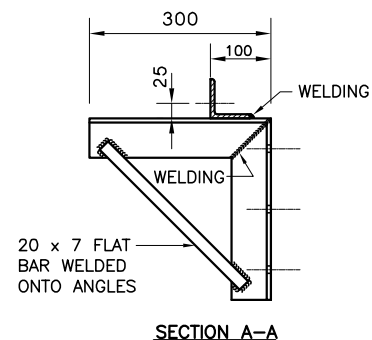
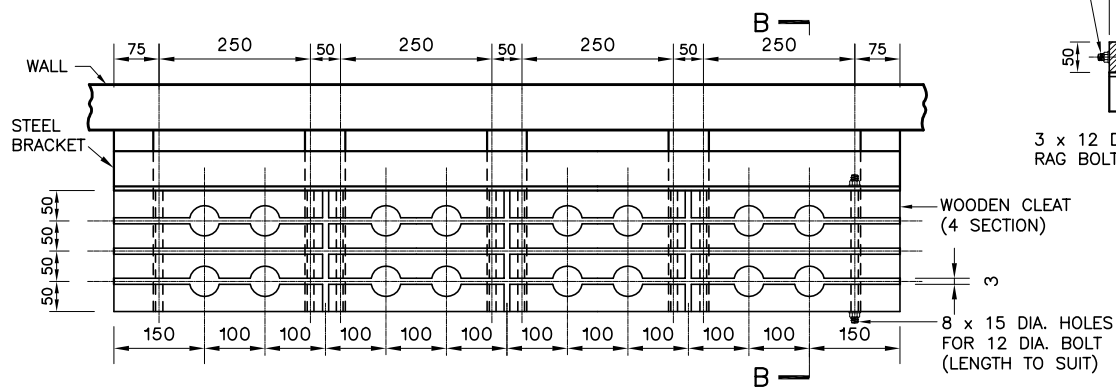
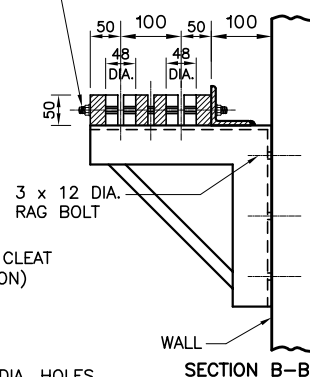
DRAWN: S. C. TO	DATE: 13-8-2002
CHECKED: K. C. CHENG	APPROVED: W. C. HO
SCALE: N.T.S.	SHEET(S) IN SET:

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 5 0 4 A A

WOODEN CLEAT  
(3 SECTION)

STEEL BRACKET

ISOMETRIC VIEWPLANELEVATIONDETAIL OF STEEL BRACKET  
(ALL MEMBER TO BE WELDED)SECTION A-ADETAIL OF WOODEN CLEAT (USE HARDWOOD)12 DIA. DOUBLE END  
THREADED BOLT &  
NUT WITH WASHER  
& SPRING WASHERSECTION B-BNOTES:

1. ALL STEELWORKS SHALL BE HOT DIP GALVANISED TO BS EN ISO 1461 AND FINISHED WITH ONE COAT OF CALCIUM PLUMBATE OR ZINC PHOSPHATE PRIMER AND TWO FINISHING COATS OF SYNTHETIC PAINT.
2. ALL MATERIALS TO BE PROVIDED AND INSTALLED BY DEVELOPER/CUSTOMER.
3. ALL METAL WORKS MUST BE BONDED TO THE EARTHING TERMINAL AT THE DISTRIBUTION BOARD WITH COPPER CONDUCTOR NOT LESS THAN 6mm<sup>2</sup>.
4. THE NO. OF CABLE CLEATS SHALL BE ADEQUATE FOR THE ACTUAL NO. OF CABLES USED AND SPARES.

C SIZE OF HOLES FOR CABLE UPDATED.

B ZINC PRIMER ADDED

A NOTE 4, 5 ADDED



REVS.	15.09.04	15.11.07	18.03.14											
INITIAL	A K.C.C.	B K.C.C.	C H.T.YU	D	E	F	G	H	J	K	L			

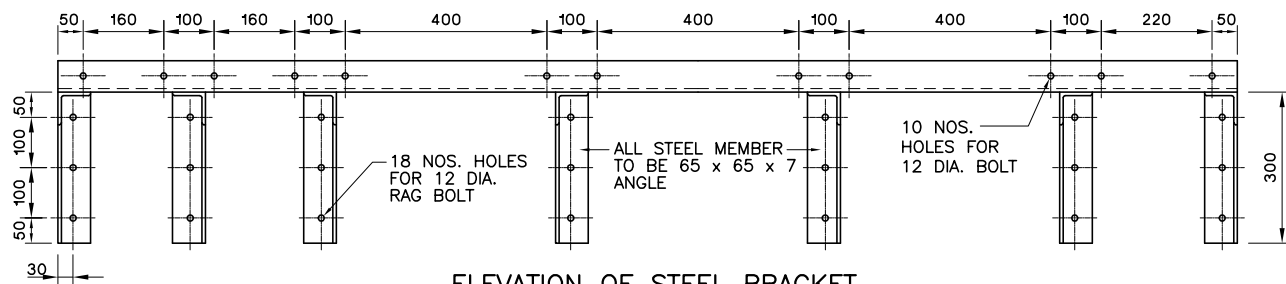
TITLE :

DETAILS OF STEEL WALL BRACKET AND  
WOODEN CLEAT FOR HOLDING SINGLE  
CORE CABLES

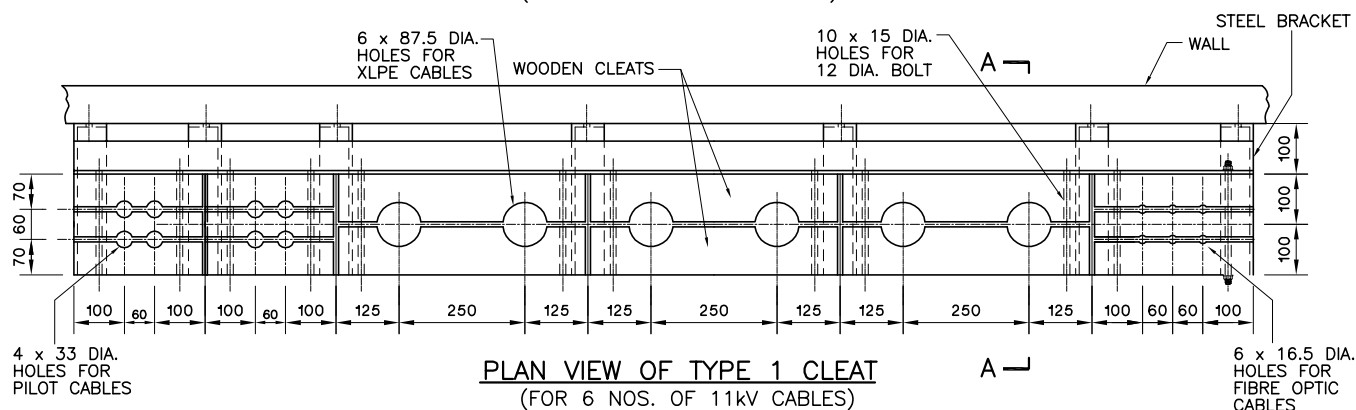
DRAWN: S. C. TO	DATE: 26-07-2002
CHECKED: K. C. CHENG	APPROVED: W. C. HO
SCALE: 1 : 12.5 (mm)	SHEET(S) IN SET: 1

**ASSET MANAGEMENT**

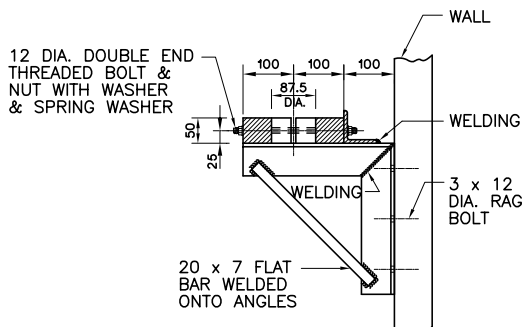
DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 5 0 5 C A



**ELEVATION OF STEEL BRACKET**  
(ALL MEMBER TO BE WELDED)



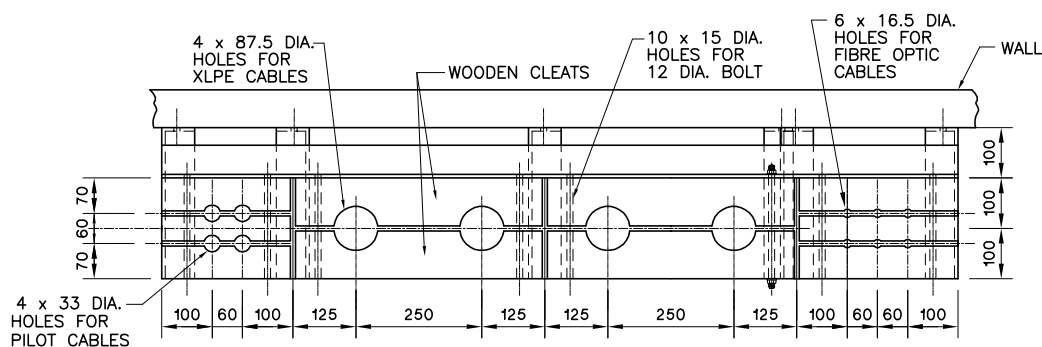
**PLAN VIEW OF TYPE 1 CLEAT**  
(FOR 6 NOS. OF 11kV CABLES)



**SECTION A-A**

**NOTES:**

1. ALL STEELWORKS SHALL BE HOT DIP GALVANISED TO BS EN ISO 1461 AND FINISHED WITH ONE COAT OF CALCIUM PLUMBATE OR ZINC PHOSPHATE PRIMER AND TWO FINISHING COATS OF SYNTHETIC PAINT.
2. ALL MATERIALS TO BE PROVIDED AND INSTALLED BY DEVELOPER/CUSTOMER.
3. ALL METAL WORKS MUST BE BONDED TO THE EARTHING TERMINAL AT THE DISTRIBUTION BOARD WITH COPPER CONDUCTOR NOT LESS THAN 6mm<sup>2</sup>.
4. THE NO. OF CABLE CLEATS SHALL BE ADEQUATE FOR THE ACTUAL NO. OF CABLES USED AND SPARES.



**PLAN VIEW OF TYPE 2 CLEAT**  
(FOR 4 NOS. OF 11kV CABLES)

B ZINC PRIMER ADDED.

A NOTE 4, 5 ADDED



REVS.	15.09.04	15.11.07												
INITIAL	A	B	C	D	E	F	G	H	J	K	L			
	K.C.C.	K.C.C.												

TITLE :

DETAILS OF STEEL WALL BRACKET AND WOODEN CLEAT FOR HOLDING 11kV CABLES  
(240 mm<sup>2</sup> XLPE CABLE, PILOT CABLE AND FIBRE OPTIC CABLE)

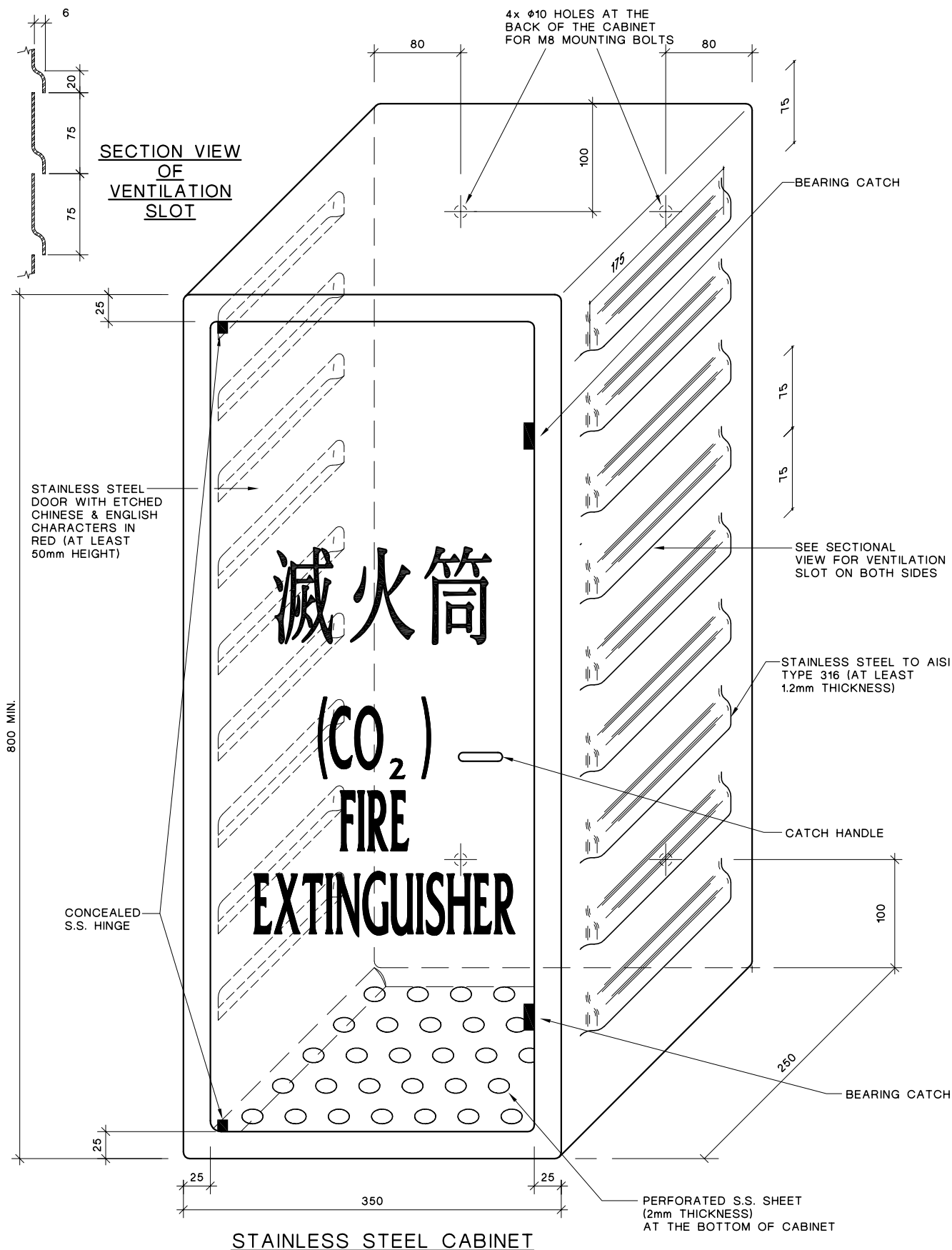
DRAWN: S. C. TO DATE: 29-07-2002  
CHECKED: K. C. CHENG APPROVED: W. C. HO  
SCALE: 1 : 15 (mm) SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 5 0 6 B A



B	GENERAL NOTES REVISED
A	GENERAL REVISED



CLP 中電

REVS.

INITIAL

TITLE :

STAINLESS STEEL CABINET FOR OUTDOOR  
4.5kg CO<sub>2</sub> FIRE EXTINGUISHER

DRAWN: C. W. WONG DATE: 29 Sep., 2004

CHECKED: K. C. CHENG APPROVED: W. C. HO

SCALE: 1 : 5 (mm) SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 5 0 9 - A

**LEGEND:**

-----

TO BE INSTALLED BY CLP POWER

-----

TO BE INSTALLED BY CUSTOMER IN GALVANISED IRON (G.I.) CONDUIT SYSTEM



LIGHTING SWITCH WITH PILOT WIRED TO LIGHT THE LAMP WHEN SUPPLY IS AVAILABLE



FUSED SPUR CONNECTION UNIT



16A FIXED CONNECTION UNIT FOR TEMPERATURE CONTROL PANEL



i) WALL MOUNTED PANEL FOR TEMPERATURE CONTROL OF VENTILATION FAN (PROVIDED BY CLP POWER)



ii) ACTUAL INSTALLATION LOCATION TO BE ADVISED ON SITE BY CLP POWER

\*

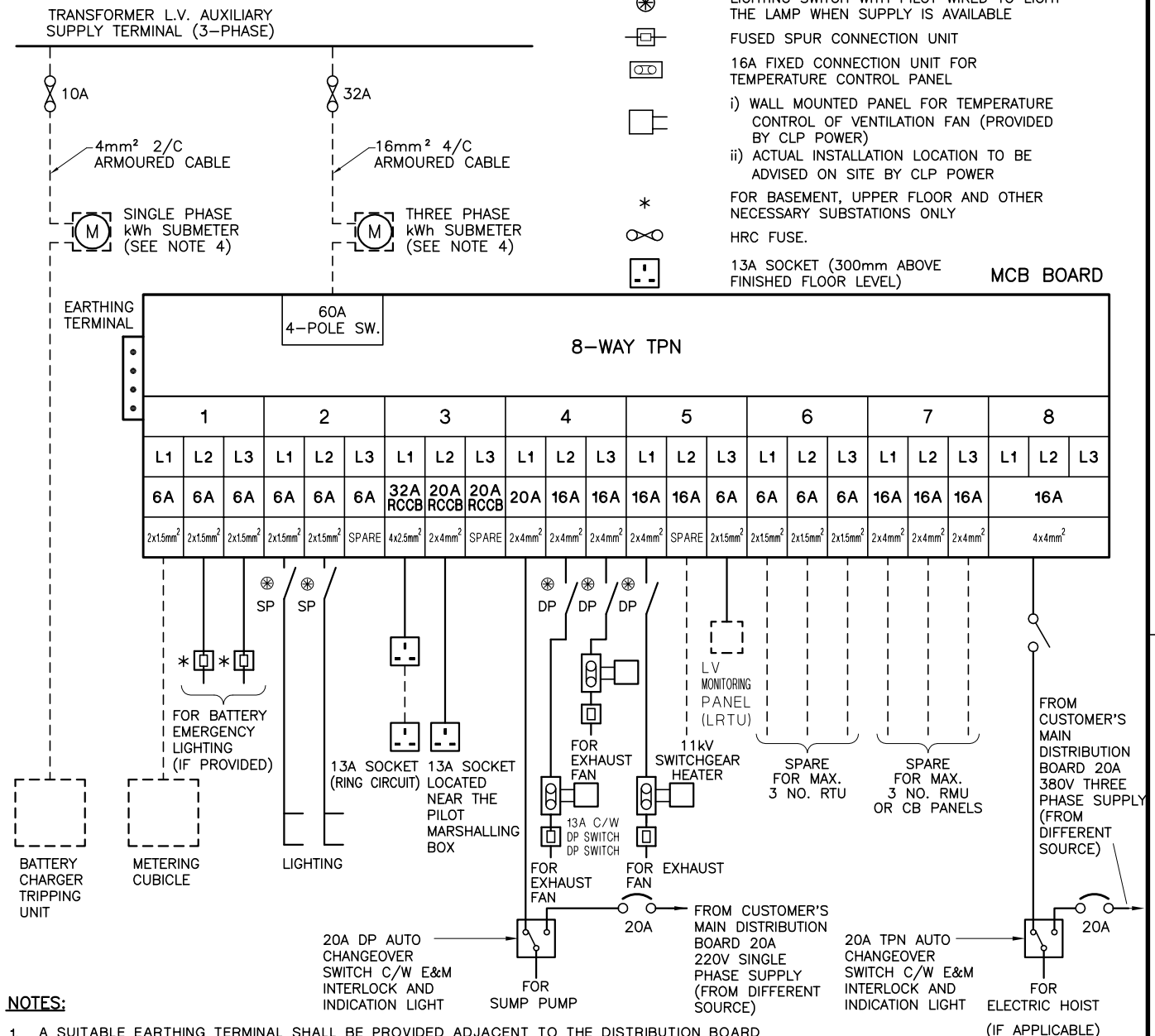
FOR BASEMENT, UPPER FLOOR AND OTHER NECESSARY SUBSTATIONS ONLY



HRC FUSE.



13A SOCKET (300mm ABOVE FINISHED FLOOR LEVEL)

**MCB BOARD****NOTES:**

1. A SUITABLE EARTHING TERMINAL SHALL BE PROVIDED ADJACENT TO THE DISTRIBUTION BOARD FOR CONNECTING ALL EXPOSED CONDUCTIVE PARTS VIA APPROPRIATE PROTECTIVE CONDUCTORS.
2. ALL EXTRANEOUS CONDUCTIVE PARTS SUCH AS STEEL DOOR FRAME, EXHAUST DUCT, LOUVRE AND PIPEWORK OF FIRE SERVICES INSTALLATION ETC., SHALL ALSO BE CONNECTED TO THE EARTHING TERMINAL WITH A COPPER CONDUCTOR NOT LESS THAN 6mm<sup>2</sup>.
3. FOR MULTI TRANSFORMER SUBSTATIONS, ADDITIONAL 13A FUSED SPUR FOR EXHAUST FAN(S) SHALL BE CONNECTED ON SEPARATE FINAL CIRCUIT.
4. kWh SUBMETERS WILL BE INSTALLED ADJACENT TO MCB BOARD IF THE SUBSTATION SUPPLY IS METERED AT 11kV.
5. LIGHTING SWITCH AND 13A SOCKET TO BE POSITIONED AT 1350mm AND 300mm FROM FLOOR LEVEL RESPECTIVELY.
6. MCB UNIT SHALL COMPLY TO BS EN60898 TYPE C AND BREAKING CAPACITY NOT LESS THAN 10kA.
7. MCB BOARD WITH DUSTPROOF DOOR AND COMPLIES TO IEC60439/BS5486
8. RCCB SENSITIVITY 30mA
9. PHASE IDENTIFICATION & COLOUR CODE OF WIRING CABLES SHALL COMPLY TO THE COLOUR CODE REQUIREMENTS OF EMSD WITH EFFECTIVE FROM 1 JULY 2007.

E	POWER SUPPLY TO ELECTRIC HOIST, EXHAUST FAN UPDATED.
D	MAIN SW. RATING & 13A SOCKET RING CIRCUIT REVISED
C	PHASE IDENTIFICATION UPDATED
B	LRTU ADDED
A	CIRCUIT REVISIONS



REVS.	13.09.04	21.12.05	09.08.07	12.10.09	18.03.14									
INITIAL	A	B	C	D	E	F	G	H	J	K	L			
	K.C.C.	K.C.C.	K.C.C.	K.C.C.	H.T.YU									

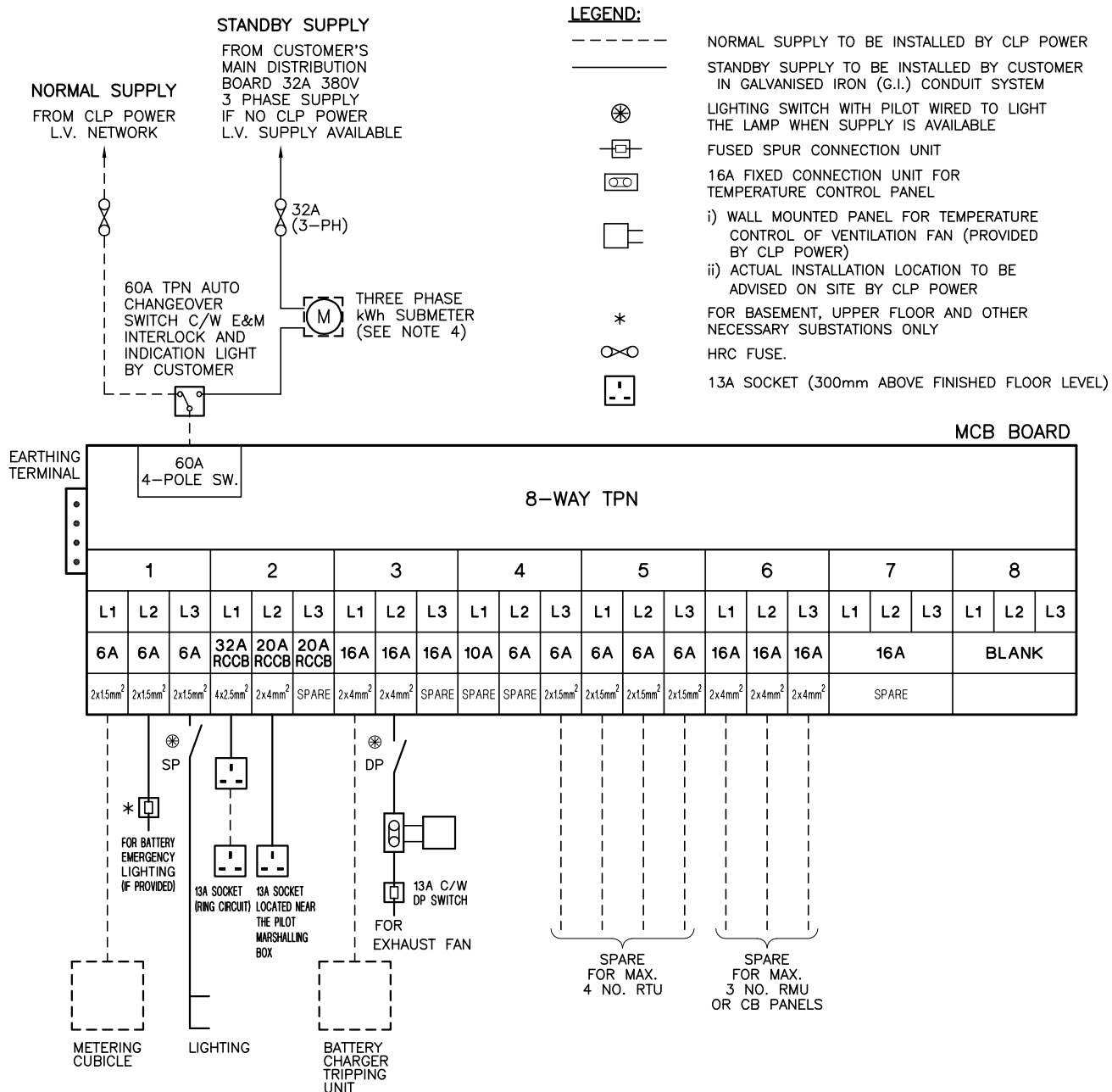
TITLE :

## LV SCHEMATIC DIAGRAM FOR DISTRIBUTION SUBSTATION (WITH TRANSFORMER AND 11kV SWITCHGEAR)

DRAWN:	S. C. TO	DATE:	23-07-2002
CHECKED:	K. C. CHENG	APPROVED:	W. C. HO
SCALE:	N. T. S.	SHEET(S) IN SET:	

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 6 0 1 E A

**NOTES:**

- A SUITABLE EARTHING TERMINAL SHALL BE PROVIDED ADJACENT TO THE DISTRIBUTION BOARD FOR CONNECTING ALL EXPOSED CONDUCTIVE PARTS VIA APPROPRIATE PROTECTIVE CONDUCTORS.
- ALL EXTRANEOUS CONDUCTIVE PARTS SUCH AS STEEL DOOR FRAME, EXHAUST DUCT, LOUVRE AND PIPEWORK OF FIRE SERVICES INSTALLATION ETC., SHALL ALSO BE CONNECTED TO THE EARTHING TERMINAL WITH A COPPER CONDUCTOR NOT LESS THAN 6mm<sup>2</sup>.
- LIGHTING SWITCH AND 13A SOCKET TO BE POSITIONED AT 1350mm AND 300mm FROM FLOOR LEVEL RESPECTIVELY.
- kWh SUBMETERS WILL BE INSTALLED ADJACENT TO MCB BOARD.
- MCB UNIT SHALL COMPLY TO BS EN60898 TYPE C AND BREAKING CAPACITY NOT LESS THAN 10kA.
- MCB BOARD WITH DUSTPROOF DOOR COMPLIES TO IEC60439/BS5486.
- RCCB SENSITIVITY 30mA
- PHASE IDENTIFICATION & COLOUR CODE OF WIRING CABLES SHALL COMPLY TO THE COLOUR CODE REQUIREMENTS OF EMSD WITH EFFECTIVE FROM 1 JULY 2007.

E	DETAIL OF CHANGEOVER FACILITY UPDATED.
D	CHANGEOVER FACILITY ADDED
C	MAIN SW. RATING & 13A SOCKET RING CIRCUIT REVISED
B	PHASE IDENTIFICATION UPDATED
A	LEGEND DESCRIPTION CHANGE



REVS.	13.09.04	09.08.07	12.10.09	26.03.12	18.03.14						
INITIAL	A	B	C	D	E	F	G	H	J	K	L
	K.C.C.	K.C.C.	K.C.C.	K.C.C.	H.T.YU						

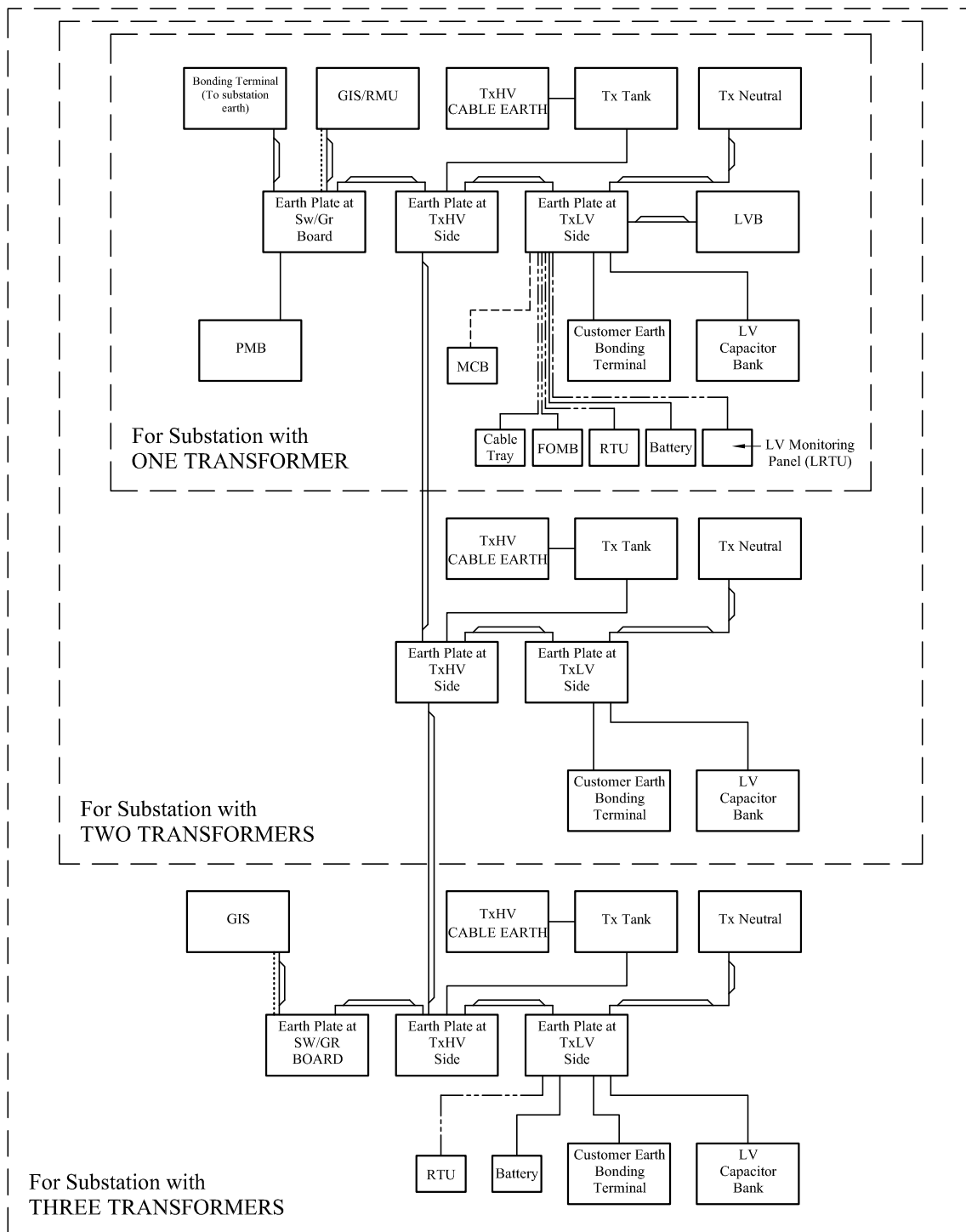
TITLE :

## LV SCHEMATIC DIAGRAM FOR 11kV SWITCHROOM

DRAWN: S. C. TO	DATE: 23-07-2002
CHECKED: K. C. CHENG	APPROVED: W. C. HO
SCALE: N. T. S.	SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 6 0 2 E A

**NOTES :****LEGEND :**

- ..... Additional 2 x 100 mm<sup>2</sup> BARE COPPER is required for CB numbers at 5, 9, 13 .....
- 100 mm<sup>2</sup> BARE COPPER
- 2 x 100 mm<sup>2</sup> BARE COPPER
- 6 mm<sup>2</sup> COPPER PVC COVERED
- 16 mm<sup>2</sup> COPPER PVC COVERED

C	LRTU ADDED
B	GIS BOARD ADDED FOR 3 Tx. S/S



REVS.	16.05.03	15.09.04	21.12.05										
INITIAL	A	B	C	D	E	F	G	H	J	K	L		
	D. HUNG	K. C. C.	K. C. C.										

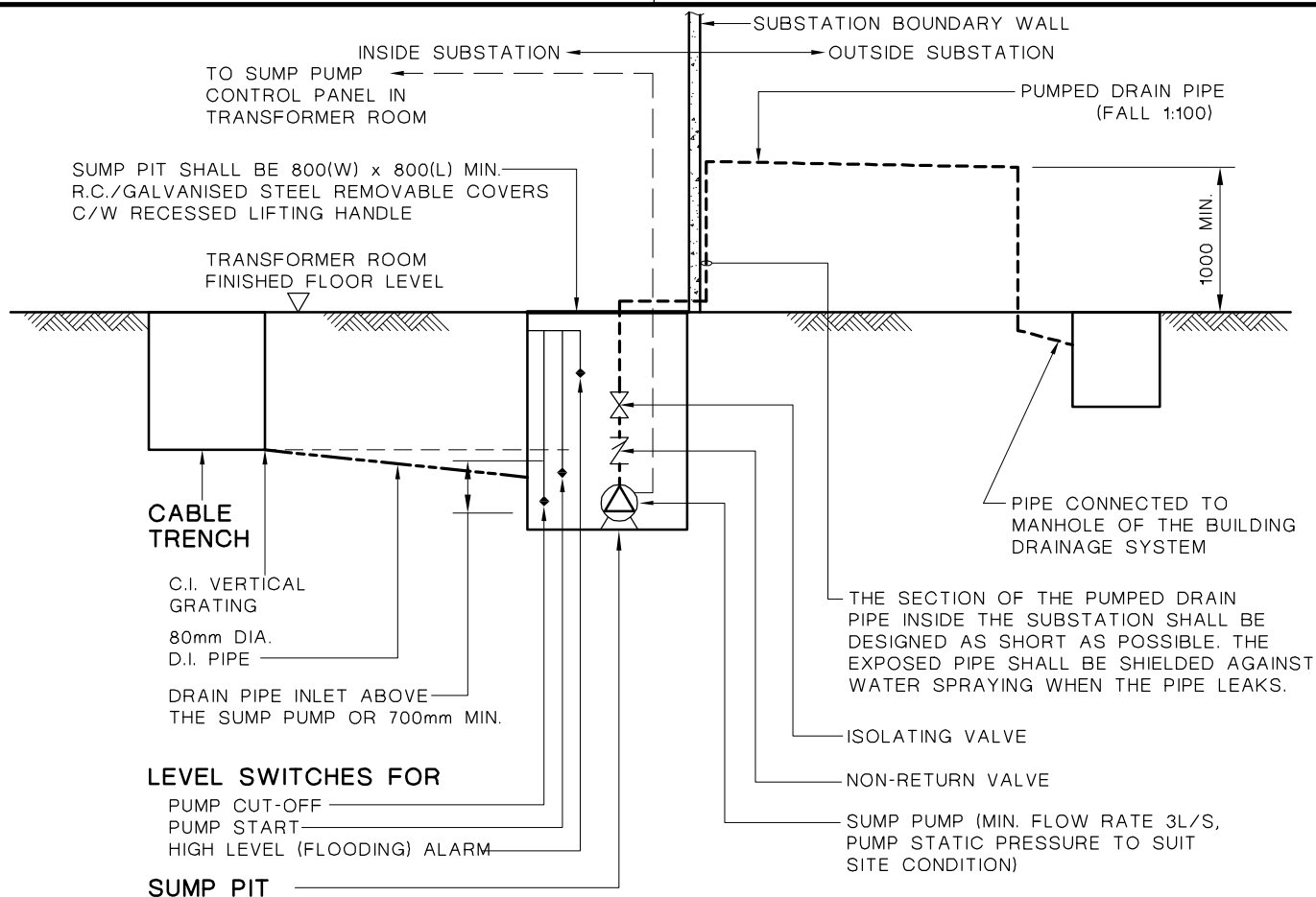
TITLE :

**EARTHING SCHEMATIC DIAGRAM**

DRAWN:	T. Y. IP	DATE:	15-09-2002
CHECKED:	K. C. CHENG	APPROVED:	W. C. HO
SCALE:	N.T.S.	SHEET(S) IN SET:	

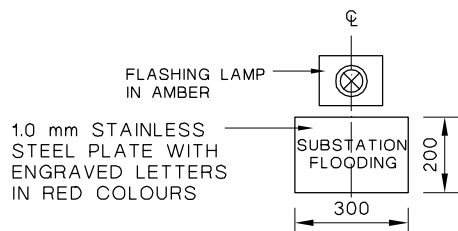
**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 6 0 3 C A

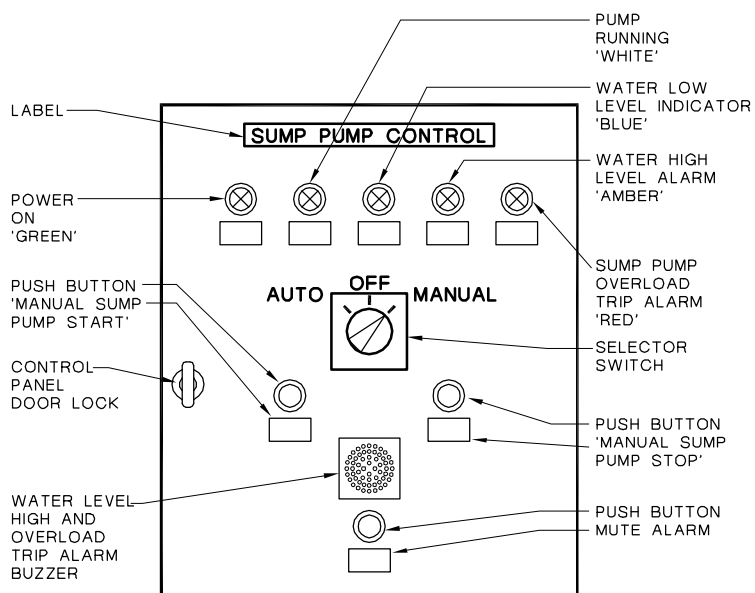


#### NOTES:

1. THE SUMP PUMP SHALL BE AUTOMATIC START AND STOP WHEN WATER LEVEL REACHES THE PUMP START LEVEL AND THE PUMP CUT-OFF LEVEL
2. START/STOP CONTROL OF THE SUMP PUMP SHALL BE PROVIDED ON THE CONTROL PANEL.
3. CHANGEOVER SWITCH FOR SWITCHING THE POWER SUPPLY TO THE SUMP PUMP SHALL BE PROVIDED. CHANGEOVER SCHEMATIC IS SHOWN IN CLP DRG. NO. T-COP-10250-D-E33-0106-01
4. SUMP PUMP CONTROL CIRCUIT DIAGRAM SHALL BE FRAMED AND DISPLAYED NEXT TO THE SUMP PUMP CONTROL PANEL.
5. SUMP PIT SIZE MIN. 600mm x 600mm.



#### FLOODING ALARM LIGHT AT EACH ENTRANCE



#### PROPOSED SUMP PUMP CONTROL PANEL

B GENERAL AMENDMENT

A BOUNDARY WALL ADDED

CLP 中電

REVS.	20.08.07	23.02.17												
INITIAL	A	B	C	D	E	F	G	H	J	K	L			
	K.C.C.	H.T.YU												

TITLE :

GENERAL SCHEMATIC DIAGRAM OF SUMP PUMP  
AND PIPE CONNECTIONS FOR BASEMENT  
SUBSTATION

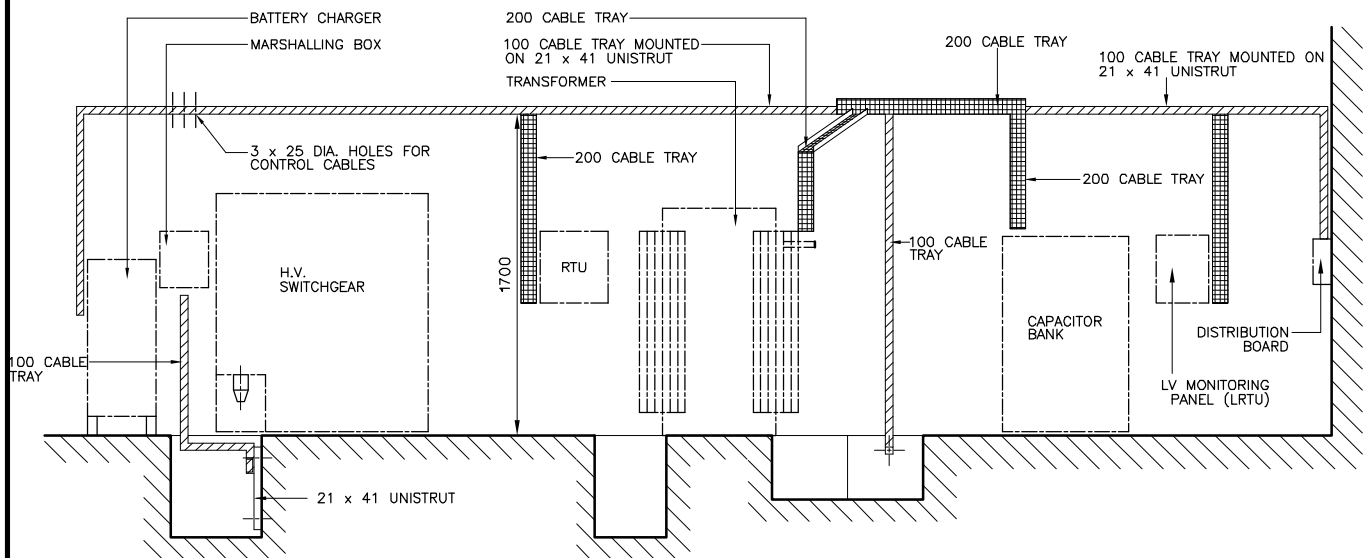
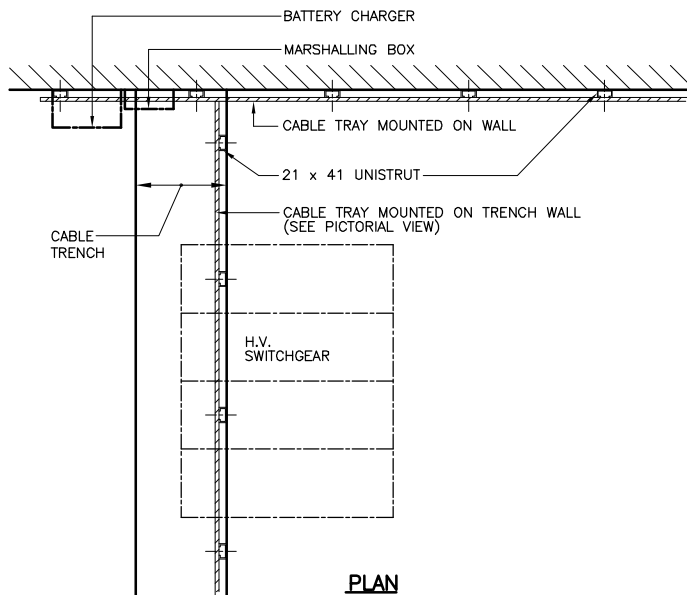
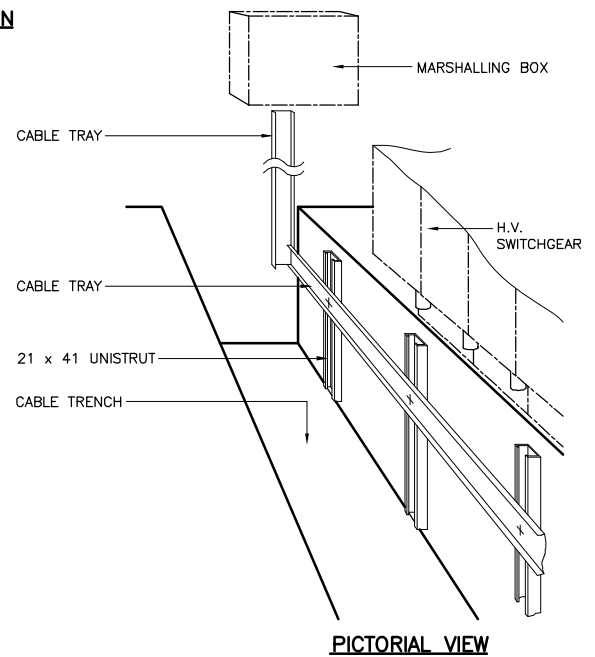
DRAWN: S. C. TO DATE: 22-07-2002

CHECKED: K. C. CHENG APPROVED: K. W. WONG

SCALE: N. T. S. SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 6 0 4 B A

**ELEVATION****PLAN****PICTORIAL VIEW****NOTES:**

1. ALL METAL WORKS MUST BE BONDED TO THE EARTHING TERMINAL AT THE EARTHING PLATE WITH  $\text{Cu}$  COPPER CONNECTOR NOT LESS THAN 6mm<sup>2</sup>.
2. ALL METAL WORKS TO BE HOT DIP GALVANISED.
3. ACTUAL INSTALLATION LOCATION TO BE ADVISED ON SITE BY CLP POWER.
4. ALL DIMENSIONS ARE IN MILLIMETRE.

<b>C</b>	BATTERY CHARGER UPDATED
<b>B</b>	LV MONITORING PANEL ADDED
<b>A</b>	RTU ADDED



REVS.	13.09.04	21.12.05	17.03.17										
	A	B	C	D	E	F	G	H	J	K	L		
INITIAL	K.C.C.	K.C.C.	H.T.YU										

TITLE :

**TYPICAL ARRANGEMENT OF CABLE TRAY**

DRAWN:	S. C. TO	DATE:	12-8-2002
CHECKED:	K. C. CHENG	APPROVED:	W. C. HO
SCALE:	N.T.S.	SHEET(S) IN SET:	

**ASSET MANAGEMENT**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 6 0 5 C A

# COLOUR CODE SYSTEM

## COLOUR CODE

## PIPE/CONDUIT



RED

FIRE FIGHTING PIPE  
(WATER)

YELLOW/BLACK

FIRE FIGHTING PIPE  
(CO<sub>2</sub> GAS)

ORANGE

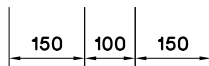
ELECTRICAL CONDUIT



ORANGE/RED

FIRE PROTECTION SYSTEM  
CONTROL WIRING

ORANGE/GREEN

COMPUTER  
DATA SIGNALING

REFERENCE: BS1710 SPECIFICATION FOR IDENTIFICATION OF PIPELINES AND SERVICES.  
BS4800 SCHEDULE OF PAINT COLOURS FOR BUILDING PURPOSE.

A COLOUR CODE FOR COMPUTER DATA  
SIGNALING ADDED



REVS.	16.5.12												
INITIAL	A	B	C	D	E	F	G	H	J	K	L		
	E. YU												

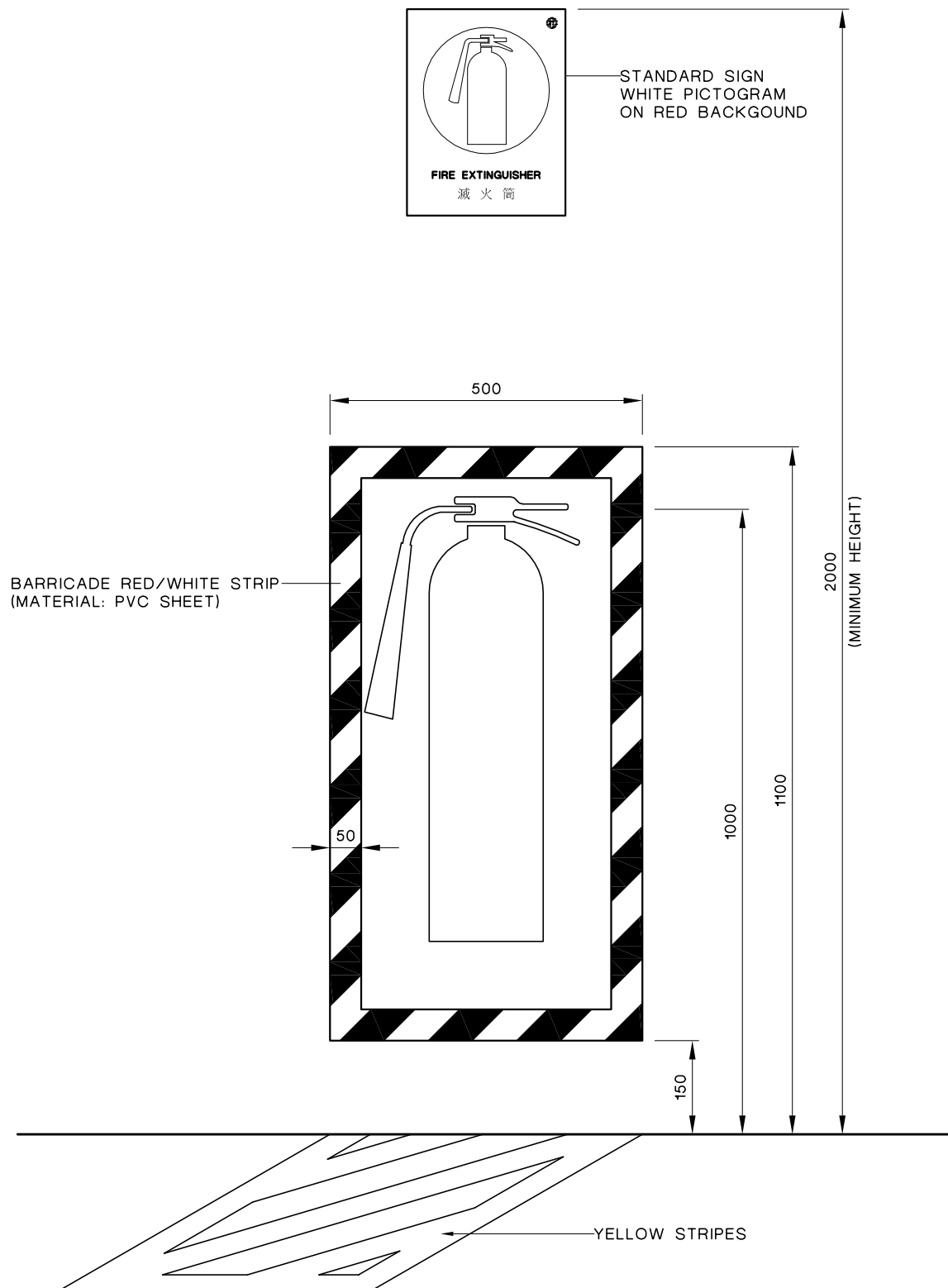
TITLE :

COLOUR CODES FOR PIPES AND CONDUITS  
IN DISTRIBUTION SUBSTATION

DRAWN: C. W. WONG      DATE: 15 Sep., 2004  
CHECKED: K. C. CHENG      APPROVED: W. C. HO  
SCALE: 1 : 15      SHEET(S) IN SET:

**A S S E T   M A N A G E M E N T**

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 6 0 6 A A



ALL DIMENSIONS ARE IN mm



REVS.	A	B	C	D	E	F	G	H	J	K	L
INITIAL											

TITLE :

## FIRE EXTINGUISHER DEMARCATION

DRAWN: C W WONG	DATE: 9 Aug., 2007
CHECKED: K C CHENG	APPROVED: W C HO
SCALE: N. T. S.	SHEET(S) IN SET:

ASSET MANAGEMENT

DRG. NO. T C O P 1 0 2 5 0 D E 3 3 0 1 0 6 0 8 - A