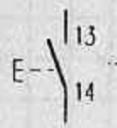
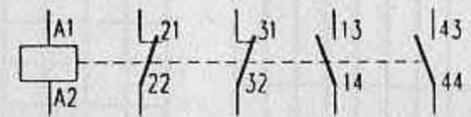
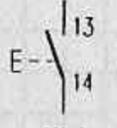
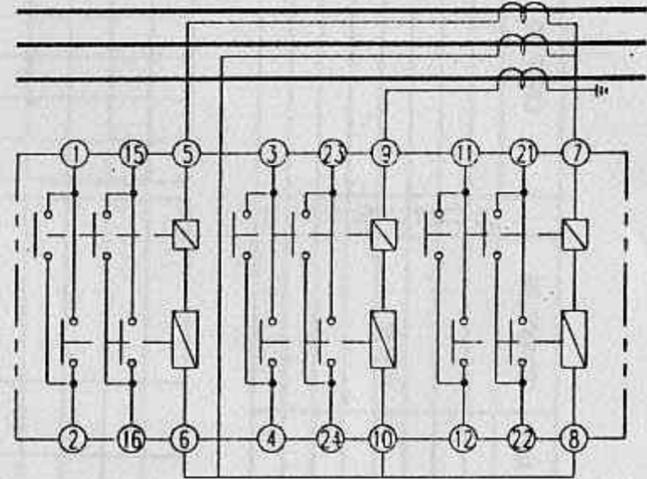
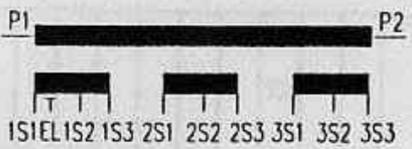
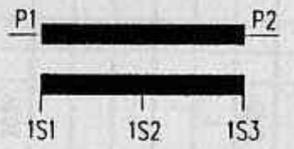
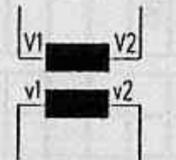
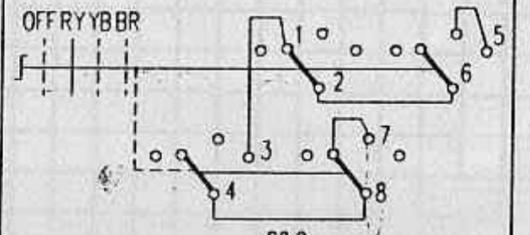




TECHN. DATA	APPARATUS DESIGNAT	SCHEMATIC DIAGRAM	TECHN. DATA	APPARATUS DESIGNAT	SCHEMATIC DIAGRAM
OFF PUSH BUTTON (RED) (0) MAKE : BPETEP TYPE : PT10+V40+50	-SOA	 M1.4	AUX. RELAY MAKE : ABB TYPE : KC6-22Z RATED VOLTAGE 30V DC	-C2	 Q1.3 Q1.7
ON PUSH BUTTON (BLACK) (1) MAKE : BPETEP TYPE : PT10+V40+50	-SOE	 M1.4	OVERCURRENT & EARTH FAULT RELAY MAKE : REYROLLE TYPE : 2TJM11/2TJM11/2TJM11 CURRENT SETTING : 2.5 - 10A HI SETTING : 20 - 80A EARTH FAULT SETTING : 1 - 4A HI SETTING : 5 - 20A	-F301	 M1.6 Q1.4 S1.4 M1.5 Q1.5 S1.5 M1.5 Q1.5 S1.5
CURRENT TRANSFORMER MAKE : WPGES TYPE : ASS24-05 RATIO : 500-300/5/5/5A CORE 1 : CLY CORE 2 : 15VA 5P10 CORE 3 : 5VA CL1	-TIL1 -TIL2 -TIL3	 S1.1 S1.4 S1.6 S1.2 S1.4 S1.7 S1.2 S1.5 S1.8	PING CURRENT TRANSFORMER MAKE : FITZ TYPE : K50506 RATIO : 100-50/5A OUTPUT : 15VA CL0.5	-TIL1 -TIL3	 S2.4 S2.5
VOLTAGE TRANSFORMER MAKE : WPGES TYPE : VZN24-01 RATIO : 22KV/110V OUTPUT : 180VA, CL1	-TSL1-L2 -TSL2-L3	 S2.2 S2.2	VOLTMETER MAKE : GOSSEN TYPE : V-AQS 96-90' RANGE : 0-30KV	-P405	 S2.3
VOLTMETER SELECTOR SWITCH MAKE : BLUE LINE TYPE : A004-621	-S410	 S2.2			

Rev. A	Date 16.10.95	Rel. VL	Title LIST OF ITEMS PUB INCOMING 2	Project UNITED CEMENT 22KV SWITCHGEAR TYPE ZS/VD4	D04 0153 402 <b>ABB</b> ASEA BROWN BOVERI PTE LTD	Scale	Drawn PC 14.3.95	Checked ASK	Resp. Dept. K.S.	Released ASK	Format 3 Sheet 23 Cont. 01
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UDCC223







A

B

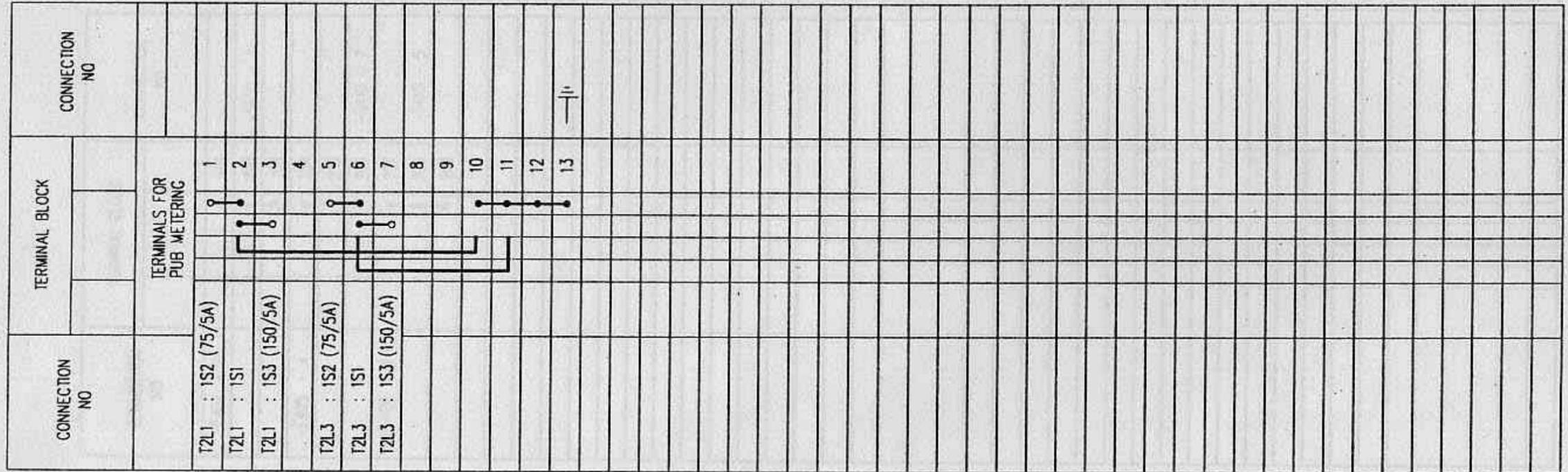
C

D

E

F

13	14	15	16	17	18	19	20	21	22	23	24
				X	X						
					X	X					



12	11	10	9	8	7	6	5	4	3	2	1
									R	Gn	
									R	B	
									B	Gn	
									B		

CONDUCTOR	TYPE	LOCATION	CONDUCTOR	TYPE	LOCATION	CONDUCTOR
17		EXTERNAL METERING				
18						
19						
20						
21						
22						
23						
24						

U00C204

13	14	15	16	17	18	19	20	21	22	23	24
		R									
			Y								
			B								

CONNECTION NO	TERMINAL BLOCK	CONNECTION NO
-F405 - 4		
-F408 - 2		-S410 - 7
		-S410 - 5

12	11	10	9	8	7	6	5	4	3	2	1
									R		
									Y		
									B		

CABLE NO	TYPE	CONDUCTOR	CABLE NO	TYPE	CONDUCTOR
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

Rev.				
Date				
Ref.				

Title  
**TERMINAL DIAGRAM  
 VOLTAGE TRANSFORMER CIRCUIT  
 PUB INCOMING 2**

Project  
**UNITED CEMENT  
 22KV SWITCHGEAR TYPE ZS/VD4**

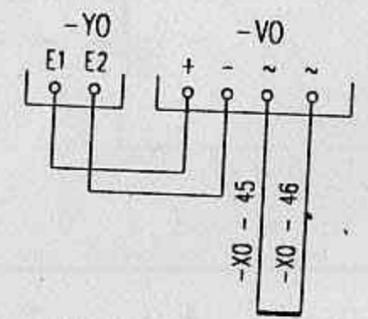
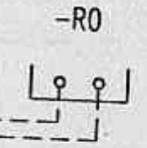
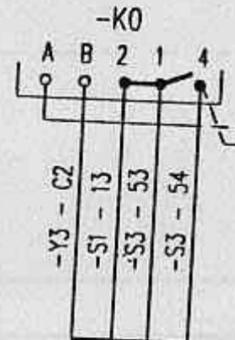
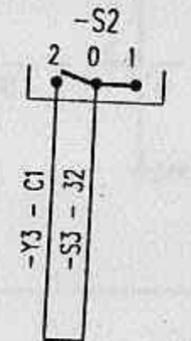
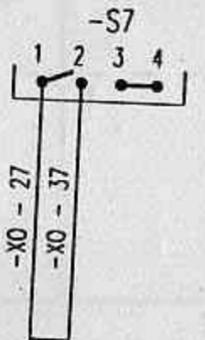
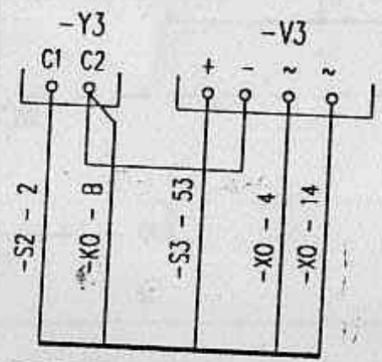
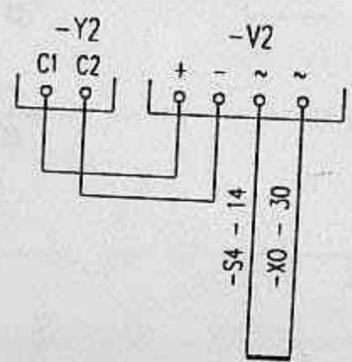
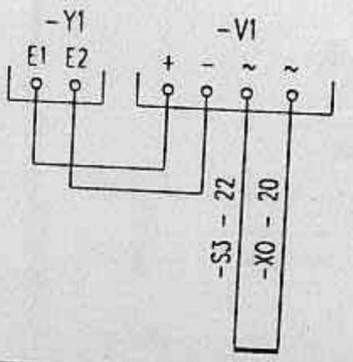
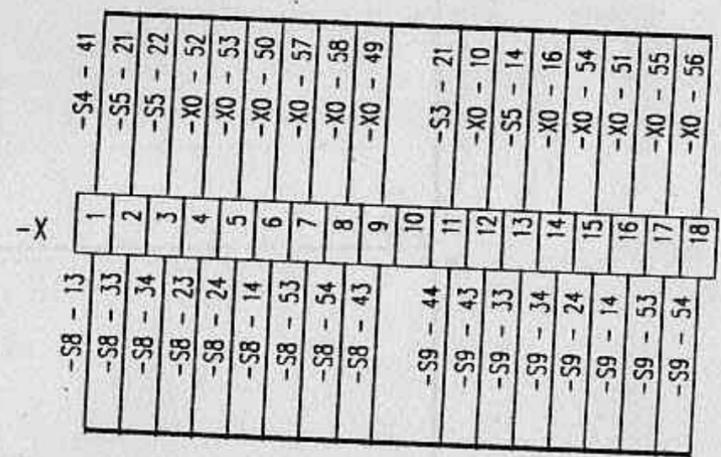
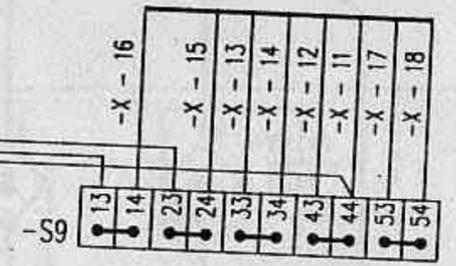
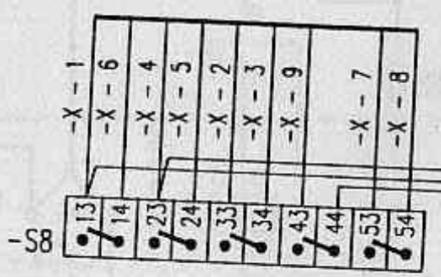
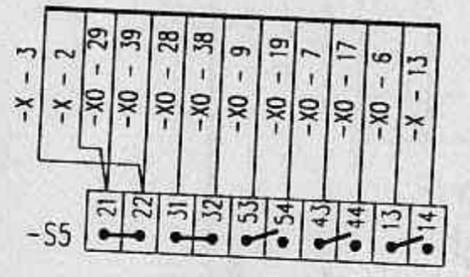
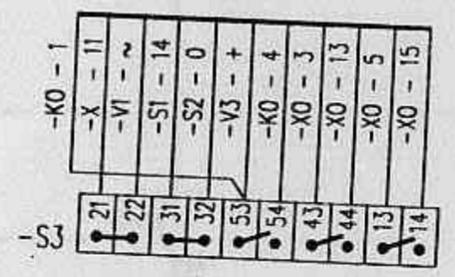
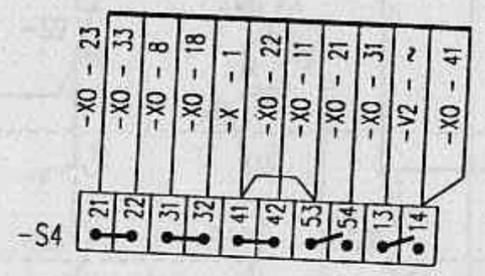
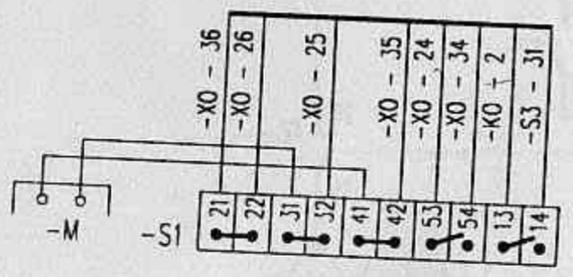
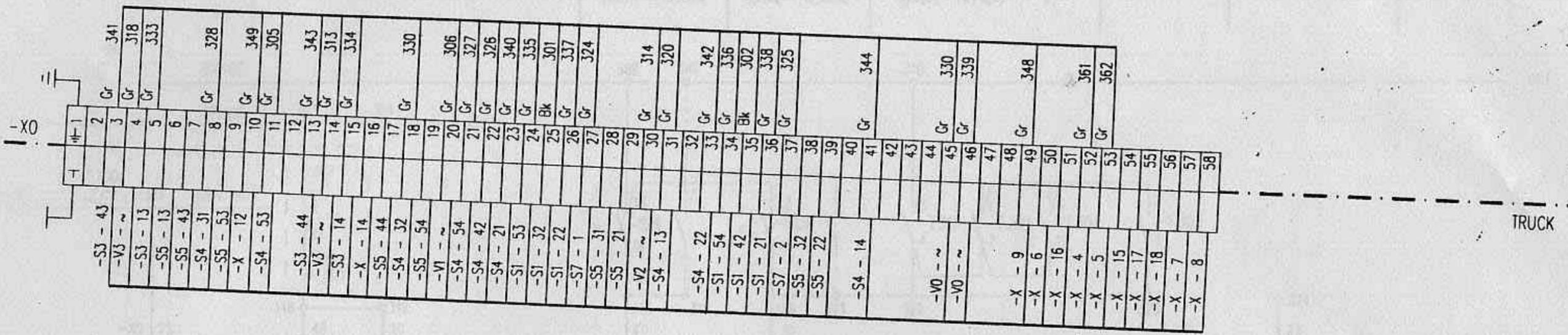
**ABB** D04 0153 402  
 ASEA BROWN BOVERI PTE LTD

Scale Drawn PC 14.3.95  
 Checked ASK  
 Resp. Dept. K.S.  
 Released ASK  
 Format 3  
 Sheet 05  
 Cont. 06

UDOC205







Title  
TERMINAL DIAGRAM  
CIRCUIT BREAKER CIRCUIT  
PUB INCOMING 2

Project  
UNITED CEMENT  
22KV SWITCHGEAR TYPE ZS/VD4

D04 0153 402  
**ABB** ASEA BROWN BOVERI PTE LTD

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Checked	ASK	Released	ASK		Sheet	08
					Cont.	09

UDOC208

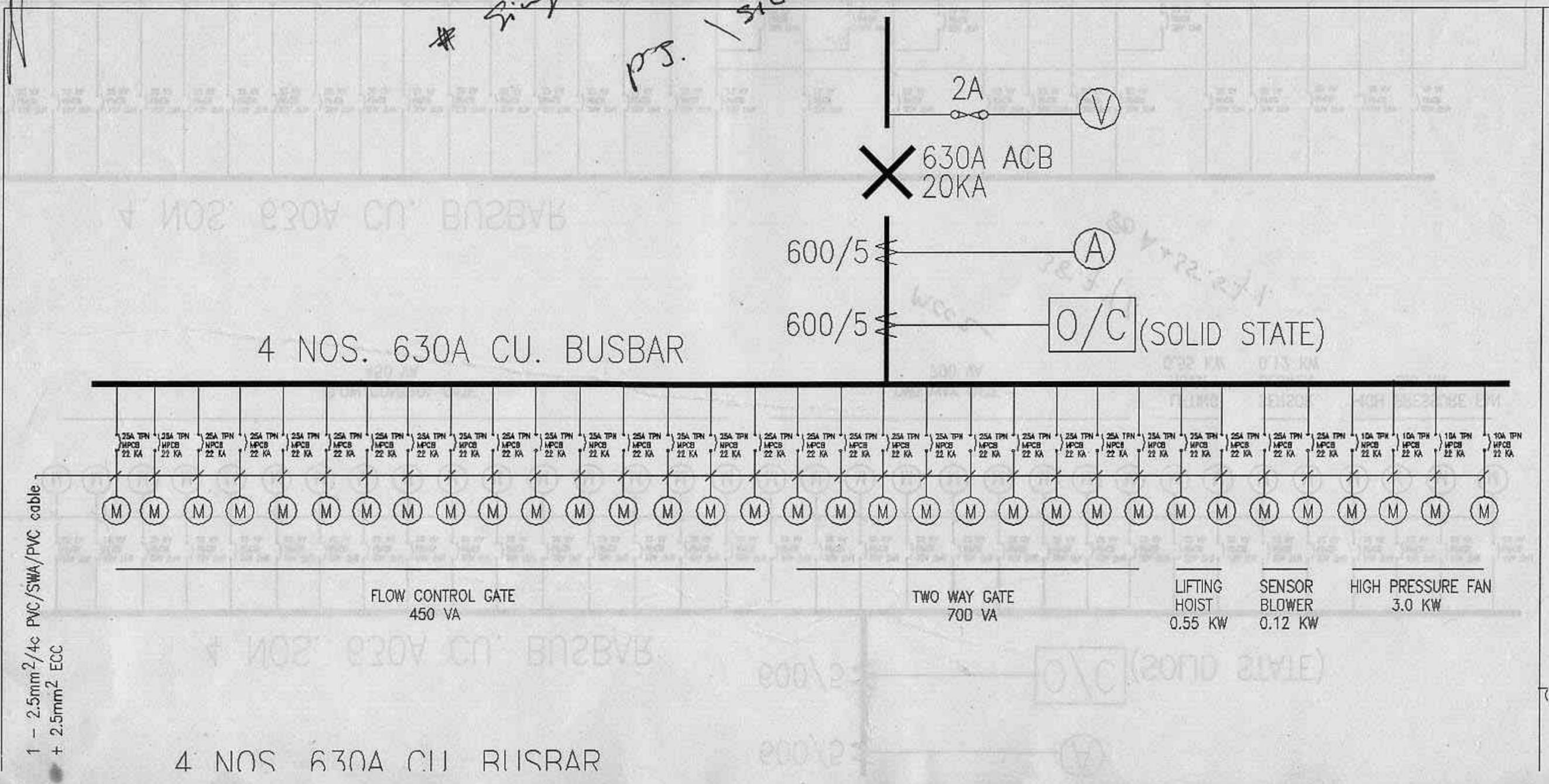


# United Cement Pte, Ltd.  
 no. 33, ~~Tuas~~ Tuas Crescent.  
 spare 2263.

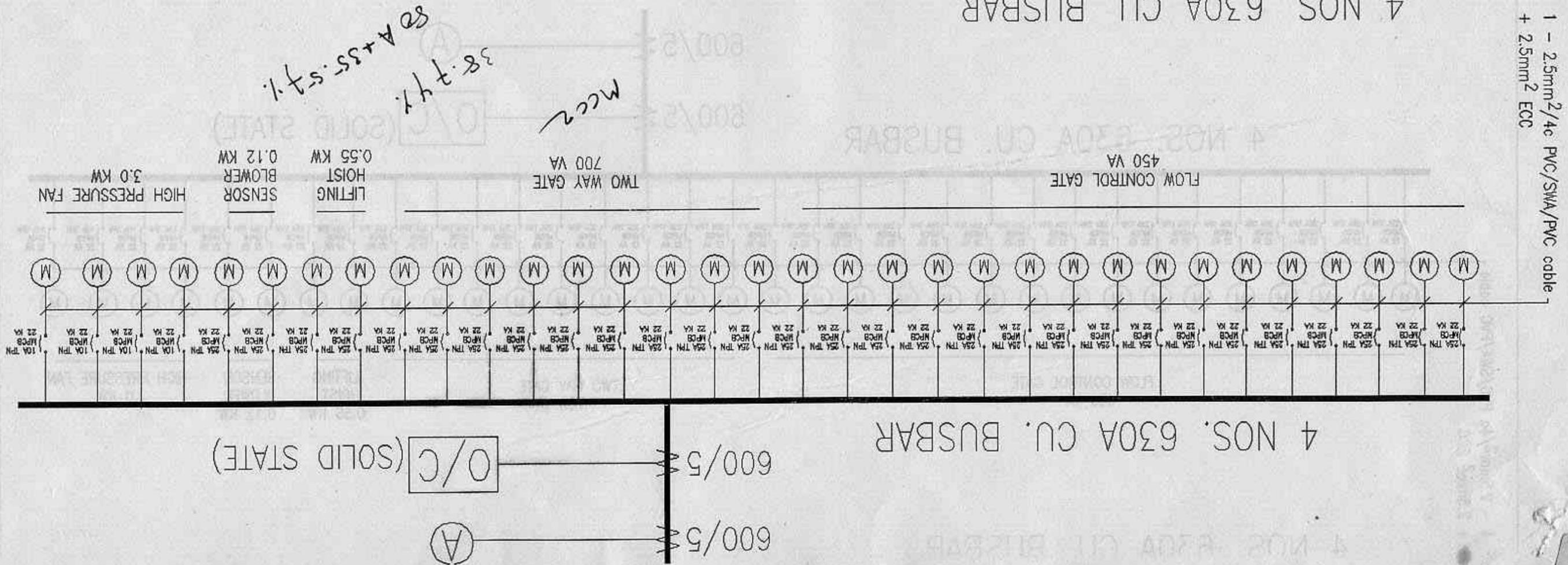
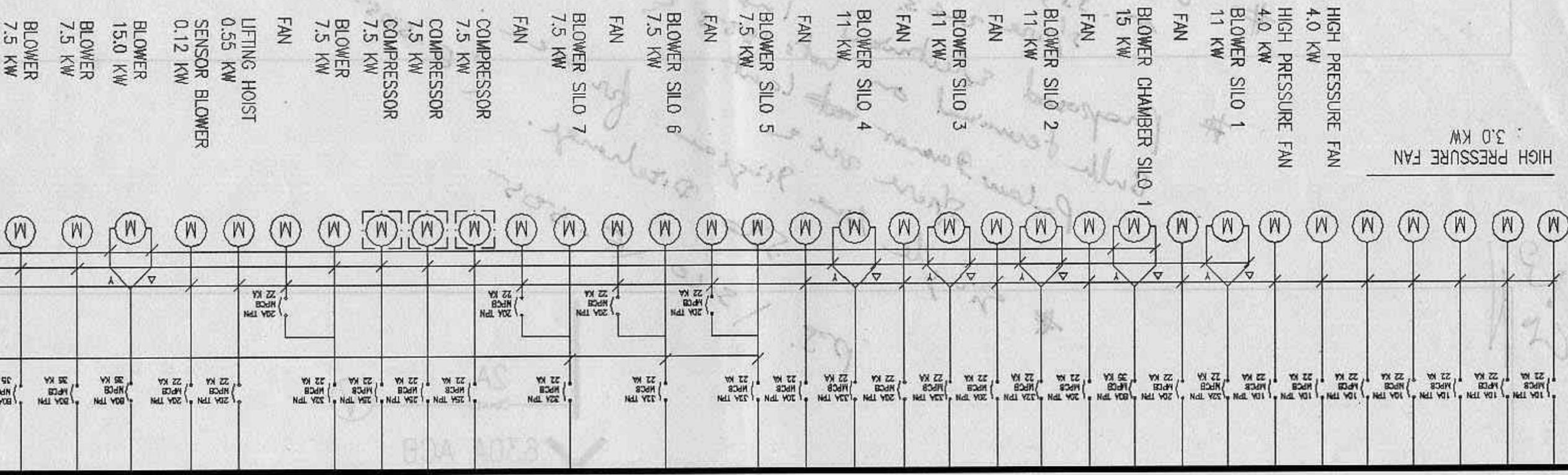
# Proposed electrical installation to  
 Bulk terminal on lots 1533 & 1534 to  
 Palau Damar lot land.  
 spare 2262

# Single line diagram for MCC (E-505-2)  
 pg. 1/3160 E-505

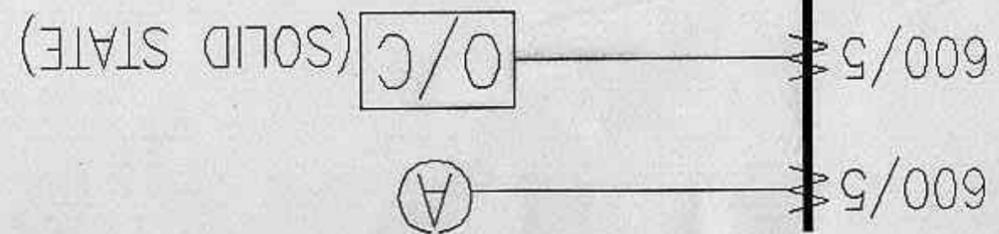
Silo



- 1 - 10mm<sup>2</sup>/4c PVC/SWA/PVC cable + 10mm<sup>2</sup> ECC
- 1 - 6mm<sup>2</sup>/4c PVC/SWA/PVC cable + 6mm<sup>2</sup> ECC
- 1 - 2.5mm<sup>2</sup>/4c PVC/SWA/PVC cable + 2.5mm<sup>2</sup> ECC
- 1 - 4mm<sup>2</sup>/4c PVC/SWA/PVC cable + 4mm<sup>2</sup> ECC



*38.74%*  
*50A+55.57%*  
*MCC2*



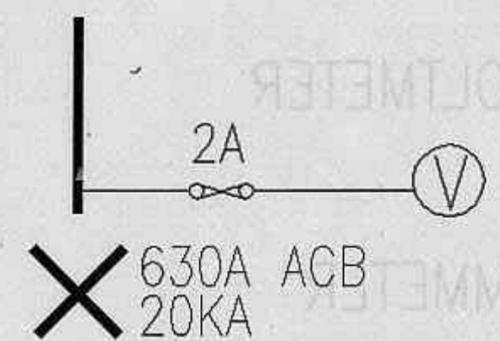
4 NOS. 630A CU. BUSBAR

4 NOS. 630A CU. BUSBAR

Lots 1543 & 1544

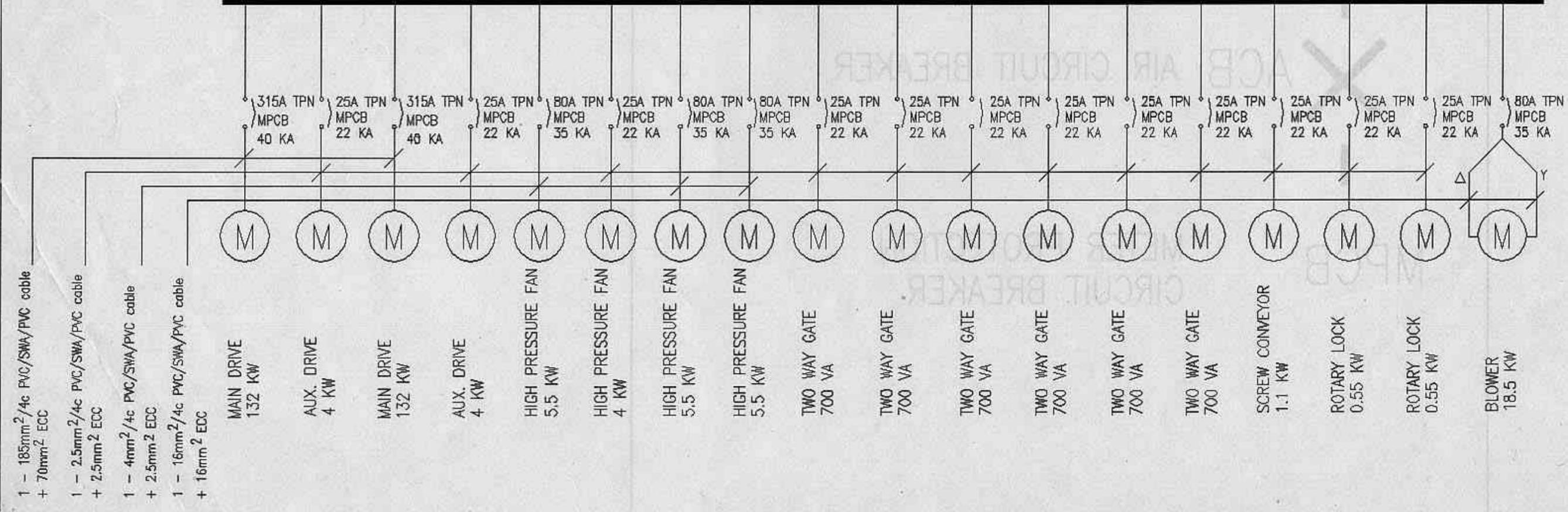
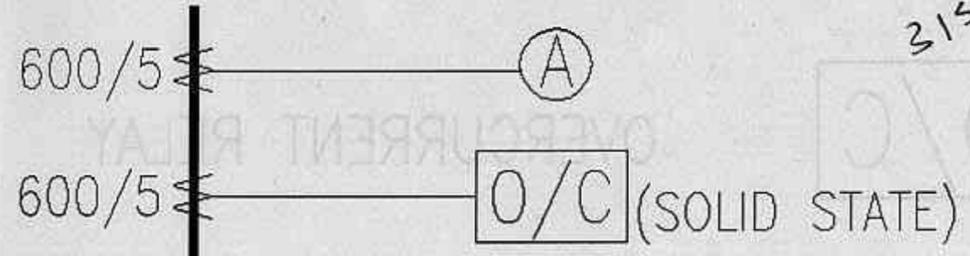
# United Cement Pte. Ltd.  
 No. 33, Tras Crescent. S'pore 2263.  
 # Proposed Electrical Installation to Cement Bulk Terminal on  
 No 6 plot JPC, Pulau Damar Laut  
 S'pore 2262.  
 # Single line Diagram for mec silo Feeding (E-505-1) ~~Electrical~~

Silo Discharge at top of silo



MCC 1  
 $\frac{50.4}{315A + 33.69A}$

4 NOS. 630A CU. BUSBAR



- 1 - 185mm<sup>2</sup>/4c PVC/SWA/PVC cable + 70mm<sup>2</sup> ECC
- 1 - 2.5mm<sup>2</sup>/4c PVC/SWA/PVC cable + 2.5mm<sup>2</sup> ECC
- 1 - 4mm<sup>2</sup>/4c PVC/SWA/PVC cable + 2.5mm<sup>2</sup> ECC
- 1 - 16mm<sup>2</sup>/4c PVC/SWA/PVC cable + 16mm<sup>2</sup> ECC

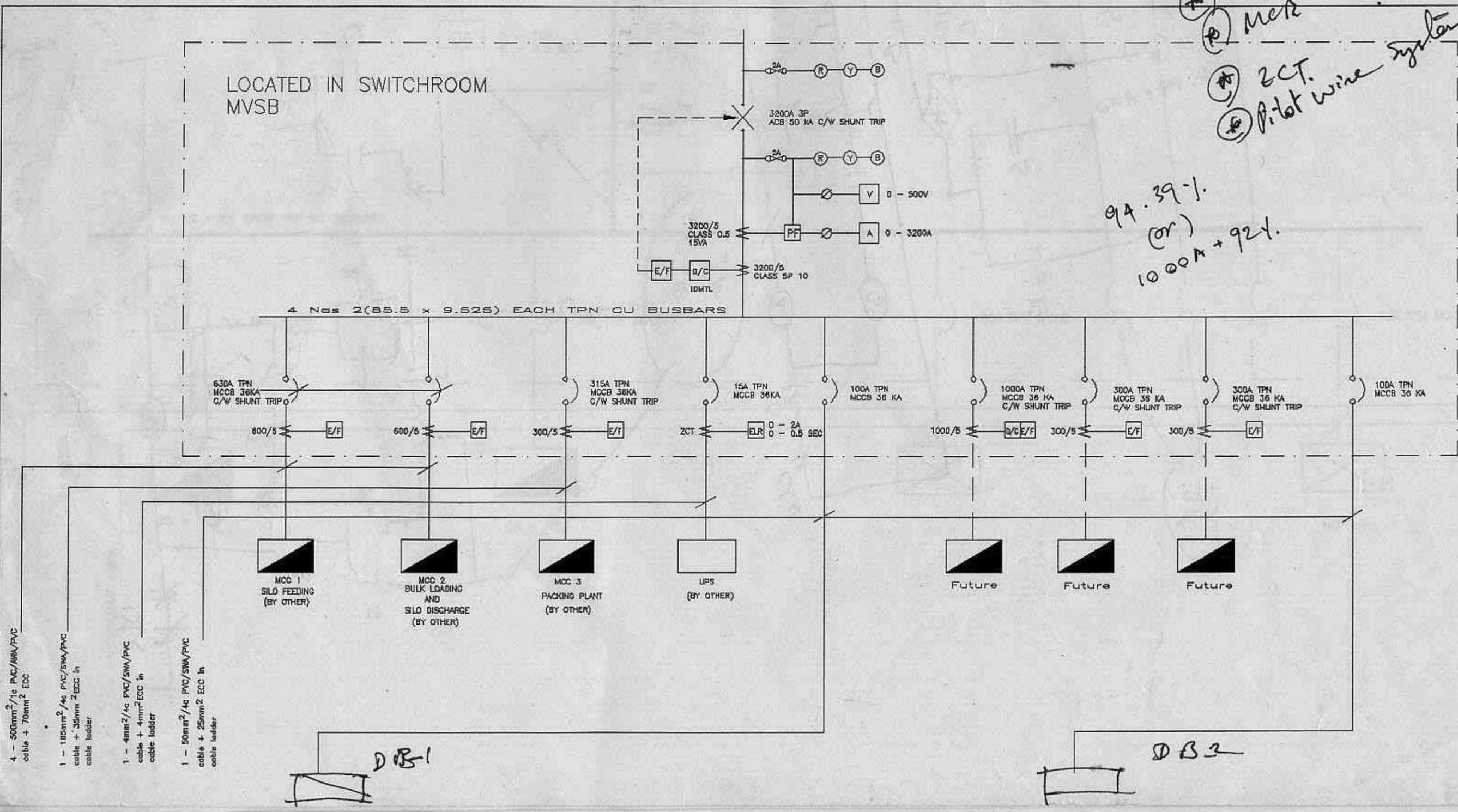
Silo

# United Cement Pte., Ltd.  
 no. 33, Tuas Crescent, Singapore 2263.  
 # Proposed Electrical Installation to Cement Bldg Terminal on lots 1553 & 1554  
 MKS plot 3PG, Palau Damar South, Izumi. Singapore 2262

PT. 15101 505

CT. class. 0.5 (0.5, 5P10)  
 ELR setting / B/P setting.  
 A.C. relay (IDMTL)  
 mcb.  
 Metr.  
 ZCT.  
 Pilot wire system.

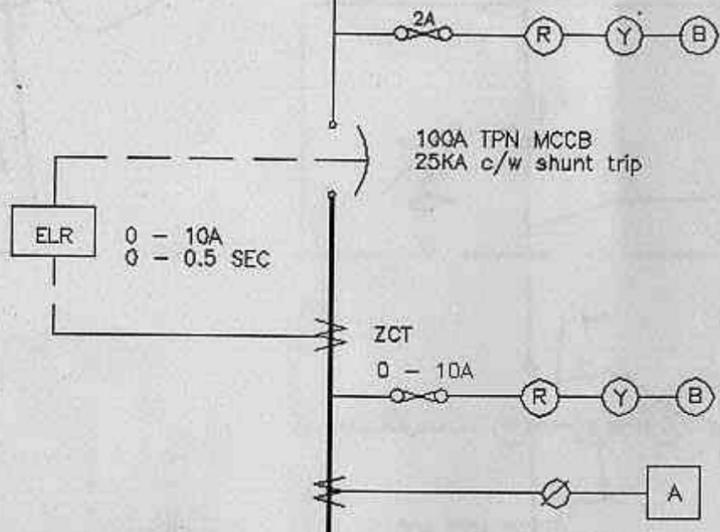
94.39-1.  
 (or)  
 1000A + 921.



1 - 11 cable + cable lac  
 1 - 4m cable + cable la  
 1 - 50m cable + cable lad

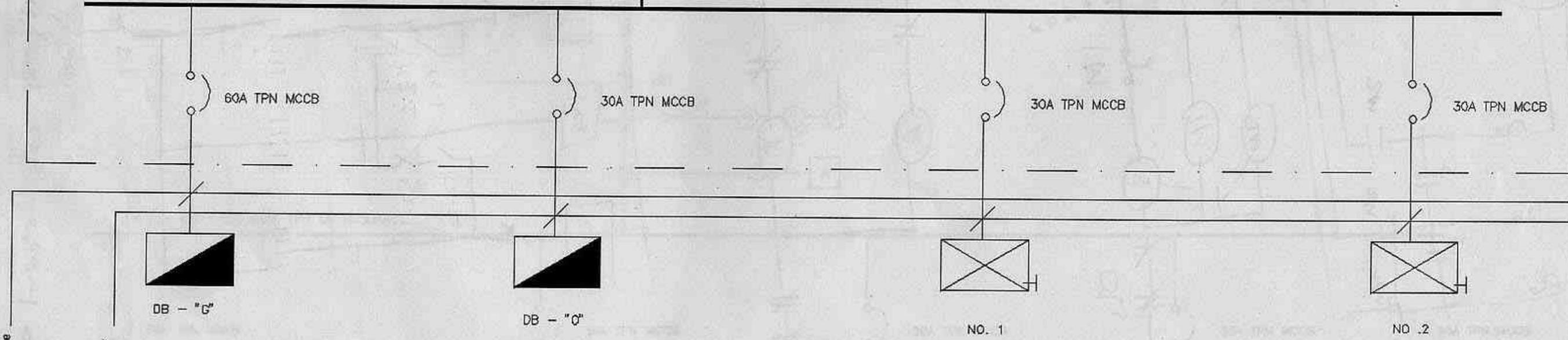
*PTJ / S140 / 805r.*  
 # United Cement P/field; 8/10/063.  
 No. 33 Trans essent;  
 # Proposed Electrical installation to cement  
 Bulk terminal on plot 153-3 & 153-4  
 'Mak 6 plot 9 P6, Palmar Samar Laut.  
 DB - 1

LOCATED IN SWITCHROOM



*66.67%  
 (or)  
 60A + 44.4%*

4 Nos 3.2 x 2.0 EACH TPN CU BUSBARS



1 - 25mm<sup>2</sup>/4c PVC/SWA/PVC cable + 16mm<sup>2</sup> EDC  
 1 - 6mm<sup>2</sup>/4c PVC/SWA/PVC cable + 4mm<sup>2</sup> EDC

P1 / Silo / 505.

1-6mm<sup>2</sup> / 4c pvc / swa / pvc cable + 4mm<sup>2</sup> & cc.  
1-25mm<sup>2</sup> / 4c pvc / swa / pvc cable + 16mm<sup>2</sup> & cc.

LOCATED IN PACKING PLANT

DB - 2

55.5%  
60A + 83.3%

ELR 0 - 10A  
0 - 0.5 SEC

100A TPN MCCB  
25KA c/w shunt trip

ZCT

0 - 10A

4 Nos 3.2 x 2.0 EACH TPN CU BUSBARS

60A TPN MCCB

30A TPN MCCB

30A TPN MCCB

30A TPN MCCB

30A TPN MCCB

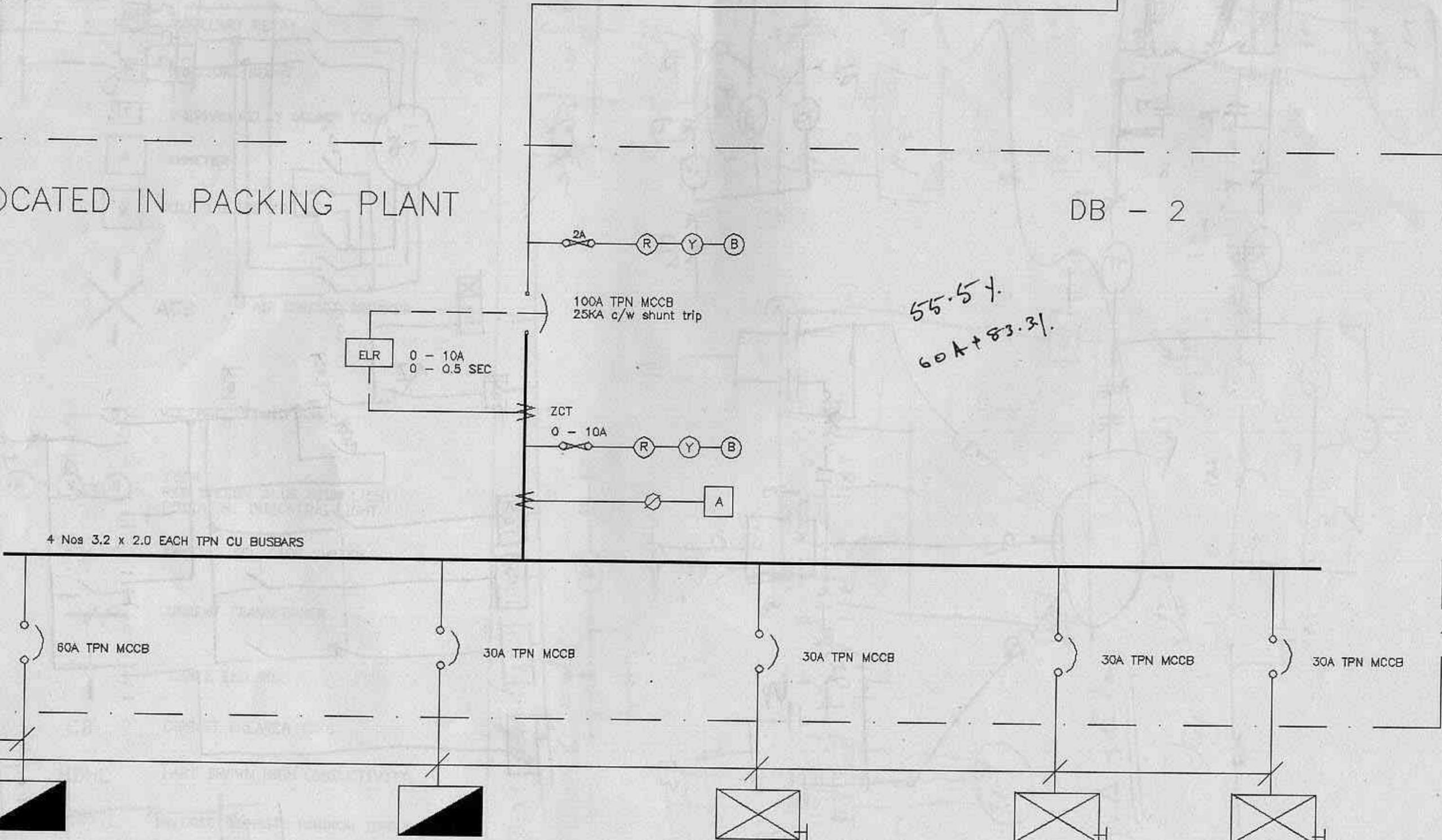
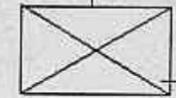
DB - "P"

DB - "T"

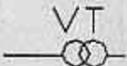
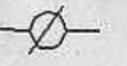
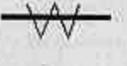
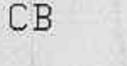
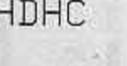
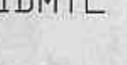
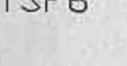
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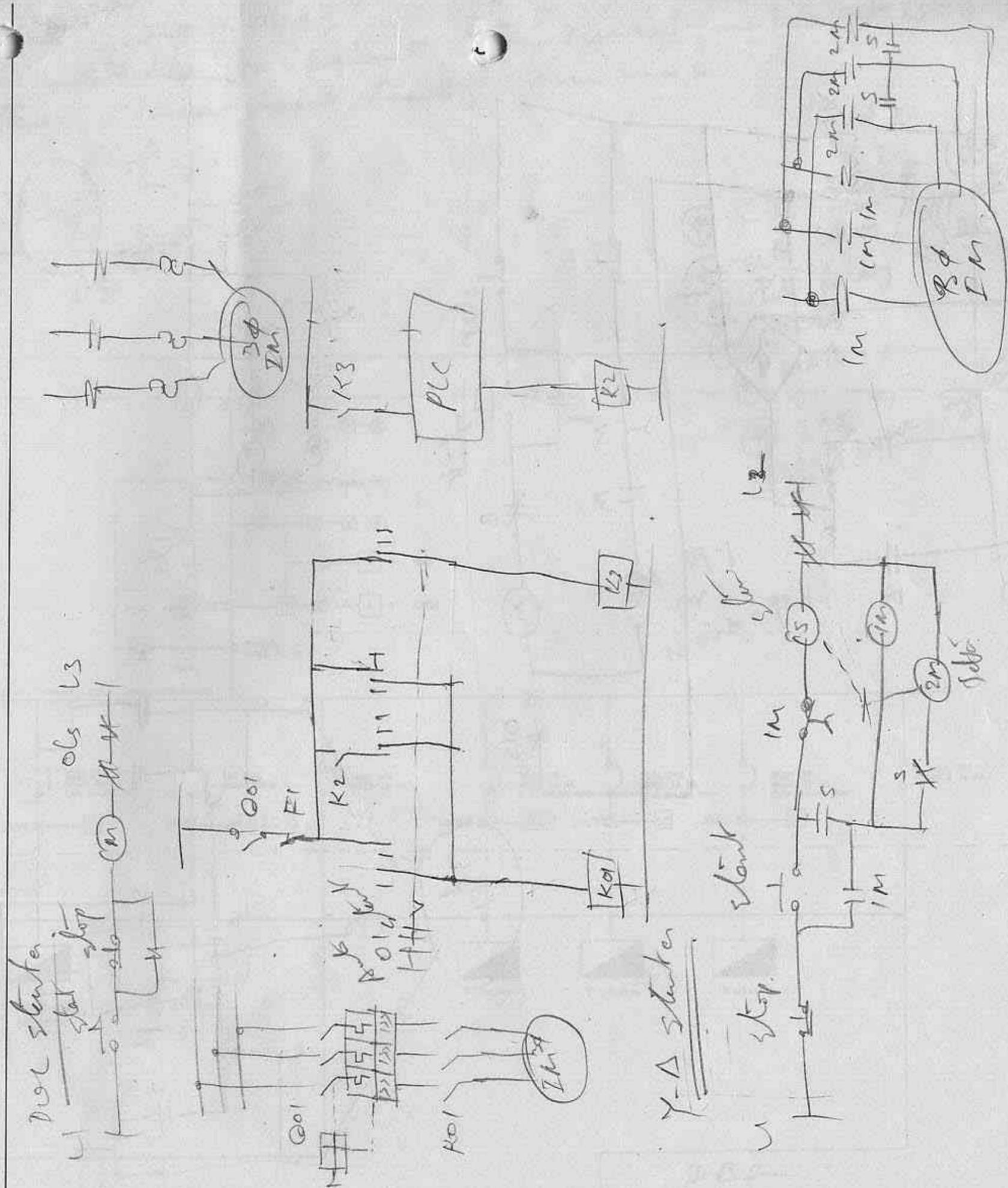
NO. 4

NO. 5  
ELECTRIC HOIST



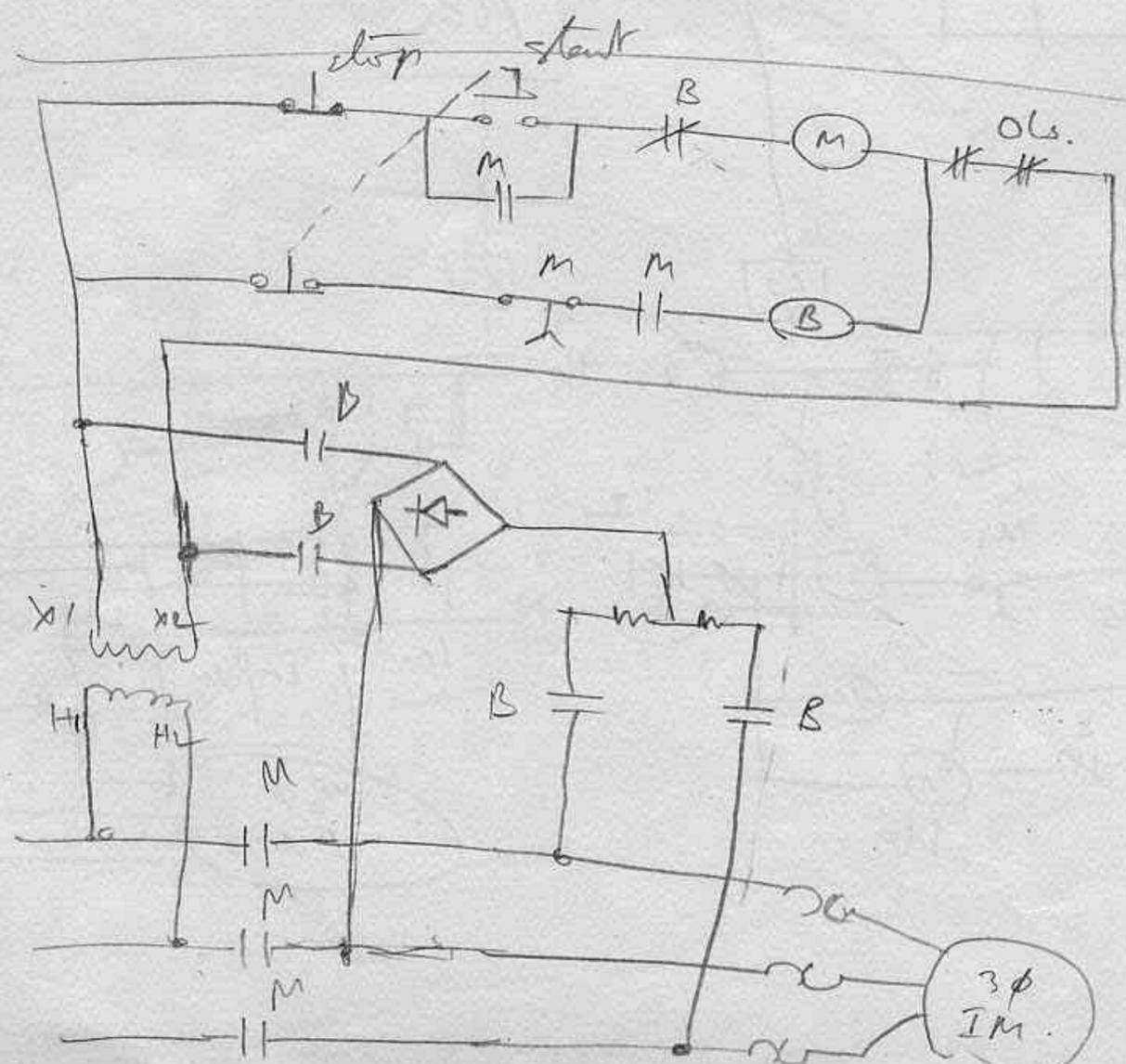
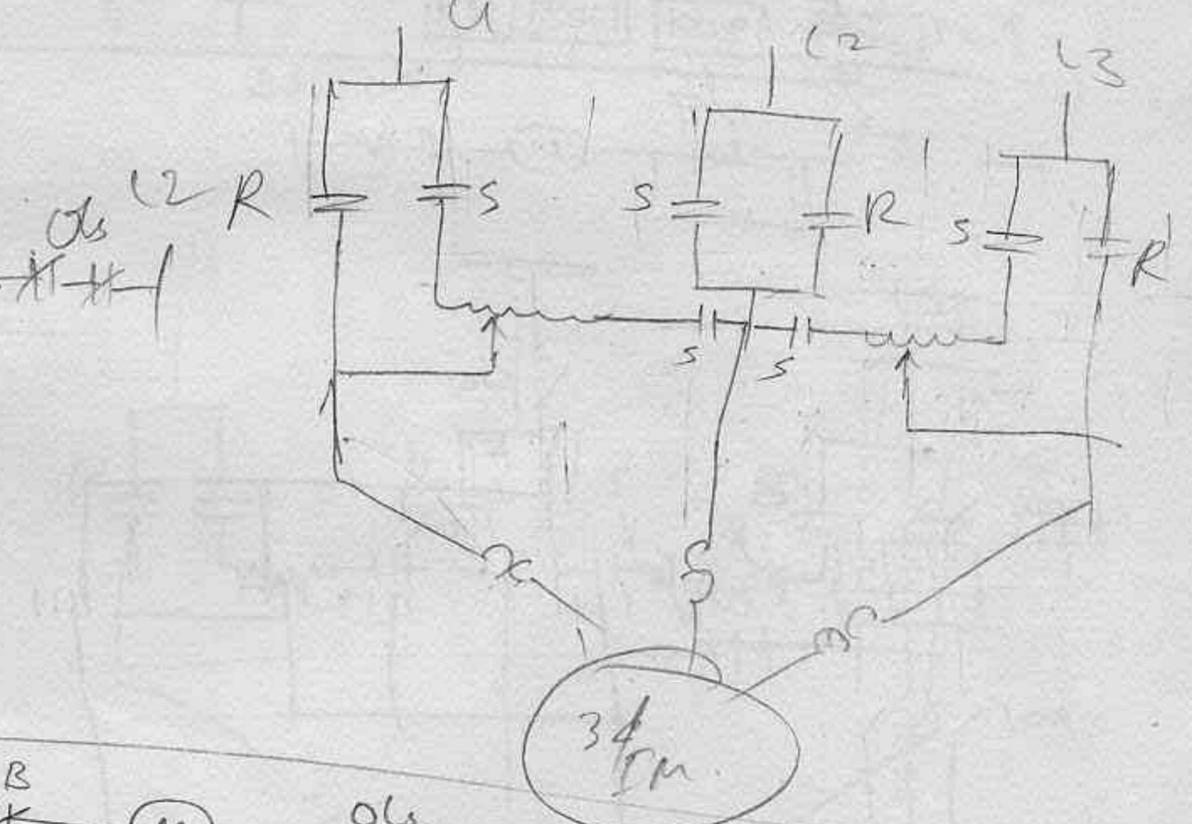
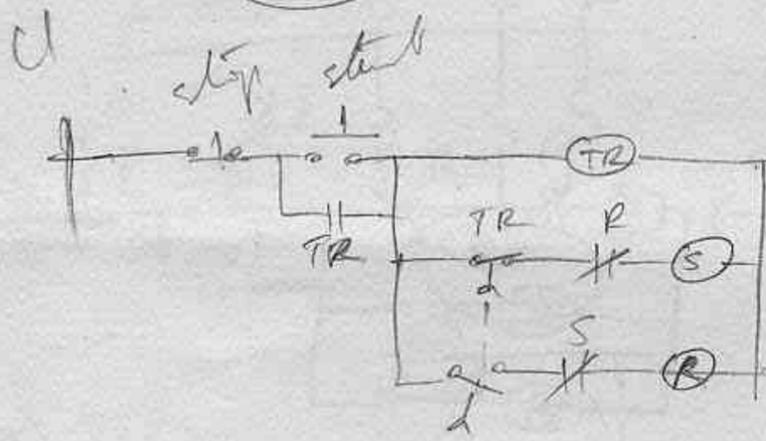
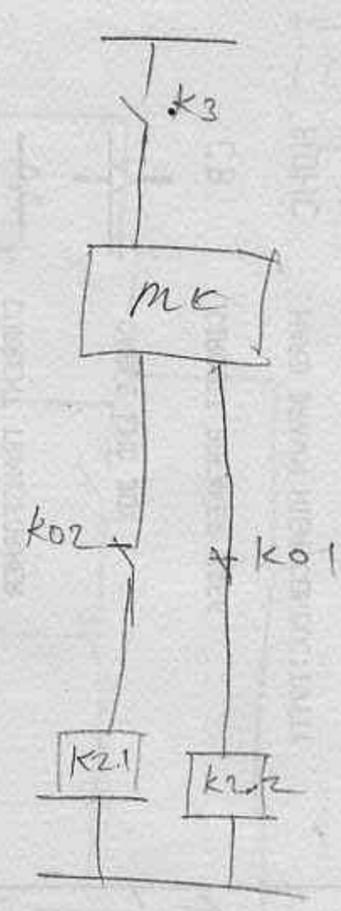
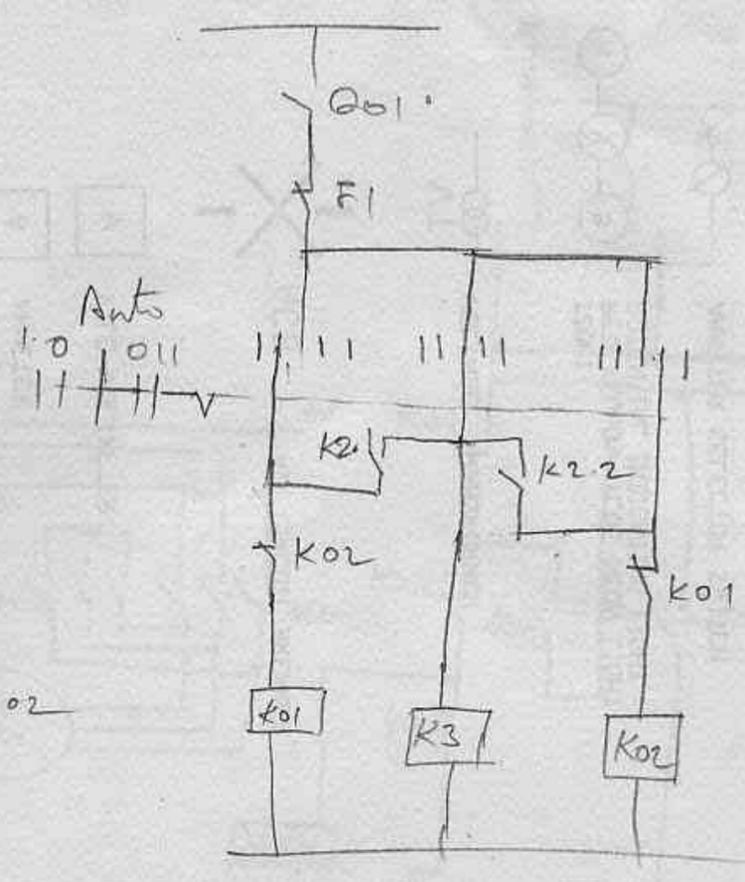
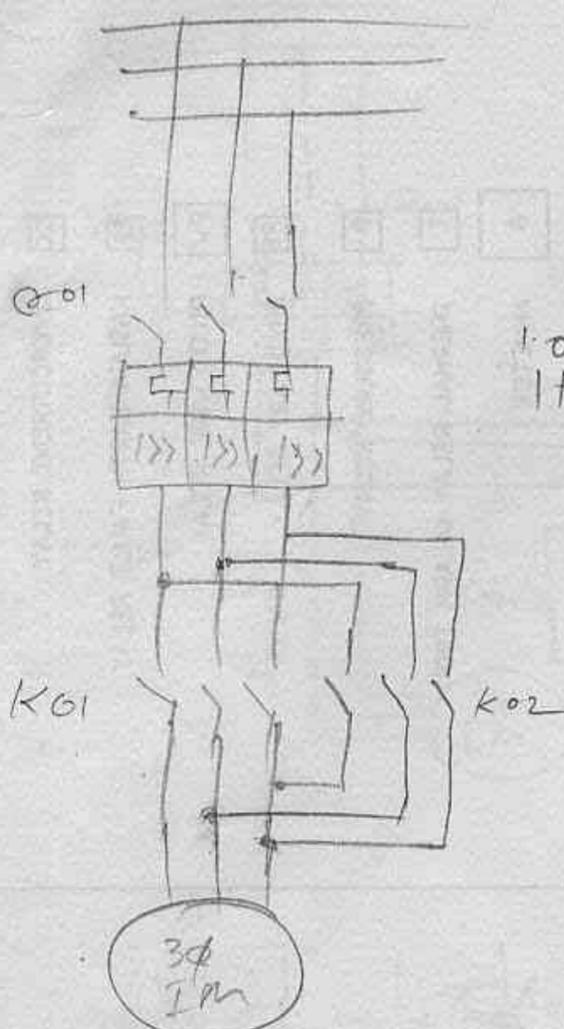
# ELECTRICAL LEGEND

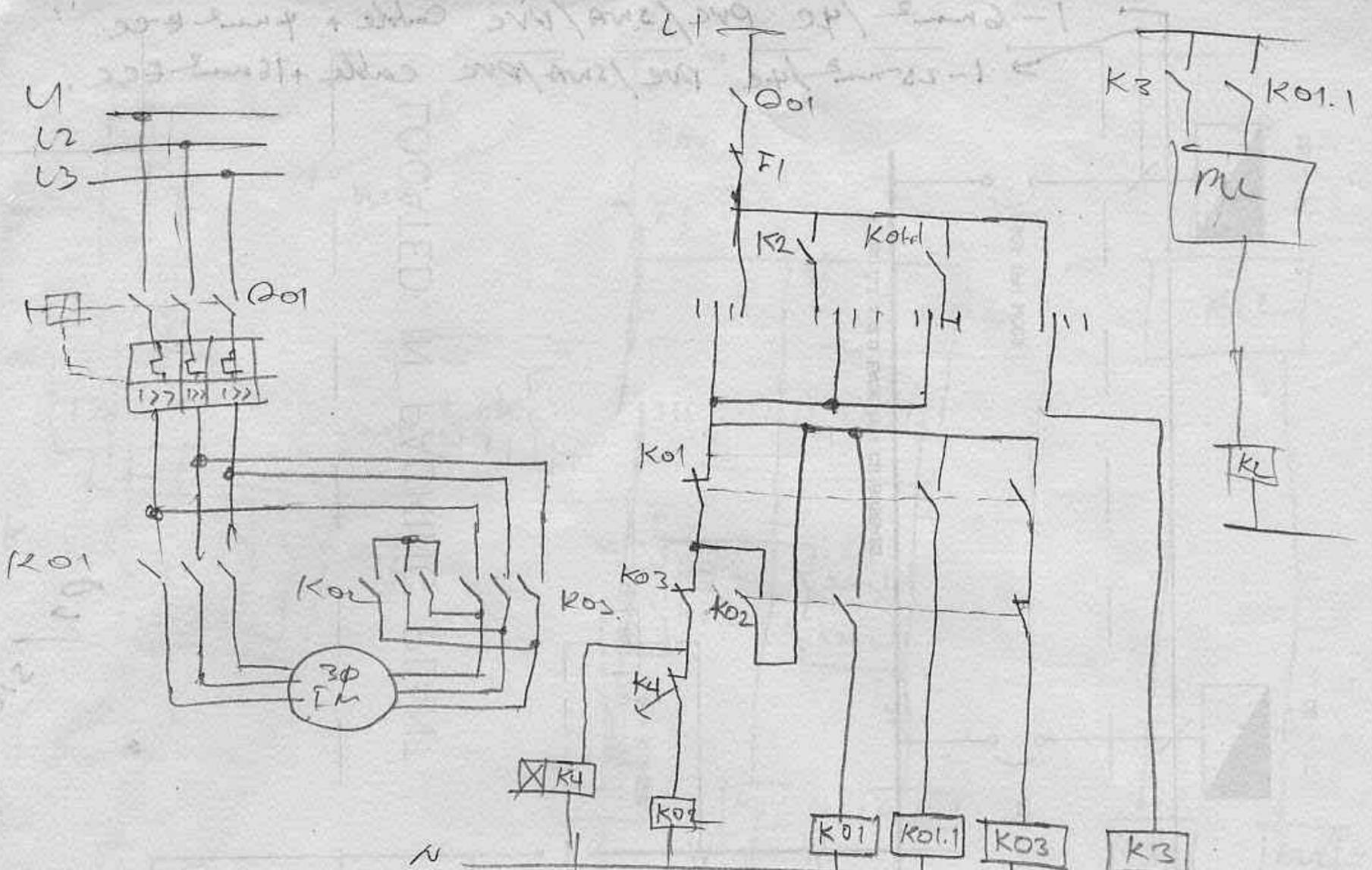
-  OVERCURRENT RELAY
-  KASUGA EARTH FAULT RELAY
-  PILOT WIRE RELAY
-  AUXILLARY RELAY
-  PRESSURE RELAY
-  THERMAL RELAY (ALARM TRIP)
-  AMMETER
-  KILO-VOLTMETER
-  ACB AIR CIRCUIT BREAKER
-  VOLTAGE TRANSFORMER
-  IZUMI RED YELLOW BLUE NEON LIGHT POTENTIAL INDICATING LIGHT
-  AMMETER SELECTOR SWITCH
-  CURRENT TRANSFORMER
-  CABLE END BOX
-  CIRCUIT BREAKER YSF6
-  HARD DRAWN HIGH CONDUCTIVITY
-  INVERSE DEFINITE MINIMUM TIME LAG
-  SULPHUR HEXAFLUORIDE



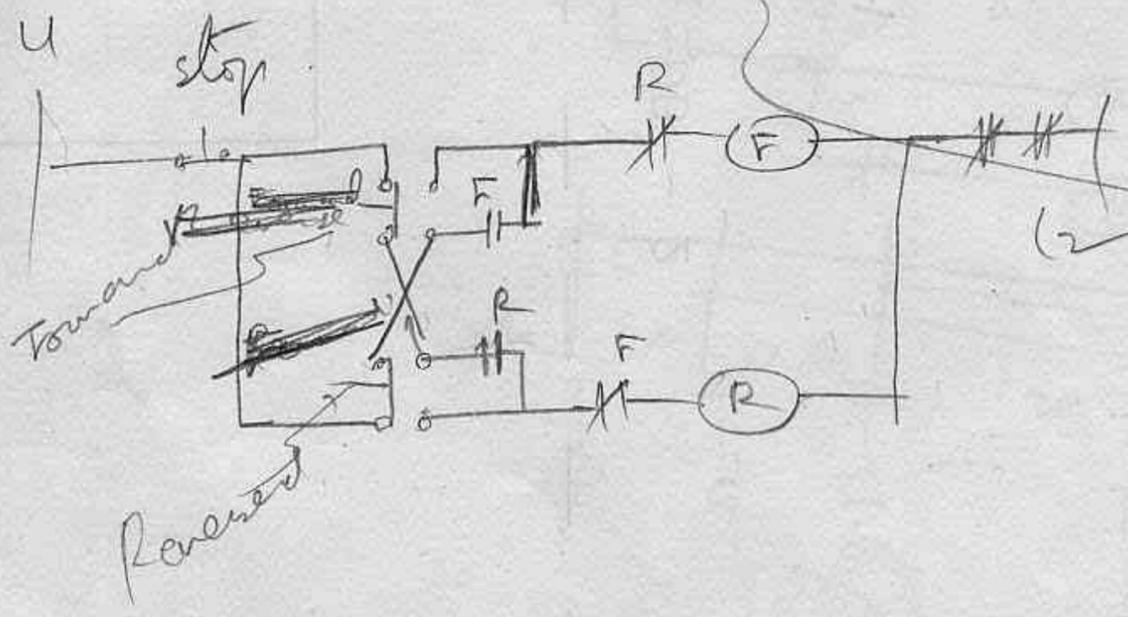
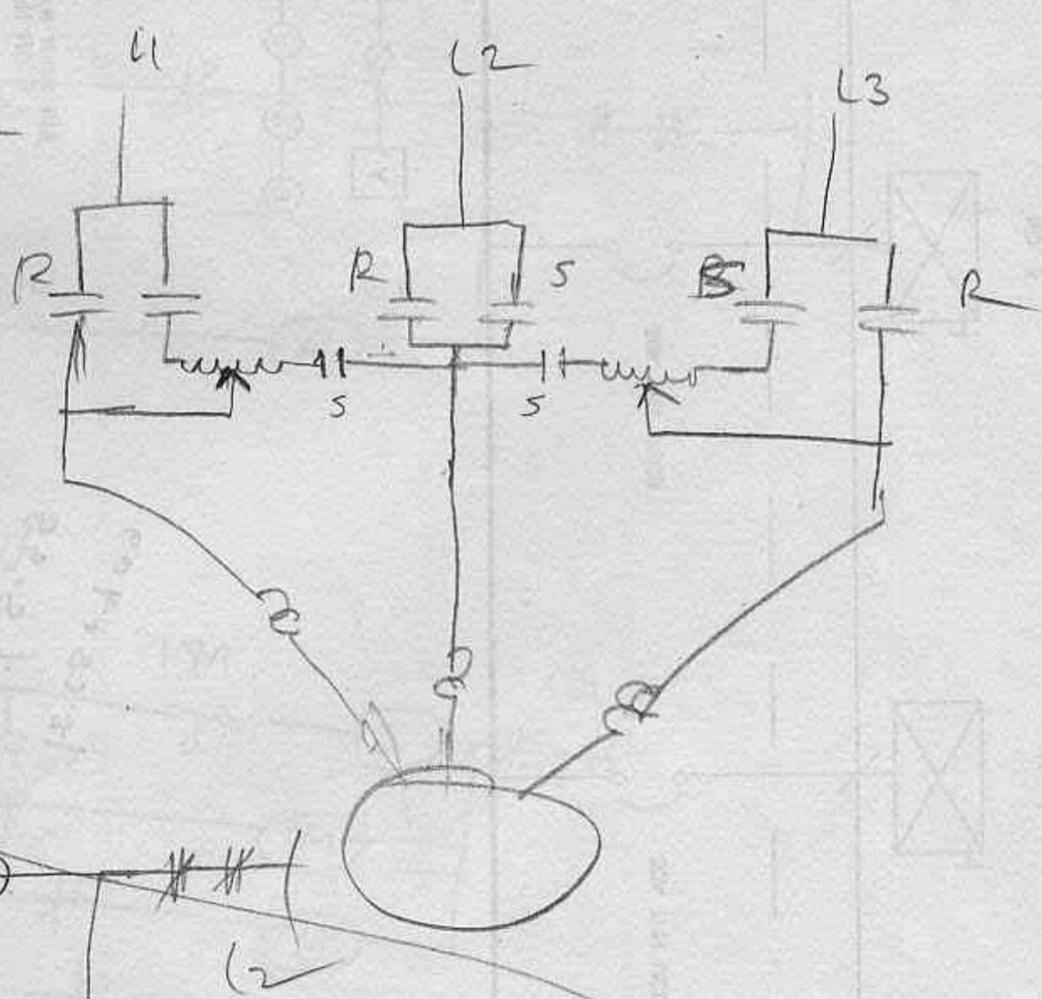
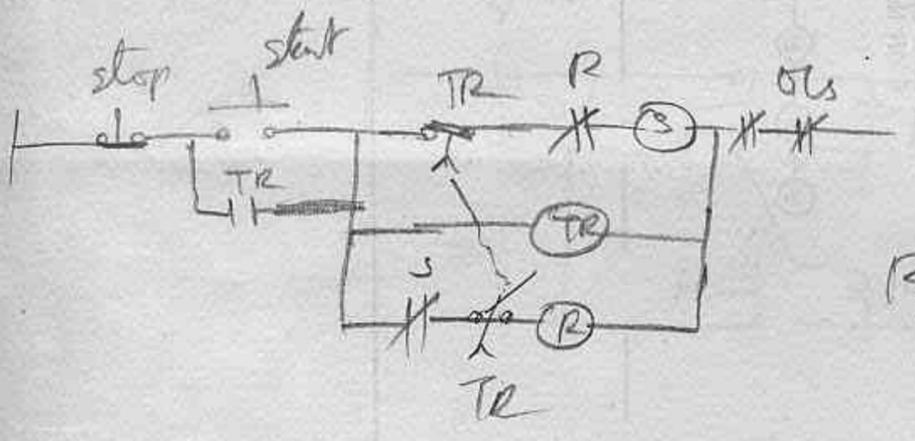
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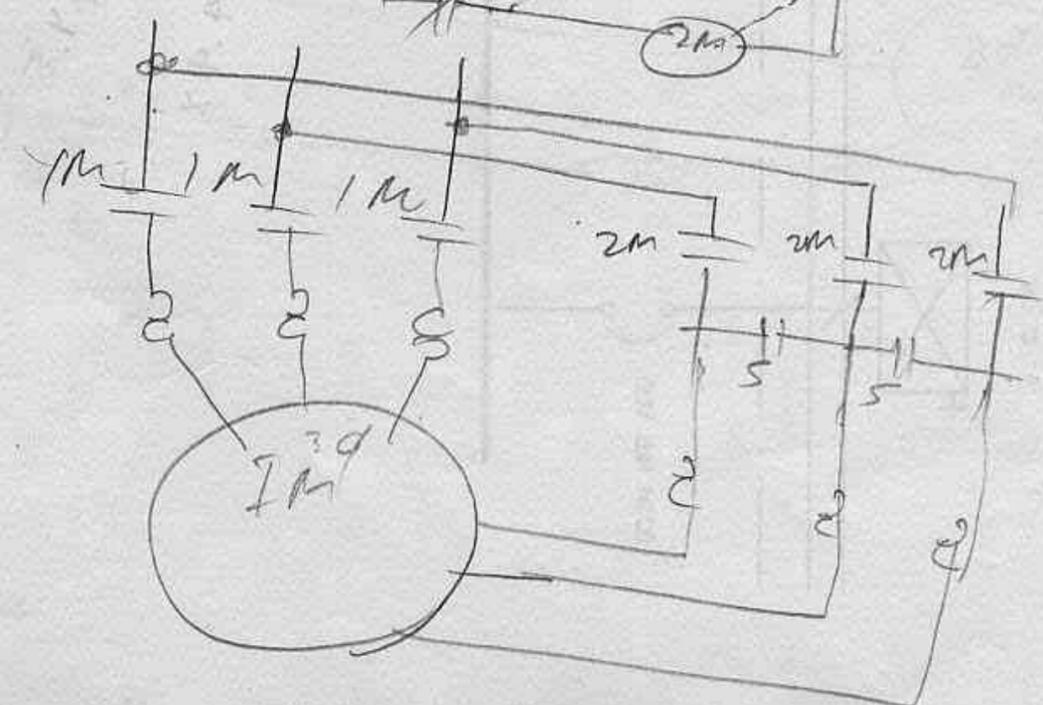
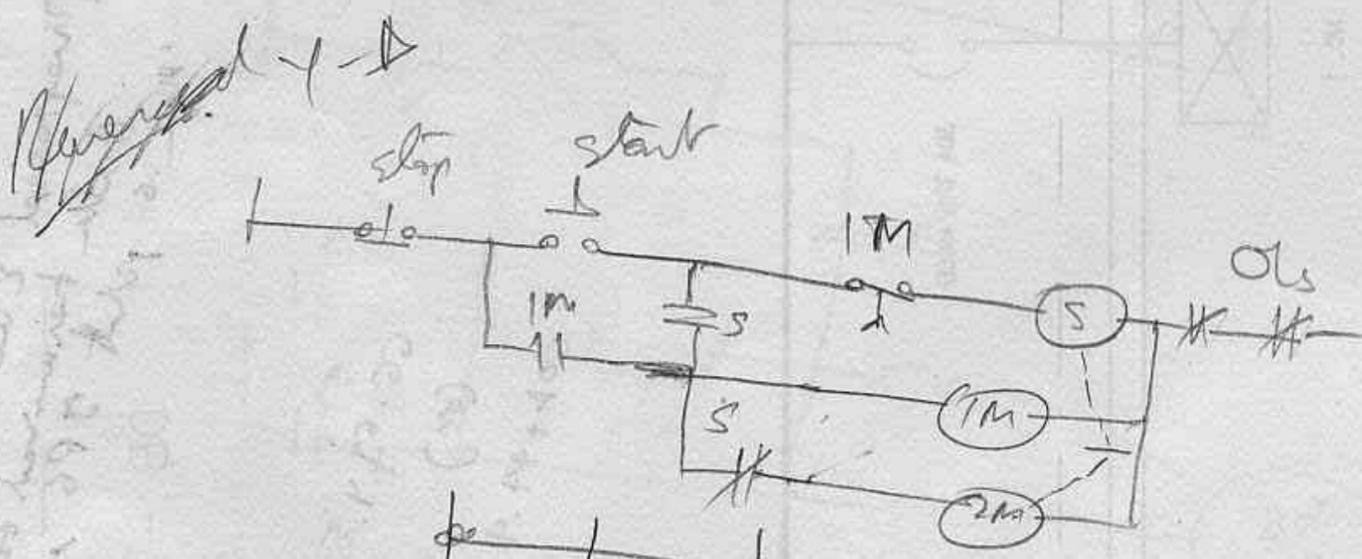
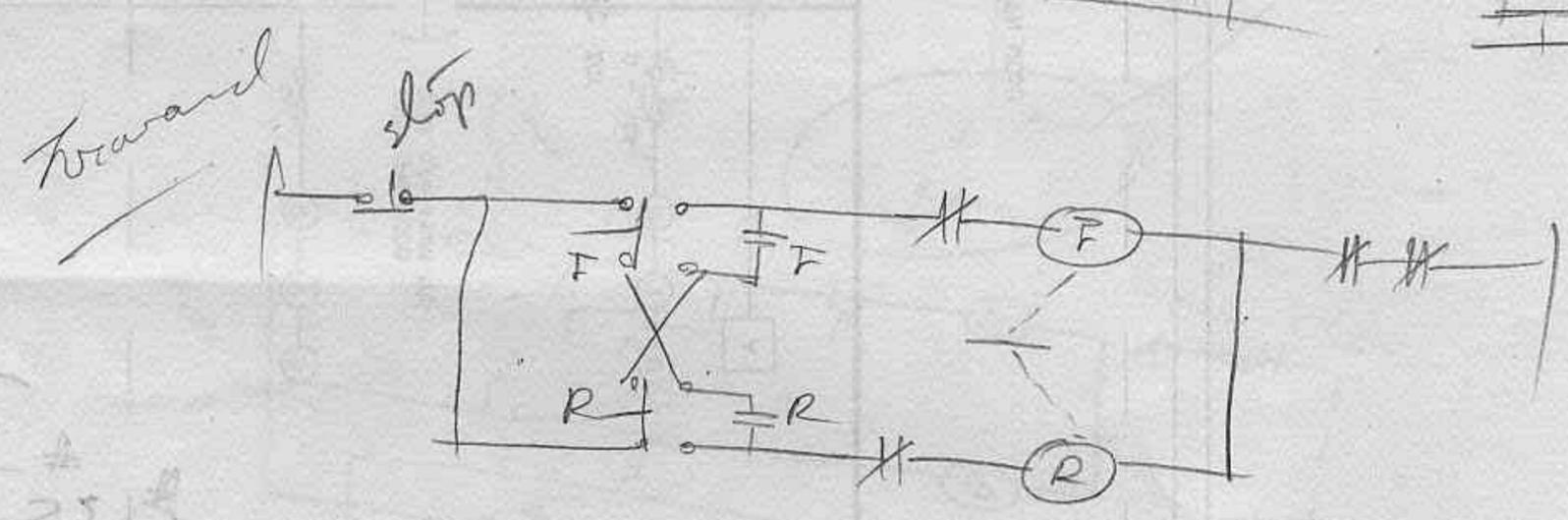
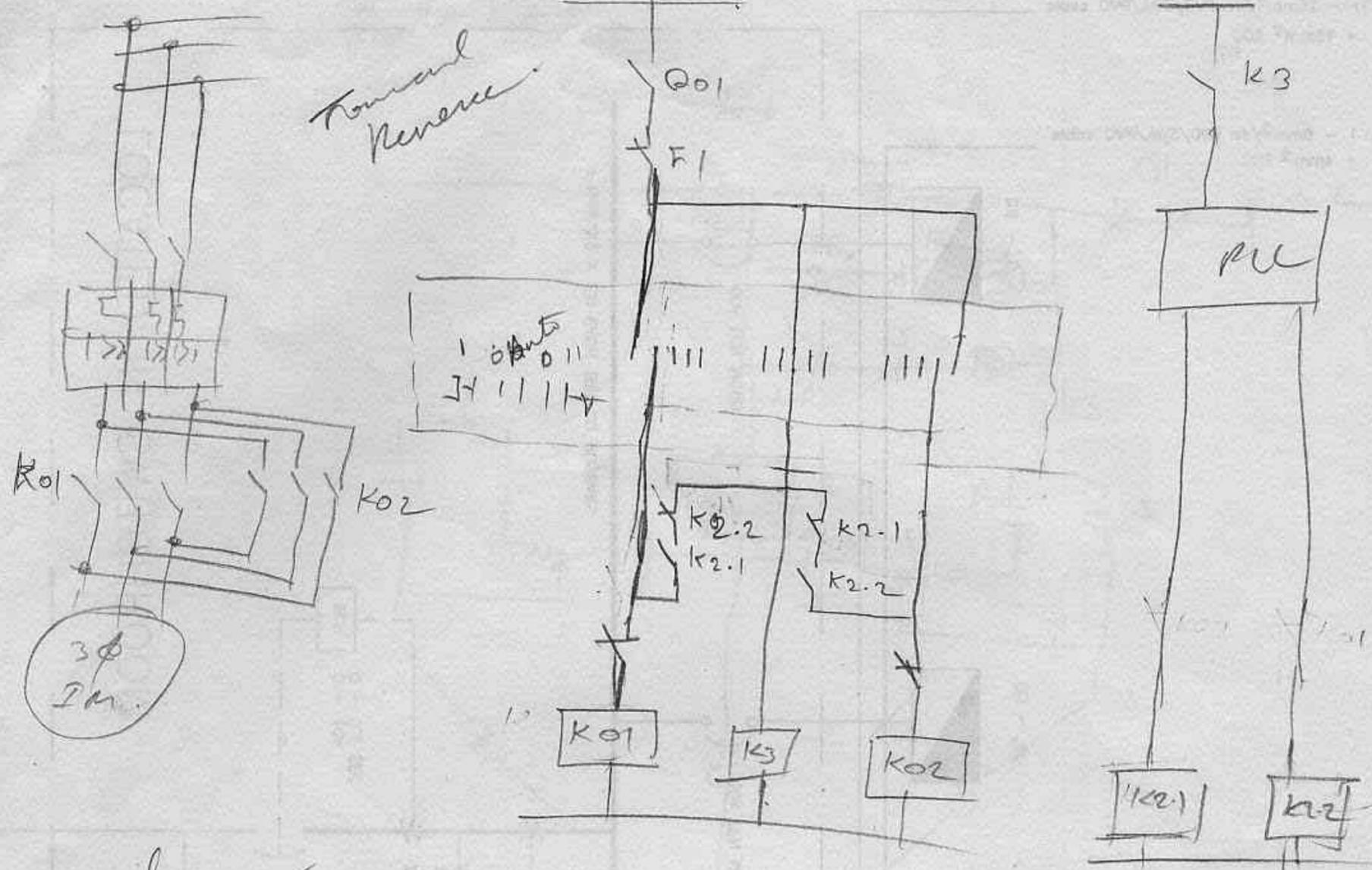
11/01/11





Auto reverse starter





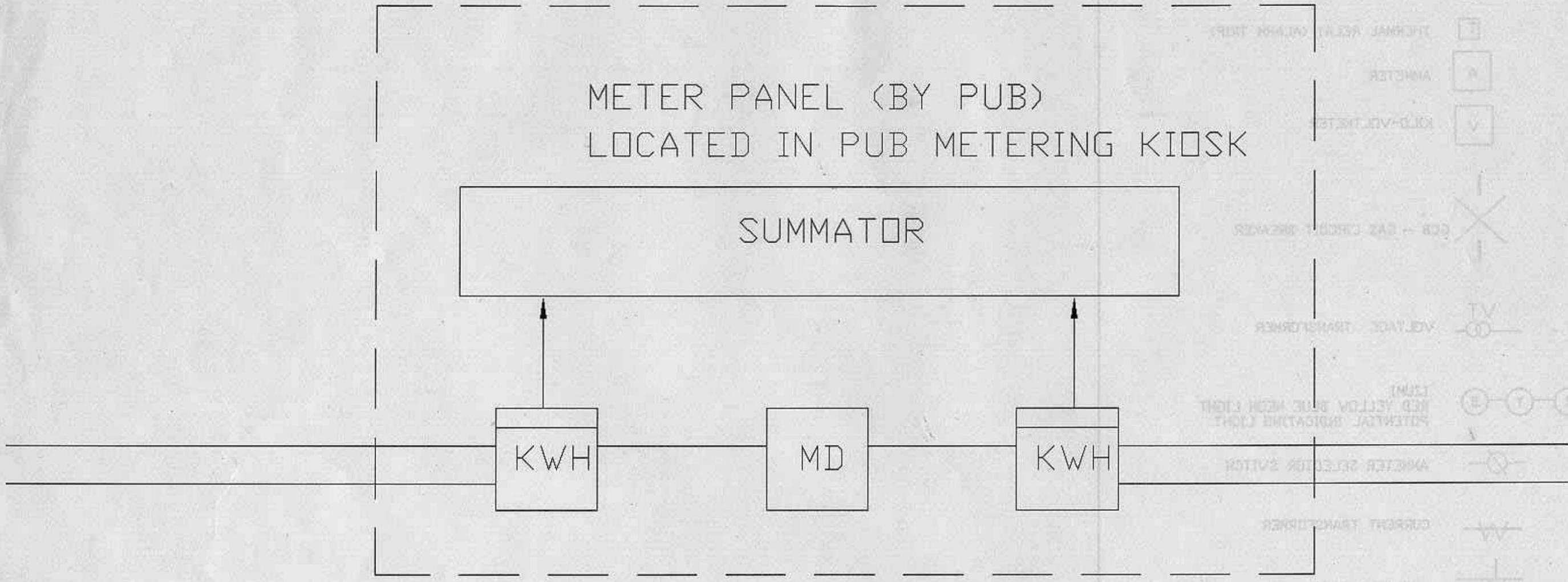
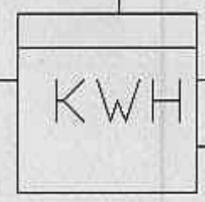
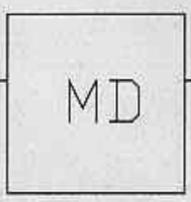
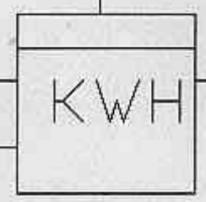
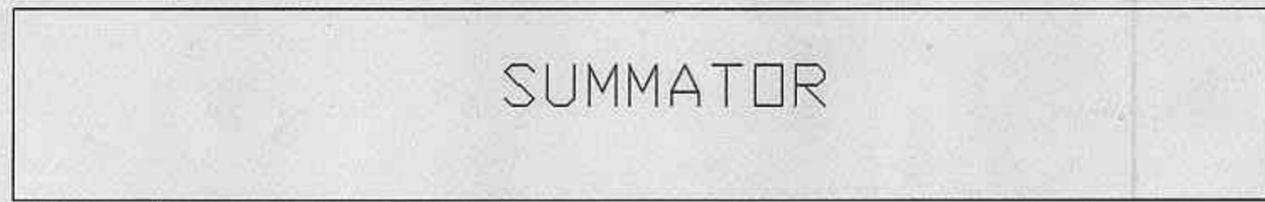
Handwritten notes on the left side of the page, including the word 'Reverse' and other illegible text.





- OVERCURRENT RELAY
- YAZUGA EARTH FAULT RELAY
- PILOT WIRE RELAY
- AUXILIARY RELAY
- PRESSURE RELAY
- THERMAL RELAY (WINDUP TRIP)
- AMMETER
- KWH-VOLTMETER
- GCB - GAS CIRCUIT BREAKER
- VOLTADE TRANSFORMER
- POTENTIAL INDICATING LIGHT (RED YELLOW BLUE GREEN LIGHT)
- AMMETER SELECTOR SWITCH
- CURRENT TRANSFORMER
- CABLE END BOX
- CIRCUIT BREAKER (SF6)
- AIR CIRCUIT BREAKER
- HARD BRAWN HIGH CONDUCTIVITY
- INVERSE DEFERTE WINDUP (THE LAB)
- SULPHUR HEXAFLORIDE

METER PANEL (BY PUB)  
 LOCATED IN PUB METERING KIOSK



# ELECTRICAL LEGEND

 OVERCURRENT RELAY

 KASUGA EARTH FAULT RELAY

 PILOT WIRE RELAY

 AUXILLARY RELAY

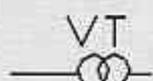
 PRESSURE RELAY

 THERMAL RELAY (ALARM TRIP)

 AMMETER

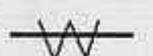
 KILO-VOLTMETER

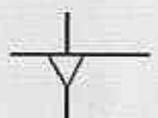
 GCB - GAS CIRCUIT BREAKER

 VOLTAGE TRANSFORMER

 IZUMI  
RED YELLOW BLUE NEON LIGHT  
POTENTIAL INDICATING LIGHT

 AMMETER SELECTOR SWITCH

 CURRENT TRANSFORMER

 CABLE END BOX

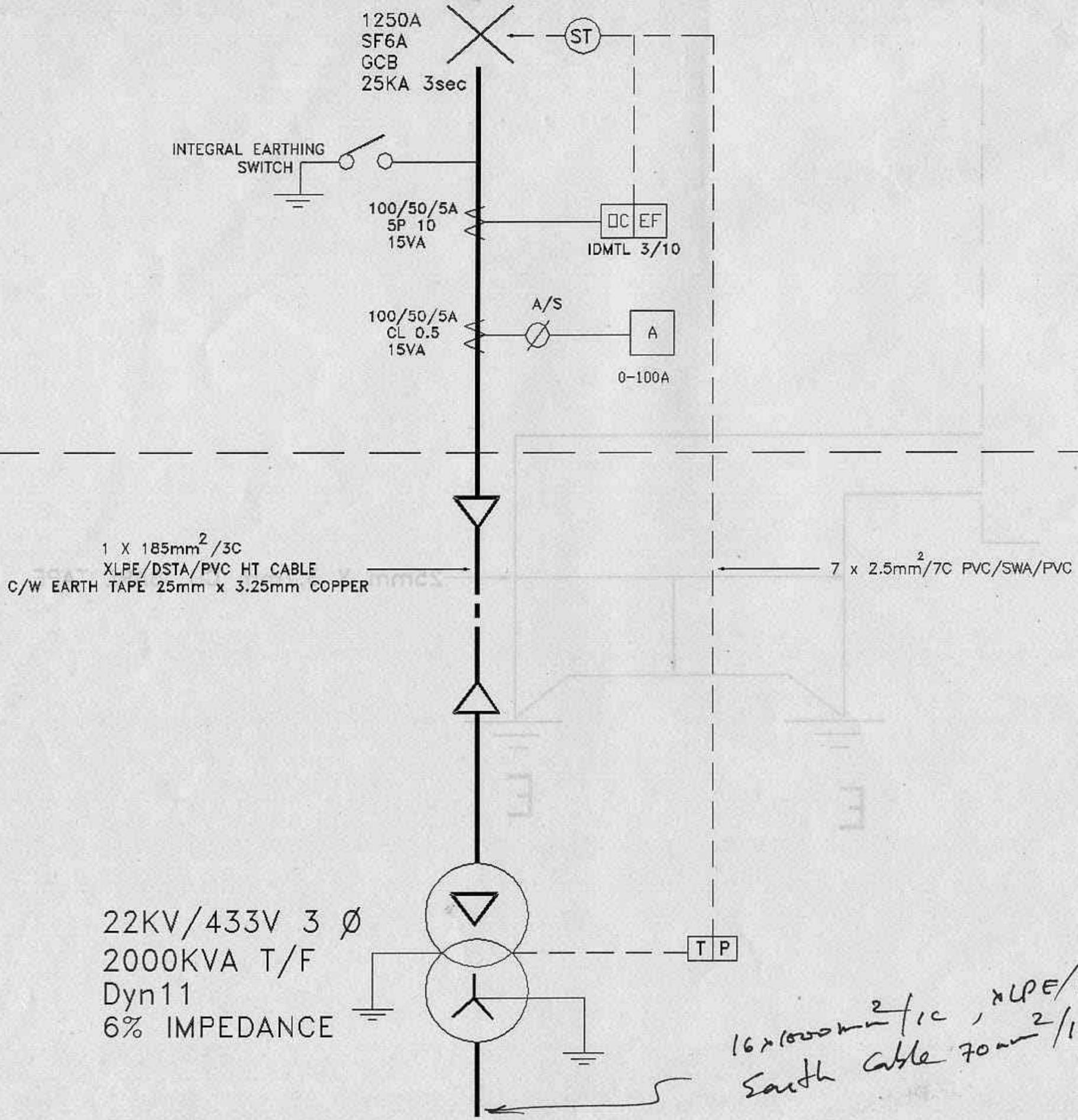
CB                   CIRCUIT BREAKER YSF6

ACB                   AIR CIRCUIT BREAKER

HDHC                   HARD DRAWN HIGH CONDUCTIVITY

IDMTL                   INVERSE DEFINITE MINIMUM TIME LAG

YSF6                   SULPHUR HEXAFLUORIDE



1250A  
SF6A  
GCB  
25KA 3sec

INTEGRAL EARTHING SWITCH

100/50/5A  
5P 10  
15VA

100/50/5A  
CL 0.5  
15VA

1 X 185mm<sup>2</sup>/3C  
XLPE/DSTA/PVC HT CABLE  
C/W EARTH TAPE 25mm x 3.25mm COPPER

22KV/433V 3 Ø  
2000KVA T/F  
Dyn11  
6% IMPEDANCE

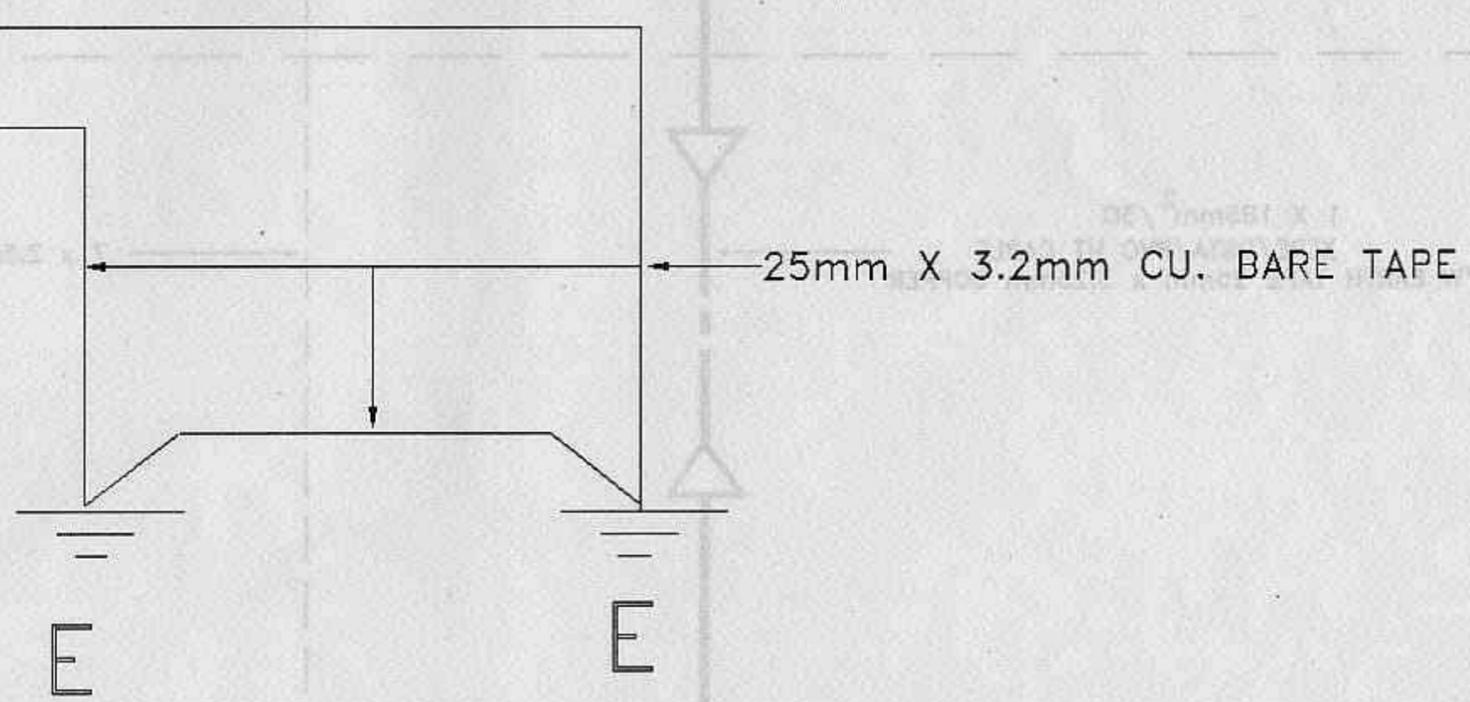
DC EF  
IDMTL 3/10

A/S  
A  
0-100A

7 x 2.5mm<sup>2</sup>/7C PVC/SWA/PVC

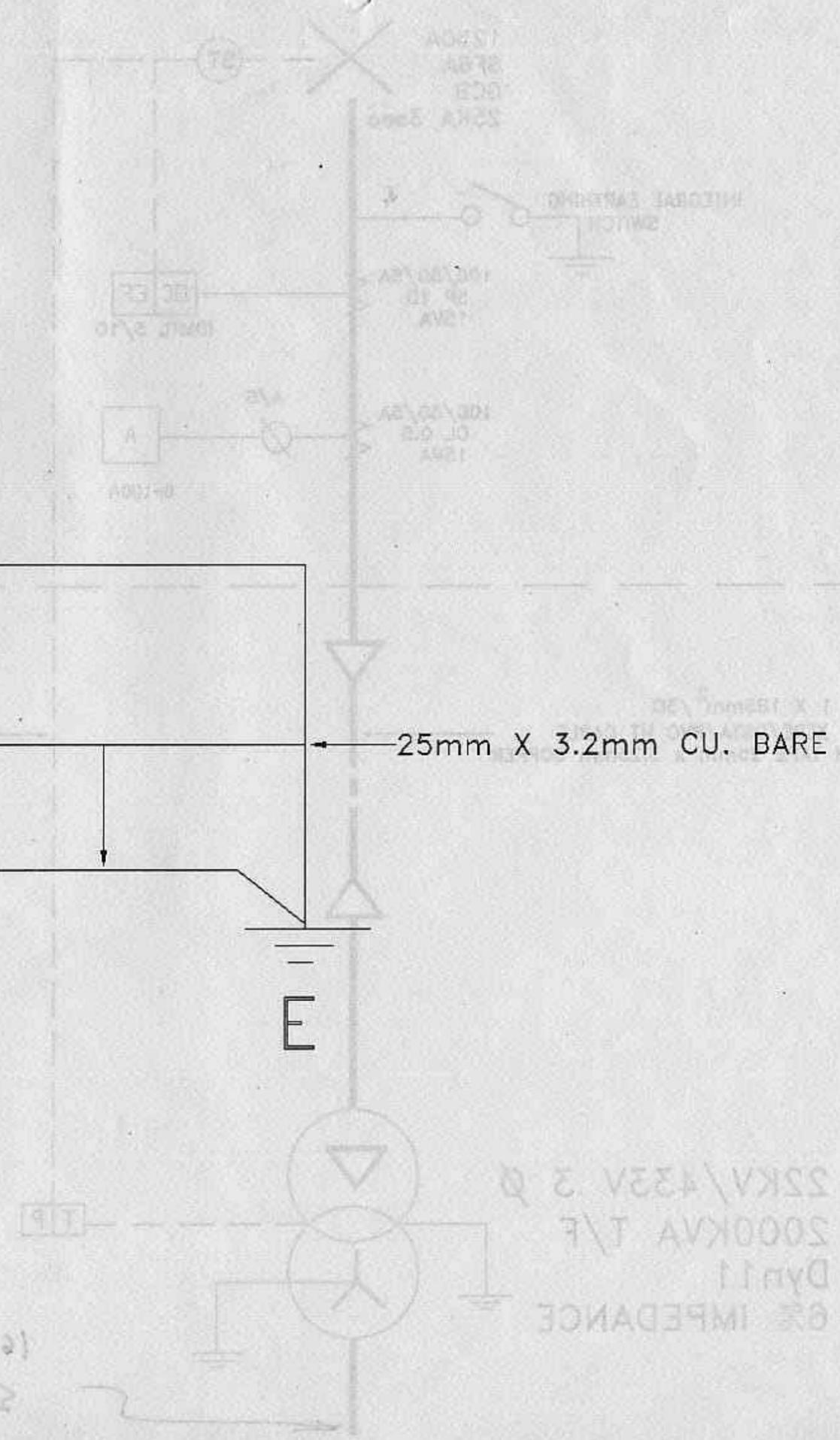
T/P

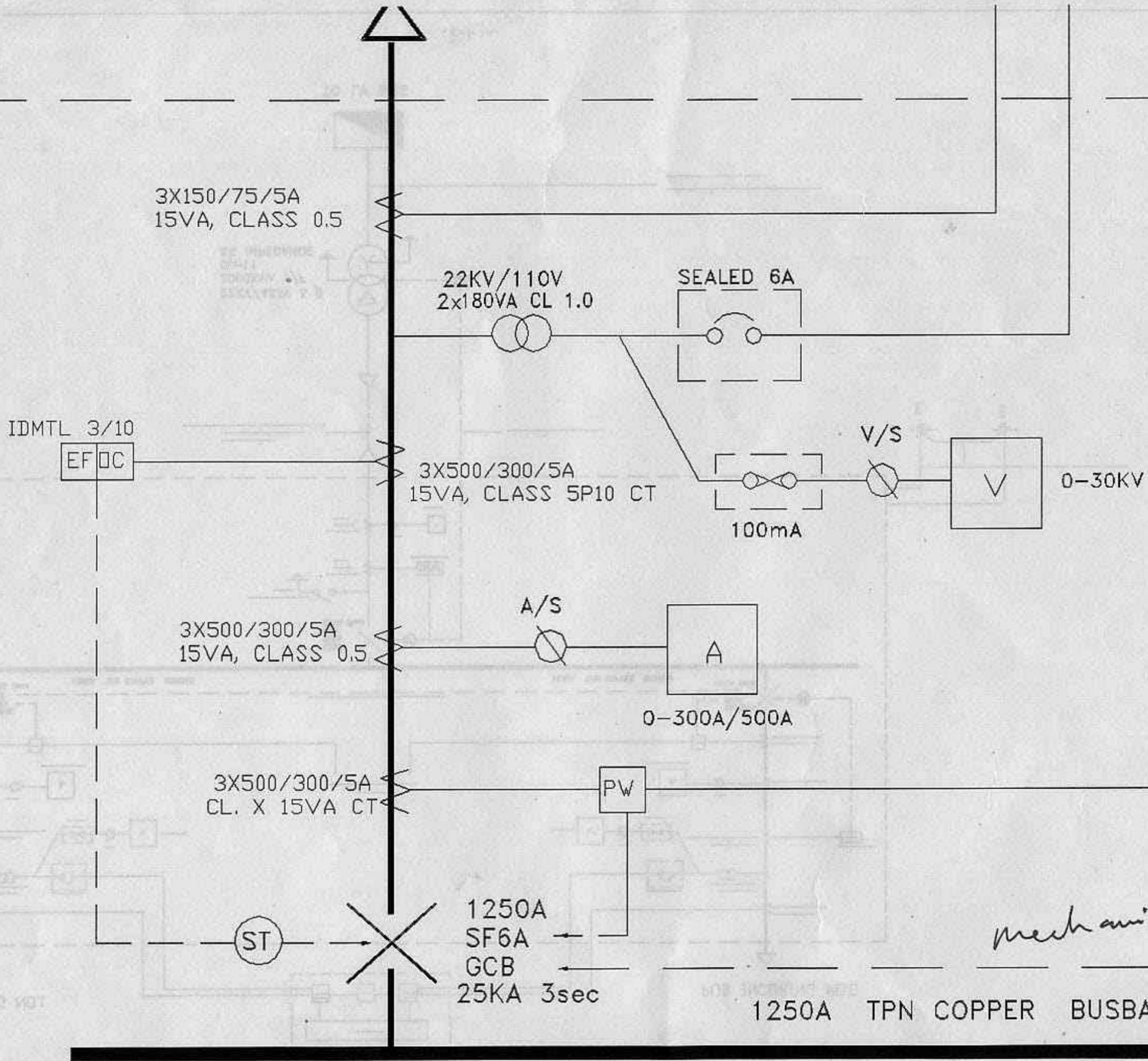
*16 x 100mm<sup>2</sup>/1c, XLPE/PVC in Trench c/w  
Earth Cable 70mm<sup>2</sup>/1c PVC.*



25mm X 3.2mm CU. BARE TAPE

*Handwritten note:*  
 10x10mm<sup>2</sup> cable for 2/1c b/c  
 10x10mm<sup>2</sup> cable for 2/1c b/c





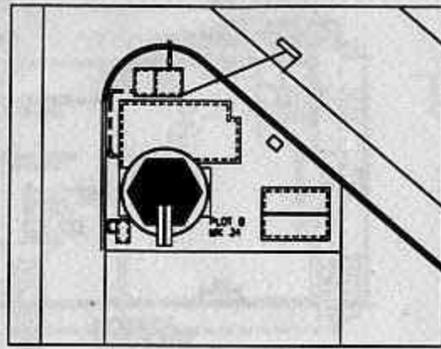
*Pilot wire  
by PUB 22KV  
switch Room.*

*Mechanical & Electrical  
Interlocks.*

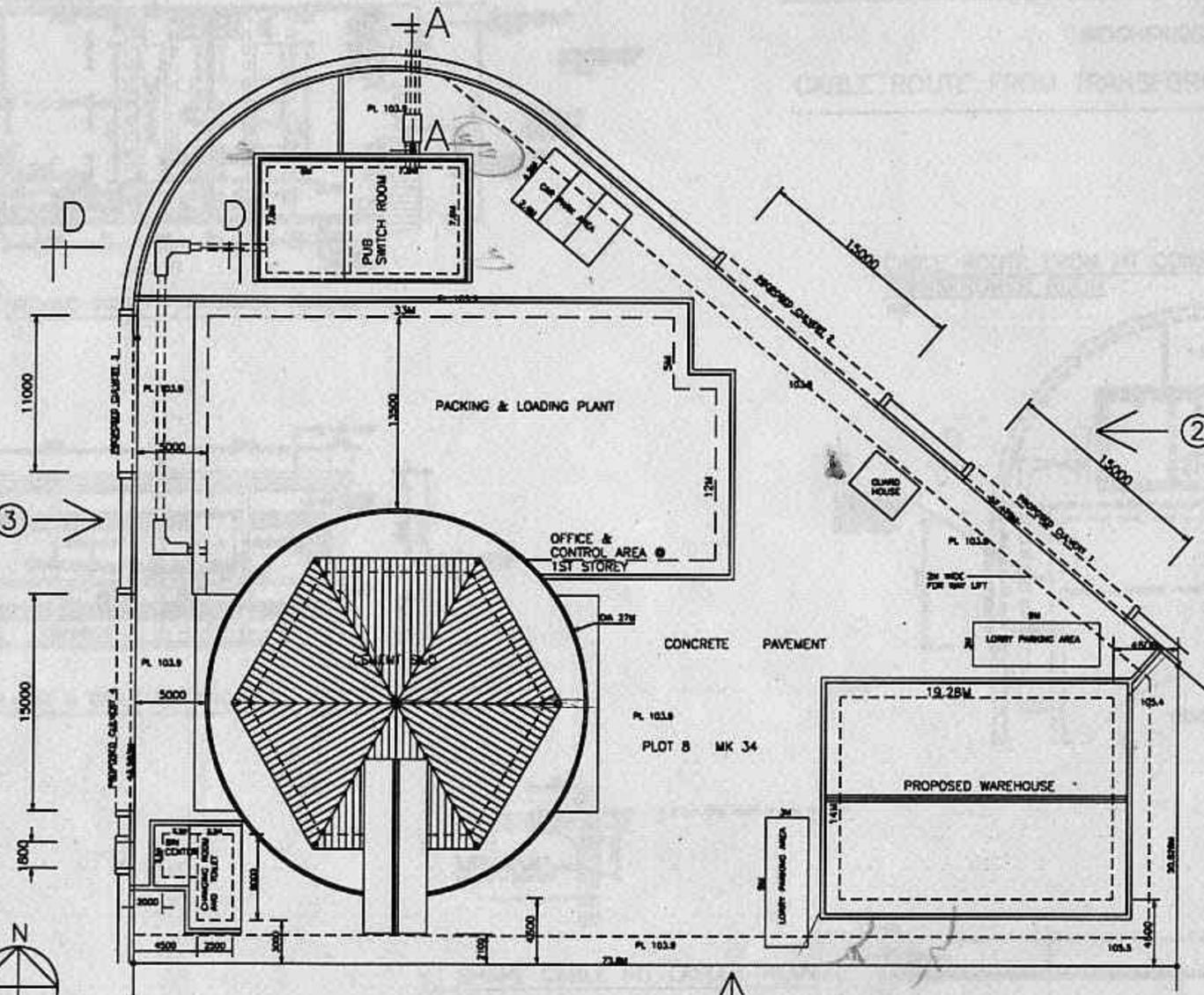
*Handwritten notes at the bottom of the page, including '62' and other illegible scribbles.*







LOCATION PLAN  
SCALE 1:1000



SITE PLAN  
SCALE 1:200

**GENERAL NOTES:**

- 1) SITE TO BE DEMARCATED BY SURVEYOR BEFORE WORK COMMENCES.
- 2) ALL 115 THE BRICKWALL TO BE REINFORCED WITH EMBET AT EVERY 4TH COURSE.
- 3) CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCEMENT OF WORKS AND ANY DISCREPANCIES TO BE REPORTED TO THE ARCHITECTS OR PROFESSIONAL ENGINEERING FOR RECTIFICATION.
- 4) PROVIDE GPC TO ALL EXTERNAL WALL IN ACCORDANCE WITH REG. 26 OF LOCAL GOVT (BLDG) REG. 1978.
- 5) ALL NEW WORKS SHOWN IN COLOUR.
- 6) ALL EXISTING WORKS SHOWN IN YELLOW (DOTTED) ARE TO BE DEMOLISHED & DELETED.

**D & BCD REQUIREMENTS:**

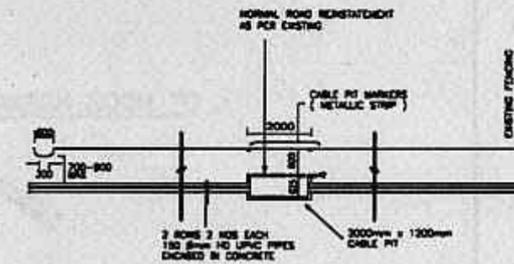
- 1) THE APPLICANT SHALL APPOINT A PROFESSIONAL ENGINEERING TO INSPECT & CERTIFY TO THE ANY LAND HAVING A DIFFERENCE IN PLATFORM LEVELS WITHIN THE PROPOSED SITE AND/OR BETWEEN THE PROPOSED SITE ANY SURROUNDING LOTS AFFECTED BY THE PROPOSED WORKS IN THE APPLICATION FOR PERMIT TO COMMENCE WORKS WHERE EMBLEMING FEATURES OF ANY LAND FORMATION ARE FOUND NECESSARY A PROFESSIONAL ENGINEER IS TO DESIGN AND SUPERVISE THE CARRYING OUT OF SUCH MEASURES.

**BCD REQUIREMENTS:**

- 1) TO COMPLY ALL THE RELEVANT REQUIREMENTS AS MARRIED IN THE BCD CHECKLIST.

**C B P U REQUIREMENTS:**

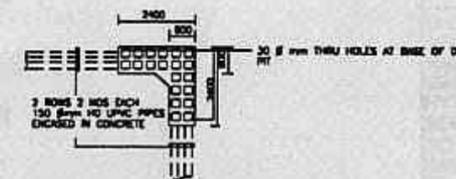
- A) THE PLANNING, DESIGN AND CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH THE CURRENT CODE OF PRACTICE ON SURFACE WATER DRAINAGE AND THE SURFACE WATER DRAINAGE REGULATION 1978.
- B) THERE ARE NO FENCE, RETAINING WALL OR STRUCTURE LOCATED WITHIN THE DRAINAGE ADVISORY/DRAINAGE RIGHT ENFORCE, OTHER THAN THOSE APPROVED BY DRAINAGE DEPARTMENT.
- C) THERE IS NO EXISTING DRAIN FROM ADJACENT LOTS AND EXISTING DRAIN DISCHARGING INTO THE PROPOSED SITE OTHER THAN THOSE SHOWN ON THE SUBMITTED PLANS INCLUDING SURVEY PLAN IF ANY.
- D) THE PROPOSED GROUND LEVELS ARE HIGHER THAN THE SURROUNDING PLATFORM LEVEL OR 450MM ABOVE THE FLOOD LEVEL, SEPARATED BY DRAINAGE DEPARTMENT.
- E) THE DRAIN (EXISTING AND PROPOSED) WITHIN THE DEVELOPMENT LOT ARE ABLE TO DISCHARGE INTO THE PROPER BOUNDARY/OUTLET DRAINAGE CONDUIT AS SHOWN ON THE SUBMITTED PLANS.
- F) THE DRAIN WITHIN, UPSTREAM OF AND ADJACENT TO THE DEVELOPMENT LOT ARE NOT EFFECTIVELY DRAINAGE AWAY WITHOUT CAUSING FLOODING WITHIN THE LOT OR IN AREAS OUTSIDE THE LOT.
- G) THE DESIGN AND CONSTRUCTION OF THE SANITARY PLUMBING AND DRAINAGE SYSTEM SHALL COMPLY WITH THE SANITARY PLUMBING & DRAINAGE SYSTEM REGULATION 1978 & THE CODE OF PRACTICE ON SANITARY PLUMBING AND DRAINAGE SYSTEM.
- H) THIS BUILDING PLAN SHALL COMPLY WITH THE REQUIREMENTS AS STATED IN THE SEWERAGE PROCEDURES AND REQUIREMENTS BOOKS, ENVIRONMENTAL HEALTH.
- I) CODE OF PRACTICE ON ENVIRONMENTAL HEALTH, 1980.



SECTION A - A (SCALE 1:100)



SECTION D - D (SCALE 1:100)



'L' SHAPE CABLE PIT LAYOUT PLAN  
(SCALE 1:100)

PROJECT  
PROPOSED ELECTRICAL INSTALLATION  
TO CEMENT BULK TERMINAL ON LOTS  
& 1554 MK 6 PLOT JP6  
PULAU DAMAR LAUT SINGAPORE 2262  
FOR UNITED CEMENT PTE LTD

MODE OF LAND  
LEASEHOLD

DRAWING TITLE  
SITE PLAN, KEY PLAN  
& LOCATION PLAN.

OWNER'S SIGNATURE & ADDRESS

UNITED CEMENT PTE LTD  
NO.33 TUAS CRESCENT  
SINGAPORE 2263.

CONSULTANT  
HYTECH MECHANICAL & ELECTRICAL  
SERVICES PTE LTD  
36 HOLLAND GROVE ROAD  
SINGAPORE 1027  
TEL: 4696667

DATE  
MARCH'94

SCALE  
STATED

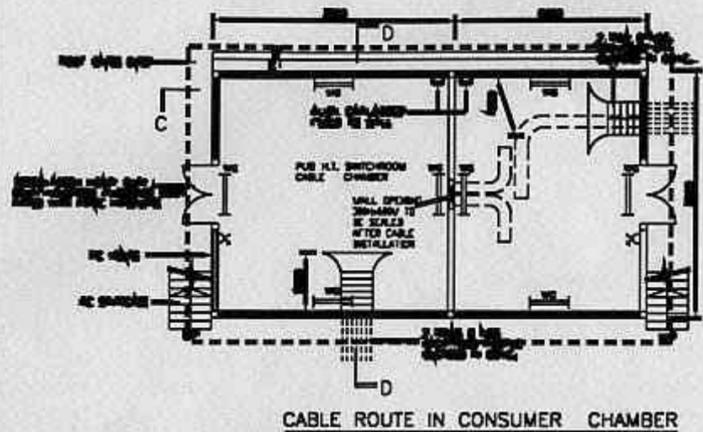
DRAWN BY  
THANT ZIN

CHECKED BY

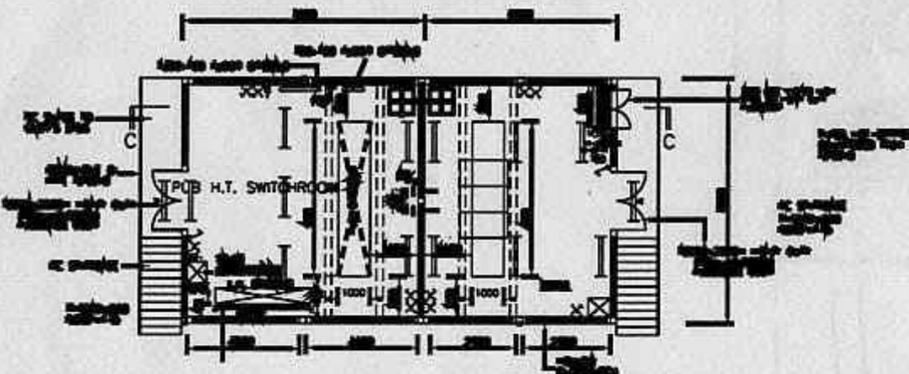
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EL/SP

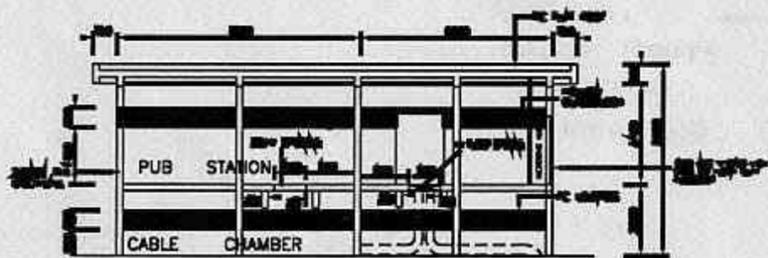
C:\P5\SILO\ELSP.DWG.



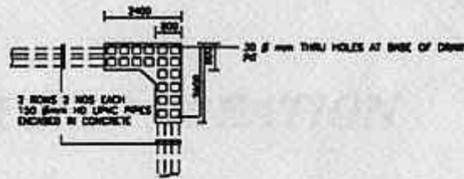
CABLE ROUTE IN CONSUMER CHAMBER



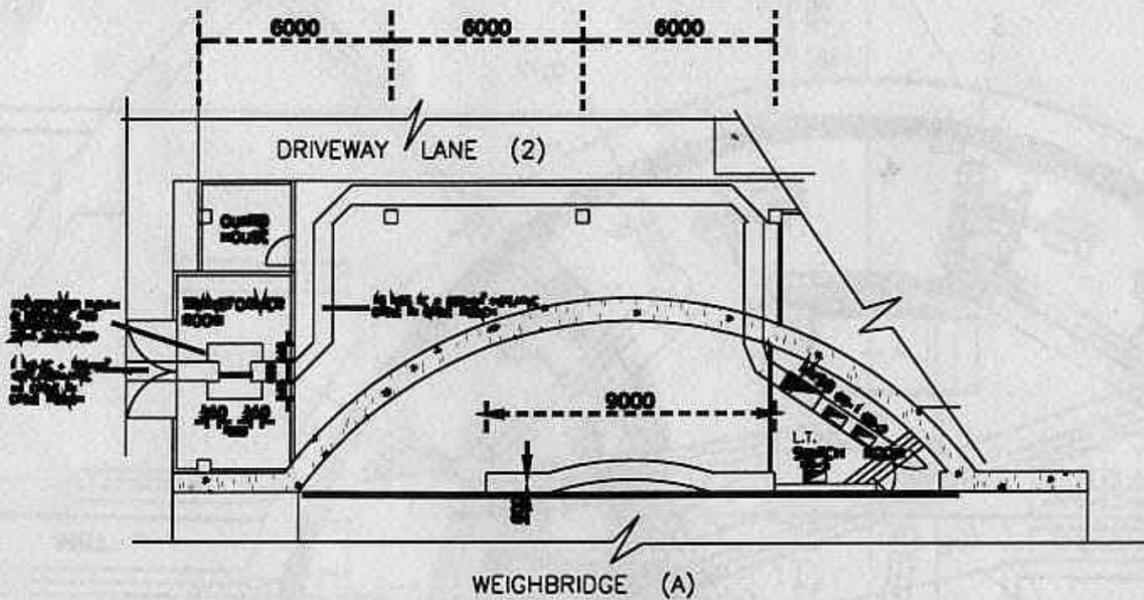
SECOND STOREY PLAN SWITCH GEAR LAYOUT



SECTION C-C & CABLE ENTERING TO HT SWITCHGEAR



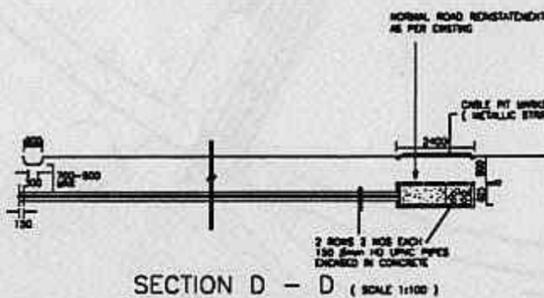
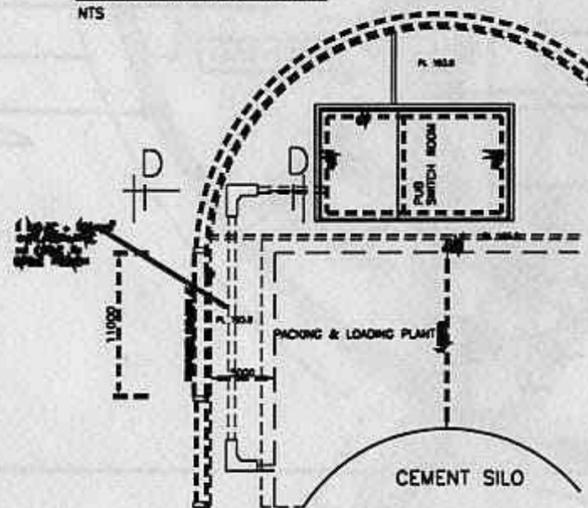
'L' SHAPE CABLE PIT LAYOUT PLAN (SCALE 1:100)



CABLE ROUTE FROM TRANSFORMER ROOM TO LT SWITCH ROOM

CABLE ROUTE FROM HT CONSUMER SWITCH ROOM TO TRANSFORMER ROOM

NTS



SECTION D - D (SCALE 1:100)

LEGEND

- 1 x 40W SWITCH TYPE FLOOR, L.T. FTL.
- 1 x 40W WEATHER PROOF TYPE FLOOR, L.T. FTL.
- 1 x 40W FLOOR, L.T. FTL. C/W 3 HRS SELF CONTAINED SMOKE BATTERY POWER PACK
- 2 x 40W FLOOR, L.T. FTL.
- 3 x 40W FLOOR, L.T. FTL.
- 3 x 40W WEATHER PROOF TYPE FLOOR, L.T. FTL.
- 1 10W LIGHTING SWITCH
- 1 x 1.5A S/S/D
- 30A OF ISOLATOR
- 30A OF SWITCH/FUSE

PROJECT  
PROPOSED ELECTRICAL INSTALLATION TO CEMENT BULK TERMINAL ON LOTS 1553 & 1554 MK6 PLOT JP6 AT PULAU DAMAR LAUT SINGAPORE 2262 FOR UNITED CEMENT PTE LTD.

LEASEHOLD  
DRAWING TITLE  
1ST STOREY PLAN, ROOF PLAN, 2ND STOREY PLAN, SECTION, FRONT ELEVATION & SIDE ELEVATION. FOR SUB-STATION.

DIRECTOR'S SIGNATURE & ADDRESS  
UNITED CEMENT PTE LTD  
NO.33 TUAS CRESCENT  
SINGAPORE 2263.

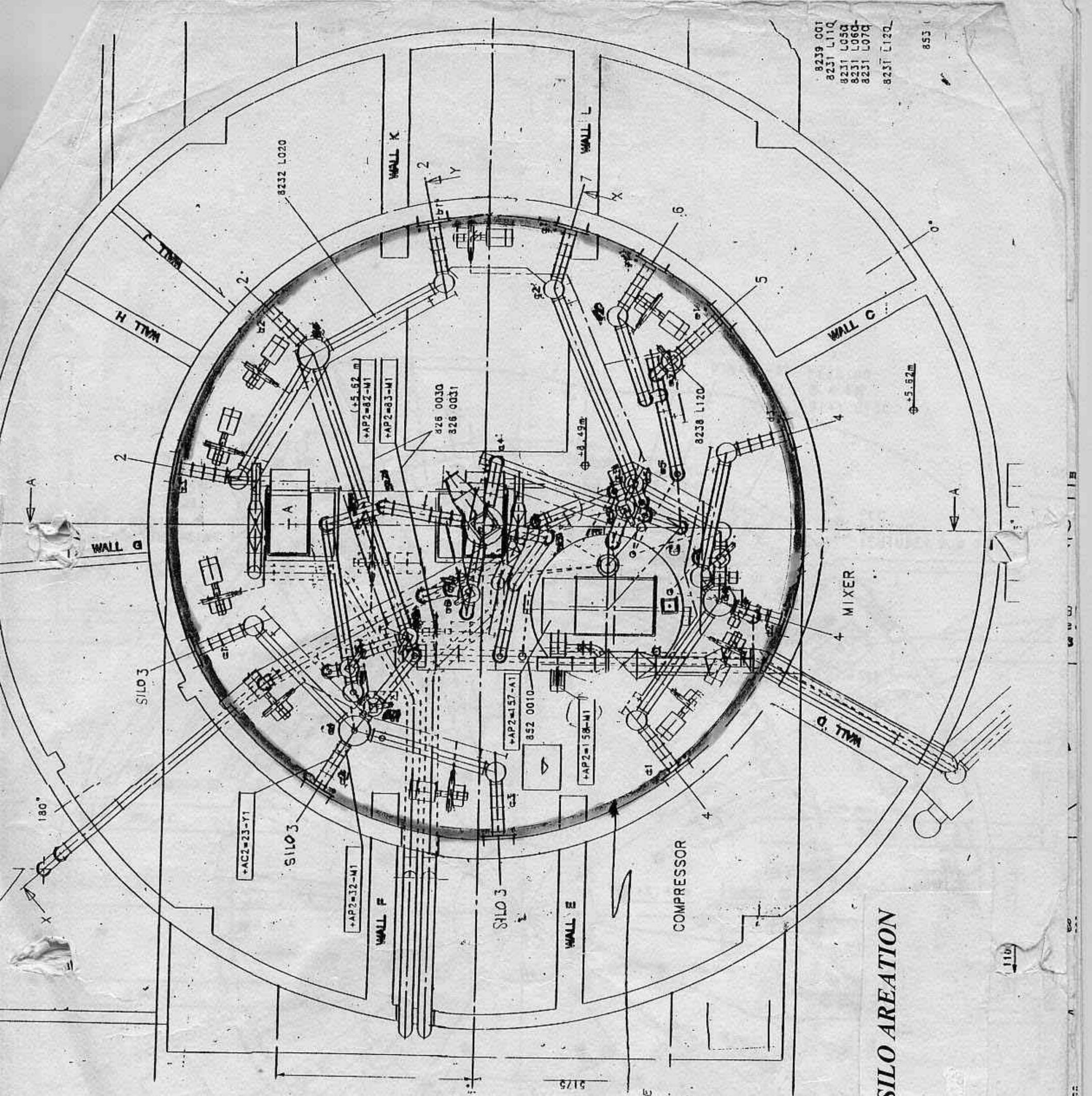
CONSULTANT  
HYTECH MECHANICAL & ELECTRICAL SERVICES PTE LTD.  
NO.36 HOLLAND GROVE ROAD  
SINGAPORE 1027.  
TEL : 4595567 FAX : 4589365

DATE  
MARCH '94  
SCALE  
STATED  
DRAWN BY  
THANT ZIN  
CHECKED BY  
H.K.ONG

DRAWING NO.  
EL/02

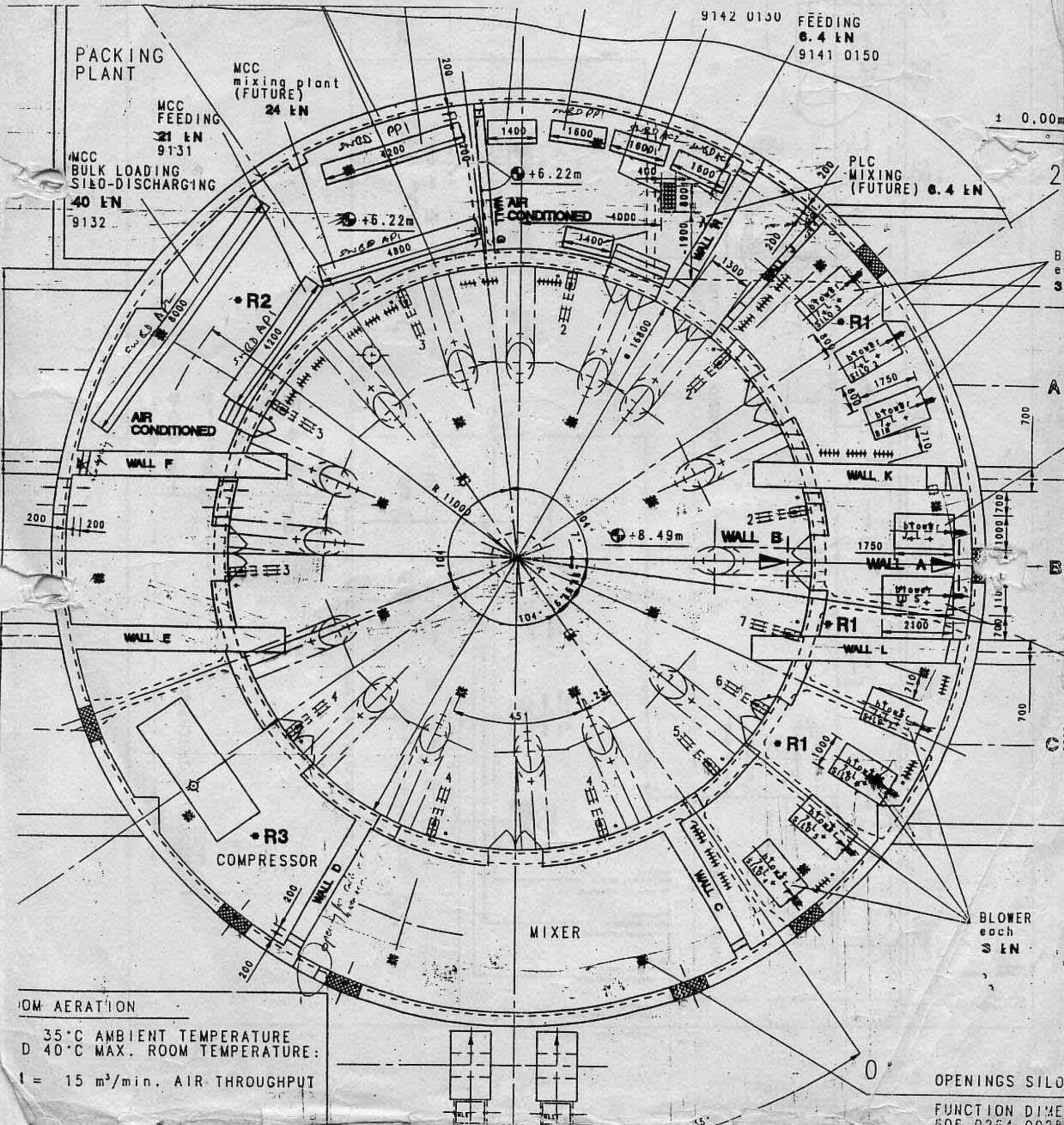


8239 001  
 8231 L11Q  
 8231 L05Q  
 8231 L06Q  
 8231 L07Q  
 8231 L12Q  
 853

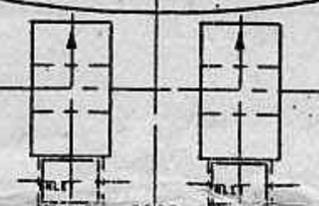


PROPOSED  
 CABLE ROUTE  
 FOR SILO  
 AERATION

**PROPOSED CABLE ROUTE FOR SILO AERATION**  
 (LEVEL +8.49M)

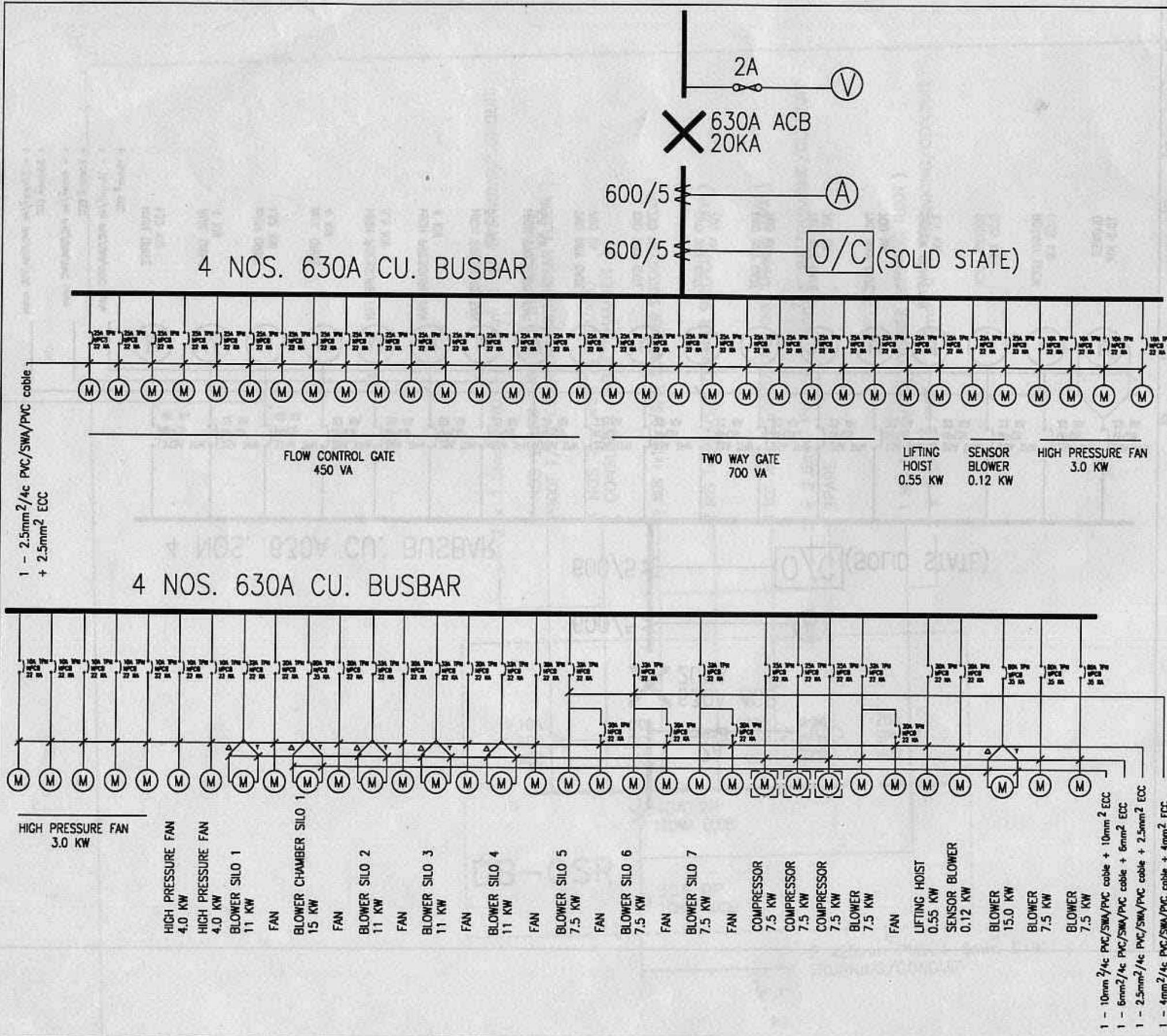


FROM AERATION  
 35°C AMBIENT TEMPERATURE  
 D 40°C MAX. ROOM TEMPERATURE:  
 1 = 15 m<sup>3</sup>/min. AIR THROUGHPUT



OPENINGS SILO  
 FUNCTION DIMEN  
 606.0264.0028





ELECTRICAL LENGEND

- (V) VOLTMETER
- (A) AMMETER
- [O/C] OVERCURRENT RELAY
- X ACB AIR CIRCUIT BREAKER
- MPCB METER PROTECTION CIRCUIT BREAKER

OWNER  
**UNITED CEMENT PTE LTD**  
 NO. 33 TUAS CRESCENT  
 SINGAPORE 2263

PROJECT TITLE  
 PROPOSED ELECTRICAL INSTALLATION  
 TO CEMENT BULK TERMINAL ON  
 LOTS 1553 & 1554 MK 6 PLOT JP6  
 PILAU DAMAR LAUT  
 SINGAPORE 2262

DRAWING TITLE  
 SINGLE LINE DIAGRAM FOR MCC  
 BILK LOADING AND SILO DISCHARGE

CONSULTANT  
**HYTECH MECHANICAL &  
 ELECTRICAL SERVICES PTE LTD**  
 No. 36 HOLLAND GROVE ROAD  
 SINGAPORE 1027 TEL: 4896867 FAX: 4889365

DATE  
 OCTOBER '94

SCALE  
 NTS

DRAWN BY  
 TL WONG

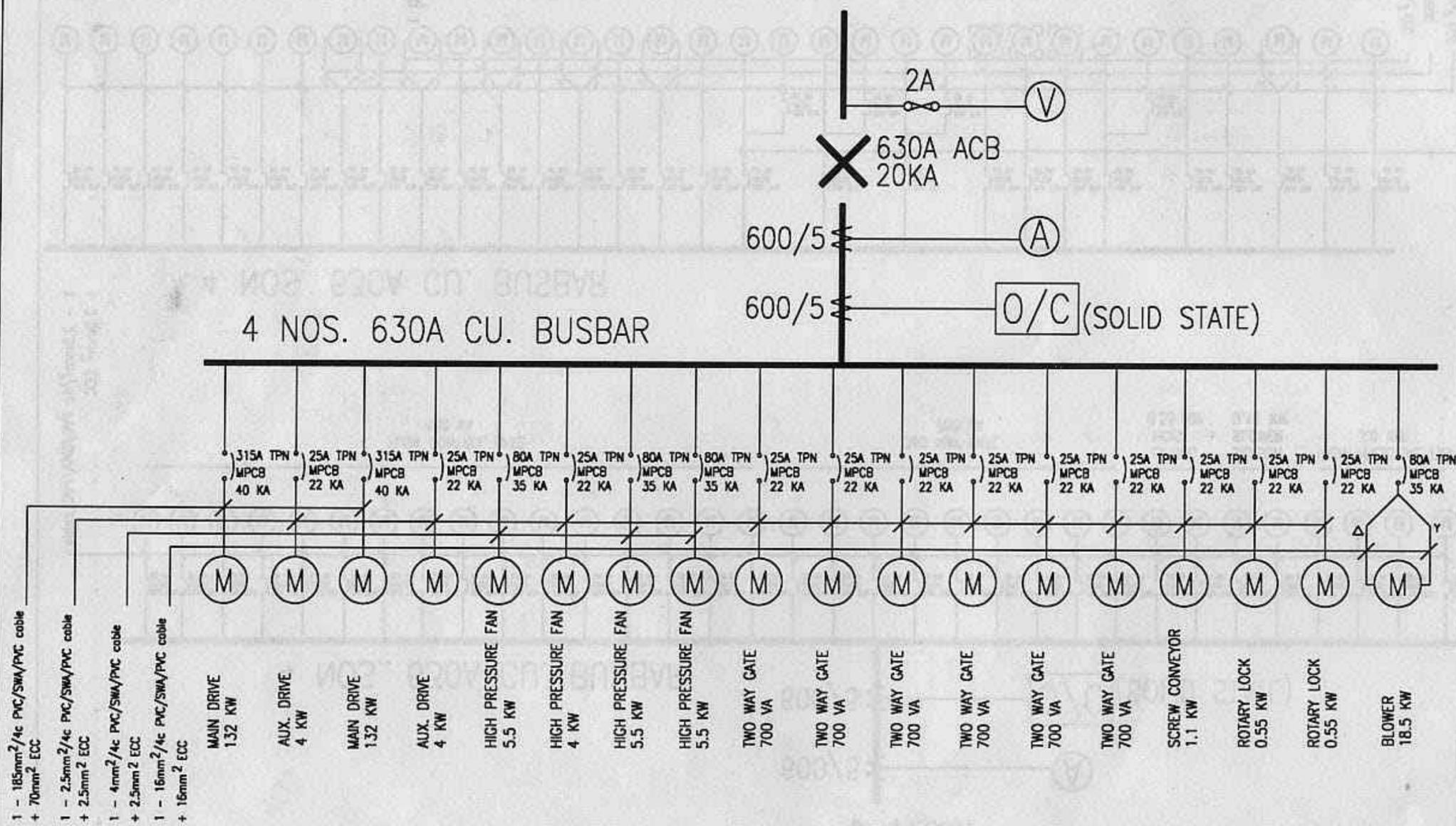
CHECKED BY  
 JOHNNY ONG

DRAWING NO.  
 HY/EL/94/E-505-2

C:\PJI Silo 1 ESOB.DWG.

# ELECTRICAL LENGEND

-  VOLTMETER
-  AMMETER
-  OVERCURRENT RELAY
-  ACB AIR CIRCUIT BREAKER
-  MPCB METER PROTECTION CIRCUIT BREAKER



- 1 - 185mm<sup>2</sup>/4c PVC/SWA/PVC cable + 70mm<sup>2</sup> ECC
- 1 - 2.5mm<sup>2</sup>/4c PVC/SWA/PVC cable + 2.5mm<sup>2</sup> ECC
- 1 - 4mm<sup>2</sup>/4c PVC/SWA/PVC cable + 2.5mm<sup>2</sup> ECC
- 1 - 16mm<sup>2</sup>/4c PVC/SWA/PVC cable + 16mm<sup>2</sup> ECC

OWNER  
**UNITED CEMENT PTE LTD**  
 NO. 33 TUAS CRESCENT  
 SINGAPORE 2263

PROJECT TITLE  
 PROPOSED ELECTRICAL INSTALLATION  
 TO CEMENT BULK TERMINAL ON  
 LOTS 1553 & 1554 MK 6 PLOT JP6  
 PILAU DAMAR LAUT  
 SINGAPORE 2262

DRAWING TITLE  
 SINGLE LINE DIAGRAM FOR  
 MCC SILO FEEDING

CONSULTANT  
**HYTECH MECHANICAL &  
 ELECTRICAL SERVICES PTE LTD**  
 No. 36 HOLLAND GROVE ROAD  
 SINGAPORE 1027 TEL: 4696687 FAX: 4699385

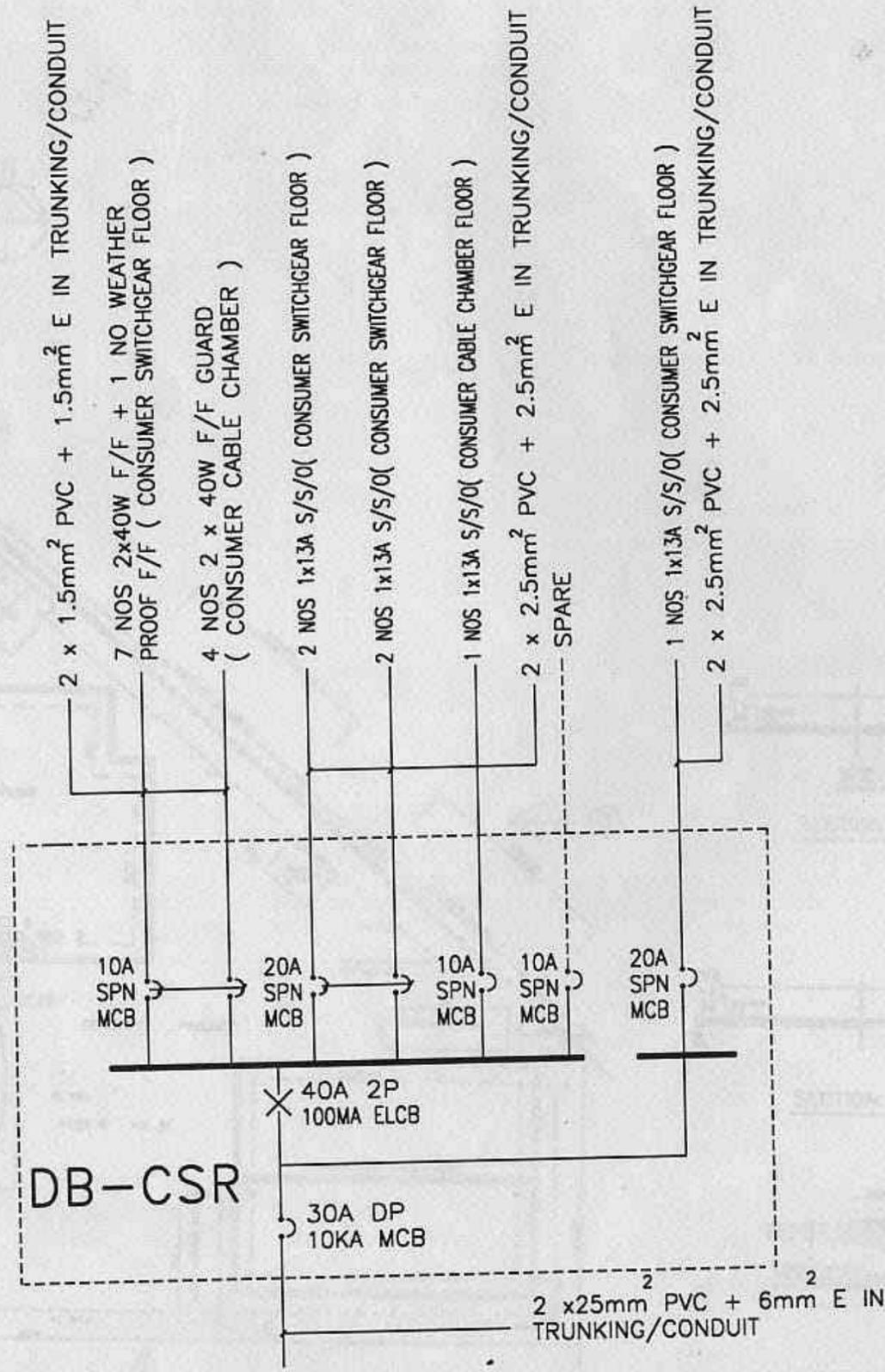
DATE  
 OCTOBER '94

SCALE  
 NTS

DRAWN BY  
 TL WONG

CHECKED BY  
 JOHNNY ONG

DRAWING NO.  
 HY/EL/94/E-505-1



PROJECT  
 PROPOSED ELECTRICAL INSTALLATION  
 TO CEMENT BULK TERMINAL ON LOTS  
 1553 & 1554 MK 6 PLOT JP 6 AT  
 PULAU DAMAR LAUT SINGAPORE 2262  
 FOR UNITED CEMENT PTE LTD.

TENURE OF LAND  
 LEASEHOLD

DRAWING TITLE  
 ELECTRICAL SINGLE LINE DIAGRAM

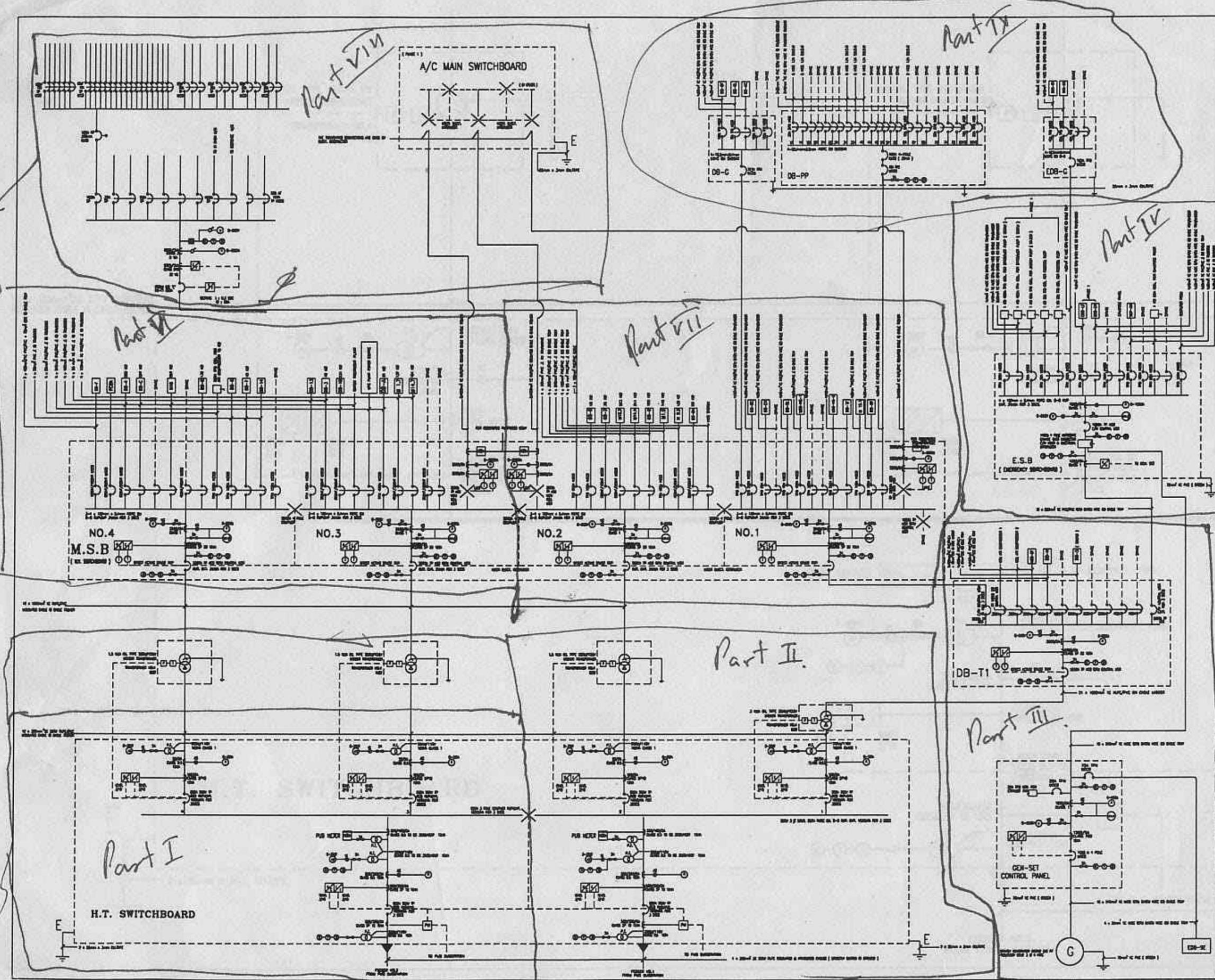
OWNER  
 UNITED CEMENT PTE LTD  
 NO.33 TUAS CRESCENT  
 SINGAPORE 2263.

CONSULTANT  
 HYTECH MECHANICAL & ELECTRICAL  
 SERVICES PTE LTD.  
 NO.36 HOLLAND GROVE ROAD  
 SINGAPORE 1027.  
 TEL : 4698667 FAX : 4689365

DATE \_\_\_\_\_ SCALE NTS

DRAWN BY \_\_\_\_\_ CHECKED BY \_\_\_\_\_

DRAWING NO.  
 E-UC-002



**LEGEND**

- HV / VCB
- HV / CB
- HV FUSE
- CURRENT TRANSFORMER
- MONITORING LIGHT
- SELECTION SWITCH
- FURNACE TRANSFORMER
- POWER TRANSFORMER
- METER
- VOLT METER
- HIGH VOLT METER
- POWER METER METER
- HOUR METER
- OVERCURRENT RELAY
- OVER FLOW RELAY
- UNDER VOLTAGE RELAY
- FLOW RATE PROTECTION (EXCUSE IT)
- PRESSURE RELAY
- TEMPERATURE RELAY
- THERMISTOR

CLIENT  
GUL TECHNOLOGIES SINGAPORE PTE LTD  
149 A GUL CIRCLE  
SINGAPORE 2262

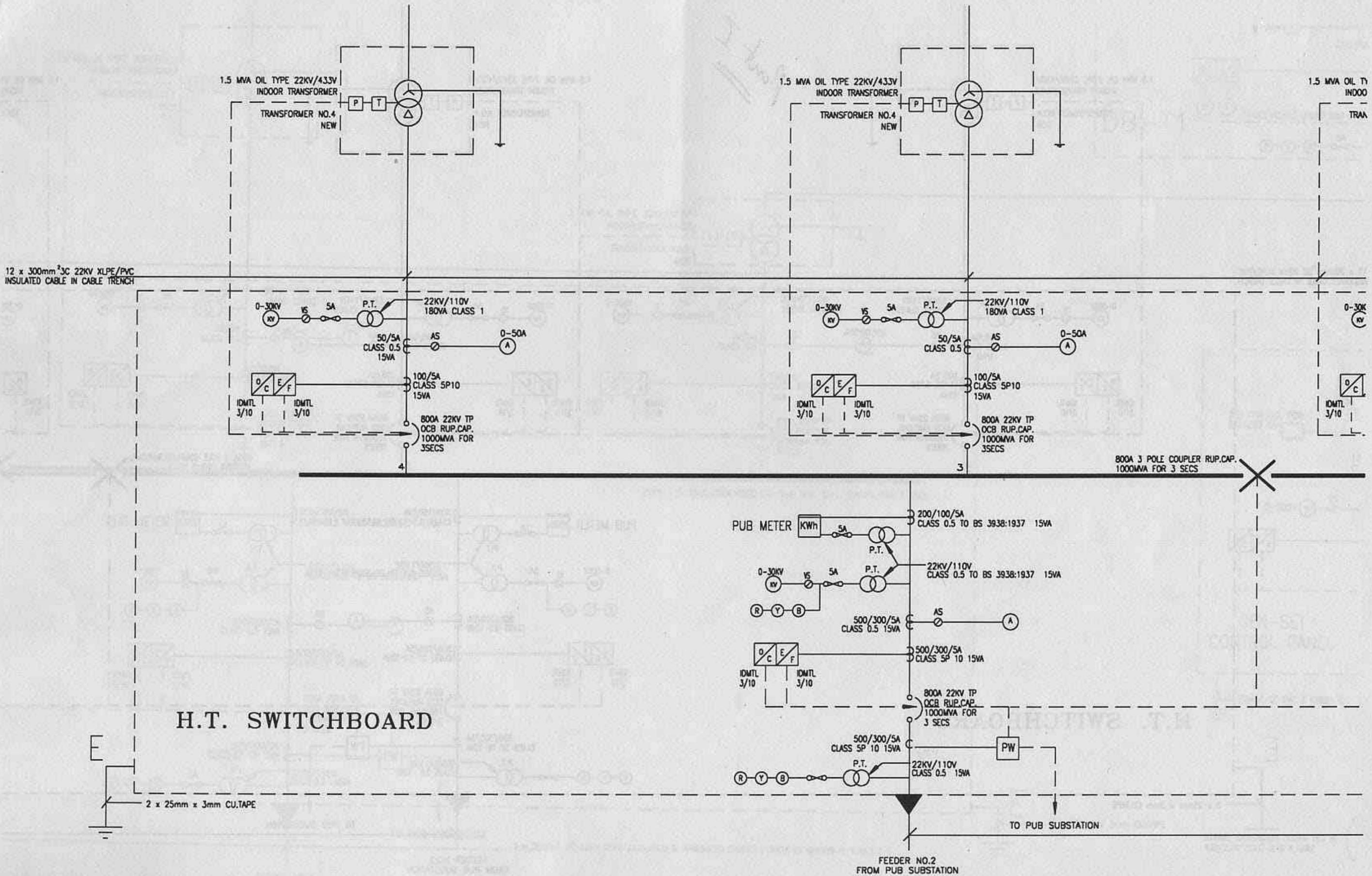
PROJECT  
PROPOSED ELECTRICAL SERVICES FOR  
FACTORY PREMISES ON LOT A 7943 AT  
GUL CIRCLE FOR GUL TECHNOLOGIES PTE  
LTD.

CONSULTANT  
HYTECH MECHANICAL & ELECTRICAL SERVICES  
PTE LTD  
36, HOLLAND CIRCLE ROAD  
SINGAPORE 1027. TEL: 4888887 FAX: 4888385

DRAWING TITLE  
SINGLE LINE DIAGRAM

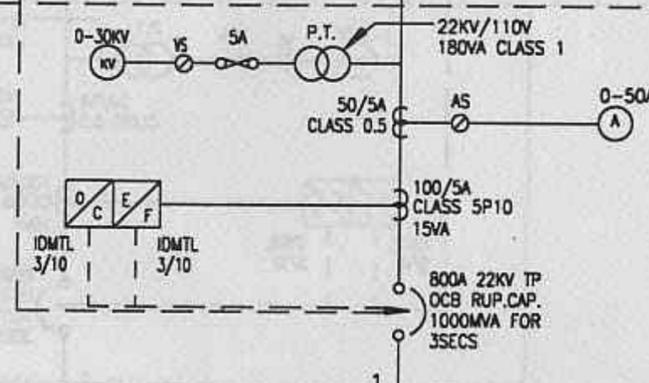
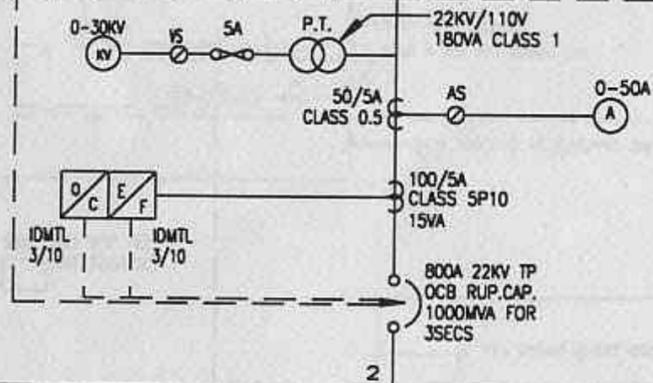
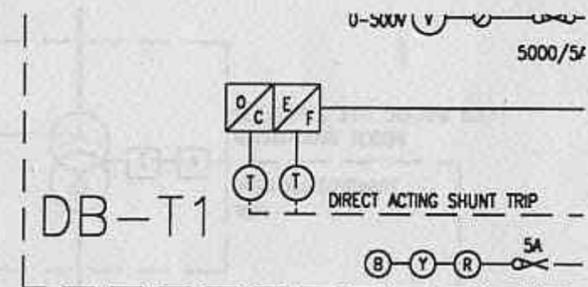
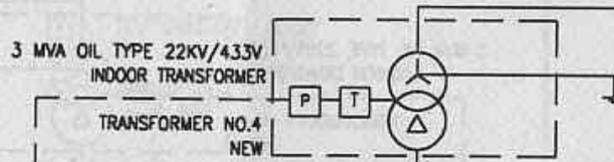
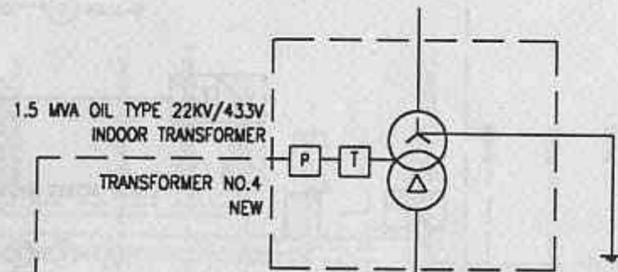
DATE	MARCH '94	SCALE	NYS
DRAWN BY	THOMAS ZHANG	CHECKED BY	H.L.K.OH

DRAWING NO. E413

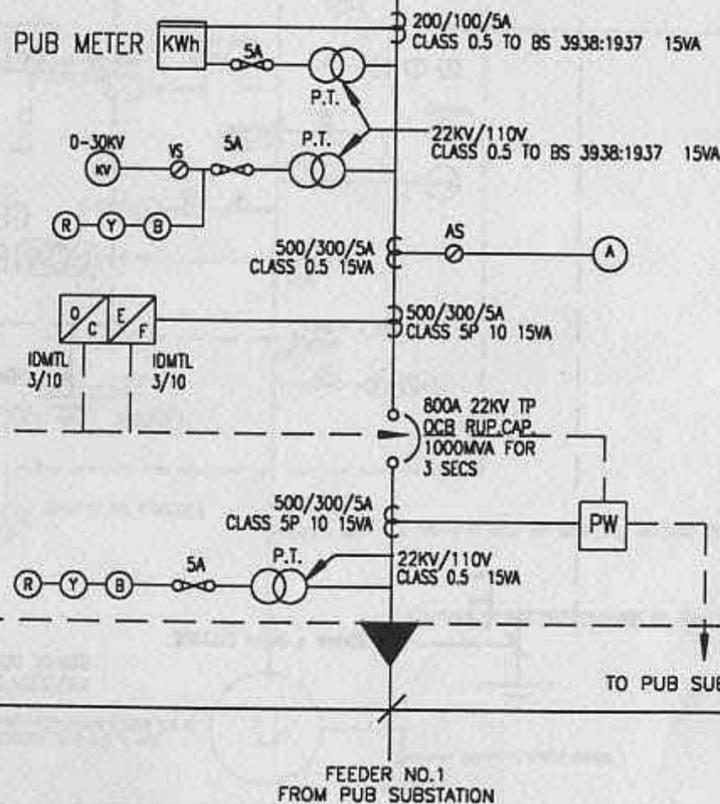




Part II of C:\LVP\DRAW\ONG\E.13.DWG.

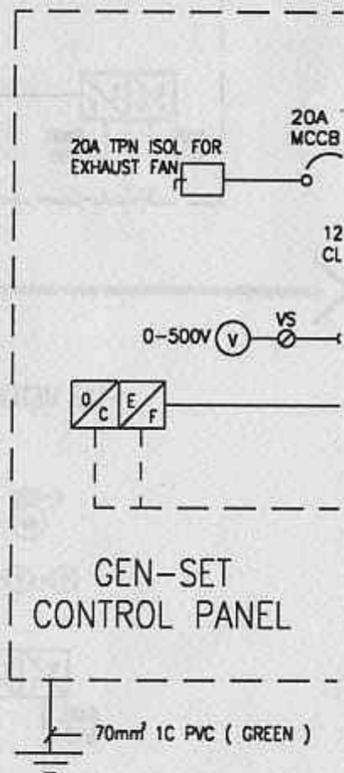


22KV 3  $\phi$  50HZ. 800A HUDC CU. B-B RUP. CAP. 1000MVA FOR 3 SECS



TO PUB SUBSTATION

1 x 300mm<sup>2</sup> 3C 22KV XLPE INSULATED & ARMoured CABLES ( DIRECTLY BURIED IN GROUND )

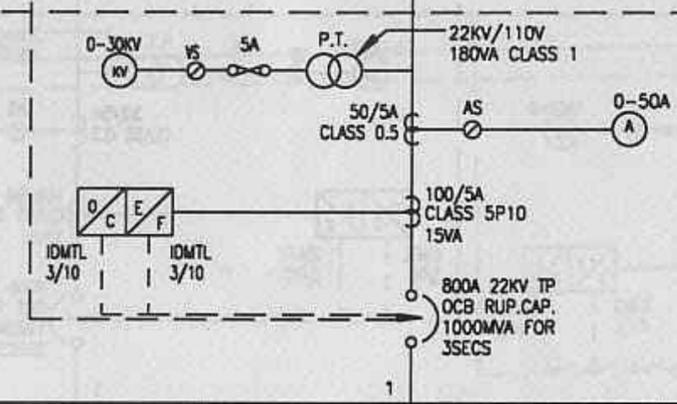
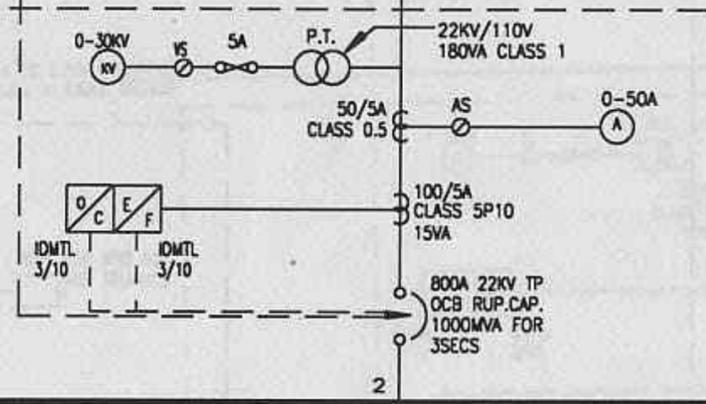
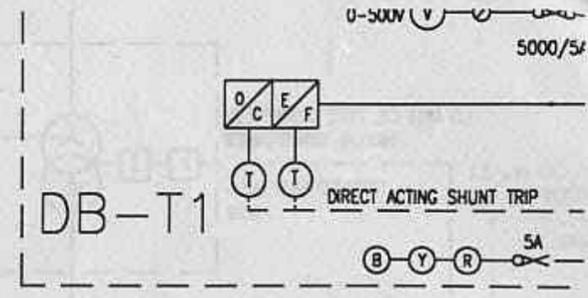
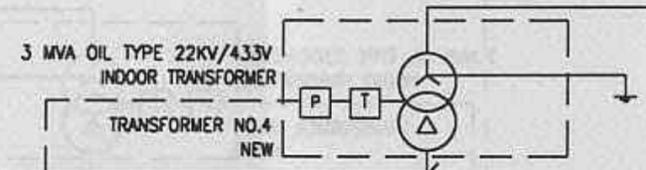
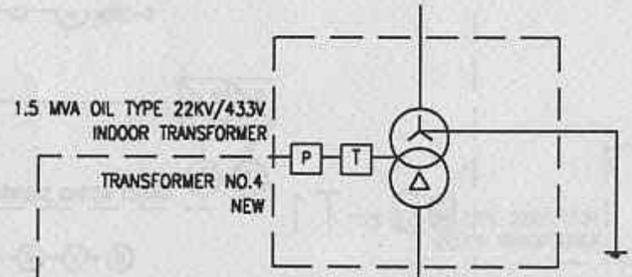


2 x 25mm x 3mm CU.TAPE

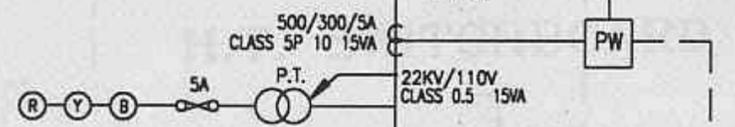
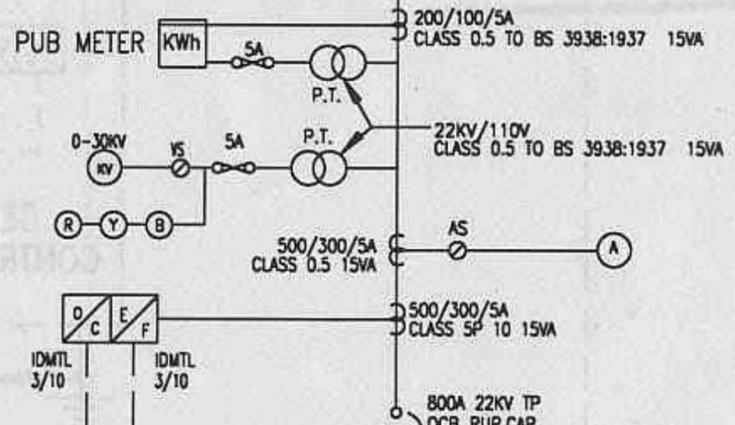
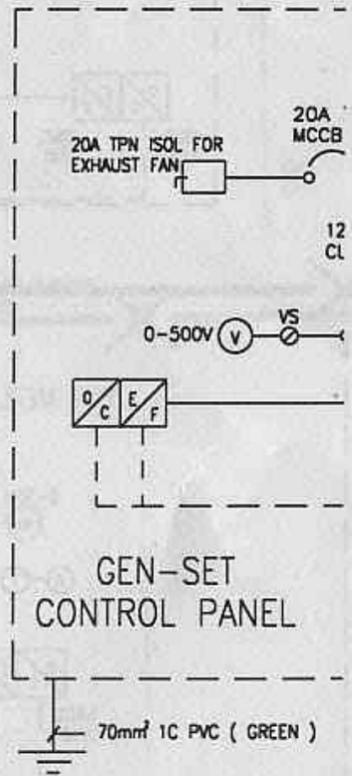
STANBY GENERATOR 500KW 0.8 PF 400/230V 50HZ 3  $\phi$  4 WIRE



*Part II*



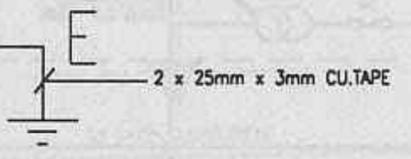
22KV 3  $\phi$  50HZ. 800A HUDC CU. B-B RUP. CAP. 1000MVA FOR 3 SECS



TO PUB SUBSTATION

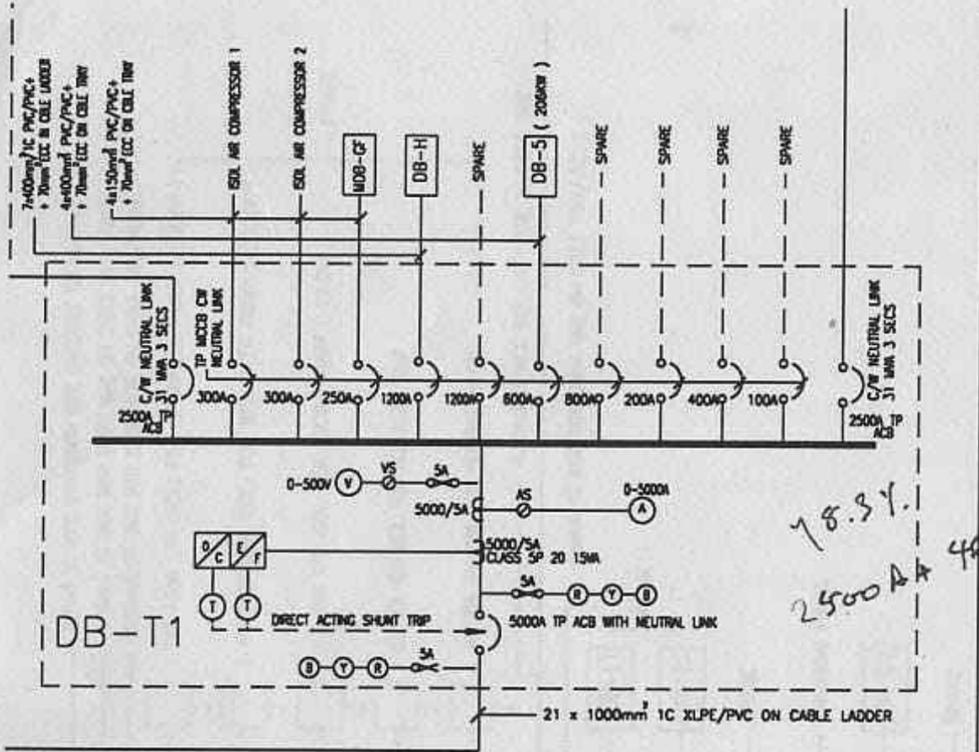
1 x 300mm² SC 22KV XLPE INSULATED & ARMoured CABLES ( DIRECTLY BURIED IN GROUND )

FEEDER NO.1 FROM PUB SUBSTATION

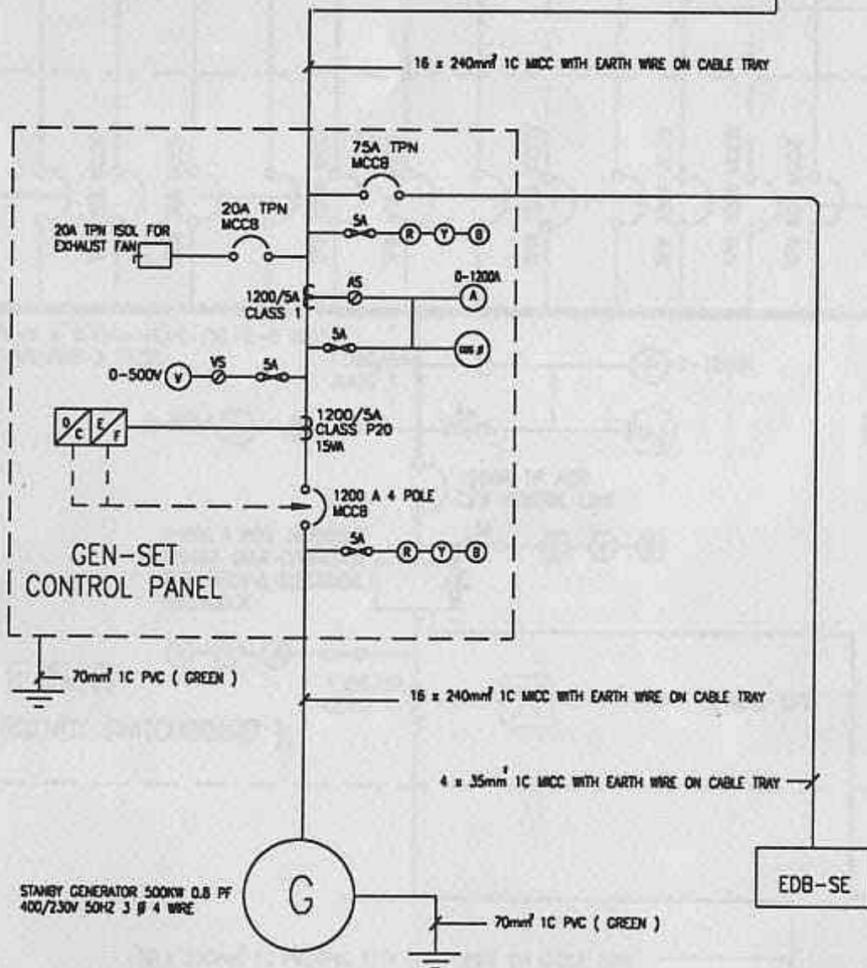


STANBY GENERATOR 500KW 0.8 PF ( 400/230V 50HZ 3  $\phi$  4 WIRE

Part III of C:\LYP\DRAWING\ E413.DWG.



- O/C OVERCURRENT RELAY
- E/F EARTH FAULT RELAY
- U/V UNDER VOLTAGE RELAY
- PW PILOT WIRE PROTECTION (SOLKOR 'R')
- P PRESSURE RELAY
- T TEMPERATURE RELAY
- T TIMMER



CLIENT  
GUL TECHNOLOGIES SINGAPORE PTE LTD  
149 A GUL CIRCLE  
SINGAPORE 2262

PROJECT  
PROPOSED ELECTRICAL SERVICES FOR  
FACTORY PREMISES ON LOT A 7943 AT  
GUL CIRCLE FOR GUL TECHNOLOGIES PTE  
LTD.

CONSULTANT  
HYTECH MECHANICAL & ELECTRICAL SERVICES  
PTE LTD  
36, HOLLAND GROVE ROAD  
SINGAPORE 1027. TEL: 4696667 FAX: 4689365

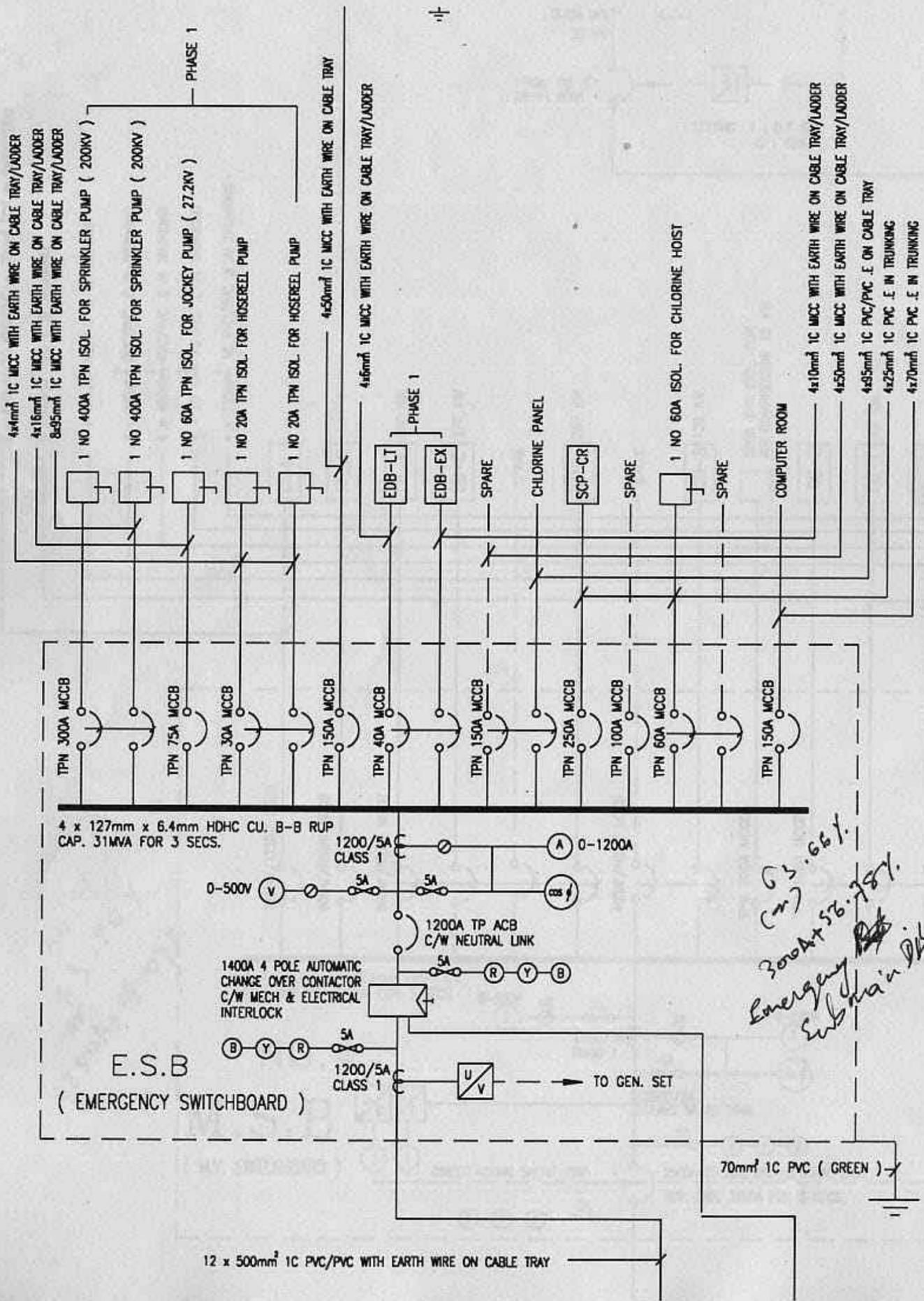
DRAWING TITLE  
SINGLE LINE DIAGRAM

DATE MARCH '94 SCALE NTS

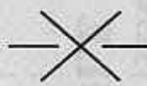
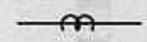
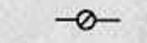
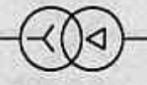
DRAWN BY THANT ZIN CHECKED BY H.K.ONG

DRAWING NO. E413

Part IV of C:\LYP\DRAWING\EY13.DWG.



### LEGEND

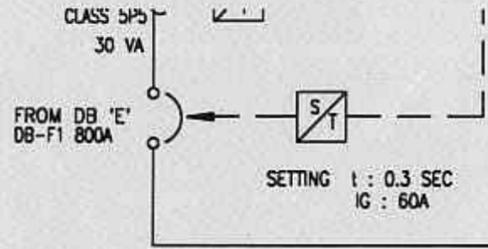
-  MCB / MCCB
-  ACB / OCB
-  HRC FUSE
-  CURRENT TRANSFORMER
-  INDICATING LIGHT
-  SELECTION SWITCH
-  POTENTIAL TRANSFORMER
-  POWER TRANSFORMER
-  AMMETER
-  VOLT METER
-  KILO VOLT METER
-  POWER FACTOR METER
-  KILO WATT HOUR METER

Part VI

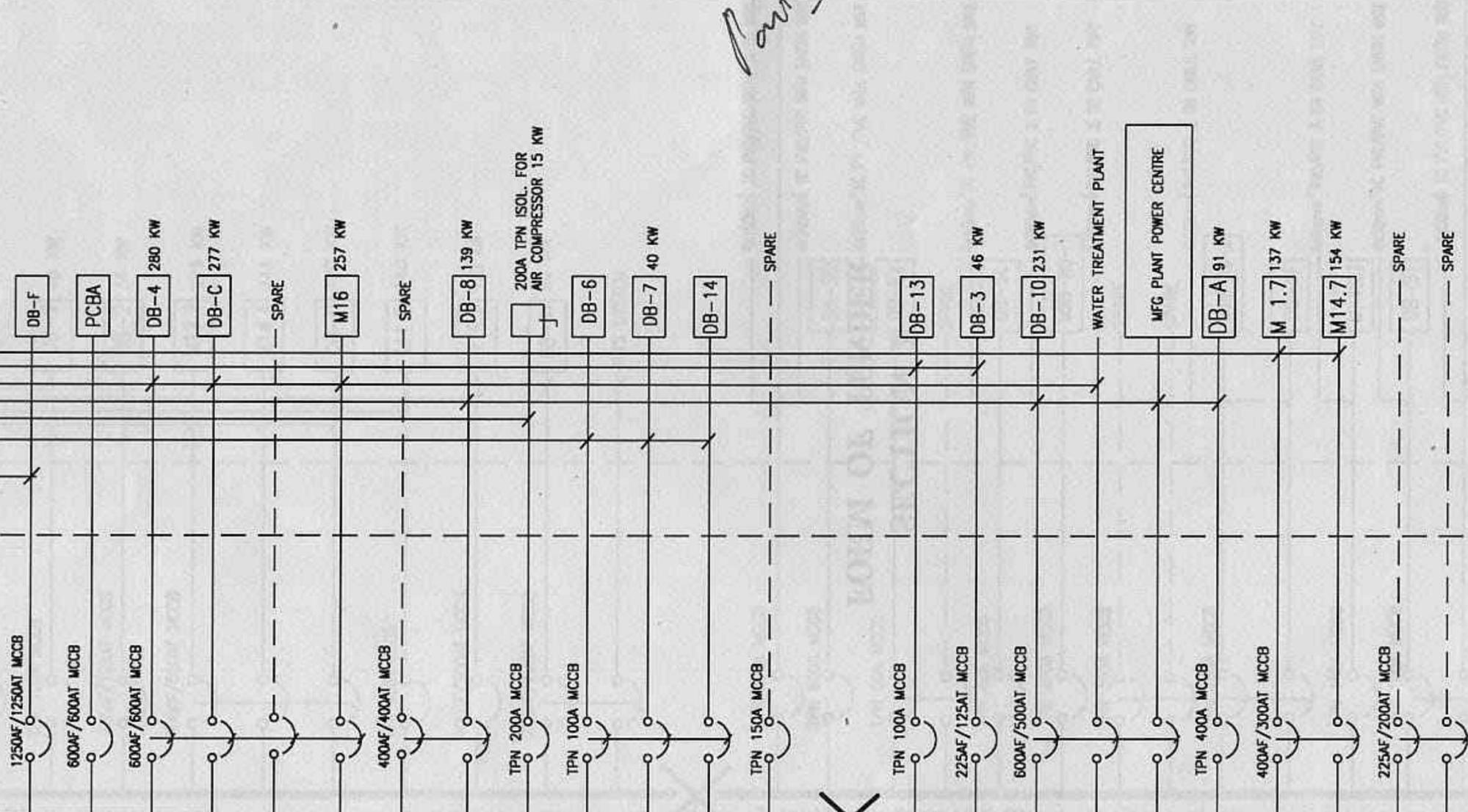
of

LYP \ DRAW \ ONG \ E413. DWG

Part V



7 x 400mm<sup>2</sup> 1C PVC/PVC + 70mm<sup>2</sup> ECC IN CABLE TRAY  
 4 x 50mm<sup>2</sup> PVC .E IN TRUNKING  
 4 x 95mm<sup>2</sup> PVC/PVC .E IN TRUNKING  
 4 x 240mm<sup>2</sup> PVC/PVC .E IN TRUNKING  
 4 x 400mm<sup>2</sup> PVC/PVC .E IN TRUNKING  
 4 x 25 mm<sup>2</sup> 1C PVC .E IN TRUNKING  
 4 x 150mm<sup>2</sup> 1C PVC/PVC .E IN TRUNKING



8x1000mm<sup>2</sup> 1C XLPE/PVC INSULATED CABLE IN CABLE TRENCH

FOR RECORDING PURPOSES

KWh

0-2000A

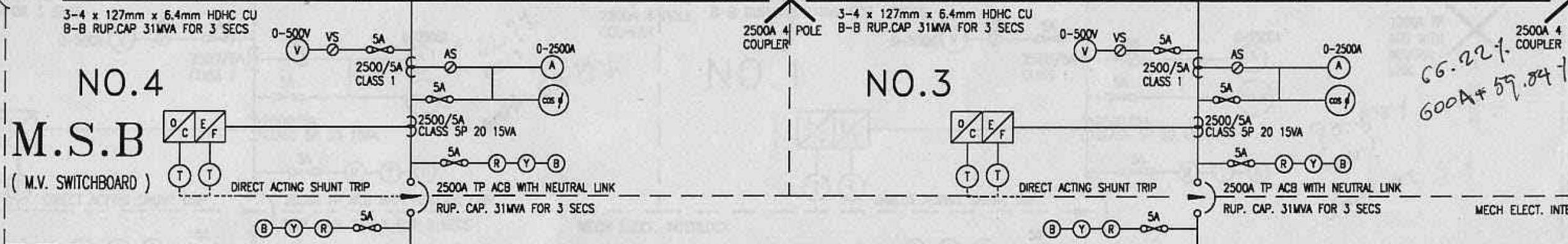
0-200A

2000/5A

2000/5A

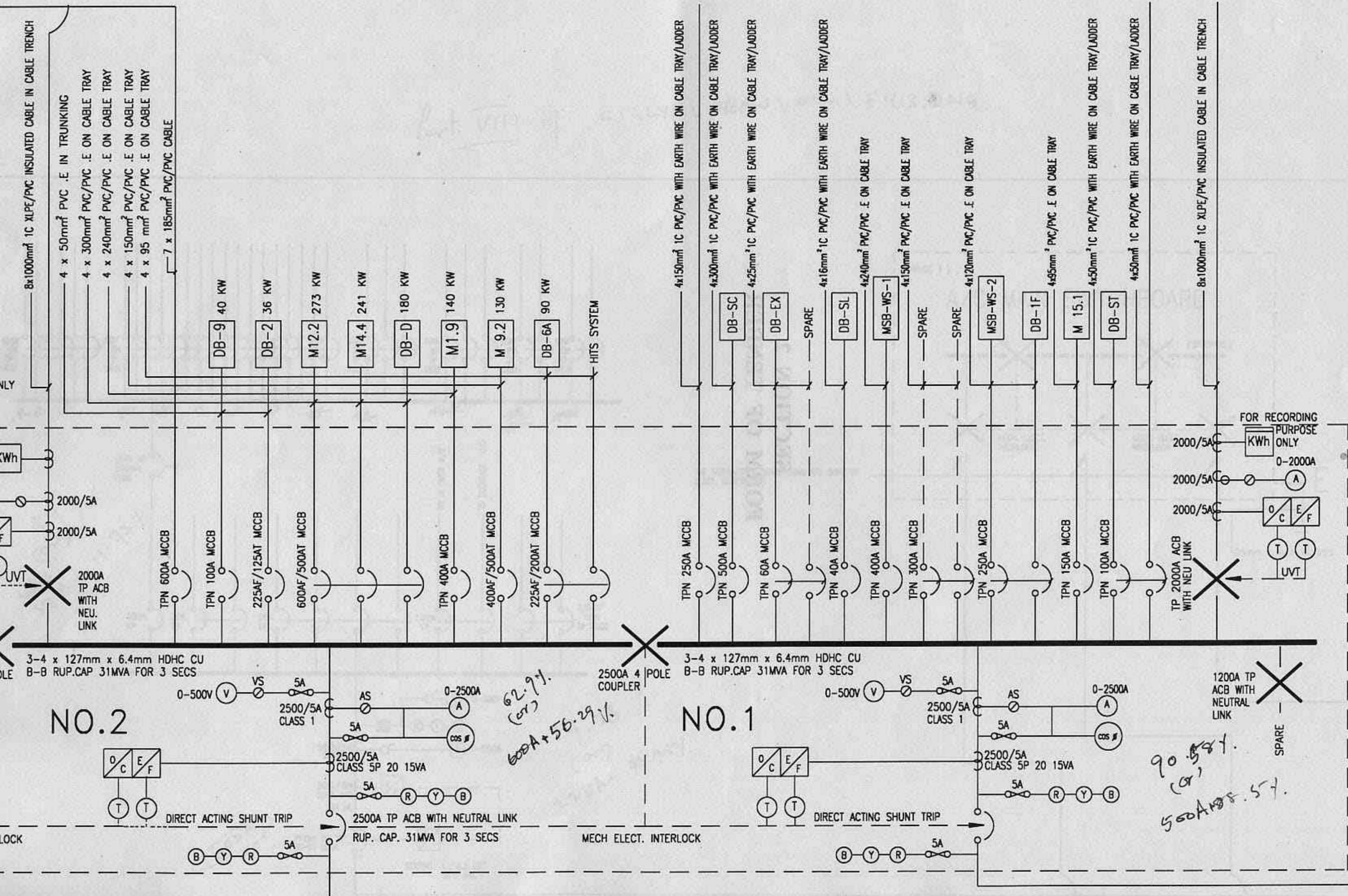
2000A TP ACB WITH NEU. LINK

(250A x 29.09%)  
 20.4  
 3.86%

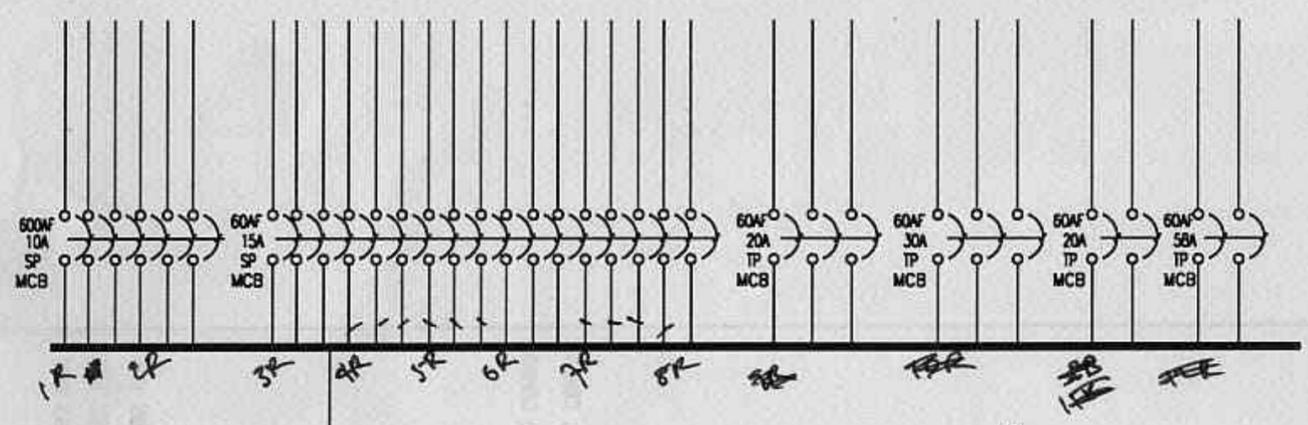


CG. 22%  
 600A x 59.84%

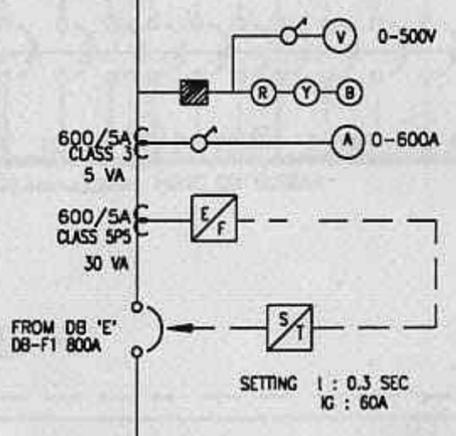
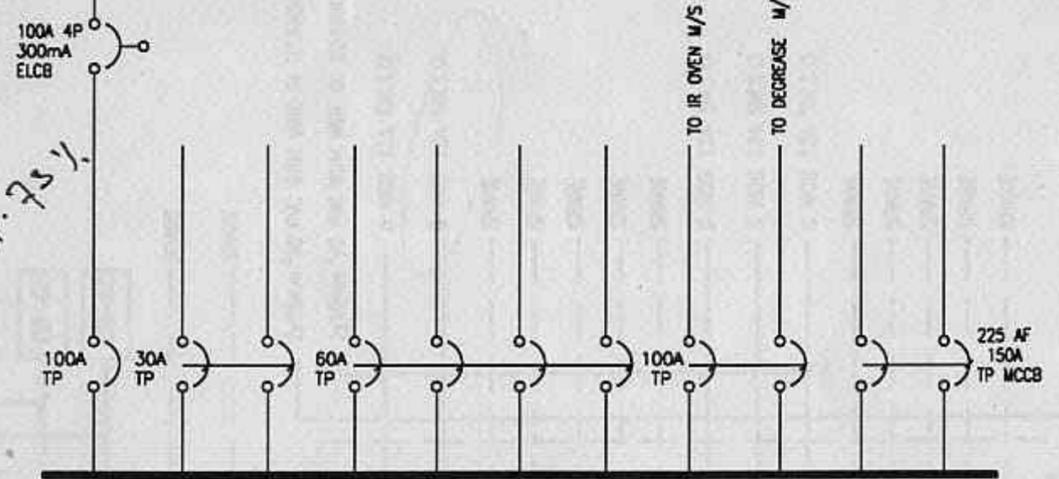
Part of C: LYP / DRAWING / 413.DWG.



Part VIII of C:\LYPE\DRAW\ONG\E413.DWG.

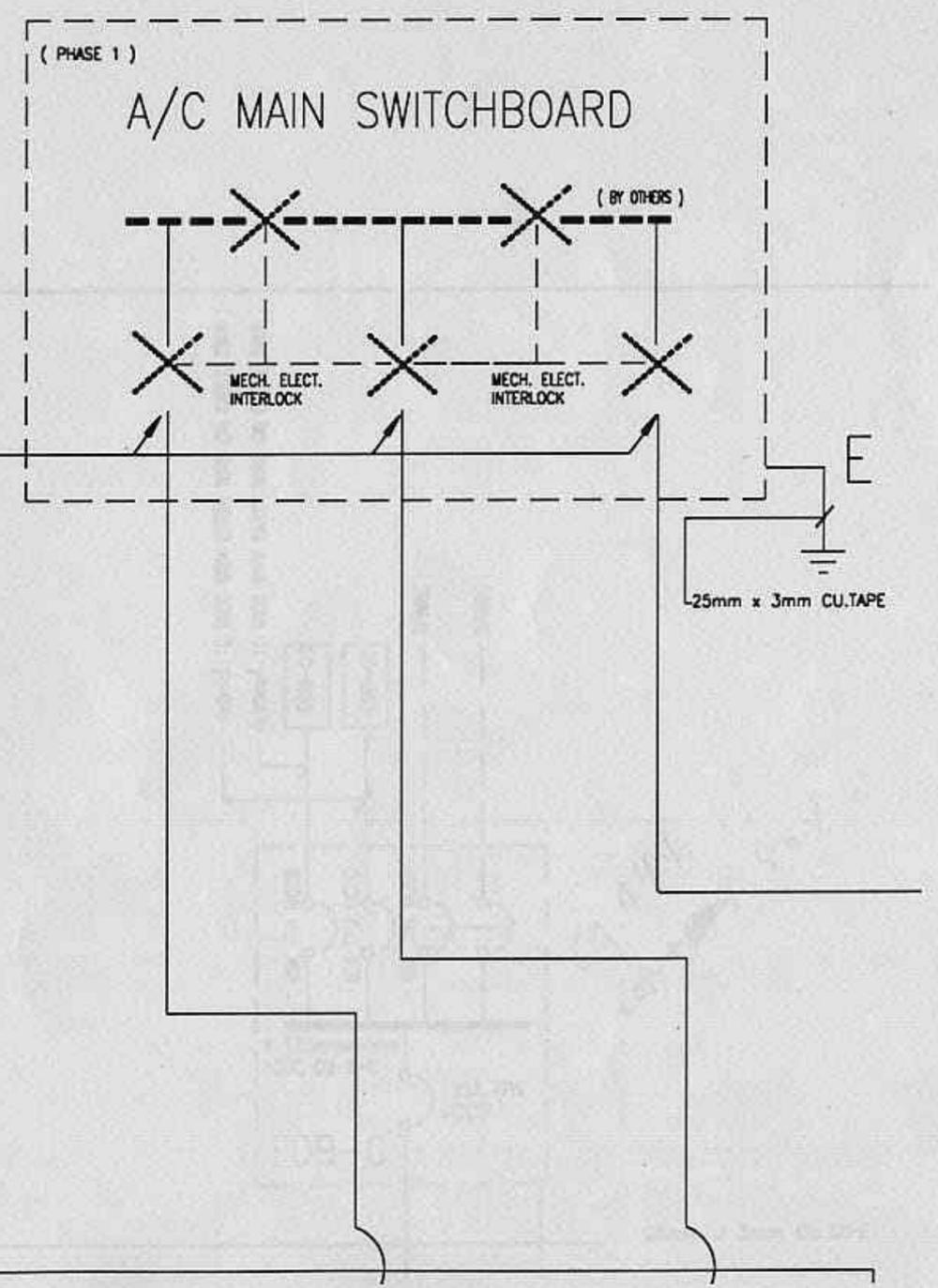


24%  
(om)  
58A → 11.75%



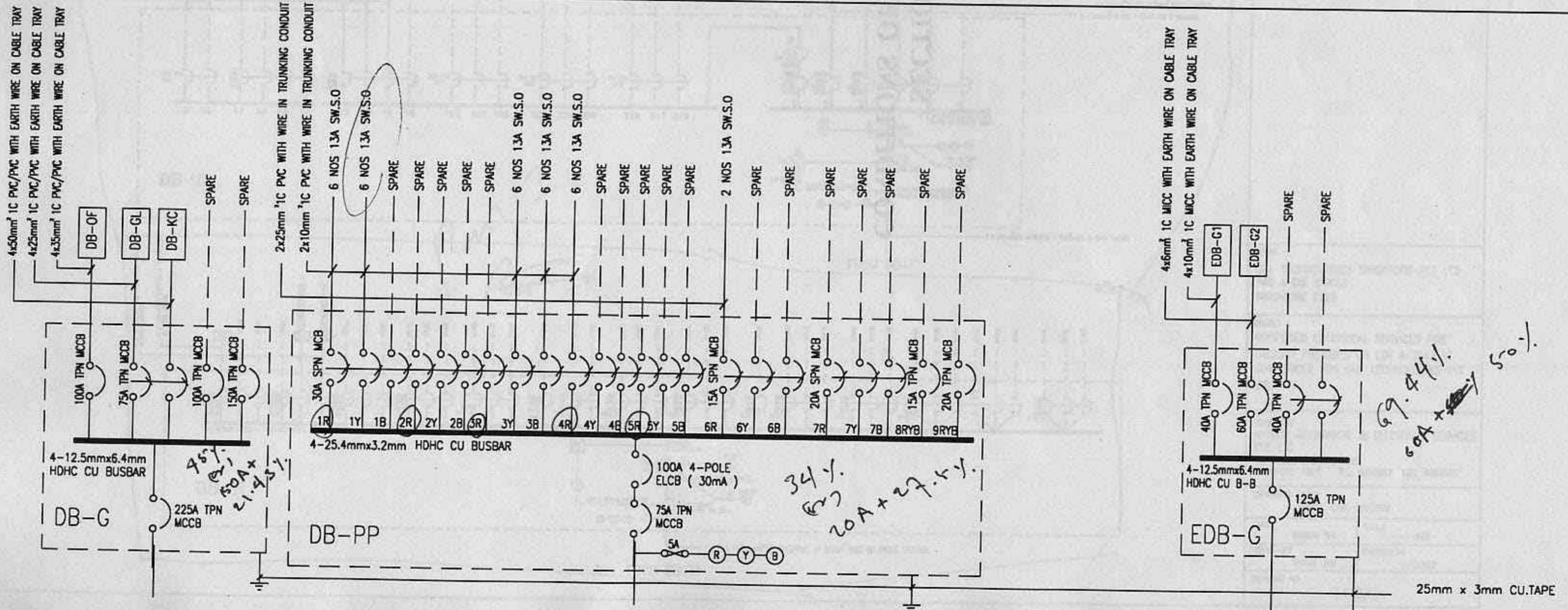
600A

57.43%  
(om)  
225A → 95.45%



THE TERMINATION CONNECTIONS ARE DONE BY ELECT. CONTRACTOR

Part IX of C:\LYPI\DRAW\ONH\EY13.DWG.

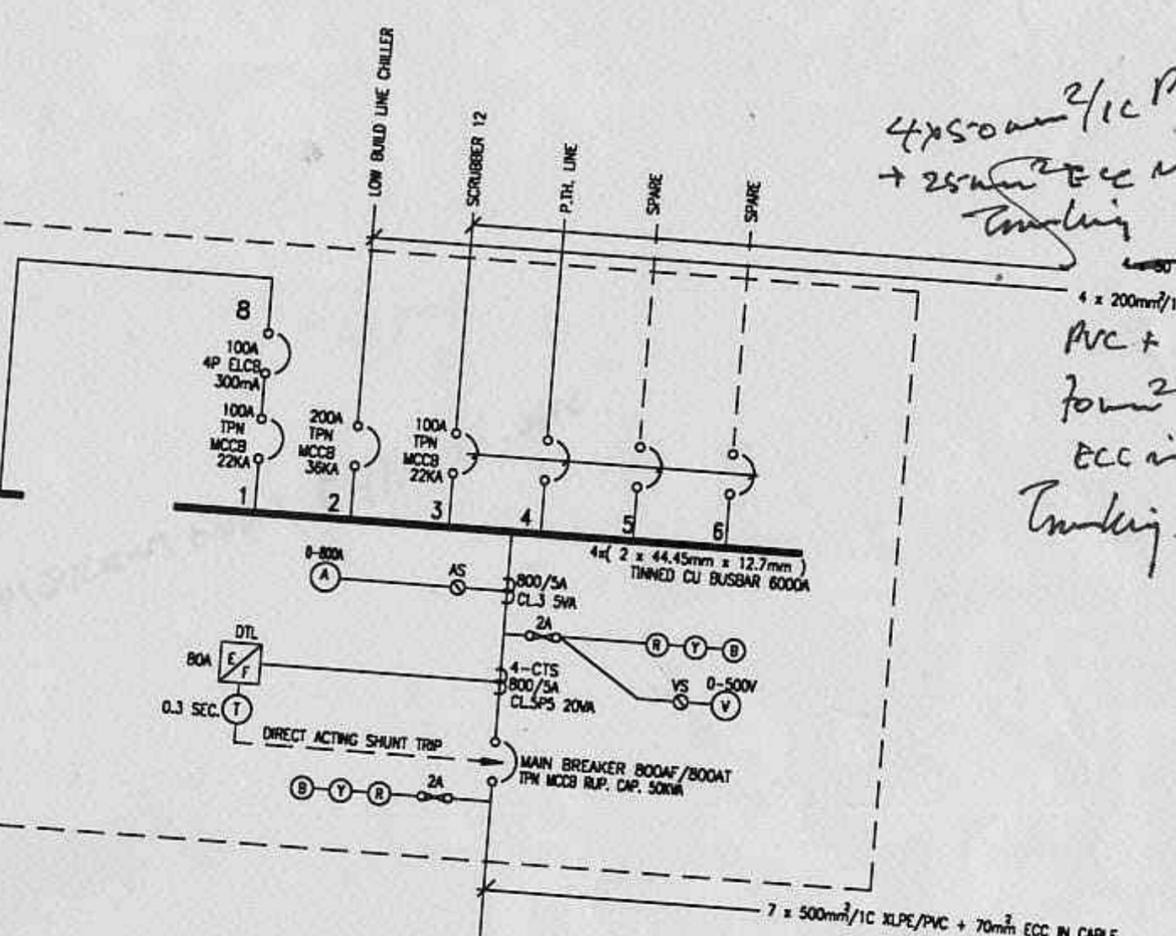
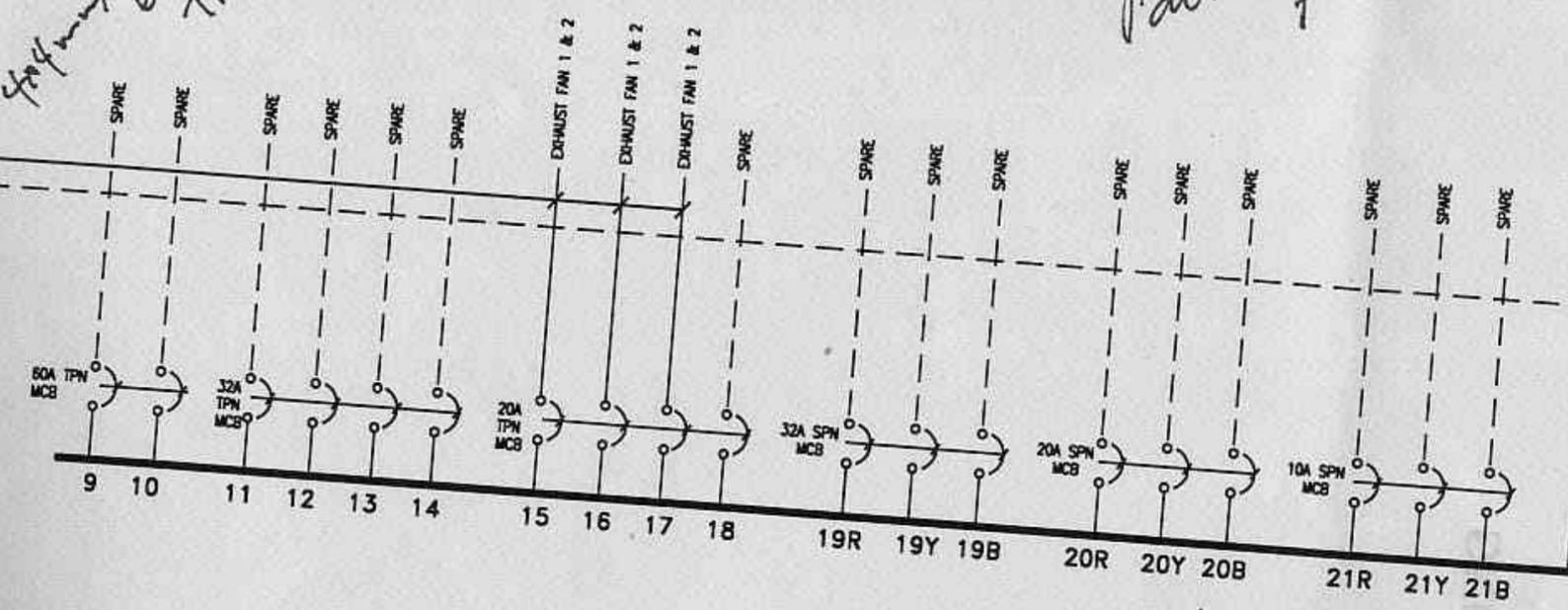


69.44%  
60A x 27.5%  
50%

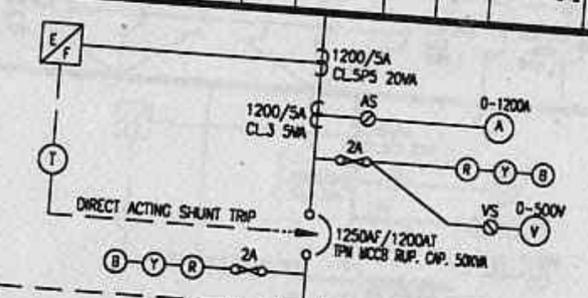
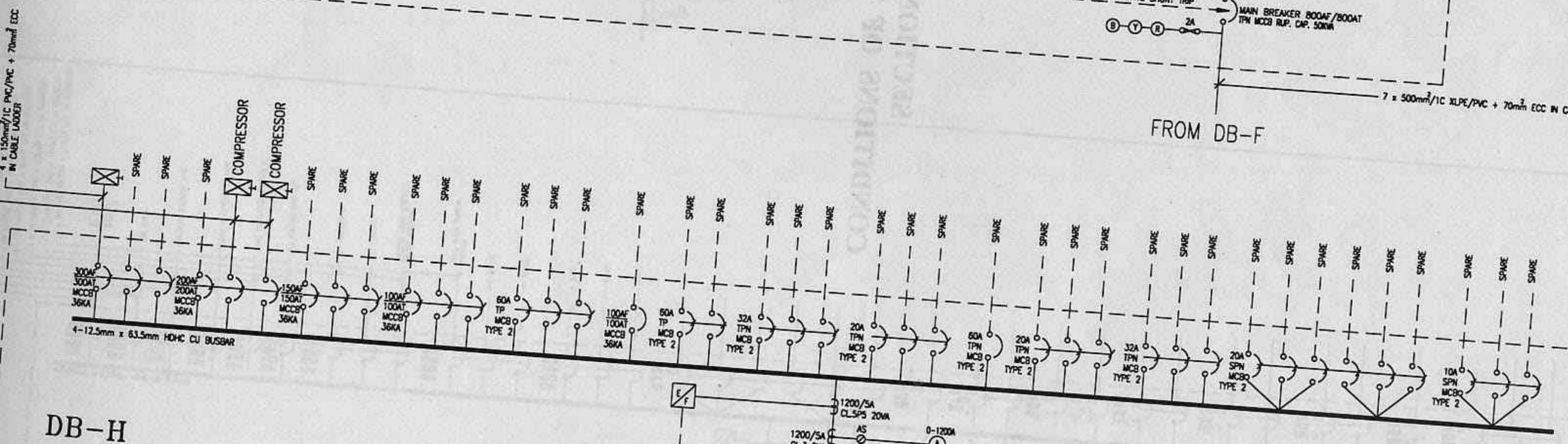


4x4mm<sup>2</sup> ECC in Trunking  
 4x4mm<sup>2</sup> PVC + 25mm<sup>2</sup> ECC in Trunking

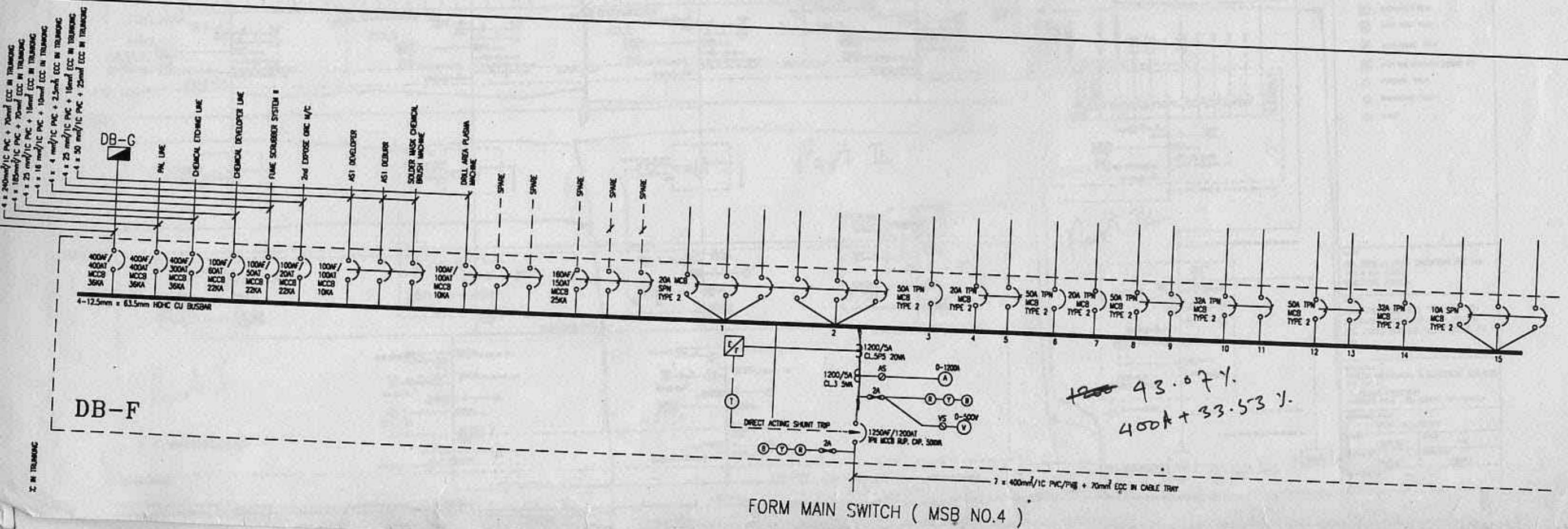
Part I of C:14PA DRAW 1000 E413-2-DWG.



25.64%  
 (or)  
 60A + 12.12%



Part II for E: ILYP / DRAWING E413-2 - DWG.



4 = 240mm²/1C PVC + 70mm² ECC IN TRUNKING  
 3 = 180mm²/1C PVC + 70mm² ECC IN TRUNKING  
 2 = 25 mm²/1C PVC + 16mm² ECC IN TRUNKING  
 1 = 16 mm²/1C PVC + 10mm² ECC IN TRUNKING  
 4 = 4 mm²/1C PVC + 2.5mm² ECC IN TRUNKING  
 3 = 25 mm²/1C PVC + 16mm² ECC IN TRUNKING  
 2 = 50 mm²/1C PVC + 25mm² ECC IN TRUNKING

DB-G

DB-F

FORM MAIN SWITCH ( MSB NO.4 )

~~1200~~ 43.07%  
 400A + 33.53%

7 = 400mm²/1C PVC/PB + 70mm² ECC IN CABLE TRAY



# KOCN PIPE CONVEYOR

C.F. Chang.  
Slammy Electric Co.

X-004-886-2-904485  
M: Tay Ngank / TCU FX4689365

## 6.6KV BUS BAR (3φ)

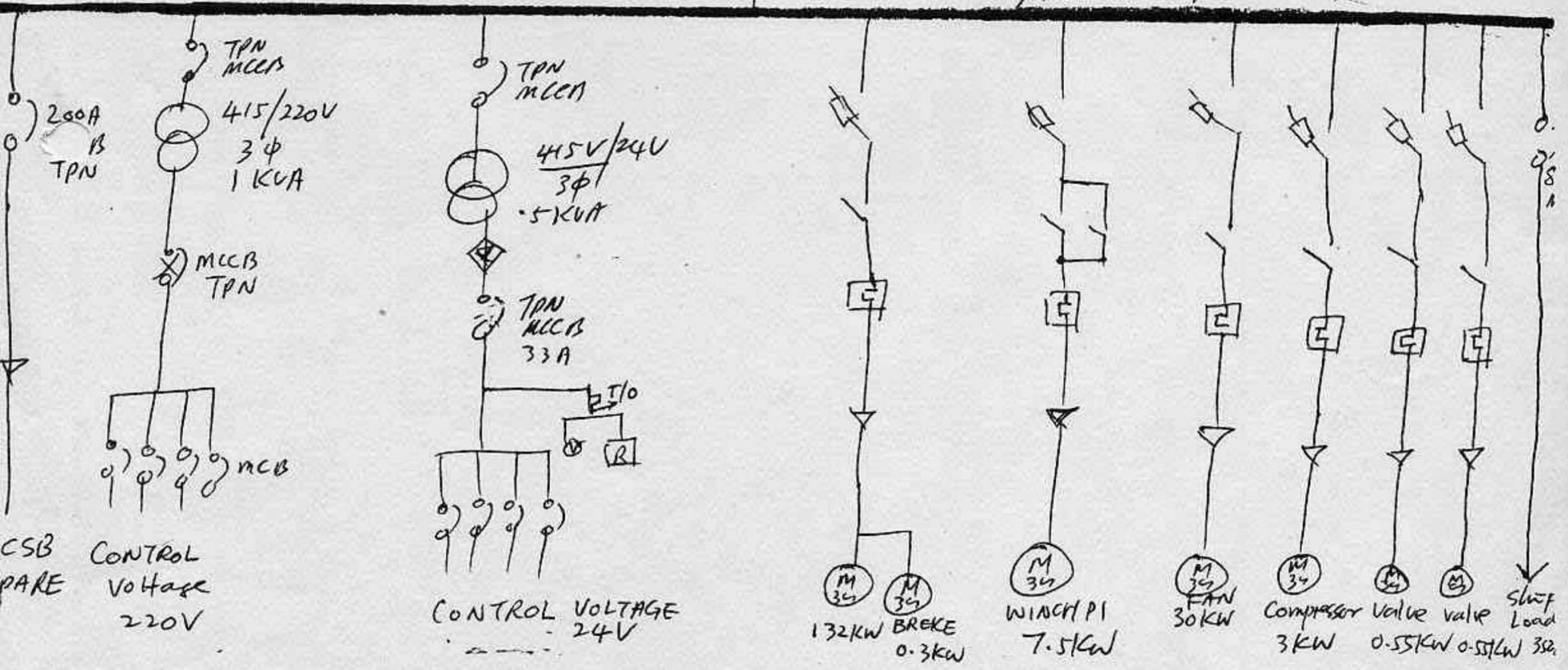
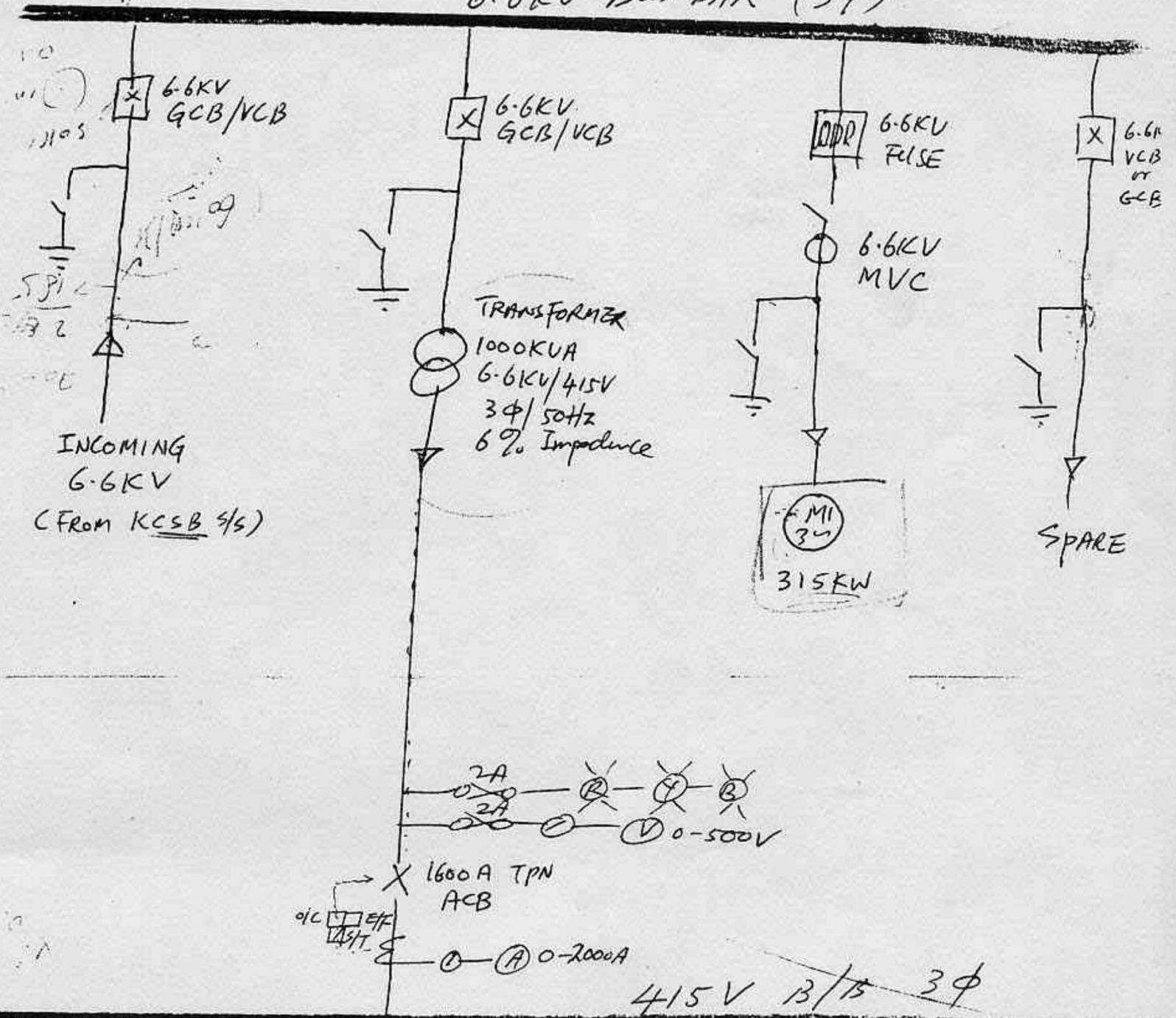
Date: 2/6/94

Mr. Chang C.F.  
FX 2-4291526

Appreciate your offer of PLC, Motors AND SWITCHGEAR PANELS FROM SIMONS)

THANKS.

*nh*  
(TAY NGANK)

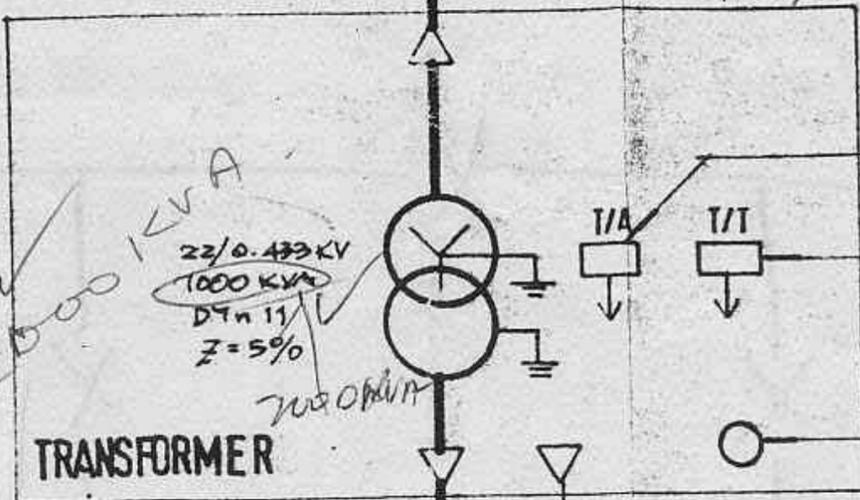
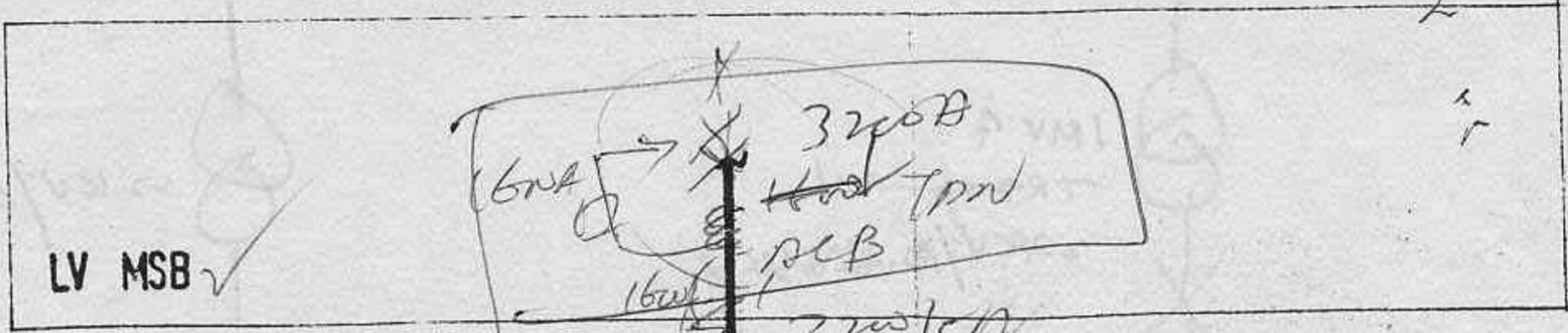


- MOTOR LIST:
- 315KW / 3φ / 6.6KV - 1 NO.
  - 7.5KW / 3φ / 415V - 2 NOS.
  - 0.3KW / 3φ / 415V - 2 NOS.
  - 30KW / 3φ / 415V - 1 NO.

- 0.55KW / 3φ / 415V - 2 NOS.
- 0.10KW / 3φ / 415V - 2 NOS.
- 132KW / 3φ / 415V - 1 NO.

- LIGHTINGS-
- 2.4KW (2 NO)
  - 1.01KW (2 NO)

26-4-602 (26-4-602)



7X500mm<sup>2</sup>/1C PVC/PVC IN TRENCH C/W EARTH TAPE

16X1000mm<sup>2</sup>/1C XLPE/PVC

TEMPERATURE ALARM

TEMPERATURE TRIP

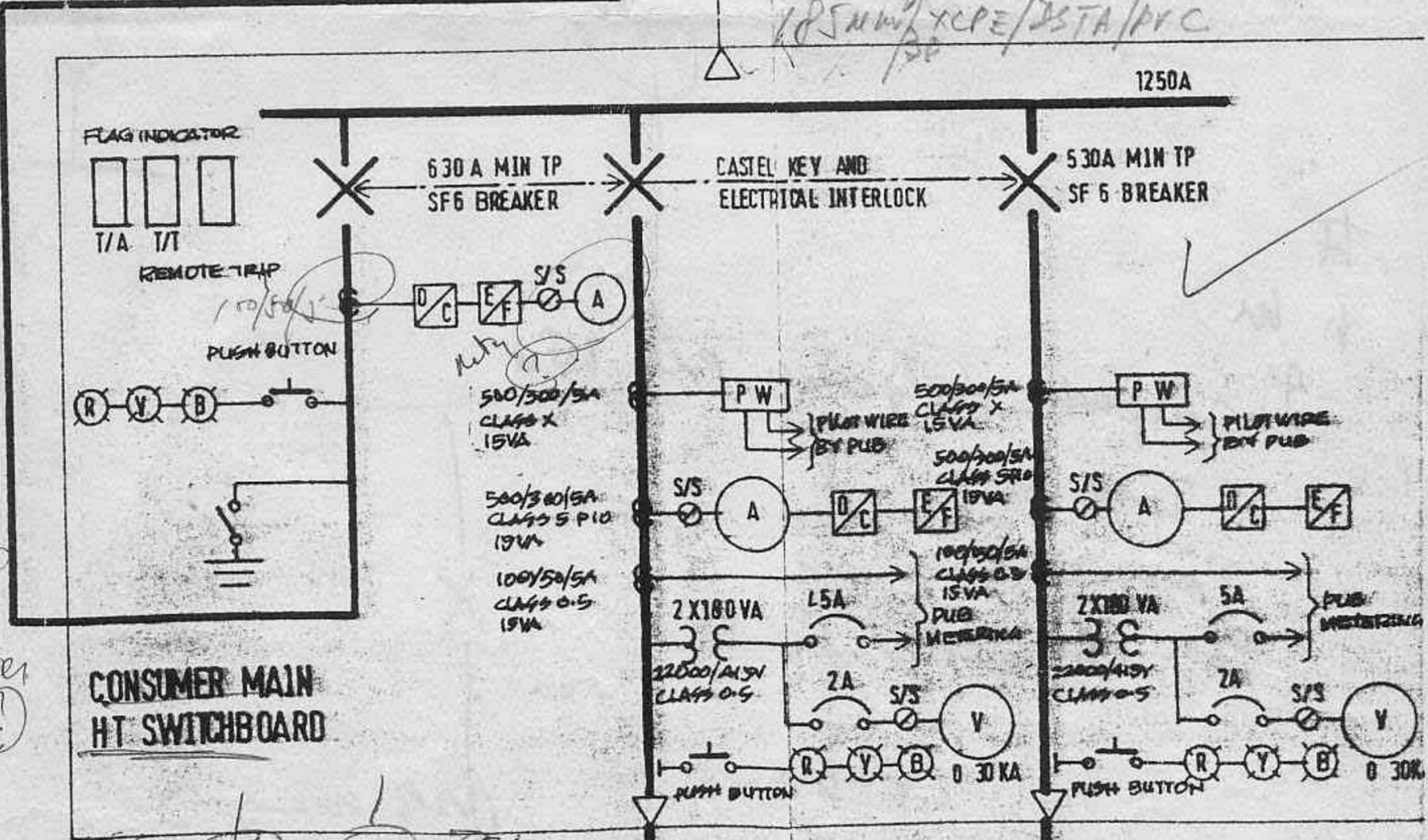
REMOTE TRIP EMERGENCY MUSHROOM BUTTON

7X25mm<sup>2</sup>/1C PVC/PVC

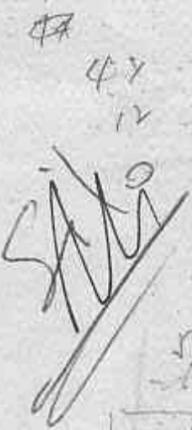
185mm<sup>2</sup> DSTA/3 XLPE/DSTA/PVC  
1X120mm<sup>2</sup>/1C SCREENED XLPE/SWA/PVC  
C/W EARTH TAPE 25MMX3.25MM COPPER

185mm<sup>2</sup> XLPE/DSTA/PVC

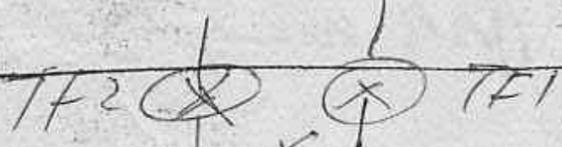
1250A



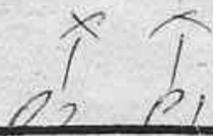
Insubtech  
stop  
styrofoam



meter



T, M, SD



1 MV 4  
TRAF  
22KV/0.433KV

22KV/0.433KV

PUB  
main  
No 1

PUB  
main  
No 2

22/433

#  
4 W

Busbar - Stasiun Pk W

5 Turan Aka 2  
Spine 2263  
TEL 061 2901.

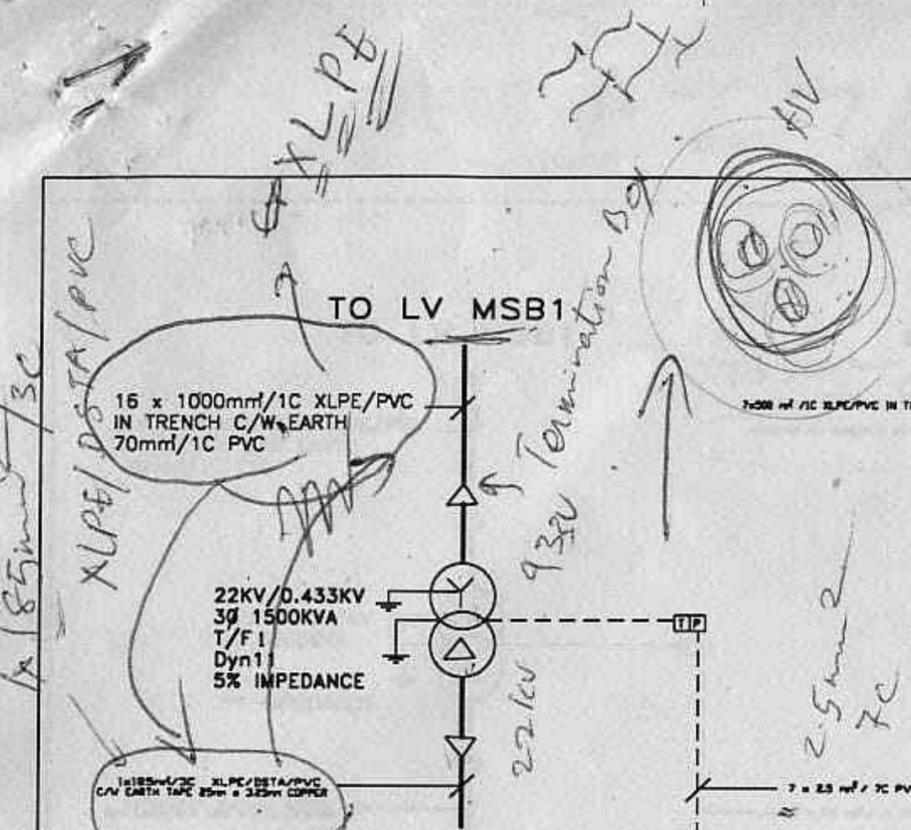
PUB main 1  
HT

PUB main 2

22.5m  
PVC + 16m  
ECC

Insulpack - Styrotek . Pl. HT main

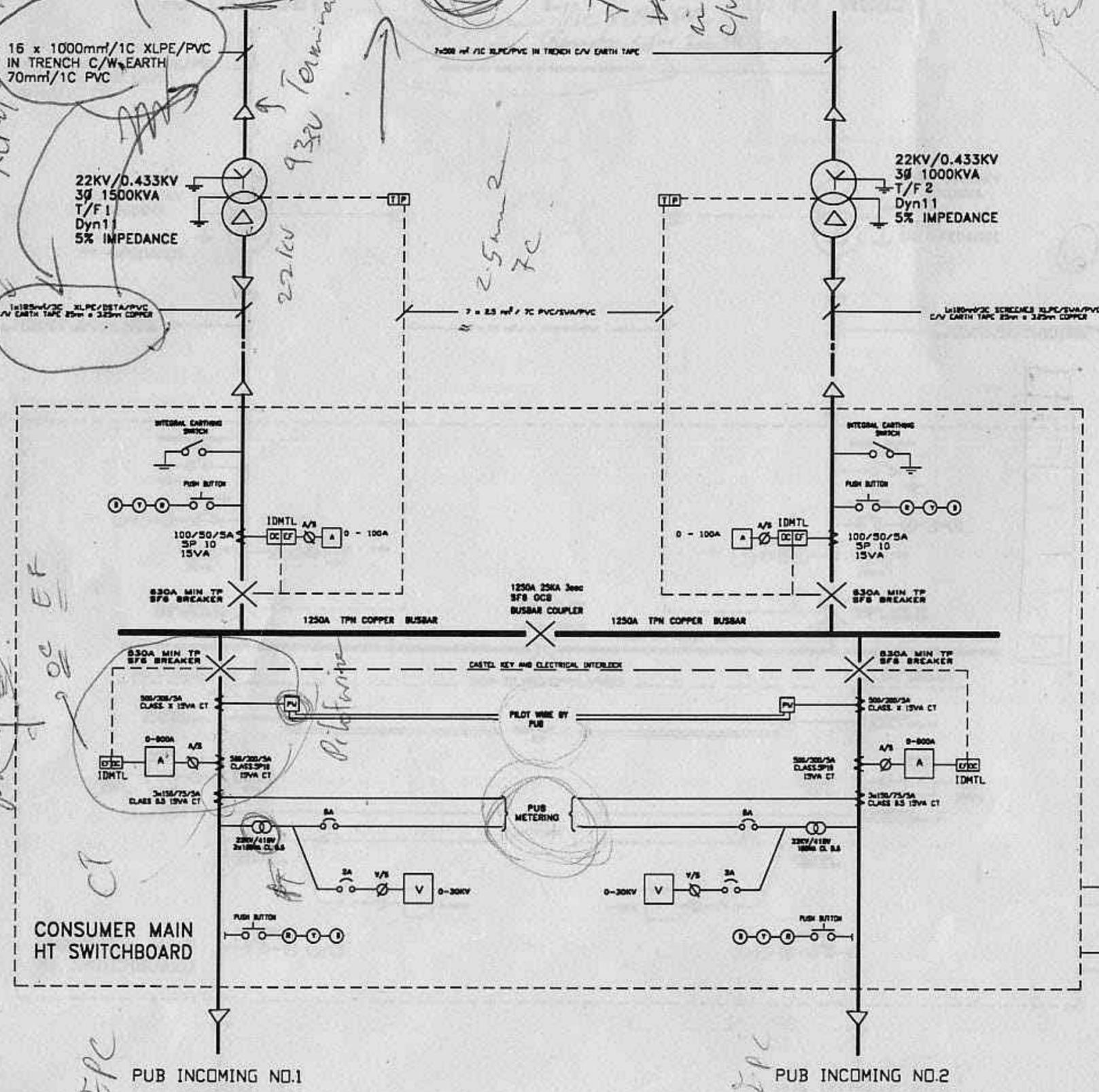
C:\LYPE\DRAW\ONG\E412.DWG



Current  
EPC  
PUB INCOMING NO.1

TO LV MSB1

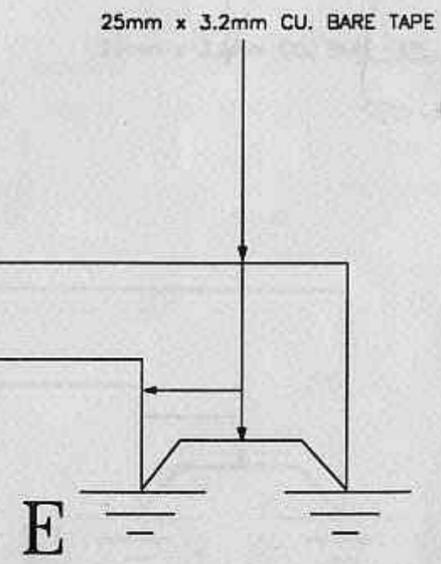
TO LV MSB2



ELECTRICAL LEGEND	
	OVERCURRENT RELAY
	EARTH FAULT RELAY
	PILOT WIRE RELAY
	PRESSURE RELAY
	THERMAL RELAY ALARM TRIP
	AMMETER
	KILO-VOLTMETER
	OCB - GAS CIRCUIT BREAKER
	VOLTAGE TRANSFORMER
	RED YELLOW BLUE NEON LIGHT POTENTIAL INDICATING LIGHT
	AMMETER SELECTOR SWITCH
	CURRENT TRANSFORMER
	CABLE END BOX
	CIRCUIT BREAKER YSF6
	AIR CIRCUIT BREAKER
	IDMTL INVERSE DEFINITE MINIMUM TIME LAG
	YSF6 SULPHUR HEXAFLUORIDE



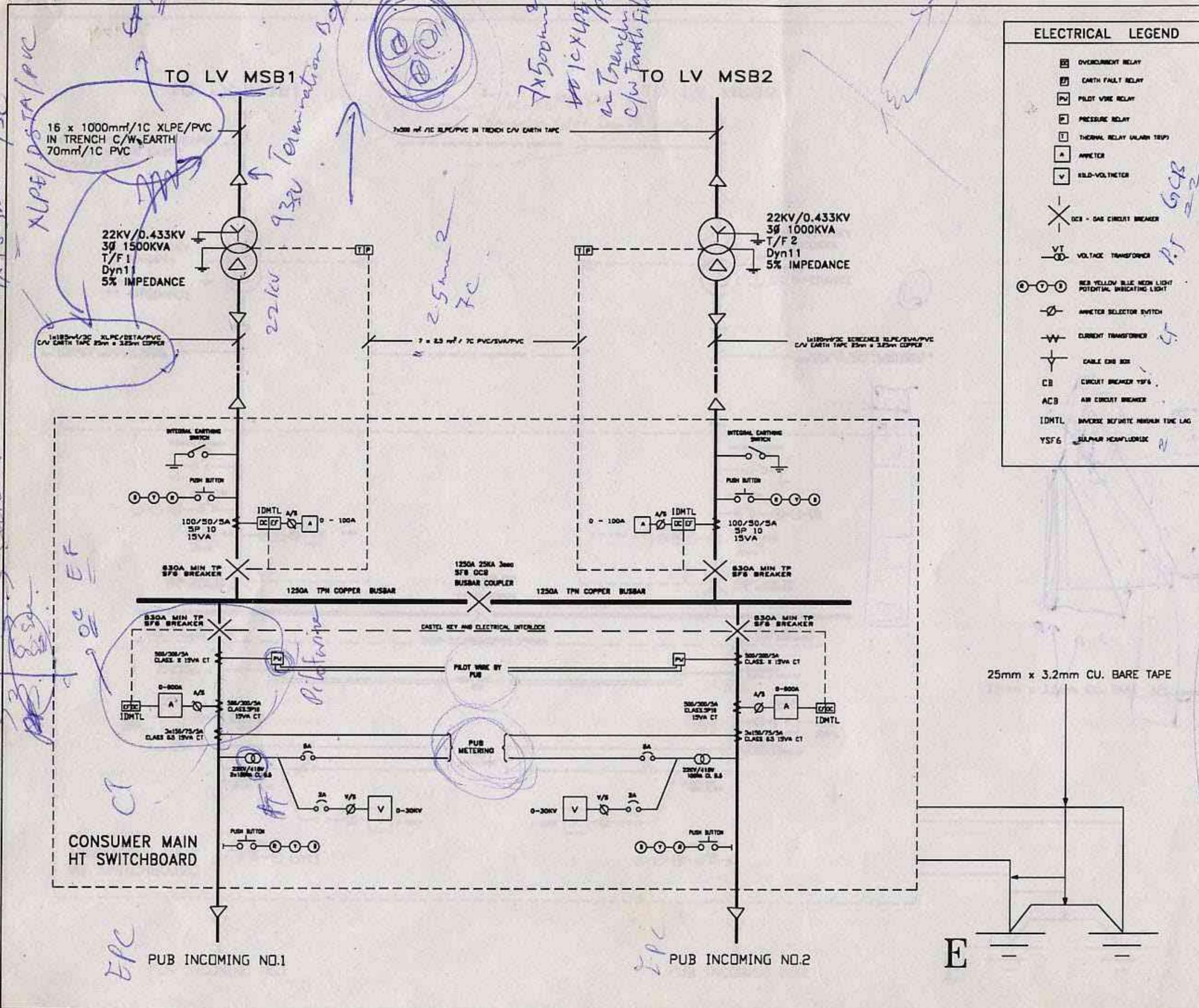
PROJECT PROPOSED ELECTRICAL INSTALLATION FOR INSULPACK - STYROTEK PTE LTD. 5 TUAS AVE.2 SINGAPORE 2263	
TITLE OF WORK HT MAIN SINGLE-LINE DIAGRAM	
DRAWING TITLE HT MAIN SINGLE-LINE DIAGRAM	
OWNER INSULPACK - STYROTEK PTE LTD 5 TUAS AVE.2 SINGAPORE 2263	
CONSULTANT HYTECH Mechanical & Electrical Services Pte Ltd NO. 38 Holland Grove Road Singapore 1027 Tel : 4896667 Fax : 4888365	
DATE FEB'94	SCALE NTS
DRAWN BY THANT ZIN	CHECKED BY H.K. ONG
DRAWING NO. E412	



Insulpack - Styrotek . Pl. HT main  
 C:\LYPI\DRAW\ONG\E412.DWG

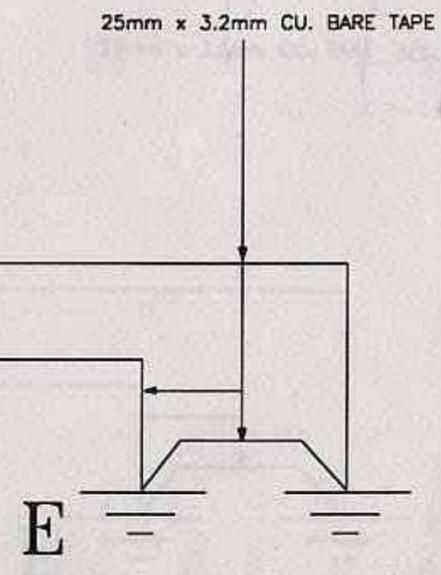
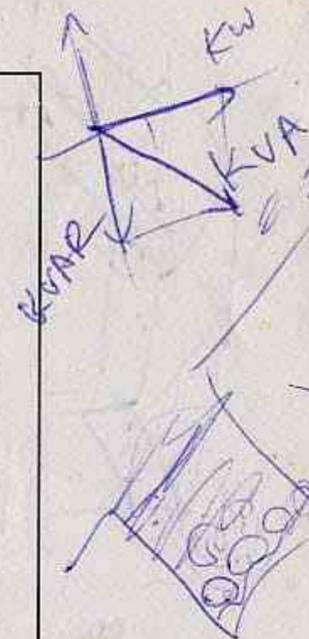
*Handwritten notes:*  
 XLPE/DSTA/PVC  
 16 x 1000mm<sup>2</sup>/1C XLPE/PVC IN TRENCH C/W EARTH 70mm<sup>2</sup>/1C PVC  
 7x50mm<sup>2</sup>  
 10x10XLPE  
 air trench c/w tarth fill  
 22kV termination sq  
 2.5mm<sup>2</sup> RC  
 7 x 25 mm<sup>2</sup> 7C PVC/SVA/PVC

*Handwritten notes:*  
 185mm<sup>2</sup>/3C  
 Current  
 0.5  
 0.2  
 0.1  
 EPC



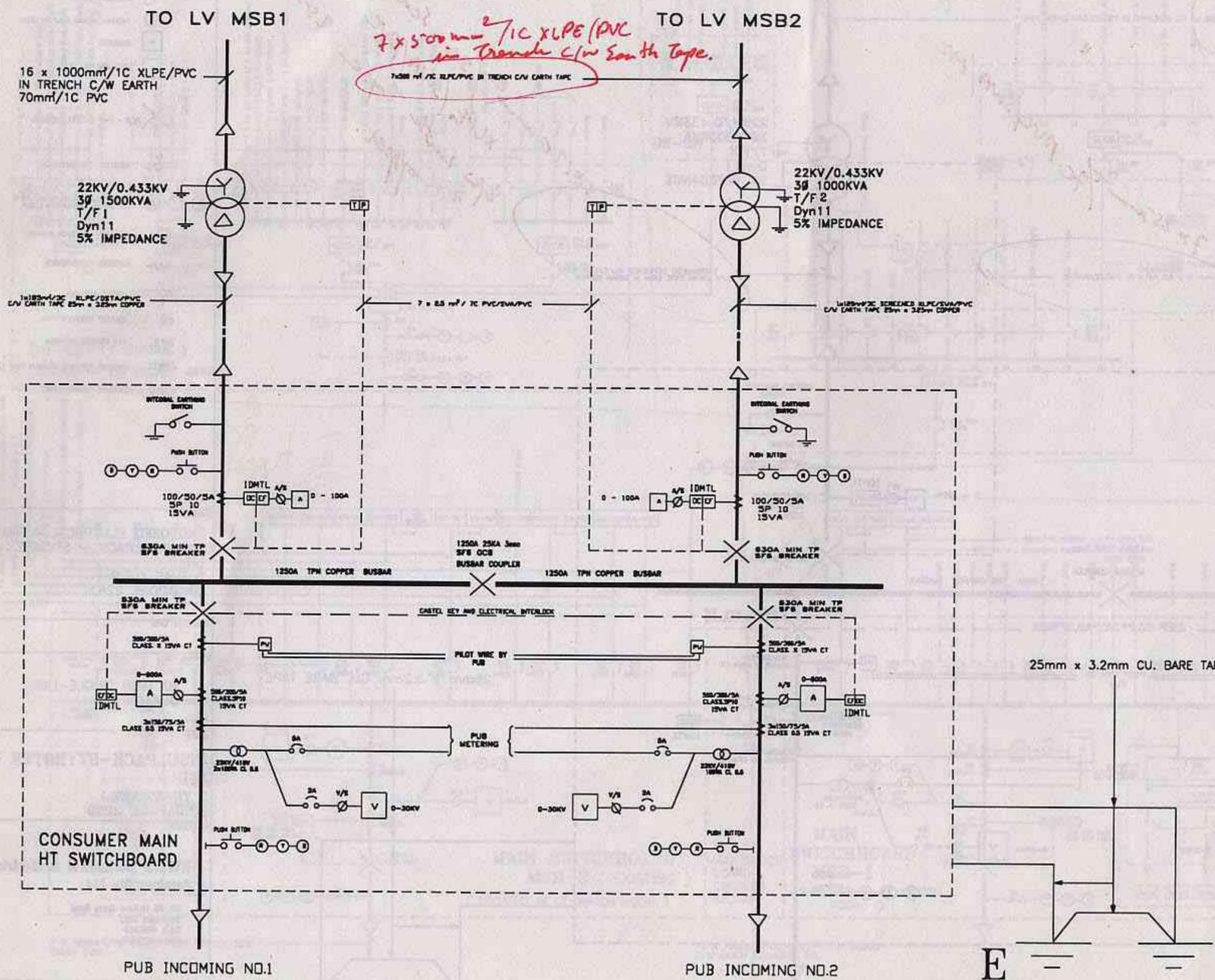
ELECTRICAL LEGEND	
	OVERCURRENT RELAY
	EARTH FAULT RELAY
	PILOT WIRE RELAY
	PRESSURE RELAY
	THERMAL RELAY (ALARM TRIP)
	AMMETER
	KILO-VOLTMETER
	OCB - SFS CIRCUIT BREAKER
	VOLTAGE TRANSFORMER
	RED YELLOW BLUE NEON LIGHT POTENTIAL INDICATING LIGHT
	AMMETER SELECTOR SWITCH
	CURRENT TRANSFORMER
	CABLE END BOX
	CIRCUIT BREAKER YSF6
	AIR CIRCUIT BREAKER
	INVERSE DEFERRE REVERSE TIME LAG
	SULPHUR HEXAFLUORIDE

PROJECT	
PROPOSED ELECTRICAL INSTALLATION FOR INSULPACK - STYROTEK PTE LTD. 5 TUAS AVE.2 SINGAPORE 2263	
TITLE OF WORK	
HT MAIN SINGLE-LINE DIAGRAM	
OWNER	
INSULPACK - STYROTEK PTE LTD 5 TUAS AVE.2 SINGAPORE 2263	
CONSULTANT	
HYTECH Mechanical & Electrical Services Pte Ltd NO. 36 Holland Grove Road Singapore 1027 Tel : 4696667 Fax : 4696365	
DATE	SCALE
FEB'94	NTS
DRAWN BY	CHECKED BY
THANT ZIN	H.K. ONG
DRAWING NO.	
E412	



HT Single Line Diagram

Insulpack - Styr Styrstek P.L  
 C:\Lyp\DRAW\ONCA\E112-1.DWG



*7 x 50mm² 7/1C XLPE/PVC  
 in Trench c/w Earth Tape.  
 7 x 85mm² 7/1C PVC/EVA/PVC  
 in Trench c/w Earth Tape*

**ELECTRICAL LEGEND**

- OVERCURRENT RELAY
- EARTH FAULT RELAY
- PILOT WIRE RELAY
- PRESSURE RELAY
- THERMAL RELAY ALARM TRIP
- AMMETER
- WELD-VOLTMETER
- OCB - GAS CIRCUIT BREAKER
- VOLTAGE TRANSFORMER
- RED YELLOW BLUE NEON LIGHT POTENTIAL INDICATING LIGHT
- AMMETER SELECTOR SWITCH
- CURRENT TRANSFORMER
- CABLE END BOX
- CIRCUIT BREAKER YSF6
- AIR CIRCUIT BREAKER
- IDMTL INVERSE DEFINITE MINIMUM TIME LAG
- SULPHUR HEXAFLUORIDE

*CT  
 cable end box*

PROJECT  
 PROPOSED ELECTRICAL INSTALLATION  
 FOR INSULPACK - STYROTEK PTE  
 LTD.  
 5 TUAS AVE.2  
 SINGAPORE 2263

ISSUE OF WORK  
 DRAWING TITLE  
 HT MAIN SINGLE-LINE  
 DIAGRAM

OWNER  
 INSULPACK-STYROTEK PTE  
 LTD  
 5 TUAS AVE.2  
 SINGAPORE 2263

CONSULTANT  
 HYTECH Mechanical & Electrical  
 Services Pte Ltd  
 NO. 36 Holland Grove Road  
 Singapore 1027  
 Tel : 4886667  
 Fax : 4883365

DATE  
 FEB'94  
 DRAWN BY  
 THANT ZIN  
 CHECKED BY  
 H.K. ONG

SCALE  
 NTS

DRAWING NO.  
 E412-1

TO LV MSB1

TO LV MSB2

16 x 1000mm<sup>2</sup>/1C XLPE/PVC  
IN TRENCH C/W EARTH  
70mm<sup>2</sup>/1C PVC

22KV/0.433KV  
3Ø 1500KVA  
T/F 1  
Dyn11  
5% IMPEDANCE

22KV/0.433KV  
3Ø 1000KVA  
T/F 2  
Dyn11  
5% IMPEDANCE

1x1180mm<sup>2</sup>/3C XLPE/DSTA/PVC  
C/W EARTH TAPE 25mm x 3.25mm COPPER

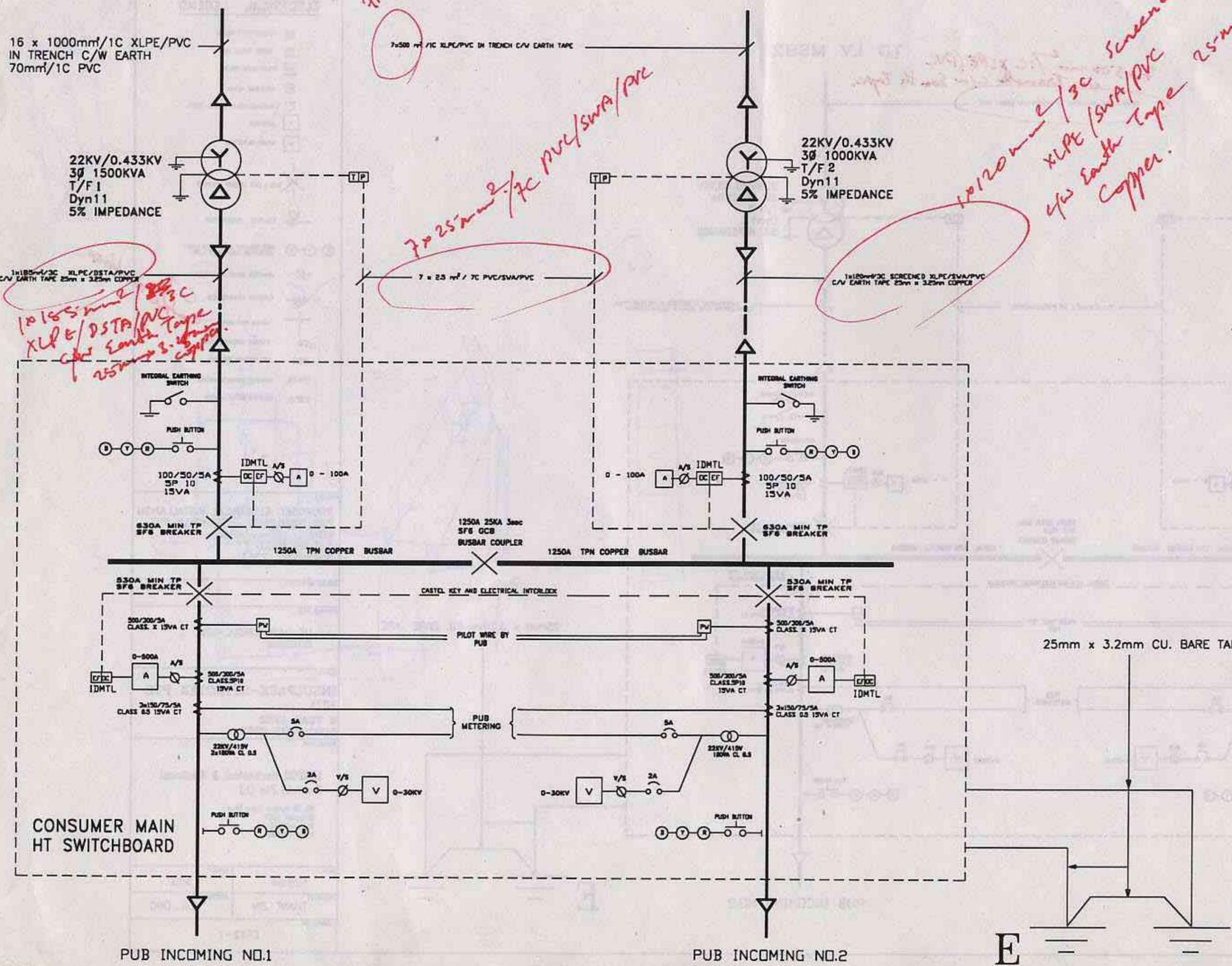
7x500mm<sup>2</sup>/1C XLPE/PVC IN TRENCH C/W EARTH TAPE

1x1180mm<sup>2</sup>/3C SCREENED XLPE/SWA/PVC  
C/W EARTH TAPE 25mm x 3.25mm COPPER

7 x 25mm<sup>2</sup>/7C PVC/SWA/PVC

*10 x 185mm<sup>2</sup>/3C XLPE/DSTA/PVC  
C/W EARTH TAPE  
25mm x 3.25mm COPPER*

*1 x 120mm<sup>2</sup>/3C Screened XLPE/SWA/PVC  
C/W EARTH TAPE  
25mm x 3.25mm COPPER*



- EARTH FAULT RELAY
- PILOT WIRE RELAY
- PRESSURE RELAY
- THERMAL RELAY ALARM TRIP
- AMMETER
- KILO-VOLTMETER
- GCB - GAS CIRCUIT BREAKER
- VOLTAGE TRANSFORMER
- RED YELLOW BLUE GREEN LIGHT POTENTIAL INDICATING LIGHT
- AMMETER SELECTOR SWITCH
- CURRENT TRANSFORMER
- CABLE END BOX
- CIRCUIT BREAKER YSF6
- AIR CIRCUIT BREAKER
- INVERSE DEFINITE MINIMUM TIME LAG
- SULPHUR HEXAFLUORIDE

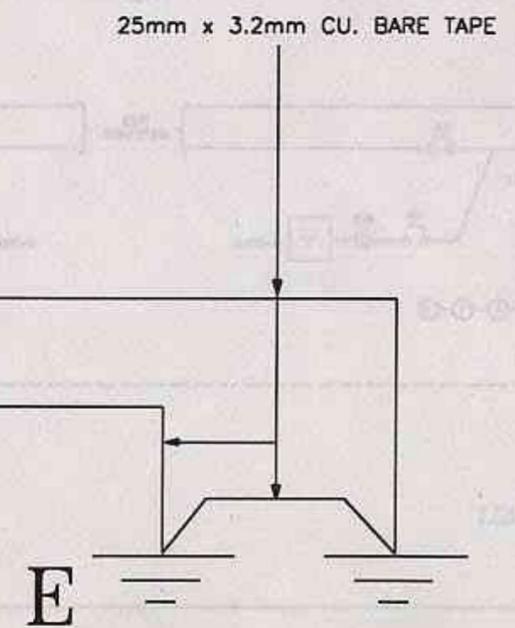
PROJECT  
PROPOSED ELECTRICAL INSTALLATION FOR INSULPACK - STYROTEK PTE LTD.  
5 TUAS AVE.2  
SINGAPORE 2263

TITLE OF DRAWING  
HT MAIN SINGLE-LINE DIAGRAM

OWNER  
INSULPACK-STYROTEK PTE LTD  
5 TUAS AVE2  
SINGAPORE 2263

CONSULTANT  
HYTECH Mechanical & Electrical Services Pte Ltd  
NO. 38 Holland Grove Road  
Singapore 1027  
Tel : 4896667  
Fax : 4829365

DATE: FEB'94  
SCALE: NTS  
DRAWN BY: THANT 7IN  
CHECKED BY: H K ONG



COPY DRAWING E412-2 DWG  
 LT. Single line diagram

Part IV

Part III

Part I

Part II

ELECTRICAL LEGEND

- OVERCURRENT RELAY
- EARTH FAULT RELAY
- ELCB
- ELR
- RCCB/RCB
- THERMAL RELAY
- AMMETER
- VOLTMETER
- ACB - AIR CIRCUIT BREAKER
- ISOLATOR
- RED YELLOW BLUE NEON LIGHT POTENTIAL INDICATING LIGHT
- AMMETER/VOLT METER SELECTOR SWITCH
- CURRENT TRANSFORMER
- CABLE CHG BOX
- MCB - CIRCUIT BREAKER
- MCCB - MINIATURE CIRCUIT BREAKER
- ACB - AIR CIRCUIT BREAKER
- IDMTL - INVERSE DEFINTIC MUMBER TIME LAG

PROJECT  
 PROPOSED ELECTRICAL INSTALLATION FOR INSULPACK-STYROTEX PTE LTD AT 5 TUAS AVE 2, SINGAPORE 2263

TITLE OF WORK  
 DRAWING TITLE  
 LT SINGLE-LINE DIAGRAM

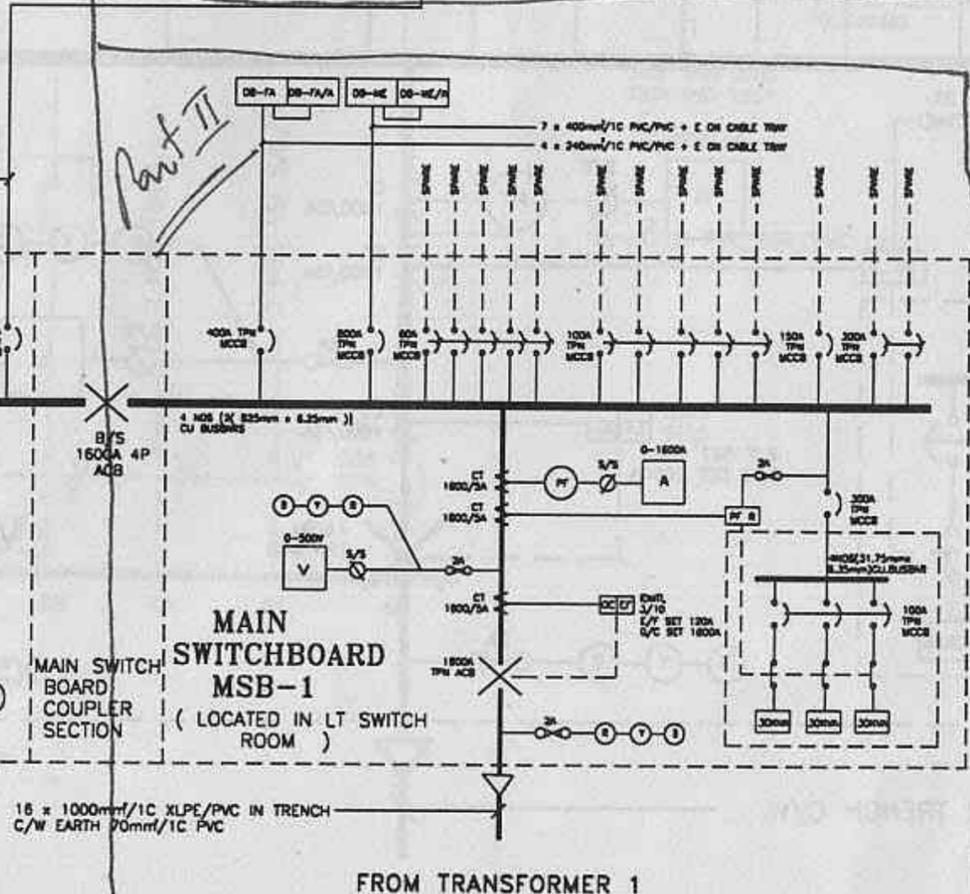
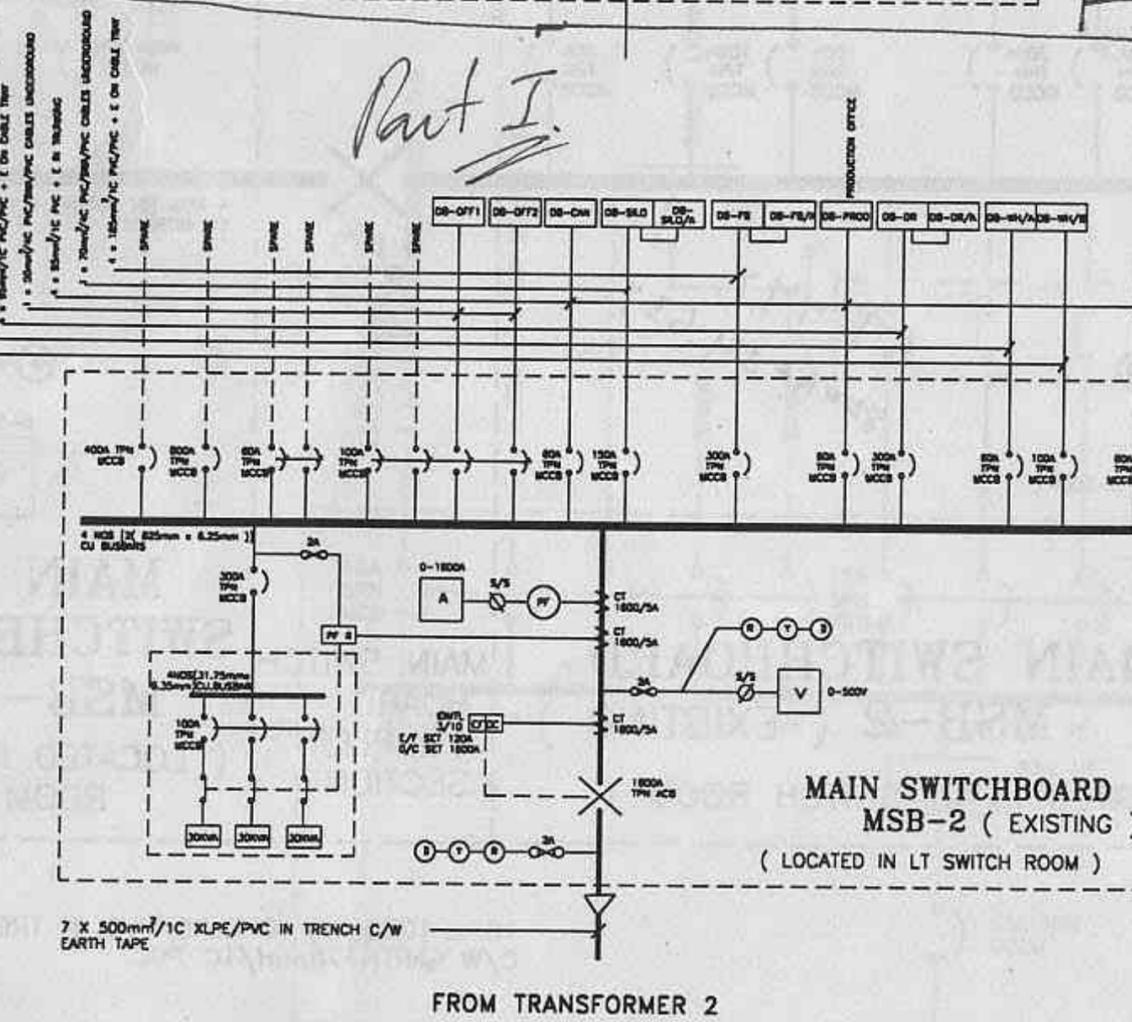
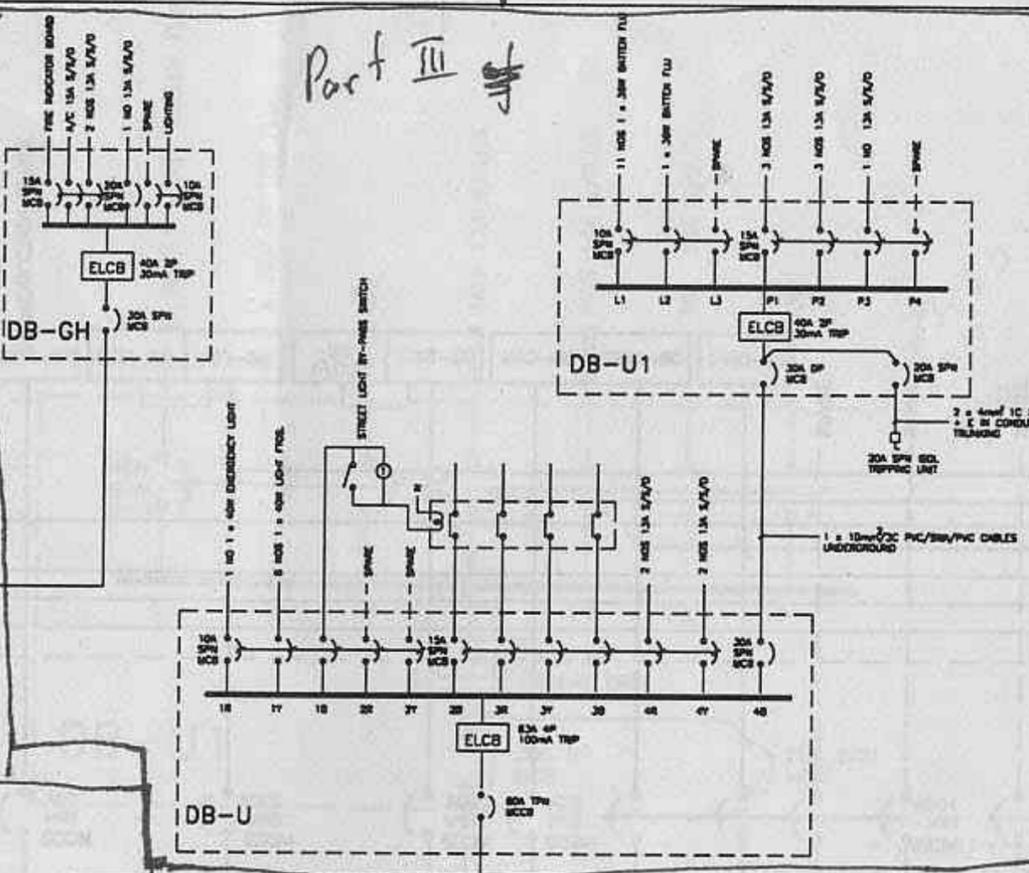
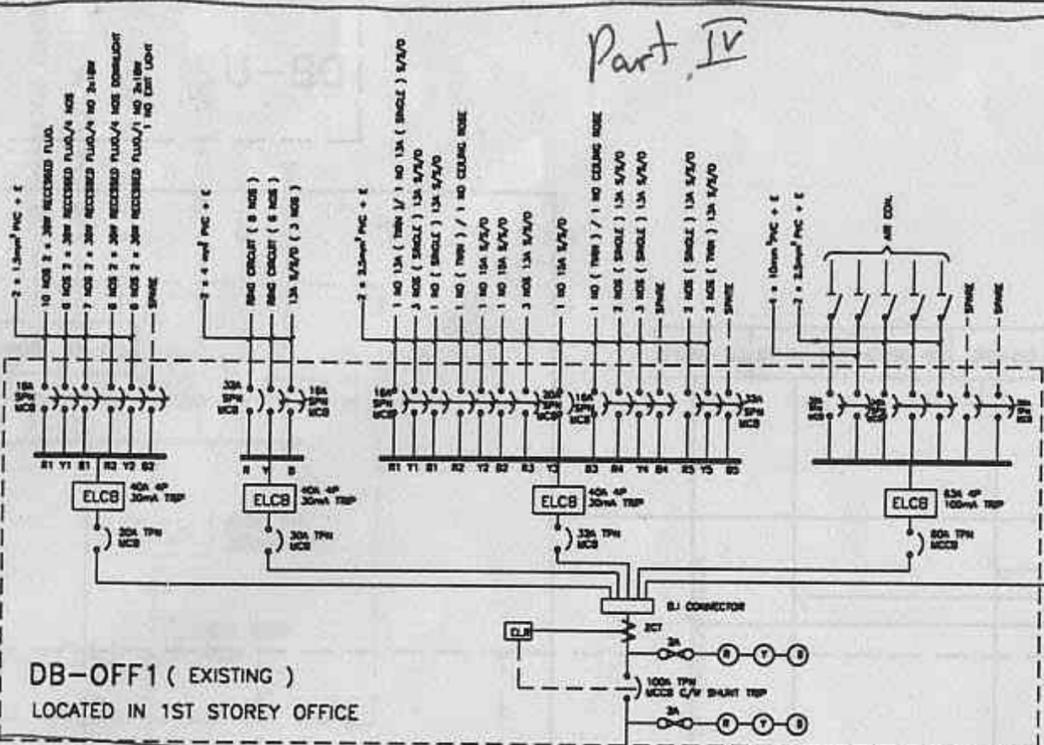
OWNER  
 INSULPACK-STYROTEX PTE LTD.  
 5 TUAS AVE 2  
 SINGAPORE 2263

CONSULTANT  
 HYTECH Mechanical & Electrical Services Pte Ltd  
 NO. 36 Holland Grove Road  
 Singapore 1027  
 Tel : 4894667  
 Fax : 4899365

DATE  
 APRIL '94  
 SCALE  
 NTS

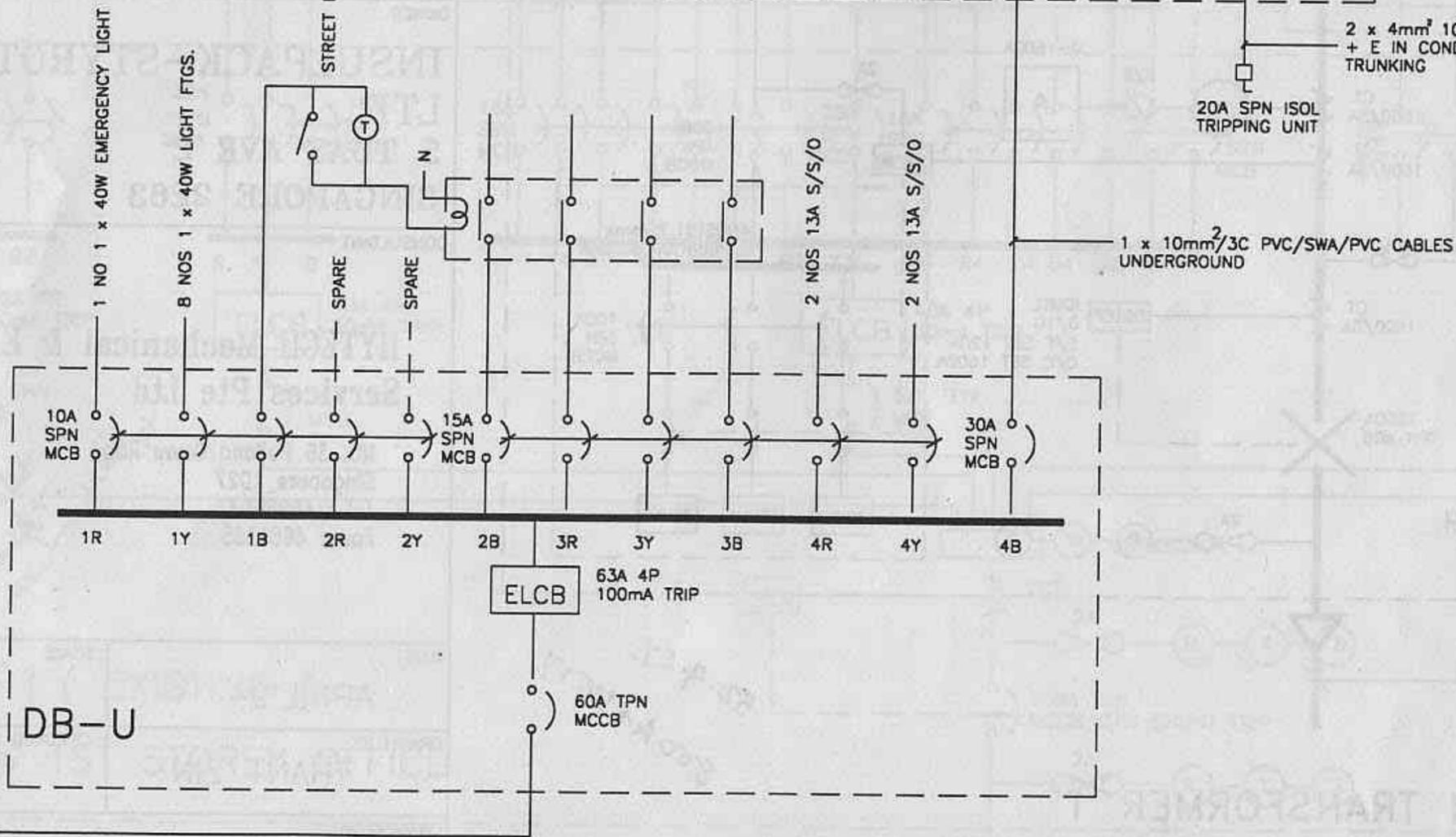
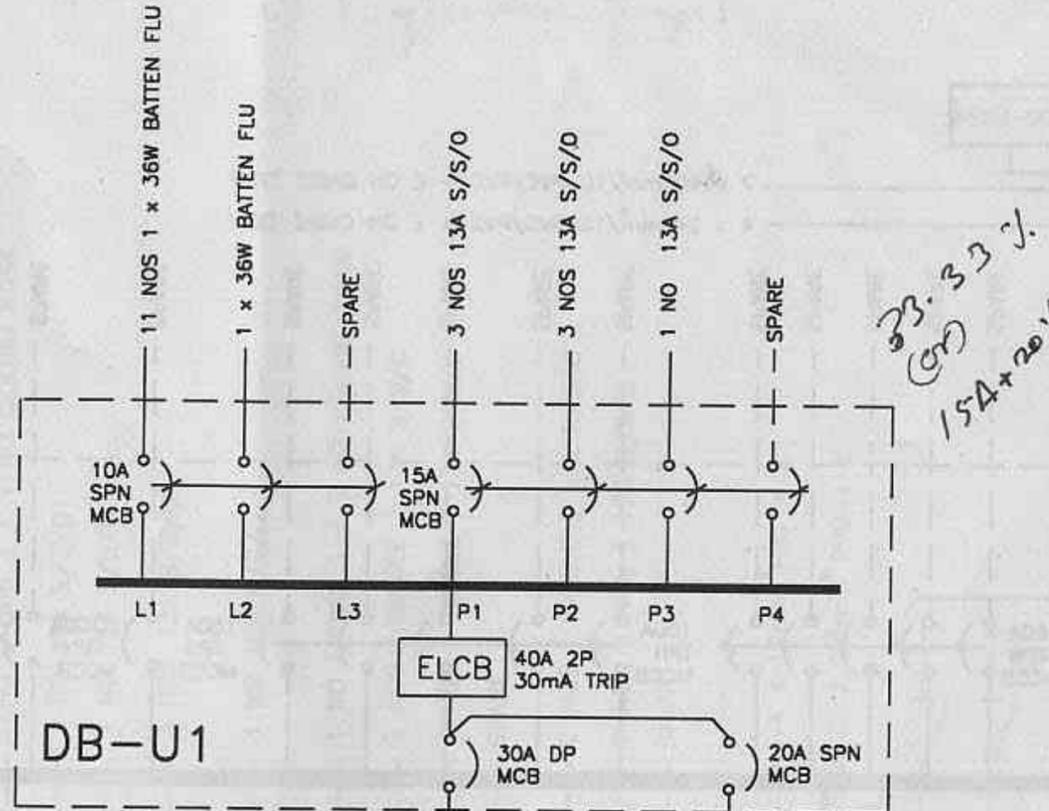
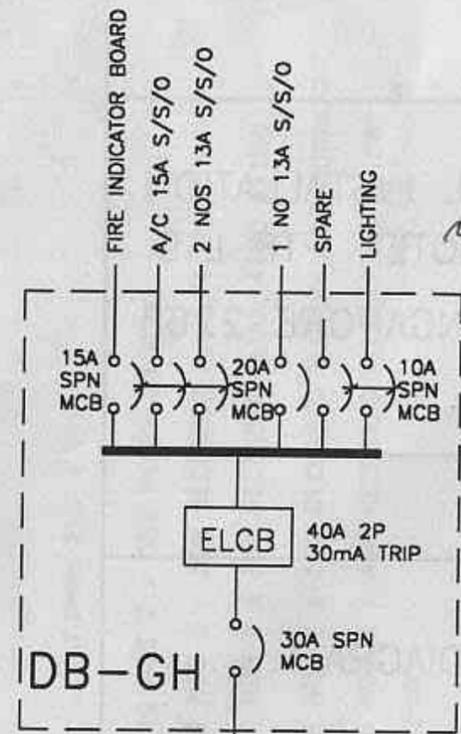
DRAWN BY  
 THANT ZIN  
 CHECKED BY  
 H.K. ONG

DRAWING NO.  
 E412-2





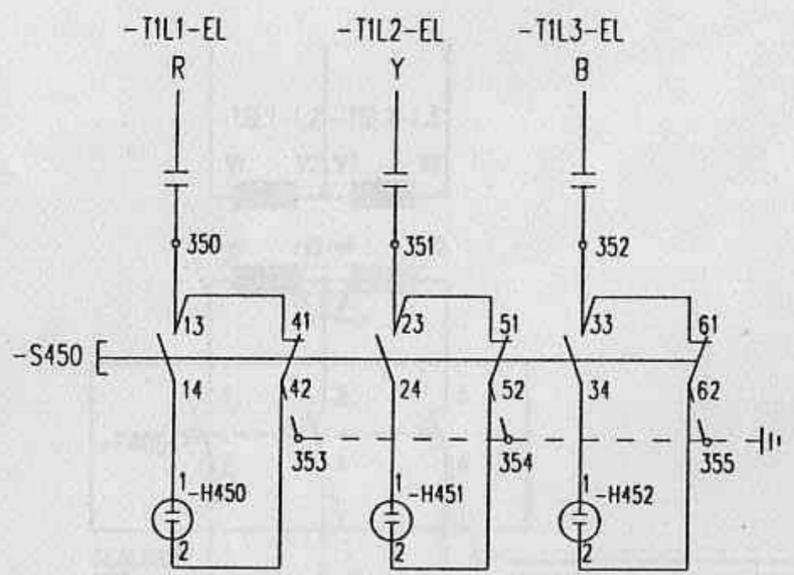
Part III of C:\LYP\DRAW\ONG\11\H12-2.DWG.



## ELECTRICAL LEG

-  OVERCURRENT RELAY
-  EARTH FAULT RELAY
-  ELCB EARTH LEAKAGE CIRCUIT BREAKER
-  ELR EARTH LEAKAGE RELAY
-  MCB/MCCB
-  T THERMAL RELAY
-  A AMMETER
-  V VOLTMETER
-  ACB - AIR CIRCUIT BREAKER
-  ISOLATOR
-  R Y B RED YELLOW BLUE NEUTRAL POTENTIAL INDICATING
-  AMMETER/VOLT METER
-  CURRENT TRANSFORMER
-  CABLE END BOX
-  MCB CIRCUIT BREAKER
-  MCCB MINIATURE CIRCUIT BREAKER
-  ACB AIR CIRCUIT BREAKER
-  IDMTL INVERSE DEFINITE MINIMUM TIME TRIP

NEON POTENTIAL INDICATOR



U00C252

Rev.					
Date					
Rel.					

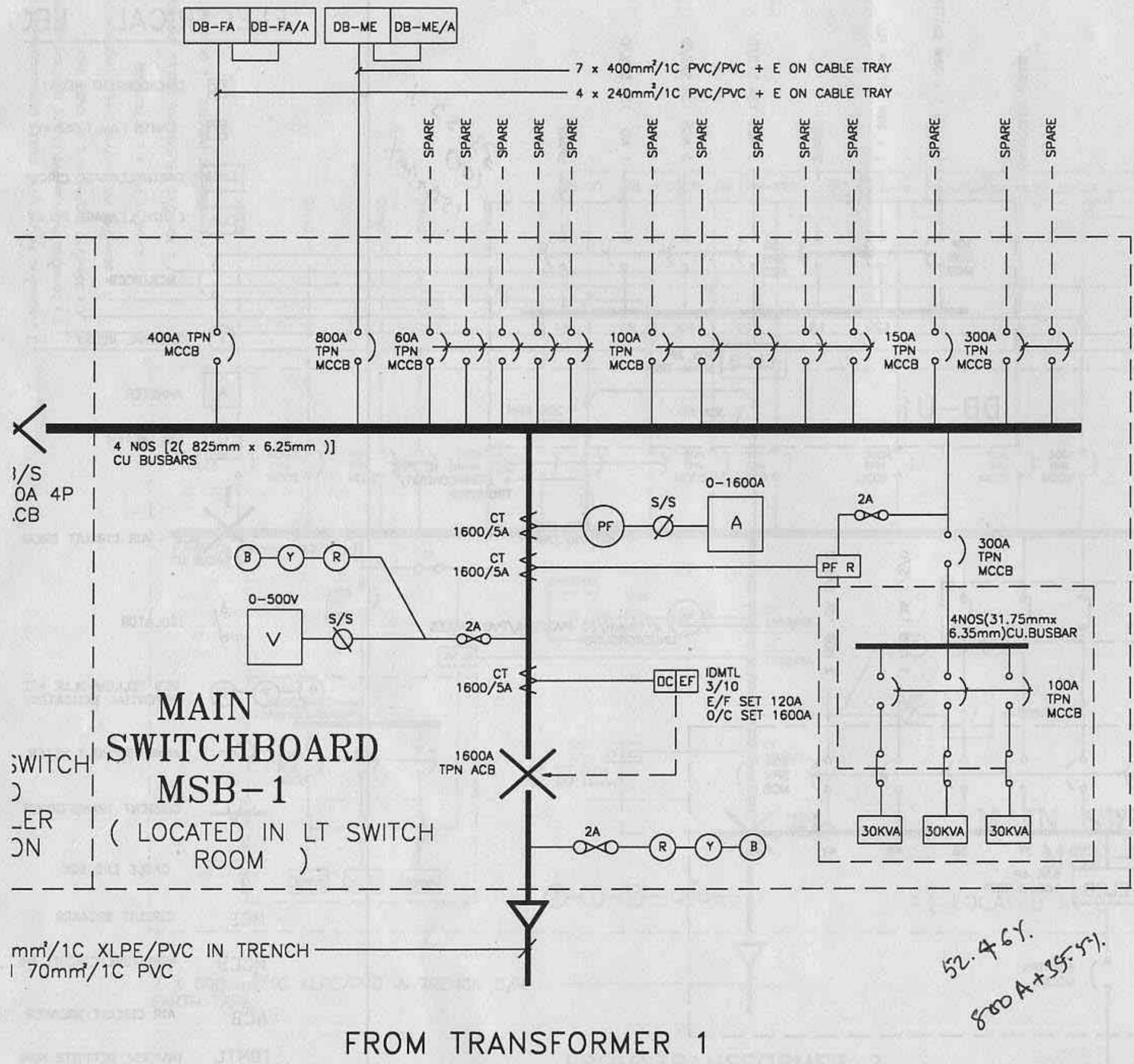
Title  
NEON POTENTIAL INDICATOR CIRCUIT  
PUB INCOMING 2

Project  
UNITED CEMENT  
22KV SWITCHGEAR TYPE ZS/VD4

D04 0153 402  
**ABB** ASEA BROWN BOVERI PTE LTD

Scale	Drawn	PC 14.3.95	Resp. Dept.	K.S.	Format	J
Checked	ASK	Released	ASK		Sheet	S2
					Cont.	SJ

Part II of C:\LYP\DRAW\ONG\E 412-2.DWG



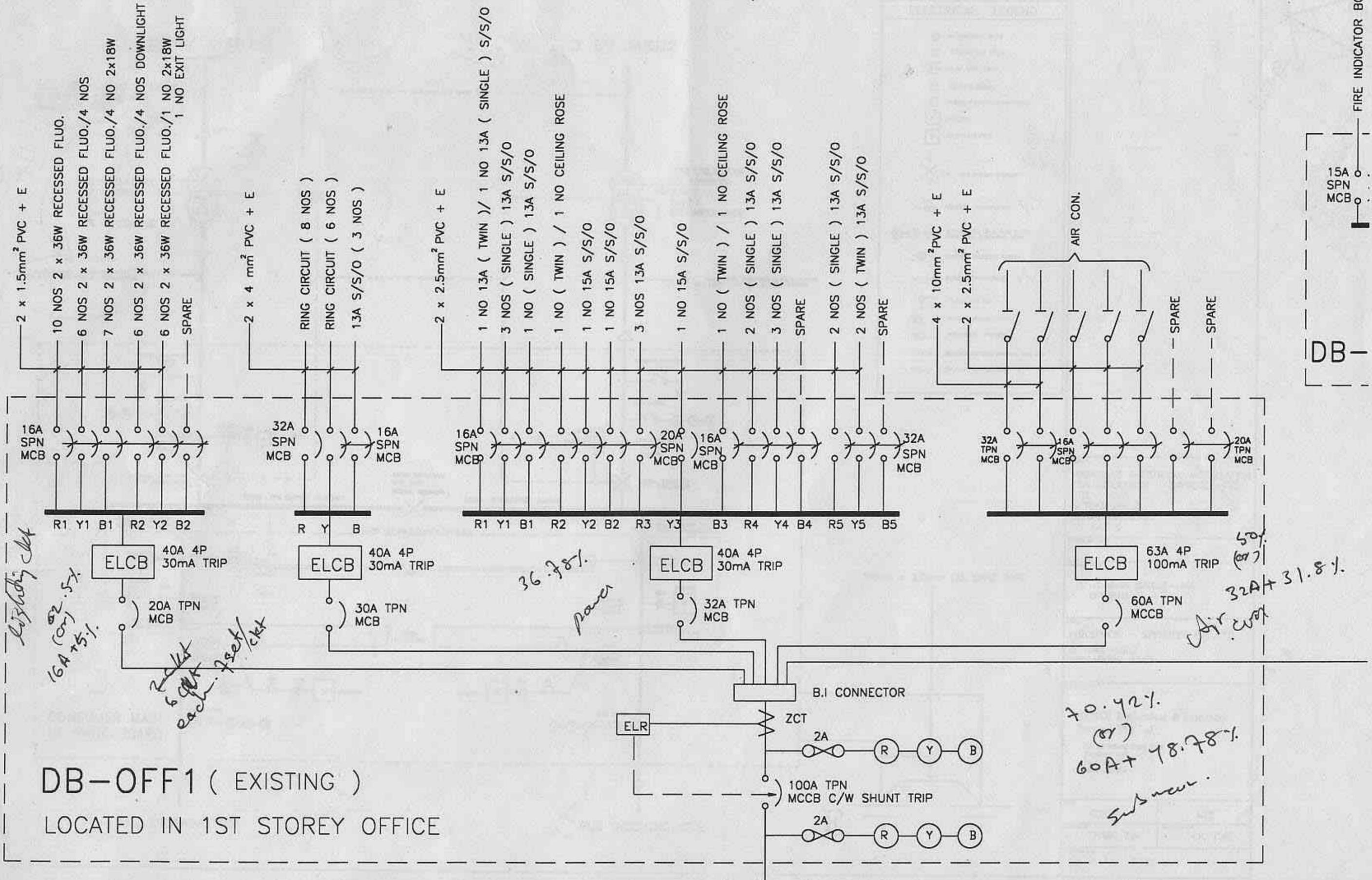
PROJECT	
PROPOSED ELECTRICAL INSTALLATION FOR INSULPACK-STYROTEX PTE LTD AT 5 TUAS AVE 2, SINGAPORE 2263	
TENURE OF LAND	
DRAWING TITLE	
LT SINGLE-LINE DIAGRAM	
OWNER	
INSULPACK-STYROTEX PTE LTD. 5 TUAS AVE 2 SINGAPORE 2263	
CONSULTANT	
HYTECH Mechanical & Electrical Services Pte Ltd NO. 36 Holland Grove Road Singapore 1027 Tel : 4696667 Fax : 4689365	
DATE	SCALE
APRIL '94	NTS
DRAWN BY	CHECKED BY
THANT ZIN	H.K. ONG
DRAWING NO.	

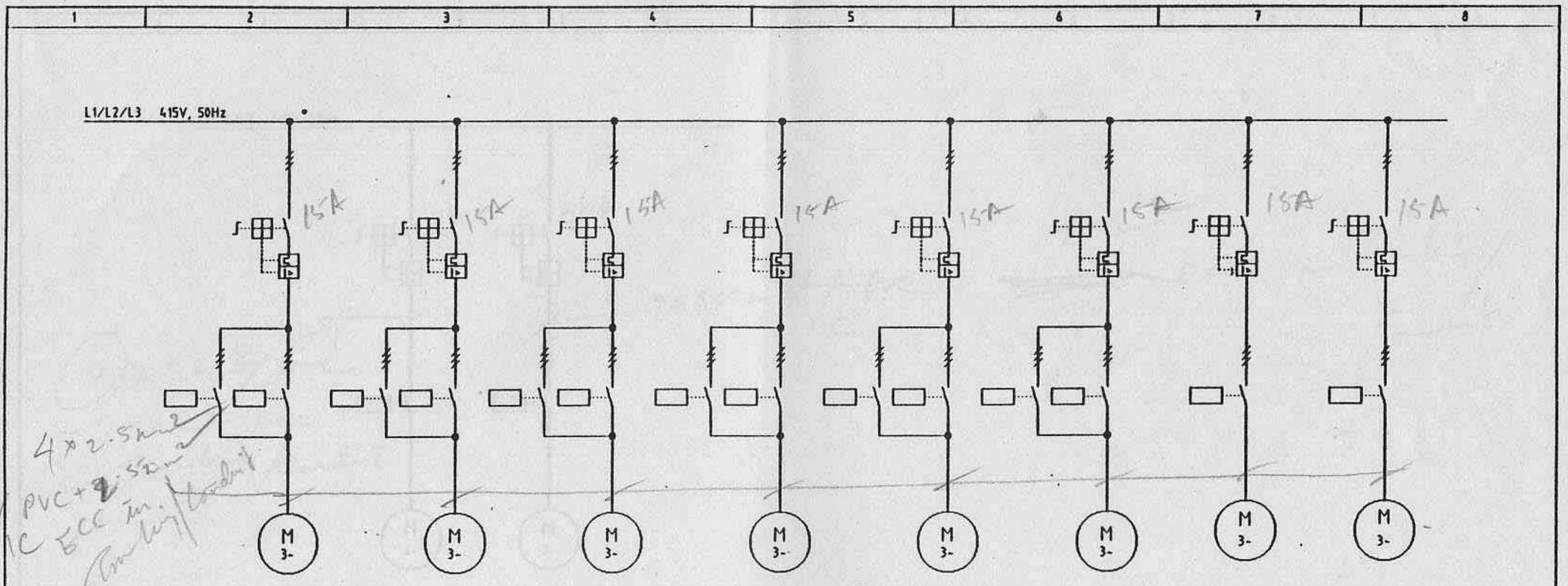
52.461.  
800A + 35.571.

mm<sup>2</sup>/1C XLPE/PVC IN TRENCH  
1 70mm<sup>2</sup>/1C PVC

FROM TRANSFORMER 1

Part IV of C:1 LYP DRAWING ON: E 412-2 .DWG.  
 LT. Single line drops:



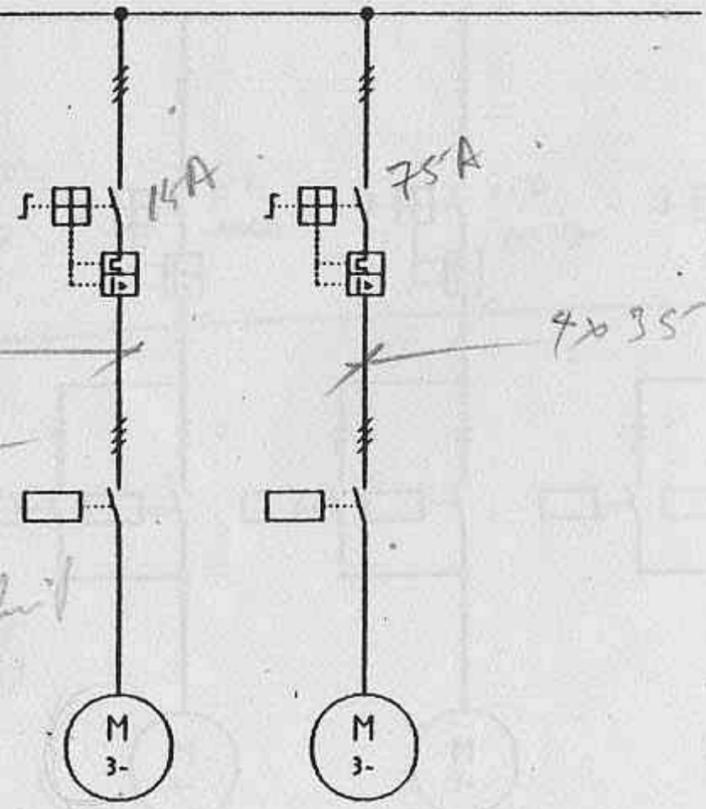


GROUP N°.	8.1.3.2.3A	8.1.3.2.3B	8.1.3.2.3C	8.1.3.2.3D	8.1.3.2.3E	8.1.3.2.3F	8.4.1.B	8.4.1.C
DESIGNATION	TWO WAY GATE						SCREW CONVEYOR	ROTARY LOCK
POWER	700 VA	700 VA	700 VA	700 VA	700 VA	700 VA	1,1 KW	0,55 KW

Preliminary 2. März 1994

Revision	Datum	Name	Datum	Name	SINGLE LINE DIAGRAM	CPAG	MCC SILO FEEDING	UNITED CEMENT PTE LTD		01-1/H1.734-900/A	2

L1/L2/L3 415V, 50Hz



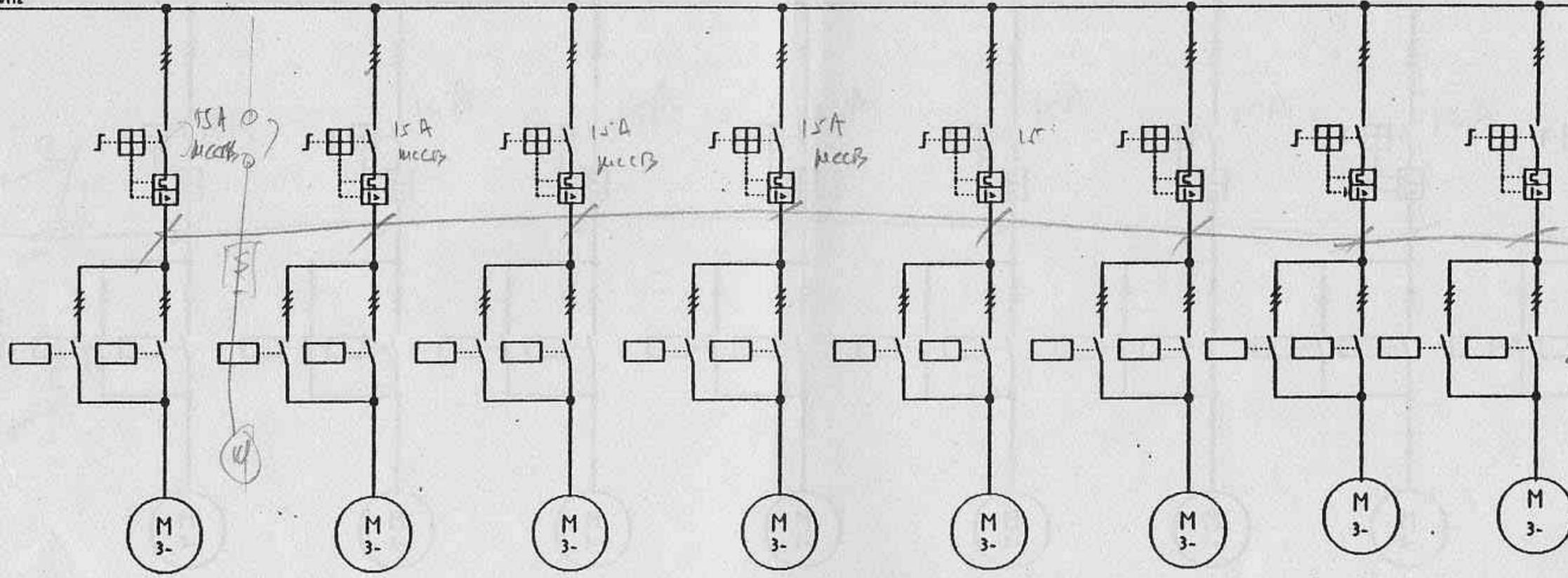
4x2.5mm<sup>2</sup> PVC  
+ 2.5mm<sup>2</sup> ECC  
in Trunking/Conduit

4x35mm<sup>2</sup> PVC + 25mm<sup>2</sup> ECC in Trunking/Conduit

GROUP N° :	8.4.1.D	8.4.1.E
DESIGNATION :	ROTARY LOCK	BLOWER
POWER VA :	0,55 KW	18,5 KW

Preliminary 2. März 1994

L1/L2/L3 415V, 50Hz



INCOMING FEEDER  
415V, 3-, 50Hz  
630 A

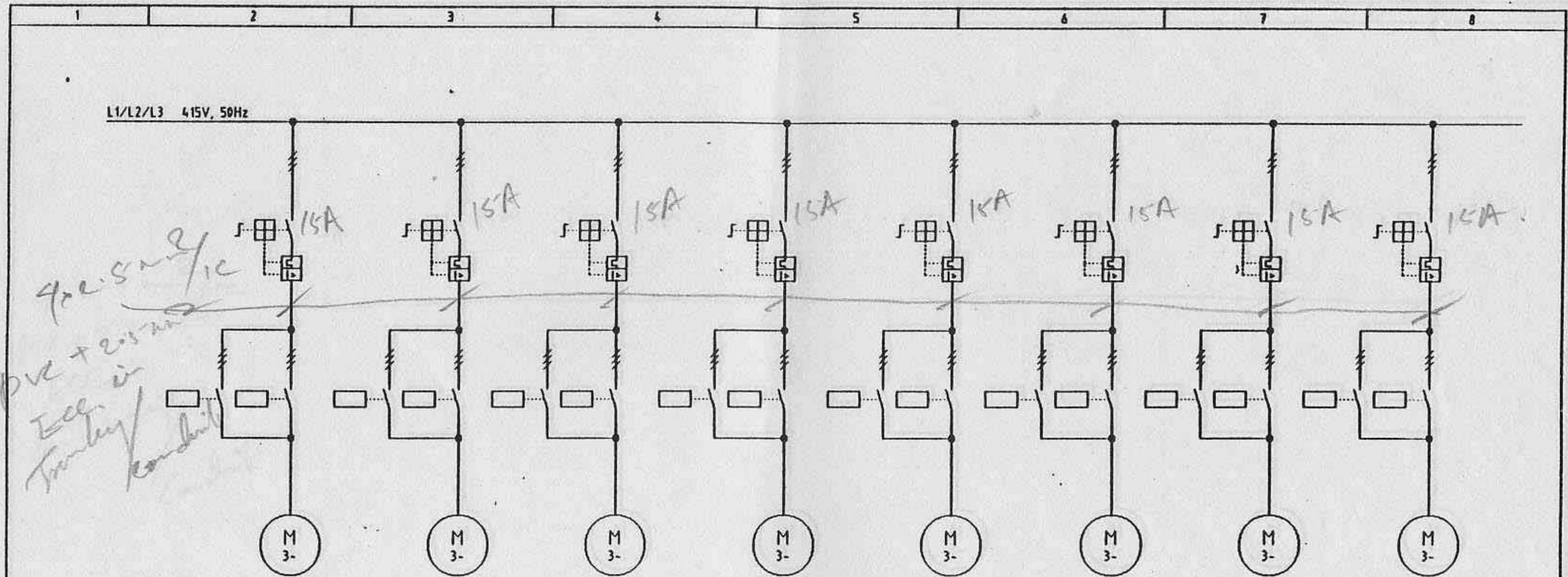
GROUP N° : 8.2.2.1.E 8.2.2.1.F 8.2.2.1.G 8.2.2.1.H 8.2.2.2.K 8.2.2.2.L 8.2.2.2.M 8.2.2.2.N

DESIGNATION : \_\_\_\_\_ FLOW CONTROL GATE \_\_\_\_\_

POWER : 450 VA 450 VA

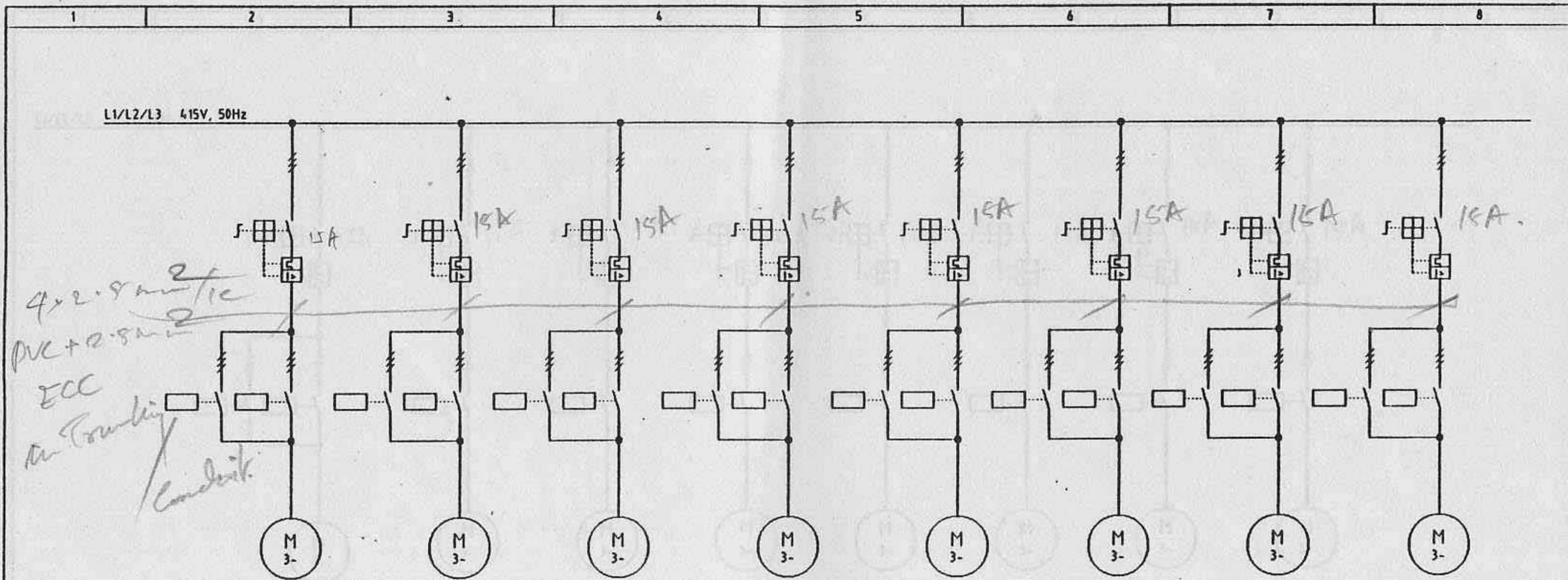
Preliminary 2. März 1994

3			Datum	20.1.1994	SINGLE LINE DIAGRAM	CPAG	MCC BULK LOADING AND SILO DISCHARGE	UNITED CEMENT PTE LTD	01-1/H1.734-900/A	4
2			Bearb.	Mol						
1			Gepr.	Norm						
			Datum	Name						



GROUP N°.	8.2.2.2.0	8.2.2.2.P	8.2.2.3.D	8.2.2.3.E	8.2.2.3.F	8.2.2.3.G	8.2.2.3.H	8.2.2.3.J
DESIGNATION	FLOW CONTROL GATE							
POWER	450 VA	450 VA	450 VA	450 VA	450 VA	450 VA	450 VA	450 VA

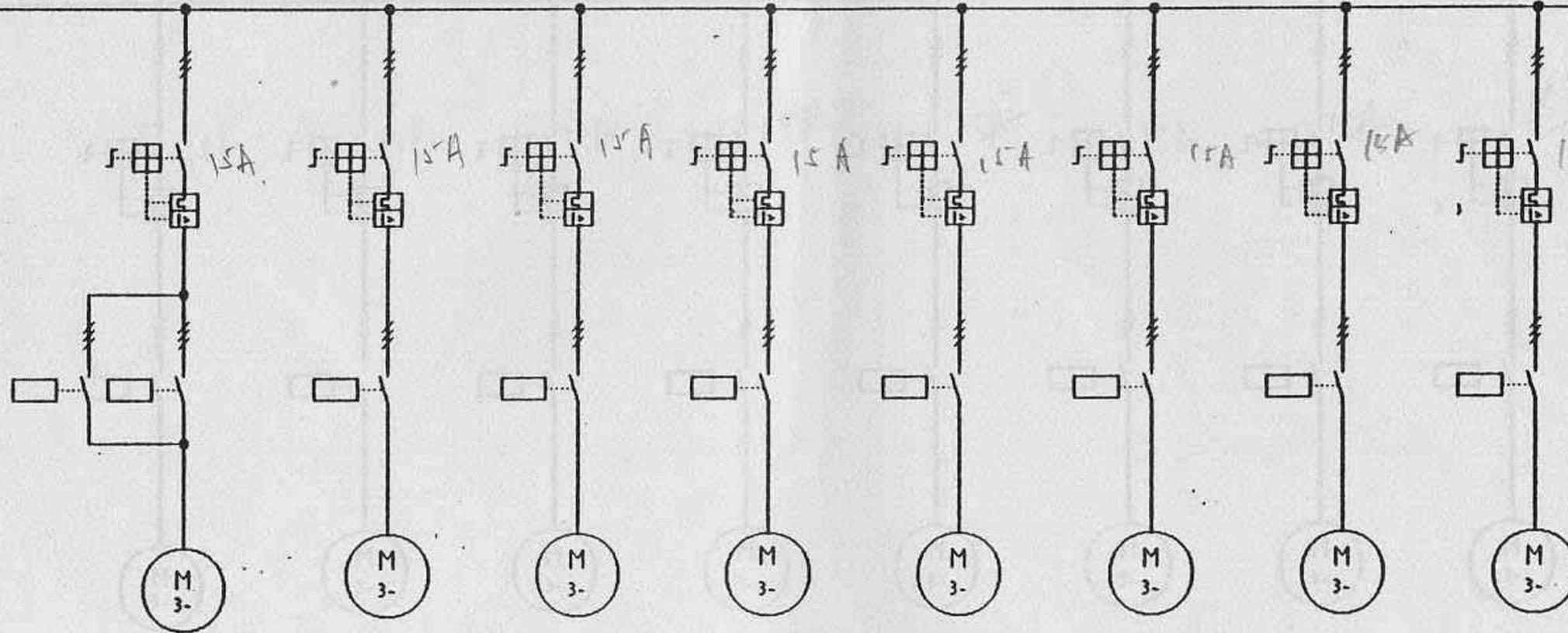
Preliminary 2. März 1994



GROUP N° :	8.2.3.1.A	8.2.3.8A	8.2.3.8B	8.2.3.8C	8.2.3.9A	8.2.3.9B	8.2.3.9C	8.2.3.9D
DESIGNATION :	TWO WAY GATE							
POWER :	700 VA	700 VA	700 VA	700 VA	700 VA	700 VA	700 VA	700 VA

Preliminary 2. month 1991

L1/L2/L3 415V, 50Hz

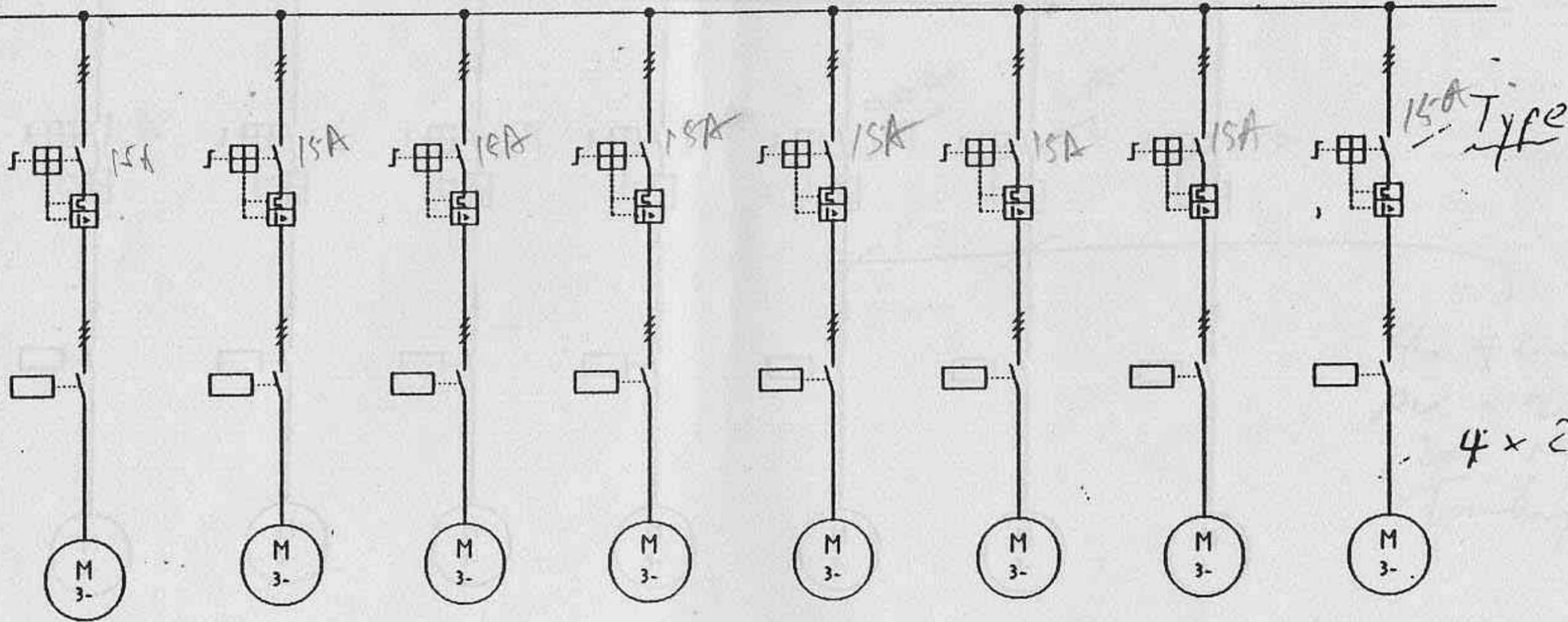


GROUP N°.	8.2.3.9E	8.2.4A	8.2.4B	8.2.4C	8.2.4D	8.2.5.2A	8.2.5.2B	8.2.5.2C
DESIGNATION	TWO WAY CHUTE	LIFTING HOIST	LIFTING HOIST	SENSOR BLOWER	SENSOR BLOWER	SCREW SAMPLER	SCREW SAMPLER	SCREW SAMPLER
POWER	350 VA	0,55 KW	0,55 KW	0,12 KW	0,12 KW	0,11 KW	0,11 KW	0,11 KW

Preliminary 2. März 1994

3			Datum	28.1.1994	SINGLE LINE DIAGRAM	CPAG	MCC BULK LOADING AND SILO DISCHARGE	UNITED CEMENT PTE LTD		
2			Bearb.	Mel				01-1/H1.734-900/A		7
1			Gepr.							
Revision	Date	Name	Norm							

L1/L2/L3 415V, 50Hz

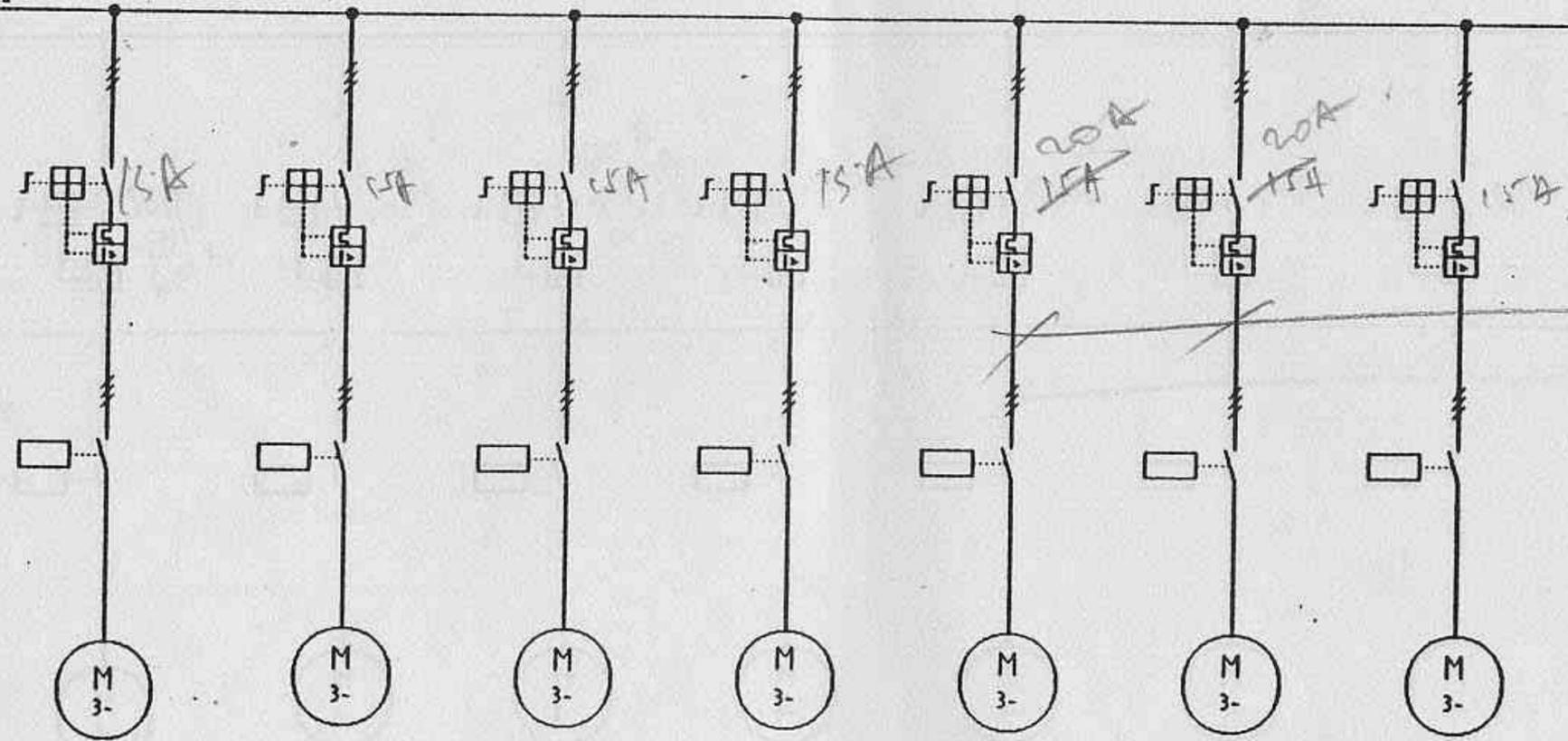


GROUP N°.	8.2.6.1B	8.2.6.1C	8.2.6.2A	8.2.6.3A	8.2.6.4A	8.2.6.4B	8.2.6.5A	8.2.6.6A
DESIGNATION :	HIGH PRESSURE FAN							
POWER :	2,2 KW	2,2 KW	2,2 KW	2,2 KW	2,2 KW	2,2 KW	2,2 KW	2,2 KW

Preliminary 2. März 1994

1			Datum	28.1.1994	SINGLE LINE DIAGRAM	CPAG	MCC BULK LOADING AND SILO DISCHARGE	UNITED CEMENT PTE LTD			
2			Bearb.	Hol				01-1/H1.734-900/A			8
3			Gepr.								
4	Revision	Datum	Name	Norm							

L1/L2/L3 415V, 50Hz



*Handwritten notes:*  
 40 H <sup>2</sup> / c  
 MC + 28 mm<sup>2</sup>  
 EEC in  
 Trunking / Conduit

GROUP N°.	8.2.6.7A	8.2.6.8A	8.2.6.9A	8.2.6.9B	8.2.6.10A	8.2.6.10B	8.2.6.11A
DESIGNATION :	HIGH PRESSURE FAN						
POWER :	2,2 KW	3,0 KW	2,2 KW	2,2 KW	4,0 KW	4,0 KW	3,0 KW

Preliminary 2. März 1994

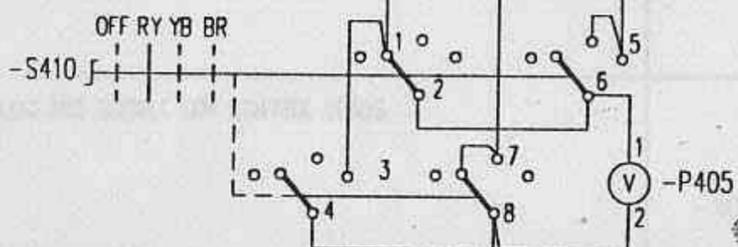
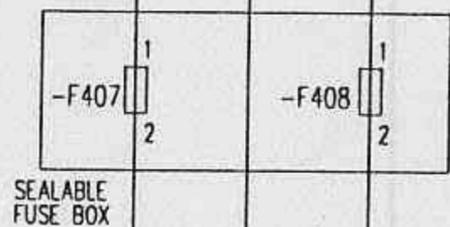
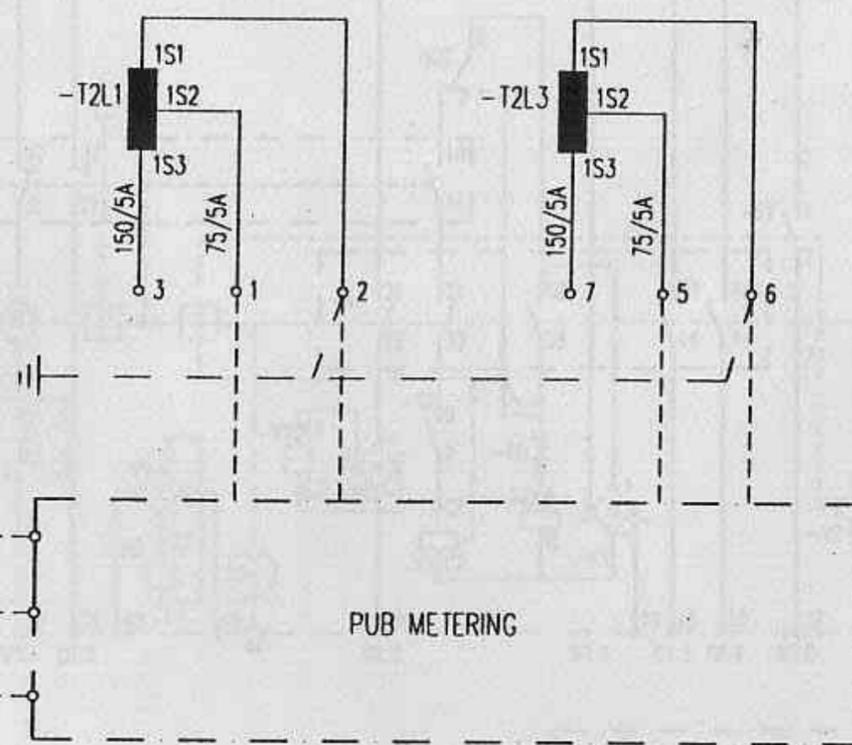
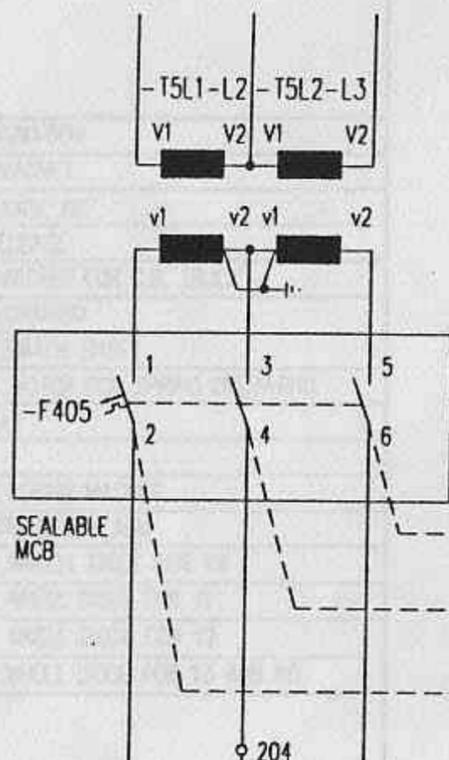
VOLTAGE TRANSFORMER  
22KV/110V, 180VA CI.1  
MCB, SECONDARY FUSE  
VOLTMETER & VOLTMETER SELECTOR SW.

RING TYPE CURRENT T/F  
100-50/5A, 15VA, CI.0.5

R Y B

R

B



U00C253

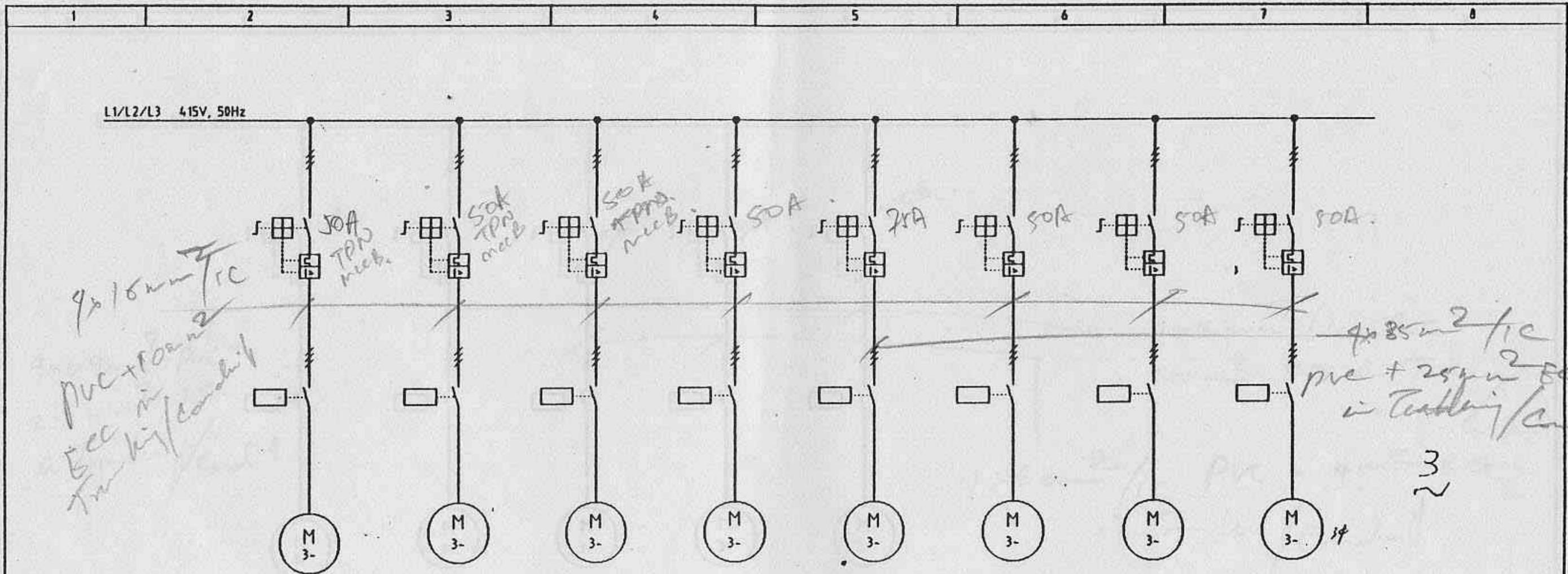
Rev.				
Date				
Rel.				

Title  
VOLTAGE TRANSFORMER CIRCUIT  
PUB INCOMING 2

Project  
UNITED CEMENT  
22KV SWITCHGEAR TYPE ZS/VD4

D04 0153 402  
**ABB**  
ASEA BROWN BOVERI PTE LTD

Scale	Drawn	PC 14.3.95	Resp. Dept.	K.S.	Format	3
Checked	ASK	Released	ASK		Sheet	53
					Conl.	Z1

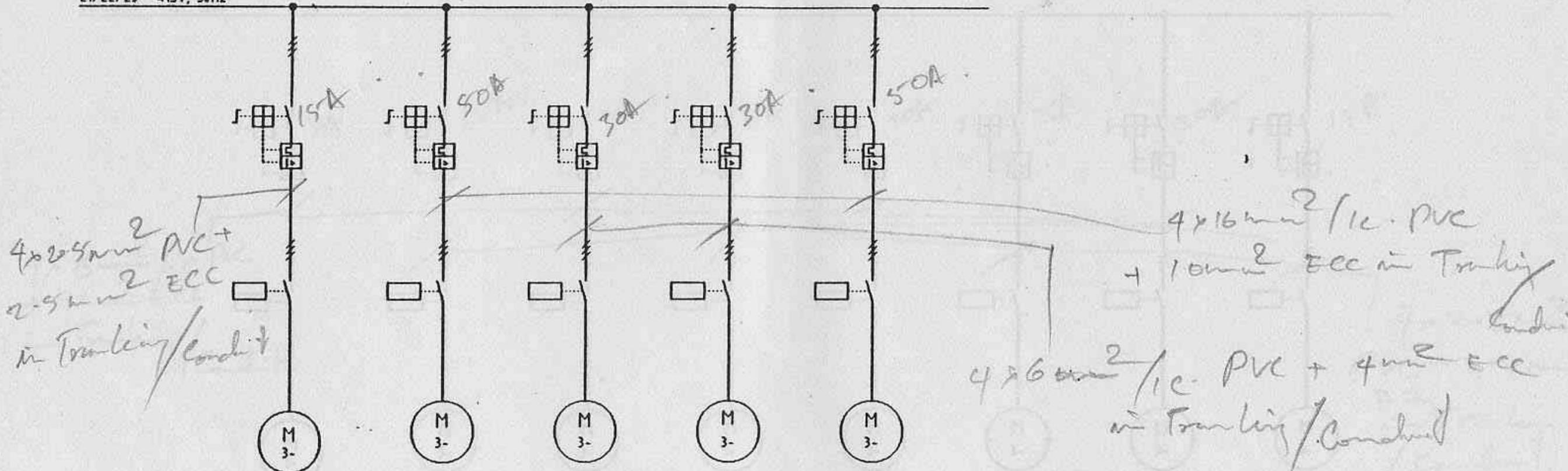


GROUP N° :	8.2.7.1A	8.2.7.1B	8.2.7.2A	8.2.7.2B	8.2.7.3A	8.2.7.4A	8.2.7.4B	8.2.7.4C
DESIGNATION :	BLOWER SILO 1	BLOWER CHAMBER SILO 1	SILO 2	SILO 3	BLOWER SILO 4	SILO 5	SILO 6	SILO 7
POWER :	15 KW	15 KW	11 KW	11 KW	18,5 KW	11 KW	11 KW	11 KW

Preliminary 2. März 1994

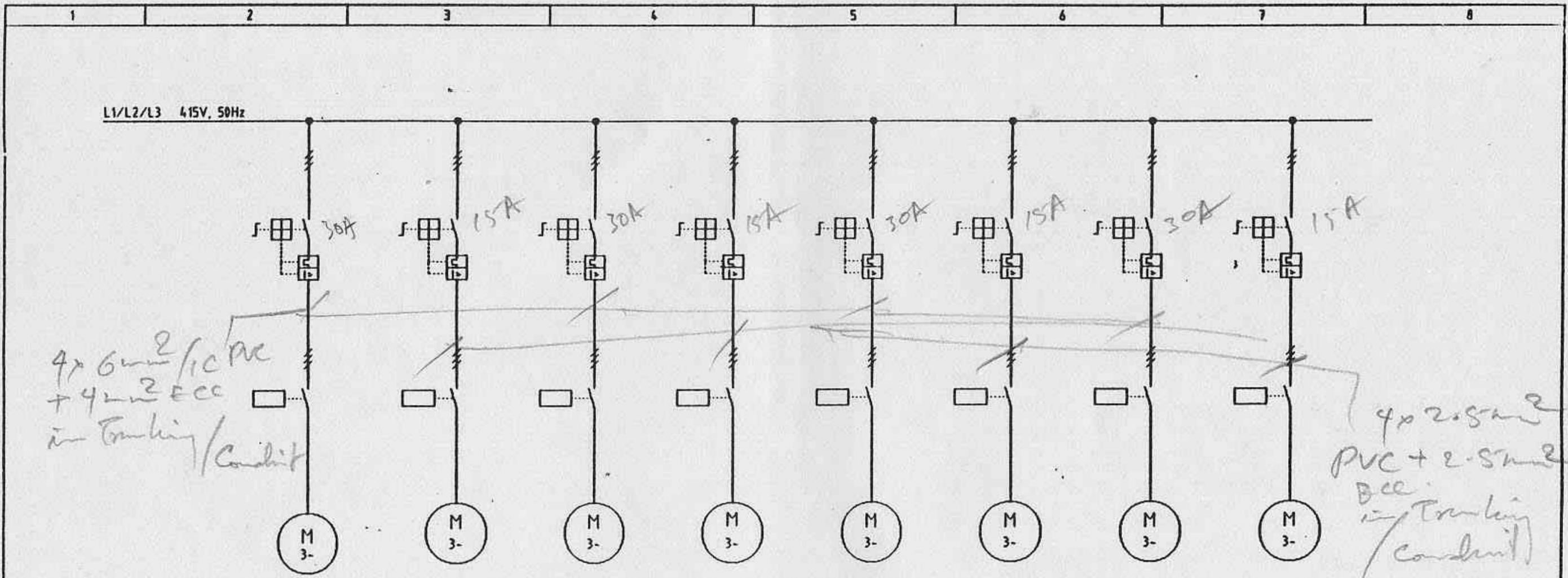
3			Datum	28.1.1994	SINGLE LINE DIAGRAM	CPAG	MCC BULK LOADING AND SILO DISCHARGE	UNITED CEMENT PTE LTD		10
2			Bearb.	Mal				01-1/H1.734-900/A		
1			Gepr.							
Revision	Datum	Name	Namn							

L1/L2/L3 415V, 50Hz



GROUP N° :	8.3.3.14C	8.5.2B	8.5.3B	8.5.3D	12.1.1A
DESIGNATION :	SENSOR BLOWER	DRYER	BLOWER	DRYER	BUCKET ELEVATOR
POWER :	0,12 KW	15,0 KW	7,5 KW	7,5 KW	15,0 KW (P.I.)

Preliminary 2. März 1994



GROUP N°.	8.2.8.1A	8.2.8.1B	8.2.8.3A	8.2.8.3B	8.2.8.4A	8.2.6.4B	8.3.3.12A	8.3.3.14A
DESIGNATION	COMPRESSOR	AIR DRYER	COMPRESSOR	AIR DRYER	COMPRESSOR	AIR DRYER	BLOWER	LIFTING HOIST
POWER	7,5 KW	0,26 KW	7,5 KW	0,26 KW	7,5 KW	0,26 KW	7,5 KW	0,55 KW

Preliminary 2. Mch 1991

