

**THIS FOLDER WAS CHECKED BY
ARUP ON**

21.3.03

**The checking process was to ensure that 3 identical
sets of each Volume of the Operating and
Maintenance Manuals existed**

**5-7 CARLTON GARDENS
LONDON SW1**

**OPERATING & MAINTENANCE
INSTRUCTIONS
for the
ELECTRICAL SERVICES**

**VOLUME 3
3.2 – Section G**

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ITEM	GENERAL OPERATING INSTRUCTIONS	GENERAL MAINTENANCE INSTRUCTIONS	SPECIFIC SUPPLIER LITERATURE
FIRE ALARM SYSTEM & DETECTION & VOICE ALARM I.A.T. (Europe) Ltd.	D.1.3	E.1.7, E.1.2.1, E.1.3, E.1.5, E.2, E.3, E.7.3.1	H.8
STANDBY GENERATION AVK/SEG (UK) Ltd.	D.1.2, D.2, D.3, D4	E.1.2.1, E.1.3, E.1.5, E.2, E.3, E.7.1, E.7.1.1, E.7.1.2, E.7.1.3	H.3
L.V SWITCHGEAR & DIST. BOARDS (Anord Control Systems Ltd.)	D.1.1	E.1.1, E.1.2.1, E.1.3, E.1.5, E.2, E.3, E.7.1, E.7.1.1, E.7.1.2, E.7.1.3	H.1
SECURITY SYSTEM Blenheim Security Systems Ltd.	D.1.4	E.1.2.1, E.1.3, E.1.5, E.2, E.3, H.6	H.6

G

Dwg Nr	Rev	Status	Date	Submittal	Title	Size	Format	Note
T Clarke plc								Electrical services
7000/TC10802/E 100	RD	• RD	18 Jun 1999		Basement LV Distribution Sheet 1	A0	Print	
7000/TC10802/E 101	RD	• RD	18 Jun 1999		Basement LV Distribution Sheet 2	A0	Print	
7000/TC10802/E 102	RD	• RD	18 Jun 1999		Basement LV Distribution Sheet 3	A0	Print	
7000/TC10802/E 103	RD	• RD	18 Jun 1999		Basement LV Distribution Sheet 4	A0	Print	
7000/TC10802/E 104	RD	• RD	18 Jun 1999		Basement Level Lighting Layout Sheet 1	A0	Print	
7000/TC10802/E 105	RD	• RD	18 Jun 1999		Basement Level Lighting Layout Sheet 2	A0	Print	
7000/TC10802/E 106	RD	• RD	18 Jun 1999		Basement Level Lighting Layout Sheet 3	A0	Print	
7000/TC10802/E 107	RD	• RD	18 Jun 1999		Basement Level Lighting Layout Sheet 4	A0	Print	
7000/TC10802/E 108	RD	• RD	18 Jun 1999		Basement Level Small Power, Fire Alarm, Security & Comms Layout Sheet 1	A0	Print	
7000/TC10802/E 109	RD	• RD	18 Jun 1999		Basement Level Small Power, Fire Alarm, Security & Comms Layout Sheet 2	A0	Print	
7000/TC10802/E 110	RD	• RD	18 Jun 1999		Basement Level Small Power, Fire Alarm, Security & Comms Layout Sheet 3	A0	Print	
7000/TC10802/E 111	RD	• RD	18 Jun 1999		Basement Level Small Power, Fire Alarm, Security & Comms Layout Sheet 4	A0	Print	
7000/TC10802/E 120	RD	• RD	18 Jun 1999		Lower Ground Lighting Layout Sheet 1	A0	Print	
7000/TC10802/E 121	RD	• RD	18 Jun 1999		Lower Ground Lighting Layout Sheet 2	A0	Print	
7000/TC10802/E 122	RD	• RD	18 Jun 1999		Lower Ground Lighting Layout Sheet 3	A0	Print	
7000/TC10802/E 123	RD	• RD	18 Jun 1999		Lower Ground Lighting Layout Sheet 4	A0	Print	
7000/TC10802/E 124	RD	• RD	18 Jun 1999	1	LG LV Distribution, Small Power, Fire Alarm, Security & Comms Layout Sheet	A0	Print	
7000/TC10802/E 125	RD	• RD	18 Jun 1999	2	LG LV Distribution, Small Power, Fire Alarm, Security & Comms Layout Sheet	A0	Print	
7000/TC10802/E 126	RD	• RD	18 Jun 1999	3	LG LV Distribution, Small Power, Fire Alarm, Security & Comms Layout Sheet	A0	Print	
7000/TC10802/E 127	RD	• RD	18 Jun 1999	4	LG LV Distribution, Small Power, Fire Alarm, Security & Comms Layout Sheet	A0	Print	
7000/TC10802/E 130	RD	• RD	18 Jun 1999		Ground Floor Lighting Layout Sheet 1	A0	Print	
7000/TC10802/E 131	RD	• RD	18 Jun 1999		Ground Floor Lighting Layout Sheet 2	A0	Print	
7000/TC10802/E 132	RD	• RD	18 Jun 1999		Ground Floor LV Distribution, Small Power, Fire Alarm, Security & Comms Layout Sheet 1	A0	Print	
7000/TC10802/E 133	RD	• RD	18 Jun 1999		Ground Floor LV Distribution, Small Power, Fire Alarm, Security & Comms Layout Sheet 2	A0	Print	
7000/TC10802/E 134	RD	• RD	18 Jun 1999		Ground Floor Residential Lighting Layout	A1	Print	
7000/TC10802/E 135	RD	• RD	18 Jun 1999		Ground Floor Tenant's Entrance & Lobby Lighting Layout	A1	Print	
7000/TC10802/E 136	RD	• RD	18 Jun 1999		Ground Floor Residential Entrance Power/Comms/FA/VA & Security Layout	A1	Print	
7000/TC10802/E 137	RD	• RD	18 Jun 1999		Ground Floor Residential Entrance & Lobby Power/Comms/FA/VA & Security Layout	A1	Print	

Dwg Nr	Rev	Status	Date	Submittal	Title	Size	Format	Note
T Clarke plc								Electrical services
7000/TC10802/E 140	RD	• RD	18 Jun 1999		First Floor Lighting Layout Sheet 1	A0	Print	
7000/TC10802/E 141	RD	• RD	18 Jun 1999		First Floor Lighting Layout Sheet 2	A0	Print	
7000/TC10802/E 142	RD	• RD	18 Jun 1999		First Floor LV Distribution, Small Power, Fire Alarm, Security & Comms Layout Sheet 1	A0	Print	
7000/TC10802/E 143	RD	• RD	18 Jun 1999		First Floor LV Distribution, Small Power, Fire Alarm, Security & Comms Layout Sheet 2	A0	Print	
7000/TC10802/E 150	RD	• RD	18 Jun 1999		Second Floor Lighting Layout Sheet 1	A0	Print	
7000/TC10802/E 151	RD	• RD	18 Jun 1999		Second Floor Lighting Layout Sheet 2	A0	Print	
7000/TC10802/E 152	RD	• RD	18 Jun 1999		Second Floor LV Distribution, Small Power, Fire Alarm, Security & Comms Layout	A0	Print	
7000/TC10802/E 153	RD	• RD	18 Jun 1999		Second Floor LV Distribution, Small Power, Fire Alarm, Security & Comms Layout Sheet 2	A0	Print	
7000/TC10802/E 160	RD	• RD	18 Jun 1999		Third Floor Lighting Layout Sheet 1	A0	Print	
7000/TC10802/E 161	RD	• RD	18 Jun 1999		Third Floor Lighting Layout Sheet 2	A0	Print	
7000/TC10802/E 162	RD	• RD	18 Jun 1999		Third Floor LV Distribution, Small Power, Fire Alarm, Security & Comms Layout	A0	Print	
7000/TC10802/E 163	RD	• RD	18 Jun 1999		Third Floor LV Distribution, Small Power, Fire Alarm, Security & Comms Layout Sheet 2	A0	Print	
7000/TC10802/E 170	RD	• RD	18 Jun 1999		Fourth Floor Lighting Layout Sheet 1	A0	Print	
7000/TC10802/E 171	RD	• RD	18 Jun 1999		Fourth Floor Lighting Layout Sheet 2	A0	Print	
7000/TC10802/E 172	RD	• RD	18 Jun 1999		Fourth Floor LV Distribution, Small Power, Fire Alarm, Security & Comms Layout	A0	Print	
7000/TC10802/E 173	RD	• RD	18 Jun 1999		Fourth Floor LV Distribution, Small Power, Fire Alarm, Security & Comms Layout Sheet 2	A0	Print	
7000/TC10802/E 180	RD	• RD	18 Jun 1999		Fifth Floor Lighting Layout Sheet 1	A0	Print	
7000/TC10802/E 181	RD	• RD	18 Jun 1999		Fifth Floor Lighting Layout Sheet 2	A0	Print	
7000/TC10802/E 182	RD	• RD	18 Jun 1999		Fifth Floor LV Distribution, Small Power, Fire Alarm, Security & Comms Layout Sheet 1	A0	Print	
7000/TC10802/E 183	RD	• RD	18 Jun 1999		Fifth Floor LV Distribution, Small Power, Fire Alarm, Security & Comms Layout Sheet 2	A0	Print	
7000/TC10802/E 300	Sh RD	• RD	3 Aug 1999		Electrical Riser Layout Lower Ground to Seventh Floor	A0	Print	
7000/TC10802/E 310	RD	• RD	3 Aug 1999		LV Switchroom Layout	A0	Print	
7000/TC10802/E 400	RD	• RD	18 Jun 1999		LV Schematic	A1	Print	
7000/TC10802/E 401	RD	• RD	18 Jun 1999		Clean Earthing Connection Schematic	A1	Print	
7000/TC10802/E 402	RD	• RD	18 Jun 1999		Tenant Electrical Supply Schematic	A1	Print	
7000/TC10802/E 403	RD	• RD	18 Jun 1999		Landlord/Tenant Supply Schematic Essential/Non-Essential	A1	Print	

Drawing revisions

Report limited as follows

Status Category As-Built Record Drawing
Drawings

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London SW1

Dwg Nr.	Rev.	Status	Date Submitted	Title	Size	Format	Note
T Clarke plc							Electrical services
7000/TC10802/E 406	RD	• RD	18 Jun 1999	Lighting Protection Layout	A1	Print	
7000/TC10802/E 500	RD	• RD	18 Jun 1999	Schedule of Symbols	A1	Print	
Nr from this originator							56

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G RECORD DRAWINGS

G.1 RECORD DRAWINGS SCHEDULE

<u>DRG. No.</u>	<u>TITLE</u>
TC107802/E/100	Basement LV Distribution Sheet 1
TC107802/E/101	Basement LV Distribution Sheet 2
TC107802/E/102	Basement Lighting Layout Sheet 1
TC107802/E/103	Basement Lighting Layout Sheet 2
TC107802/E/104	Basement Power Layout Sheet 1
TC107802/E/105	Basement Power Layout Sheet 2
TC107802/E/106	Basement F.A./SEC/Comms Sheet 1
TC107802/E/107	Basement F.A./SEC/Comms Sheet 2
TC107802/E/110	Lower Ground Floor Lighting Layout Sheet 1
TC107802/E/111	Lower Ground Floor Lighting Layout Sheet 2
TC107802/E/112	Lower Ground Floor Power Layout Sheet 1
TC107802/E/113	Lower Ground Floor Power Layout Sheet 2
TC107802/E/114	Lower Ground Floor F.A./SEC/Comms Sheet 1
TC107802/E/115	Lower Ground Floor F.A./SEC/Comms Sheet 2
TC107802/E/120	Ground Floor Lighting Layout Sheet 1
TC107802/E/121	Ground Floor Lighting Layout Sheet 2
TC107802/E/122	Ground Floor Power Layout Sheet 1
TC107802/E/123	Ground Floor Power Layout Sheet 2
TC107802/E/124	Ground Floor F.A./SEC/Comms Sheet 1
TC107802/E/125	Ground Floor F.A./SEC/Comms Sheet 2
TC107802/E/130	1st Floor Lighting Layout Sheet 1
TC107802/E/131	1st Floor Lighting Layout Sheet 2
TC107802/E/132	1st Floor Power Layout Sheet 1
TC107802/E/133	1st Floor Power Layout Sheet 2
TC107802/E/134	1st Floor F.A./SEC/Comms Sheet 1
TC107802/E/135	1st Floor F.A./SEC/Comms Sheet 2

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TC107802/E/140	2nd Floor Lighting Layout Sheet 1
TC107802/E/141	2nd Floor Lighting Layout Sheet 2
TC107802/E/142	2nd Floor Power Layout Sheet 1
TC107802/E/143	2nd Floor Power Layout Sheet 2
TC107802/E/144	2nd Floor F.A./SEC/Comms Sheet 1
TC107802/E/145	2nd Floor F.A./SEC/Comms Sheet 2
TC107802/E/150	3rd Floor Lighting Layout Sheet 1
TC107802/E/151	3rd Floor Lighting Layout Sheet 2
TC107802/E/152	3rd Floor Power Layout Sheet 1
TC107802/E/153	3rd Floor Power Layout Sheet 2
TC107802/E/154	3rd Floor F.A./SEC/Comms Sheet 1
TC107802/E/155	3rd Floor F.A./SEC/Comms Sheet 2
TC107802/E/160	4th Floor Lighting Layout Sheet 1
TC107802/E/161	4th Floor Lighting Layout Sheet 2
TC107802/E/162	4th Floor Power Layout Sheet 1
TC107802/E/163	4th Floor Power Layout Sheet 2
TC107802/E/164	4th Floor F.A./SEC/Comms Sheet 1
TC107802/E/165	4th Floor F.A./SEC/Comms Sheet 2
TC107802/E/170	5th Floor Lighting Layout Sheet 1
TC107802/E/171	5th Floor Lighting Layout Sheet 2
TC107802/E/172	5th Floor Power Layout Sheet 1
TC107802/E/173	5th Floor Power Layout Sheet 2
TC107802/E/174	5th Floor F.A./SEC/Comms Sheet 1
TC107802/E/175	5th Floor F.A./SEC/Comms Sheet 2
TC107802/E/180	6th Floor Lighting Layout Sheet 1
TC107802/E/181	6th Floor Lighting Layout Sheet 2
TC107802/E/182	6th Floor Power Layout Sheet 1
TC107802/E/183	6th Floor Power Layout Sheet 2
TC107802/E/184	6th Floor F.A./SEC/Comms Sheet 1
TC107802/E/185	6th Floor F.A./SEC/Comms Sheet 2

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TC107802/E/190	7th Floor Lighting Layout Sheet 1
TC107802/E/191	7th Floor Lighting Layout Sheet 2
TC107802/E/192	7th Floor Power Layout Sheet 1
TC107802/E/193	7th Floor Power Layout Sheet 2
TC107802/E/194	7th Floor F.A./SEC/Comms Sheet 1
TC107802/E/195	7th Floor F.A./SEC/Comms Sheet 2
TC107802/E/200	Roof Level Lighting Layout Sheet 1
TC107802/E/201	Roof Level Lighting Layout Sheet 2
TC107802/E/202	Roof Level Power Layout Sheet 1
TC107802/E/203	Roof Level Power Layout Sheet 2
TC107802/E/204	Roof Level F.A./SEC/Comms Sheet 1
TC107802/E/205	Roof Level F.A./SEC/Comms Sheet 2
TC107802/E/300	Basement Generator Layout
TC107802/E/310	Basement LV Switchroom
TC107802/E/320	Riser Layout
TC107802/E/400	LV Schematic
TC107802/E/401	Clean Earth Schematic
TC107802/E/402	Tenant Supply Schematic
TC107802/E/403	Landlord/Tenant Supply Schematic
TC107802/E/404	F/A Detector & V/A Schematic
TC107802/E/405	F/A C & E & S, D, C.P. Schematic
TC107802/E/500	Schedule of Symbols & Luminaires

10 DRAWING INDEX

The drawings included in this section are current for the date of issue and are included to provide an understanding of the system, its operation and components. Therefore before carrying out any work on the system the latest drawing issue should be ascertained.

DRAWING NO.	DESCRIPTION
72819001	CARLTON GARDENS P.A./V.A. SYSTEM RACKS GENERAL ARRANGEMENT
72819003	CARLTON GARDENS P.A./V.A. SYSTEM SPEAKER & TERMINATIONS LOOP A.
72819004	CARLTON GARDENS P.A./V.A. SYSTEM SPEAKER & TERMINATION LOOP B.
72819005	CARLTON GARDENS P.A./V.A. SYSTEM RACK S.B. μ CAMS G.A. & WIRING DIAGRAM.
72819006	CARLTON GARDENS P.A./V.A. VOICE STORAGE MODULE WIRING.
72819007	CARLTON GARDENS P.A./V.A. AUDIO MATRIX SWITCH OP4.
72819008	CARLTON GARDENS P.A./V.A. SYSTEM RACK TERMINATION DIAGRAM.
72819009	CARLTON GARDENS P.A./V.A. SYSTEM RACK OPTO-INPUT WIRING DIAGRAM INO.
72819010	CARLTON GARDENS P.A./V.A. SYSTEM RACK OP2 RIBBON INTERFACE WIRING INFORMATION.
72819011	CARLTON GARDENS P.A./V.A. SYSTEM RACK OP3 RIBBON INTERFACE WIRING INFORMATION.
72819012	CARLTON GARDENS P.A./V.A. AUDIO MIXER TERMINATION CARD
72819013	CARLTON GARDENS P.A./V.A. SYSTEM RACK AMPLIFIER MONITOR CARD A OP0.
72819014	CARLTON GARDENS P.A./V.A. SYSTEM RACK AMPLIFER MONITOR CARD A OP1.
72819015	CARLTON GARDENS P.A./V.A. SYSTEM RACK S.B. μ CAMS MONITORED INPUT CARD IN1 WIRING INFORMATION..
72819016	CARLTON GARDENS P.A./V.A. SYSTEM RACK S.B. μ CAMS MONITORED INPUT CARD IN2 WIRING INFORMATION.
72819017	CARLTON GARDENS P.A./V.A. SYSTEM RACK S.B. μ CAMS MONITORED INPUT CARD IN3 WIRING INFORMATION.
72819018	CARLTON GARDENS P.A./V.A. SYSTEM RACK S.B. μ CAMS MONITORED INPUT CARD IN4 WIRING INFORMATION.
72819019	CARLTON GARDENS P.A./V.A. CONTROL/AMPLIFIER RACK FAN WIRING & CIRCUIT DIAGRAM.

- | | |
|----------|---|
| 72819020 | CARLTON GARDENS P.A./V.A. SYSTEM CONTROL/AMPLIFIER RACK POWER DISTRIBUTION WIRING. |
| 72819021 | CARLTON GARDENS P.A./V.A. SYSTEM RACK S.B. A μ CAMS ACCESS PANEL INTERFACE CARD. |
| 72819101 | CARLTON GARDENS P.A./V.A. SYSTEM FIREMAN'S MICROPHONE PANEL GENERAL ARRANGEMENT. |
| 72819102 | CARLTON GARDENS P.A./V.A. SYSTEM FIREMAN'S ACCESS PANEL A1 WIRING DIAGRAM. |
| 72819103 | CARLTON GARDENS P.A./V.A. SYSTEM FIREMAN'S ACCESS PANEL A2 WIRING DIAGRAM. |
| 72819104 | CARLTON GARDENS P.A./V.A. SYSTEM FIREMAN'S ACCESS PANEL A1 FIRE PANEL I/F WIRING DIAGRAM. |
| 72819201 | CARLTON GARDENS P.A./V.A. SYSTEM SECURITY MICROPHONE PANEL GENERAL ARRANGEMENT. |
| 72819202 | CARLTON GARDENS P.A./V.A. SYSTEM SECURITY ACCESS PANEL A1 WIRING DIAGRAM. |
| 72819203 | CARLTON GARDENS P.A./V.A. SYSTEM SECURITY ACCESS PANEL A2 WIRING DIAGRAM. |
| 72819301 | CARLTON GARDENS P.A./V.A. SYSTEM SINGLE BOARD A μ CAMS PANEL GENERAL ARRANGEMENT. |
| 72819401 | CARLTON GARDENS P.A./V.A. SYSTEM 120 WATT DUAL AMPLIFIER GENERAL ARRANGEMENT. |
| 72819501 | CARLTON GARDENS P.A./V.A. SYSTEM A μ CAMS AUDIO TOPOLOGY. |

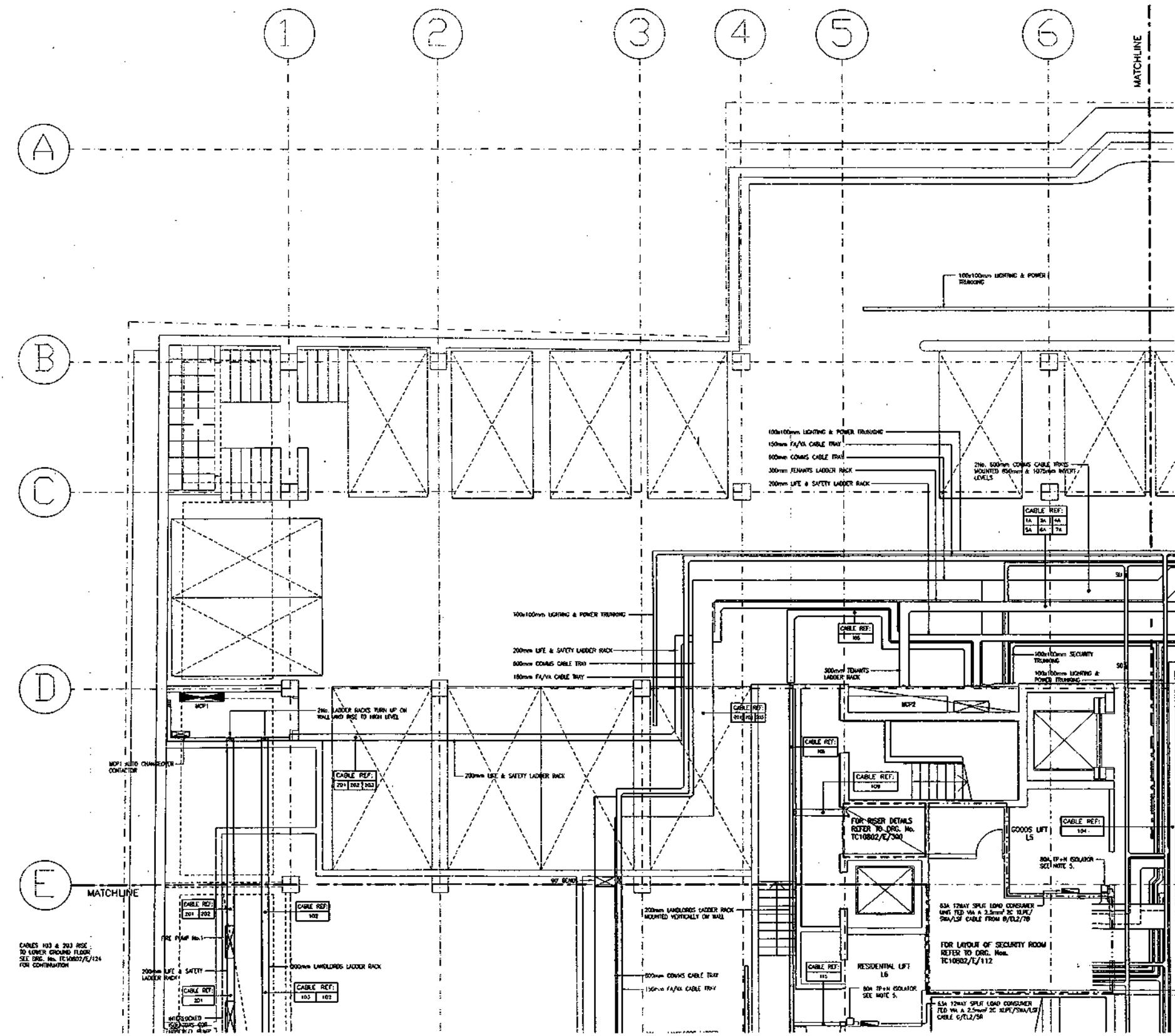
PARTS LIST

PL 72819001(SHT1)	P.A./ V.A. SYSTEM RACK
PL 72819001(SHT2)	P.A./ V.A. SYSTEM RACK
PL 72819001(SHT3)	P.A./ V.A. SYSTEM RACK
PL 728190101	P.A./V.A. SYSTEM FIREMAN'S ACCESS PANEL
PL 728190201	P.A./V.A. SYSTEM SECURITY ACCESS PANEL

Building Services Operating and Maintenance Instructions
5-7 Carlton Gardens, London SW1

G.2 RECORD DRAWINGS

(Reduced to A3 format.)



FOR CONTINUATION SEE DRAWING NO. TC10802/E/101

RECORD DRAWING

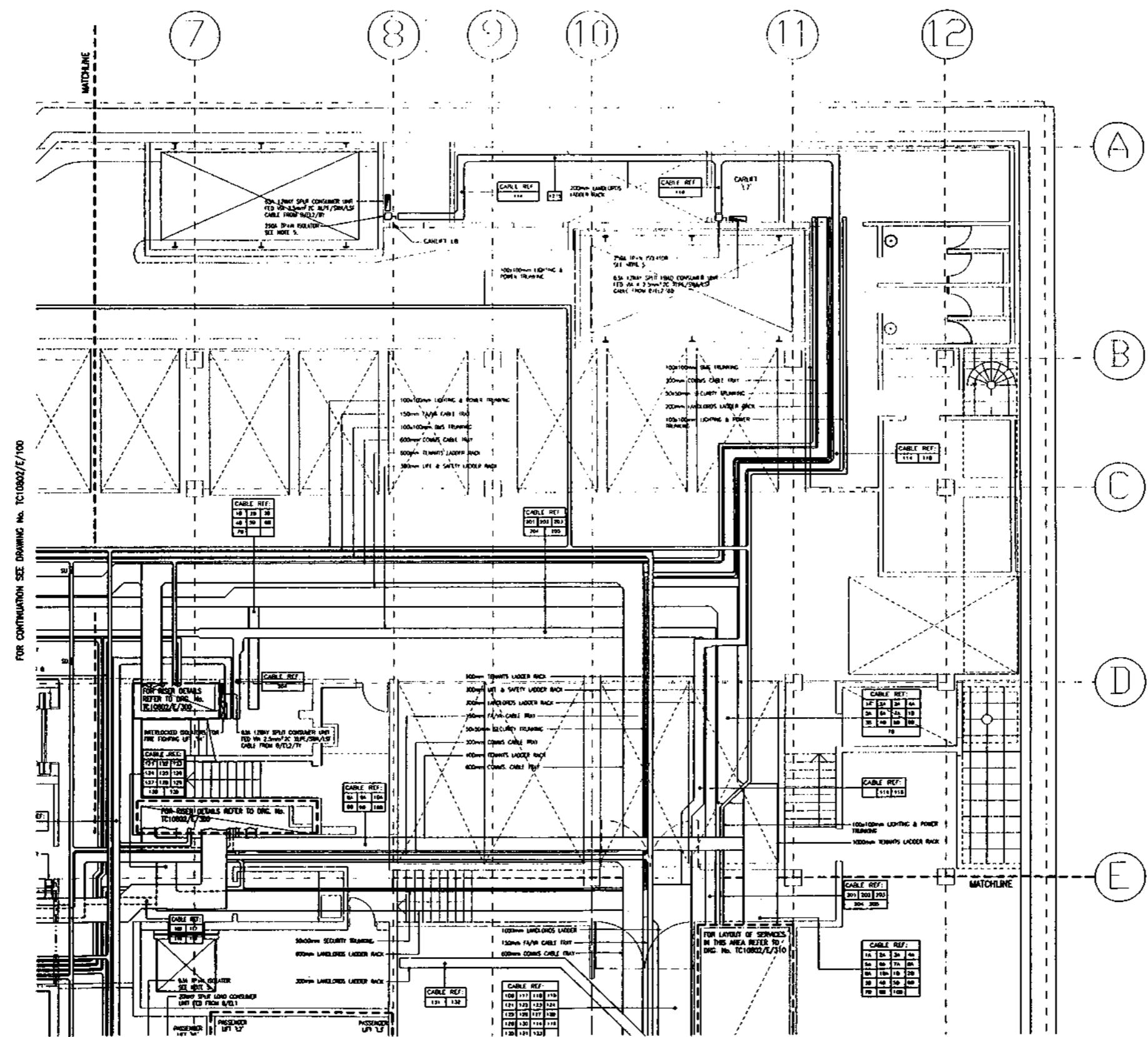
5-3-2017 10:00:00 AM

BASEMENT LV DISTRIBUTION

ELECTRICAL ENGINEERS & CONTRACTORS

T. Clarke p.l.c.
Bishopton House
116-118 Wolverhampton Road

London SE17 1JY
Tel. 0171 252 7676



FOR CONTINUATION SEE DRAWING Nos. TC10802/E/102 & 103

NOTES

1. THIS DRIVING SHEET WILL BE READ IN CONJUNCTION WITH DRIVING REG TC10002/E/100, 102 & 103.
 2. FOR LIGHTING LAYOUTS REFER TO DRIVING REG TC10002/L/100 - 107.
 3. FOR SMALL POWER, FAIR, COMBS & SECURITY LAYOUTS REFER TO DRIVING REG. TC10002/C/100 - 111.
 4. FOR AIR & LIGHTING SUPPLIES REFER TO DRIVING REG TC10002/S/100 - 107.

RECORD DRAWING

AB 116

**BASEMENT LV DISTRIBUTION
SHEET 2**

T. Clarke P.I.C.

T. CHARLES PRICE
Dentist
Dentist

118-118 Waterford Road
London, SE9 0JT
Tel: 0181 698 2224

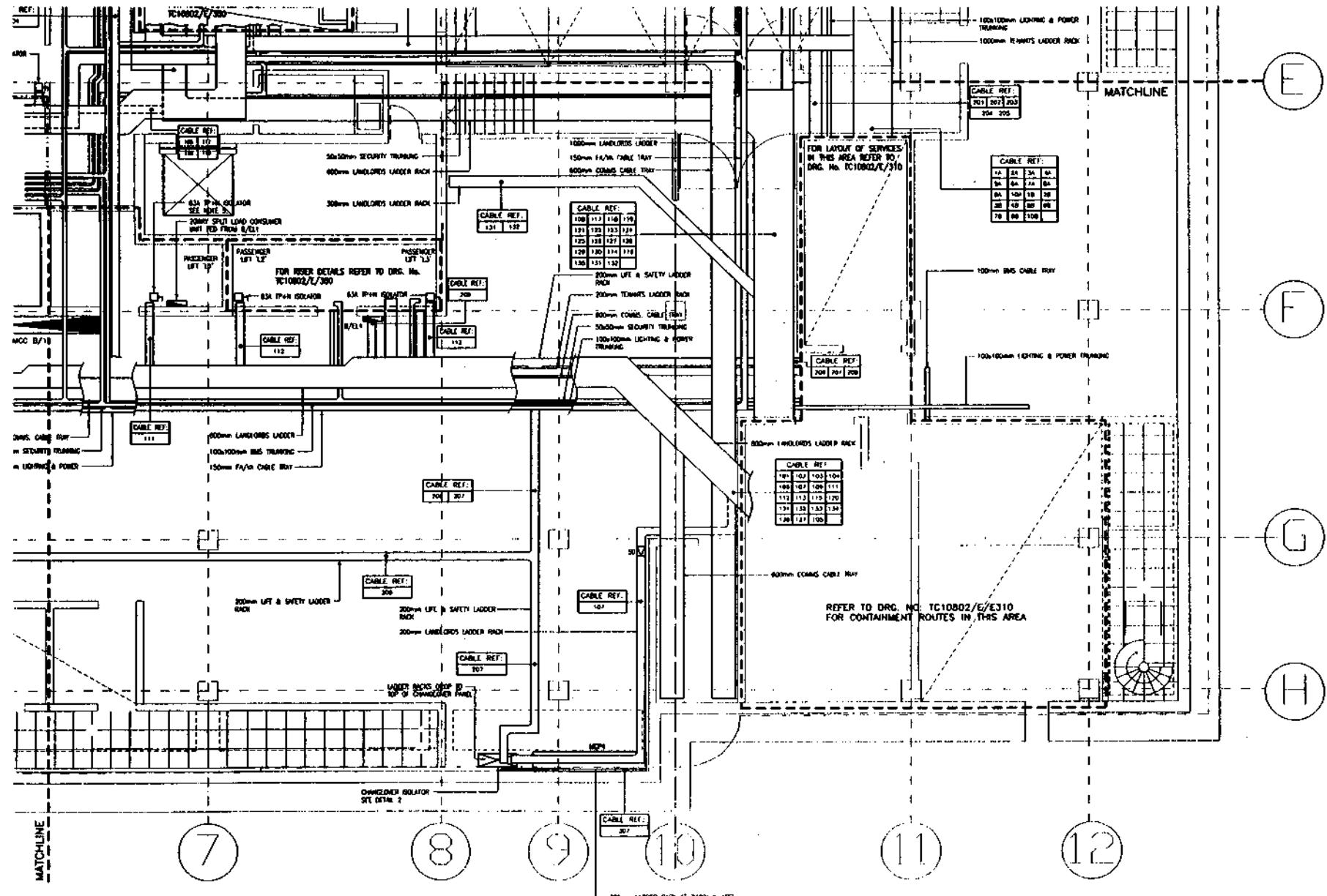
SEARCHED SERIALIZED INDEXED OCF

Code	Test	Type	Area
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DRG. No. TC10802/E/101

FOR CONTINUATION SEE DRAWING Nos. TC10802/E/100 & 101

FOR CONTINUATION SEE DRAWING NO: TC10802/E/103



1

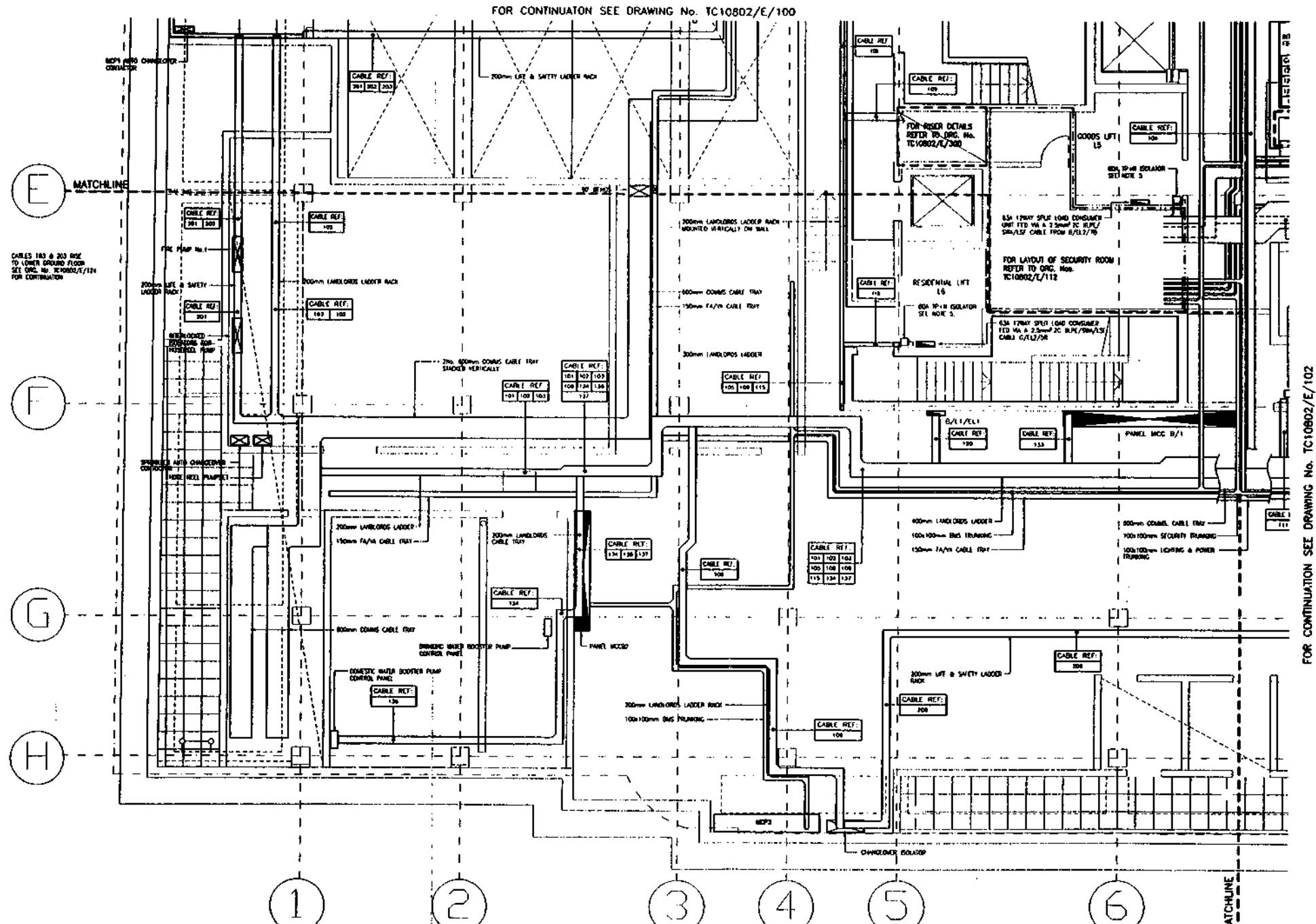
- DRAWING SHOULD BE READ IN CONJUNCTION WITH THE DRAWINGS 101-104, 101-103
LEADER LAYOUTS REFER TO DRAWING NO.
102A/104 - 107.
SMALL POWER, FA/VA, CRIMES & SECURITY LAYOUTS
REFER TO DRAWING NO. 101-103 - 101.
MM LEDGER SUPPLIES REFER TO DRAWING NO.
102A/104 - 107.

RECORD DRAWING

7 CARLTON GARDENS

**SEGMENT LV DISTRIBUTION
HEET 3**

Clarke p.l.c.		
100 Highgate Road SE12 3JY 01 782 7676		
CHARGE BY	CHECKED BY	DATE
1.1.89	1 AM	JAN '89
No. TC10802/E/102		



NOTES

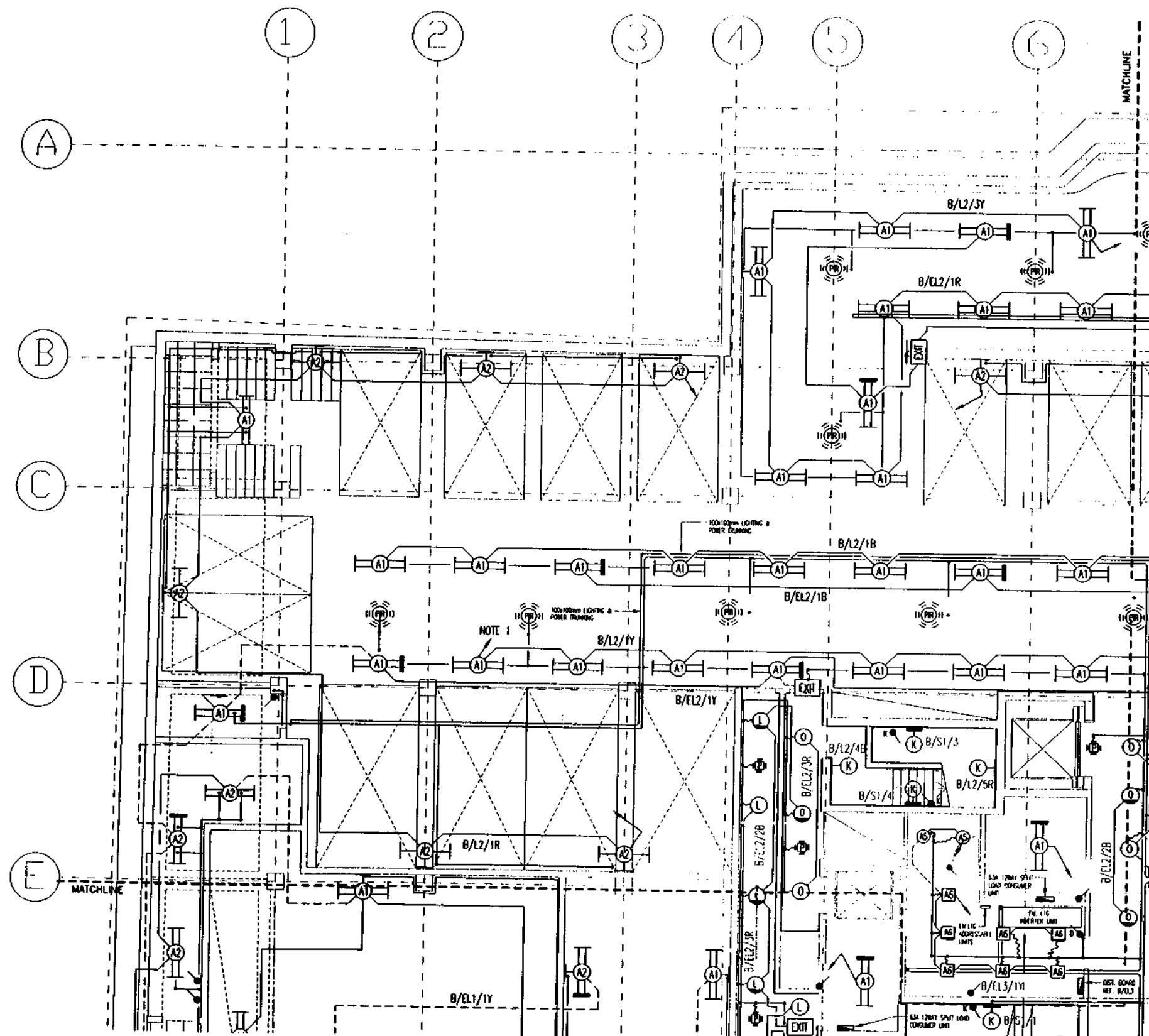
1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRAWING NO. TC10002/T-100 - 102.
2. FOR LIFTING LUGS, REFER TO DRAWING NO. TC10002/T-100 - 102.
3. FOR SHELL CENTER TANK, DRUM & SEEDLING LUMPS REFER TO DRAWING NO. TC10002/T-100 - 111.
4. FOR ANY LEADING SUPPLIES REFER TO DRAWING NO. TC10002/T-100 - 107.

RECORD DRAWING

-7 CARLTON GARDENS

ASSESSMENT LV DISTRIBUTION
SHEET 4

CL CHAMBERS & CONTRACTORS		(Control 1000)
Clarke p.l.c.		
House 19, Station Road Skipton, A.Y. BD22 2PT		
Ref.	SEARCHED	INDEXED
SEARCHED	INDEXED	FILED
TAKEN		
1 am		
AUG 19 1980		
No. TC10802/E/103		



FOR CONTINUATION SEE DRAWING No. TC10802/E/1

卷之三

RECORD DRAWING

Fig. 7. Fig. 8. Fig. 9.

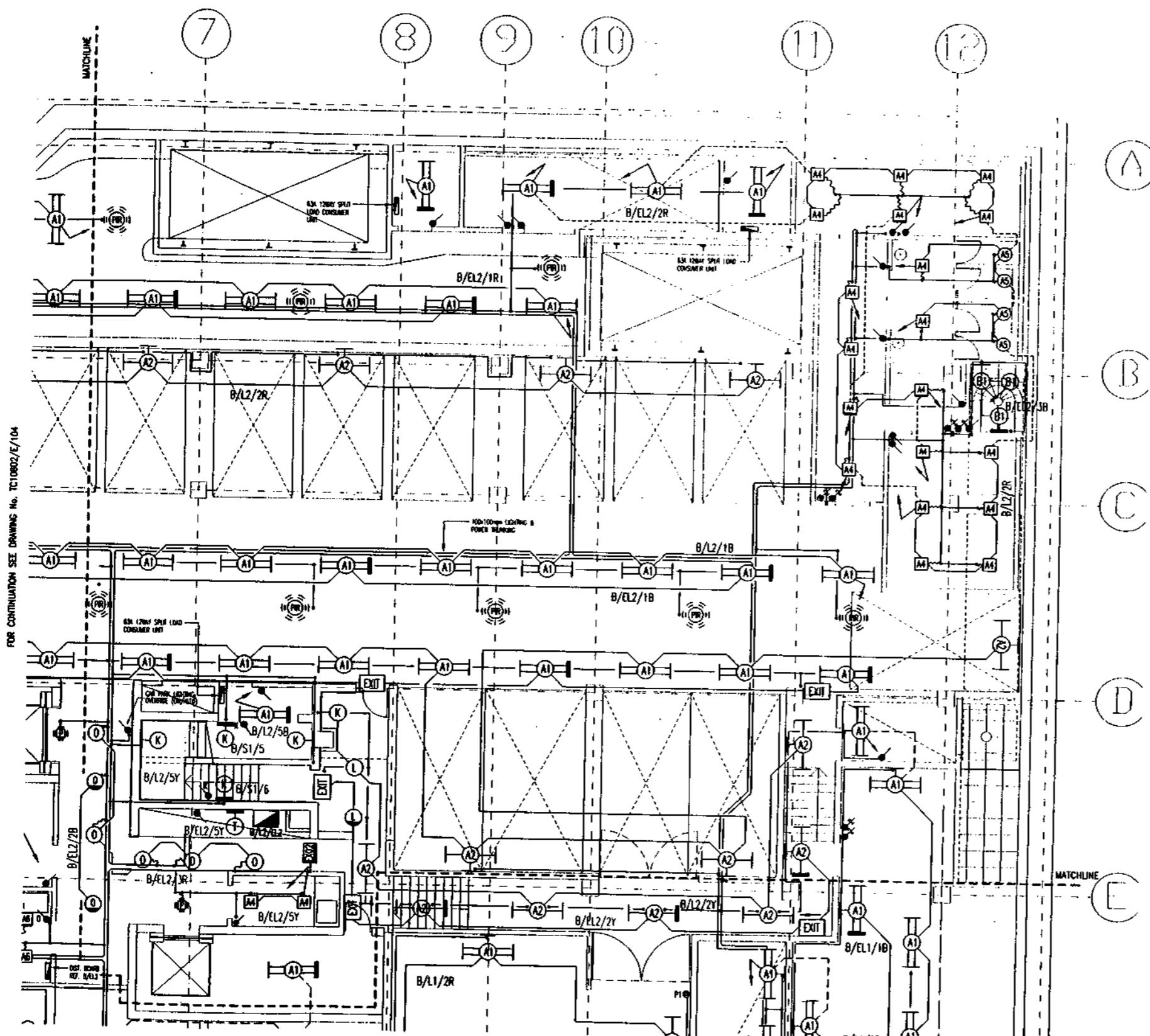
Basement Lighting Layout

J. Clarke p.l.c.

Happy House
2-158 Watervliet Road
Den 2K17 13V
0174 389 7074

G. No. TC10802/E/104

Digitized by srujanika@gmail.com



FOR CONTINUATION SEE DRAWING Nos. TC10802/E/106 & 107

RECORD DRAWING

-7 CARLTON GARDENS

BASMENT LEVEL
LIGHTING LAYOUT
SHEET 2

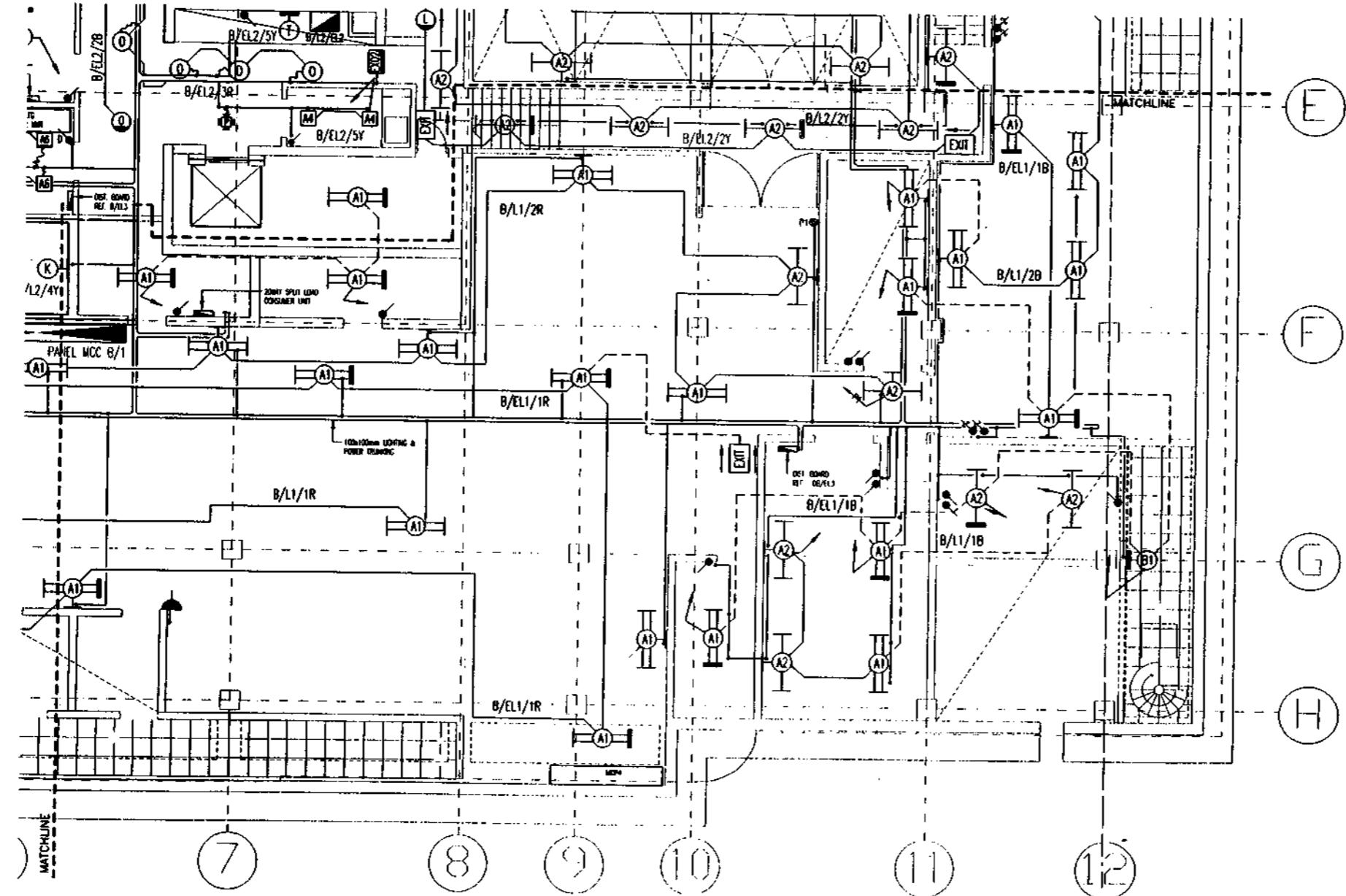
ELECTRICAL CONTRACTORS & CONTRACTORS		(Entered 1488)	
T. Clarke p.l.c.			
Stapleford House 15-18 Stapleford Road London SE17 1JZ Tel. 0171 252 7676			
SEARCHED	SERIALIZED	CHEKED BY	DATE
1-00	F.M.P	1-000	APR '95
DRC. No.		TC10802/E/105	

NOTES

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRAWING NO. TC10802/E/104, FIG. 3 & 107.
2. FOR COORDINATE SPACES/ LAYOUTS SEE DRC NO. TC10802/E/100 - 103.
3. LIGHTING IS SWITCHED BY A KEY FOR SPAN THE CIRCUIT & ON/OFF REED SWITCH.
4. LEFT MOTOR ROOM LIGHTING SUPPLIED FROM LINE CONNECTIONS 100V 50Hz 10A 160W & 100W 120W LEFT SPARES IN CIRCUIT.
5. LIGHTING CIRCUIT B/L1/1R IS CONNECTED TO FUSED ON THE RCD FOR AND METERED LIGHTING.

FOR CONTINUATION SEE DRAWING Nos. TC10802/E/104 & 105

FOR CONTINUATION SEE DRAWING NO. TC10802/E/107



RECORD DRAWING

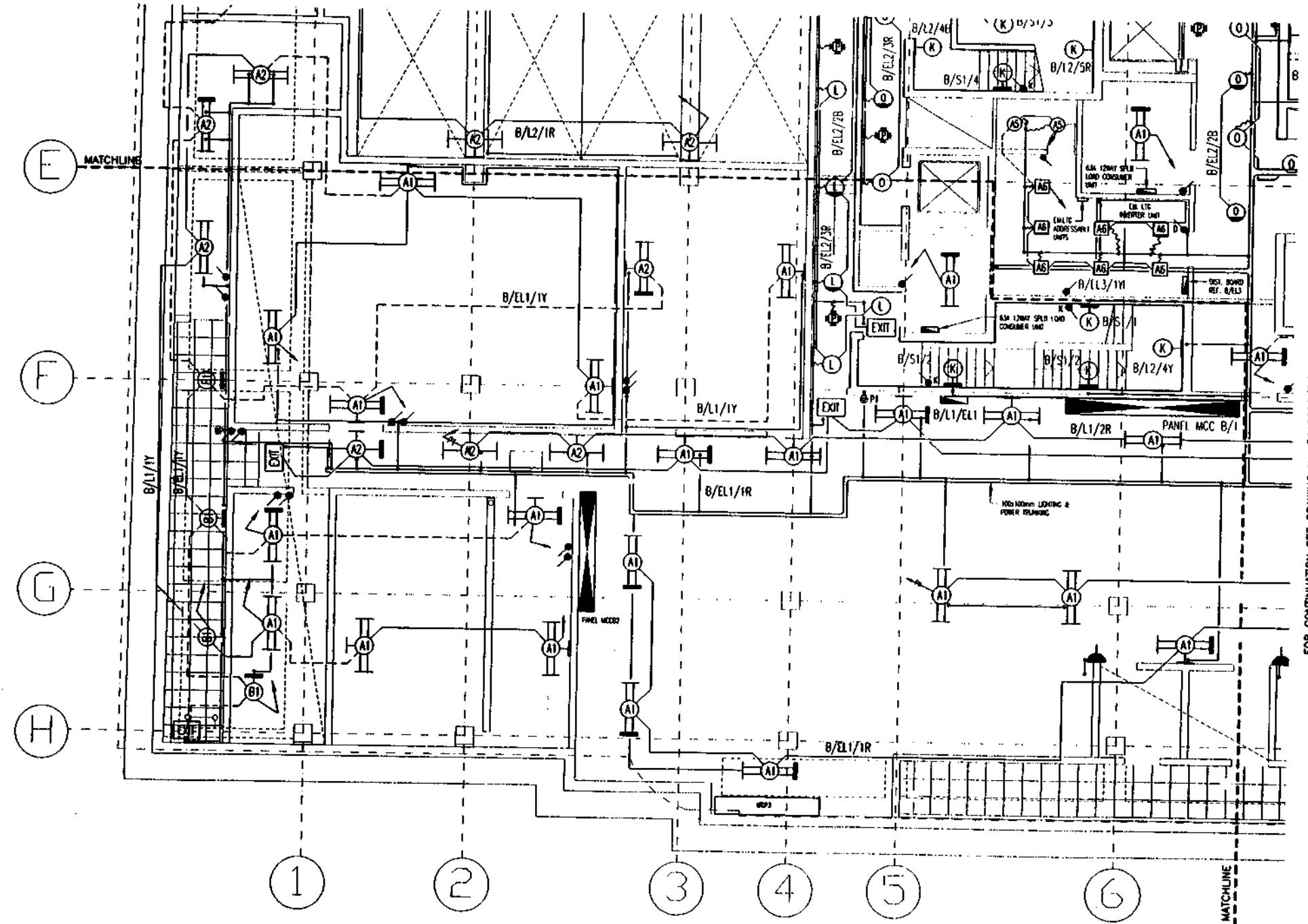
Job No. 5-7 CARLTON GARDENS

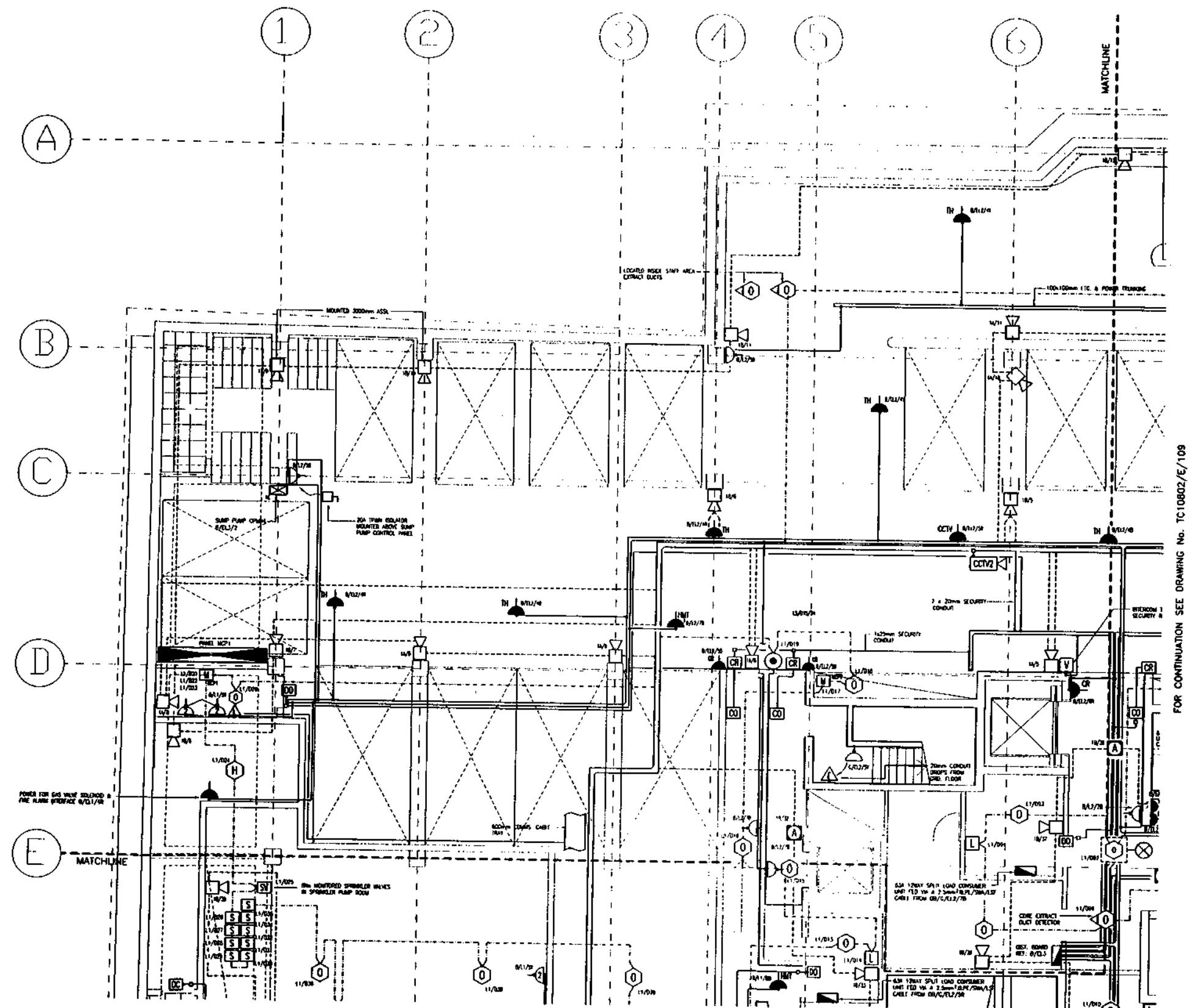
Drawing No. BASEMENT LEVEL
LIGHTING LAYOUT
SHEET 3ELECTRICAL ENGINEERS & CONTRACTORS (London) Ltd.
T. Clarke p.l.c.
Stapleford House
118-120 Victoria Road
London SE17 1JT
Tel. 0171 332 3875SCALE DRAWN BY CHECKED BY DATE
1:50 T.G.W. Date APR '96
DRC. No. TC10802/E/106

NOTES

1. THE DRAWING SHOULD BE READ IN CONJUNCTION WITH DRAWING NO. TC10802/E/104, 105 & 106.
2. FOR COORDINATED SERVICES LAYOUTS SEE SPC NO'S TC10802/E/108 - 101.
3. LIGHTING IS SHOWN BY KEY PAIRS WHICH THE CIRCUIT NUMBER & OVER SIZE SYMBOL.
4. UTV MOTOR ROOM LIGHTING SUPPLIED FROM CONSUMER UNIT, THAT IS A 10A 120VDC & SPEED OF 120WATT LED SHOULD BE USED.
5. LIGHTING CIRCUIT 8/1/1R IS CONNECTED TO FUSES ON THE AMU FOR AND INTERIOR LIGHTING.

FOR CONTINUATION SEE DRAWING NO. TC10802/E/104 & 105





FOR CONTINUATION SEE DRAWING No. TC10802/E/110 & 111

FOR CONTINUATION SEE DRAWING NO. TC10B02/E/109

RECORD DRAWING

3 CARLTON GARDENS

SEGMENT LEVEL
ALL POWER, FIRE ALARM,
SECURITY & COMMS. LAYOUT
SHEET 1

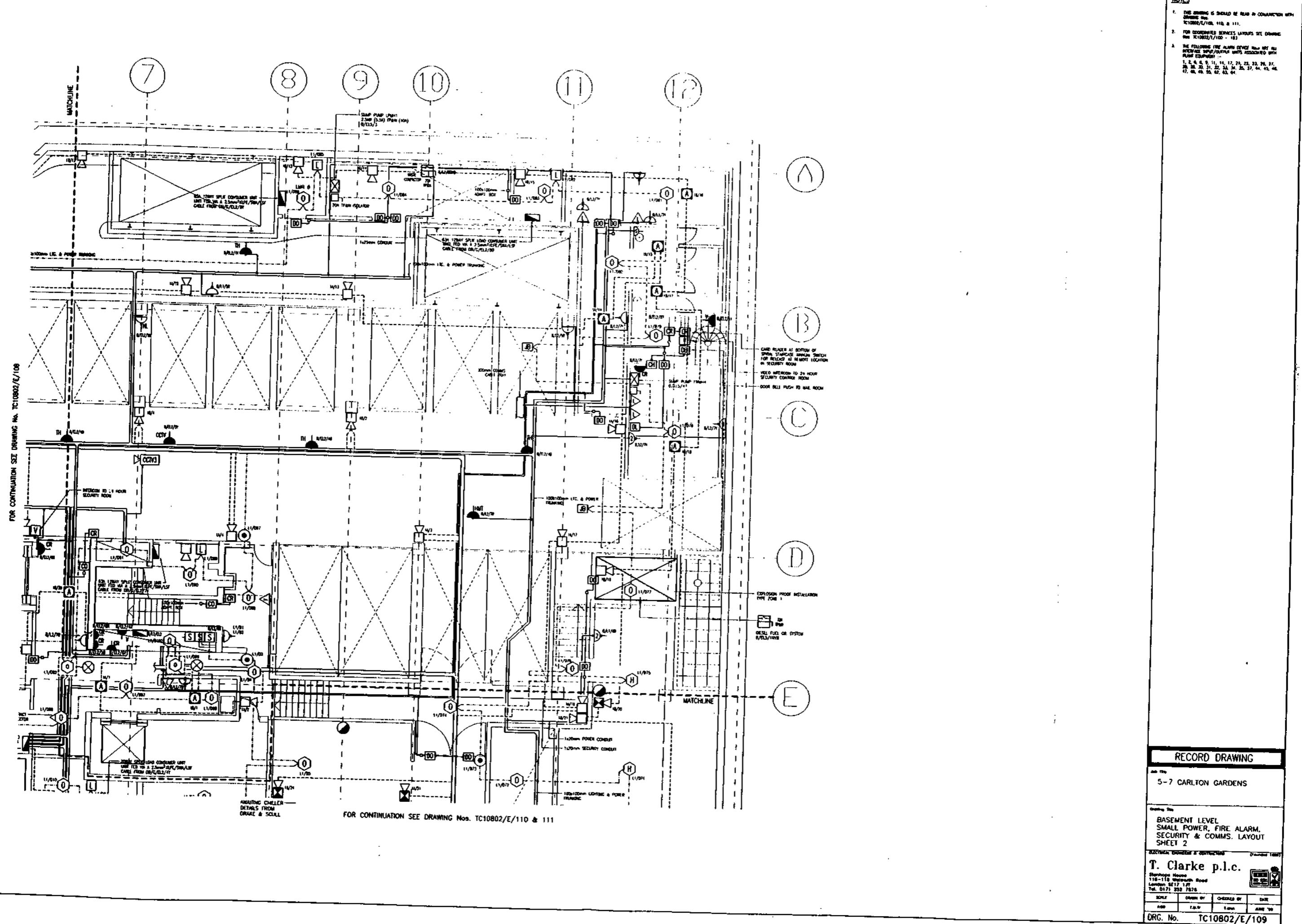
Clarke P.L.C.

13 Warwick Road
SE17 1ST
01 794 2778

SEARCH BY CHILDREN BY

TIME Page 54

No. TC10802/E/106

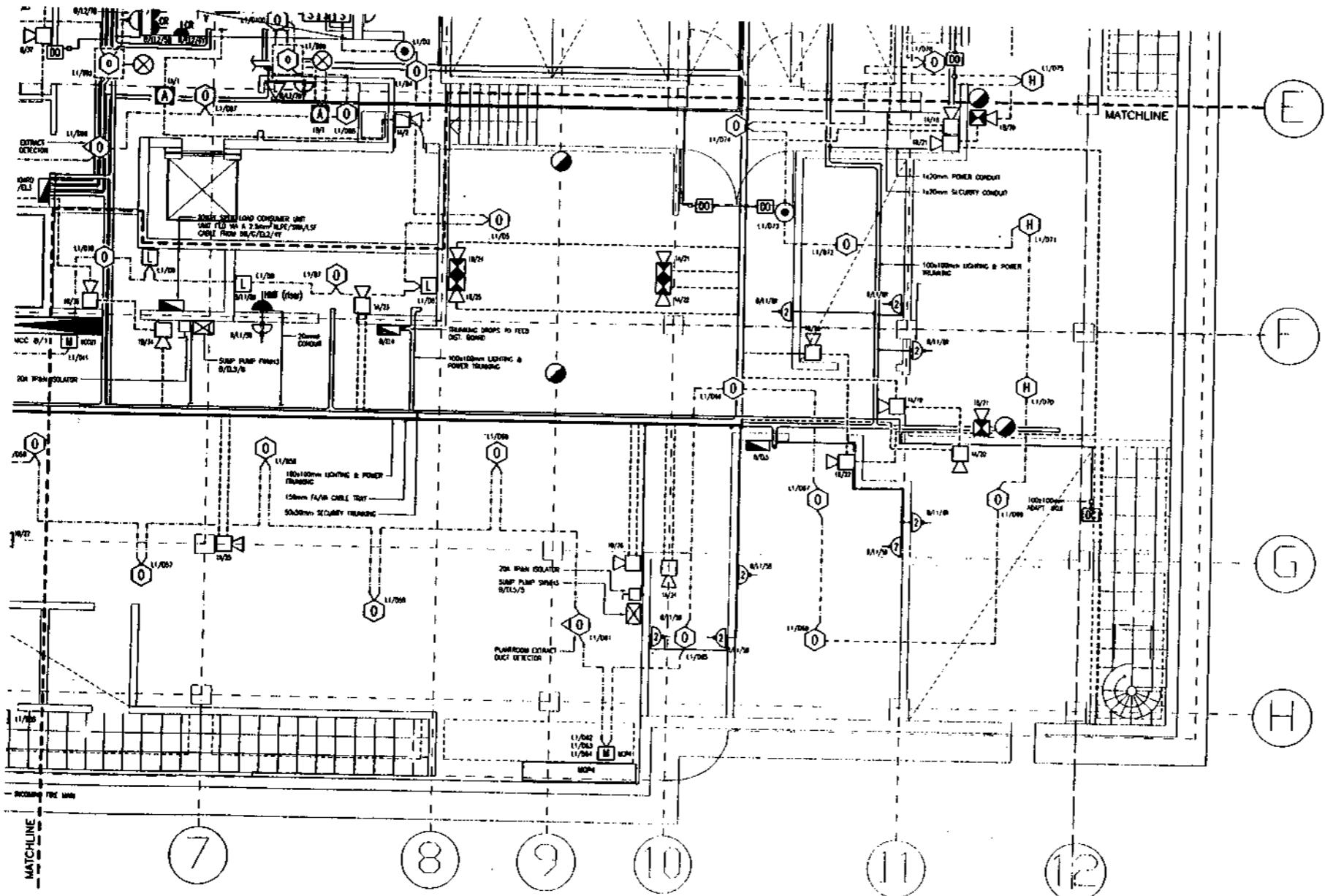


NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE FOLLOWING DRAWINGS:
K-10002/1(DR), 1000, & 111.
2. FOR COORDINATED SERVICE LAYOUTS SEE DRAWING
K-10002/1(DR) - 183.
3. THE FOLLOWING FIRE ALARM CIRCUITS AND AREAS ARE ALL
SURFACE MOUNT/OUTLET MOUNTS ASSOCIATED WITH
PLANT EQUIPMENT:
1, 2, 8, 9, 11, 14, 17, 21, 22, 23, 26, 27,
28, 29, 30, 32, 33, 34, 35, 37, 44, 45, 46,
47, 48, 50, 53, 63, 64.

FOR CONTINUATION SEE DRAWING Nos. TC10802/E/108 & 109

EDB CONTINUATION SEE DRAWING NO. 20000000000000000000000000000000



RECORD DRAWING

-7 CARLTON GARDENS

BASEMENT LEVEL
MALL POWER, FIRE ALARM,
SECURITY & COMMS. LAYOUT
SHEET 3

Clarke p.l.c.

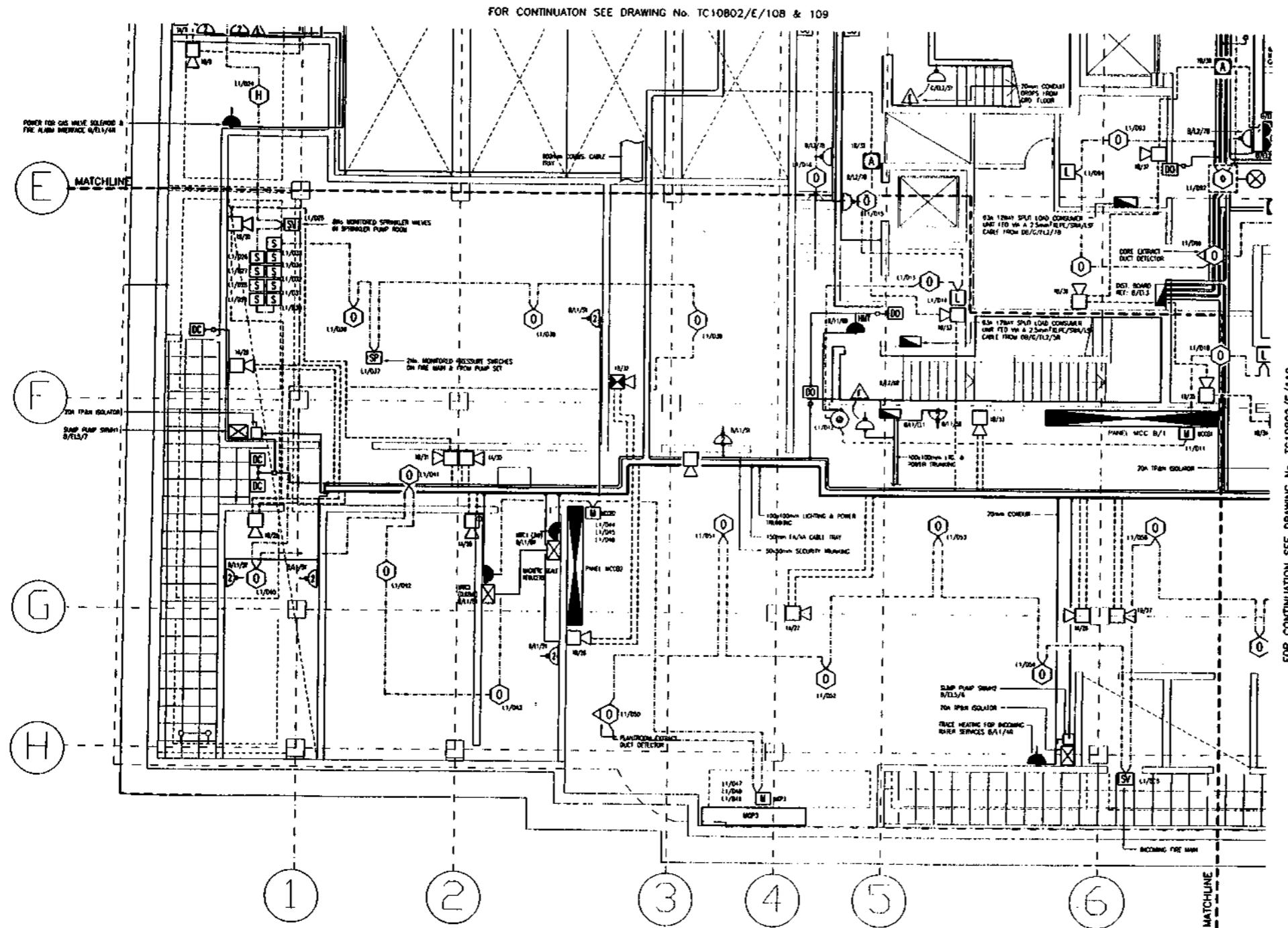
100	100
100	100

No. TC10802/E/110

NOTES

- THIS DRAWING IS TO BE READ I.C.W. THE FOLLOWING DRAWINGS
TC10802/E/108 & 110
- FOR COORDINATED SERVICES LAYOUTS SEE DRAWING
No. TC10802/E/109
- THE FOLLOWING FIRE ALARM DEVICE PINS ARE ALL
DIRECT INPUT/OUTPUT UNITS ASSOCIATED WITH
PLATE CIRCUIT BOARD:

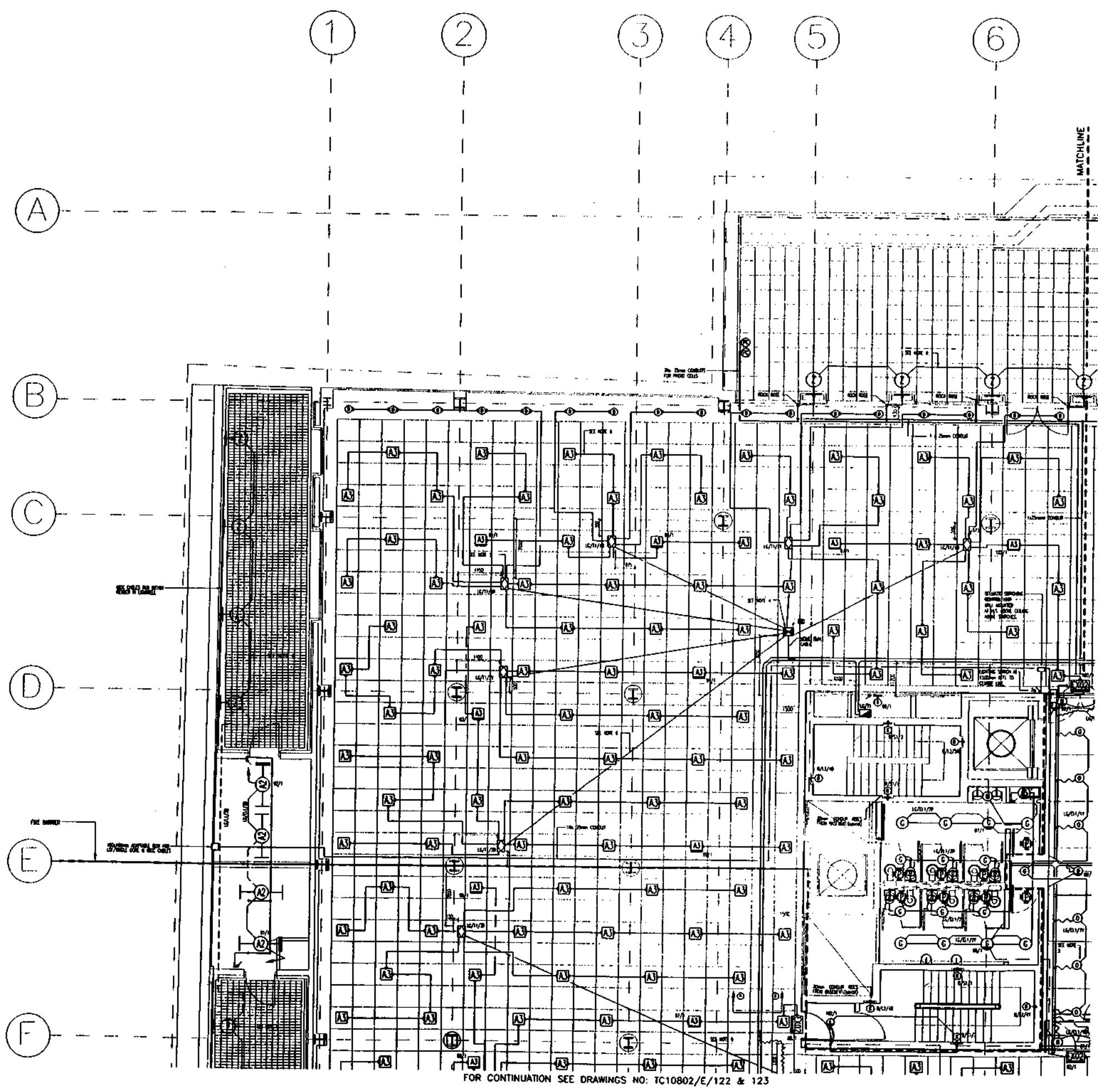
 - A, 3, 6, 8, 11, 12, 13, 17, 21, 22, 23, 25, 27,
 - 28, 29, 31, 32, 33, 34, 35, 37, 38, 41, 44,
 - 47, 48, 49, 52, 53, 54



RECORD DRAWING			
5-7 CARLTON GARDENS			
Drawing No.			
BASEMENT LEVEL SMALL POWER, FIRE ALARM, SECURITY & COMMS. LAYOUT SHEET 4			
T. Clarke p.l.c. St. Georges House 11-15 St. Georges Road London SE17 1EE Tel. 0171 252 2876			
SCALE	NUMBER	CHECKED BY	DATE
1:50	149	TAO	June 19
DRC. No. TC10802/E/111			

NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWINGS NO. TC10802/E/121, 122 & 123.
2. LIGHT SWITCHES ADJACENT TO ENTRANCES CONTAIN TWO SEPARATE CIRCUITS ON A SLOW TO LIGHT CONTROL TIMING/ALARM SERIES.
3. SWITCH 1 - ROTATING CORRIDOR LUMINARIES
4. SWITCH 2 - ALL OPEN PLAN OFFICE LUMINARIES
5. LUMINARIES ARE SWITCHED ON/OFF VIA A TIME CLOCK IN THE BASEMENT SECURITY ROOM.
6. WIRING DISTRIBUTION NEEDS TO SUIT.
7. LIGHTING CONTROL MODULE FIXED TO SUIT.
8. REFER TO CAMP MANUAL FOR TECHNICAL DETAILS / SPECIFICATIONS ON ALL WIRING LEADS.
9. EMERGENCY LIGHTING ADDRESSABLE CABLE, FIXED TO SUIT/SERVICES BRACKET.
10. LIGHTING CONTROL DATA CABLE FIXED TO SUIT/SERVICES BRACKET.
11. LUMINARIES SWITCHED ON VIA PROTOCOL AND OFF VIA TIME CLOCK WITH OVERRIDE SWITCHES IN THE BASEMENT SECURITY ROOM.



RECORD DRAWING			
5-7 CARLTON GARDENS			
Lower Level			
LOWER GROUND LIGHTING LAYOUT SHEET 1.			
T. Clarke p.l.c.			
Staple House 110-116 Wakefield Road London SW11 5JZ Tel. 0171 223 7878			
DATE	DRAWN BY	CHECKED BY	DIR.
10/04	TALW	TAN	JUNE '90
DRG. No. TC10802/E/120			

E08 CONTINUATION SEE DRAWING NO: TC10802/E/120

FOR CONTINUATION SEE DRAWING NO. TC10802/E/122 & 123

FOR CONTINUATION SEE DRAWING NO: TC10802/E/122 & 123

1. THE DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWINGS 10-100 & 11-100.
 2. LIGHT SWITCHES ADJACENT TO EXTERIOR DOORWAYS CONTROL TWO SWITCHING GROUPS VIA A DAY/SOCIAL TO LIGHTING CONTROLLER, WIRELESSLY BRIDGED.
 - SWITCH 1 - HISTORICAL CORRIDOR LUMINARIES
 - SWITCH 2 - ALL OPEN PLAN OFFICE LUMINARIES
 3. LUMINARIES ARE SWITCHED ON/OFF VIA A TIME CLOCK IN THE BACHELOR SECURITY ROOM.
 4. MAN'S DISTRIBUTION BOX FEED TO SOFTI.
 5. LIGHTING CONTROL MODULE FEED TO SOFTI.
 6. REFER TO DASH DRAWING FOR TECHNICAL DETAILS/ SPECIFICATIONS ON ALL WELDED LEADS.
 7. EMERGENCY LIGHTING ADDRESSABLE CABLE TIED TO SOFTI/SERVICES BRACKET.
 8. LIGHTING CONTROL DATA CABLE TIED TO SERVITS/SERVICES BRACKET.
 9. LUMINARIES SWITCHED ON VIA PHOTOCELL AND OFF VIA THE CLOCK WITH OVERRIDE SWITCHES ON THE BACHELOR SECURITY ROOM.

RECORD DRAWING

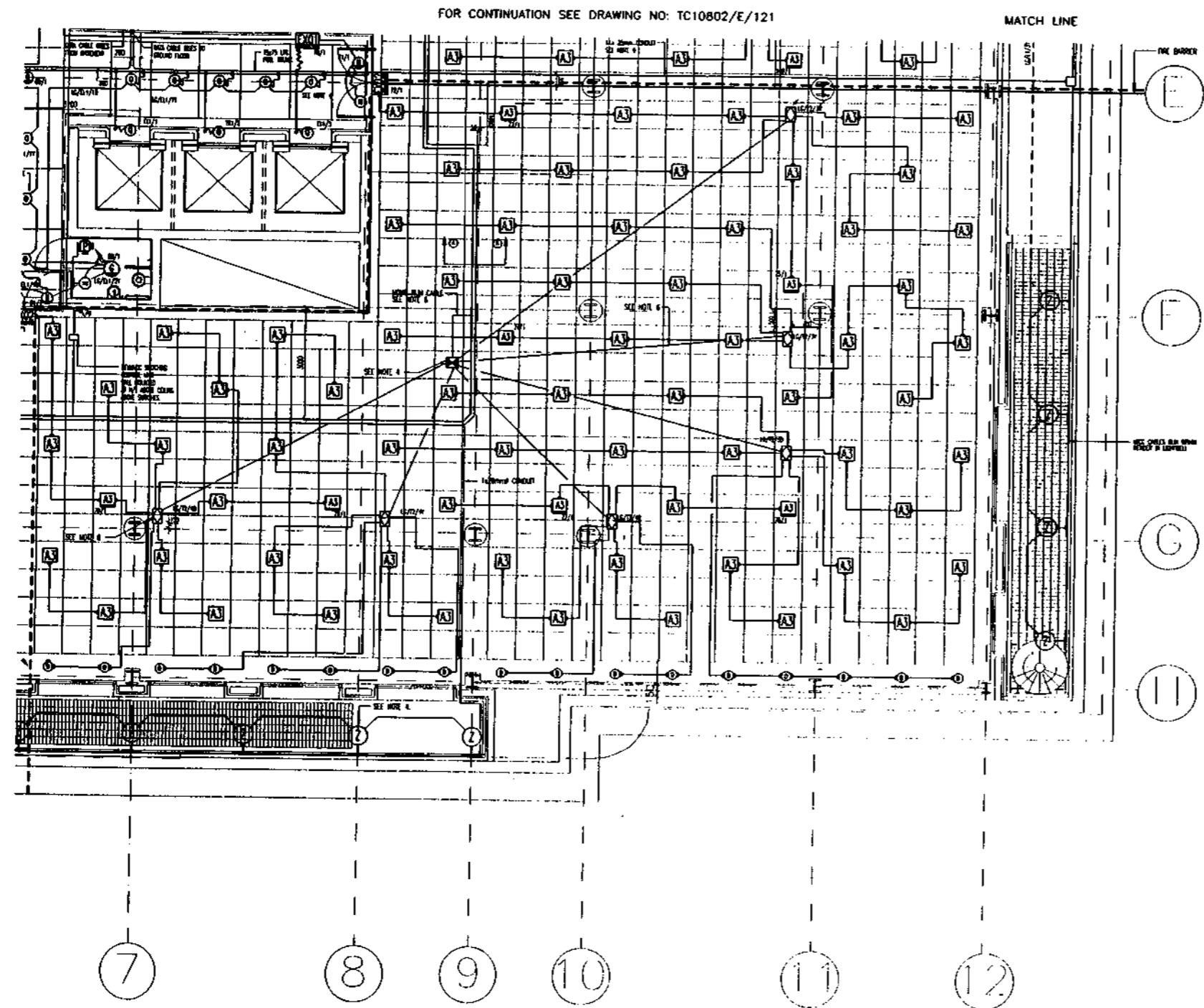
7 CARLTON GARDENS

PAGE 1 OF 2

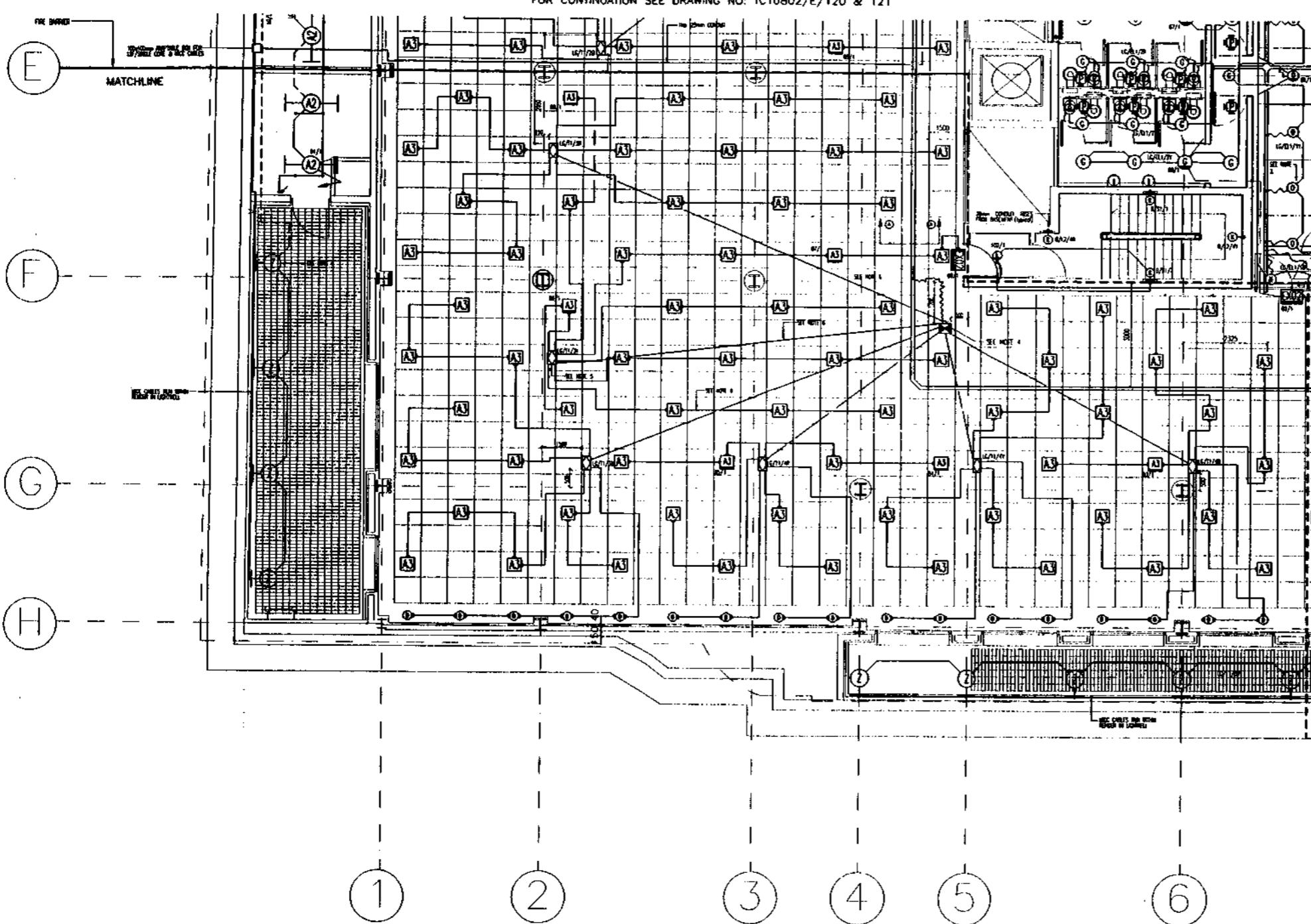
Clarke p.l.c.

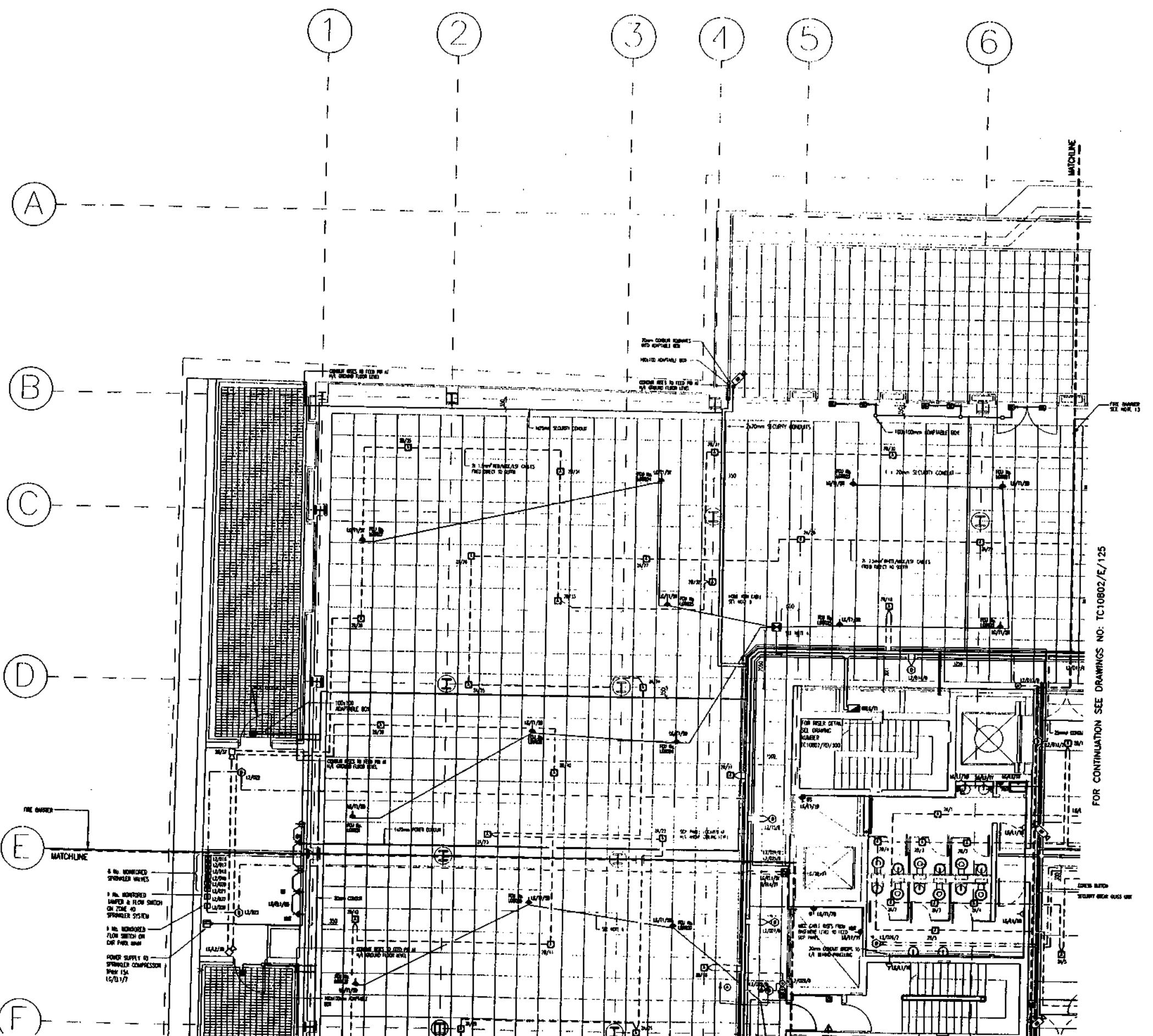
10 Waltham Road		10 W	
in SETT 1ST			
1971 252 7076			
SL	NAME OR	CHECKED BY	DATE
10	F. J. M.	T. M.	ADM '99
No. TC10802/E/121			

FOR CONTINUATION SEE DRAWING NO: TC10802/E/120 & 121



RECORD DRAWING			
Job No.	5-7 CARLTON GARDENS		
Drawing No.	LOWER GROUND LIGHTING LAYOUT SHEET 3.		
ELECTRICAL CONTRACTORS & CONTRACTORS			
T. Clarke p.l.c. Stapleford House 11-13 Stapleford Road London EC1V 1JT Tel. 0171 252 7676			
SCALE	DRAWN BY	CHECKED BY	DATE
1:50	JALD	JAN	APR 94
DRG. No. TC10802/E/122			





NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWING NO. TC10802/E/125, 126 & 127.
2. REFER TO 5-7 FIRE DRAWING IN OWN MANUAL FOR LAYOUT OF FIRE ZONES.
3. REFER TO THE GLENDEAN SECURITY LTD. OWN MANUAL FOR TECHNICAL DETAILS OF ALL SECURITY EQUIPMENT.
4. MAIN DISTRIBUTION BOX FED TO SERVITI

5. A-ZON

- DEVICE NUMBER
- PI LOOP
- LV/01/19
- ZONE REFERENCE
- DEVICE NUMBER
- LOOP NUMBER

6. REFER TO OWN MANUAL FOR TECHNICAL DETAILS/SPECIFICATIONS ON ALL WIRING LEADS.

7. FOR LOCATIONS OF SMOKE ALARMS REFER TO DRAWING NO. E10802/E/126.

RECORD DRAWING

AM 100

5-7 CARLTON GARDENS

Overall size
LOWER GROUND
L.V. DISTRIBUTION, SMALL POWER
FIRE ALARM, SECURITY & COMMS
LAYOUT SHEET 1.

ELECTRICAL CONTRACTORS & CONTRACTORS

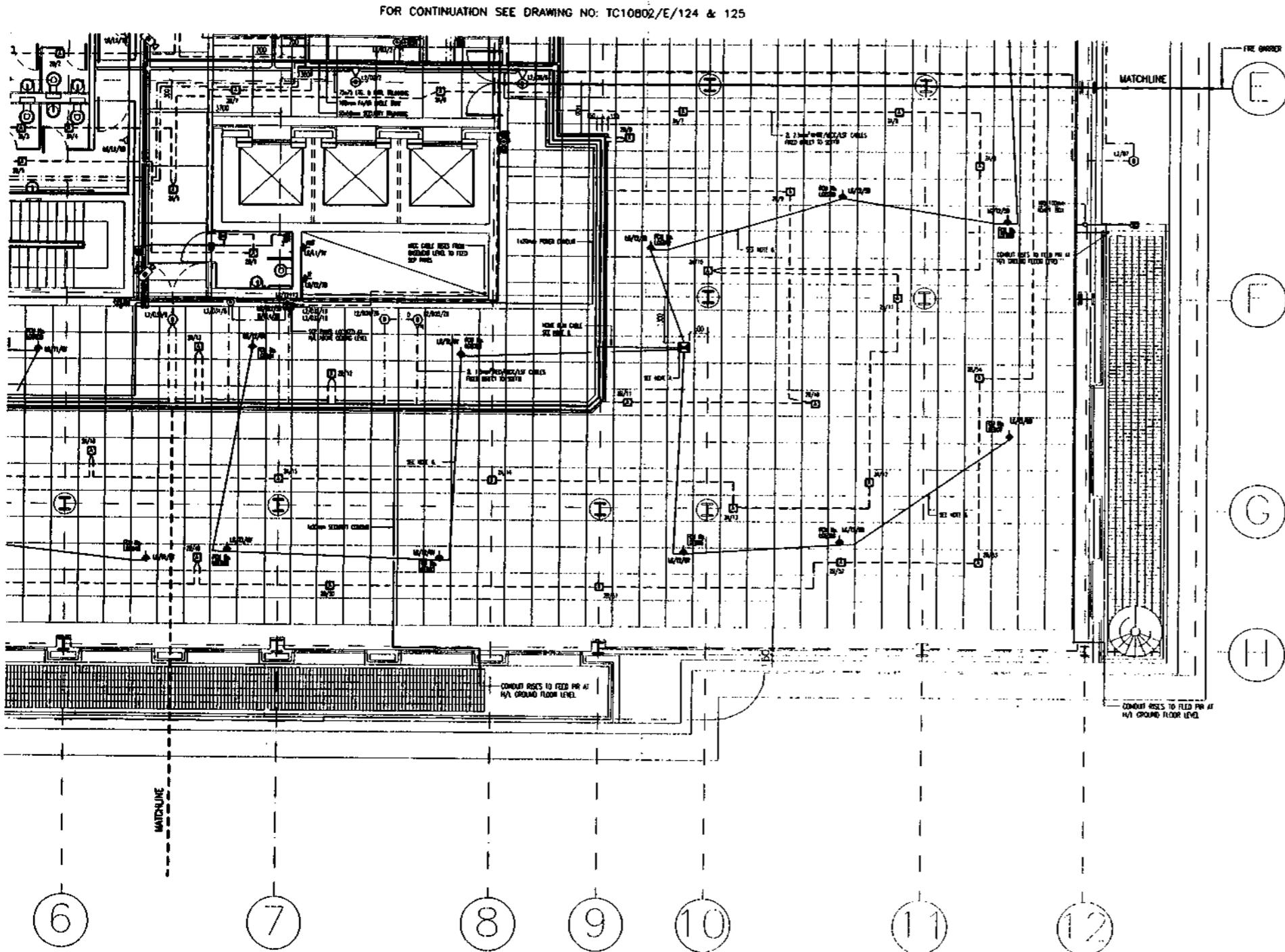
T. Clarke p.l.c.
Stapleford House, Stapleford Road,
Luton, Bedfordshire, LU7 1PT
Tel. 01572 322 7870

SCALE: DRAWN BY: CHECKED BY: DATE:

1:100: NAME: TIME: APPROVED BY:

DRG. No. TC10802/E/124

FOR CONTINUATION SEE DRAWING NO: TC10802/E/127



- NOTES
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWING NO: TC10802/E/124 & 125.
 2. REFER TO L1 FIRE ZONE DRAWING IN O&M MANUAL FOR LIST OF FIRE ALARMS.
 3. REFER TO THE BUDGET STUDY LTD. O&M MANUALS FOR TECHNICAL DETAILS OF ALL SECURITY EQUIPMENT.
 4. MASS DISTRIBUTION NOT FIXED TO 30FT.
 5. L1/01/14
— DEVICE NUMBER
A = LOOP
 6. REFER TO O&M MANUAL FOR TECHNICAL DETAILS / SPECIFICATIONS OF ALL BOUND LEADS.
 7. FOR LEGEND OF SYMBOLS REFER TO DRAWING NO: TC10802/E/120.

RECORD DRAWING

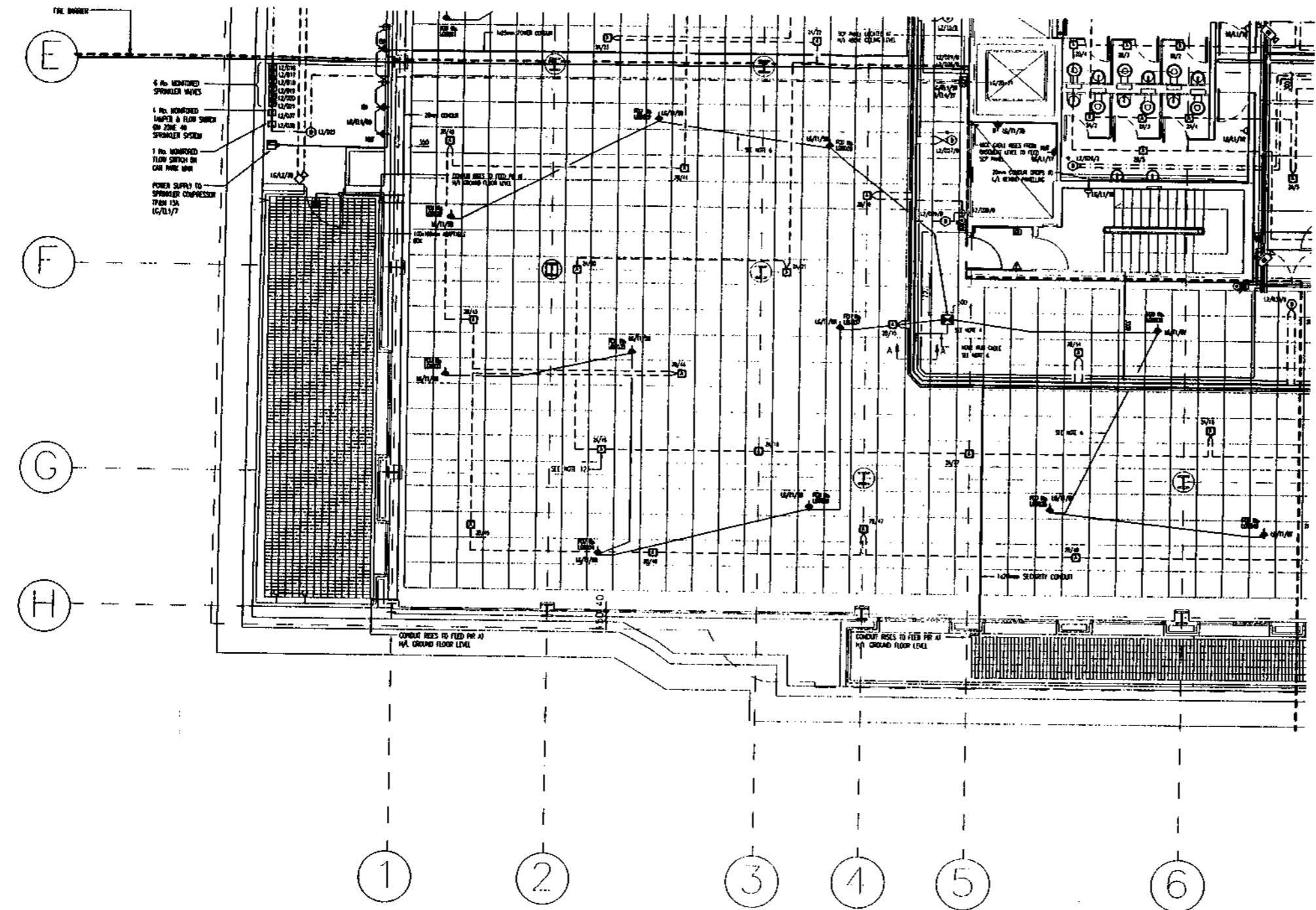
Job No:
5-7 CARLTON GARDENS

Drawing No:
LOWER GROUND
L.V. DISTRIBUTION, SMALL POWER
FIRE ALARM, SECURITY & COMMS
LAYOUT SHEET 3.

ELECTRICAL CONTRACTORS & ENGINEERS
T. Clarke p.l.c.
Stainless House
110-118 Waterloo Road
London SE17 9JT
Tel: 0207 252 7676

SCALE	DRAWN BY	CHECDED BY	DATE
1:100	T.M.W.	T.M.W.	10/01/04

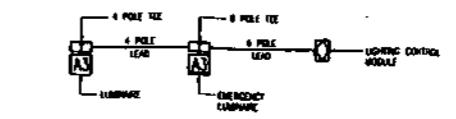
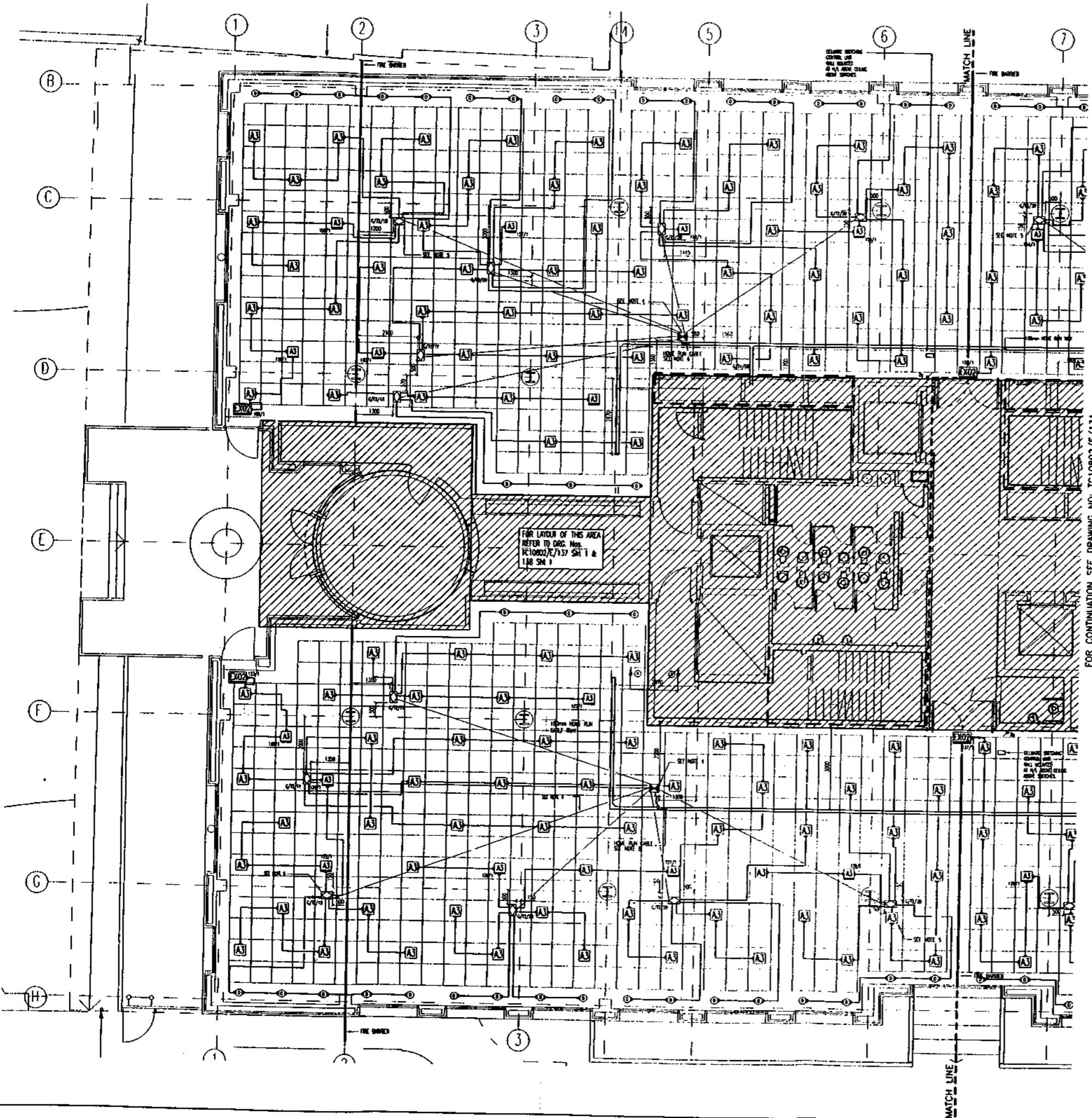
DRG. No. TC10802/E/126



NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWINGS NO: TC10802/E/124, 125 & 126
2. REFER TO LAS FIRE ZONE DRAWINGS IN DRAWING FOR LAYOUT OF FIRE ZONES.
3. REFER TO ULTRALINK SECURITY LTD. OWN MANUAL FOR TECHNICAL DETAILS OF ALL SECURITY EQUIPMENT.
4. MASS DISTRIBUTION BOX PIVED TO 30°/70°.
5. L4/76
DEVICE NUMBER
PL LOOP
L4/12/11
TONE NOTIFICATION
DEVICE NUMBER
LOOP NUMBER
6. REFER TO OWN MANUAL FOR TECHNICAL DETAILS/ SPECIFICATIONS ON ALL INCLDED LEADS.
7. FOR LEGEND OF SYMBOLS REFER TO DRAWING NO: TC10802/E/124.

RECORD DRAWING	
Job Ref:	5-7 CARLTON GARDENS
Drawing No:	LOWER GROUND L.V. DISTRIBUTION, SMALL POWER FIRE ALARM, SECURITY & COMMS LAYOUT SHEET 4
ELECTRICAL ENGINEERS & CONTRACTORS Drawing Date:	
T. Clarke p.l.c. Stapleford House 116-118 University Road London SE15 1PF Tel: 0171 258 7876	
SCALE	DRAWN BY
1:50	TAKE
APPROVED	DATE
DRC. No. TC10802/E/127	



TYPICAL ARRANGEMENT OF LEADS & TEES FOR EMERGENCY LIGHTING
(NOT TO SCALE)

- NOTES:
1. FIVE CIRCUITS SHOULD BE READ IN CONJUNCTION WITH DRG. NO. TC10802/E/131, SET B 1/1.
 2. FIVE SERVICE ELEVATORS TO THE CIRCULUS TO CENTRAL MECHANICAL ROOMS.
 3. SECTION 1 - INTERNAL CORRIDOR LUMINARIES.
 4. SECTION 2 - ALL OFFICE PLAZA LUMINARIES.
 5. LUMINARIES ARE SWITCHED ON BY ELECTRICAL TIME DELAY.
 6. 4 POLE DISTRIBUTION BOX 300x750mm DEP. FLOOR TO SURF.
 7. EMERGENCY CONTROL MODULE SPEC 140x140mm DEP. FLOOR TO SURF.
 8. FORM SCHEDULE OF SERVICES REFER TO TC10802/E/130.
 9. REFER TO OPERATING & MAINTENANCE MANUAL.

RECORD DRAWING

5-7 CARLTON GARDENS

Sheet No.

GROUND FLOOR
LIGHTING LAYOUT
SHEET 1.

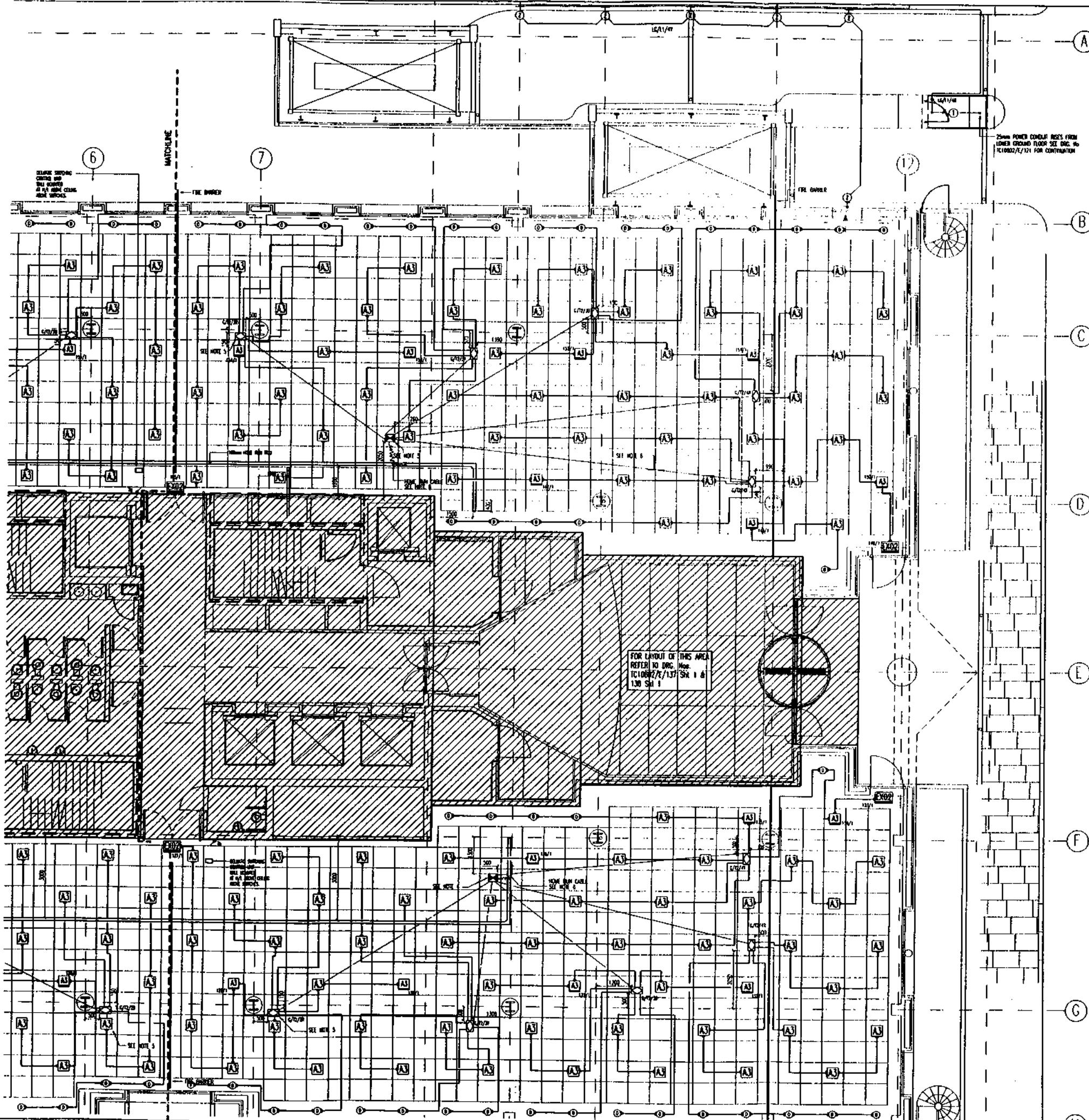
DESIGNERS & CONTRACTORS

T. Clarke p.l.c.
Stargate House
110-118 Wellington Road
London SW1E 6QH
Tel. 0171 253 7876

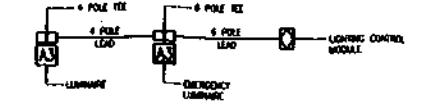
SCALE	DRAWN BY	CHECKED BY	APPROVED BY
1:50	J.L.S.	J.M.W.	A.H.W.

DRG. NO. TC10802/E/130

FOR CONTINUATION SEE DRAWING NO: TC10802/E/130



TYPICAL ARRANGEMENT OF LEADS & TIES FOR EMERGENCY LIGHTING
(NOT TO SCALE)



RECORD DRAWING

S-7 CARNTON GARDENS

**GROUND FLOOR
LIGHTING LAYOUT
SHEET 2.**

Clarke p.l.c.

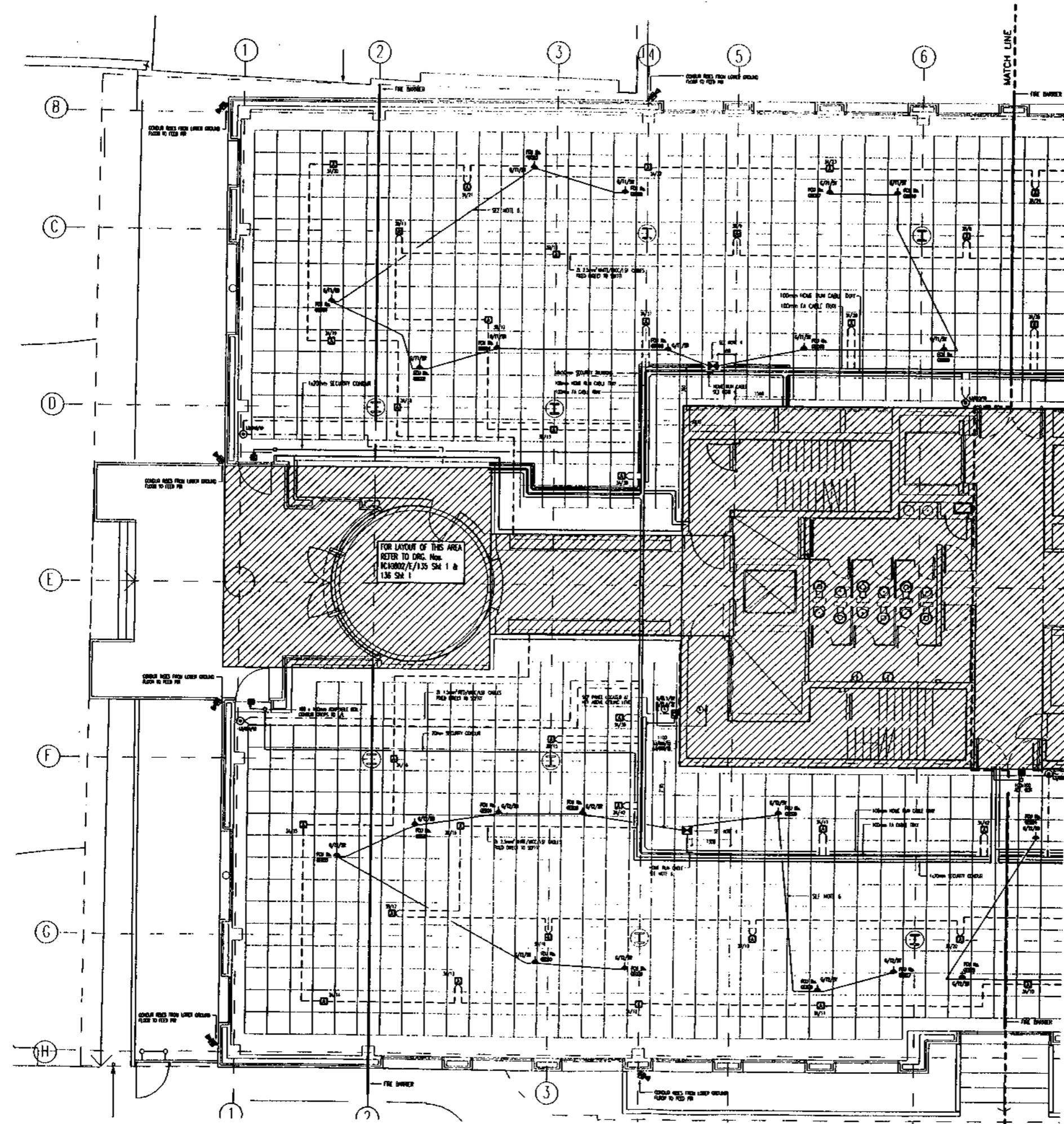
Shepe House
118 Waterton Road
London SW17 1AS

0177 253 7676

ITEM	OPEN BY	CLOSED BY	OPENED
1-10	6.6.8	7.04	2000

G. No. TC10802/E/131

Digitized by srujanika@gmail.com



FOR CONTINUATION SEE DRAWINGS NO: TC10802/E 133

RECORD DRAWING

Ref No:
5-7 CARLTON GARDENS

Drawing No:
GROUND FLOOR
L.V. DISTRIBUTION, SMALL POWER
FIRE ALARM, SECURITY & COMMS
LAYOUT SHEET 1.

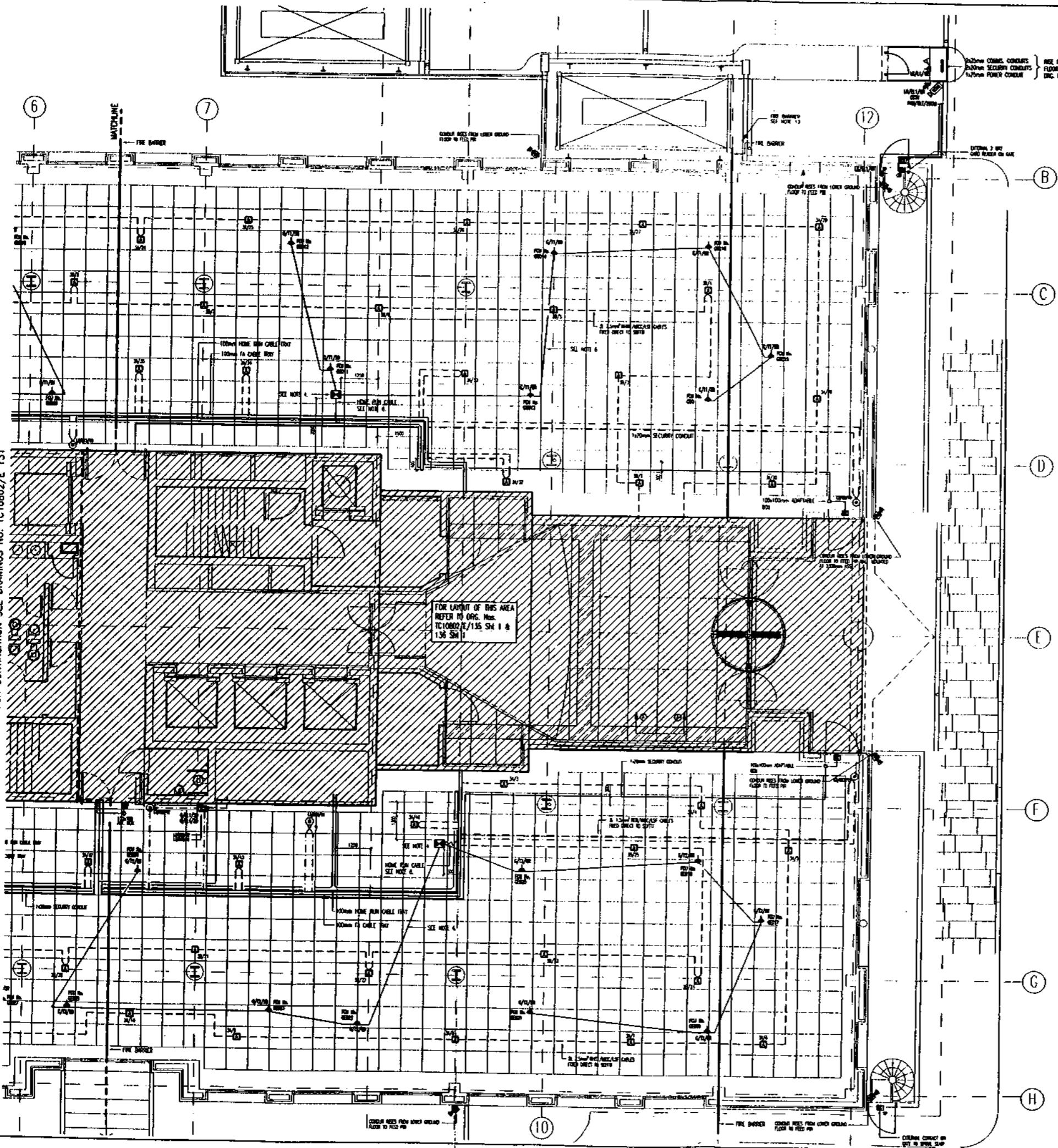
Electrical Engineers & Contractors
T. Clarke p.l.c.
St. Georges House
118-120 Kingsway Road
London WC1X 1JT
Tel. 0171 252 7676

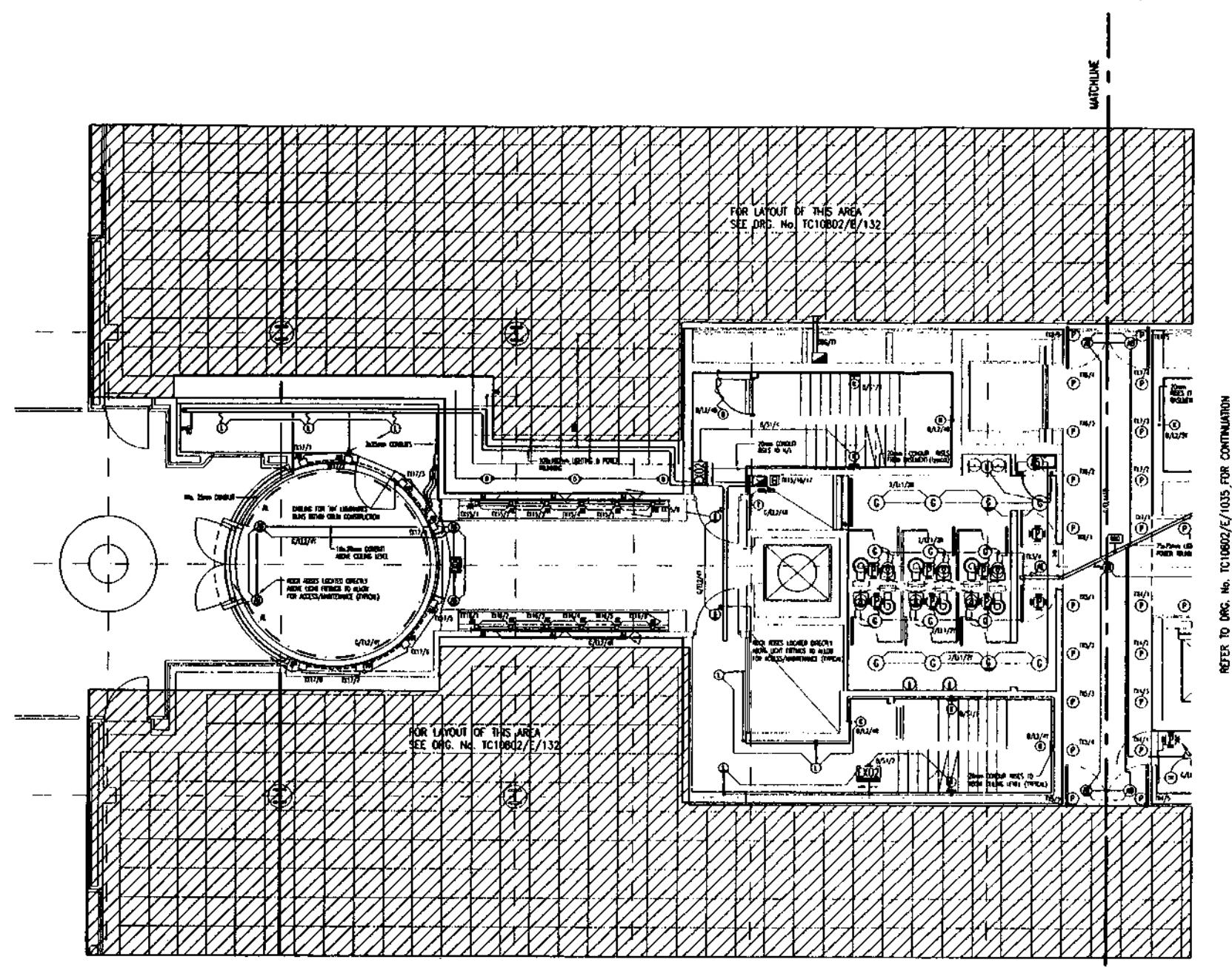
SCALE	Width or	Checked by	Date
1:100	mm	MM	AM 90

DRG. No. TC10802/E/132

- NOTES
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWING NO. TC10802/E/133
 2. REFER TO PA FIRE ZONE DRAWINGS IN DRAWING FOR LAYOUT OF THE ZONES
 3. REFER TO THE BREMEN SECURITY LTD. OWN MANUALS FOR SPECIFIC DETAILS OF ALL SECURITY EQUIPMENT.
 4. UNLESS OTHERWISE STATED ALL SECURITY EQUIPMENT IS TO BE FIRED TO SPDT.
 5. PA/PA
DEVICE NUMBER
PA LOOP
 6. 14/01/98
ZONE ADDRESS
DEVICE NUMBER
LOOP NUMBER
 7. REFER TO OWN MANUAL FOR TECHNICAL DETAILS / SPECIFICATIONS ON ALL WEARABLE LEADS.
 8. FOR LEGEND OF SYMBOLS REFER TO DRAWING NO. TC10802/E/133

FOR CONTINUATION SEE DRAWINGS NO: TC10802/E 131





GROUND FLOOR TRANSFORMER SCHEDULE

TRANSFORMER REF.	TRANSFORMER RATING	LUMINAIRE TYPE	TRANSFORMER SIZE	LUMINAIRE LOCATION	CIRCUIT REF REF	OUTGOING CABLE SIZE TO LUMINAIRES	COMMENTS
T11	MULTILOAD VM 300	6xP	300x250x125mm	GROUND FLOOR CORE RECESSED IN SLAB	C/EL17/R	4mm²	
T12	MULFLOR VM 300	6xP	300x250x125mm	GROUND FLOOR CORE RECESSED IN SLAB	C/EL17/R	4mm²	
T13	MULFLOR VM 300	6xO	300x250x125mm	GROUND FLOOR CORE ABOVE LIFTS	C/EL17/R	4mm²	
T14	MULFLOR VM 300	6xP	300x250x125mm	GROUND FLOOR CORE RECESSED IN SLAB	C/EL17/R	2.5mm²	
T15	MULFLOR VM 300	6xP	300x250x125mm	GROUND FLOOR CORE RECESSED IN SLAB	C/EL17/R	2.5mm²	
T16	MULFLOR VM 300	6xP	300x250x125mm	GROUND FLOOR CORE RECESSED IN SLAB	C/EL17/R	2.5mm²	
T17	MULFLOR VM 300	6xP	300x250x125mm	GROUND FLOOR CORE RECESSED IN SLAB	C/EL17/R	2.5mm²	
T18	MULFLOR VM 300	6xP	300x250x125mm	GROUND FLOOR CORE RECESSED IN FLOOR	C/EL17/R	4mm²	
T19	MULFLOR VM 300	6xP	300x250x125mm	GROUND FLOOR CORE RECESSED IN FLOOR	C/EL17/R	4mm²	
T20	MULFLOR VM 300	6xM	300x250x125mm	GROUND FLOOR TENANTS ENT REVOLVING DOOR	C/EL17/R	4mm²	
T21	MULFLOR VM 300	6xO	300x250x125mm	GROUND FLOOR TENANTS ENT CLOAK	C/EL17/R	2.5mm²	
T22	MULFLOR VM 300	6xO	300x250x125mm	GROUND FLOOR TENANTS OFF. COOLING	C/EL17/R	2.5mm²	
T23	MULFLOR VM 300	3xG	300x250x125mm	GROUND FLOOR TENANTS ENT. SEATING AREA	C/EL17/R	2.5mm²	
T24	MULFLOR VM 300	3xG	300x250x125mm	GROUND FLOOR TENANTS ENT. SEATING AREA	C/EL17/R	2.5mm²	
T25	MULFLOR VM 300	6xM	300x250x125mm	GROUND FLOOR RESIDENTIAL ENT. SEATING AREA	C/EL2/R	2.5mm²	
T26	MULFLOR VM 300	6xM	300x250x125mm	GROUND FLOOR RESIDENTIAL ENT. SEATING AREA	C/EL2/R	2.5mm²	
T27	MULFLOR VM 300	6xM	300x250x125mm	GROUND FLOOR RESIDENTIAL ENT.	C/EL2/R	4mm²	

REFER TO DEC. NO. TC19892/E/1035 FOR CONTINUATION

RECEIVED
MS. SER. 15 TO BE READ IN CONJUNCTION WITH THE FOLLOWING
EXHIBITS:
EXHIBIT 130, 131, 132,
133, 134, 135, 136 & 137.

EXHIBITS 10 TO 14 WHICH ARE ELECTRONIC TIME CLOCK
REGISTERS OF TELETYPE MESSAGES

EXHIBITS 15 THROUGH 19 WHICH ARE PHOTOCOPIES AND SET OUT
THE CLOCK

FOR SCHEDULE OF SWEEPS SEE DCP. NO. F101002/L/400

RECORD DRAWING

-7 CARLTON GARDENS

GROUND FLOOR RESIDENTIAL ENTRANCE LIGHTING LAYOUT

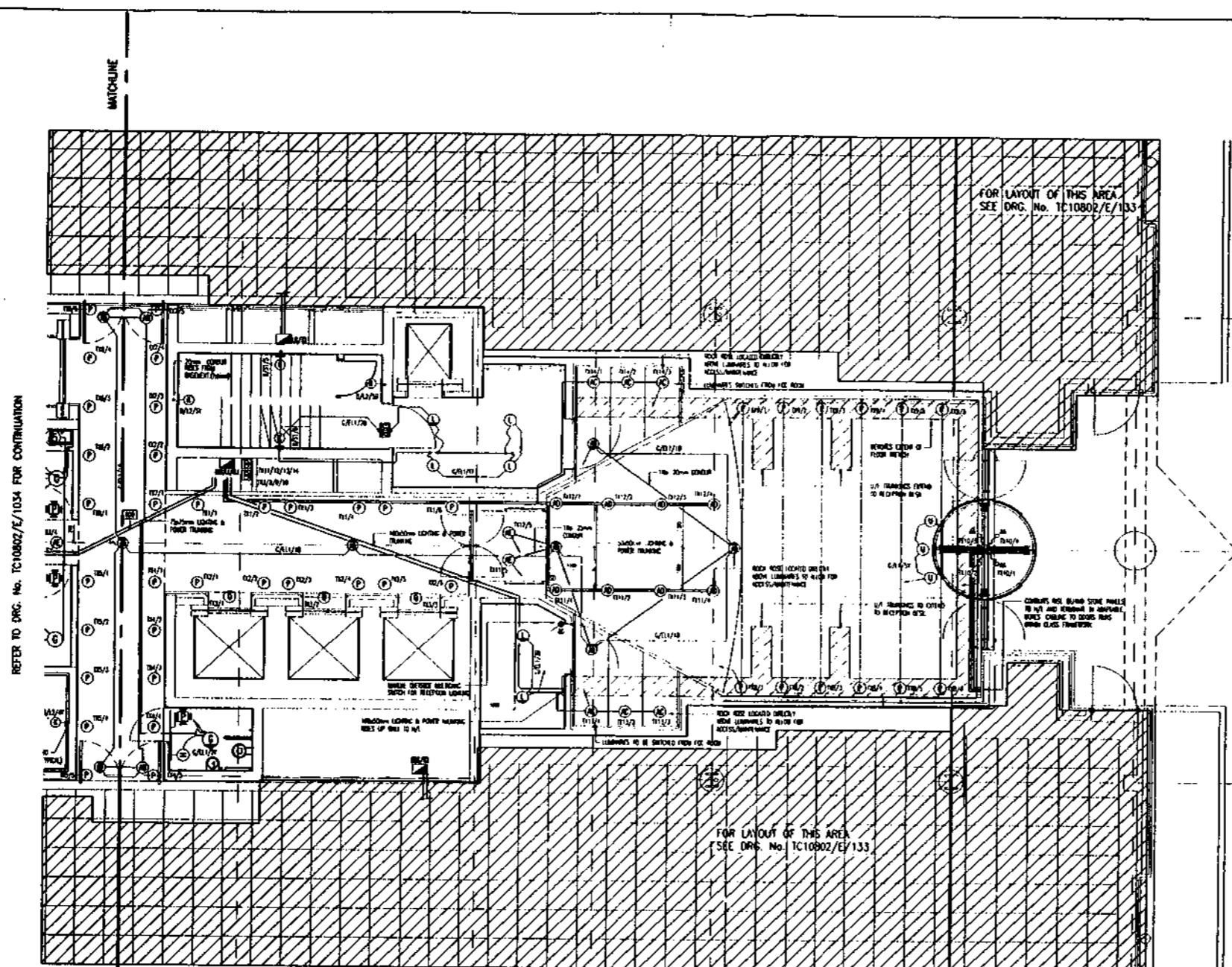
Chlorophyll

Clarke p.l.c.
100 Newgate Street
London EC1P 1JT
TEL: 0117 242 7777

SEARCHED BY _____
INDEXED BY _____

TMW t_{in}

S. No. 1C10802/E/134



BRIEF TO THE TECHNICAL COMMITTEE

GROUND FLOOR TRANSFORMER SCHEDULE

TRANSFORMER REF.	TRANSFORMER RATING	LUMINAIRE TYPE	TRANSFORMER SIZE	LUMINAIRE LOCATION	CIRCUIT REF. REF.	OUTLINE CABLE SIZE TO LUMINARES	COMMENTS
T01	MULTILOAD VR 300	6xP	300x250x125mm	GROUND FLOOR CORE RECESSED IN SLAB	G/EL1/18	8mm ²	
T02	MULTILOAD VR 300	6xP	300x250x125mm	GROUND FLOOR CORE RECESSED IN SLAB	G/EL1/18	4mm ²	
T03	MULTILOAD VR 300	4xP	300x250x125mm	GROUND FLOOR CORE ABOVE LIFTS	G/EL1/18	4mm ²	
T04	MULTILOAD VR 300	6xP	300x250x125mm	GROUND FLOOR CORE RECESSED IN SLAB	G/EL1/17	2.5mm ²	
T05	MULTILOAD VR 300	6xP	300x250x125mm	GROUND FLOOR CORE RECESSED IN SLAB	G/EL1/17	2.5mm ²	
T06	MULTILOAD VR 300	6xP	300x250x125mm	GROUND FLOOR CORE RECESSED IN SLAB	G/EL1/17	2.5mm ²	
T07	MULTILOAD VR 300	6xP	300x250x125mm	GROUND FLOOR CORE RECESSED IN SLAB	G/EL1/17	2.5mm ²	
T08	MULTILOAD VR 300	6xP	300x250x125mm	GROUND FLOOR CORE RECESSED IN SLAB	G/EL1/17	2.5mm ²	
T09	MULTILOAD VR 300	6xP	300x250x125mm	GROUND FLOOR CORE RECESSED IN SLAB	G/EL1/17	2.5mm ²	
T10	MULTILOAD VR 300	4xP	300x250x125mm	GROUND FLOOR TENANTS EXIT, REVOLVING DOOR	G/EL1/20	4mm ²	
T11	MULTILOAD VR 300	4xP	300x250x125mm	GROUND FLOOR TENANTS EXIT, CEILING	G/EL1/47	2.5mm ²	
T12	MULTILOAD VR 300	4xP	300x250x125mm	GROUND FLOOR TENANTS EXIT, CEILING	G/EL1/47	2.5mm ²	
T13	MULTILOAD VR 300	3xC	300x250x125mm	GROUND FLOOR TENANTS EXIT, SEATING AREA	G/EL1/47	2.5mm ²	
T14	MULTILOAD VR 300	3xC	300x250x125mm	GROUND FLOOR TENANTS EXIT, SEATING AREA	G/EL1/47	2.5mm ²	
T15	MULTILOAD VR 300	6xP	300x250x125mm	GROUND FLOOR RESIDENTIAL EXIT, SEATING AREA	G/EL2/47	2.5mm ²	
T16	MULTILOAD VR 300	6xP	300x250x125mm	GROUND FLOOR RESIDENTIAL EXIT, SEATING AREA	G/EL2/47	2.5mm ²	
T17	MULTILOAD VR 400	6xP	300x250x125mm	GROUND FLOOR ACCESORIES EXIT	G/EL2/48	4mm ²	

DUE AND BEING PROCESSED IN ACCORDANCE WITH
THE FOLLOWING CHECKLIST:

(1) GAF DRS NO. T-1203
(1) WEP DRS NO. (12)0303 04/02/1
(2) GAF 601, 602, 603, 604 & 605
(2) GAF 613, 614 & 615

DRS NO. 116

WEP FAX dated 26/11/98

DETERMINED TO BE SIGNED ON VIA ELECTRONIC TIME CLOCK
ALLOCATED TO ELECTRONIC SIGNER

SIGNATURES ARE SIGNED ON VIA PROTOCOLS AND OFF VIA
THE CLOCK.

FOR SCHEMATIC OF SYMBOLS SEE DRG NO. FC10002/1/E360

THE DRS. E. IS TO BE READ IN CONJUNCTION WITH THE FOLLOWING
DRGS. & WTPS.
DRG NO. 95.67.04.30.02 & 07
131.134.135.136.137

FINAL LOCATIONS OF ALL TOILET UNITS/HATCHES TO BE
TO BE CO-ORDINATED WITH THE TOILET FIT OUT PACKAGE.

800 DENOTES LEVEL TO UNDERSIDE OF STOOL
FROM SIGHT LEVEL.

ELECTRICAL LIGHTING ADDRESSABLE DATA LOOP CABLE
TO BE RUN FAIRLY TIGHT & CLIPPED LOCALLY TO
STRUCTURE. BONDING POINTS REQUIRE TERMINATION AND
PROTECTION FROM HARSH ENVIRONMENT.

RECORD DRAWING

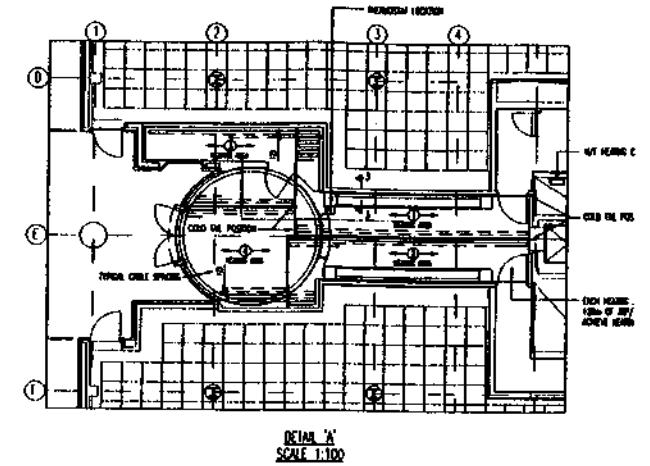
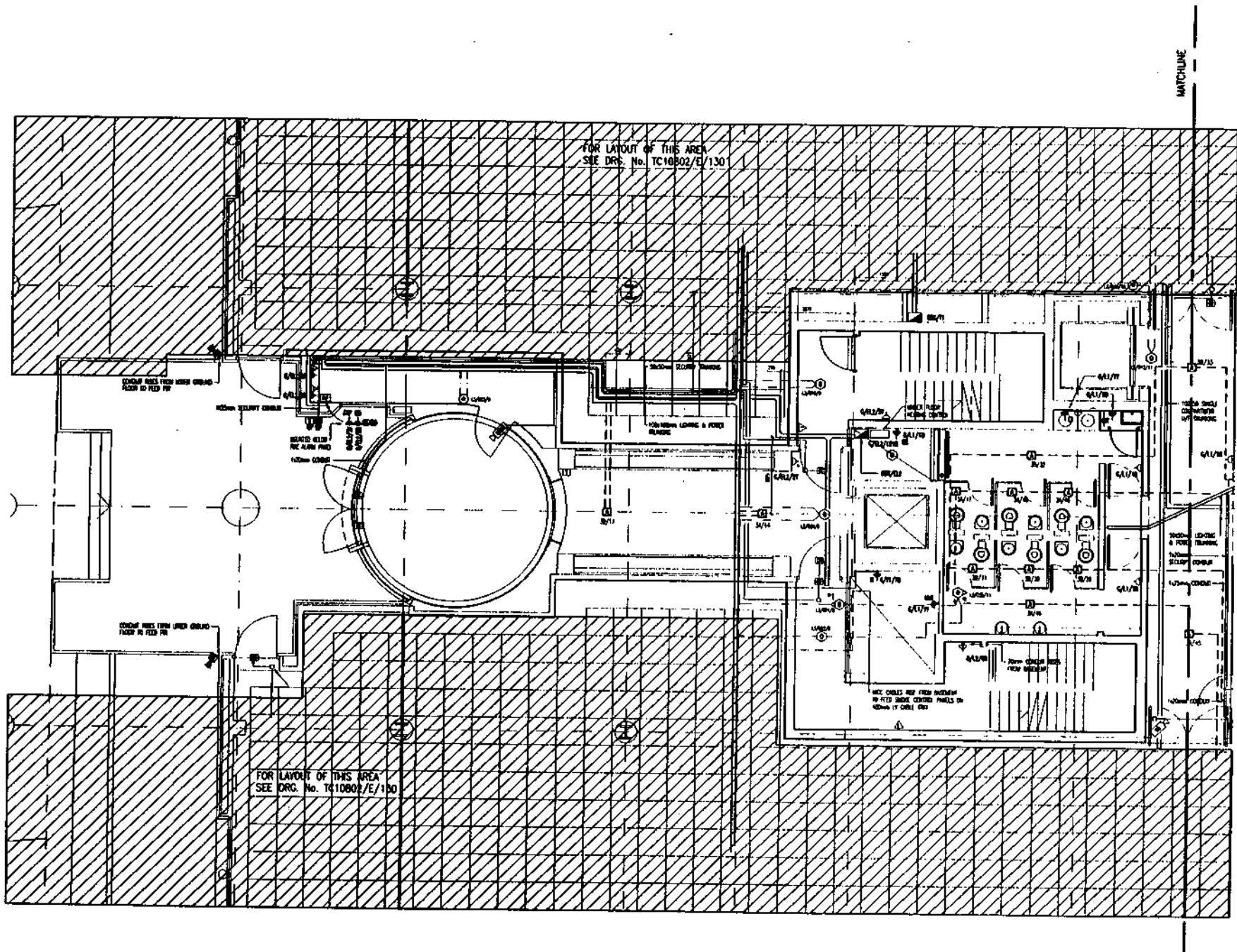
3. CASUALTY RATES

**GROUND FLOOR
TENANTS ENTRANCE & LOBBY
LIGHTING LAYOUT**

Clarke, Alice

171 252 7878

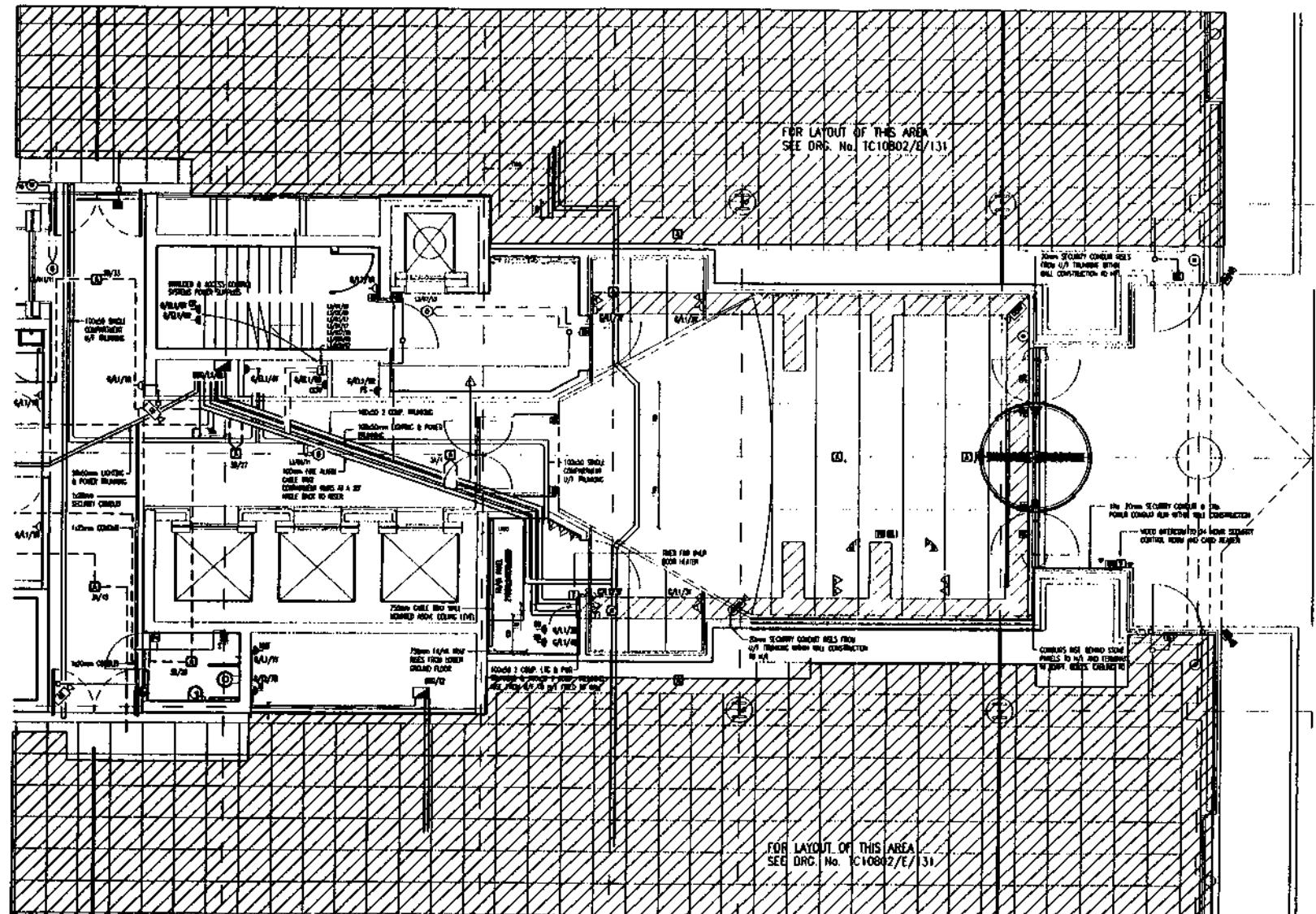
No. TC10802/E/135



RECORD DRAWING			
5-7 CARLTON GARDENS			
Drawing No.			
GROUND FLOOR RESIDENTIAL ENTRANCE POWER/COMMS/FA/VA & SECURITY LAYOUT			
ELECTRICAL ENGINEERS & CONTRACTORS			
T. Clarke p.l.c. Staplegate House 118-126 Northgate Road London SE17 1JZ Tel. 0171 283 7070			
SCALE	PREPARED BY	CHEKED BY	DATE
1:100	P.W.	F.A.M.	APR '99
D.R.G. No. TC10802/E/136			

NOTES:

1. THIS DRG. IS TO BE READ IN CONNECTION WITH THE FOLLOWING:
DRGS. NO. TC10802/E/1037
TC10802/E/130
TC10802/E/131
TC10802/E/132
TC10802/E/133
TC10802/E/134
TC10802/E/135
2. CONDUIT RUN AT HIGH LEVEL FROM TD40 TO MACHINERY OF ROOMS
3. ALL PAPER CIRLES ARE CLIPPED DIRECT TO SHEET
4. FOR SCHEDULE OF TUBING SEE DRG. NO. TC10802/E/1037



NOTE:
 1. THIS DRG. IS TO BE READ IN CONJUNCTION WITH THE FOLLOWING
 DRAWINGS:
 DRA. NO. TC10802/E/131
 DRA. NO. TC10802/E/132
 DRA. NO. TC10802/E/133
 DRA. NO. TC10802/E/134
 DRA. NO. TC10802/E/135
 DRA. NO. TC10802/E/136
 DRA. NO. TC10802/E/137
 2. COMBINE RUNS AT HIGH LEVEL DOWN TO ANGLE TUBE
 OR BEAMS.
 3. ALL PIPES ARE CLIPPED DIRECT TO SUPPORTS.
 4. FOR SCHEDULE OF SYMBOLS SEE DRG. NO. TC10802/E/138.

RECORD DRAWING

DRG. No. 5-7 CARLTON GARDENS

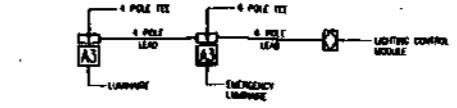
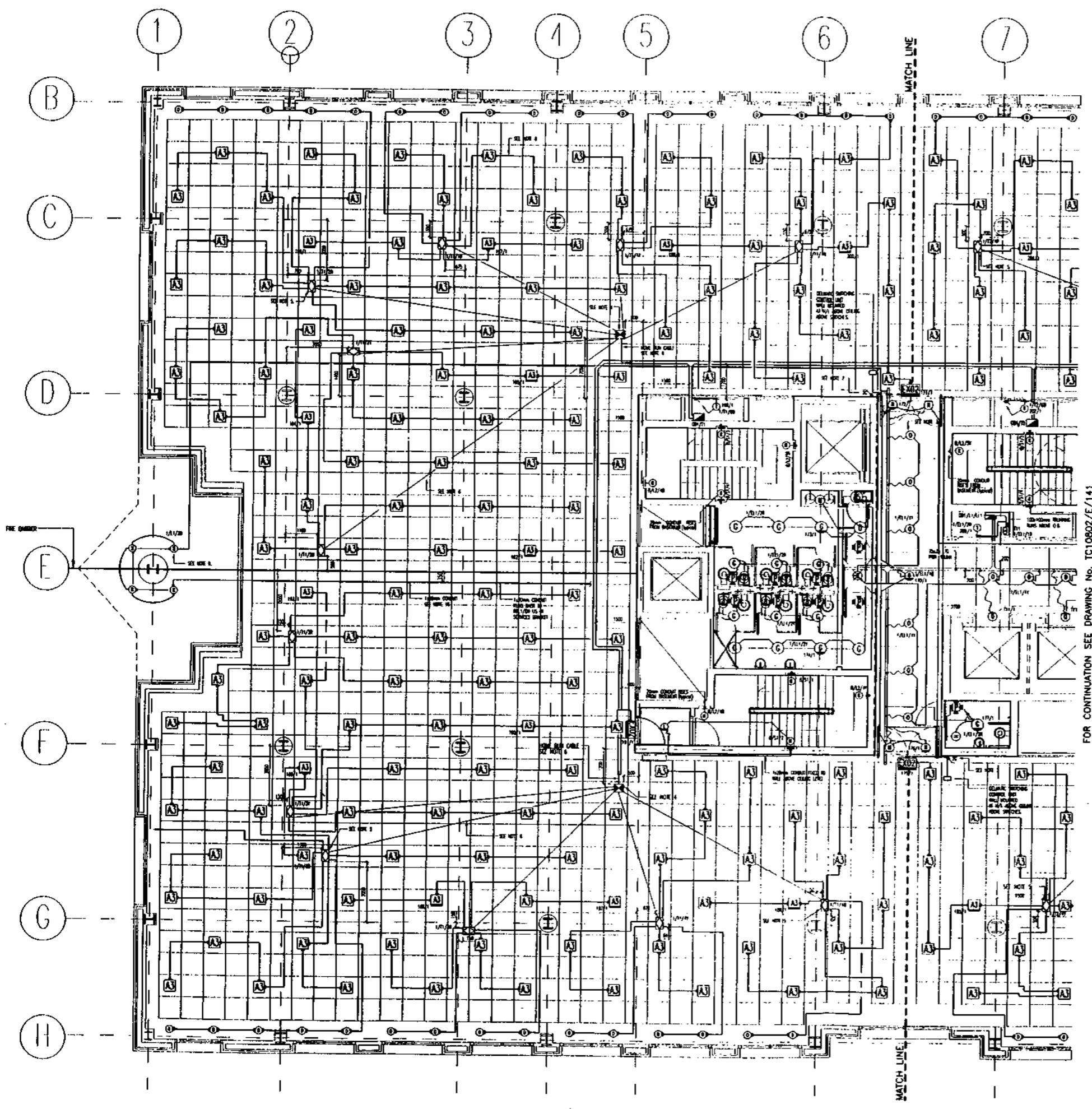
Drawing Title
GROUND FLOOR
TELENTS ENTRANCE & LOBBY
POWER, SECURITY FA/VA &
COMMS. LAYOUT

Architectural Drawing & Construction
T. Clarke p.l.c.
Stephens House
124-126 Grosvenor Road
London SW1 1AT
Tel: 0171 252 7076



SCALE	DRAFTER BY	CHEKED BY	DATE
IN	NAME	NAME	AMT '90
IN	NAME	NAME	AMT '90

DRG. No. TC10802/E/137

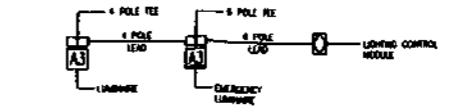
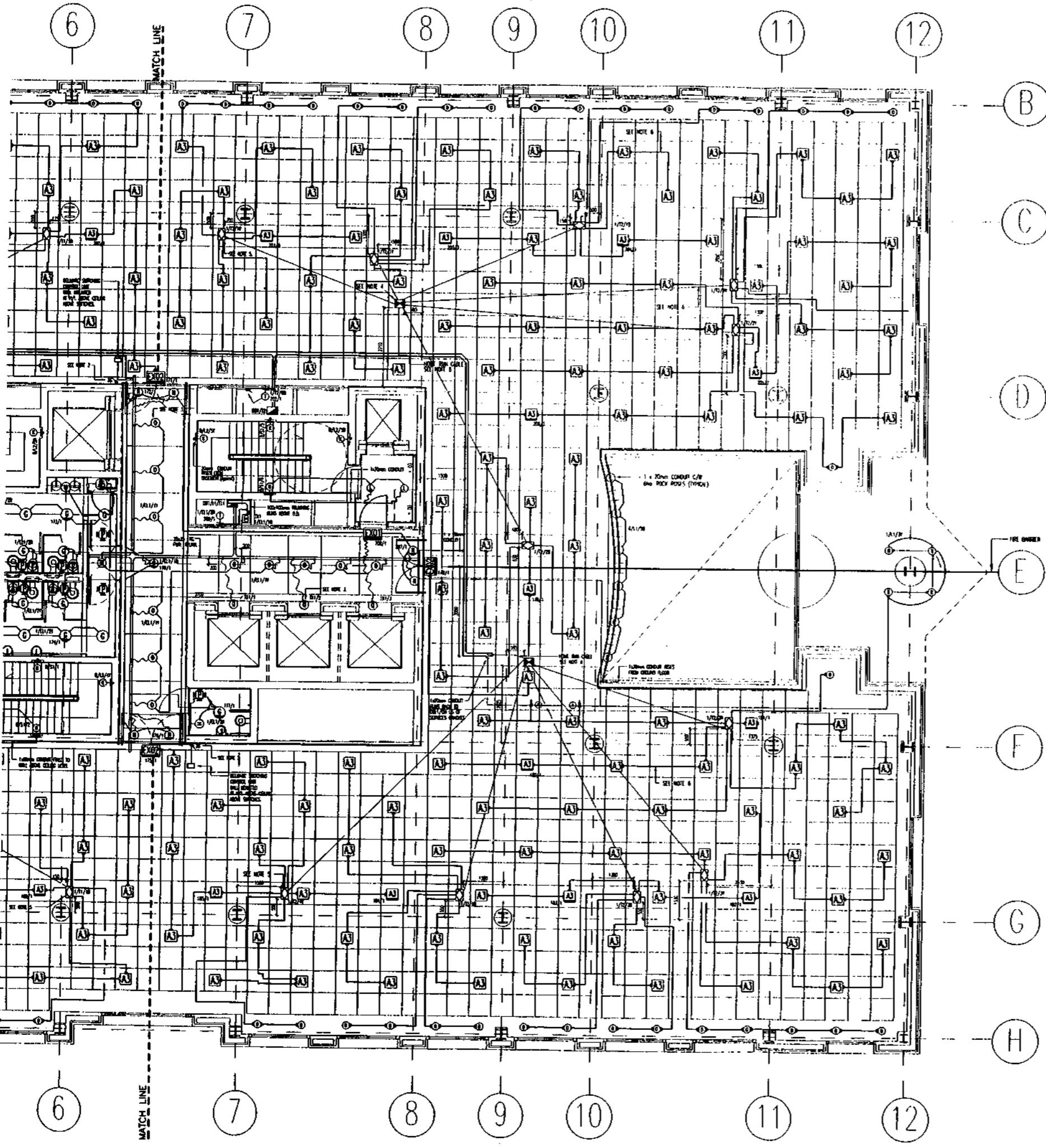


TYPICAL ARRANGEMENT OF LEADS & TEES FOR EMERGENCY LIGHTING
(NOT TO SCALE)

- NOTES:**
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWING NO. TC10802/E/140 & 141.
 2. LIGHT SWITCHES CONNECT TO EMERGENCY CONTROL SPA SPLITTING GROUPS VIA A DAY SIGNAL TO LIGHTING CONTROL PANEL/ALARM BOXES.
SECTION 1 - REFER TO CORRIDOR LUMINAIRES
SECTION 2 - ALL OPEN PLAN OFFICE LUMINAIRES
 3. LUMINAIRES ARE SWITCHED ON/OF BY A DAY CLOCK OR THE EMERGENCY SECURITY ROOM.
 4. MAINS DISTRIBUTION BOX FUSED TO SPURS.
 5. LIGHTING CONTROL MODULE FUSED TO SPURS.
 6. REFER TO GEAR MANUAL FOR FLUORESCENT DETAILS/ SPECIFICATIONS ON ALL GEAR/LAMP LUMINAIRES.
 7. EMERGENCY LIGHTING ACCESSIBLE CABLE FUSED TO SPUR/SERVICE BRACKETS.
 8. LIGHTING CONTROL DATA CABLE TIED TO SPUR/SERVICE BRACKETS.
 9. LUMINAIRES SWITCHED ON BY DAY CLOCK AND OFF VIA DAY CLOCK, WITH OVERFREE SWITCHES IN THE EMERGENCY SECURITY ROOM.

RECORD DRAWING			
Arch. Ref.	5-7 CARLTON GARDENS		
Drawing No.	FIRST FLOOR LIGHTING LAYOUT SHEET 1.		
TECHNICAL DIRECTORS & CONTRACTORS (Formerly 140)			
T. Clarke p.l.c.			
Stapleford House 115-119 Westgate Road London SE17 3JY Tel. 0171 532 7674			
SCALE	DRAWN BY	CHESED BY	QAR
1:50	G.A.	T.M.	A.M. '90
DRG. No. TC10802/E/140			

FOR CONTINUATION SEE DRAWING NO: TC10802/E/140



TYPICAL ARRANGEMENT OF LEADS & FEES FOR EMERGENCY LIGHTING
(NOT TO SCALE)

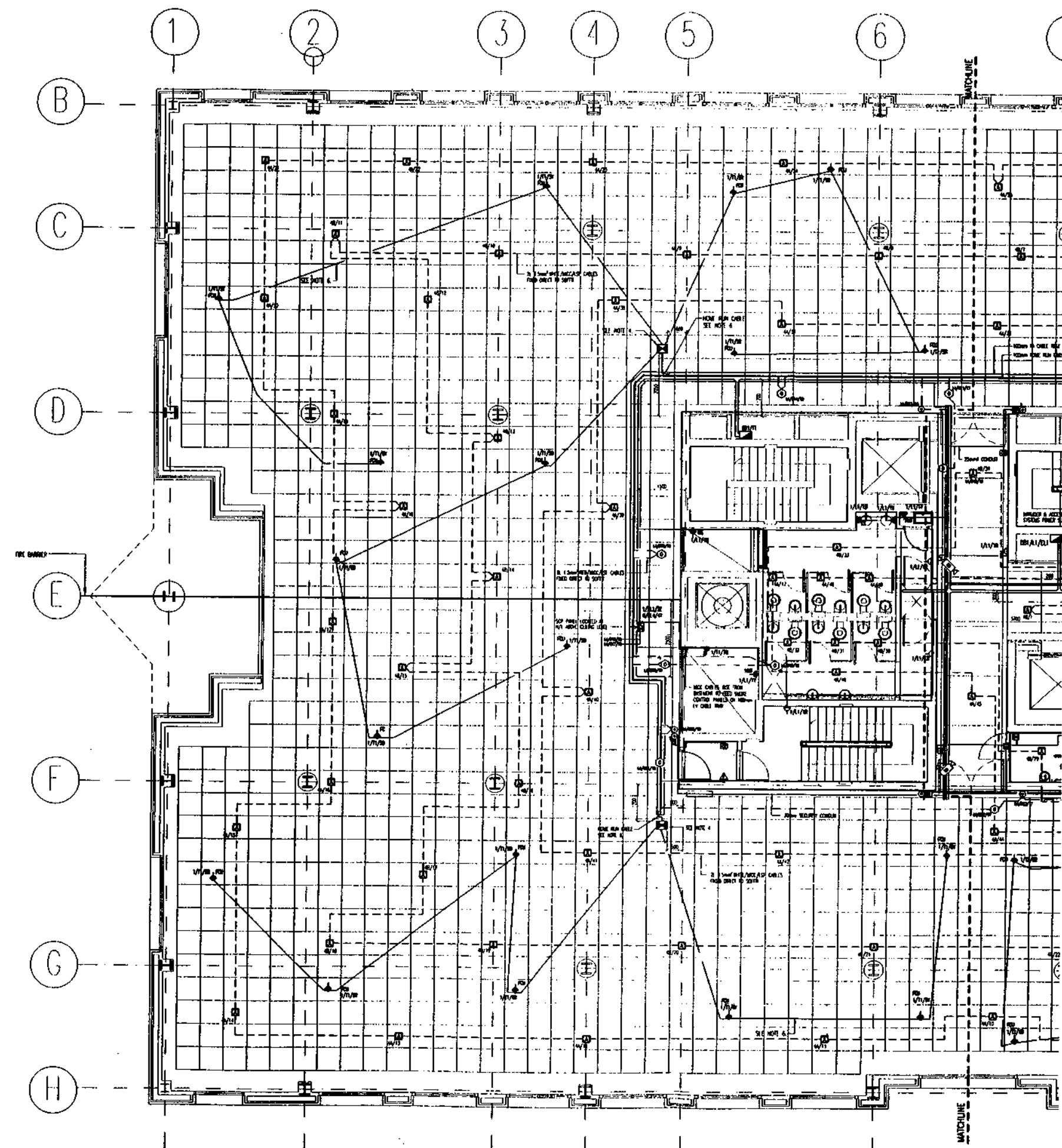
- NOTES:**
1. MS DRIVING IS TO BE MADE IN CONJUNCTION WITH DRAWING NO: TC10802/E/140 & 403
 2. LIGHT SWITCHES ADJACENT TO ENTRANCES CONTROL 2ND FLOOR LUMINAIRES. SEE ALSO TO LIGHTING CONTROL MATERIALS NOTES
 3. SWITCH 1 - MOTORIZED CORRIDOR LUMINAIRES
 4. SWITCH 2 - ALL OPEN PLAN OFFICE LUMINAIRES
 5. LUMINAIRES ARE INSTALLED PLATE VIA A PARALLEL IN THE BASEMENT STAIRWELL
 6. MAIN DISTRIBUTION BOX FITTED TO SOFTLINE
 7. LIGHTING CONTROL MODULE FITTED TO SOFTLINE
 8. REFER TO DATA MANUAL FOR TECHNICAL DETAILS / SPECIFICATIONS ON ALL INCLUDED LEADS
 9. EMERGENCY LIGHTING ADDRESSABLE CABLE FITTED TO SOFTLINE/SERVICES BRANCHES
 10. LIGHTING CONTROL DATA CABLE FITTED TO SOFTLINE/SERVICES BRANCHES
 11. LUMINAIRES FITTED ON VARIOUS PLATES AND SET ON THE CLOCK, NEW GROUNDS SWITCHES IN THE BASEMENT SECURITY ROOM

RECORD DRAWING

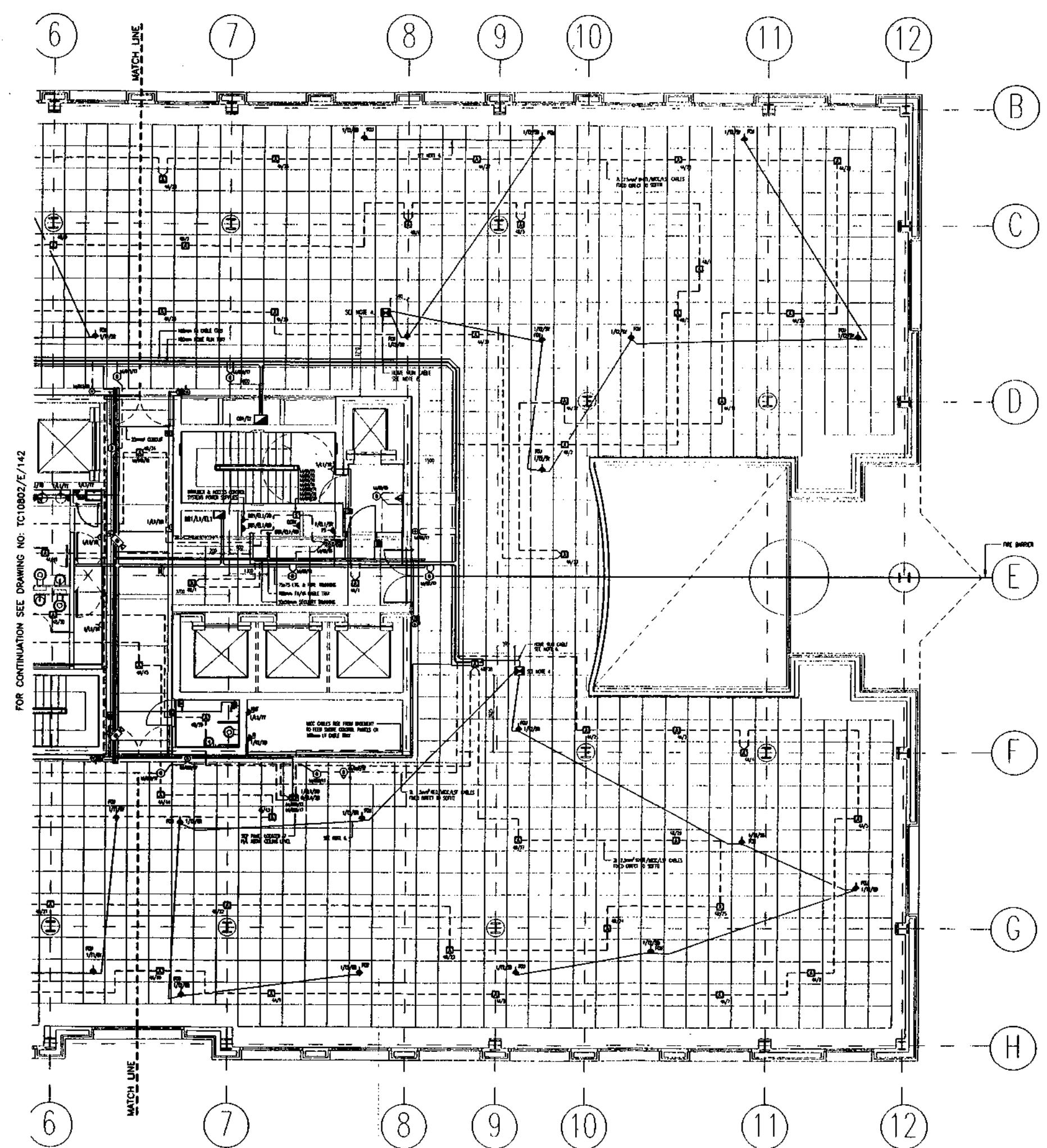
Job Ref: 5-7 CARLTON GARDENS

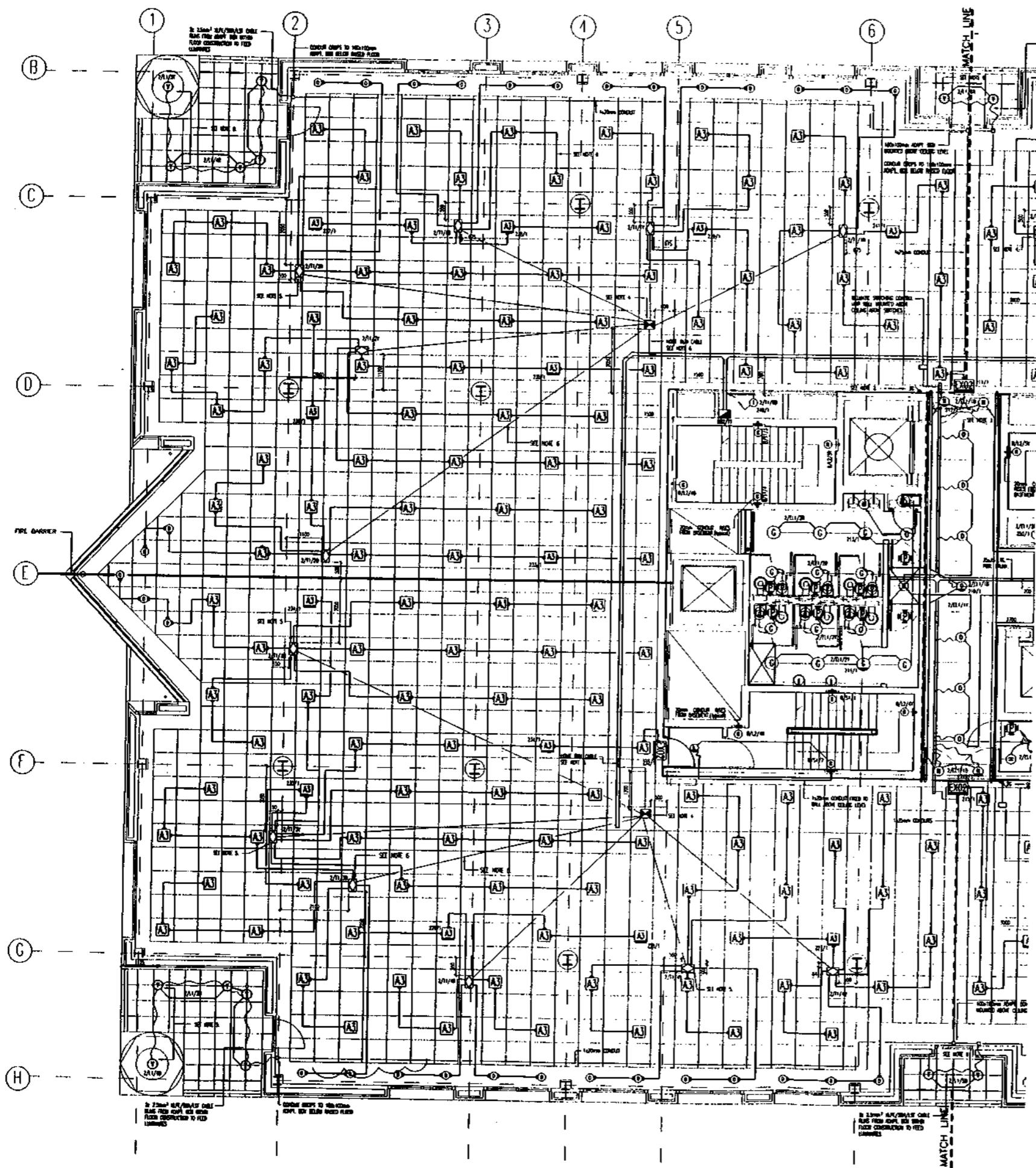
Drawing No:
FIRST FLOOR
LIGHTING LAYOUT
SHEET 2.

T. Clarke p.l.c. Stapleford House 116-118 Waterfront Road London SE17 1JT Tel. 0171 282 7676			
SCALE	DRAFTER BY	CHEQUED BY	DATE
1:50	C.J.C.	T.M.	APR '99
DRG. No. TC10802/E/141			

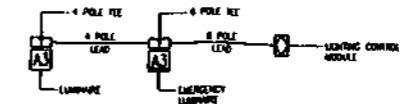


RECORD DRAWING			
S-7 CARLTON GARDENS			
Drawing No:			
FIRST FLOOR			
LV DISTRIBUTION, SMALL POWER			
FIRE ALARM, SECURITY & COMMS			
LAYOUT SHEET 1			
ELECTRICAL CONTRACTORS & CONTRACTORS Drawn 18/03			
T. Clarke p.l.c.			
Stowbridge House 118-119 Stowbridge Road London SE17 1PR Tel. 0171 352 7676			
SCALE	DRAINED BY	CHEKED BY	DATE
1:100	TOM	TOM	APR 19
DRG. No. TC10802/E/142			





FOR CONTINUATION SEE DRAWING NO. TC10802/E/151



TYPICAL ARRANGEMENT OF LEADS & TEES FOR EMERGENCY LIGHTING
(NOT TO SCALE)

- NOTES:**
1. DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWING NO. TC10802/E/151 & 152.
 2. LIGHT SUPPLY BRANCHES TO ENTRANCES CONTROL BY AUTOMATIC SWITCHES AS PER DRAWING TO LIGHTING CONTROL PANEL LINE SOURCE.
 3. SWITCH 1 - AUTOMATIC CORRIDOR LAMPHOUSE.
 4. LAMPHOUSE ARE INSTALLED ALONG THE 4TH FLOOR IN THE BAGENDA SECURITY ROOM.
 5. MAINS DISTRIBUTION BOX FIXED TO SOFTY.
 6. REFER TO DRAWING FOR RELEVANT DETAILS / SPECIFICATIONS ON ALL WIRING LEADS.
 7. EMERGENCY LIGHTING ADDRESSABLE CABLE FED TO SOFTY/SERVICES BRANCH.
 8. LIGHTING CONTROL DATA CABLE FIXED TO SOFTY/SERVICES BRANCH.
 9. LAMPHOUSE SITZED ON THE PLATELL AND OFF THE 4TH FLOOR IN THE SECURITY ROOM.

RECORD DRAWING

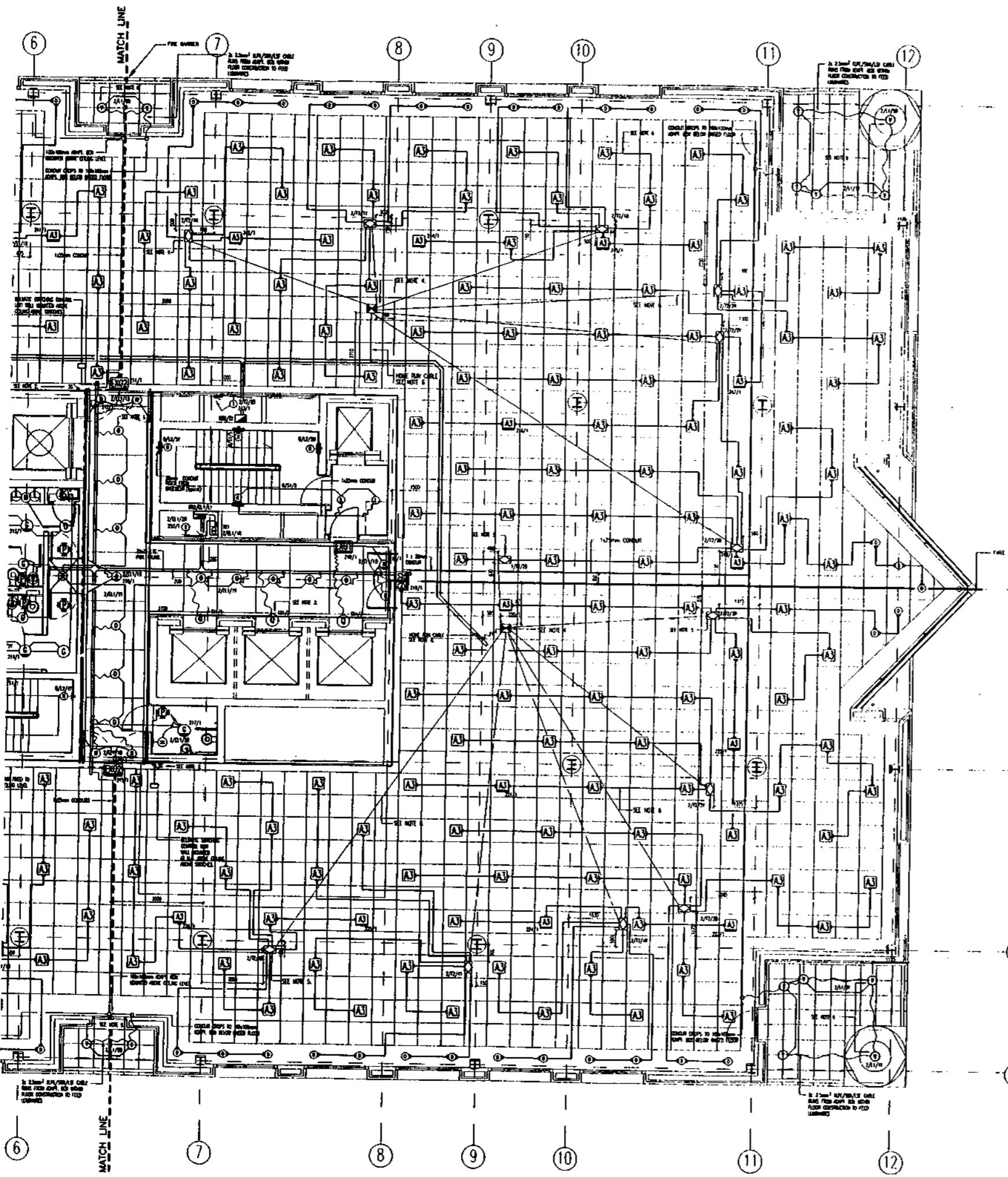
Job No. 5-7 CARLTON GARDENS

Drawing No. 5

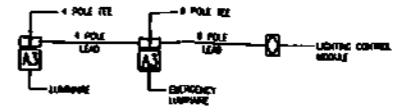
SECOND FLOOR
LIGHTING LAYOUT
SHEET 1.

TECHNICAL SERVICES & CONTRACTORS (London) Ltd.
T. Clarke p.l.c.
116-118 Walworth Road
London SE17 1PL
Tel. 0171 255 7576
Scale 1:500
Drawn by C.R.D.
Checked by J.W.
Date 18/01/90
DRG. No. TC10802/E/150

FOR CONTINUATION SEE DRAWING NO: TC10802/E/150



TYPICAL ARRANGEMENT OF LEADS & TEES FOR EMERGENCY LIGHTING
(NOT TO SCALE)



- NOTE:**
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWING NO: TC10802/E/150
 2. LIGHT SURFACE MOUNTED TO EXTERIOR CENTER 20A SWITCHING GROUP VIA A 2W SIRIUS TO LIGHTING CONTROL WIRING HARNESS.
 3. 1 - ALL OFFICE LUMINAIRES
 4. 1 - ALL OPEN PLAN OFFICE LUMINAIRES
 5. LUMINAIRES ARE SWITCHED ON/OFF VIA A TIME CLOCK IN THE BASEMENT SECURITY ROOM
 6. MAIN DISTRIBUTION BOX FUSED TO 50A.
 7. LIGHTING CONTROL MODULE FIXED TO 50A.
 8. REFER TO CDM MANUAL FOR TECHNICAL DETAILS/ SPECIFICATIONS ON ALL MENTION LEADS.
 9. EMERGENCY LIGHTING ADDRESSABLE CABLE FUSED TO 50A/2 SERVICES GROUP.
 10. LUMINAIRES SWITCHED ON VIA PHOTOCELL AND OFF VIA TIME CLOCK WITH OVERRIDE SWITCHES IN THE BASEMENT SECURITY ROOM.

RECORD DRAWING

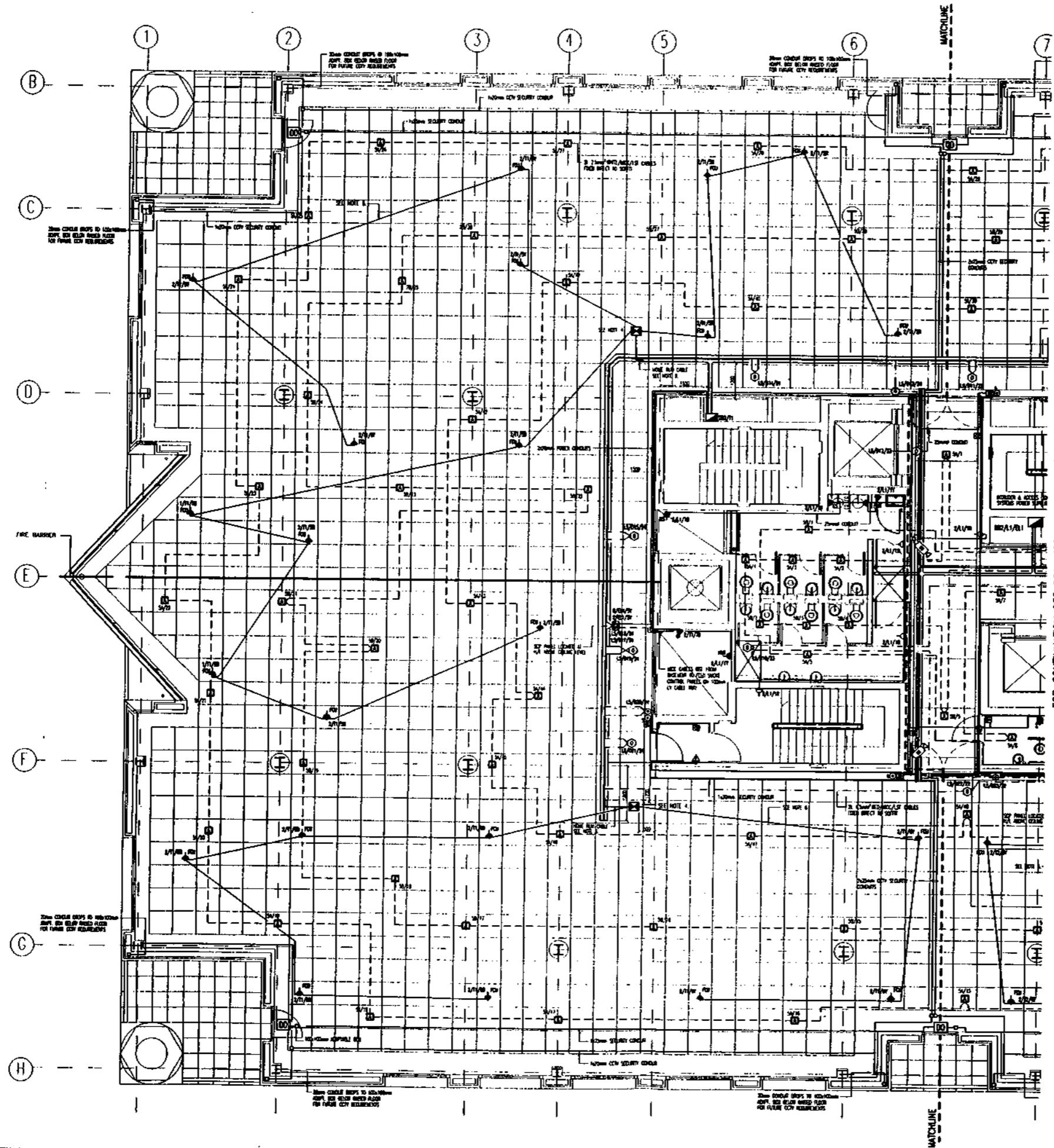
5-7 CARLTON GARDENS

Drawing No:
SECOND FLOOR
LIGHTING LAYOUT
SHEET 2.

T. Clarke p.l.c.
Stapleford Avenue
110-112 Stapleford Road
London SE13 1JT
Tel. 0117 232 7876

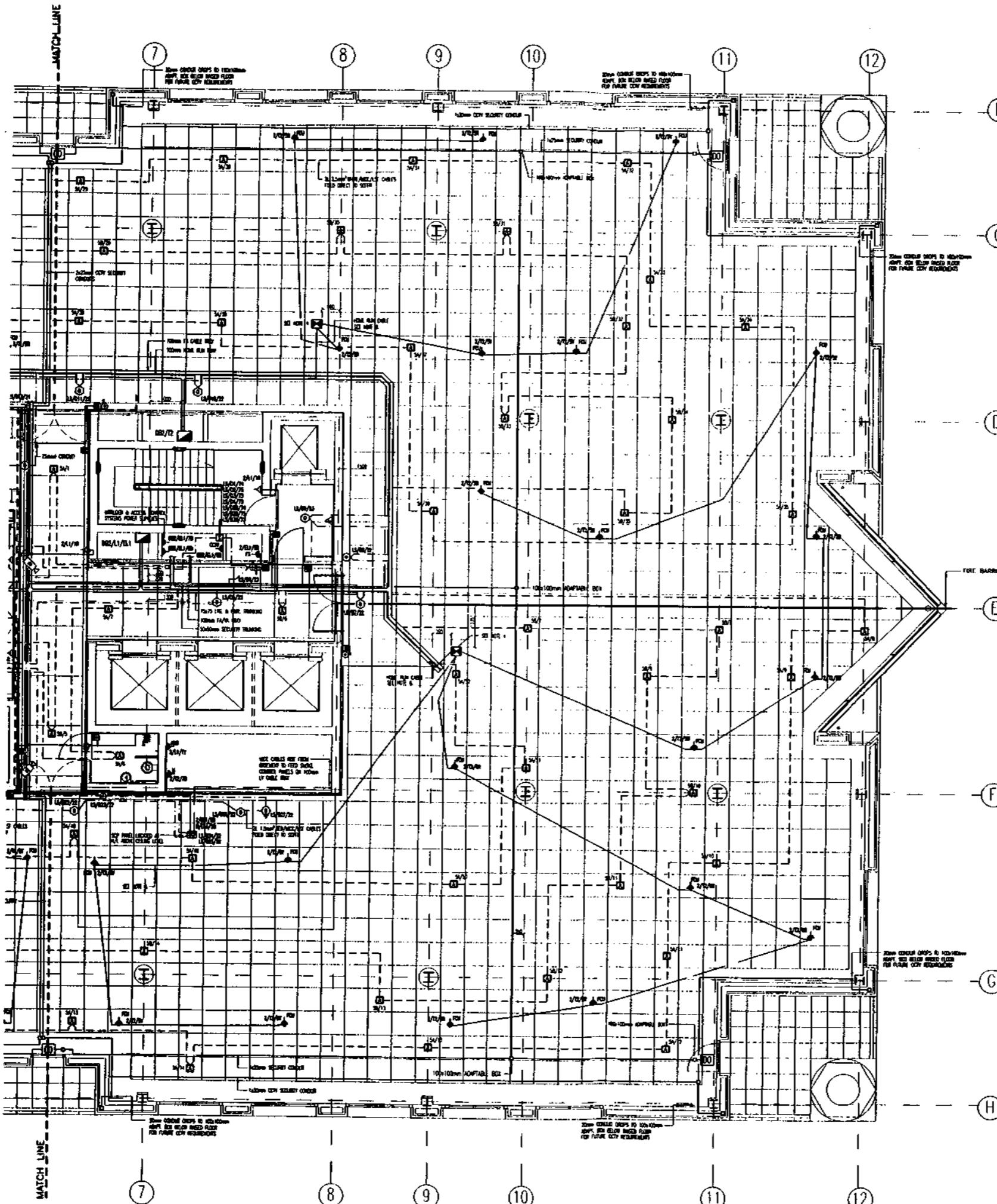
SCALE	DRAFTER	CHECKED BY	DATE
1:50	C.L.P	T.M	APR '90

DRG. NO. TC10802/E/151



RECORD DRAWING			
Drawing No: 5-7 CARLTON GARDENS			
Drawing No: SECOND FLOOR LV DISTRIBUTION, SMALL POWER FIRE ALARM, SECURITY & COMMS LAYOUT SHEET 1			
ELECTRICAL ENGINEERS & CONTRACTORS (London) Ltd.			
T. Clarke p.l.c.			
Staplehouse House 216-218 Waterloo Road London SE17 1PF Tel. 0171 233 7876			
SCALE	DRAWN BY	CHECKED BY	DATE
1:50	John	John	June '95
D.R.G. No. TC10802/E/152			

FOR CONTINUATION SEE DRAWING NO: TC10802/E/152



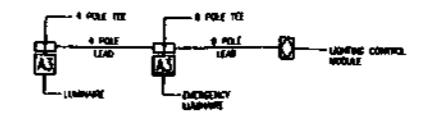
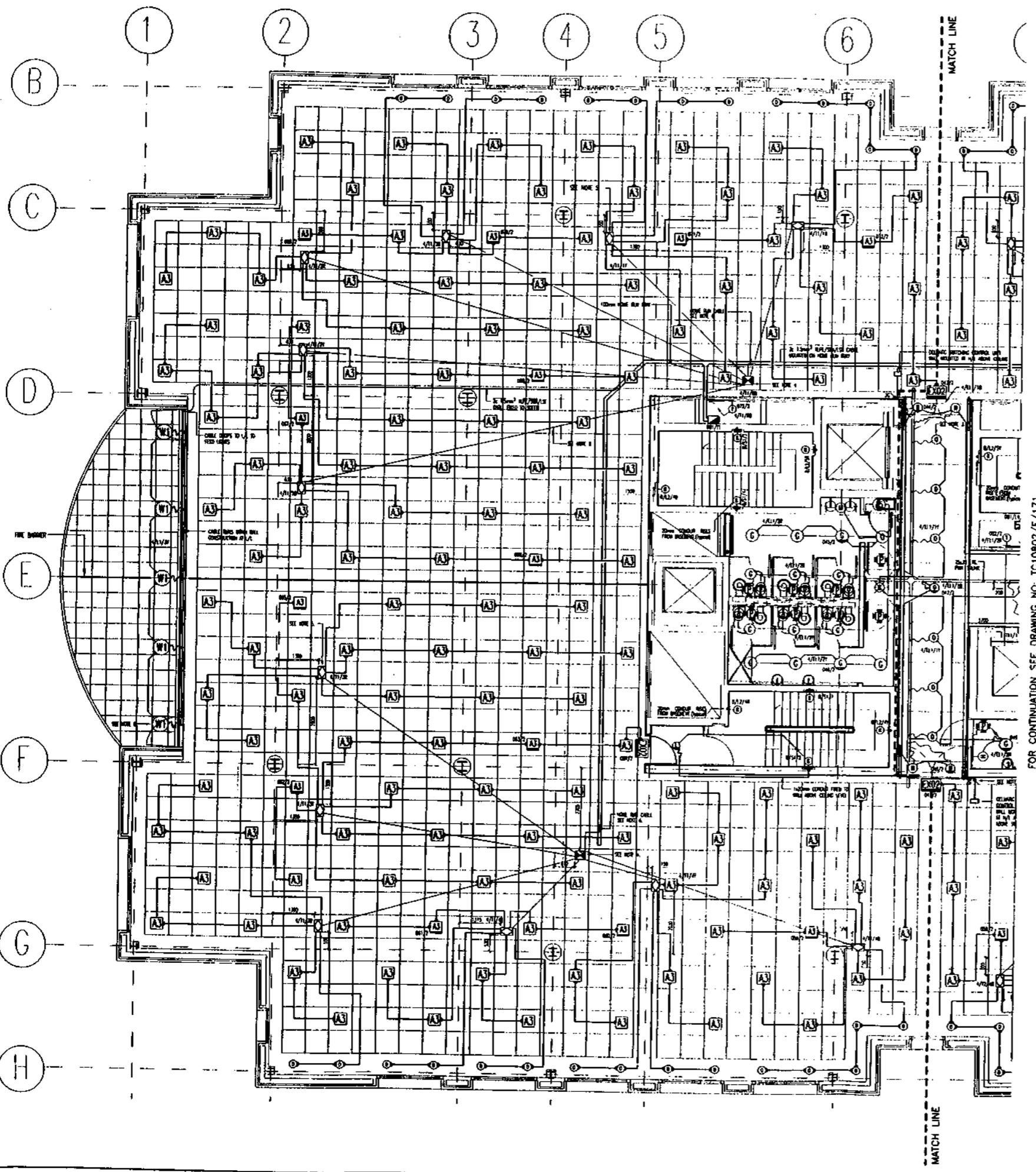
WORKING DRAWING

5-7 CARLTON GARDENS

Drawing Ref:
SECOND FLOOR
L.V. DISTRIBUTION, SMALL POWER,
FIRE ALARM, SECURITY & COMMS
LAYOUT SHEET 2.

GENERAL INSTRUCTIONS & SPECIFICATIONS
Version 4/08
T. Clarke p.l.c.
Stapleford House
110-116 Stapleford Road
London SE17 1ST
Tel. 0207 223 7870

SCALE	DRAWN BY	CHECKED BY	DATE
1:50	TBC	TBC	JUNE '10



TYPICAL ARRANGEMENT OF LEADS & TEES FOR EMERGENCY LIGHTING
(NOT TO SCALE)

- NOTES:
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWING NO: TC10802/E/171 & 405.
 2. LIGHT SWITCHES ATTACHED TO ENTRANCES CONTROL PARKING BAY AND STORE TO LIGHTING CONTROL, MARSHALL BOXES.
 - SWITCH 1 - ROTATOR CORRIDOR LUMINARIES
 - SWITCH 2 - ALL OPEN PLAN OFFICE LUMINARIES
 3. LUMINARIES ARE SWITCHED DIRECT VIA A RELAY IN THE EGRESS SECURITY ROOM.
 4. MASS DISTRIBUTION BOX FIXED TO SOFTY.
 5. LIGHTING CONTROL MODULE FIXED TO SOFTY.
 6. REFER TO DRAW MANUAL FOR TECHNICAL DETAILS / SPECIFICATIONS ON ALL INTEGRATED LEADS.
 7. EMERGENCY LIGHTING ADDRESSABLE CELL FIXED TO SOFTY/SERVICES BRACKET.
 8. LIGHTING CONTROL DATA CABLE FIXED TO SOFTY/SERVICES BRACKET.
 9. LUMINARIES SWITCHED ON VIA PROGRAM AND OUT VIA TIME CLOCK, WITH OVERLOAD SWITCHES IN THE EGRESS SECURITY ROOM.

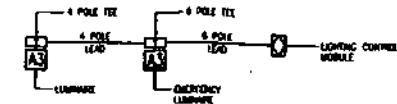
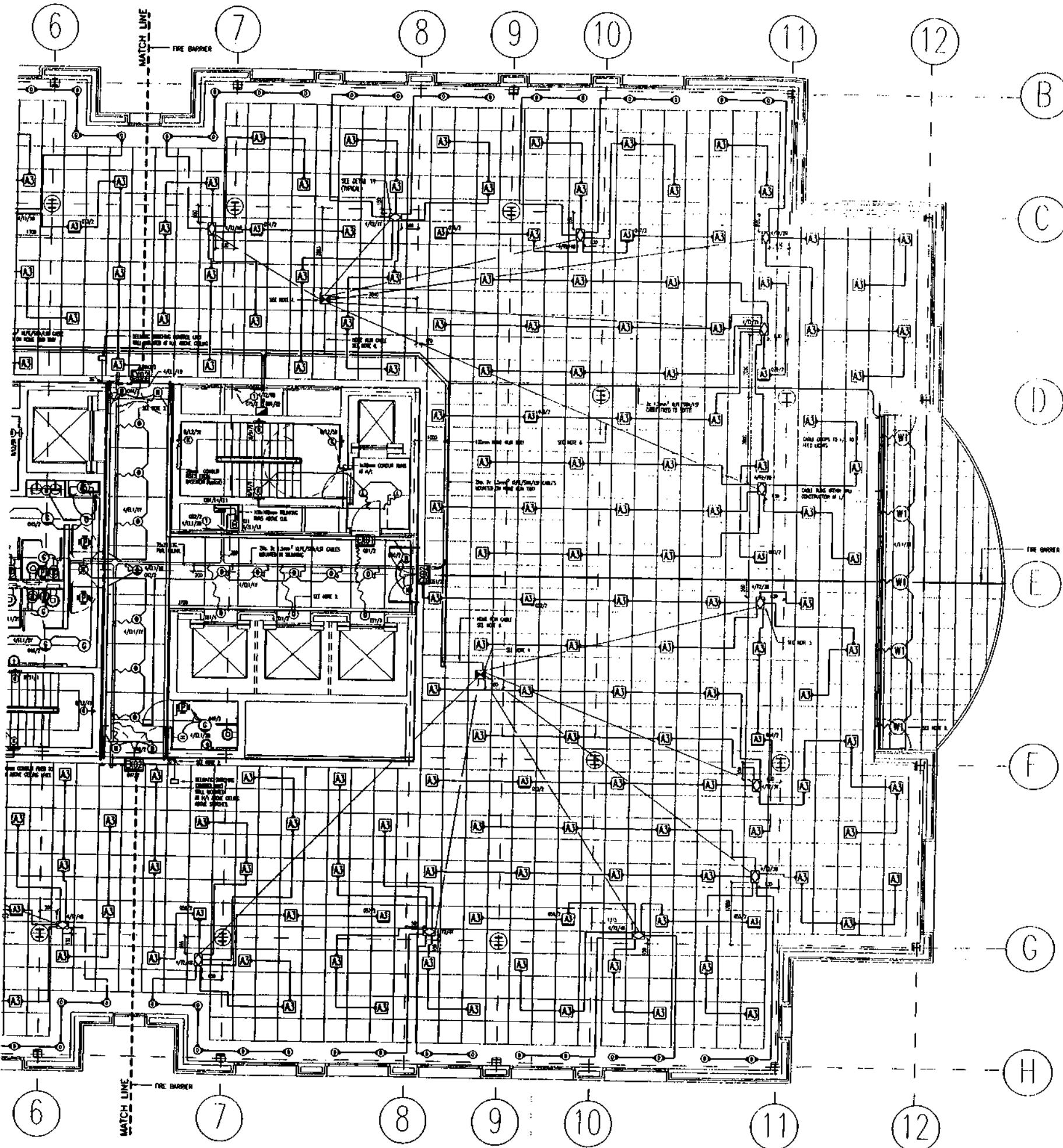
RECORD DRAWING

Job No:
5-7 CARLTON GARDENS

Drawing No:
FOURTH FLOOR
LIGHTING LAYOUT
SHEET 1.

CLERICAL CHARTERS & CONTRACTORS			
T. Clarke p.l.c.			
Starlings House 118-120 Wigmore Road London W1G 0AB Tel. 0171 253 7776			
SCALE	DRAWN BY	CHEKED BY	DATE
1:500	C.L.B	L.W.	APR 1990
DRC. No. TC10802/E/170			

FOR CONTINUATION SEE DRAWING NO: TC10802/E/170



TYPICAL ARRANGEMENT OF LEADS & FEES FOR EMERGENCY LIGHTING
(NOT TO SCALE)

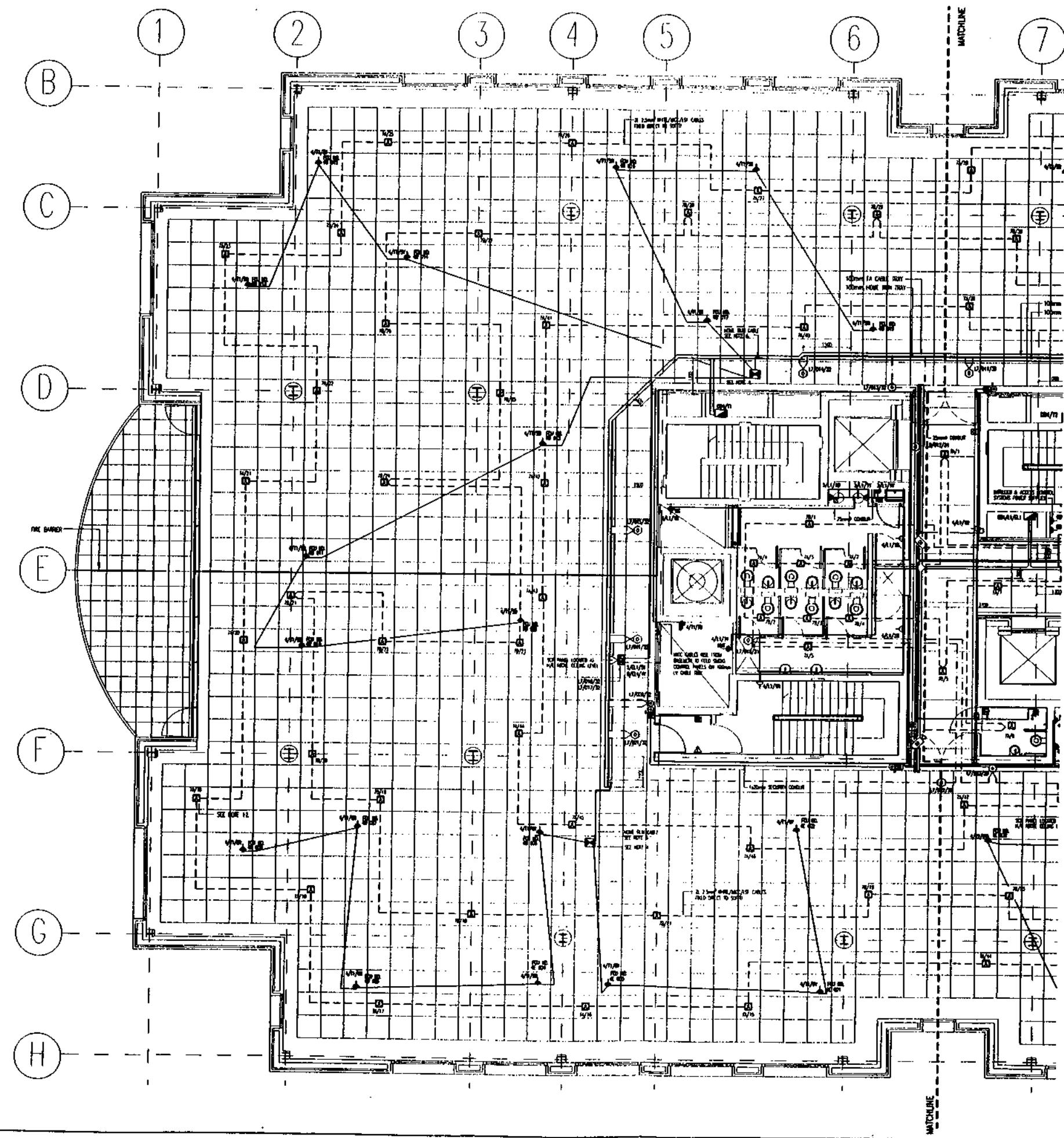
1. THIS DRAWING WAS TO BE READ IN CONjunction WITH
DRAWING NO. TC10002/T-170 & 405
 2. LIGHT SWITCHES ADJACENT TO EXTERIOR CORNERS, 2ND FLOOR
SWITCH GROUPS VIA A 3 WAY SWITCk TO LIGHTING
CONTROLS, OVERLAPPING AREAS.
 3. LIGHTING CONTROL MODULES FOR CORRIDOR LUMINARIES
SWITCH 2 - ALL OPEN PLATE OFFICE LUMINARIES
 4. LUMINARIES ARE SWITCHED ON/OFF VIA A TIMECLOCK
IN THE BASMENT SECURITY ROOM.
 5. WING DISTRIBUTION BOX FUSED TO SOFTWIRE.
 6. LIGHTING CONTROL MODULE FUSED TO SOFTWIRE
 7. REFER TO DIA DRAWINGS FOR TECHNICAL DETAILS/
SPECIFICATIONS ON ALL WINGDIA LEADS.
 8. EMERGENCY LIGHTING ADDRESSABLE CABLE FUSED TO
SOFTWIRE/SERVICES BRANCH.
 9. LIGHTING CONTROL DATA CABLE FUSED TO SOFTWIRE/SERVICES
BRANCH.
 10. LUMINARIES SWITCHED ON VIA PHOTOCELL AND OFF VIA
TIME CLOCK WITH OVERRIDE SWITCHES IN THE BASEMENT
SECURITY ROOM.

RECORD DRAWING

6-3. CARLTON, GARDEN'S

**FOURTH FLOOR
LIGHTING LAYOUT**

TELEPHONE: 01-580 0000		TELETYPE: 01-580 0000
T. Clarke p.l.c.		
Sherborne House 116-118 Newmarket Road London SE17 1JF Tel: 01-732 7870		
SCALE	DRIVEN BY	CHARGED BY
100	C.A.D.	T.M.H.
DRC. No. TC10802/E/171		AMR '74



RECORD DRAWING

Job No: S-7 CARLTON GARDENS

Building No: FOURTH FLOOR
L.V. DISTRIBUTION, SMALL POWER,
FIRE ALARM, SECURITY & COMMS
LAYOUT

ELECTRICAL ENGINEERS & CONTRACTORS (London) Ltd.

T. Clarke p.l.c.
Sackville House
118-126 Westgate Road
London SE17 1JY
Tel. 0171 283 7676

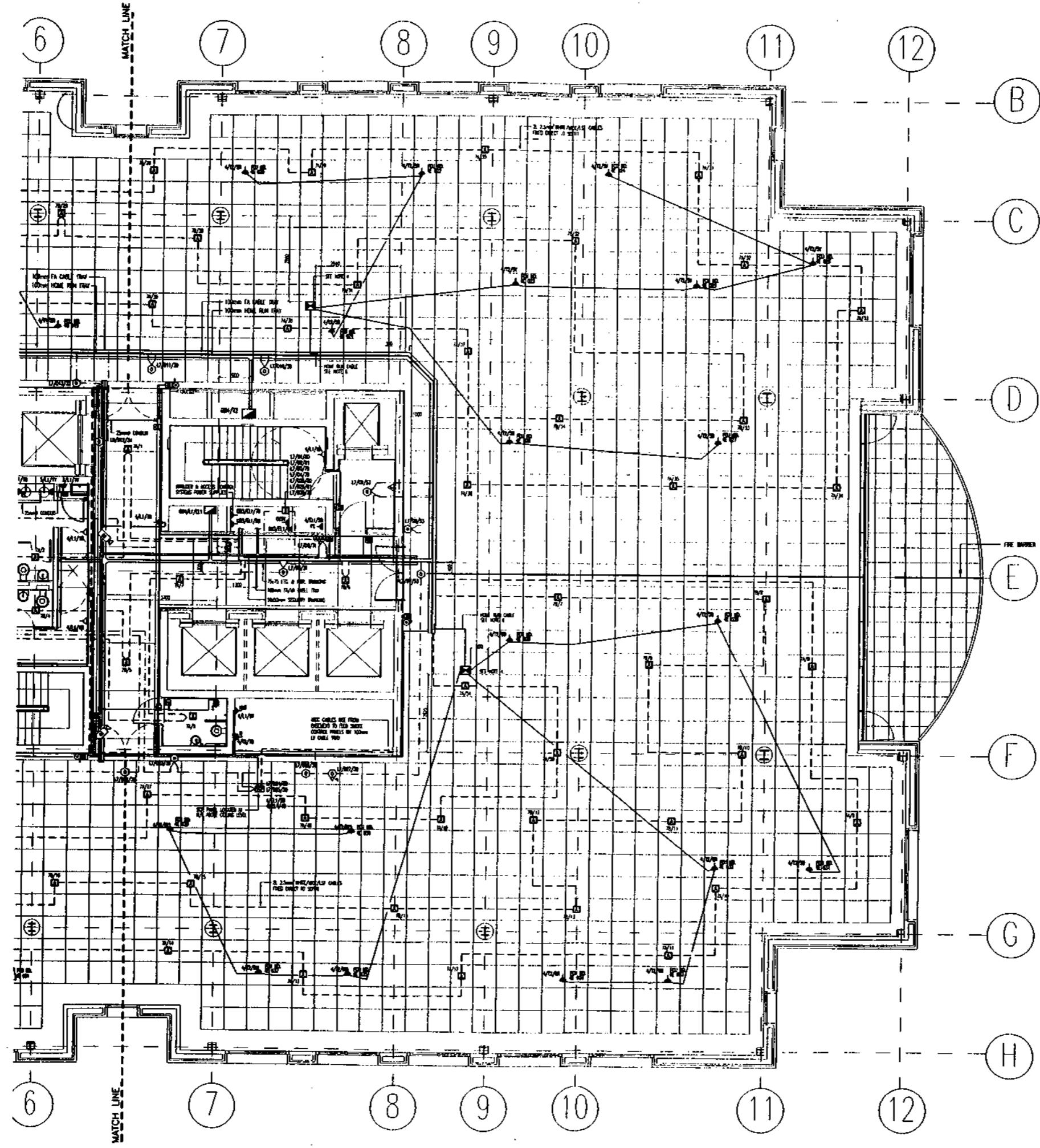
SCALE	DRAWN BY	CHECKED BY	DATE
1:50	T.W.	T.M.	JUNE '79

DRG. No. TC10802/E/172

NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWING NO. TC10802/E/173.
2. REFER TO L.V. FIRE ZONE DRAWING IN OWN MANUAL FOR LAYOUT OF FIRE ZONES.
3. REFER TO THE REMINGTON SECURITY LTD. OWN MANUALS FOR TECHNICAL DETAILS OF ALL SECURITY EQUIPMENT.
4. MASS DISTRIBUTION BOX FEED TO SECURITY.
5. L.V./P.V.
L-V DEVICE NUMBER
P-V LOOP
6. L.V./P.V.
ZONE PERTINENT
DEVICE NUMBER
LOOP NUMBER
7. FOR LOCATION OF SYMBOLS REFER TO DRAWING NO. TC10802/E/173.

FDR CONTINUATION SEE DRAWING NO. TC10002/E/172



NOTES

- MR DRIVING IS TO BE READ IN CONJUNCTION WITH
DRAWING NO. 1C4802/L-1000.

**DATA TO LAS FIRE FIGHT DRIVING IN OWN DRAWING
OR LISTED IN FIRE ZONES:**

**REFER TO THE BIRMING SECURE LTD. OWN MANUALS
OR TECHNICAL DETAILS OF ALL SECURITY EQUIPMENT.
NAME DISTRIBUTION BOX REFER TO ZONE.**

AVM

DEVICE NUMBER
PA LOOP

AVS/19

ZONE REFERENCE
DEVICE NUMBER
LOOP NUMBER

**REFER TO OWN MANUAL FOR TECHNICAL DETAILS/
SPECIFICATIONS ON ALL RELATED LEADS.**

**AN LIST OF SYMBOLS REFER TO DRAWING NO.
1C4802/L-2000.**

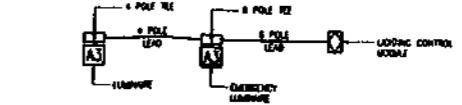
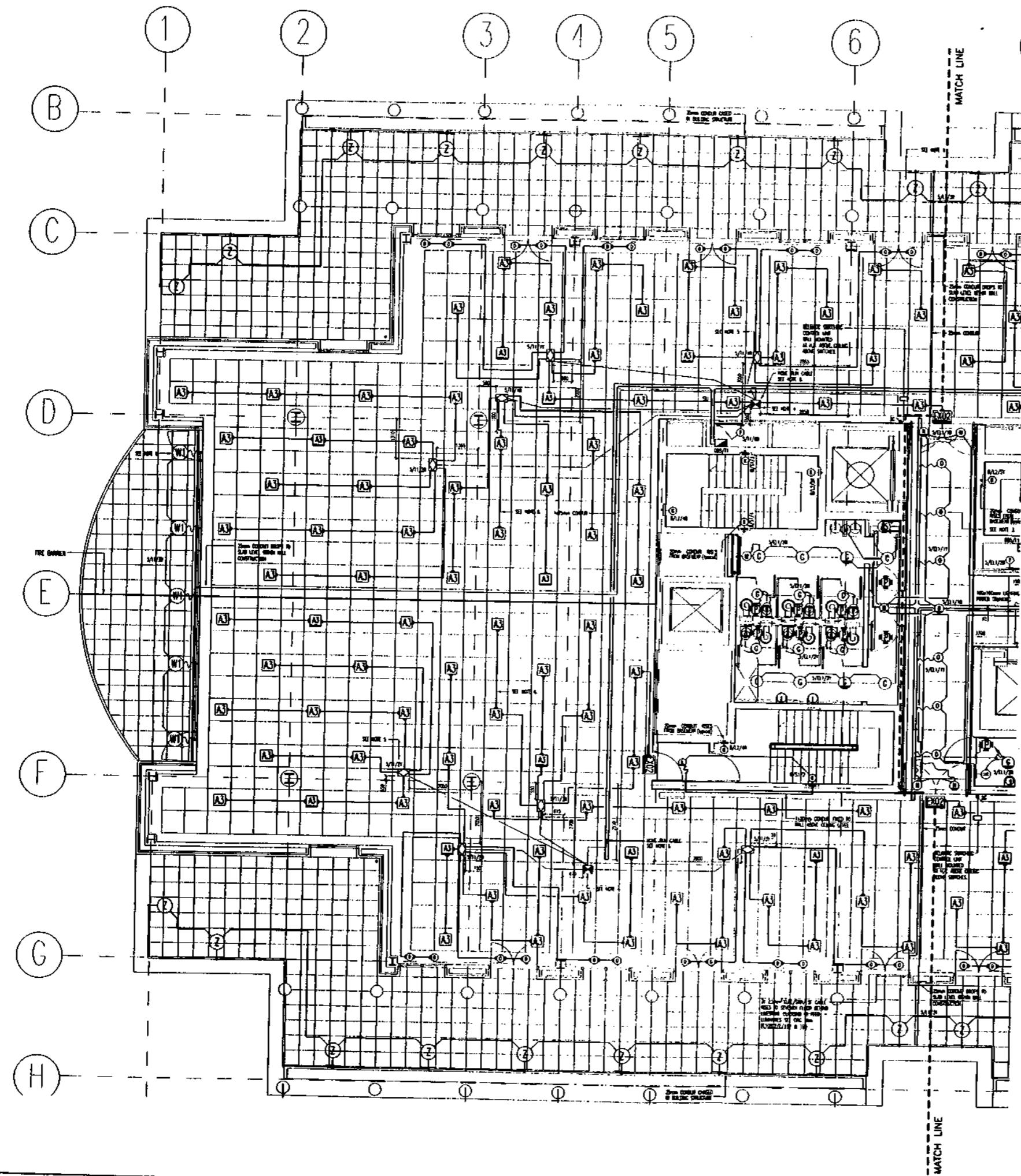
RECORD DRAWING

5-7 CARLTON GARDENS

~~Top 10~~
FOURTH FLOOR
TV DISTRIBUTION, SMALL POWER
RE ALARM, SECURITY & COMMS
AYOUT SHEET 2.

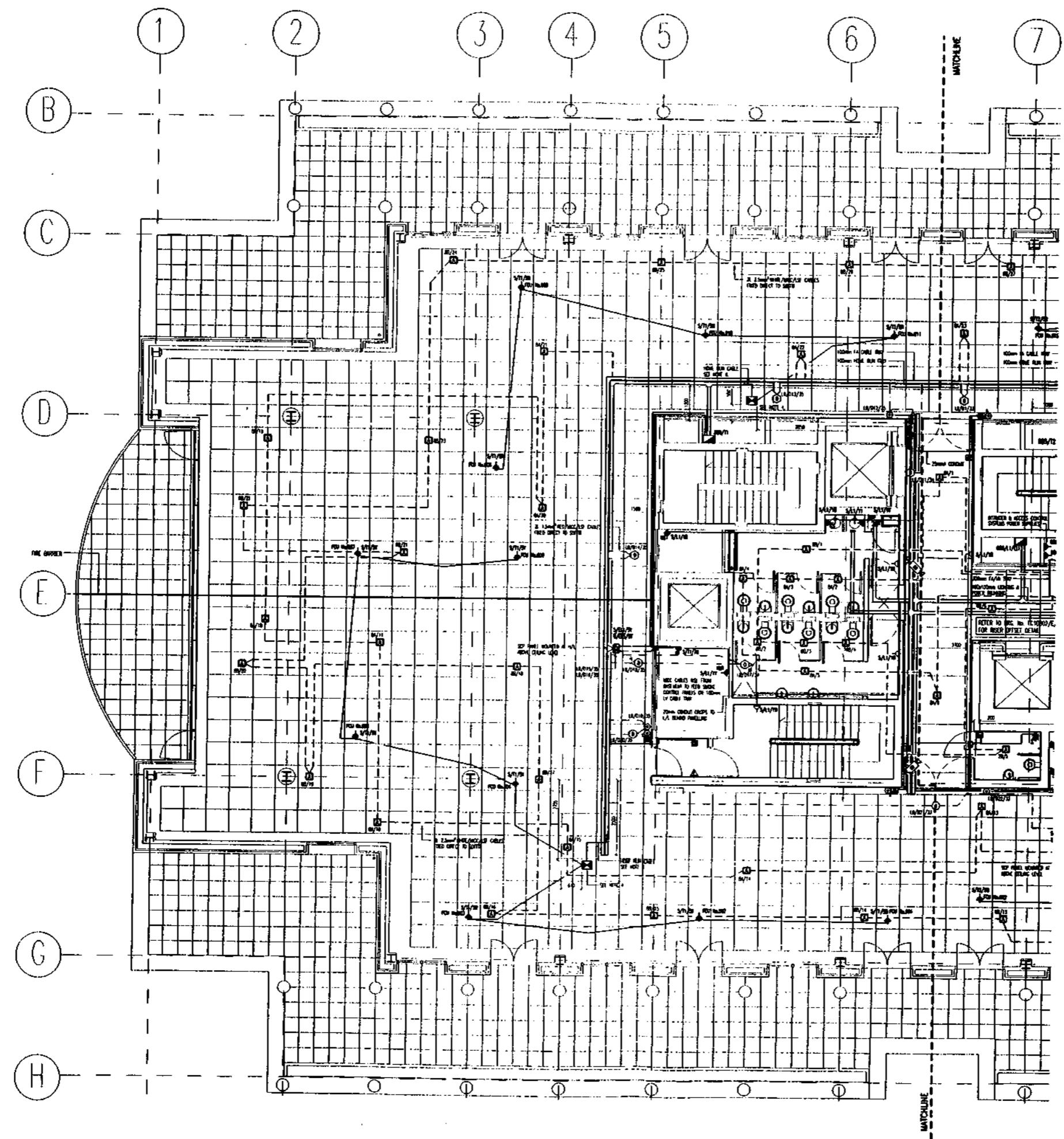
. Clarke p.l.c.

Name		Address	
John Doe		123 Wetherby Street	
		London SE17 1JT	
		0771 232 7876	
DATE	ISSUED BY	CHECKED BY	DATE
1/06	TMR	TMR	10/06 '06
C. No.		TC10802/E 173	



FOR CONTINUATION SEE DRAWING NO. TC10802/E/181

RECORD DRAWING			
Job No:	5-7 CARLTON GARDENS		
Drawing No:	FIFTH FLOOR LIGHTING LAYOUT SHEET 1.		
ELECTRICAL ENGINEERS & CONTRACTORS			
T. Clarke p.l.c.			
Stockport Works 110-118 Watford Road London E17 1JT Tel: 0191 282 7676			
Scale:	Date:	Checked by:	Date:
1:500	T. Clarke		
DRG. No. TC10802/E/180			



RECORD DRAWING

Job Ref:

5-7 CARLTON GARDENS

Drawing No:
FIFTH FLOOR
L.V. DISTRIBUTION, SMALL POWER
FIRE ALARM, SECURITY & COMMS
LAYOUT

Engineering Consultancy (London) Ltd

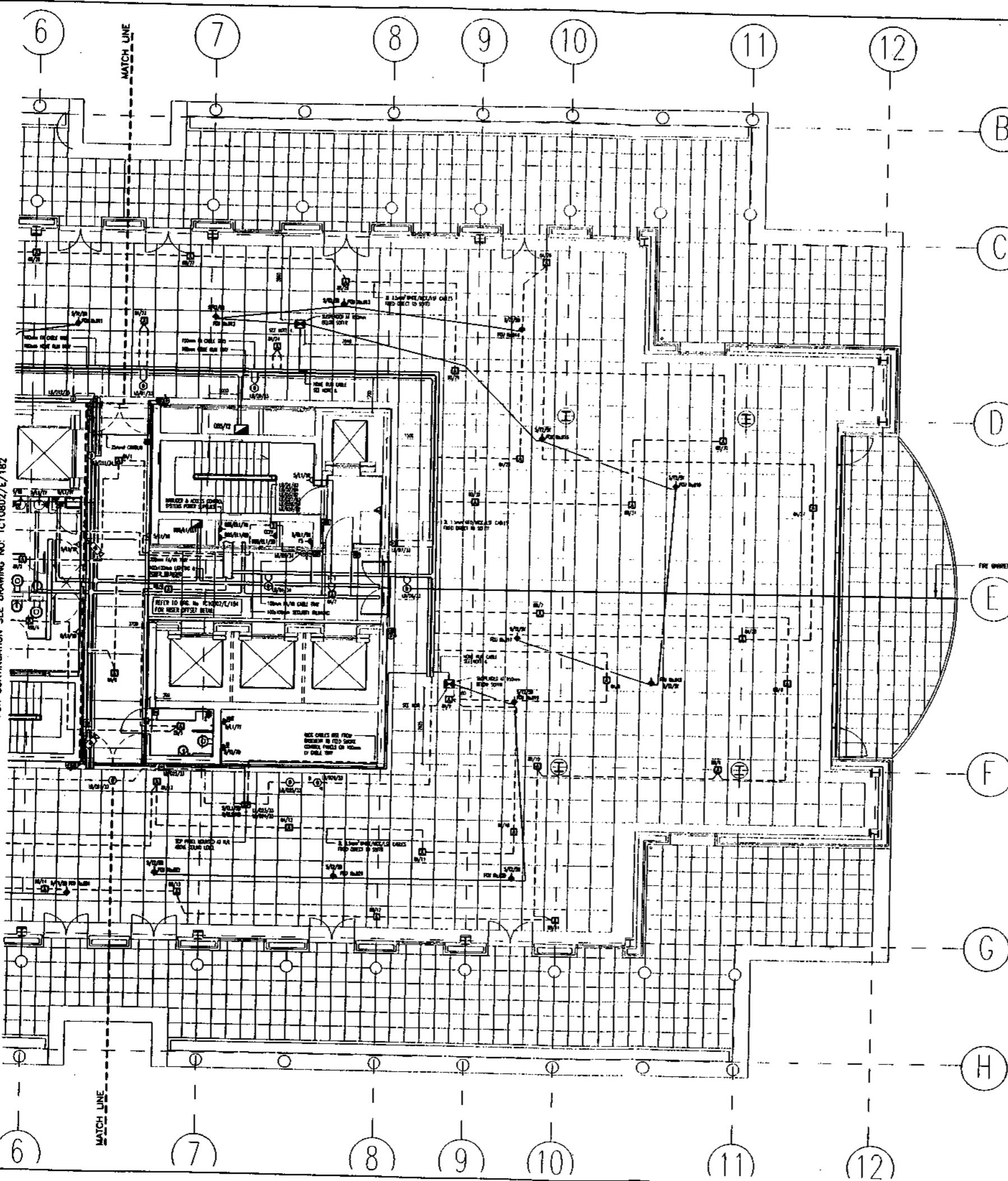
T. Clarke p.l.c.
Sheepgate House
110-118 Sheepgate Street
London EC1V 7AJ
Tel. 0171 232 7676

SCALE DRAWN BY CHECKED BY DATE

1:50 TAN TAN APR '99

DRC. No. TC10802/E/182

FOR CONTINUATION SEE DRAWING NO: TC10802/E/182



- NOTES
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWING NO: TC10802/E/182
 2. REFER TO L.V. FIRE PUMP DRAWING OR CABLE MANUAL FOR LAYOUT OF FIRE ZONES.
 3. REFER TO THE BLOOMER SECURITY LTD. CABLE MANUALS FOR LOCATION DETAILS OF ALL SECURITY EQUIPMENT.
 4. MAIN DISTRIBUTION BOX FITTED TO SITE.
 5. DEVICE NUMBER
PC LOOP
LV/815/18
 6. ZONE REFERENCE
DEVICE NUMBER
LOOP NUMBER
 7. REFER TO CABLE MANUAL FOR TECHNICAL DETAILS / SPECIFICATIONS ON ALL RELATED LEADS.
 8. FOR LIST OF SYMBOLS REFER TO DRAWING NO: TC10802/E/182.

RECORD DRAWING

Job No:

S-7 CARLTON GARDENS

Drawing No:

FIFTH FLOOR
L.V. DISTRIBUTION, SMALL POWER
FIRE ALARM, SECURITY & COMMS
LAYOUT SHEET 2

DESIGNED, DRAWN & CONTRACTED

T. Clarke p.l.c.

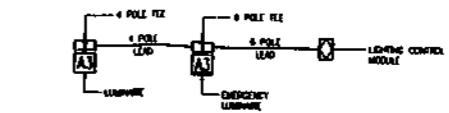
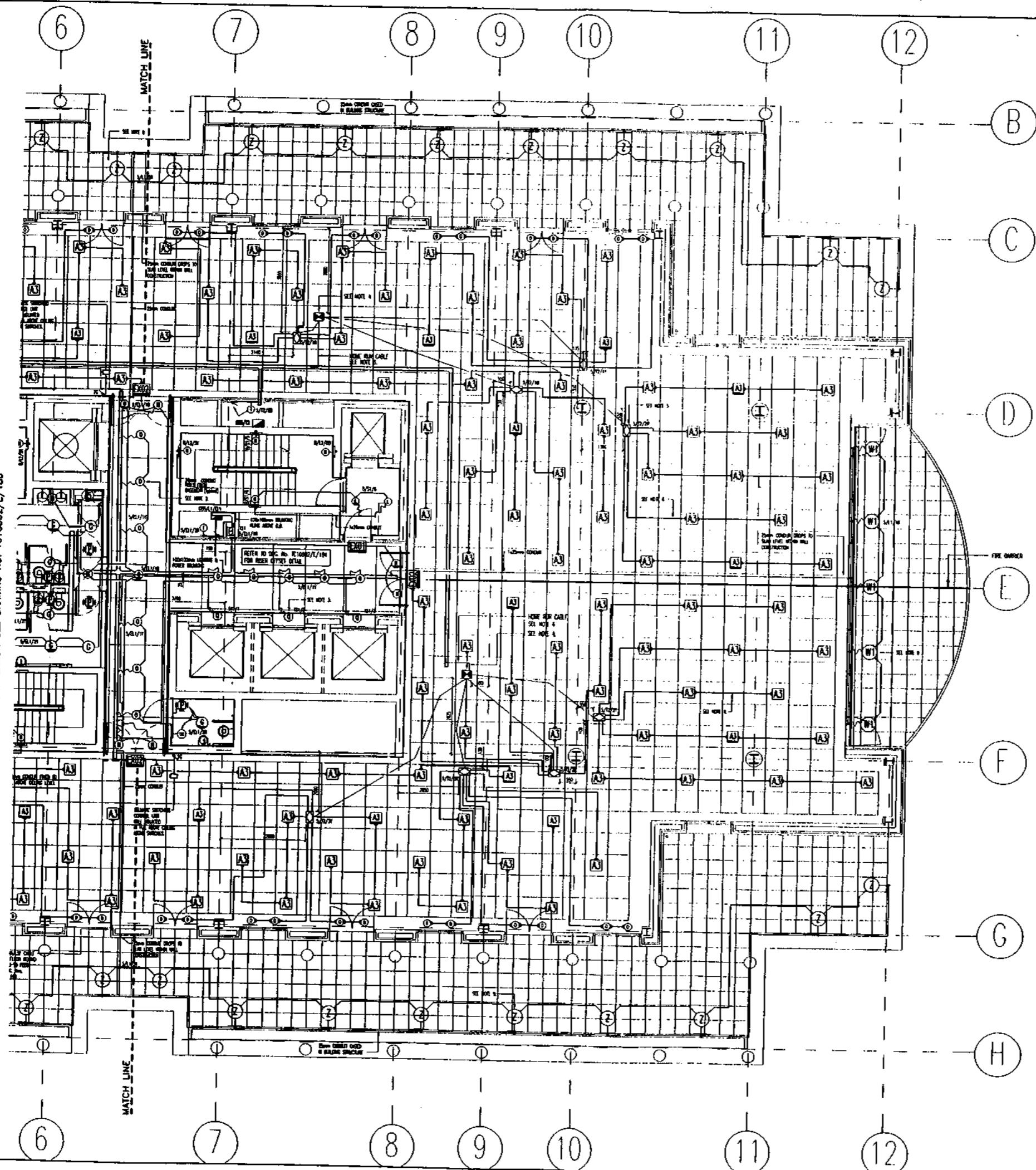
Studio House
116-118 Newgate Road
London SE17 1AF
Tel. 071 232 7776

SCALE DRAWN BY CHECKED BY DATE

1:100 DATE NAME

DRG. No. TC10802/E/183

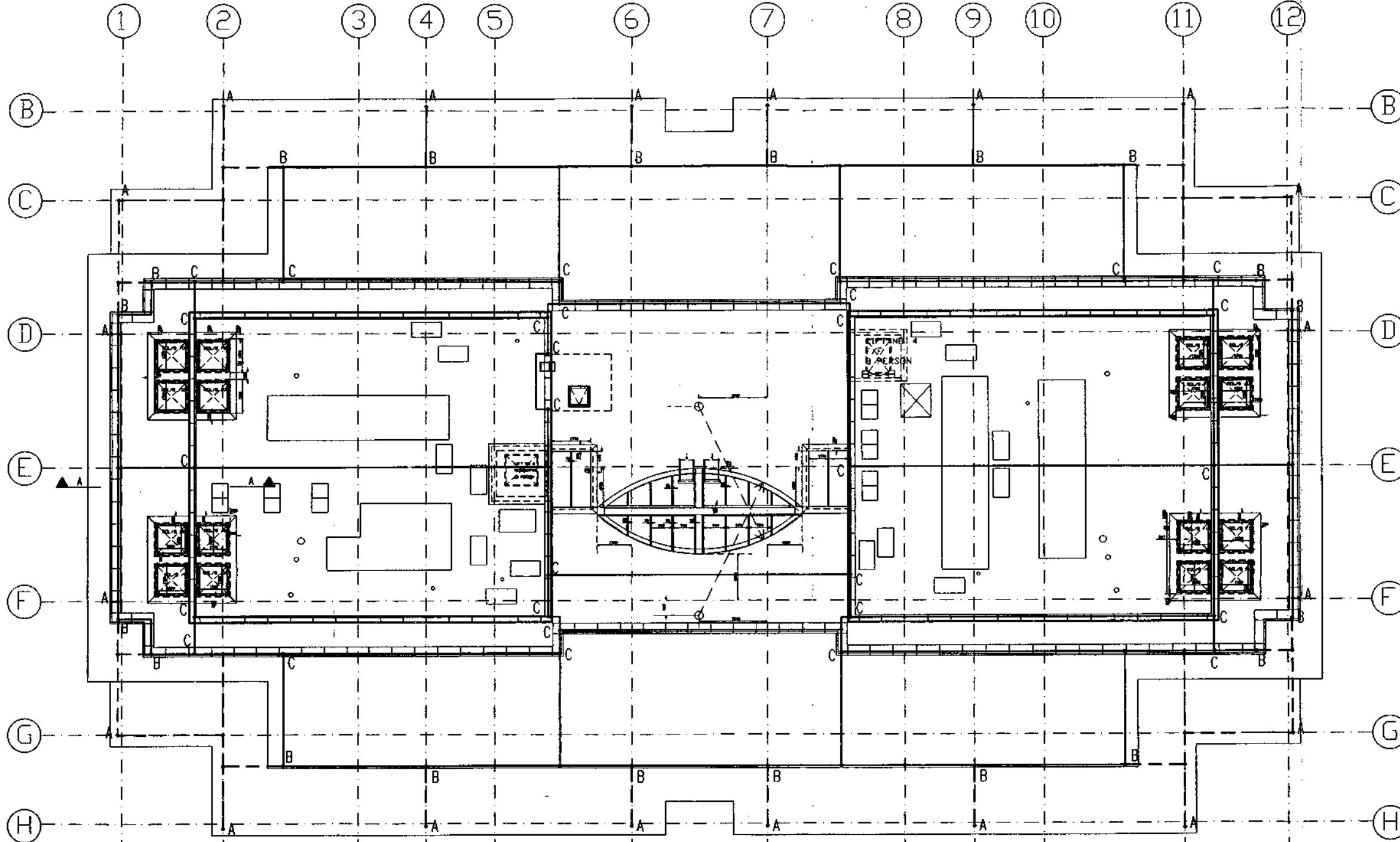
FOR CONTINUATION SEE DRAWING NO: TC10802/E/180



TYPICAL ARRANGEMENT OF LEADS & TEES FOR EMERGENCY LIGHTING
(NOT TO SCALE)

RECORD DRAWING			
5-7 CARLTON GARDENS			
Drawing No:			
FIFTH FLOOR LIGHTING LAYOUT SHEET 2.			
ELECTRICAL ENGINEERS & CONTRACTORS			
T. Clarke p.l.c.			
Established 1868 58-60, New Bond Street, London, W1X 1PF Tel. 0171 282 7870			
SCALE	DRAWN BY	CHEKED BY	DATE
1:500			JUNE 70
DRG. No. TC10802/E/181			

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWING NO. TC10802/E/180 & 182
2. LIGHT SWITCHES ADJUSTABLE TO 10 DISTANCES CONTROL 20 SERVING CIRCUITS VIA A 10 POLE SIGNAL TO LIGHTING CONTROL MARSHALLING BOXES -
SWITCH 1 - INTERNAL CORRIDOR LUMINAIRES
SWITCH 2 - ALL OPEN PLAN OFFICE LUMINAIRES
3. LUMINAIRES ARE SWITCHED ON/OF VIA A TIME CLOCK IN THE BASEMENT SECURITY ROOM
4. MAINS DISTRIBUTION BOARD FUSED TO 50A
5. LIGHTING CONTROL MODULE FUSED TO 50A
6. REFER TO DATA MANUAL FOR TECHNICAL DETAILS / SPECIFICATIONS OF 40W LED LINEAR LEADS
7. EMERGENCY LIGHTING ADDON/ASSEMBLY CABLE FUSED TO 50A SERVICES BRACKET
8. LIGHTING CONTROL DATA CABLE FUSED TO 50A SERVICES BRACKET
9. LUMINAIRES SWITCHED ON VIA PULLCORD AND OFF VIA TIME CLOCK WITH OVERRIDE SWITCHES IN THE BASEMENT SECURITY ROOM



NOTES

- ALL CONDUCTIVE ROOF MOUNTED EQUIPMENT AND EXTRANEOUS METALWORK SUCH AS LADDERS, AERIAL STANDS, PLANT, DRY AIR COOLERS, ANTS, FLUES, WINDOW CLEANING EQUIPMENT ETC, BONDED TO THE LIGHTNING PROTECTION NETWORK.
- WELDED CONNECTION TO PRINCIPAL REINFORCING BAR OF BASEMENT RAFT BY MAIN CONTRACTOR FOR SCHEDULE OF TEST RESULTS & CERTIFICATES COMPLY WITH LOCATION PLAN OF TEST POINTS, SEE OWN MANUALS.

A - AN TERMINATION NETWORK CONNECTS TO DOWN CONDUCTOR COLUMN SEE DETAIL 1.
B - LIGHTNING PROTECTION CONDUCTOR DROPS TO LOWER ROOF.
C - LIGHTNING PROTECTION CONDUCTOR DROPS FROM PARAPET WALL TO ROOF LEVEL.

KEY

- 25mm² COPPER CONDUCTOR TAPE WITH COLOURED SHEATH
- BONDING CONNECTION
- - - CONNECTIONS TO STEEL COLUMNS USED AS DOWN CONDUCTORS

RECORD DRAWING

Job Title
5 - 7 CARLTON GARDENS

Drawing Title
LIGHTNING PROTECTION LAYOUT

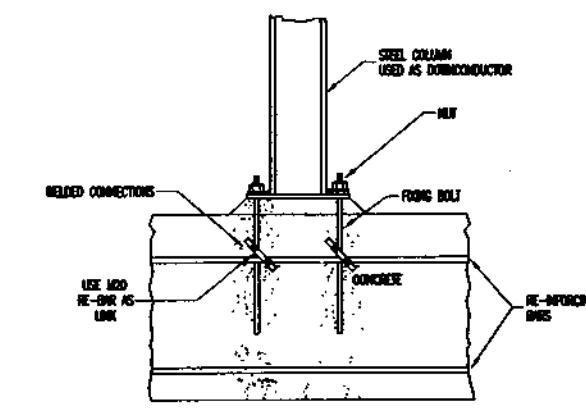
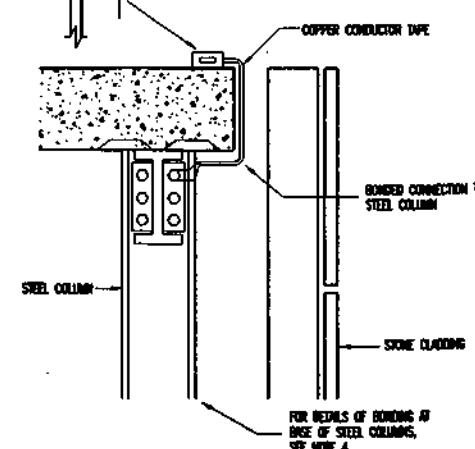
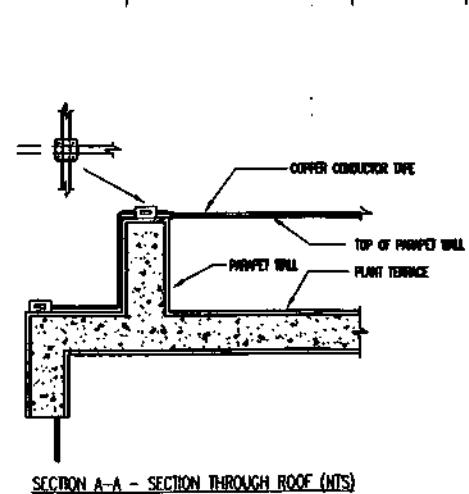
ELECTRICAL ENGINEERS & CONTRACTORS (Founded 1829)

T. Clarke p.l.c.
Stanhope House
116-118 Walworth Road
London SE17 1JY
Tel. 0171 252 7876



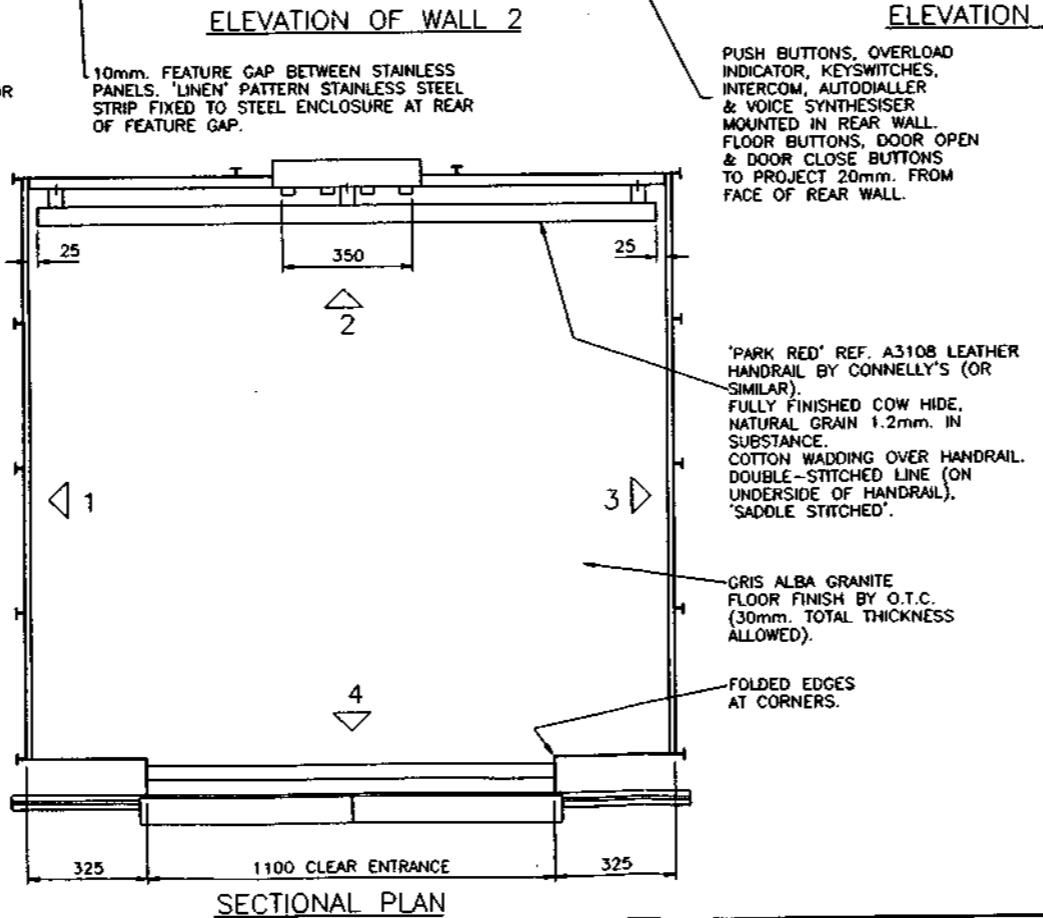
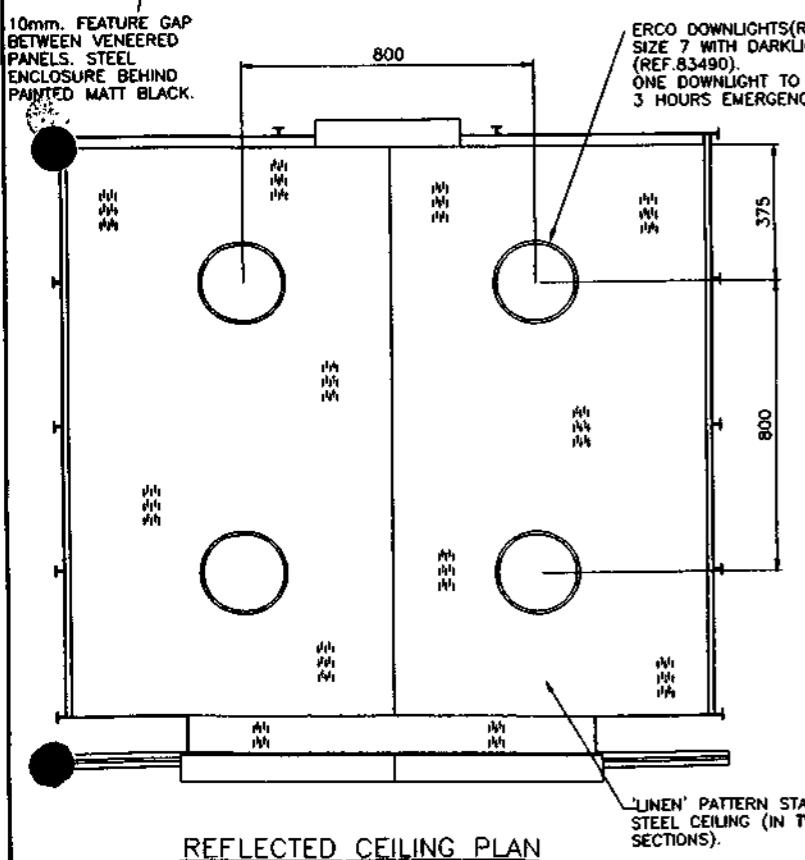
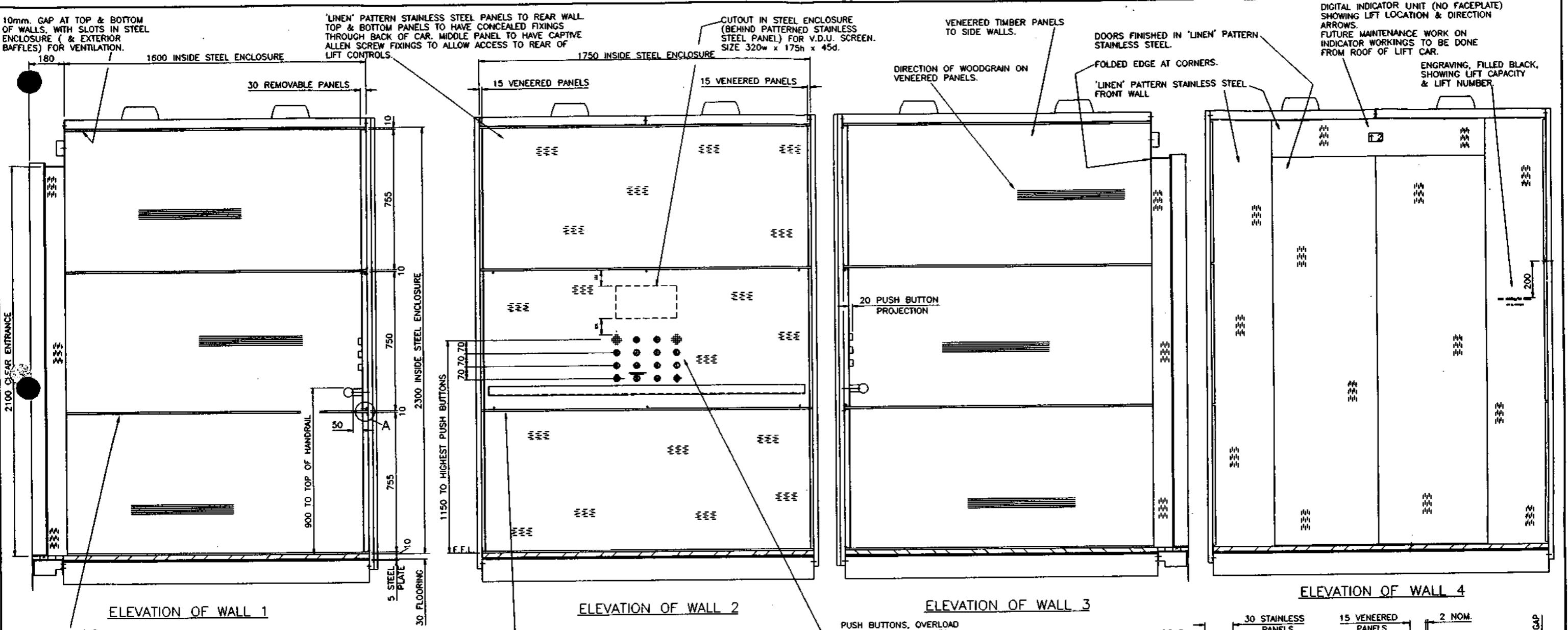
SCALE	DRAWN BY	CHECKED BY	DATE
1:100	T.M.W	T.M.W	JUNE '98

DRG. No. TC10802/E/406

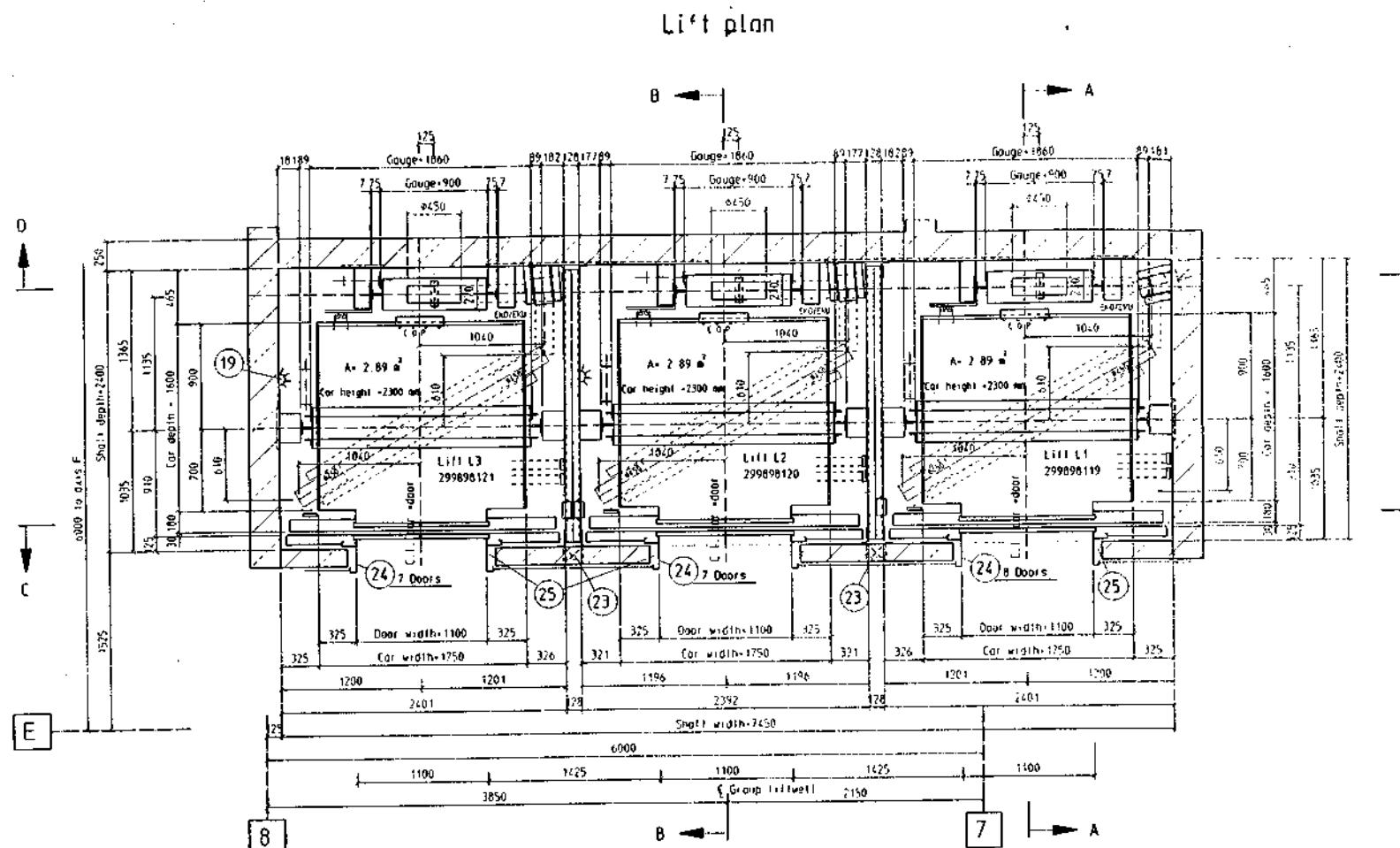


DETAIL 1 - CONNECTION TO COLUMN BELOW - (NIS)

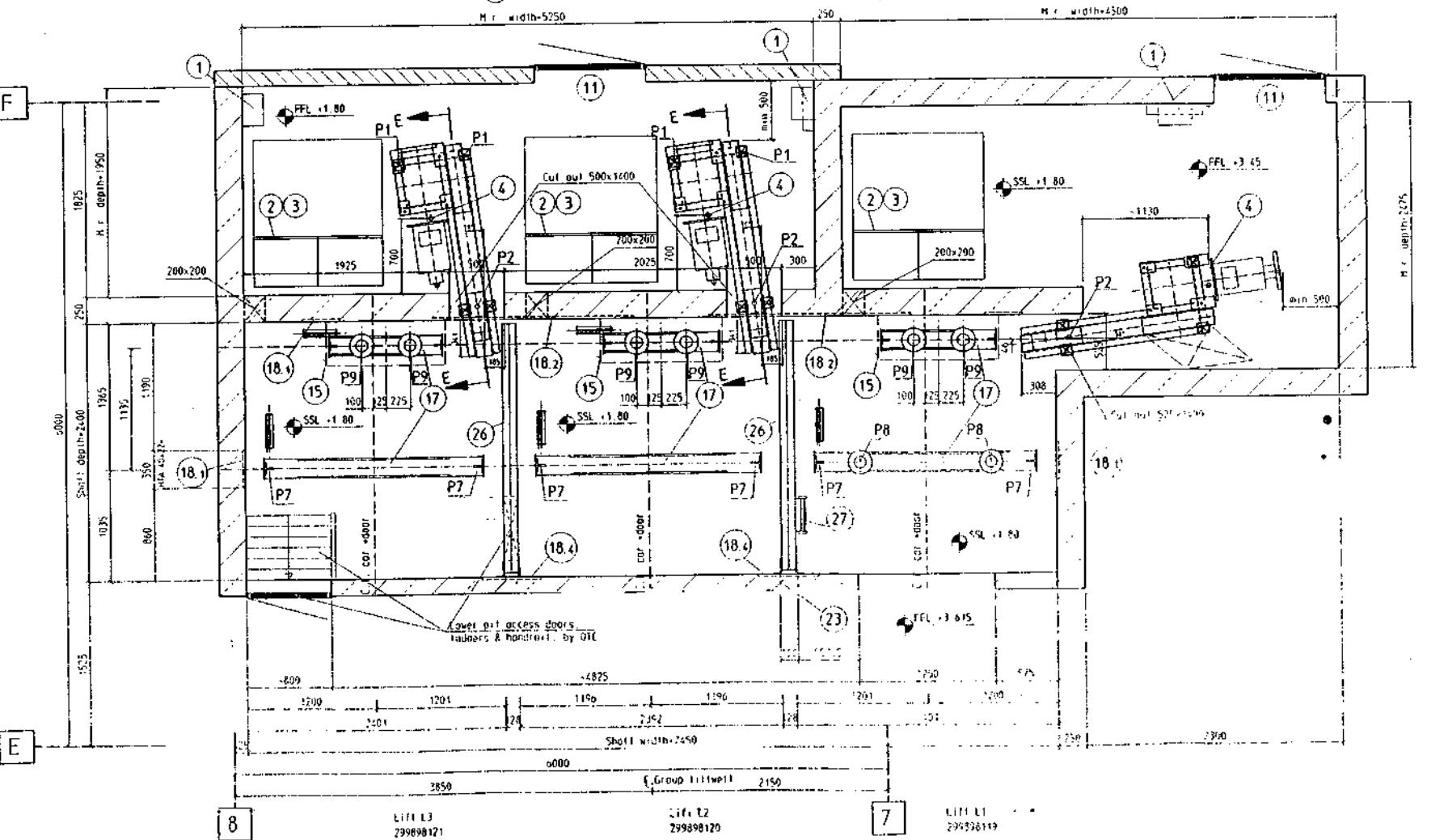
DETAIL 2 - BASEMENT RAFT STEELWORK CONNECTION DETAIL (NIS)



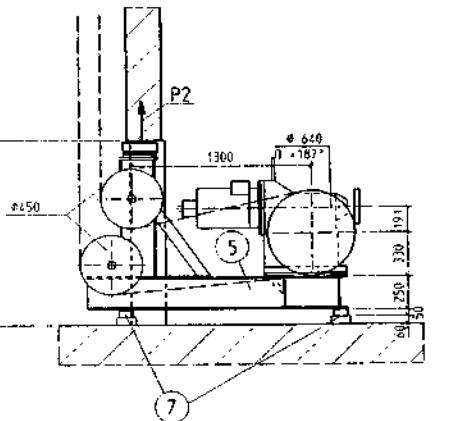
F		
E		
D	12:07:99	M.P.B. BROUGHT UP TO 'AS BUILT' STATUS
C	18:11:98	M.P.B. LAYOUT OF PUSH BUTTONS CHANGED. REAR WALL PATTERN ROTATED. HANDRAIL ENDS & COLOUR CHANGED.
B	8:10:98	M.P.B. LIGHTS ADDED. HANDRAIL & FLOOR CHANGED. VDU MOVED. OPI FACEPLATE DELETED.
A	11:9:98	M.P.B. DESIGN TEAM'S COMMENTS INCORPORATED.
REV.	DATE	NAME
		RIVISIONS
THYSSSEN		CONTRACT NAME & ADDRESS:
		5-7 CARLTON GARDENS, LONDON.
		TITLE
		LIFT CAR INTERIOR (OFFICE PASSENGER LIFTS) (L1, L2 & L3)
DRAWN	M.P.B.	THIS DRAWING TO BE READ IN CONJUNCTION WITH LATEST ISSUE OF
DATE	12:8:98	DRAWING NO.
CHECKED	X	
SCALE	1:10,1:2	DRAWING NUMBER
CONTRACT No.		69654/01-03/20 D



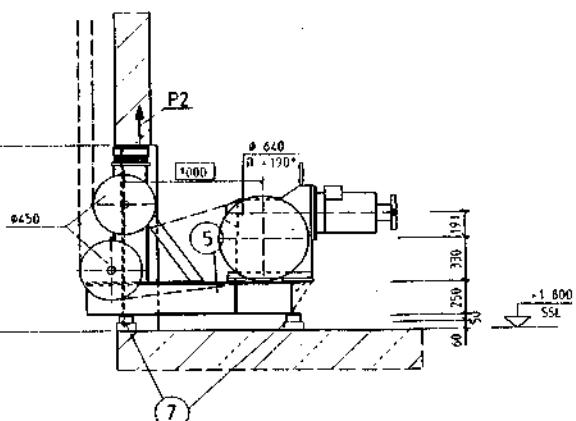
Shaft - and machine room plan 16



ection E - E
fts L2 & L3



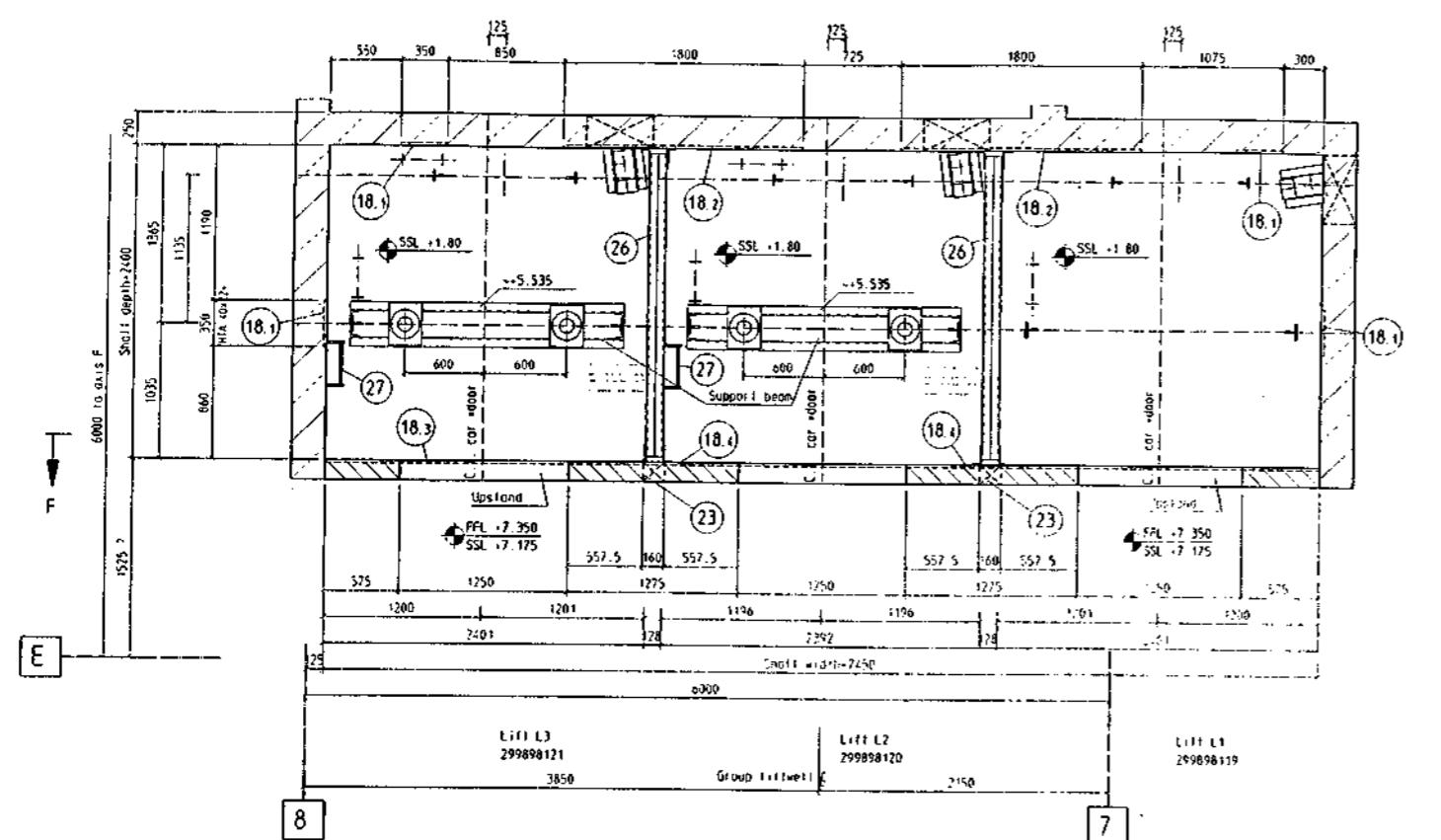
ction E - E
ft. 11



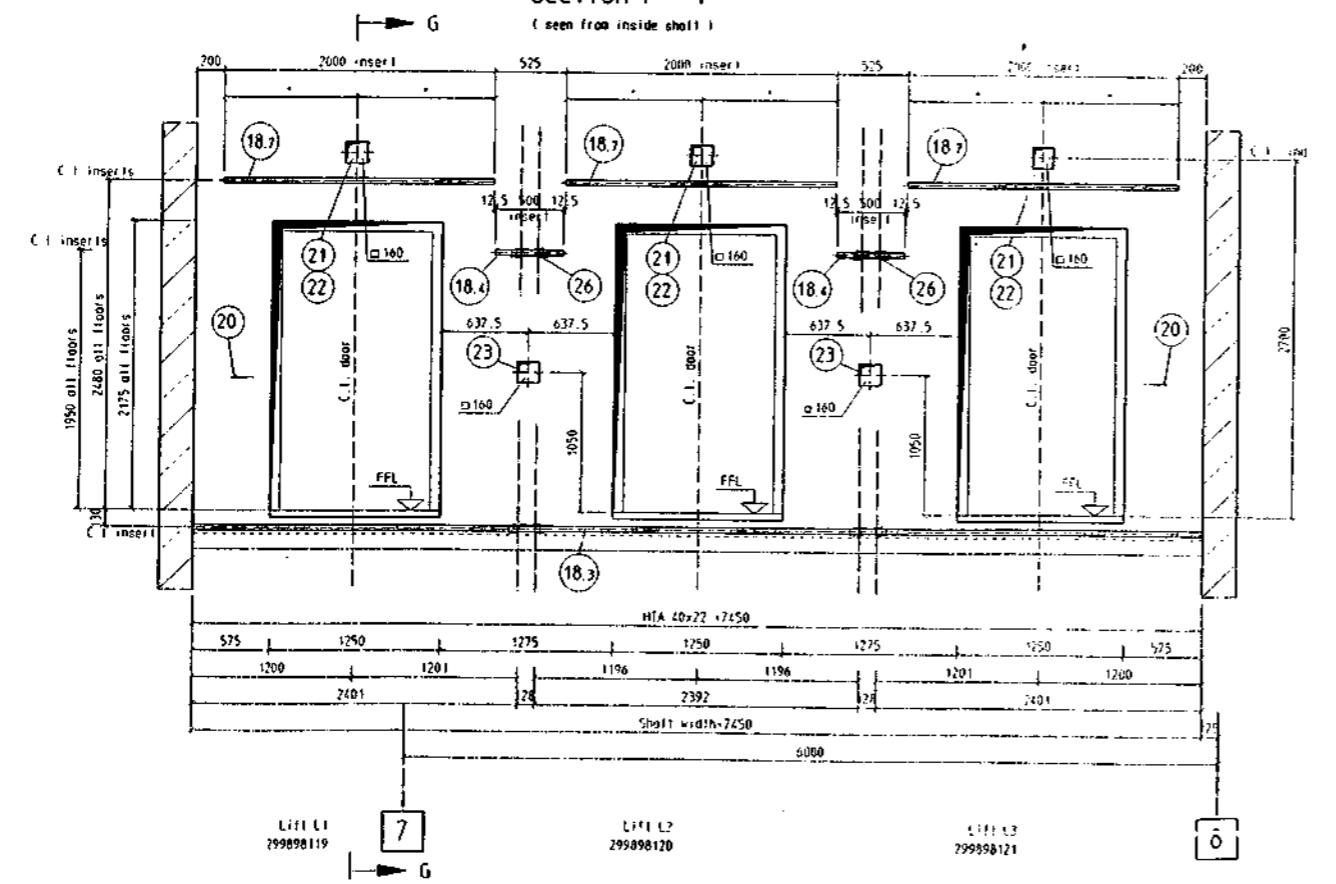
This drawing to be read in conjunction
with drawing no. 1.

654/01-03/2
654/01-03/3
654/01-03/4

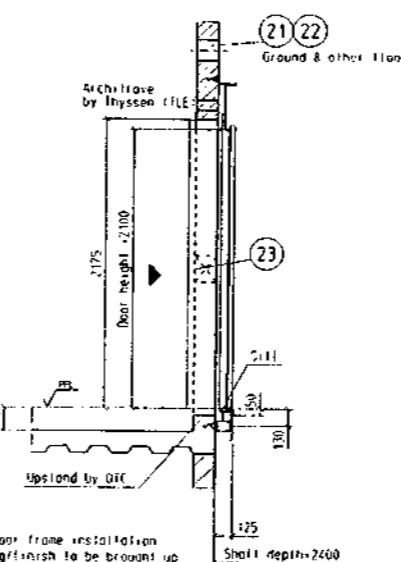
Shaft plan (Level +7.350)



Section F - F



Section G - G

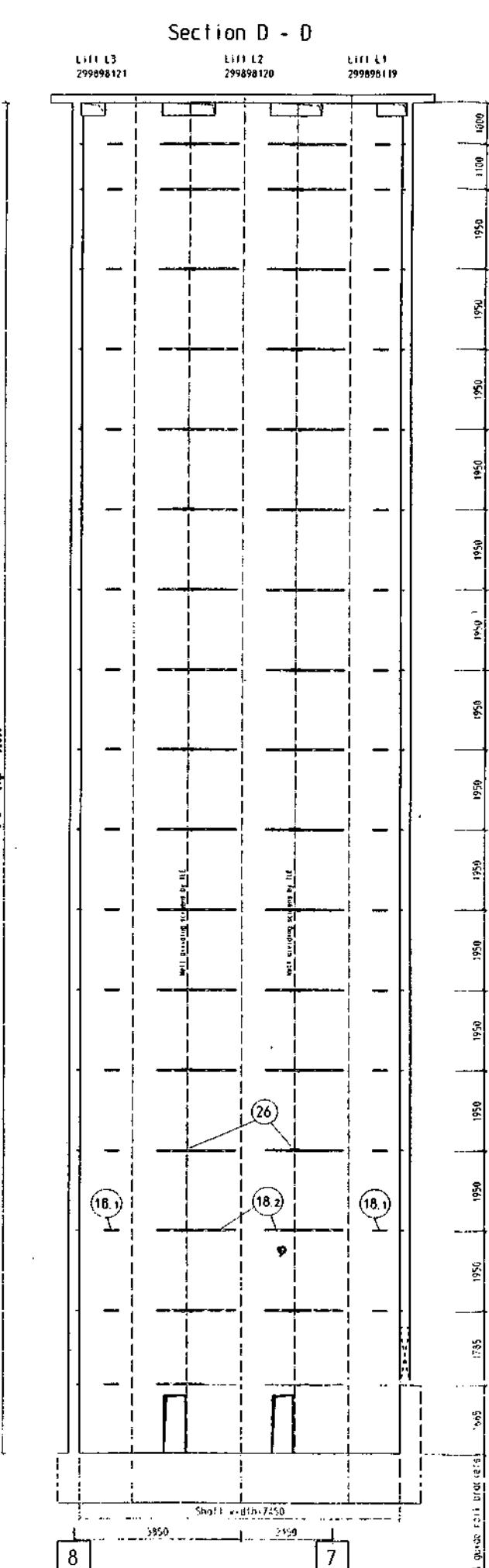
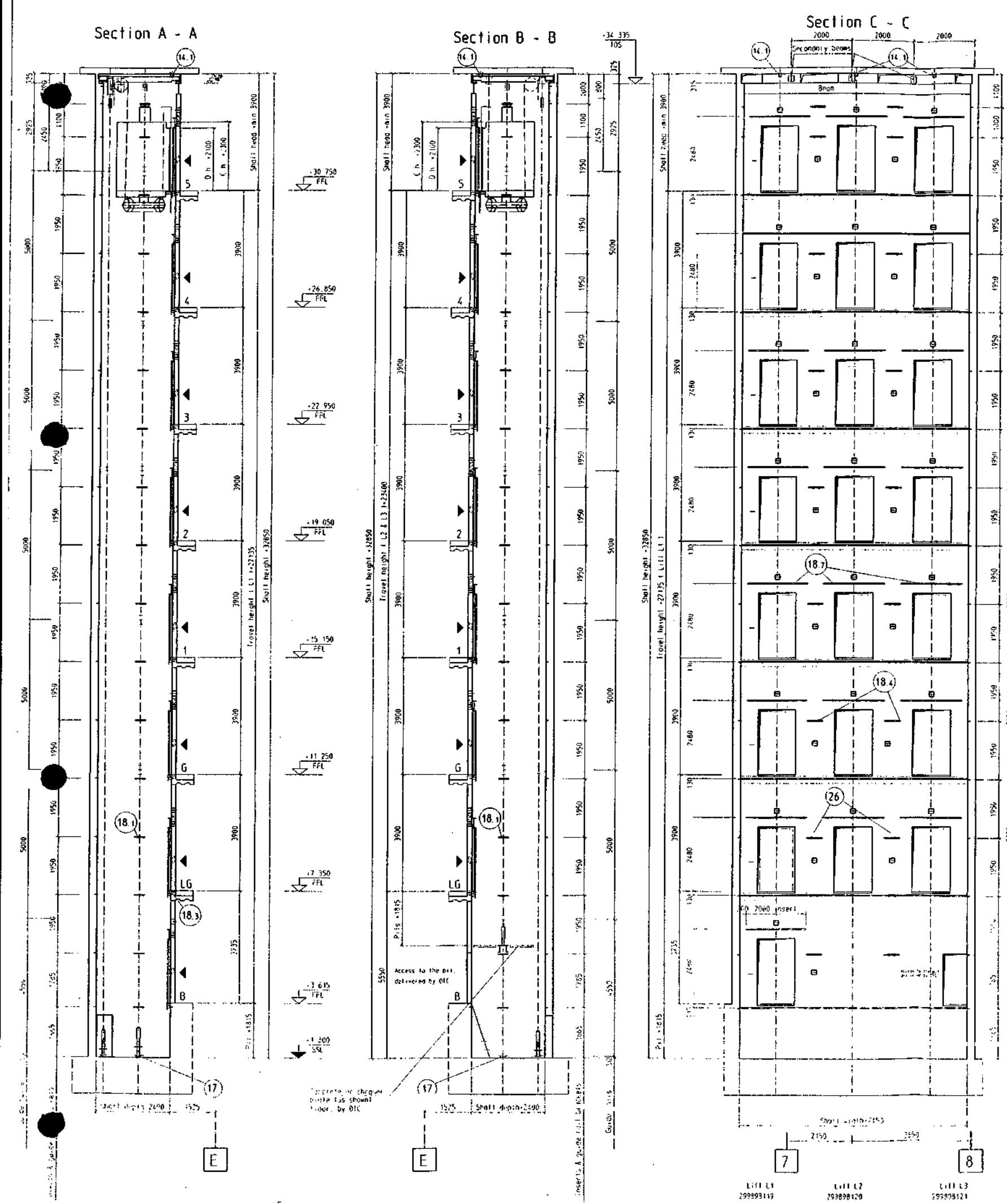


After door frame installation
Flooring/fins to be brought up
to our sill by UIC.
After our architrave is fitted
this to be back-filled to cut
requirements and finally with fibro
cemented up to architraves by OTC.

This drawing to be read in conjunction
with drawing no.:

69654/01-03/1
69654/01-03/3
69654/01-03/4

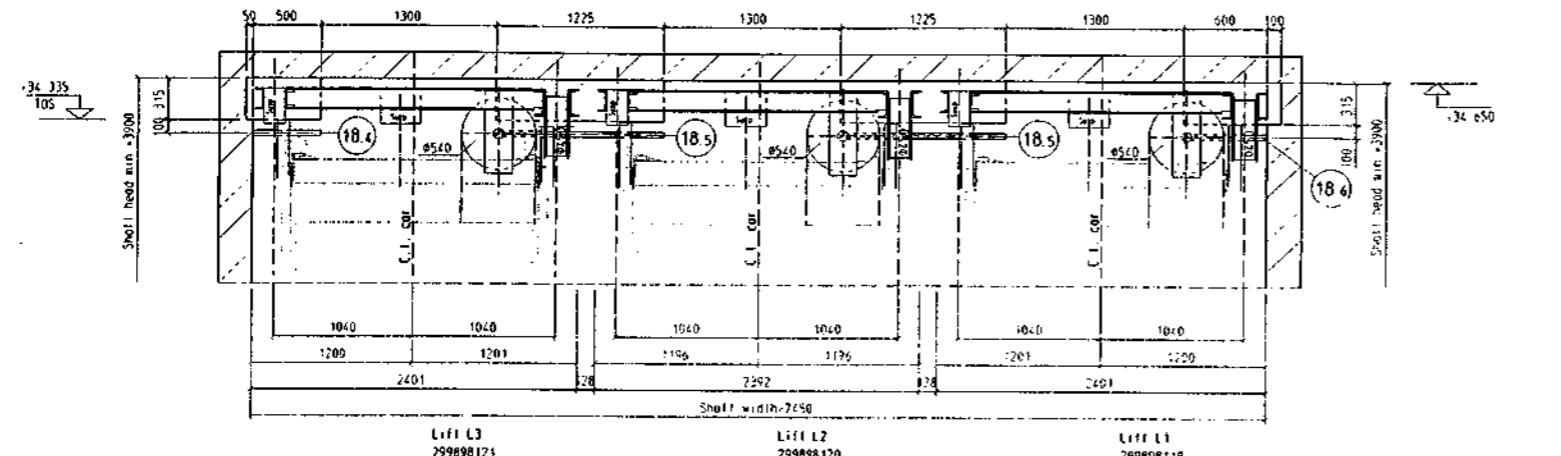
GUIDANCE NOTES / ITEMS (CONT.)		PLANNING INFORMATION (P.I.)
DIC = to be performed or delivered by others		8 = Existing floors
E = to be performed or delivered by Thyssen		9 = Erection of floors
FFL = to be delivered by Thyssen Lifts & Escalators		10 = Delivery of Thyssen Lifts & Escalators
(OTC) = Thyssen Construction		11 = Existing building
		12 = Existing staircase
		13 = Existing roof
		14 = Existing ceiling
		15 = Existing walls
		16 = Existing windows
		17 = Existing doors
		18 = Existing stairs
		19 = Existing ductwork
		20 = Existing pipes
		21 = Existing structural elements
		22 = Existing floor slabs
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		207 = Existing stairs
		208 = Existing ductwork
		209 = Existing pipes
		210 = Existing structural elements
		211 = Existing floor slabs
		212 = Existing roof slabs
		213 = Existing walls
		214 = Existing windows
		215 = Existing doors
		216 = Existing stairs
		217 = Existing ductwork
		218 = Existing pipes
		219 = Existing structural elements
		220 = Existing floor slabs
		221 = Existing roof slabs
		222 = Existing walls
		223 = Existing windows
		224 = Existing doors
		225 = Existing stairs
		226 = Existing ductwork
		227 = Existing pipes
		228 = Existing structural elements
		229 = Existing floor slabs
		230 = Existing roof slabs
		231 = Existing walls
		232 = Existing windows
		233 = Existing doors
		234 = Existing stairs
		235 = Existing ductwork
		236 = Existing pipes
		237 = Existing structural elements
		238 = Existing floor slabs
		239 = Existing roof slabs
		240 = Existing walls
		241 = Existing windows
		242 = Existing doors
		243 = Existing stairs
		244 = Existing ductwork
		245 = Existing pipes
		246 = Existing structural elements
		247 = Existing floor slabs
		248 = Existing roof slabs
		249 = Existing walls
		250 = Existing windows
		251 = Existing doors
		252 = Existing stairs
		253 = Existing ductwork
		254 = Existing pipes
		255 = Existing structural elements
		256 = Existing floor slabs
		257 = Existing roof slabs
		258 = Existing walls
		259 = Existing windows
		260 = Existing doors
		261 = Existing stairs
		262 = Existing ductwork
		263 = Existing pipes
		264 = Existing structural elements
		265 = Existing floor slabs
		266 = Existing roof slabs
		267 = Existing walls
		268 = Existing windows
		269 = Existing doors
		270 = Existing stairs
		271 = Existing ductwork
		272 = Existing pipes
		273 =



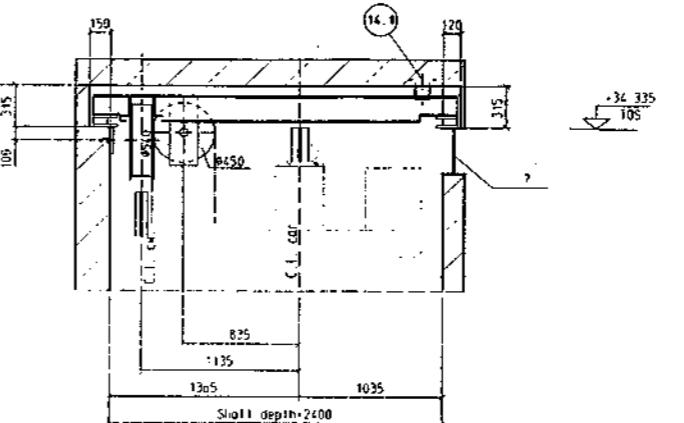
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with drawing no.:

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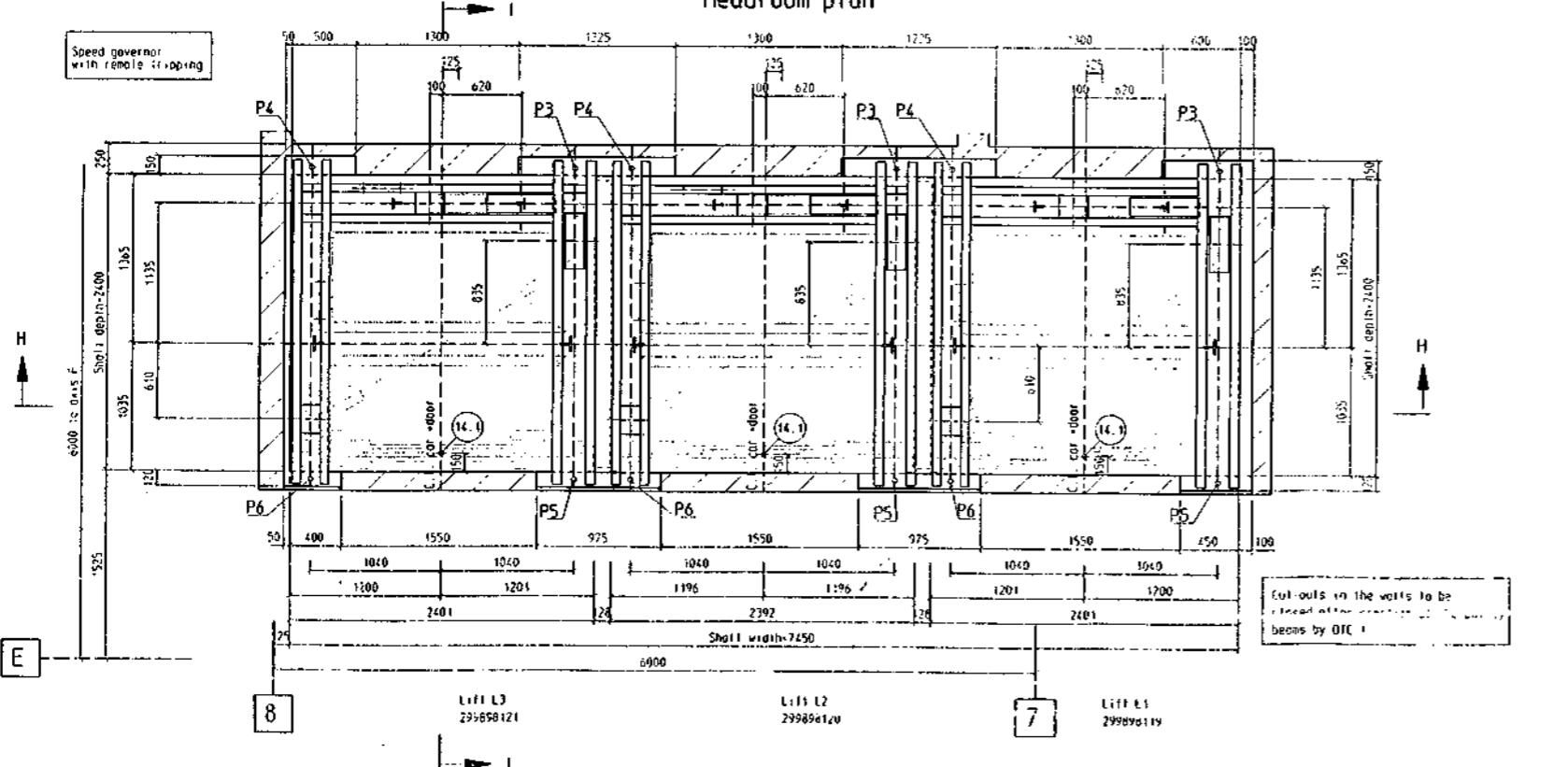
Section H - H



Section 1 - 1



Headroom plan



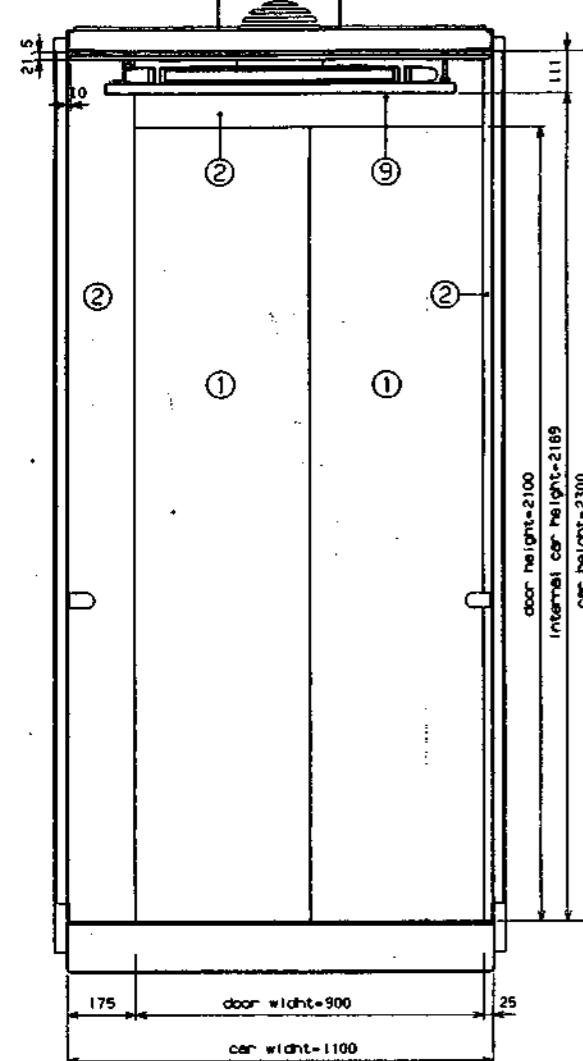
AS BUILT

This drawing to be read in conjunction
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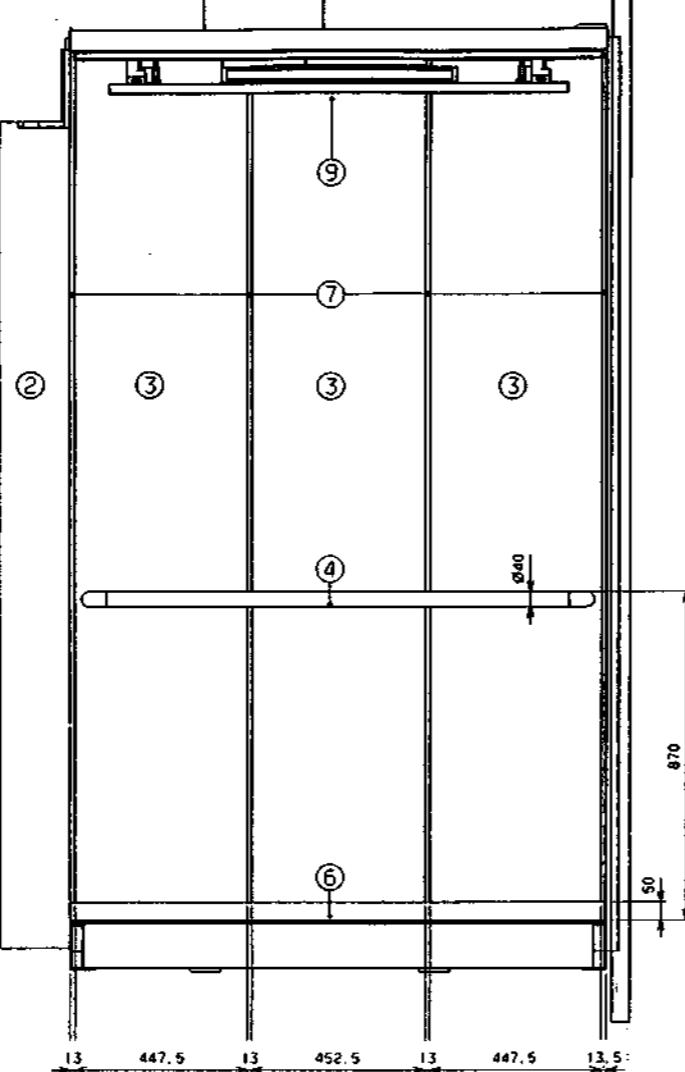
9654/01-03/1
9654/01 03/2
9654/01-03/3

GENERAL NOTES / ITEMS (CONT.)		PLANNING NOTES (P)	
-	-	8 - to be performed or delivered by Thyssen	8 - Lieferung durch Thyssen
-	-	9 - to be performed or delivered by Thyssen	9 - Lieferung von Thyssen
-	-	10 - to be delivered by Thyssen Lifts & Escalators directly	10 - Lieferung von Thyssen Lifts & Escalators direkt
MACHINE ROOM		INTERIOR SPACE	
-	-	11 - heating, ventilation, cooler, airconditioning of the machine room to maintain a temperature between +5°C and +30°C during lift operation the heat output is approx. 1600W/kW per lift	11 - Zusätzliche Raumheizanlage +5°C bis +30°C für Kühlung und Wärmeabfuhr während der Aufzugbetrieb mit einer Wärmeabgabe von ca. 1600W/kW pro Aufzug.
-	-	12 - power supply to the entire switch	12 - jeder Aufzug erfordert eine getrennte Einspeisung nach Maßnahmen und Leistungswerten unterschiedlich
The horizontal and vertical steel shell will contain control stations etc. either right (L) or left (R)	-	13 - fire protection and fireproofing of switch and control cabinet	13 - Feuerwiderstand und Feuerfestigkeit des Schalt- und Steuerkabinetts sind unerlässlich
Switches for fire and emergency lighting	1	14 - switches for firebreaker and firestop sealing	14 - Schalter für Feuerbrecher und Feuerstoppen
Emergency control	2	15 - lighting	15 - Beleuchtung
Resisting pedestrian way P max = 16 kN/cm² and -inch load	3	16 - mounting brackets for cables for firestop sealing	16 - Montagehalterungen für Kabel zur Feuerstoppenabdichtung
Frame	4	17 - drive mechanism	17 - Triebwerkserkennung
Lighting for machine room	5	18 - sealing of firestop areas	18 - Abdichtung Feuerstoppenbereiche
Outer panel 100 x 100 x 50 mm (LxWxH) - with option insulation	6	19 - emergency phone 100 x 100 x 50 mm (LxWxH)	19 - Notruftelefon 100 x 100 x 50 mm (LxWxH)
1.000 to the machine room but 1.900 x 2.000 mm clear opening		20 - firestop area from 1900 to 2000 mm height opening	20 - Feuerstoppenbereich von 1900 bis 2000 mm hohe Öffnung
1.500		21 - smoke extraction	21 - Rauchentzehrung
1. Distance of machine ceiling according to static calculation	6	22 - doors of the service staircase noch statische Berechnung	22 - Türen der Service-Treppen noch statische Berechnung
2. Installation of the shaft by a mechanical opening below the ceiling or to an independent duct through the machine room	7	23 - firestop installation along with a prefabricated fitting under the service staircase and through an open underground shaft through the firestop barrier	23 - Feuerstoppenabdichtung entlang einer vorgefertigten Fuge unter der Service-Treppe und durch einen unterirdischen Schacht durch den Feuerstopper
3. Resisting test for P max = 5 kN below shaft ceiling	8	24 - cable tray under staircase for P max = 5 kN weight	24 - Kabeltrasse unter Treppenstiege für P max = 5 kN Traglast
Counterweight screen	9	25 - firestop classification	25 - Feuerstoppenklassifizierung
Spurler units	10	26 - ground connection	26 - Erdungsleitung
Accessories (see technical section)	11	27 - intermediate insulation points	27 - Zwischenabschaltstellen
Type HTA 40/22:	12	28 - type HTA 40/22:	28 - Typ HTA 40/22:
1 - length 750 mm-HTA 40/22 DUE to cost	13	29 - 1. Length 750 mm-HTA 40/22	29 - 1. Länge 750 mm-HTA 40/22
2 - length 1000 mm-HTA 40/22 DUE to cost	14	29 - 2. Length 1000 mm-HTA 40/22	29 - 2. Länge 1000 mm-HTA 40/22
3 - length 1250 mm-HTA 40/22 DUE to cost	15	29 - 3. Length 750 mm-HTA 40/22	29 - 3. Länge 750 mm-HTA 40/22
4 - length 1500 mm-HTA 40/22 DUE to cost	16	29 - 4. Length 1000 mm-HTA 40/22	29 - 4. Länge 1000 mm-HTA 40/22
5 - length 1225 mm-HTA 40/22 DUE to cost	17	29 - 5. Length 1225 mm-HTA 40/22	29 - 5. Länge 1225 mm-HTA 40/22
6 - length 600 mm-HTA 40/22 DUE to cost	18	29 - 6. Length 600 mm-HTA 40/22	29 - 6. Länge 600 mm-HTA 40/22
7 - length 2000 mm-HTA 40/22 DUE to cost	19	29 - 7. Length 2000 mm-HTA 40/22	29 - 7. Länge 2000 mm-HTA 40/22
Supply Powering and cleaning		30 - delivery Entfernung und Reinigen	30 - Entfernung und Reinigen
Lighting for shaft		31 - shaft lighting	31 - Schachttbeleuchtung
Notes: ask for each floor to enable the customer to set the priorities in relation to the finished floor	32	32 - hoistways in the same staircase, against the traffic pattern binding and off	32 - Hebelelemente in derselben Stiege, gegen die Verkehrspfeile gebunden und ab
Comments for position indicator with gang	33	33 - assembly for standstill indicator at Gang	33 - Montage für Standstillanzeige am Gang
Comments for direction indicator with gang	34	34 - assembly for hold position box	34 - Montage für Haltepositionskasten
Comments for bus buffer box	35	35 - floor leveling	35 - Nivellierung
Architectures	36	36 - integration of firestop and hoistway insulation	36 - Eingliederung der Feuerstoppen und Hebelelementabschaltstellen
See P2 drawing: back-left architrave and base plate over section G-1	37	37 - traverse	37 - Treppenlauf
Dividing beam (27mm A-S-C)	38	38 - safety door	38 - Sicherheitstor
Doors to store	39	39 - hoistway entrance	39 - Aufzugseingang
Electrical plan: information about location by priority	40	40 - hoistway access to fire escape via PEL	40 - Aufzugseingang nach Absprache mit PEL
Lift well & motor room sockets with RCD	41	41 - steel plates in shafts and firestop areas	41 - Stahlplatten im Schacht und Feuerstoppenbereichen
Insulation of the door wells (please protect)		42 - firestop sealing	42 - Feuerstoppenabdichtung
All walls to be painted		43 - firestop sealing	43 - Feuerstoppenabdichtung
all opening to be sealed as well as ceilings and floors the other	44	44 - firestop sealing	44 - Feuerstoppenabdichtung
ceilings recessed max. 25 mm	45	45 - firestop sealing	45 - Feuerstoppenabdichtung
dimensions must be finished dimensions with dimensions given rounded	46	46 - firestop sealing	46 - Feuerstoppenabdichtung
dimensions in mm	47	47 - firestop sealing	47 - Feuerstoppenabdichtung
Wetting precision has to be carried out entirely according to local laws	48	48 - firestop sealing	48 - Feuerstoppenabdichtung
Insulation of the door wells		49 - firestop sealing	49 - Feuerstoppenabdichtung
LASTEN IM MACHINENRAUM		50 - firestop sealing	50 - Feuerstoppenabdichtung
net 205 dynamic loads	51	51 - firestop sealing	51 - Feuerstoppenabdichtung
- especially floor cross-section through - number of floors on HR floor	52	52 - firestop sealing	52 - Feuerstoppenabdichtung
-	53	53 - firestop sealing	53 - Feuerstoppenabdichtung
distributed load in the machine room 5 t/m²	54	54 - firestop sealing	54 - Feuerstoppenabdichtung
LASTEN IM SCHAFTRAUMLAND		55 - firestop sealing	55 - Feuerstoppenabdichtung
net 205 dynamic loads	56	56 - firestop sealing	56 - Feuerstoppenabdichtung
-	57	57 - firestop sealing	57 - Feuerstoppenabdichtung
-	58	58 - firestop sealing	58 - Feuerstoppenabdichtung
-	59	59 - firestop sealing	59 - Feuerstoppenabdichtung
-	60	60 - firestop sealing	60 - Feuerstoppenabdichtung
LASTEN AUF DOL. SCHAFTRAUMDACH		61 - firestop sealing	61 - Feuerstoppenabdichtung
-	62	62 - firestop sealing	62 - Feuerstoppenabdichtung
-	63	63 - firestop sealing	63 - Feuerstoppenabdichtung
-	64	64 - firestop sealing	64 - Feuerstoppenabdichtung
-	65	65 - firestop sealing	65 - Feuerstoppenabdichtung
-	66	66 - firestop sealing	66 - Feuerstoppenabdichtung
LASTEN AUF DOL. SCHAFTRAUMWAND		67 - firestop sealing	67 - Feuerstoppenabdichtung
-	68	68 - firestop sealing	68 - Feuerstoppenabdichtung
-	69	69 - firestop sealing	69 - Feuerstoppenabdichtung
-	70	70 - firestop sealing	70 - Feuerstoppenabdichtung
LASTEN AUF DOL. SCHAFTRAUMFLOOR		71 - firestop sealing	71 - Feuerstoppenabdichtung
-	72	72 - firestop sealing	72 - Feuerstoppenabdichtung
-	73	73 - firestop sealing	73 - Feuerstoppenabdichtung
-	74	74 - firestop sealing	74 - Feuerstoppenabdichtung
-	75	75 - firestop sealing	75 - Feuerstoppenabdichtung
LASTEN AUF DOL. SCHAFTRAUMWALL		76 - firestop sealing	76 - Feuerstoppenabdichtung
-	77	77 - firestop sealing	77 - Feuerstoppenabdichtung
-	78	78 - firestop sealing	78 - Feuerstoppenabdichtung
-	79	79 - firestop sealing	79 - Feuerstoppenabdichtung
LASTEN AUF DOL. SCHAFTRAUMCEILING		80 - firestop sealing	80 - Feuerstoppenabdichtung
-	81	81 - firestop sealing	81 - Feuerstoppenabdichtung
-	82	82 - firestop sealing	82 - Feuerstoppenabdichtung
-	83	83 - firestop sealing	83 - Feuerstoppenabdichtung
-	84	84 - firestop sealing	84 - Feuerstoppenabdichtung
-	85	85 - firestop sealing	85 - Feuerstoppenabdichtung
FOR CONSTRUCTION		86 - firestop sealing	86 - Feuerstoppenabdichtung
Carlton Gardens, London		87 - firestop sealing	87 - Feuerstoppenabdichtung
SUS1600		88 - firestop sealing	88 - Feuerstoppenabdichtung
THYSSEN AUFZÜGE		89 - firestop sealing	89 - Feuerstoppenabdichtung
3 Passenger Lifts		90 - firestop sealing	90 - Feuerstoppenabdichtung
Capacity 1250 kgs		91 - firestop sealing	91 - Feuerstoppenabdichtung
Speed 1.6 m/s		92 - firestop sealing	92 - Feuerstoppenabdichtung

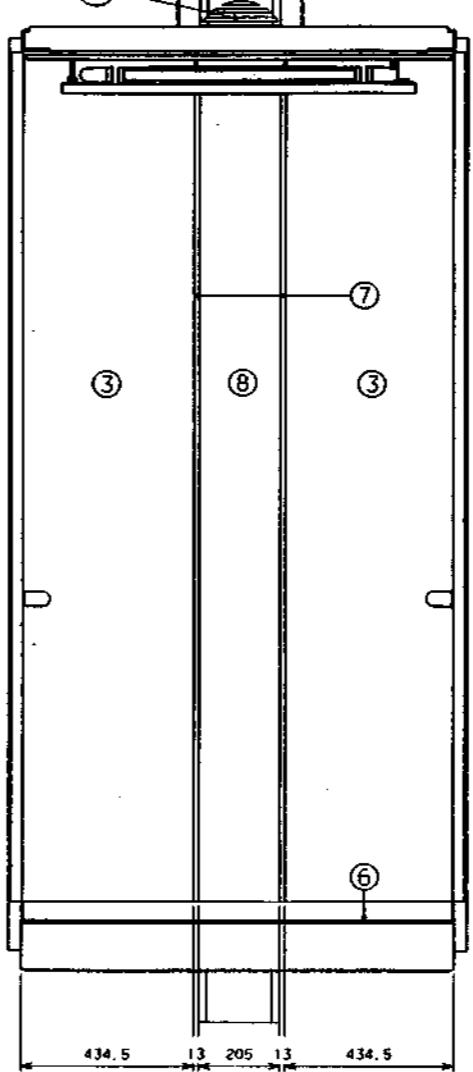
Car Front Wall



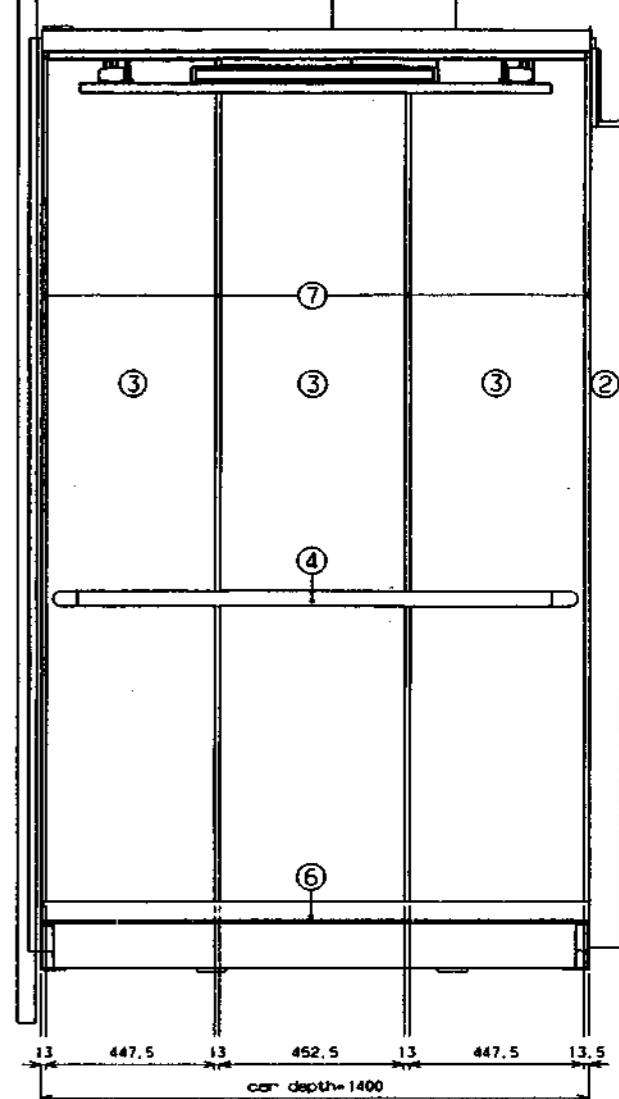
Car Left Wall



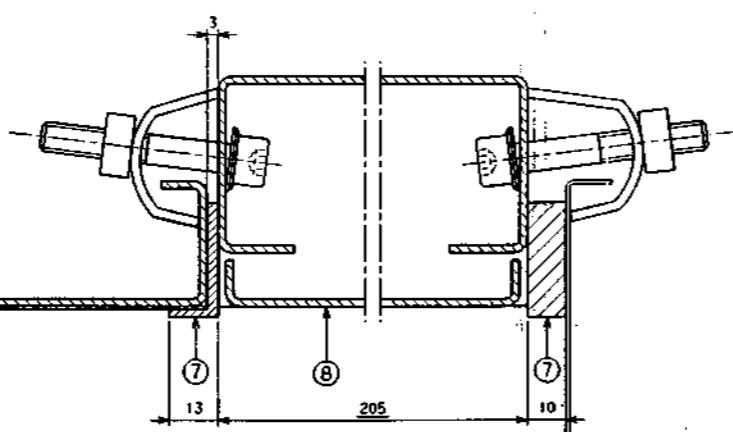
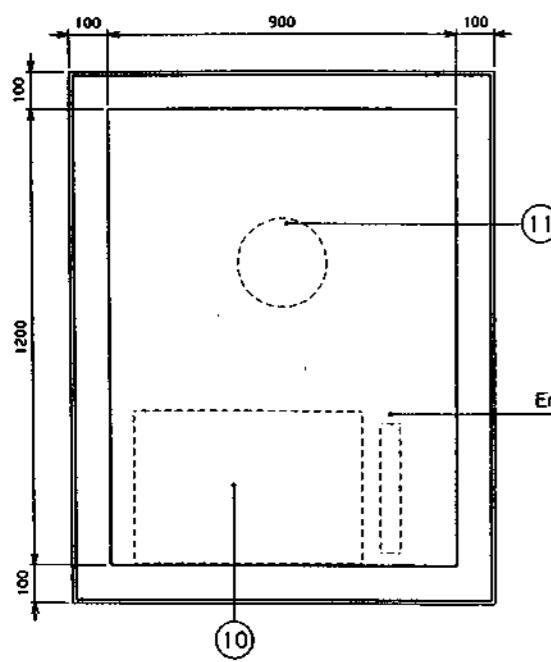
Car Back Wall



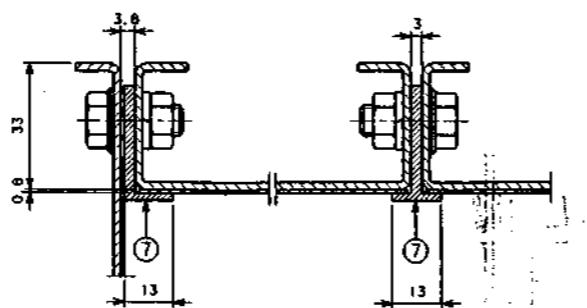
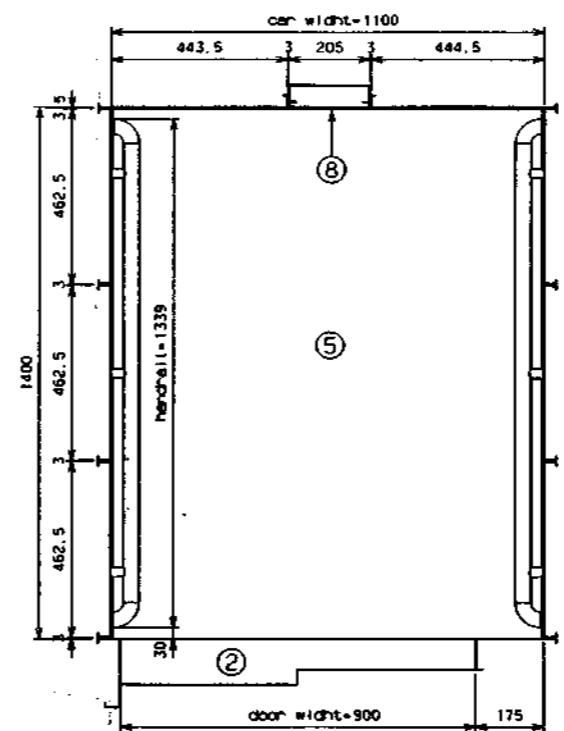
Car Right Wall



Car Ceiling

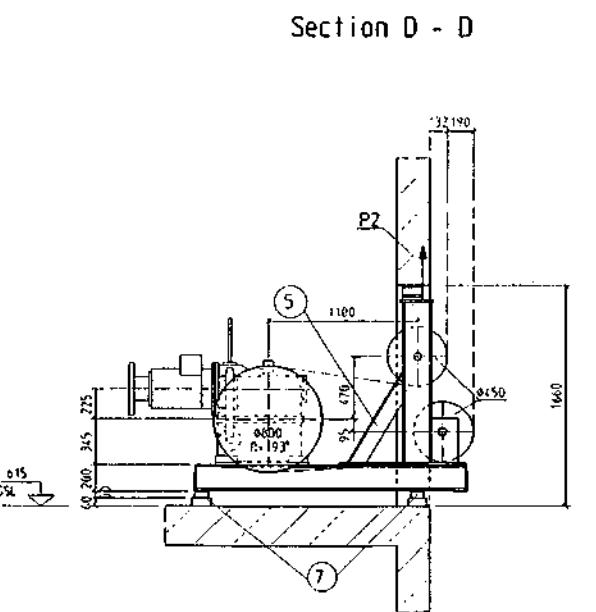
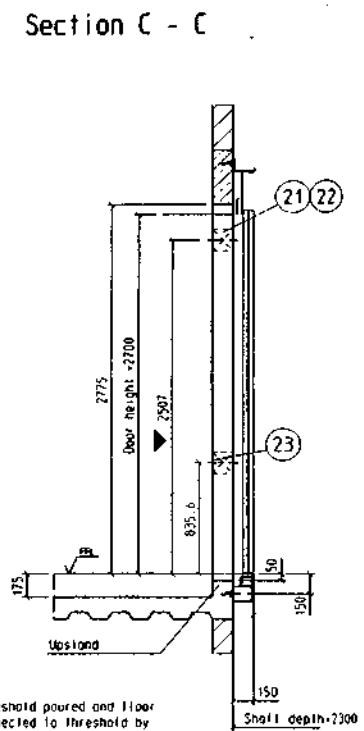
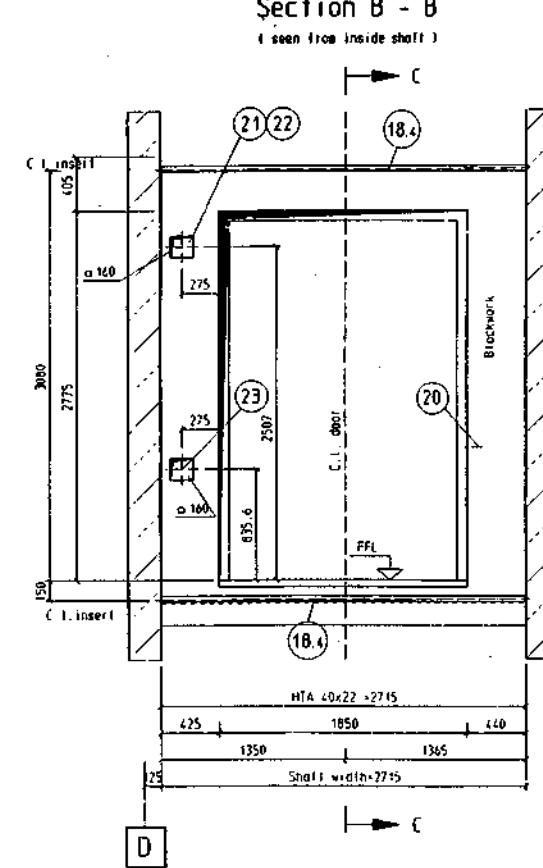


Car Floor



AS BUILT

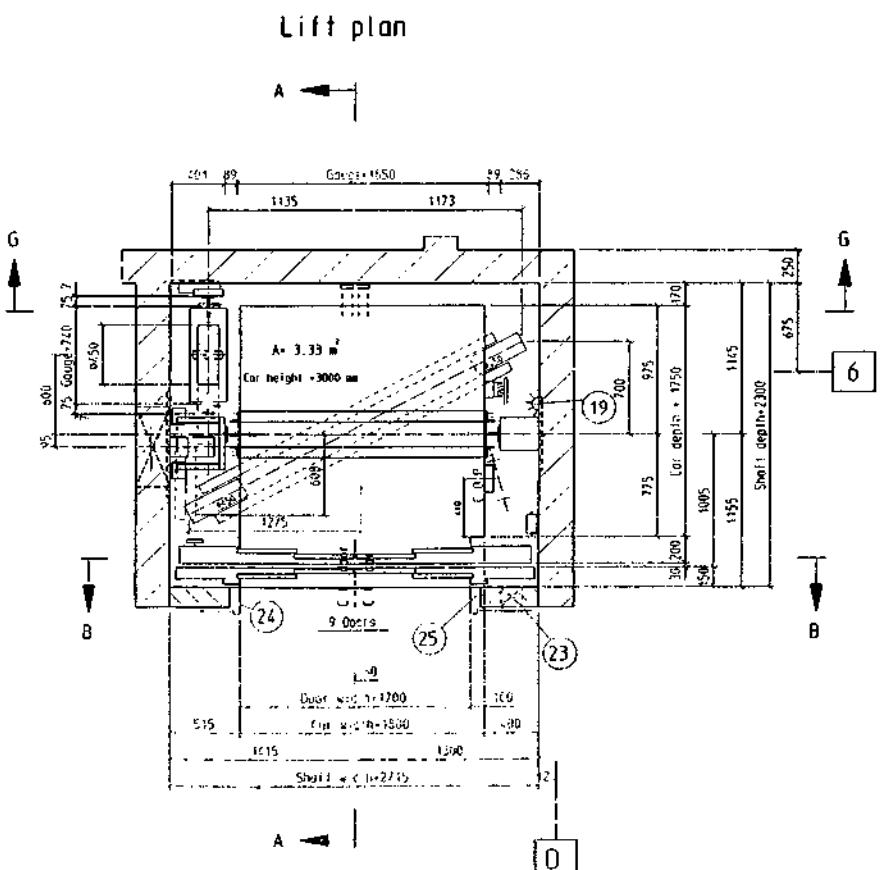
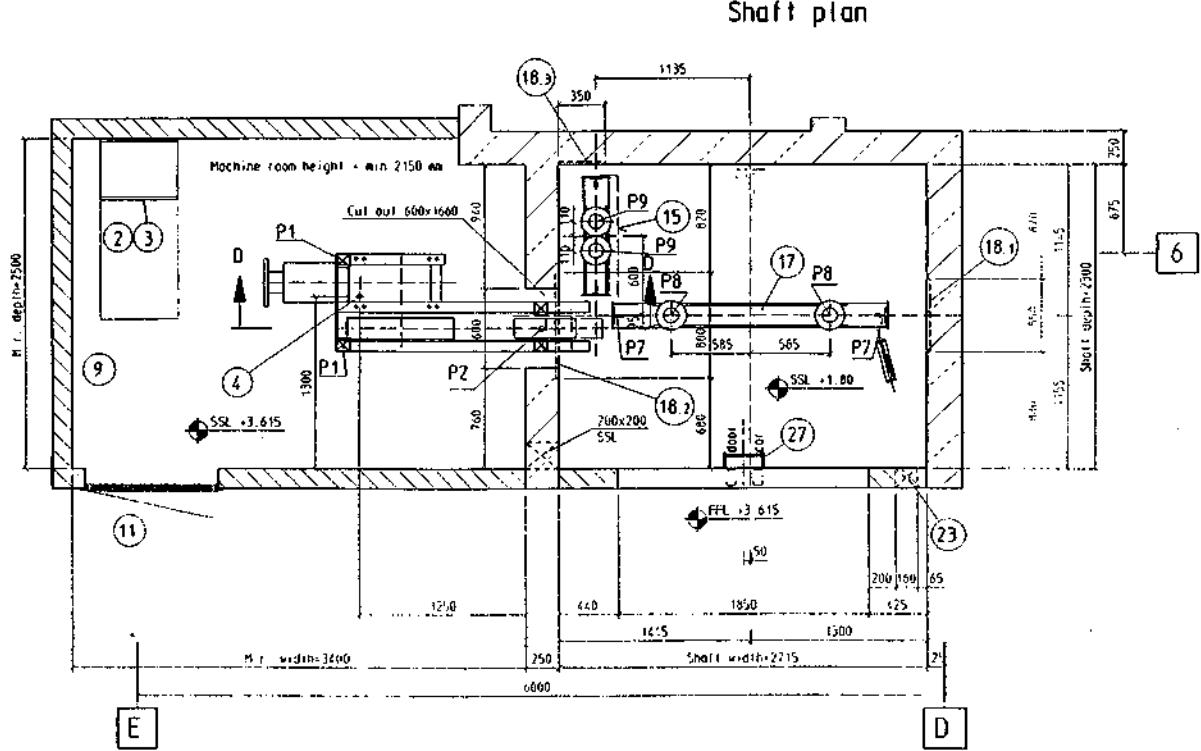
Fan	
11	Ventilator
10	Acces hatch with contact
9	Einstiegklappe mit Kontakt
8	Suspended ceiling C2 painted RAL 9010, with Emergency
7	ZV-Decke C2 lackiert RAL 9010, mit Notleuchte
6	Car operating panel : stainless steel, grain 240
5	I- Lamelle : Edelstahl, Korn 240
4	Aluminium rand anodized EV6, black
3	Alu-Keder eloxiert EV6, schwarz
2	Skirting : stainless steel, grain 240
1	Sockelleiste 50 mm : Edelstahl, Korn 240
	Flooring mat. NORAMENT 5mm . grey
	Bodenbelag NORAMENT 5mm, grau
	Hand rail Ø 40 mm : stainless steel, brushed
	Car walls : stainless steel, Krupp des. LEINEN D25
	Kabinenwände : Edelstahl,Krupp-Des. LEINEN D25
	Car front wall : stainless steel, Krupp des. LEINEN D25
	Kabinenportal : Edelstahl,Krupp-Des. LEINEN D25
	Car door : stainless steel, Krupp des. LEINEN D25
	Fahrkorbtür : Edelstahl,Krupp-Des. LEINEN D25
Material / material	
Datenblatt / Datenblatt	
Zeichnungs-Nr. / Zeichnungs-Nr.	
Dok. Nr. / Dok. Nr.	
Zeichnungs-Nr. / Zeichnungs-Nr.	
Titel / Titel	
Car drawing	
69654/04/	
Car drawing	
P2000	
29994122_ZB Fahrkorb P2000 alt 02	
A	
THYSSEN ALFZIGE	
Rev. 1	



Loads on the guide rails

Car guide rail T 127-2/B
Cut guide rail T 90/B
Fixation of guide rails 2000 mm

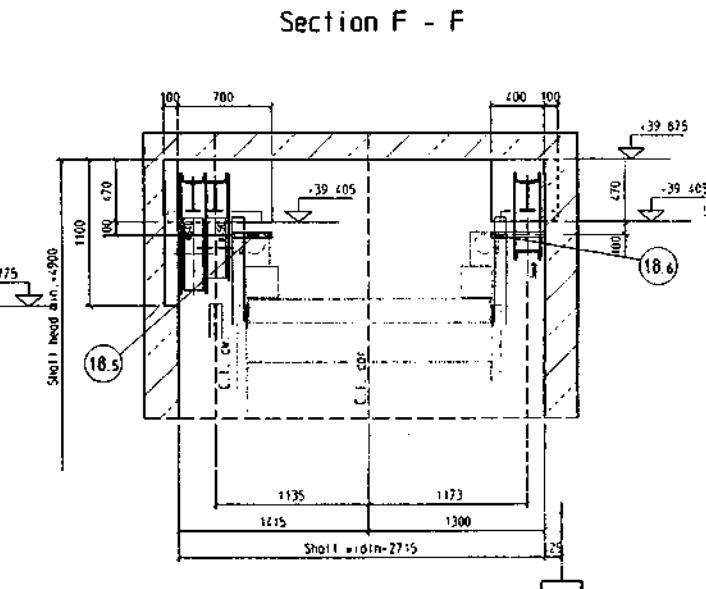
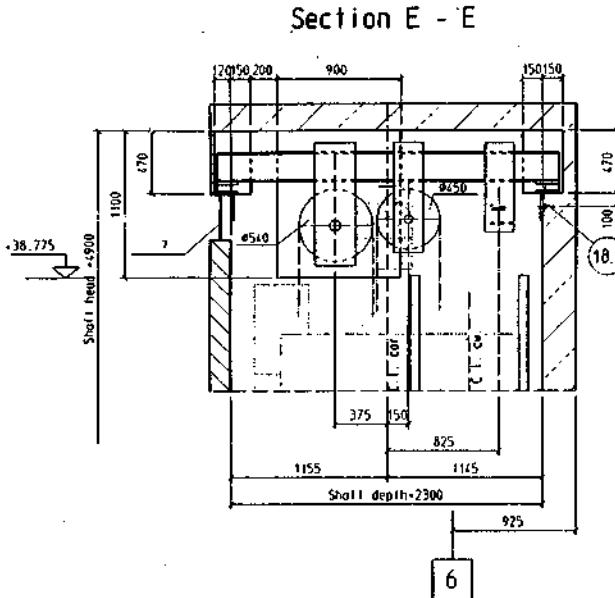
Machine room plan ①⑥



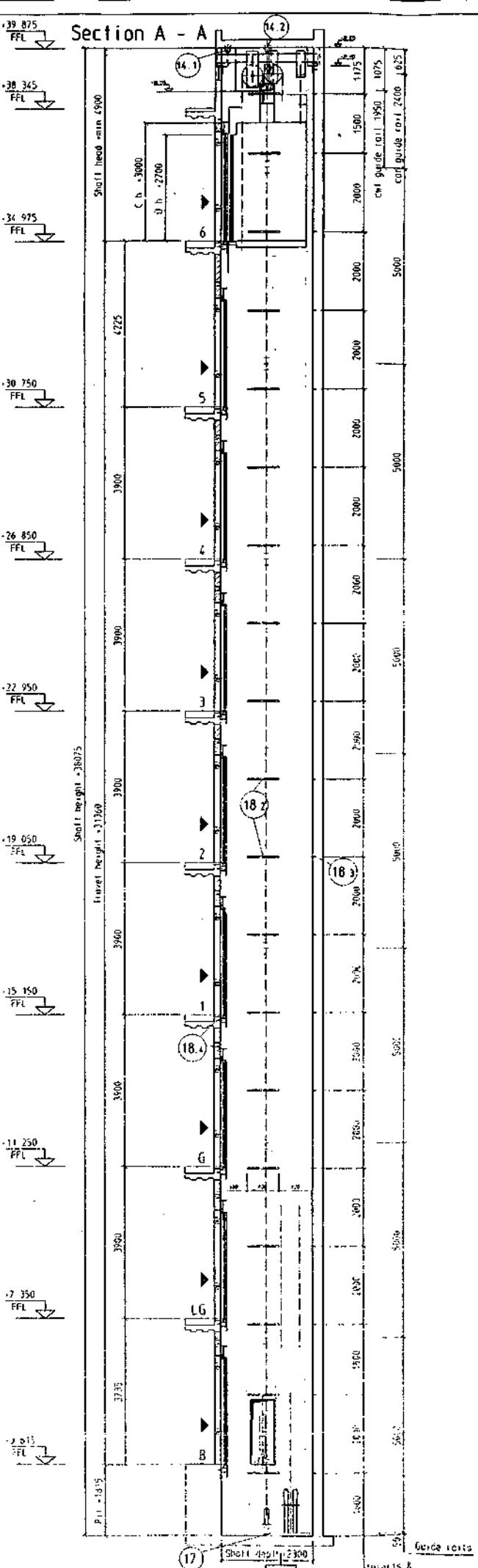
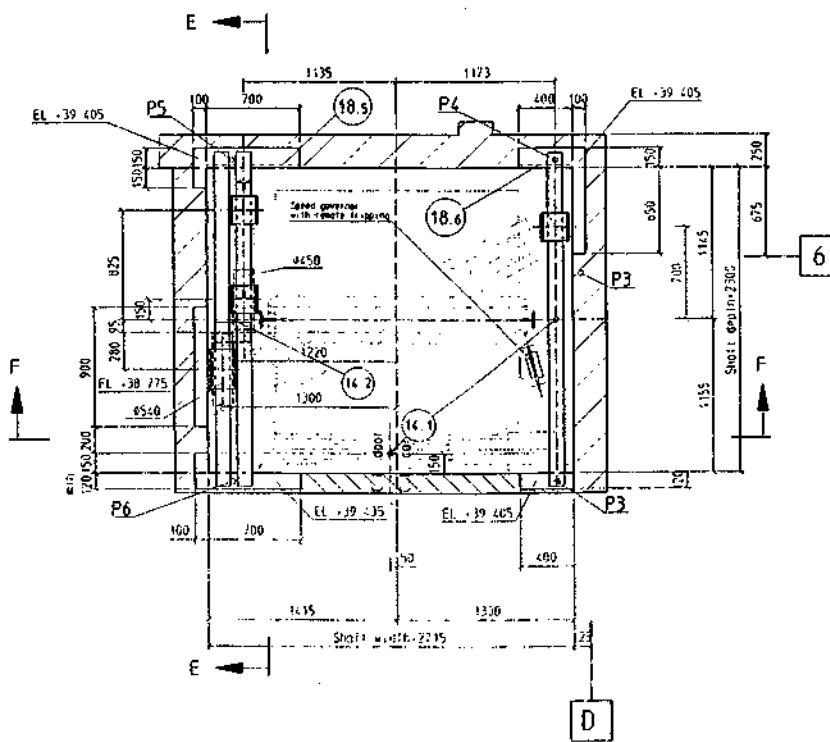
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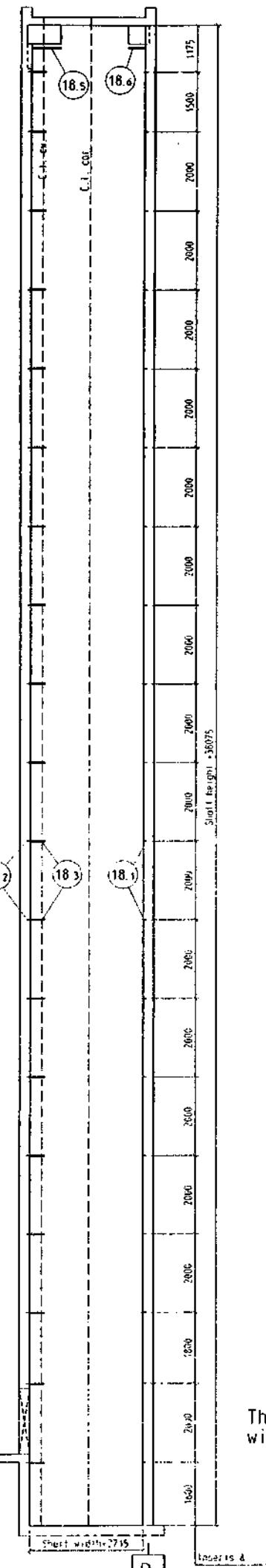
GENERAL NOTES (CONT.)		PLANNING INFORMATION	
GIC - to be performed or supervised by others		B - levelling, bedding	
GIC - to be performed or supervised by Thyssen		C - levelling, setting out, Thyssen	
GIC - to be delivered by Thyssen Lifts & Escalators		D - delivery from Thyssen Lifts & Escalators	
(factory)		E - delivery from Thyssen Lifts & Escalators	
MACHINE ROOM		TRIEBWERKSPRINZIPIEN	
1. Heating, ventilation, smoke extraction/airflow of the machine room to maintain a temperature between +5° and +40° C		1. Temperatur- und Feuchtigkeitsregulation	
During lift operation on the nest - output is approx. 1600W/kW per lift		2. Heizung, Lüftung, Rauchabzug	
GIC		3. Aufzugsantrieb	
Power supply to the main service		4. Temperatur- und Feuchtigkeitsregulation	
GIC		5. Feuerlöscher	
The following and respective items shall not contain cables, devices etc. which may set the fire		6. Brandmeldeanlage	
2. Searches for fire and emergency lighting		7. Brandmeldeanlage	
GIC		8. Feuerlöscher	
3. Fire control		9. Brandmeldeanlage	
4. Heating, dehumidification for Pads - 25 kW		10. Feuerlöscher	
indirect heat		11. Brandmeldeanlage	
5. Frame		12. Feuerlöscher	
6. Lighting for machine room		13. Brandmeldeanlage	
GIC		14. Feuerlöscher	
7. Rubber pads, 100 x 300 x 30		15. Brandmeldeanlage	
8. Anti-vibration isolators		16. Feuerlöscher	
9. Braking at least 60 cm deep on the floor		17. Brandmeldeanlage	
for moving of the lift equipment, covered with steel plate (padding a person weight)		18. Feuerlöscher	
10. Door to the machine room		19. Brandmeldeanlage	
min. 1000 x 2000 mm clear opening		20. Feuerlöscher	
NO STUDY		21. Brandmeldeanlage	
11. Thickness of insulating ceiling according to stated calculation		22. Feuerlöscher	
12. Ventilation of the shaft as a weatherproof opening below the ceiling or on the roof		23. Brandmeldeanlage nach statischer Berechnung	
13. Ventilation of the shaft as a weatherproof opening below the ceiling or on the roof		24. Anforderungen an die Schachtabdeckung	
14. Height over below gross ceiling		25. Anforderungen an die Schachtabdeckung	
15. 1 for Pads = 5.00		26. Anforderungen an die Schachtabdeckung	
16. 2 for Pads = 10.00		27. Anforderungen an die Schachtabdeckung	
17. Counterweight screen		28. Anforderungen an die Schachtabdeckung	
18. Buffer unit		29. Anforderungen an die Schachtabdeckung	
19. Anchors in shaft foundation		30. Anforderungen an die Schachtabdeckung	
Type: 40/22.		31. Anforderungen an die Schachtabdeckung	
10.1 length: 550 mm-WL 40/22 GIC to cover in		32. Anforderungen an die Schachtabdeckung	
10.2 length: 800 mm-WL 40/22 GIC to cover in		33. Anforderungen an die Schachtabdeckung	
10.3 length: 950 mm-WL 40/22 GIC to cover in		34. Anforderungen an die Schachtabdeckung	
10.4 length: 2700 mm-WL 40/22 GIC to cover in		35. Anforderungen an die Schachtabdeckung	
10.5 length: 700 mm-WL 40/22 GIC to cover in		36. Anforderungen an die Schachtabdeckung	
10.6 length: 4000 mm-WL 40/22 GIC to cover in		37. Anforderungen an die Schachtabdeckung	
Safety		38. Anforderungen an die Schachtabdeckung	
Cleaning and cleaning		39. Anforderungen an die Schachtabdeckung	
40. Lighting for shaft		41. Anforderungen an die Schachtabdeckung	
41. Water work at each stage to enable the listed to set the doorframe in relation to the finished floor		42. Anforderungen an die Schachtabdeckung	
42. Cutouts for platform indicator with going		43. Anforderungen an die Schachtabdeckung	
44. Cutouts for platform indicator with going		45. Anforderungen an die Schachtabdeckung	
46. Anchors		46. Anforderungen an die Schachtabdeckung	
47. Cleaning in the door frame and thresholds		47. Anforderungen an die Schachtabdeckung	
48. Cleaning in the door frame and thresholds		48. Anforderungen an die Schachtabdeckung	
49. Cleaning in the door frame and thresholds		49. Anforderungen an die Schachtabdeckung	
50. Cleaning in the door frame and thresholds		51. Anforderungen an die Schachtabdeckung	
52. Cleaning in the door frame and thresholds		52. Anforderungen an die Schachtabdeckung	
53. Cleaning in the door frame and thresholds		53. Anforderungen an die Schachtabdeckung	
54. Cleaning in the door frame and thresholds		55. Anforderungen an die Schachtabdeckung	
56. Cleaning in the door frame and thresholds		57. Anforderungen an die Schachtabdeckung	
58. Cleaning in the door frame and thresholds		58. Anforderungen an die Schachtabdeckung	
59. Cleaning in the door frame and thresholds		59. Anforderungen an die Schachtabdeckung	
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90. Cleaning in the door frame and thresholds		91. Anforderungen an die Schachtabdeckung	
92. Cleaning in the door frame and thresholds		93. Anforderungen an die Schachtabdeckung	
94. Cleaning in the door frame and thresholds		95. Anforderungen an die Schachtabdeckung	
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264. Cleaning in the door frame and thresholds		265. Anforderungen an die Schachtabdeckung	
266. Cleaning in the door frame and thresholds		267. Anforderungen an die Schachtabdeckung	
268. Cleaning in the door frame and thresholds			



Headroom plan



tion G - G

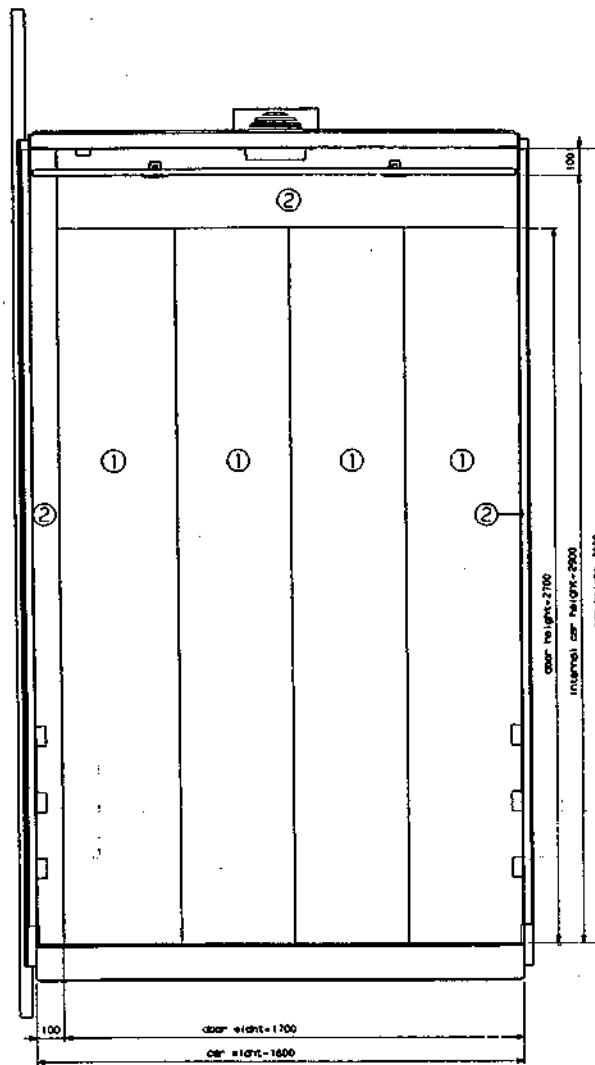


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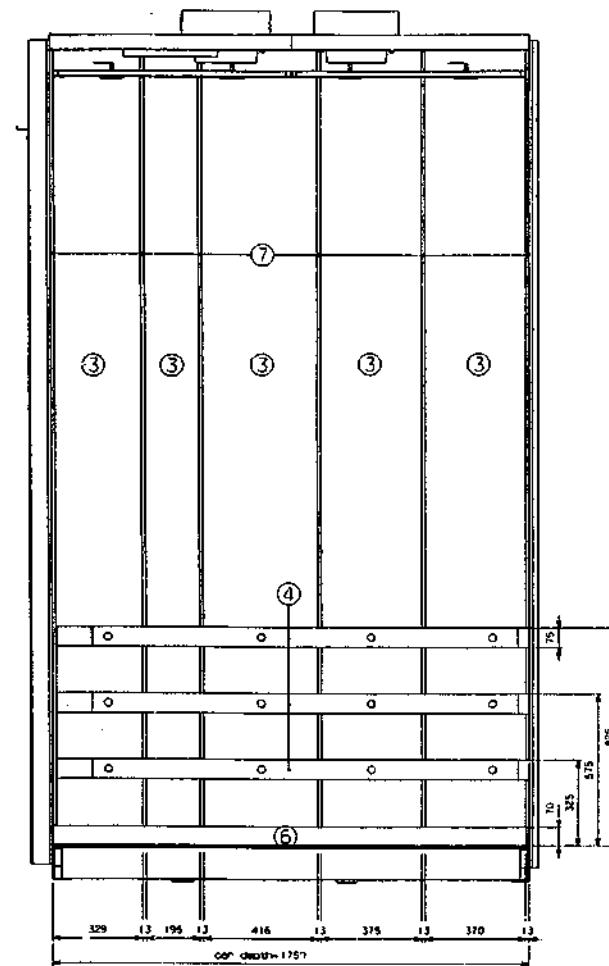
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GUIDELINES / NOTES (CONT.)		PLANNING NOTES (CONT.)	
D.2. To be performed or delivered by others		B - Testing, basic load	
D.3. To be performed or delivered by Thyssen		C - Testing of Thyssen lifts & escalators	
D.4. To be delivered by Thyssen Little & Escalators		D.E - Delivery of Thyssen lifts & escalators	
- specifically			
MACHINE ROOM		TRIEBWERKSRÄUM	
1. Heating, ventilation and/or air-conditioning at all the sections from 0 to maintain a temperature between +37° and +40° C. During lift operation the heat output is approx. 1600 kWh per day.		1. Zusätzliche Heizungsanlagen - 500 bis - 2000 Wärmeabgabe - möglichst leicht - mit freier Zuläufendecke oder unterhalb der Nutzdecke Bei- und Entlüftung ausreichend	
Power supply to the main switch		D.E	
The main switch and auxiliary items which are central control, services, etc. other than for the lift		Jeder Aufzug erhält eine getrennte Einführung zum Haupt- und Sonderstromkreis	
2. Switches for car and hoistway lighting		2. Schalter für Fahrzeug- und Schachtabteilbeleuchtung	
3. Lift control		3. Steuerung	
4. Housing prepared for Plass 25 kW resistor load		4. Montagevorbereitung für Plass 25 kW Widerstand	
5. Frame		5. Kippgeschwindigkeit	
6. Lighting for machine room		6. Beleuchtung Triebwerkraum	
7. Rubber pads 100 x 100 x 50 mm (10) - vibration isolation		7. Gummidämmteile 100 x 100 x 50 mm (10) Isolation	
8. Framing at least 40 mm deep in the lifting area starting at the lift equipment, covered with sheet steel numbering 4 persons weight		8. Rahmenmaß von 40 mm hoch im Fahrzeugschacht mit dem Aufzugsvorrichtungen abgedeckt mit blechbeschichteten Blättern	
9. Door to the machine room min. 1000 x 2000 mm clear opening		9. Triebwerkraumtür min. 1000 x 2000 mm freie Öffnung	
HOLDING SWING		SCHACHTRAUM	
10. Inclination of hoistway ceiling according to static calculations		10. Decke der Schachtabteile nach räumlicher Berechnung	
11. Protection of the shaft by a weatherproof spanning below the ceiling or by an independent duct through the machine room		11. Schachtabteilung durch eine wittertrockene Durchführung unter der Schachtabteile oder durch einen unabhängigen Schacht durch den Triebwerkraum	
12. Insulating eye bolts below ceiling		12. Isolierung unter Schachtabteile für H. 1 für Plass = 5.000 H. 2 für Plass = 10.000	
13. Fixation of the shaft by a weatherproof spanning below the ceiling or by an independent duct through the machine room		13. Isolierung unter Schachtabteile durch einen unabhängigen Schacht durch den Triebwerkraum	
14. Insulating eye bolts below ceiling		14. Isolierung unter Schachtabteile für H. 1 für Plass = 5.000 H. 2 für Plass = 10.000	
15. Counterweight screen		15. Gegengewichtsabdeckung	
16. Buffer unit		16. Stoßdämpfer	
17. Anchors units required/calc.		17. Ankerbewehrungen (Vorlängen)	
Type HFL 40/22:		18. 1. Länge 550 mm-HL 40/22 OHE zu rasten in 18. 2. Länge 800 mm-HL 40/22 OHE zu rasten in 18. 3. Länge 750 mm-HL 40/22 OHE zu rasten in 18. 4. Länge 2700 mm-HL 40/22 OHE zu rasten in 18. 5. Länge 700 mm-HL 40/22 OHE zu rasten in 18. 6. Länge 400 mm-HL 40/22 OHE zu rasten in	
Support		19. Schachtabteilung	
Embedding and cleaning		20. Herstellung in jedem Schachtabteil, apart die Fahrstuhlschächte und auf einer Höhe	
21. Lighting for shafts		21. Ausspülung für Stahldämmteile mit Gang	
22. Mirror depth at each floor to enable the tray to set the door dimensions in relation to the lift shaft floor		22. Ausspülung für Betonabtrennungen nach Gang	
23. Cut-outs for connection cablecar with gang		23. Ausspülung für Verbindungsleitung nach Gang	
24. Cut-outs for detection indicator with gang		24. Ausspülung für Antriebsmotor	
25. Cut-outs for both bottom box		25. Einbrüche der Turbinenwand und Motor- abstützungselementen	
26. Architectures		26.	
27. Embedding of the steel frame and architectures in concrete		27. Schachtabteile	
28. Fixing positions reinforcement after fixation by brackets		28. Montagepositionen nach Anbringen v.a. T-EL	
31. -made sheeting of the steel walls - plastic profiles		31. Blechbeschichtung der Schachtabteile an den Zugangsstellen	
Steel walls to be varnished		Schachtabteile müssen vorrätig sein	
Door opening to be shared as well as varicose one above the other. Deviations from the vertical max. ± 5°		Isotropische Wasser verhindern und garantieren überaus geringe Winkel Abweichung Anbrüche an den Schachtabteilen > 25 mm Alte Holze und Fertigholz Wasser und beschichtet Alte Holze < 40 mm	
All dimensions are in metric dimensions Rough dimensions are not allowed Art. dimensions are not allowed		Blechbeschichtungen und hoch qualifizierten Ver- schiffen als Basis - Hohe Erwartungen zuverlässigen.	
Lighting protections to be carried out by others according to local code			
Fireproof		Soundproof	
LOADS IN THE MACHINE ROOM		EASING IN TRIEBWERKSRÄUM	
P1 = 200 dynamic loads		Tension 200 dyn. Loslast	
P2 = potential load calculation through other parts on the floor		P1 = 100 m² Breitflansch über dem Fallboden	
P3 = -		P2 = 60 m² Anflansch nach unten weisende Vertikalfassade in Triebwerkraum 5 m hoch	
LOADS IN THE SHAFT HEAD		EASING IN SCHACHTRAUM	
P1 = 200 dynamic loads		Tension 200 dyn. Loslast	
P2 = 35 kN		P3 = 37 kN	
P3 = 13 kN		P4 = 35 kN	
P5 = 67 kN		P5 = 67 kN	
P6 = 6 kN		P6 = 6 kN	
LOADS ON THE PIT FLOOR		EASING AUF DEN SCHACHTGROBENBODEN	
P1 = 5200 Static load P2 = potential load calculation through other parts on the floor		P1 = 5200 Static load am Fahrstuhlgrobboden P2 = 1000 m² Breitflansch am Fahrstuhlgrobboden	
P3 = -		P3 = 1000 m² Durchgang durch Flur	
P4 = 600 kN		P4 = 600 m² quergeteilt Flur	
Light power supply 230 V / 16A 100 meters		Fassen P1 - P4 fassen nur gleichzeitig auf	
with neutral wire			
AS BUILT FOR CONSTRUCTION			
Carlton Gardens, London		Lift 5 Headroom & Elevation	
SUS1000		Goods/Passenger lift Capacity 1800 kgs	
Speed 1 m/s		Speed 1 m/s	
A THYSSEN AUFZÜGE		A THYSSEN AUFZÜGE	

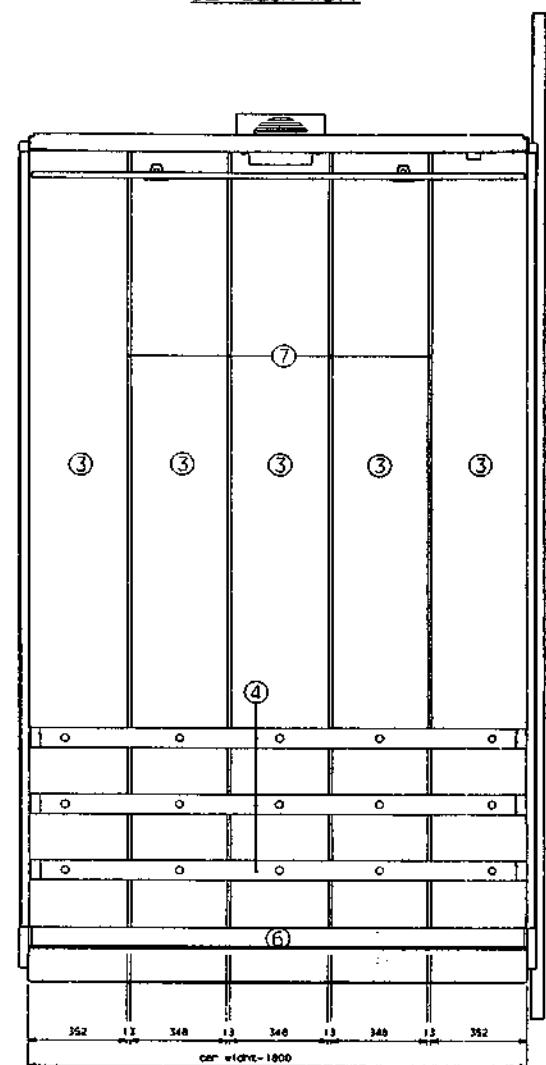
Car front wall



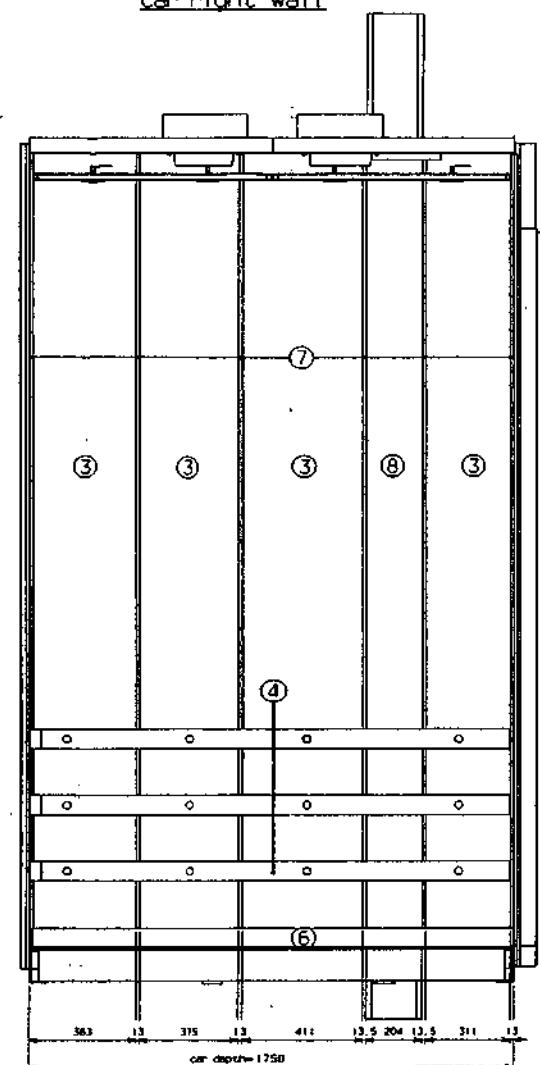
Car left wall



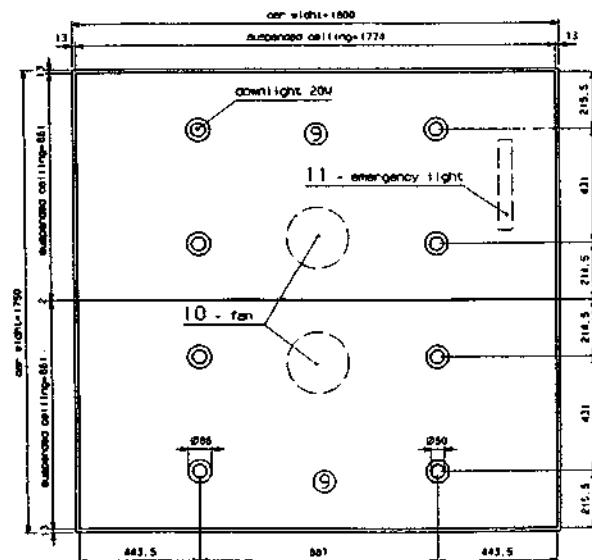
Car back wall



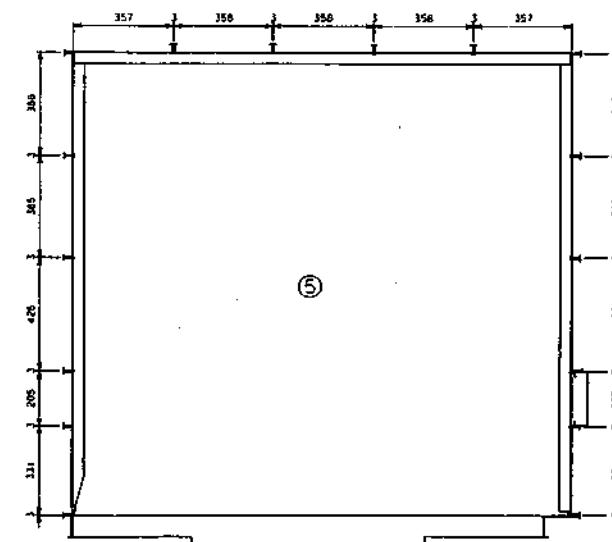
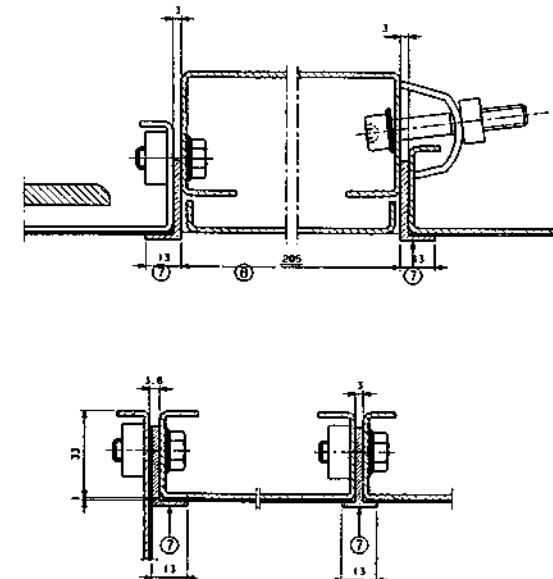
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Car ceiling

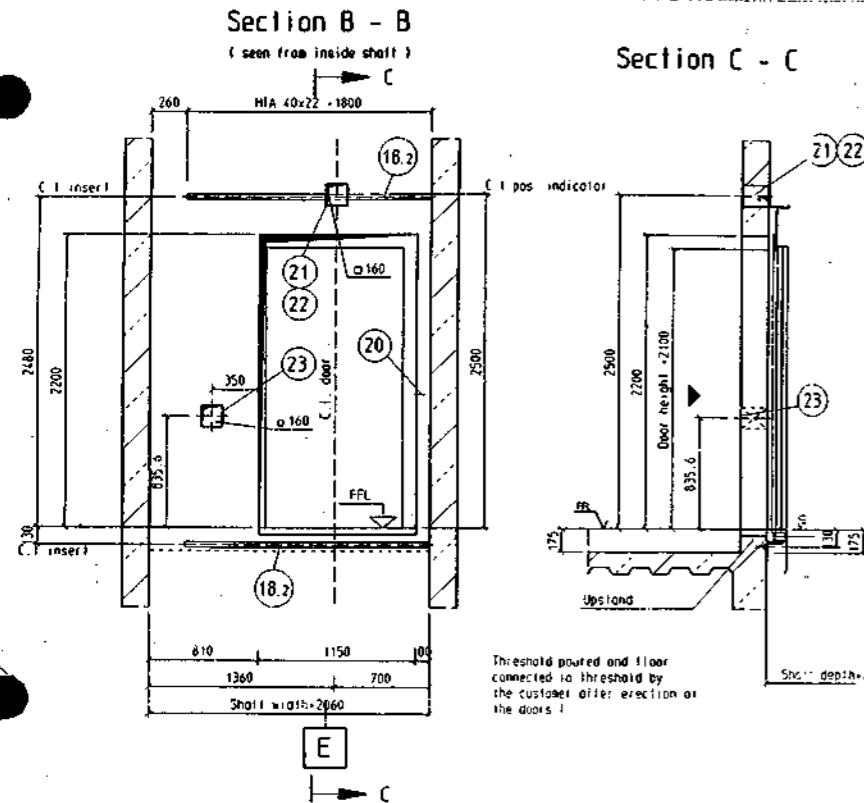


Car floor



AS BUILT

1 reverse



Section B - B

(seen from inside shaft)

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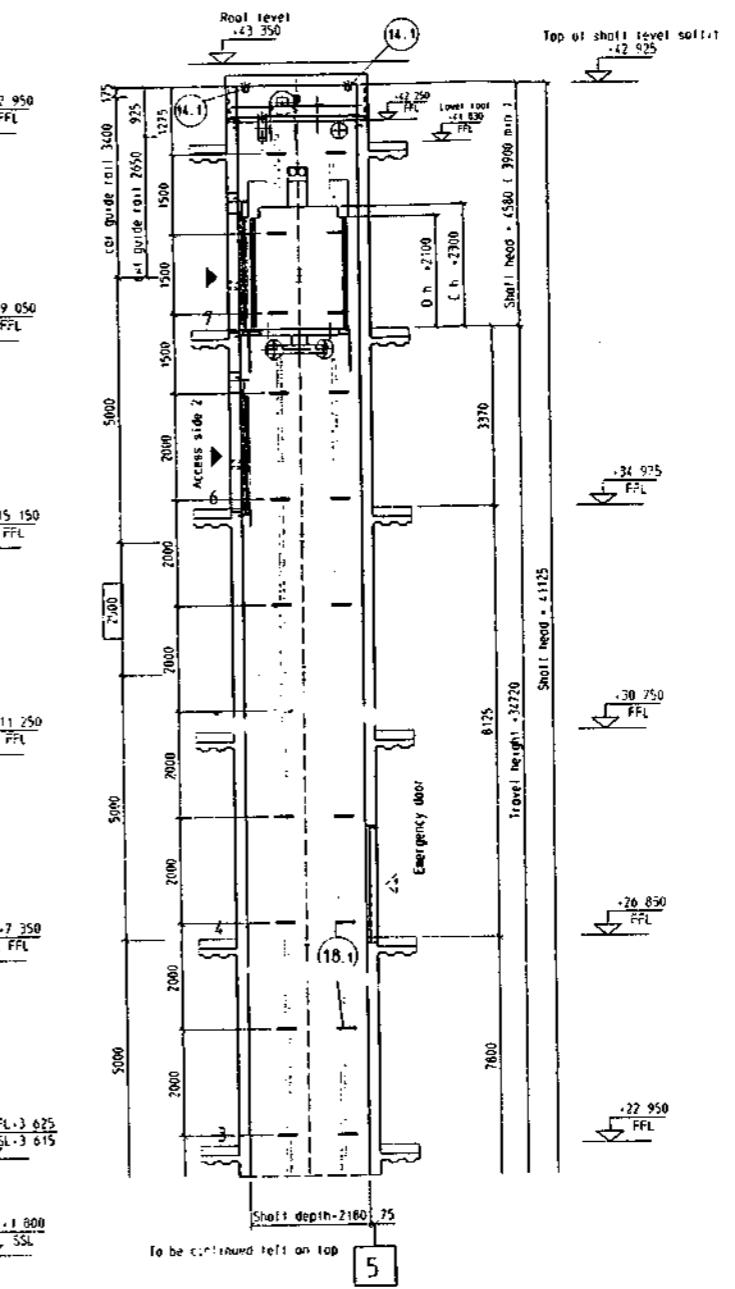
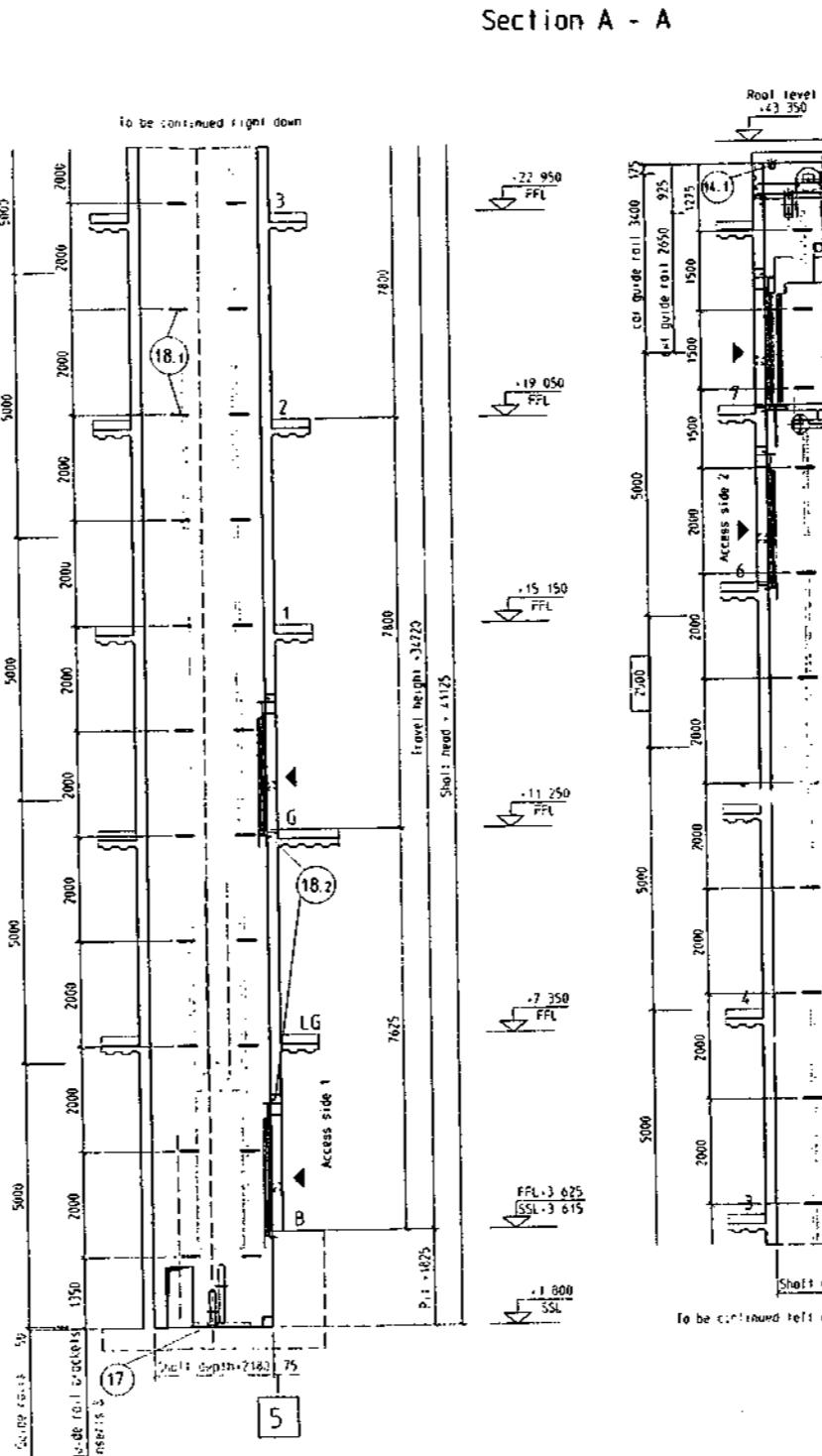
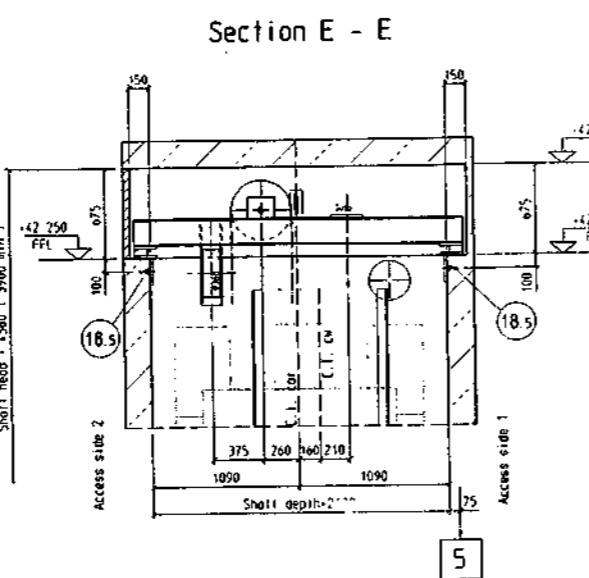
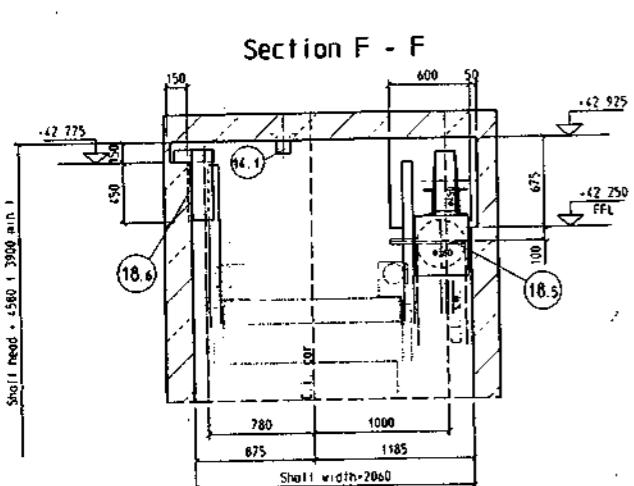
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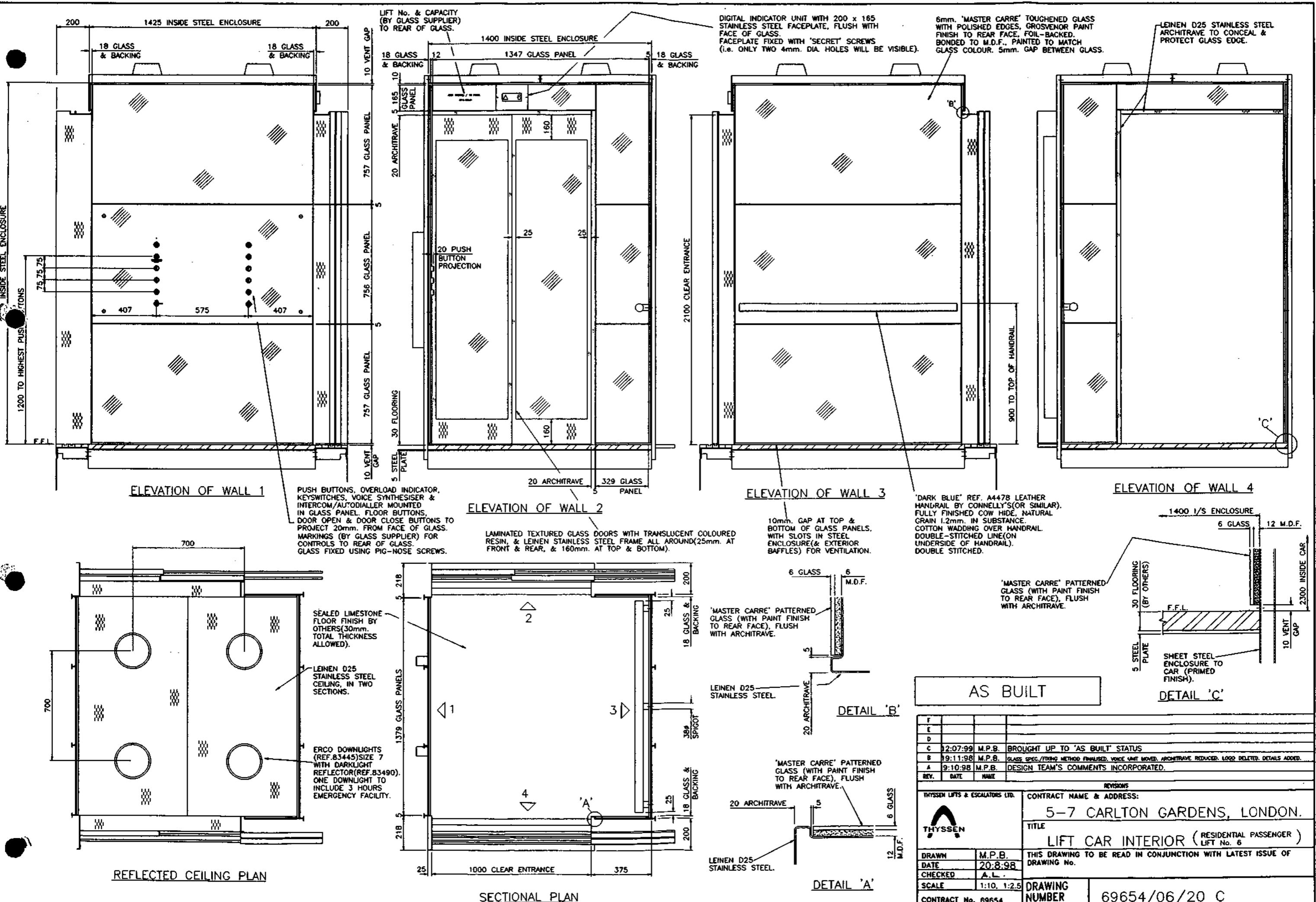
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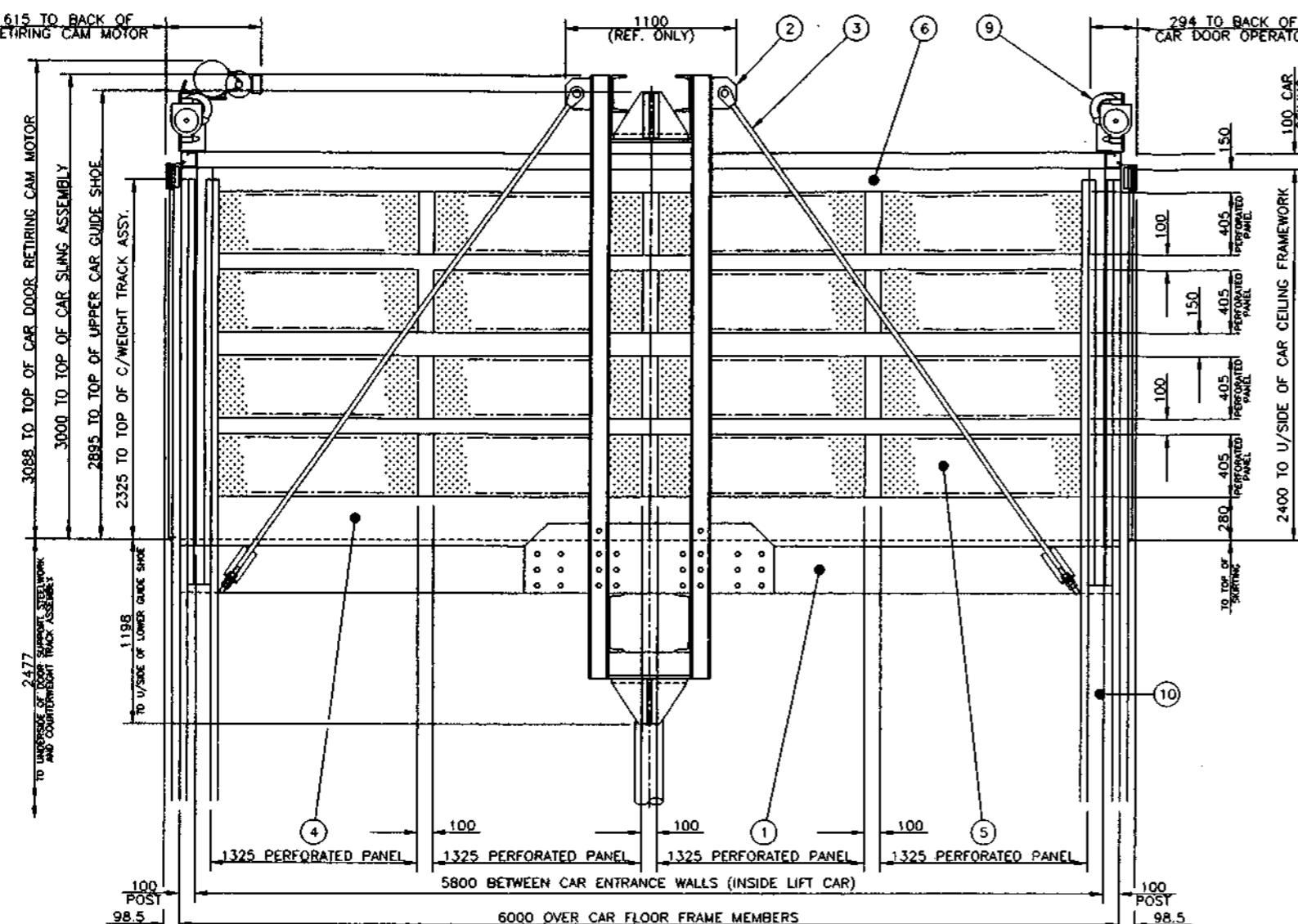


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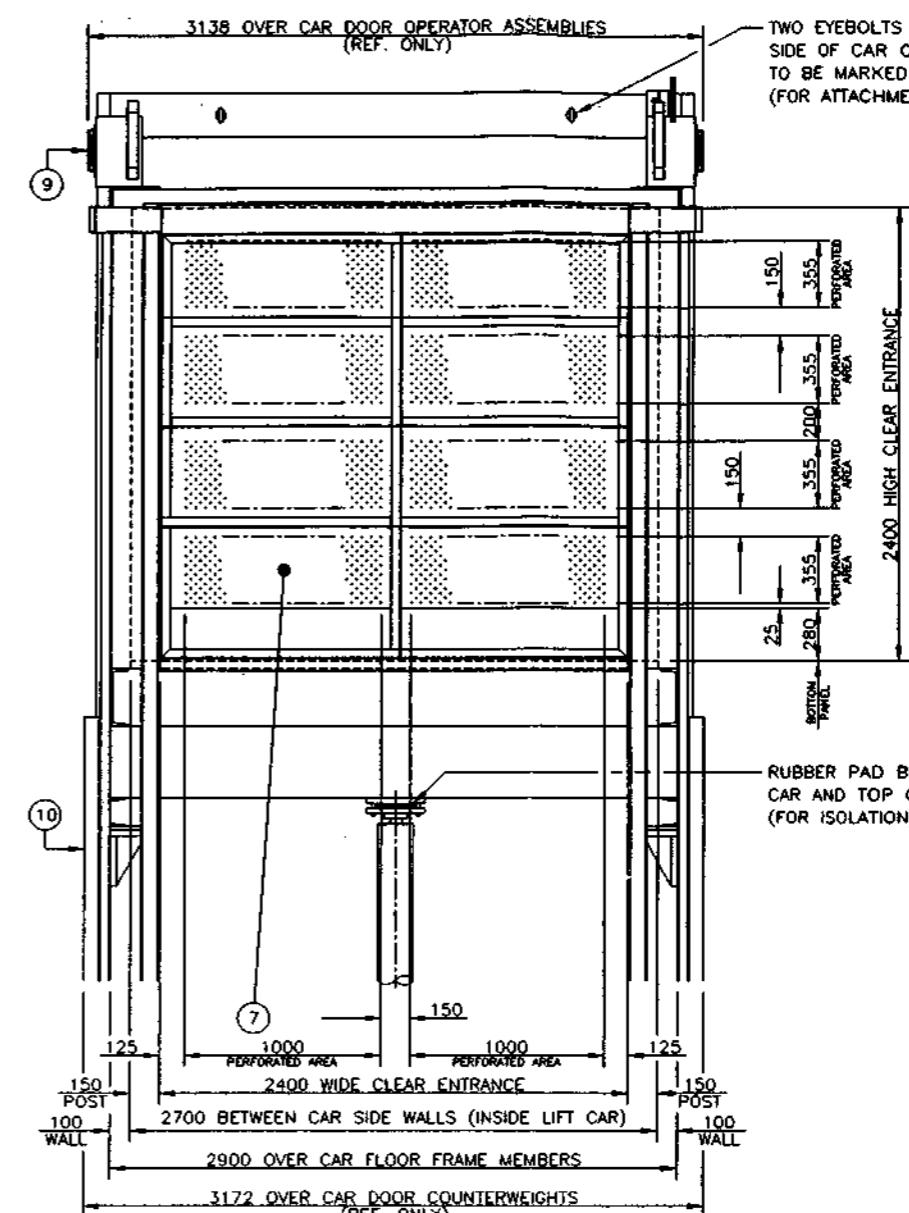
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To be performed or delivered by Thyssen (to be delivered by Thyssen Lifts & Escalators (tbc))		1 - Leistung von Thyssen TGL - Lieferung von Thyssen Lifts & Escalators			
MEET ROOM					
Ventilation, ventilation and air conditioning the lecture room to maintain a temperature between + 15 °C and + 20 °C during lift operation the heat output approx. 32500 kWh per lift					
Water supply to the wash basin					
The heating and machine rooms shall not contain any heating, devices, etc. other than for the lift switches for lift and necessary - piping					
1 central heating system for Plaza - individual					
Lighting for machine room power pads 100 x 100 = 1000 x 1000 mm ceiling isolated					
Number of lifts of 60 m² in the floor area of the lift equipment, covered in steel sheet supporting a persons weight					
Door to the machine room 1000 x 2000 mm class opening					
PLAZA					
thickness of building ceiling according to electric calculations					
Insulation of the shaft by a weatherstrip between the ceiling or an independent duct through the machine room					
Working eye for P max. 5 m below shaft level					
Counterweight screen					
Outer wall					
Inches with 100% insulation type MRA 40/22;					
1) length 250 mm-HA 40/22 DUE to cost					
2) length 300 mm-HA 40/22 DUE to cost					
3) length 200 mm-HA 40/22 DUE to cost					
4) length ... mm-HA 40/22 DUE to cost					
5) length ... mm-HA 40/22 DUE to cost					
6) length 450 mm-HA 40/22 DUE to cost					
Screwing and cleaning					
Lighting for shaft					
Outer walls of each floor to enable the light to get the darkness in relation to the finished floor					
Cylinders for position indicator with gap 10-mm for direction indicator with gap 10-mm for each button bar					
Architectures					
Covering of the door frames and architectures in concrete					
Louver to pit					
Electrical protection from lightning and surge protection by electronic					
Insulation of the outer walls, electric protect and walls to be treated					
Piping to be arranged as well as arranged one above the other, deviation on the vertical not > 15 mm					
Drainage are finished dimensions and dimensions are not to be altered					
Dimensions > 90 protection to be carried out according to local codes					
Reinforcement					
Dimensions of the outer walls, electric protect and walls to be treated					
Piping to be arranged as well as arranged one above the other, deviation on the vertical not > 15 mm					
Dimensions are finished dimensions and dimensions are not to be altered					
Dimensions > 90 protection to be carried out according to local codes					
DOORS IN THE MACHINE ROOM					
incl. 20% opening factor					
Door distribution through outer pads on lift floor					
distributed load in the machine room 5 t/m²					
DOORS IN THE SHAFT					
incl. 20% opening factor					
- 3000					
- 2500					
- 2000					
- 1500					
DOORS ON THE PIT FLOOR					
- 2200 impact per guard rail with safety gear engage					
- 2100 impact for each buffer when compressed					
- 700 never closing					
Impact 2200-10					
Water supply 10 min 50 cycles					
right power supply 220 V 50 Hz					
left neutral wire					
Impact 2200-10					
Water supply 10 min 50 cycles					
right power supply 220 V 50 Hz					
left neutral wire					
Impact 2200-10					
Water supply 10 min 50 cycles					
right power supply 220 V 50 Hz					
left neutral wire					
LASTEN IM KOMMUNIKATIONSKR					
height 2000 mm					
width 1000 mm					
depth 1000 mm					
max. weight 5000 kg					
LASTEN IM SCHUTZKABINENKR					
height 2000 mm					
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LASTEN AUF DEN SCHUTZKABINENKR					
height 2200 mm					
width 1000 mm					
depth 1000 mm					
max. weight 5000 kg					
LASTEN AUF DEN SCHUTZKABINENKR					
height 2200 mm					
width 1000 mm					
depth 1000 mm					
max. weight 5000 kg					
LASTEN AUF DEN SCHUTZKABINENKR					
height 2200 mm					
width 1000 mm					
depth 1000 mm					
max. weight 5000 kg					
LASTEN AUF DEN SCHUTZKABINENKR					
height 2200 mm					
width 1000 mm					
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max. weight 5000 kg					
LASTEN AUF DEN SCHUTZKABINENKR					
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max. weight 5000 kg					
LASTEN AUF DEN SCHUTZKABINENKR					
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max. weight 5000 kg					
LASTEN AUF DEN SCHUTZKABINENKR					
height 2200 mm					
width 1000 mm					
depth 1000 mm					
max. weight 5000 kg					
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height 2200 mm					
width 1000 mm					
depth 1000 mm					

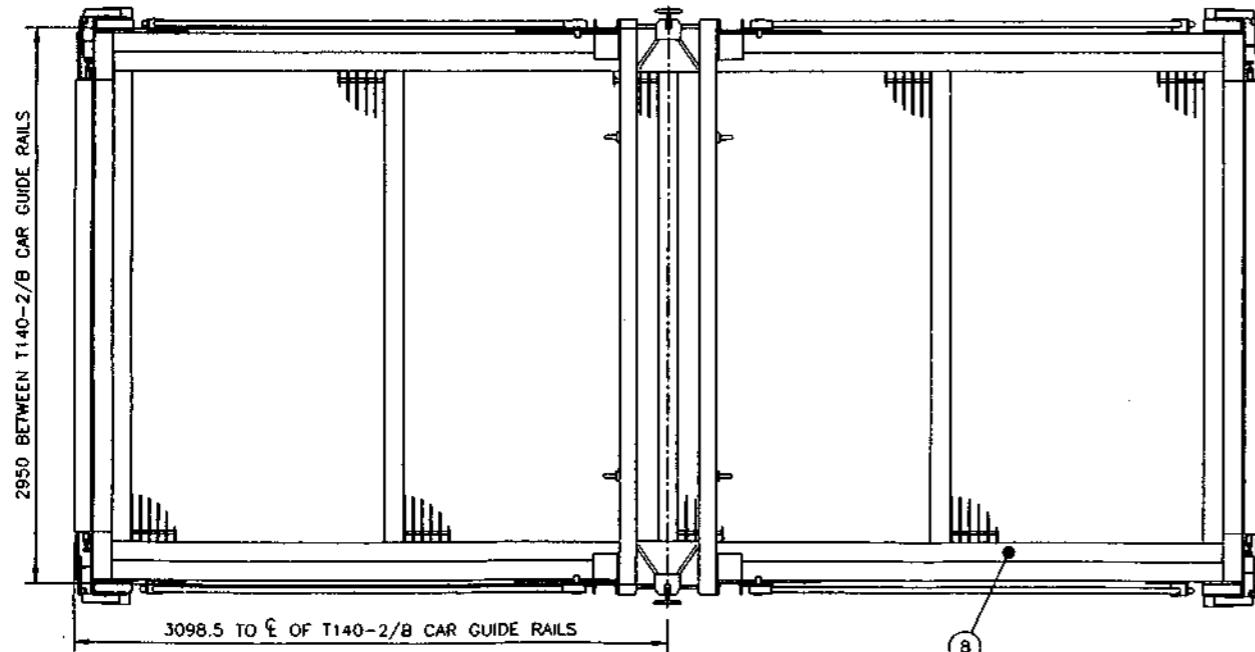




ELEVATION SHOWING SIDE OF LIFT CAR



ELEVATION SHOWING OUTSIDE OF CAR ENTRANCE



PLAN VIEW

THIS DRAWING TO BE READ IN CONJUNCTION WITH
69654/07-08/20 - LIFT CAR INTERIOR FINISH



© COPYRIGHT
Thyssen Lifts &
Escalators,
Traffic Street,
Nottingham.

GENERAL
UNLESS OTHERWISE
CUT-OFF ALLOWS
HOLE CENTRE
HOLE DIA. 5/16
G/DIA. UP TO

STATED

PROJECTION:

DRAWN BY
J.S.HARNE

DATE: 25.9.98	SCALE: 1:20	CHECKED BY: <i>[Signature]</i>
		DO NOT SCALE
DIMENSIONS IN MILLIMETRES		

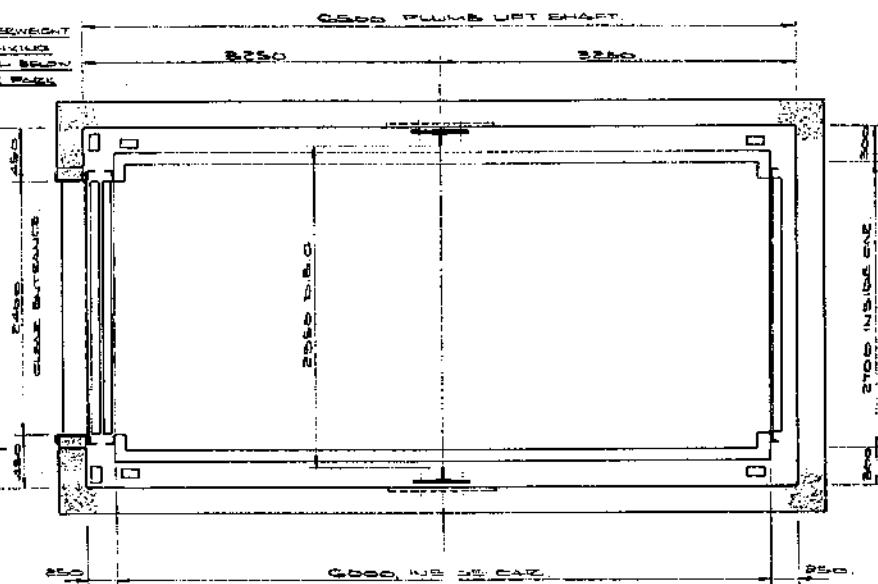
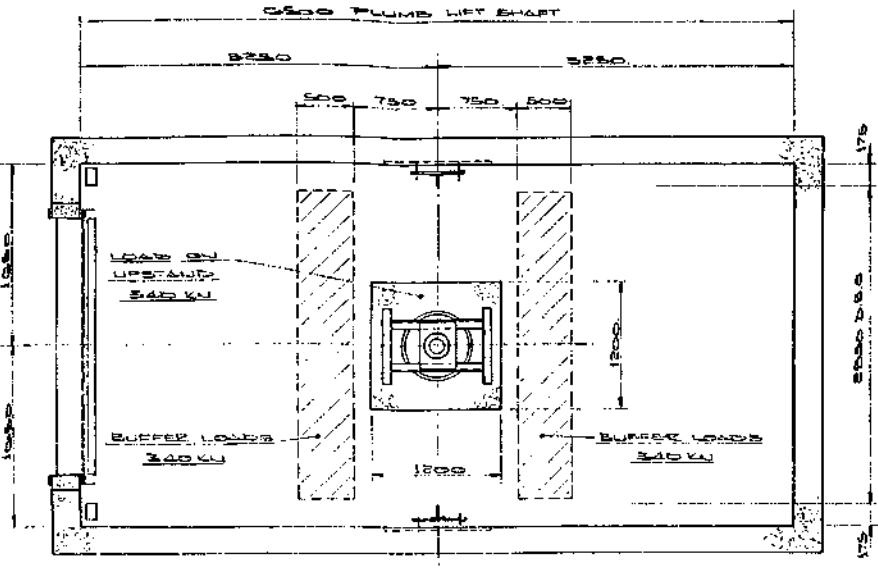
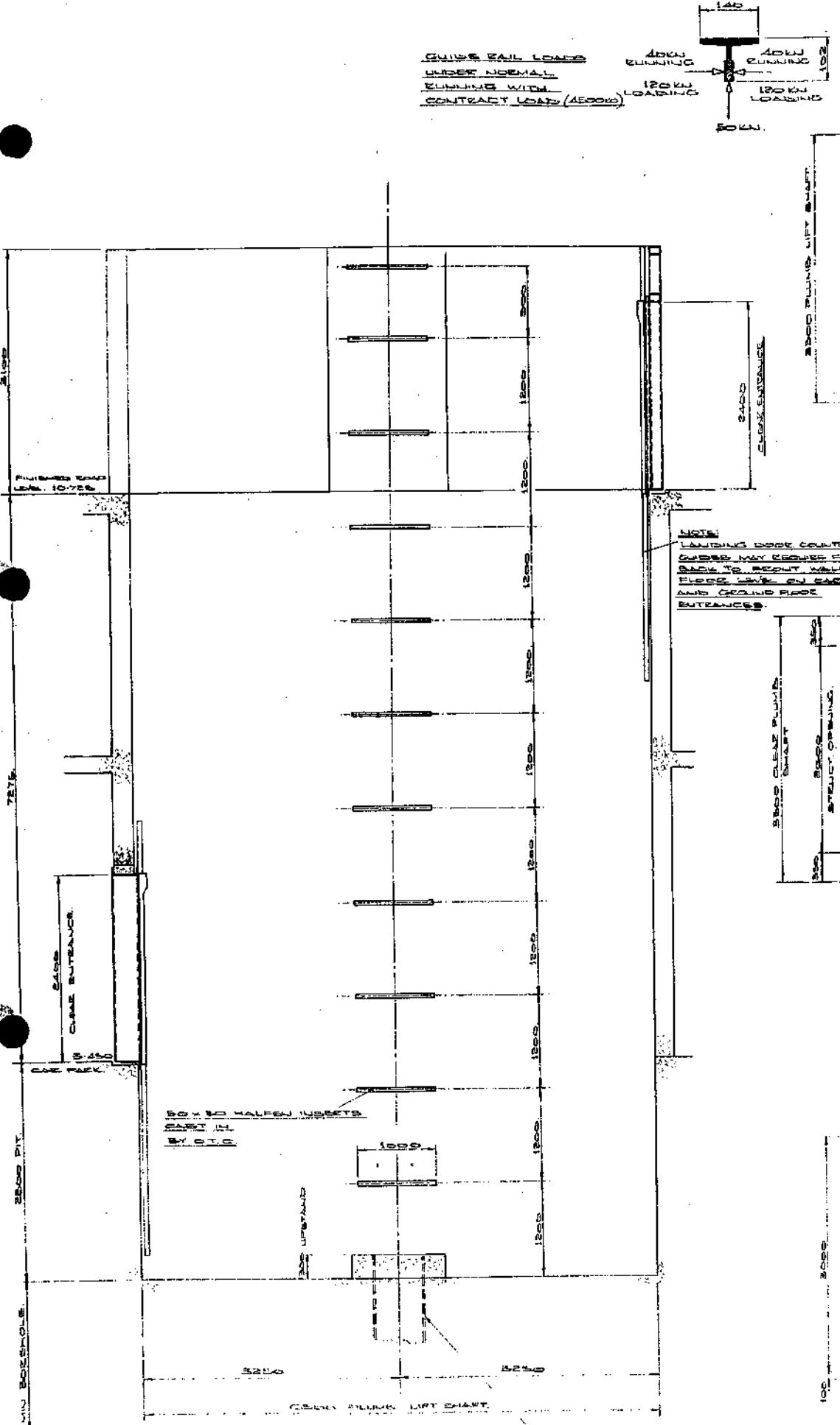
REVENUE
BROUGHT UP TO
S BUILT STATUS.

REV.A:
CAR SLING A
& DOOR OPENER
EQUIPMENT E
IN STAINLESS
PANELLING.
JSH

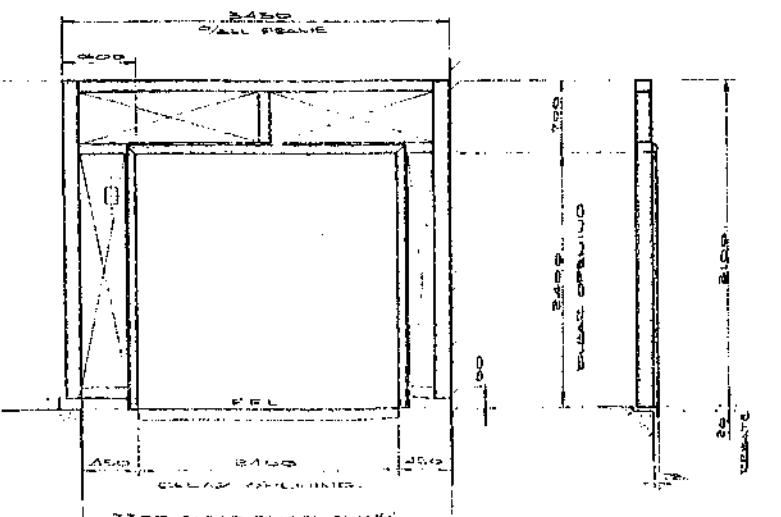
EMBLY
TING
ASED
TEEL
12:00

LIFT CAR EXTERIOR FINISHES
CARLTON GARDENS, LONDON (LIFTS L7 AND L8)
No. 69654/07-08/21C

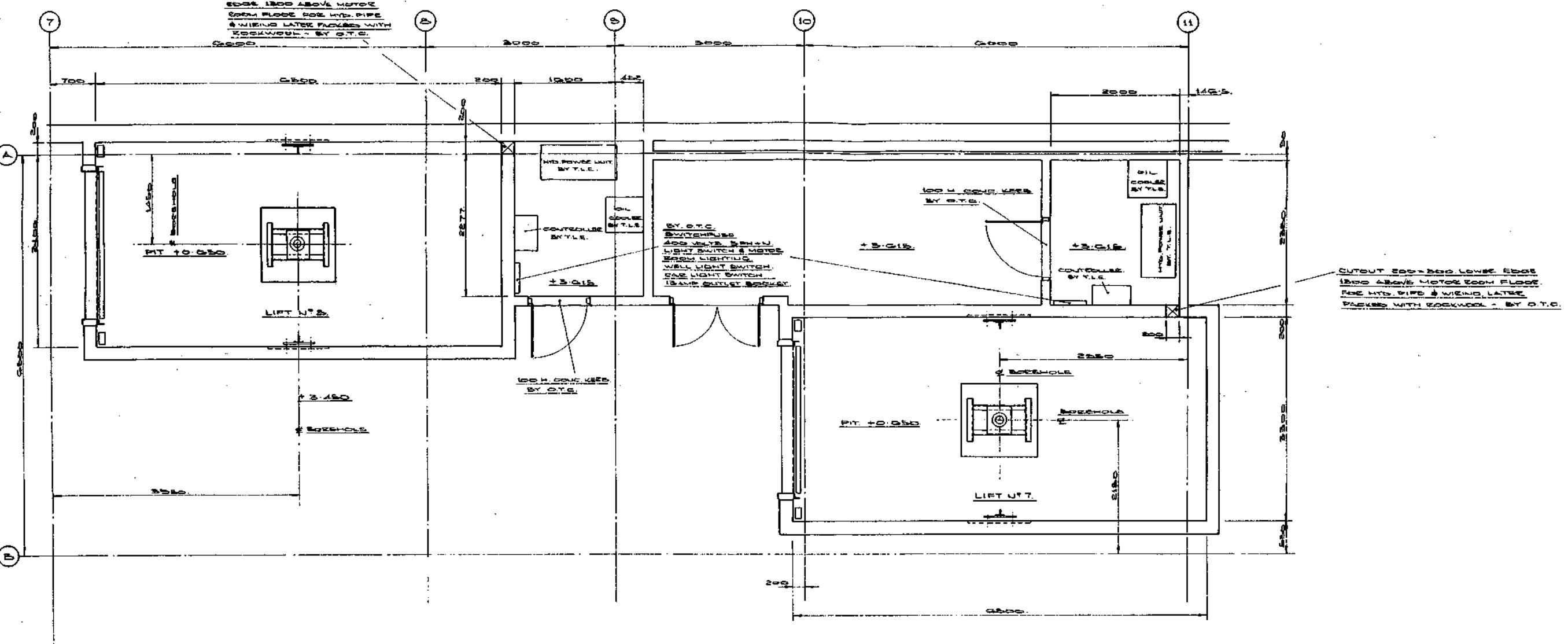
AS BUILT



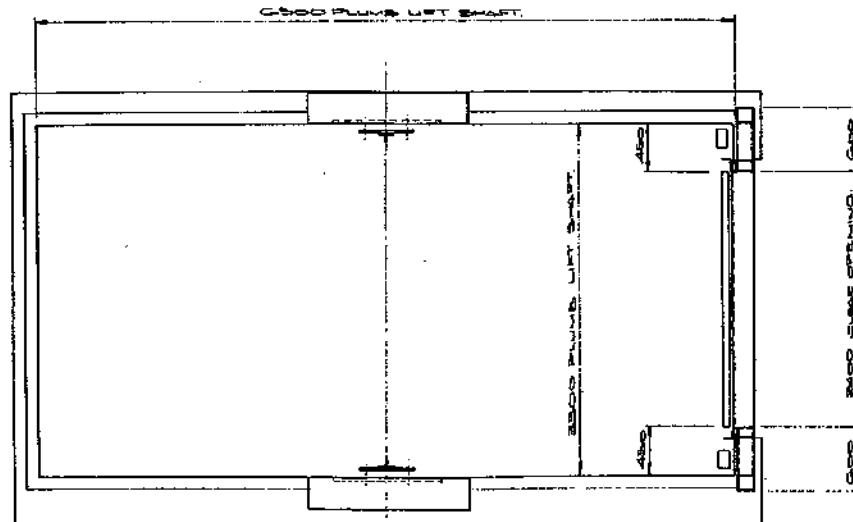
PLAN ON LIFT SHAR AT CAR PARK LEVEL



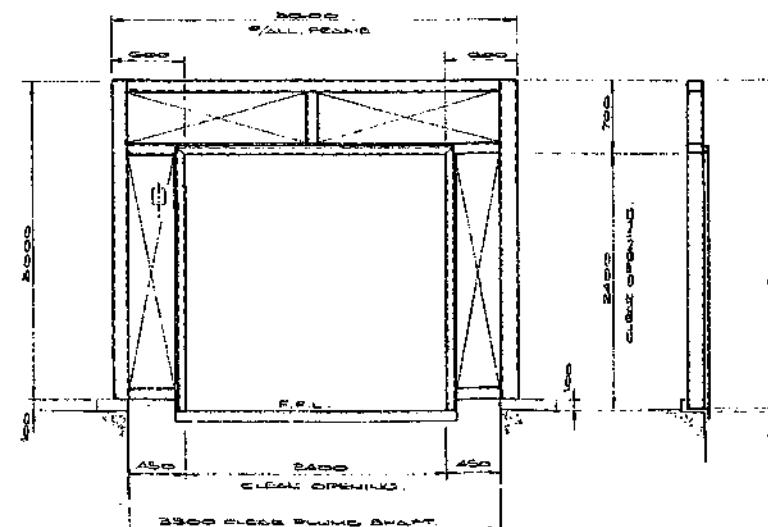
ELEVATION OF APPROXIMATE LEVELS DURING EARTHQUAKE CYCLE
MILWAUKEE, WISCONSIN, 1952-53



AS BUILT

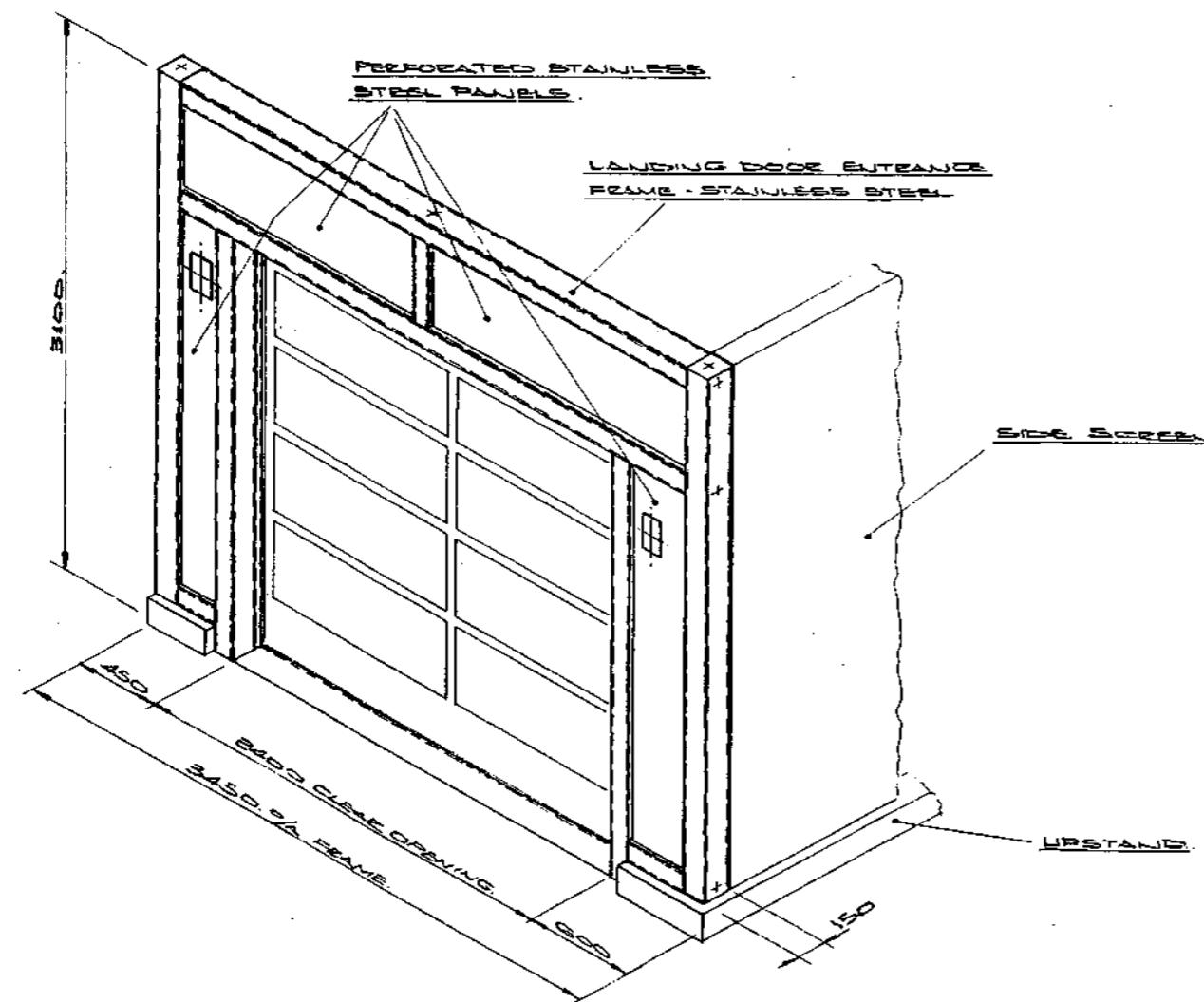
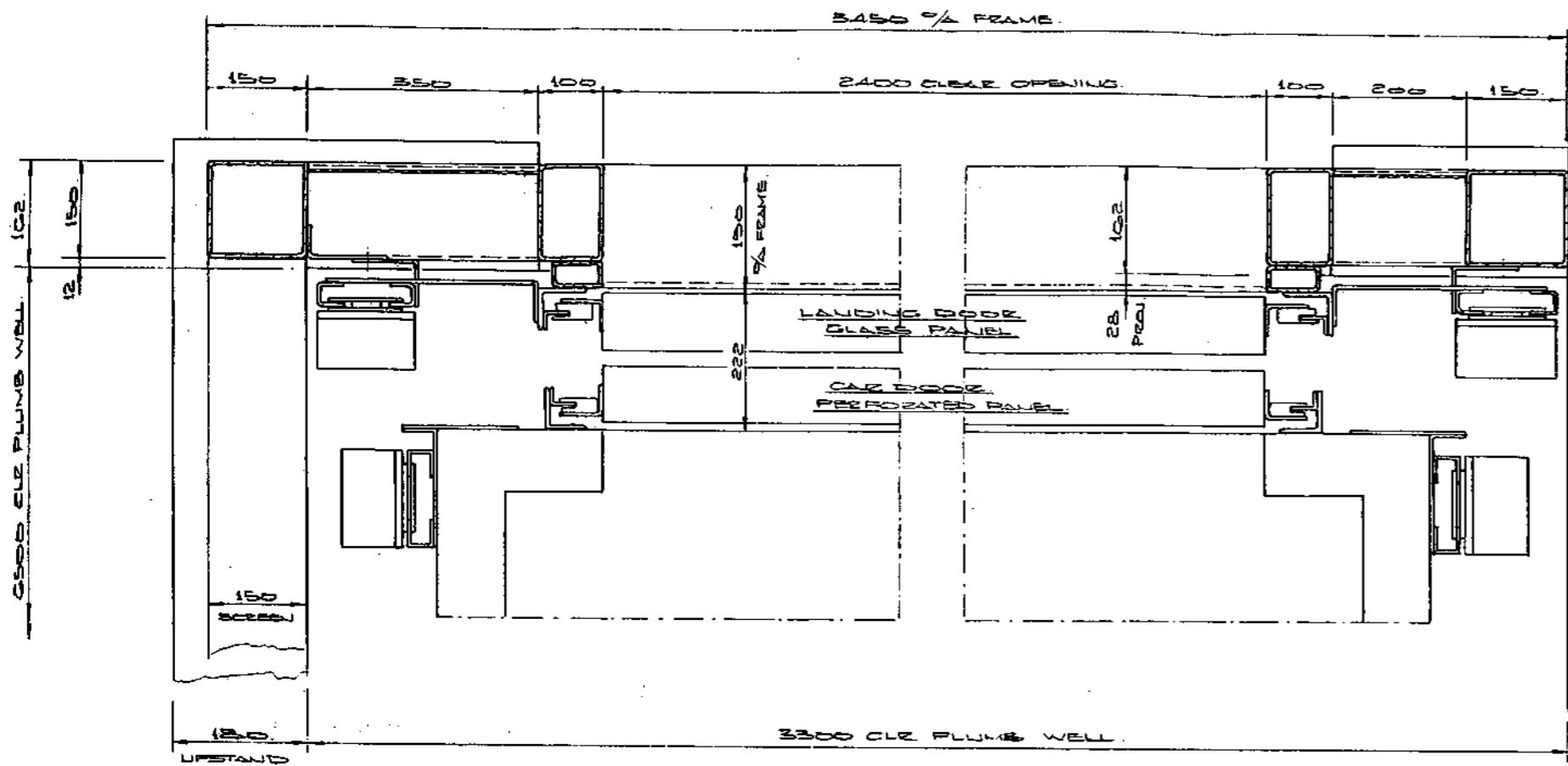


PLAN ON LEFT BRAGHT AT GROUND FLOOR LEVEL. LIFT LEVEL



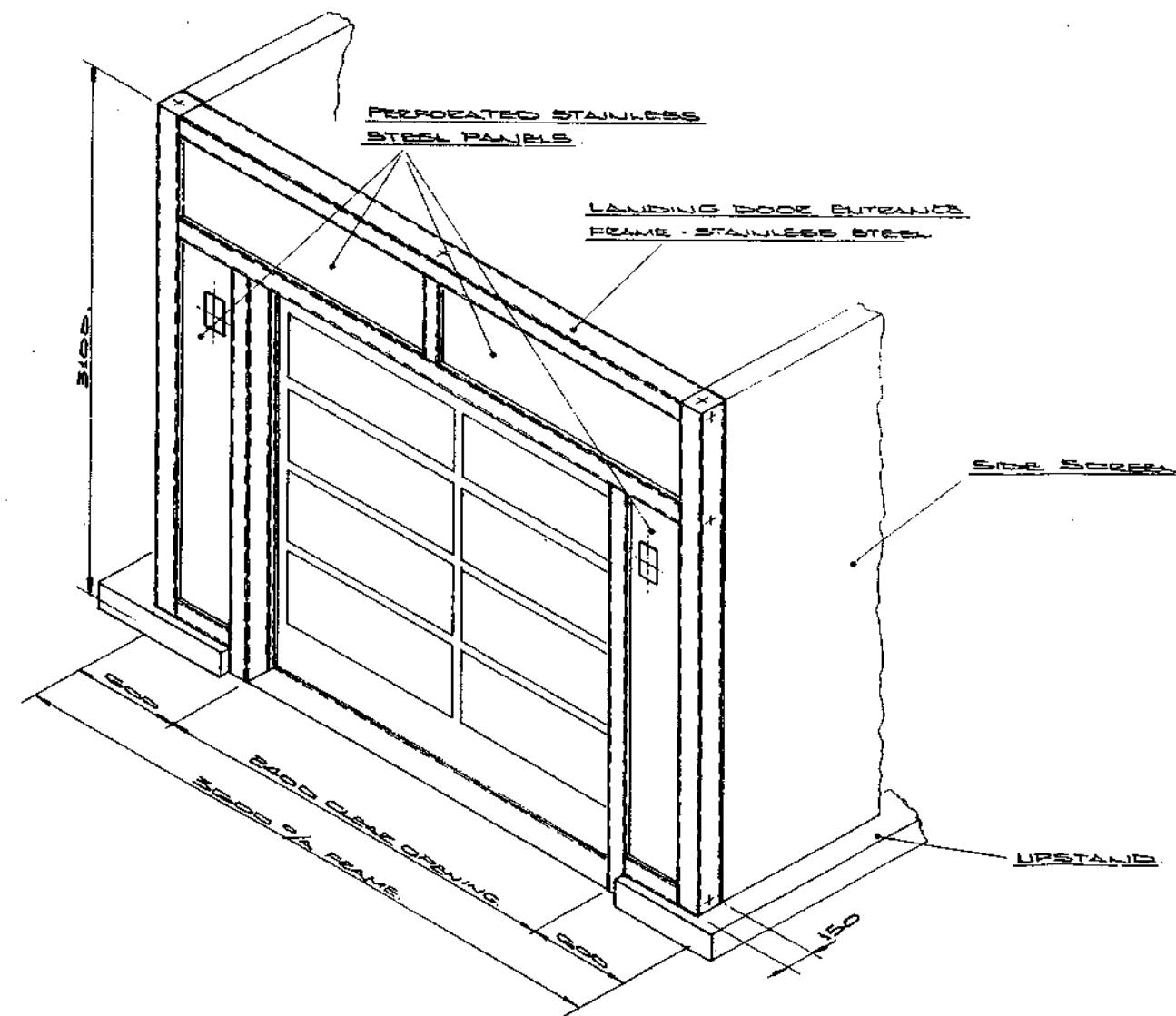
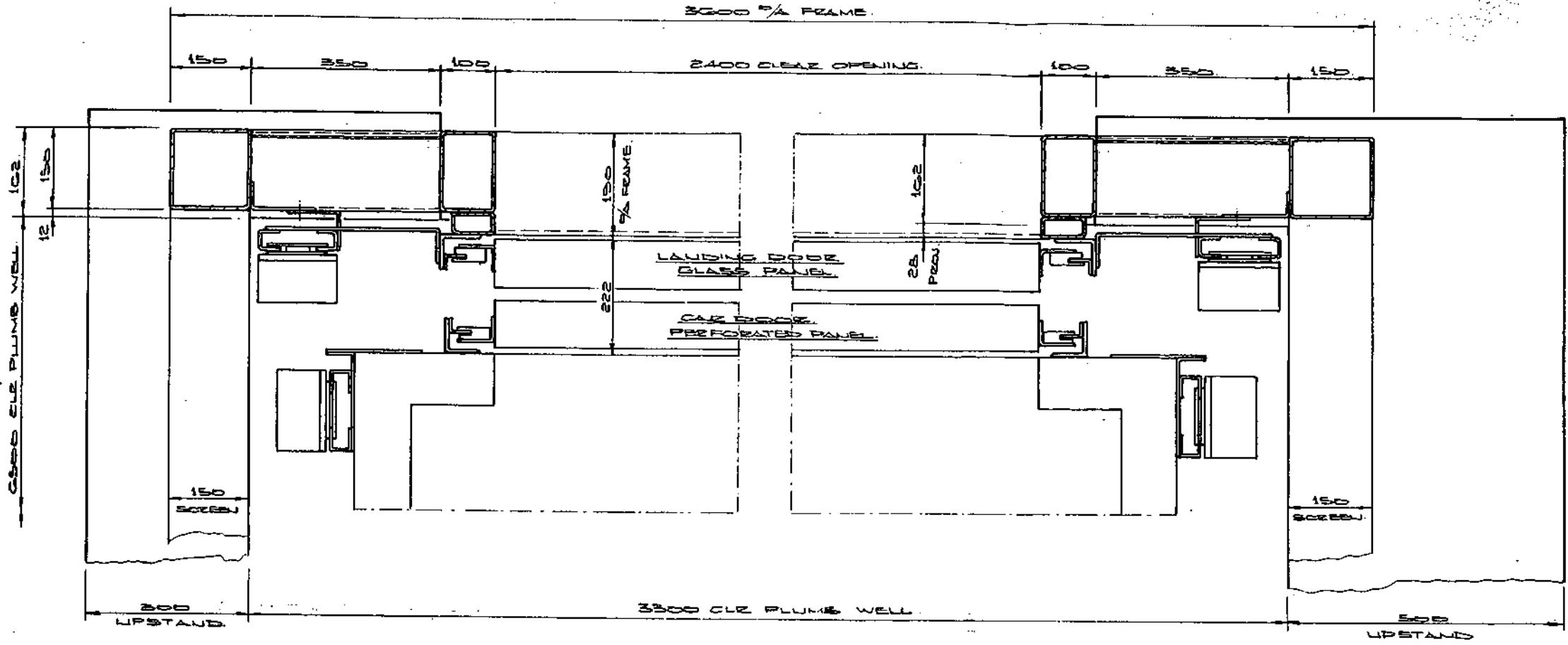
ELEVATION OF GROUND FLOOR LEVEL LANDING ENTRANCE - L
VIEWED FROM LAST SHAFT.

CLIMAXIC NOTES	
OTC = to be performed when	
T = to be performed Period	
TLE = to be performed Period	
LIFT WELL	
NOTE - No dimensions should be scaled. Dimensions are for finished sizes.	
Minimum plumb tolerance in construction of walls = 20 mm = 0 mm Minimum plumb tolerance in construction of leading walls = 10 mm = 0 mm No electric cables other than those for the lift shall be installed in the lift well No other services, e.g. gas or water, shall be installed in the lift well The guide rail system shall be designed by the supplier to accommodate the loadings of the car and passengers through the lift guide rail fittings (the fixing positions are detailed on the drawings). The lift well shall conform to all relevant standards.	
MACHINE ROOM The room shall be exclusively for the use of lift equipment and should not contain cables or ducting other than for the lift. The ambient temperature of the motor room shall be maintained between 5 and 35°C. Natural ventilation protected from water and insects must be provided. The electrical supply must conform with I.E.E. regulations. Enclosed areas should be protected from dust and humidity.	
LOAD: 4500 kg SPEED: 0-25 m/s	
TYPE OF SUPPLY AC/DC VOLTAGE PHASE + N	
CAR WEIGHT: KG CAR GUIDES 1100 PONES	
CARGO: KG CARGO GUIDES 1 CARGO SAFETY 0-1-2	
CONTROL SYSTEM:	
Approved by: <input type="checkbox"/> On site <input type="checkbox"/> By post <input type="checkbox"/> By telephone <input type="checkbox"/> By fax <input type="checkbox"/> Other 	
Date: <input type="text"/> NUMBER OF UNITS: <input type="text"/> On order: <input type="text"/> On this site: <input type="text"/>	
MODIFICATIONS: <input type="checkbox"/> Approved by: <input type="text"/> <input type="checkbox"/> On site <input type="checkbox"/> By post <input type="checkbox"/> By telephone <input type="checkbox"/> By fax <input type="checkbox"/> Other	
NUMBER OF FLOORS <input type="text"/> OF WHICH <input type="text"/> SERVED	
Construction Site / Site address: <input type="text"/> Project Ref.: <input type="text"/>	
5-7 CAELTON GARDENS <input type="text"/> 55554/07/5 LONDON S.W.1. <input type="text"/> 0171 580 6000	
 .THYSSEN LIFTS AND ESCALATORS 64 Hampshire Road Twickenham Middlesex Telephone 081 854 0555 Telex 884 493 THYUK	



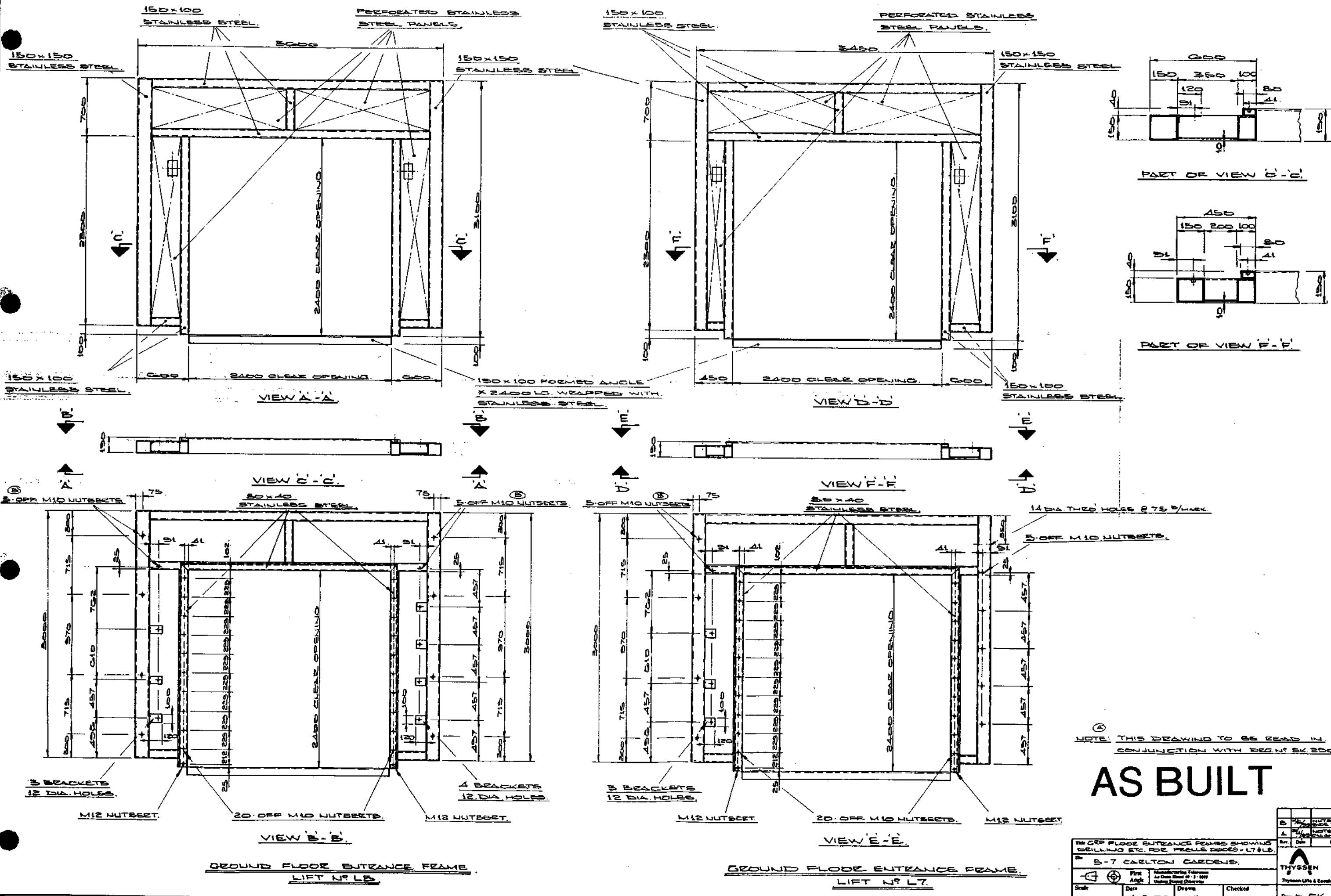
AS BUILT

This GROUND FLOOR LANDING DOOR FRAME FOR LIFT. NO. L7.		Rev. Date	Description
Site 5-7 CARLTON GARDENS		 THYSSEN Thyssen Lifts & Escalators Limited.	
 	First Angle	Manufacturing Technical Data Sheet No. 2-1913 Update Board Observe	
Scale	Date 1-3-85	Drawn by M1	Checked
			Drg. No. SK 2874.



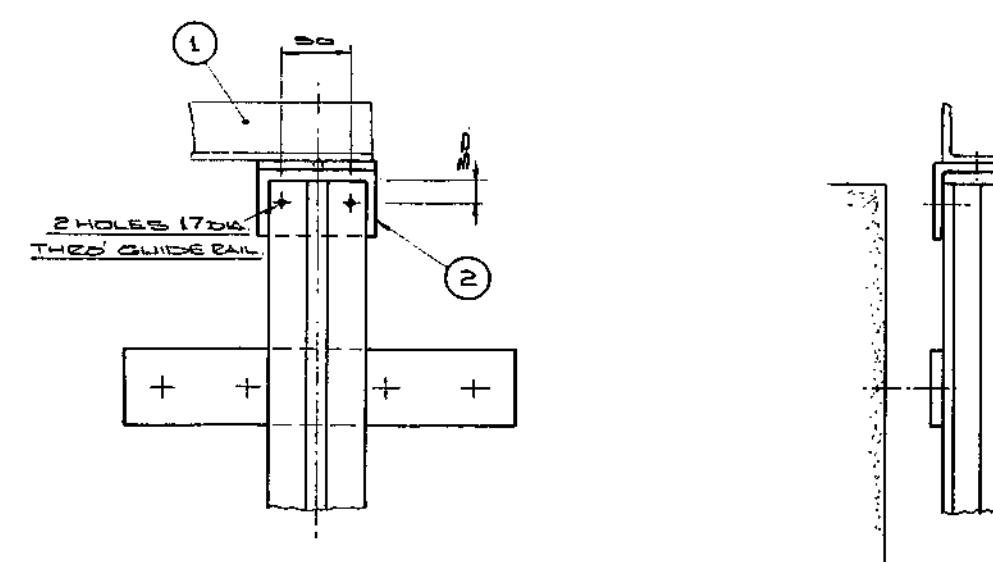
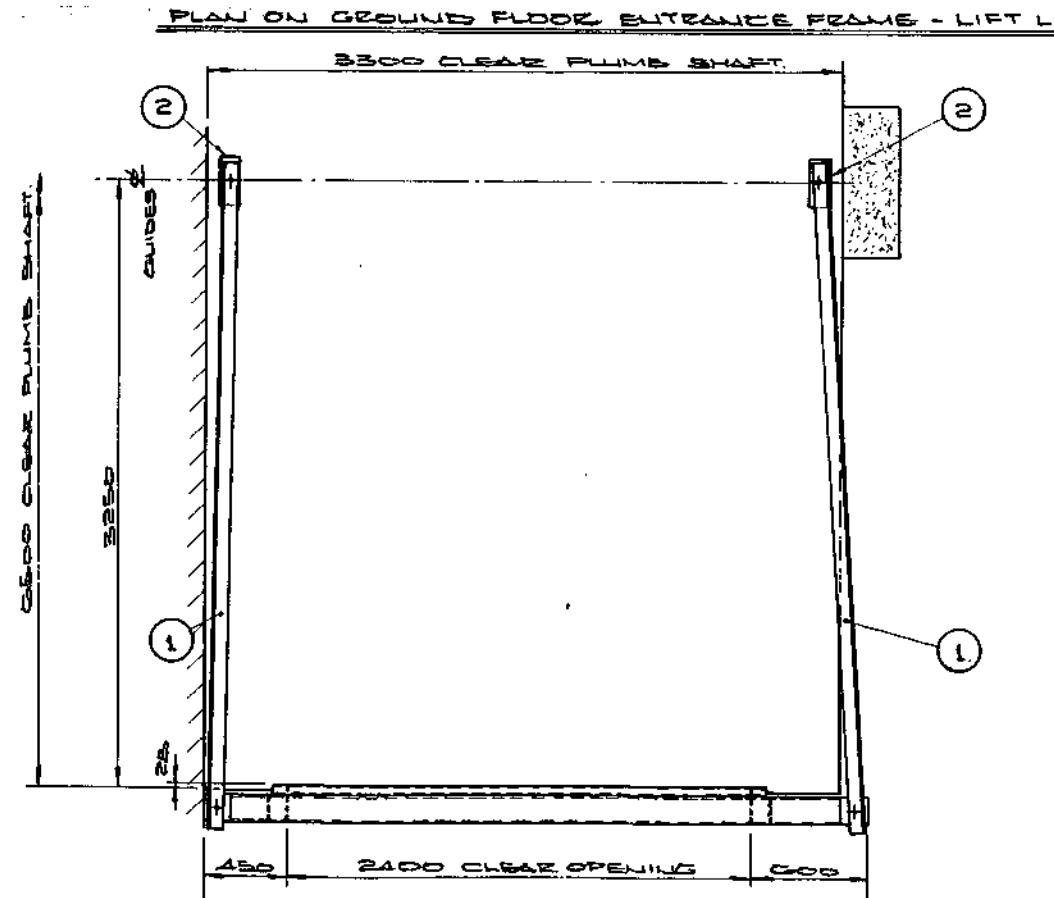
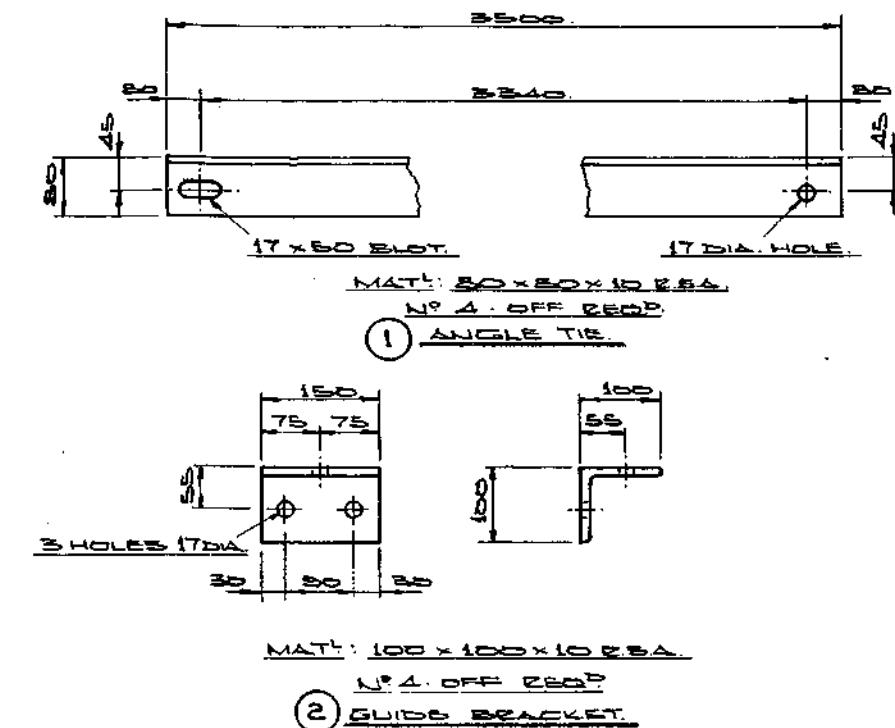
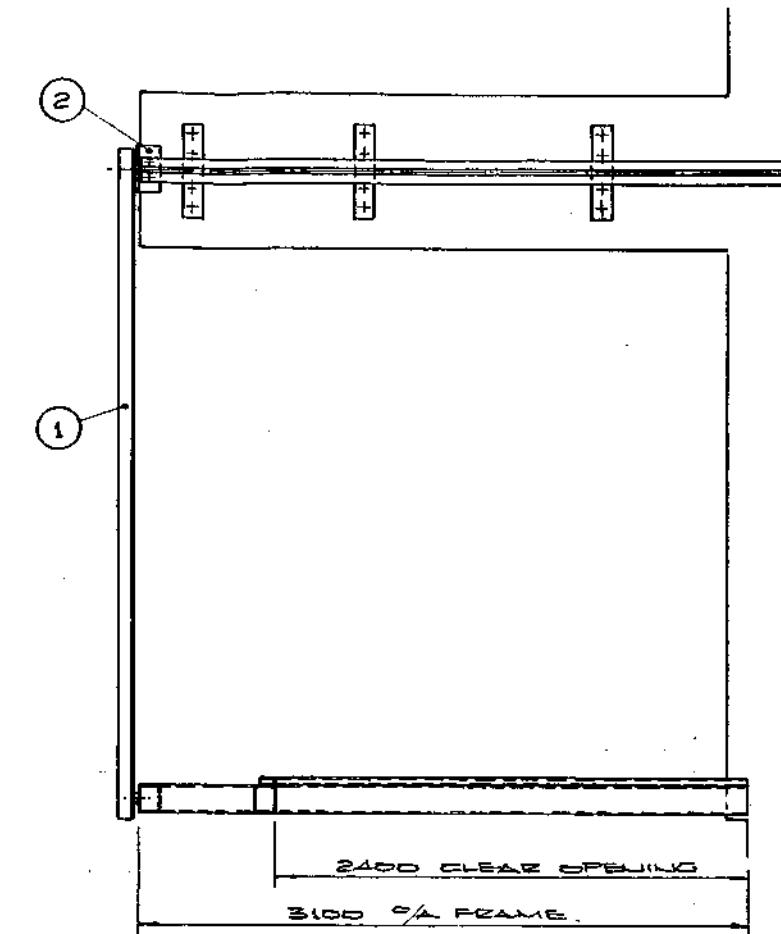
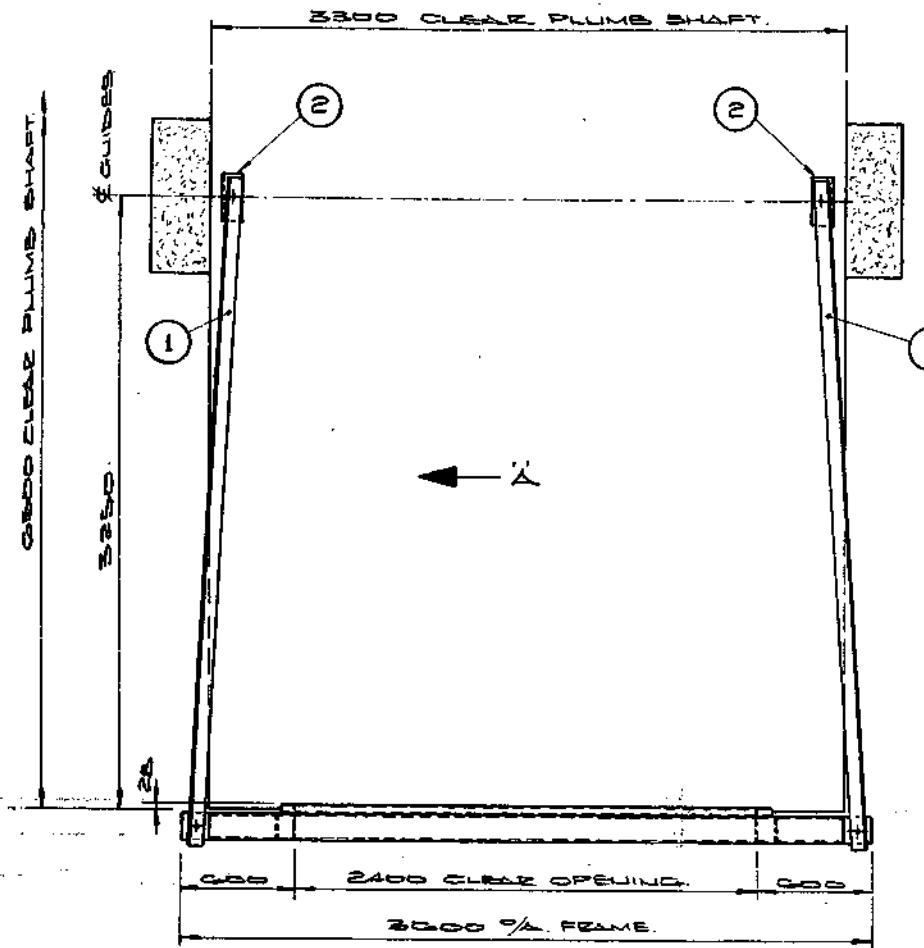
AS BUILT

THE GROUND FLOOR LANDING DOOR FRAME FOR LIFT NO 1B				Rev. Date	Description
Site 5-7. CARLTON GARDENS.				 THYSSEN	
		Manufacturer's Telegrams At Docks Street 49 - 2 - 1915 Quality Stand Ultra-Weir		Thyssen Ltd & Escalators Limited.	
Scale	Date	Drawn	Checked	Drg. No. SK.2875.	
	1 - 3 - 28	MJ			



AS BUILT

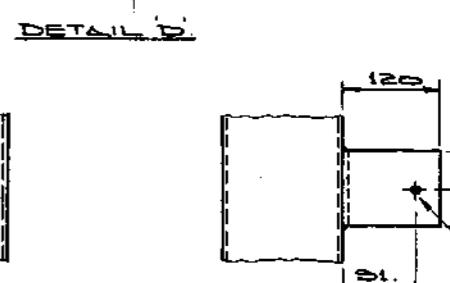
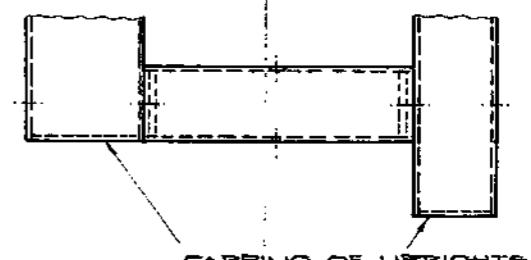
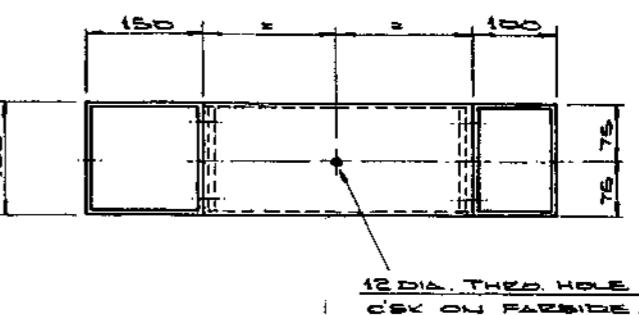
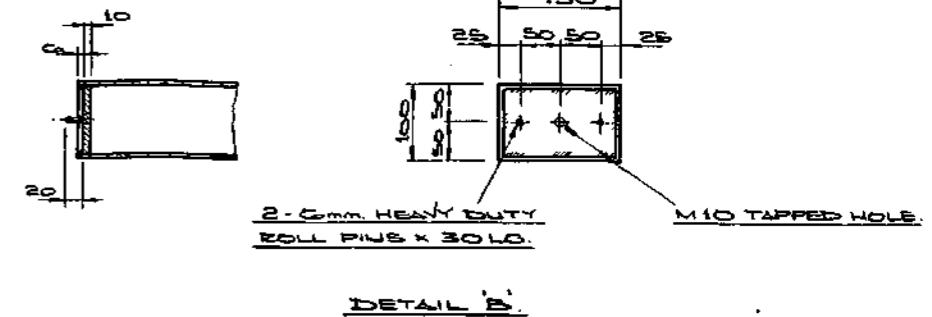
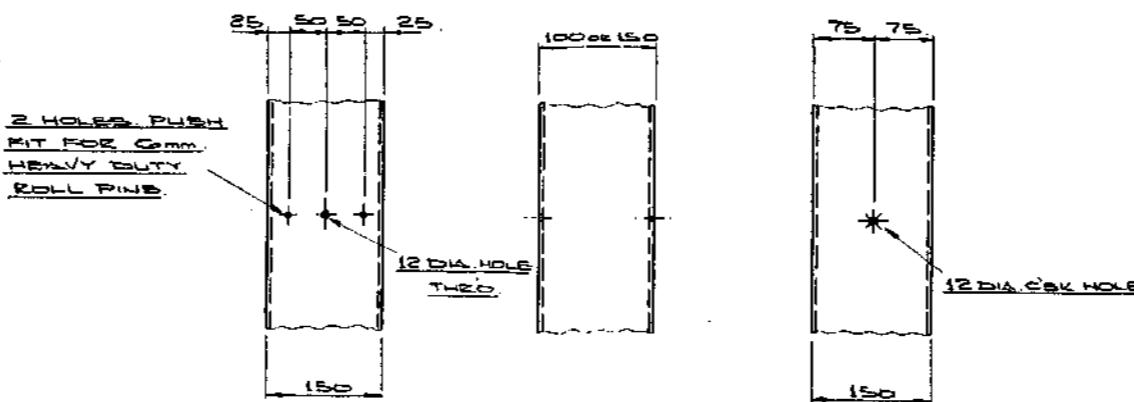
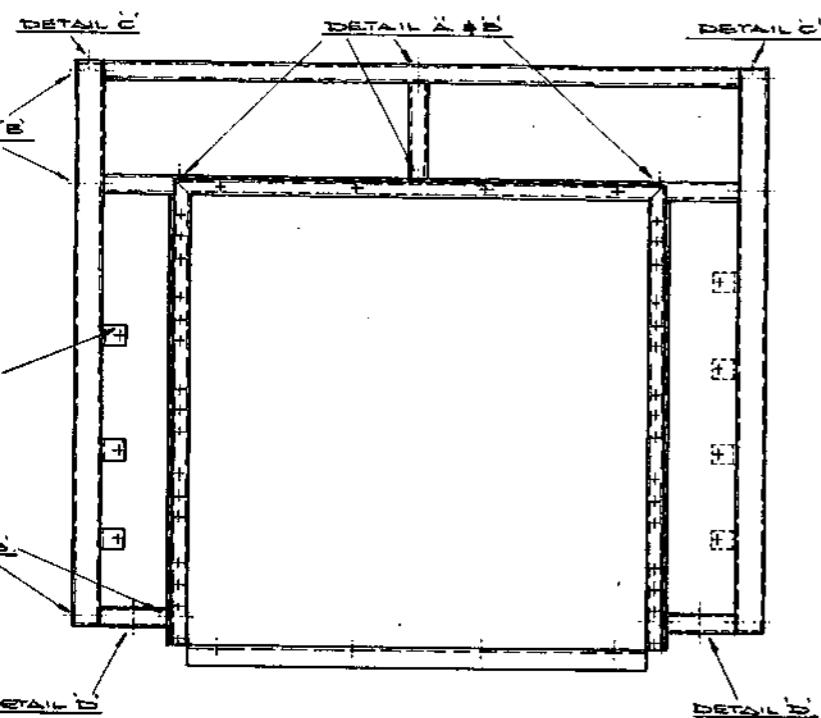
THE G.P. FLOOR ENTRANCE FRAMES SHOWING DRILLING ETC. FOR PEELLE DOORS - L7 & L8.				B7 TOP PLATE PAINTED RED S7 NOTE ADDRESS A7 ALL DRAWINGS 24 X 36	
	Date	B7 THYSSEN S7 Thyssen-Lifts & Elevators Limited.			
	First Angle	Manufacturing Telegrams At Date Sheet N° 1-1949 Under Special Observance			
Scale	Date 4-3-1955	Drawn M.J.	Checked	Drg. No. SK. 287C	



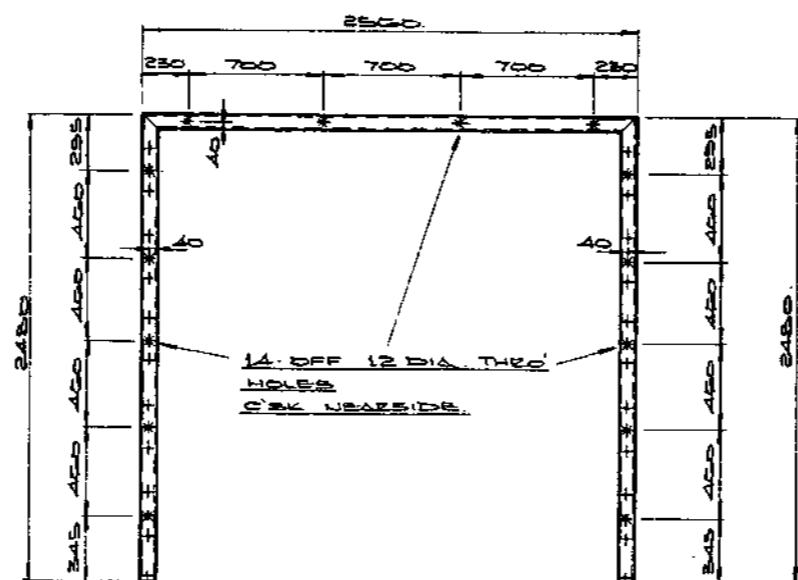
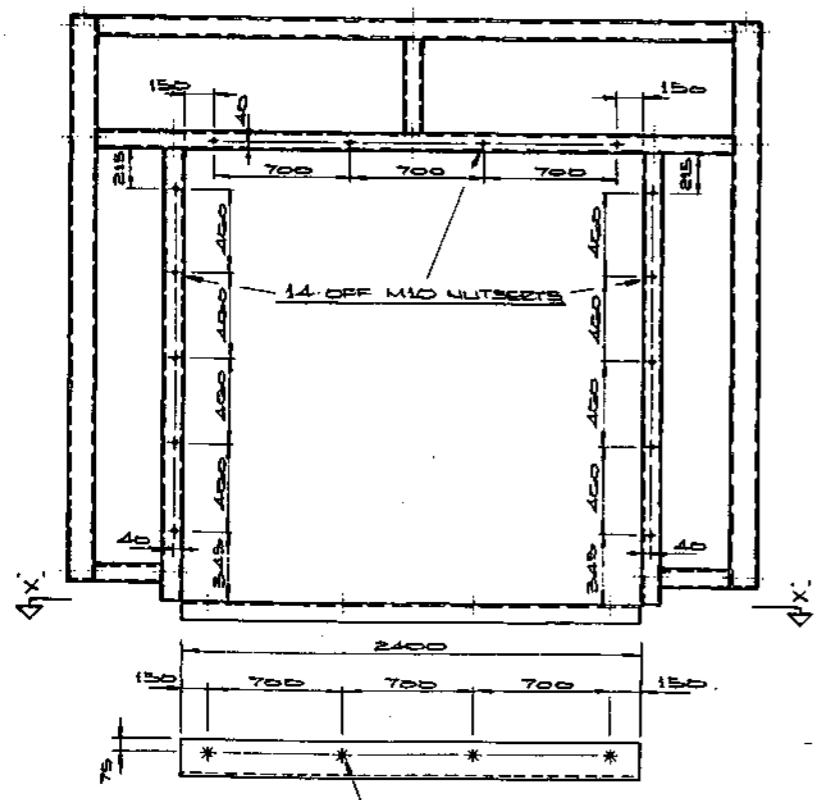
AS BUILT

PLAN ON GROUNDED FLOOR ENTRANCE FRAME - LIFT LT.

Ref.	Date	Description
THYSSEN		
Thyssen Lifts & Escalators Limited		
Drawn By:	Date:	Checked
Scale:	1:50	Drawn
Br. No.:	SK 222	Checked



DETAIL E



ADDITIONAL DRILLING TO BOX 40 SURROUND

4 HOLES 12 DIA. CSK

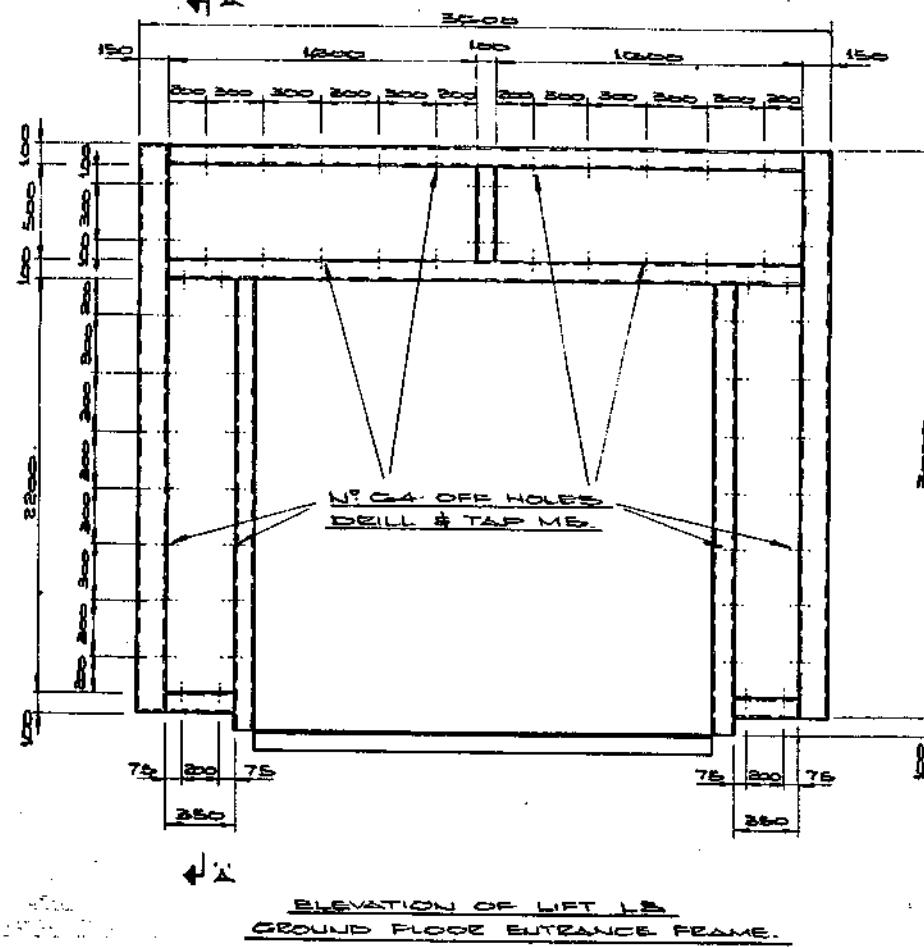
VIEW X-X

ELEVATION OF LANDING DOOR FRAME
WITH 80x40 SURROUND REMOVED

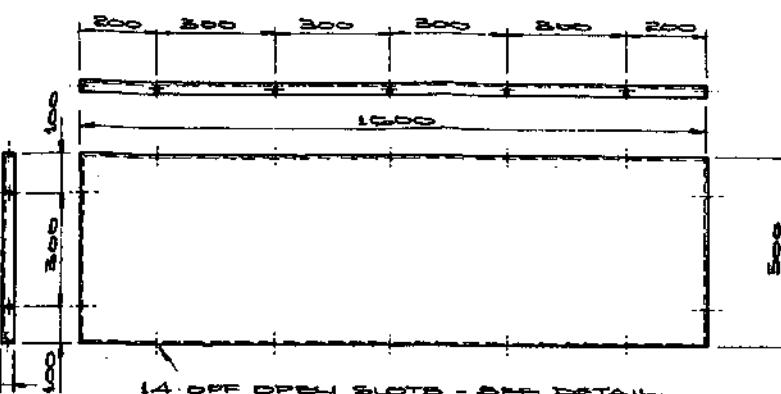
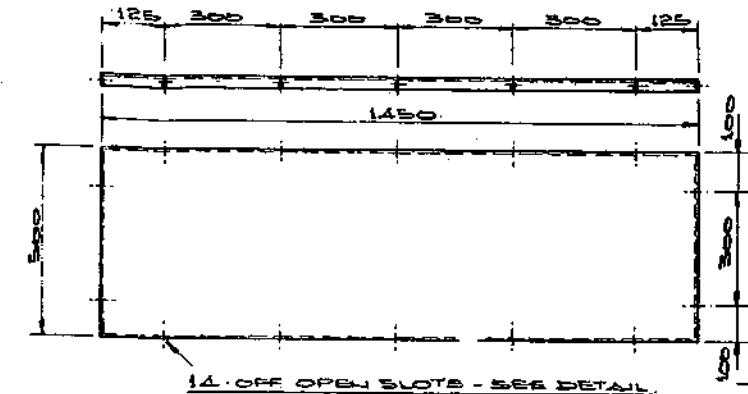
NOTE: THIS DRAWING TO BE READ IN CONJUNCTION
WITH DES. N° SK. 2876.

AS BUILT

THE JOINT DETAILS OF GND FLOOR LANDING SURFACE FRAMES - LFTS LT + LB			Rev.	Date	Description	By
Re 5-7 CALTON GARDENS						
Architectural Drawing	As Drawn	Scale	1:50	10-4-05	M. J.	Checked
Thyssen Lifts & Escalators Limited	Under Supervision of	Drawn				Drg. No. SK. 2851

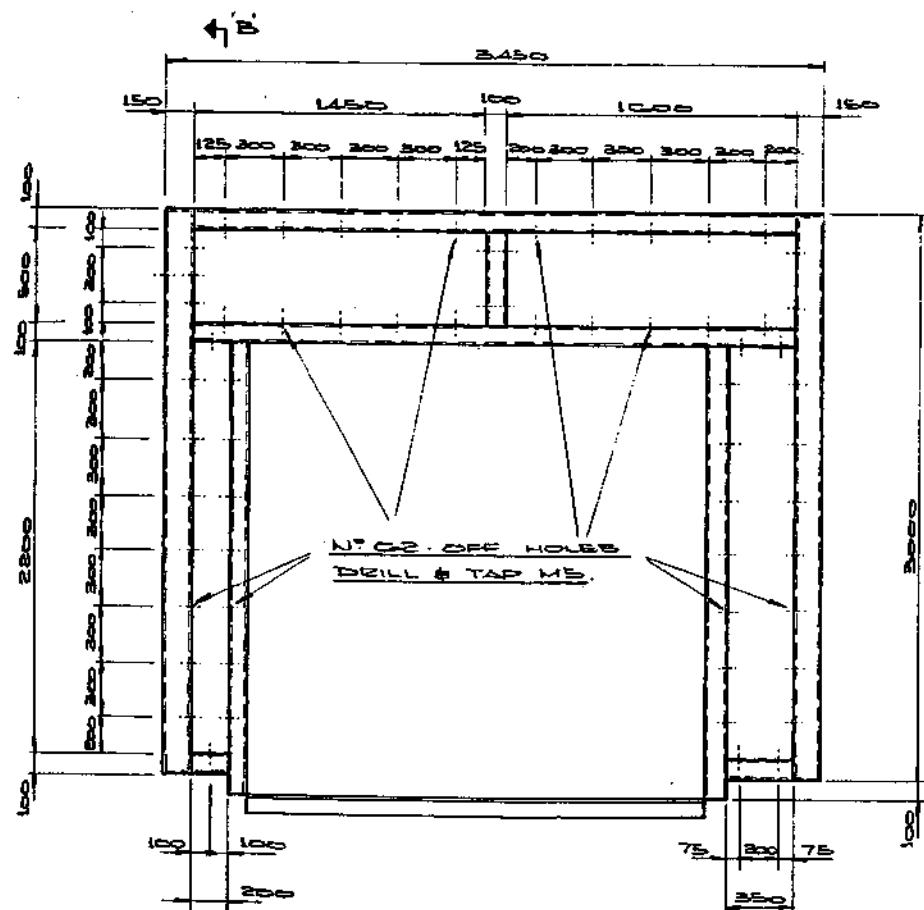


VIEW A-A
TYP

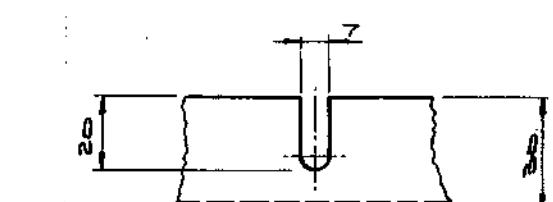
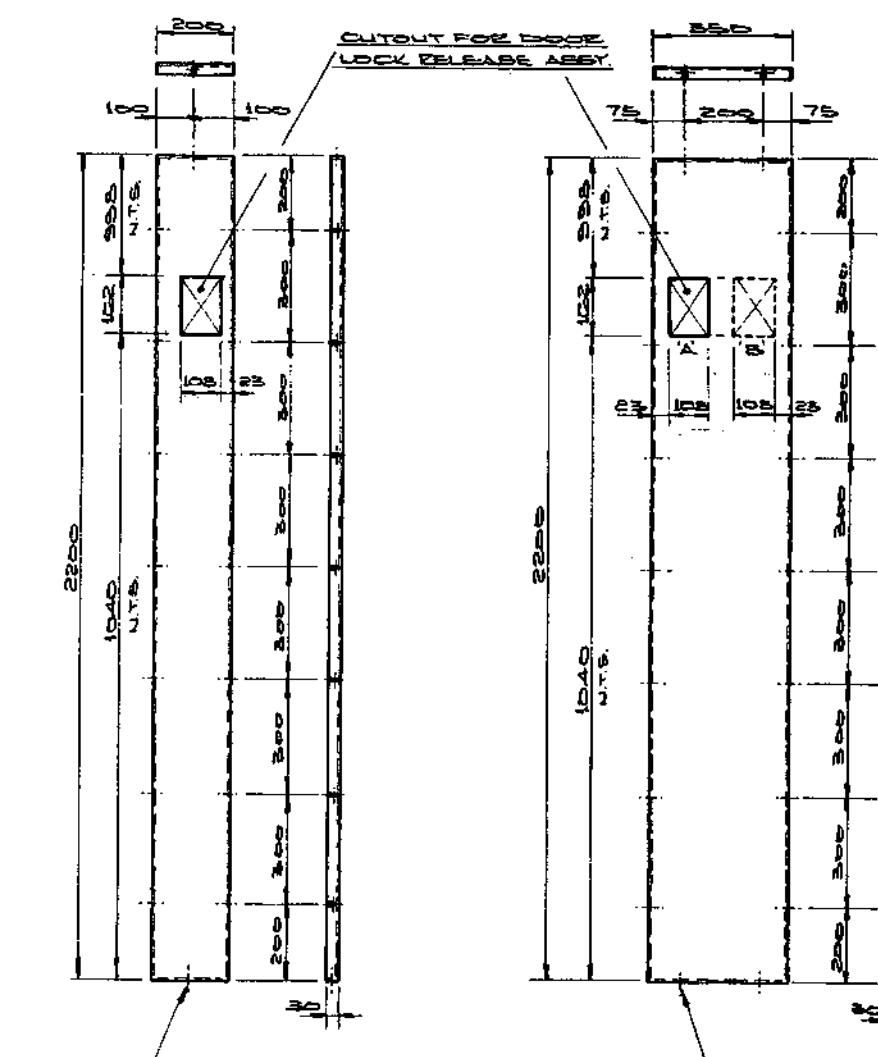


HEAD PANEL FOR LIFT L7.

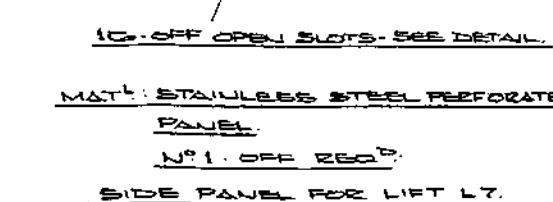
HEAD PANELS FOR LIFTS L7 & L8.



VIEW B-B
TYP



DETAIL OF OPEN SLOT.



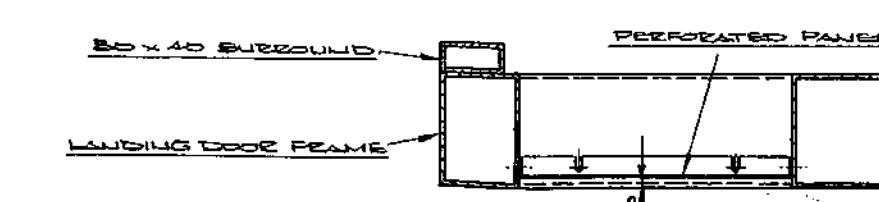
MATERIAL: STAINLESS STEEL PERFORATED
PANEL

N°1 - OFF RECD.

SIDE PANEL FOR LIFT L7.

N°2 - OFF REQUIRED WITH CUTOUT IN POSITION 'A'.
N°1 - OFF REQUIRED WITH CUTOUT IN POSITION 'B'

SIDE PANELS FOR LIFTS L7 & L8.



DETAILS & DRILLING ON GROUND FLOOR LANDING DOOR ENTRANCES FOR PERFORATED PANELS - LIFT L7 & L8.			
CARLTON GARDENS.			
Date	Date	Drawn by	Checked

B	REVISION
A	REVISED
Rev. No.	Date
THYSSEN	Description

Thyssen Lifts & Escalators Limited
Drg. No. EK 2800

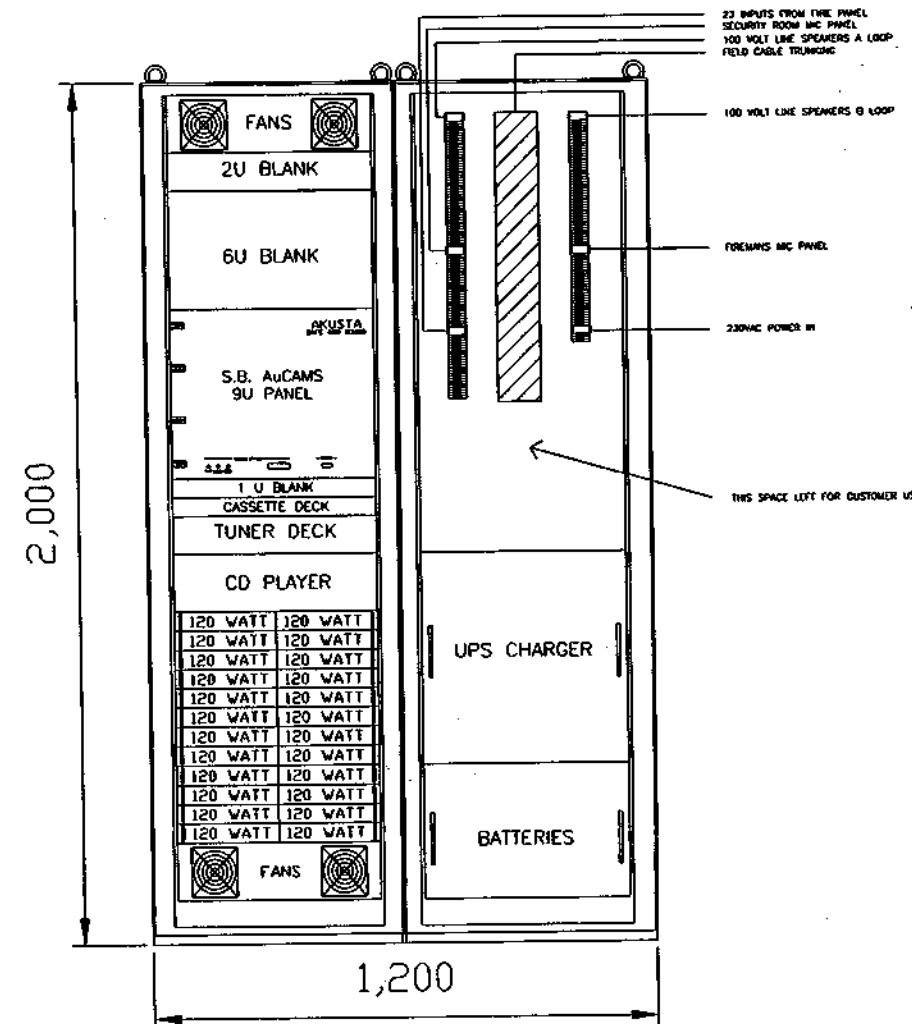
A3

(C) AKUSTA-IFE

SNAPE ROAD - MACCLESFIELD - CHESHIRE - SK10 2NF - TEL: 01625 617341

AKUSTA-IFE

No. 72819001

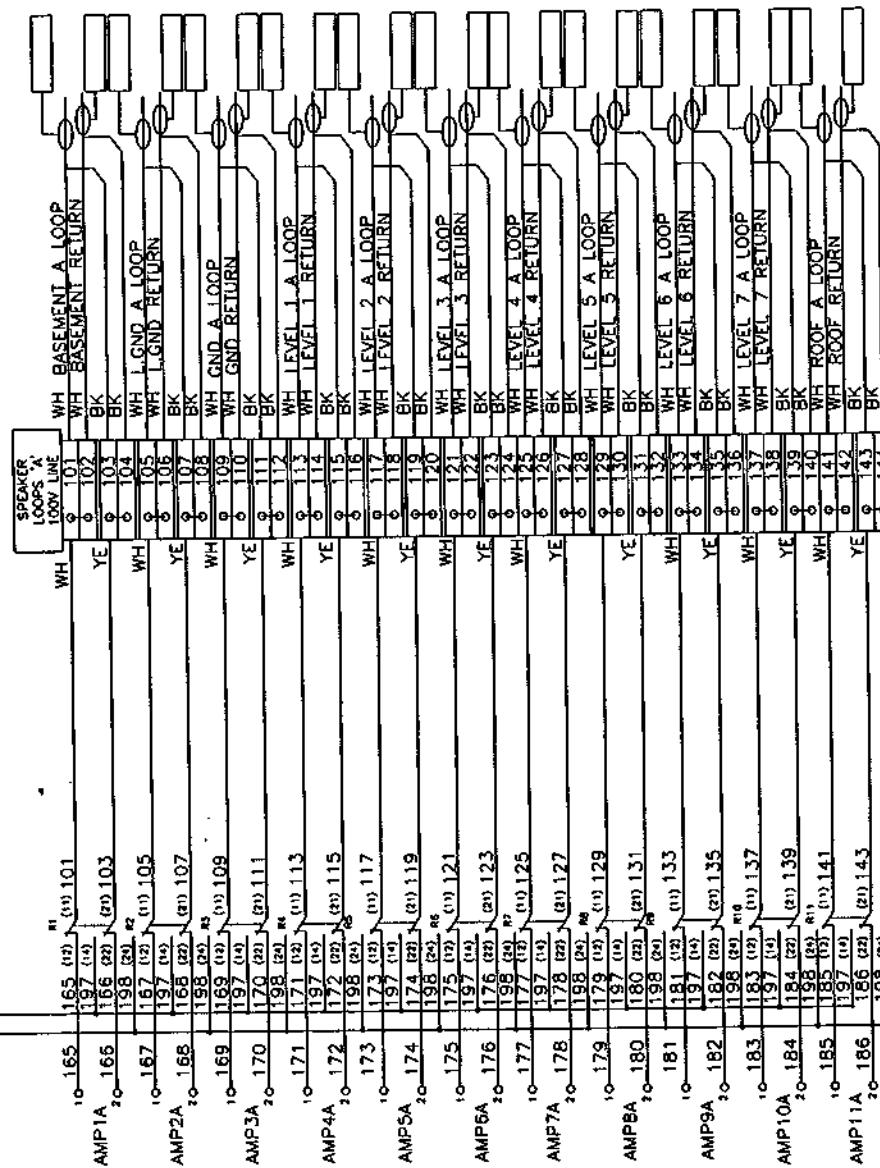
FRONT VIEW INSIDE VIEW

				THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM AKUSTA-IFE Ltd	TITLE CARLTON GARDENS P.A./V.A. SYSTEM RACKS GENERAL ARRANGEMENT	DRAWN: K.PARR	DRAWING NO:
1	ORIGINAL ISSUE	N/A	18-03-99			DATE: 18-03-99	72819001
REV	DESCRIPTION	C.N.	CHK'D	DATE		APPR'D	
						JOB No. 72819	
						SCALE: 1:12.5	
						SHEET 1 OF 1 SHEETS	

30 MAR 1999

ORIGINAL

NO.72819003



*ALL NUMBERS PREFIXED BY 'A'

1	ORIGINAL ISSUE		✓	23-03-99
REV	DESCRIPTION	C.N.	CHK'D	DATE

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TITLE
CARLTON GARDENS
RACK
P.A./V.A. SYSTEM
SPEAKER & TERMINATIONS LOOP A

DRAWN: K.PARR
DATE: 23-03-99
APPR'D: *[Signature]*
JOB No. 72819
SCALE: 1:2

DRAWING No:
72819003
REV
1
SHEET 1 OF 1 SHEETS

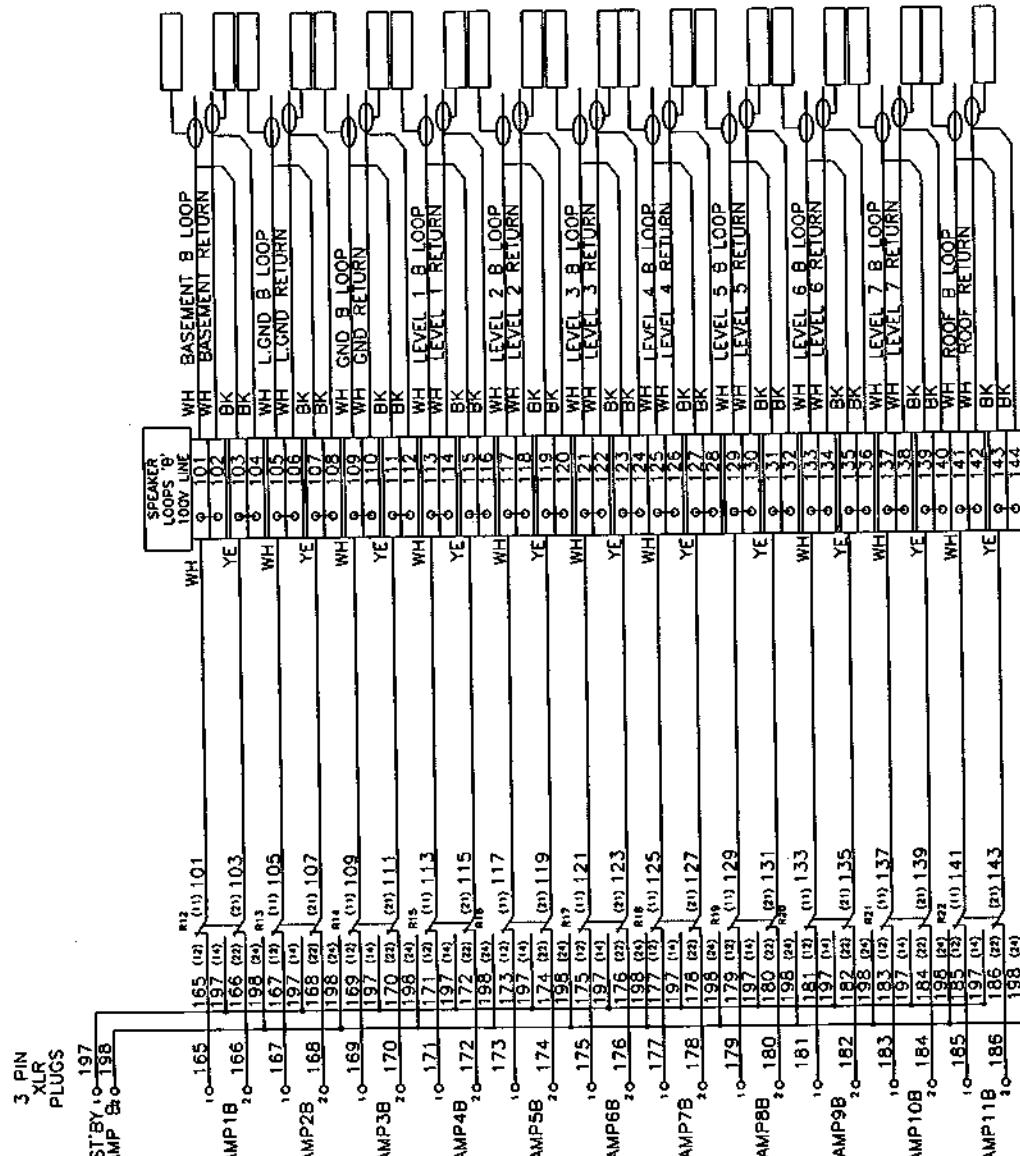
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AKUSTA

No. 72819004



*ALL NUMBERS PREFIXED BY 'B'

1	ORIGINAL ISSUE	✓	23-03-99	
REV	DESCRIPTION	C.N.	CHK'D	DATE

3 PIN
XLR
PLUGSSTBY 197
AMP 8 198

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TITLE
CARLTON GARDENS
RACK
P.A./V.A. SYSTEM
SPEAKER & TERMINATIONS LOOP B

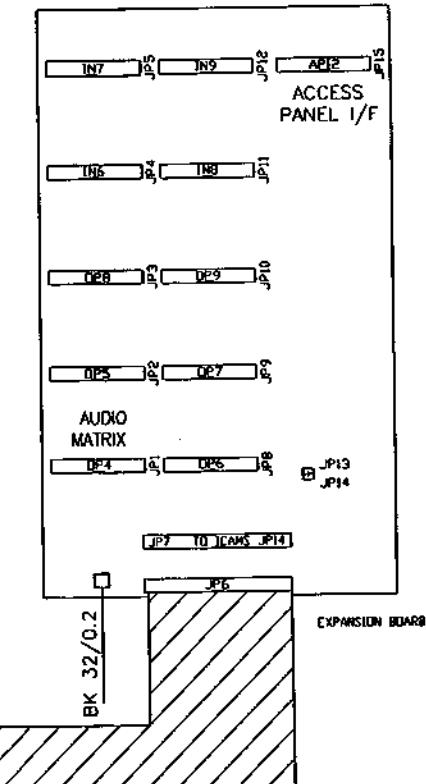
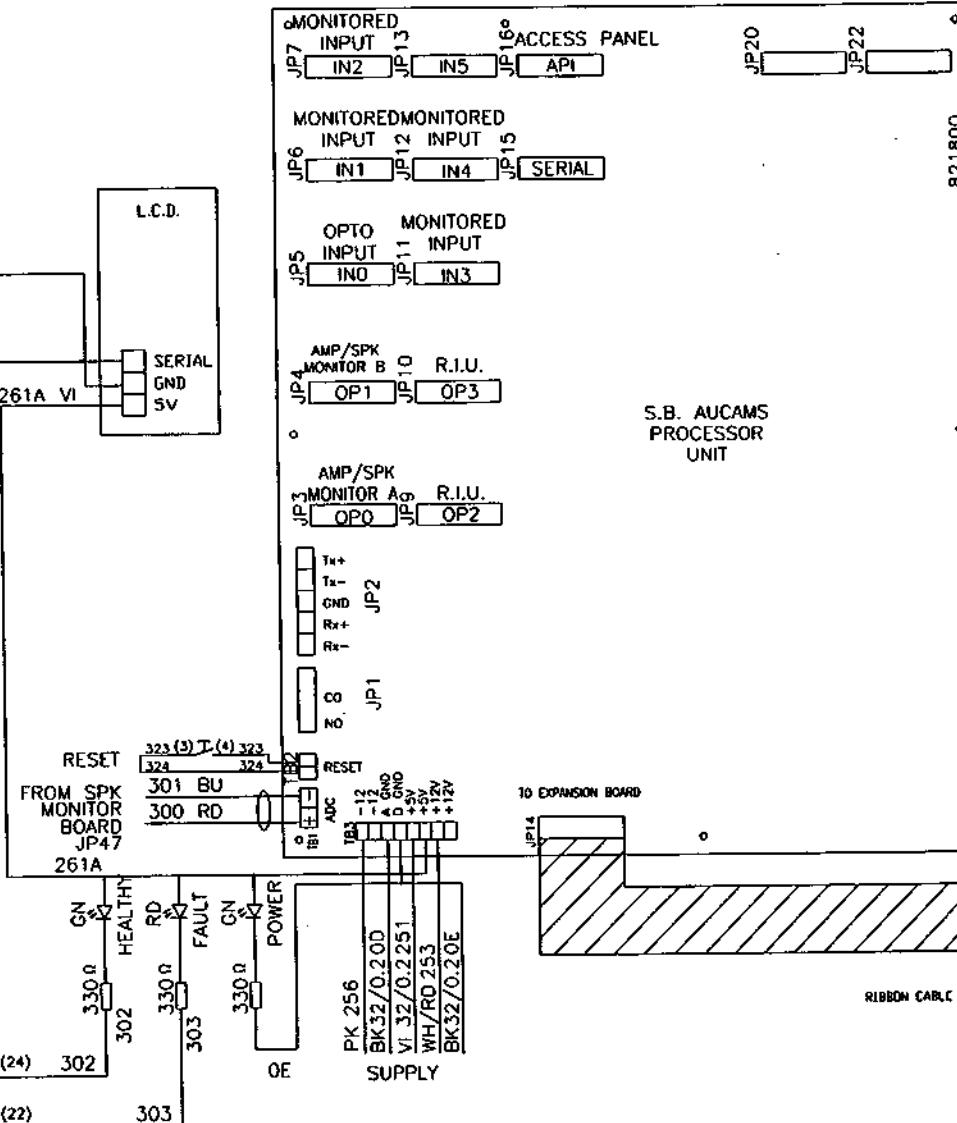
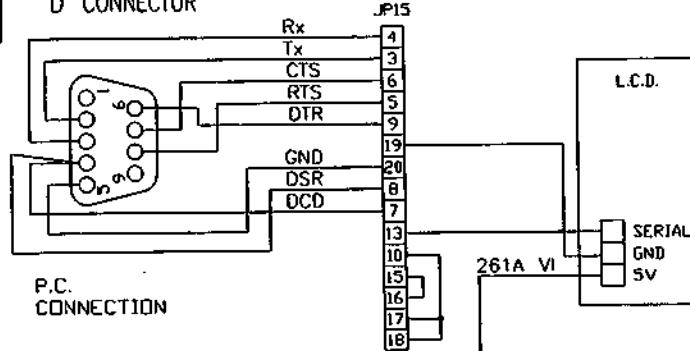
DRAWN: K.PARR
DATE: 23-03-99
APPR'D: *[Signature]*
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SCALE: 1:2

DRAWING No:
72819004
1
SHEET 1 OF 1 SHEETS

30 MAR 1999

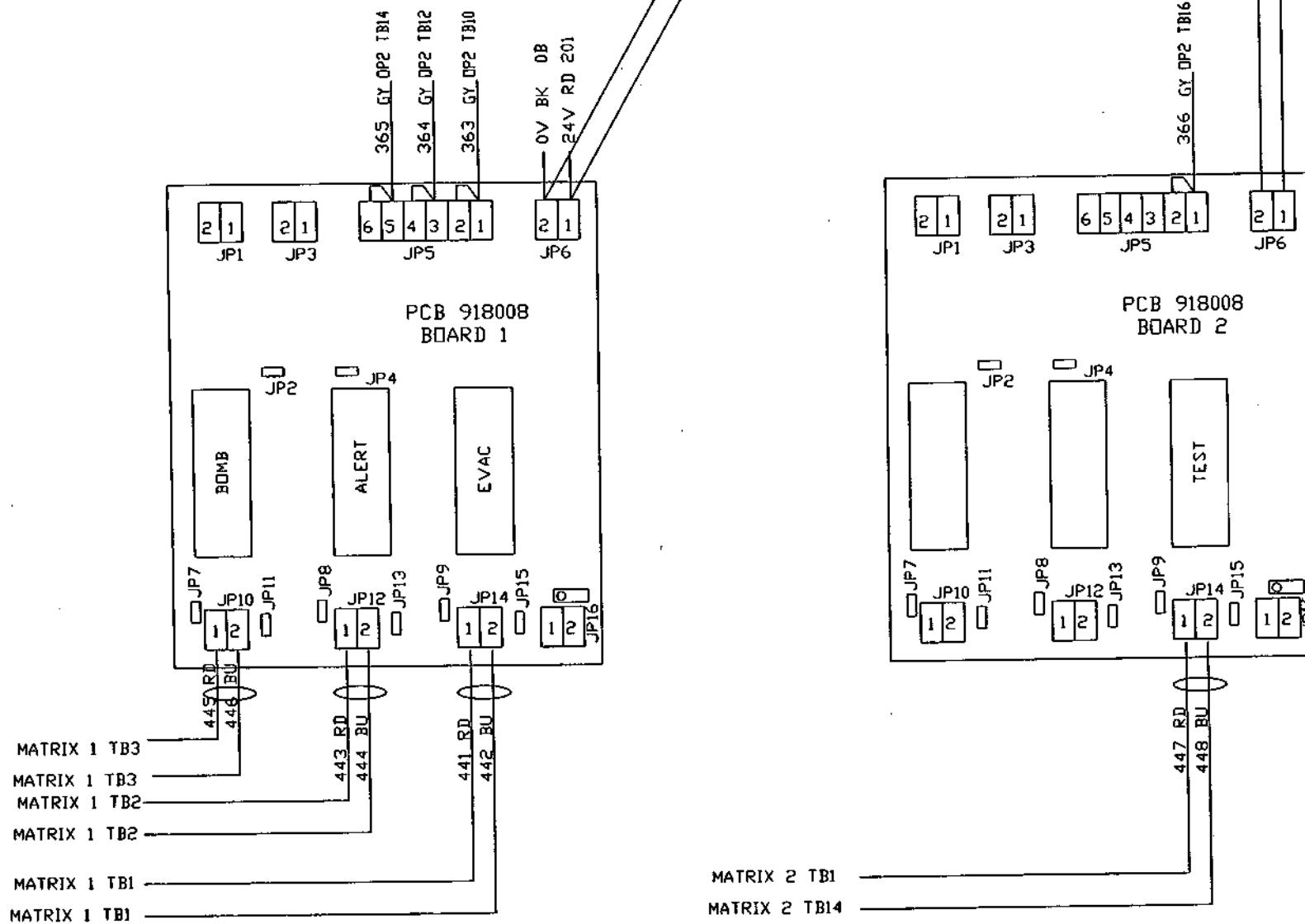
ORIGINAL

No. 72819005

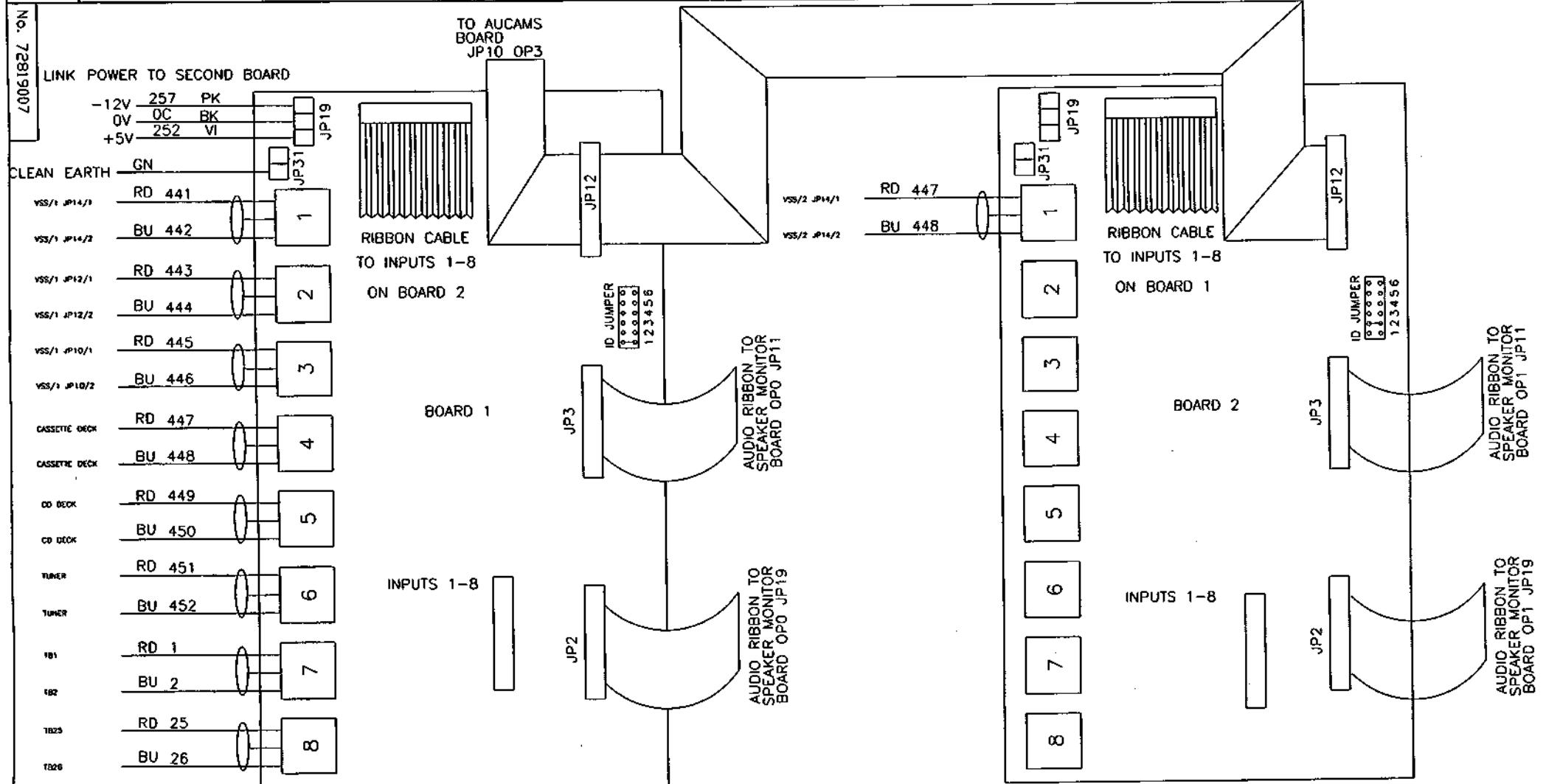
9 WAY FEMALE
'D' CONNECTOR

					THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM FEDERAL SIGNAL Ltd	TITLE CARLTON GARDENS P.A./V.A. SYSTEM RACK S.B. AUCAMS G.A. & WIRING DIAGRAM	DRAWN: K.PARR DATE: 23-03-99 APPR'D JOB No. 72819 SCALE: 1:2.5	DRAWING No: 72819005	REV 1	
1	ORIGINAL ISSUE.		✓	23-03-99					SHEET 1 OF 1 SHEETS	
REV	DESCRIPTION	C.N.	CHK'D	DATE						

No. 72819006



REV	DESCRIPTION	C.N.	CHK'D	DATE	THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM FEDERAL SIGNAL Ltd	TITLE	DRAWN: K.PARR DATE: 23/03/99 APPR'D: <i>[Signature]</i>	DRAWING NO: 72819006	REV 1
1	ORIGINAL ISSUE			23/03/99		CARLTON GARDENS P.A./V.A. SYSTEM VOICE STORAGE MODULE WIRING	JOB No. 72819 SCALE: N/A	SHEET 1 OF 1 SHEETS	



1	ORIGINAL ISSUE	/201	23-03-99						
REV	DESCRIPTION	C.N.	CHK'D	DATE					

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TITLE CARLTON GARDENS P.A./V.A. SYSTEM

AUDIO MATRIX SWITCH OP4

DRAWN: K.PARR DRAWING No: 72819007 REV 1

DATE: 23-03-99

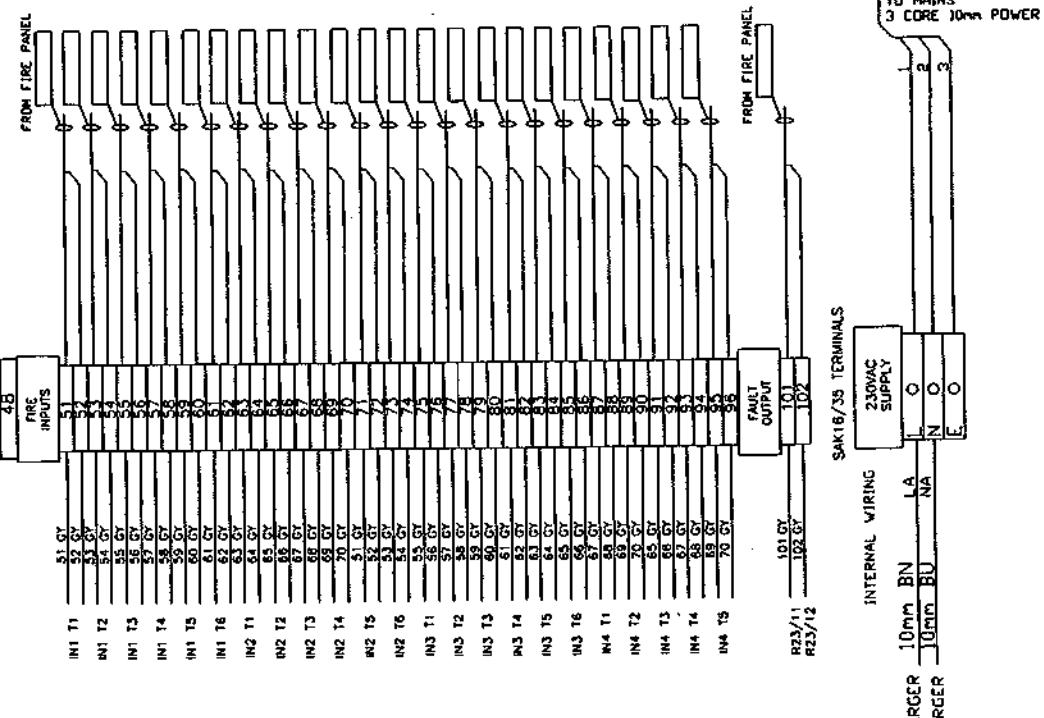
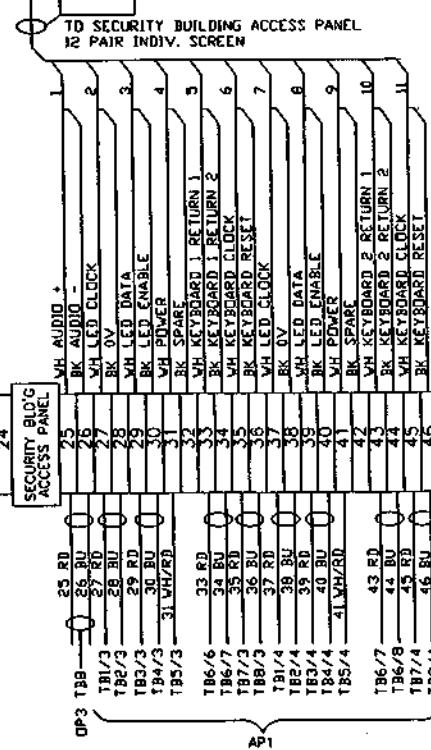
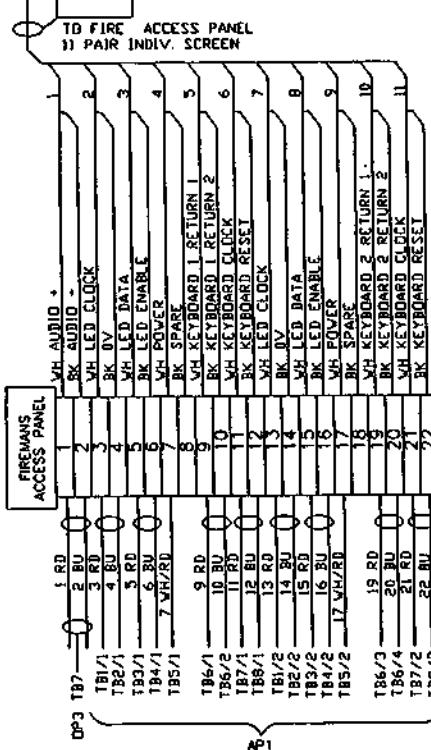
APPR'D: *[Signature]*

JOB No. 72819

SCALE: 1:1

SHEET 1 OF 1 SHEETS

NO. 1819008



REV	ORIGINAL ISSUE.	NOTE	DATE
DESCRIPTION		C.N.	CHK'D
1			23/03/99

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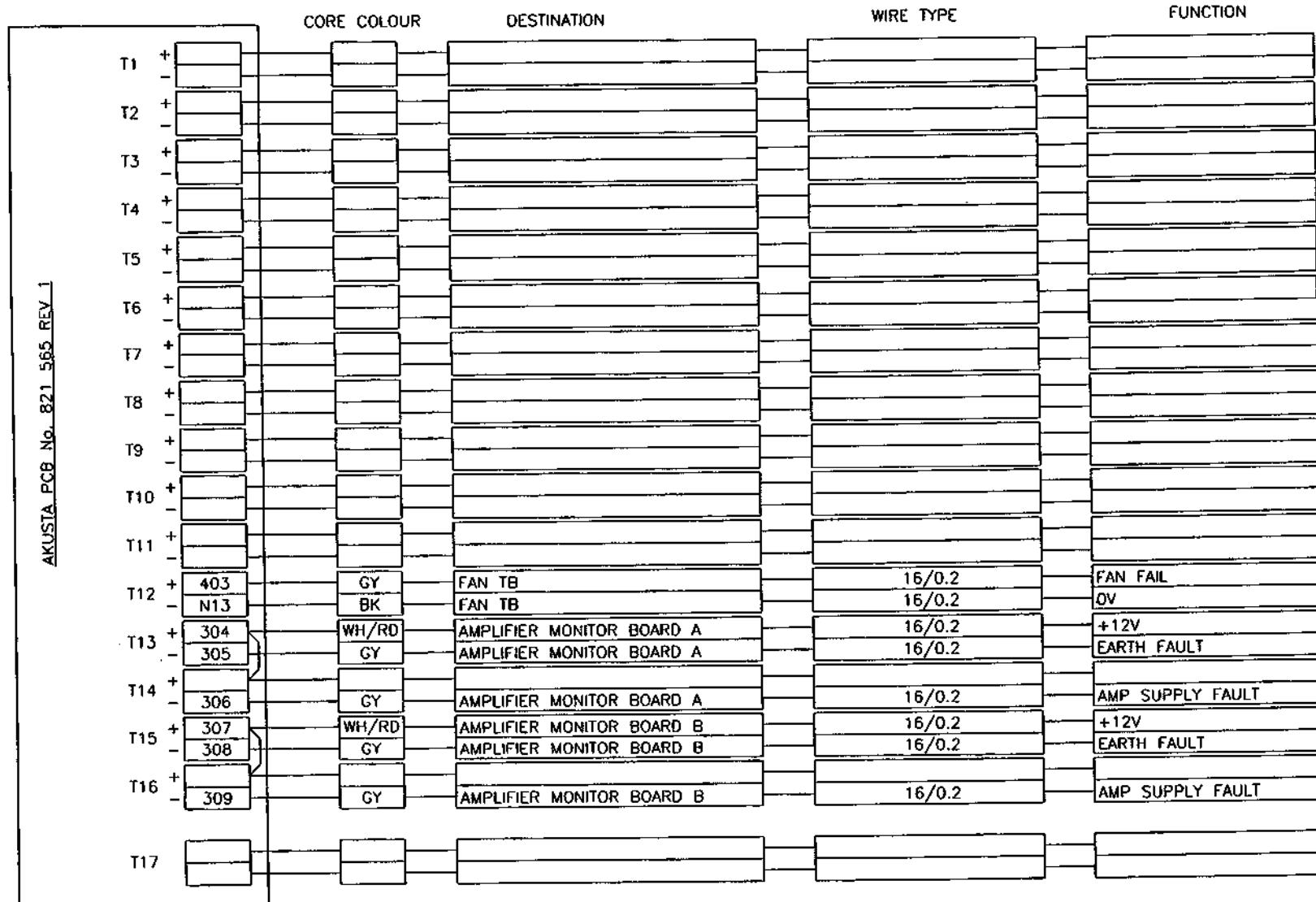
TITLE
CARLTON GARDENS
P.A./V.A. SYSTEM
RACK
TERMINATION DIAGRAM

DRAWN: K.PARR
DATE: 23/03/99
APPR'D: *[Signature]*
JOB No. 72819
SCALE: N/A

DRAWING No:
72819008
REV: 1
SHEET 1 OF 1 SHEETS

No. 72819009

AKUSTA PCB No. 821 565 REV. 1



1	ORIGINAL ISSUE	✓	23-03-99	THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM FEDERAL SIGNAL Ltd	TITLE CARLTON GARDENS P.A./V.A. SYSTEM RACKS OPTO-INPUT WIRING DIAGRAM INO	DRAWN: K.PARR DATE: 23-03-99 APPR'D: <i>[Signature]</i>	DRAWING No: 72819009	REV 1
REV	DESCRIPTION	C.N.	CHK'D	DATE		JOB No. 72819 SCALE: N/A	SHEET 1 OF 1 SHEETS	

No. 12819010

RIBBON INTERFACE UNIT	CORE COLOUR	CORE NUMBER	DESTINATION	WIRE TYPE	SIGNAL / FUNCTION
0	1	351	R1-B	16/0.2	AMP 1A TO STAND-BY A C/D
1	3	352	R2-B	16/0.2	AMP 2A TO STAND-BY A C/D
2	5	353	R3-B	16/0.2	AMP 3A TO STAND-BY A C/D
3	7	354	R4-B	16/0.2	AMP 4A TO STAND-BY A C/D
4	9	355	R5-B	16/0.2	AMP 5A TO STAND-BY A C/D
5	11	356	R6-B	16/0.2	AMP 6A TO STAND-BY A C/D
6	13	357	R7-B	16/0.2	AMP 7A TO STAND-BY A C/D
7	15	358	R8-B	16/0.2	AMP 8A TO STAND-BY A C/D
8	2	359	R9-B	16/0.2	AMP 9A TO STAND-BY A C/D
9	4	360	R10-B	16/0.2	AMP 10A TO STAND-BY A C/D
10	6	361	R11-B	16/0.2	AMP 11A TO STAND-BY A C/D
11	8	362	R23-B	16/0.2	AMP CAMS SYSTEM HEALTHY/FAULT,FAULT D/P
12	10	363	VSS-JP5	16/0.2	ACTIVATE EVAC ALARM
13	12	364	VSS-JP5	16/0.2	ACTIVATE ALERT ALARM
14	14	365	VSS-JP5	16/0.2	ACTIVATE BOMB ALERT
15	16	366	VSS-JP5	16/0.2	ACTIVATE TEST ALARM
-12V					
+12V					
GROUND					
GROUND					
GROUND					
20					

				THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM FEDERAL SIGNAL LTD	TITLE CARLTON GARDENS P.A./V.A. SYSTEM RACK DP2 RIBBON INTERFACE WIRING INFORMATION	DRAWN: K.PARR	DRAWING NO:	REV:
						DATE: 23-03-99	72819010	1
						APPR'D: <i>[Signature]</i>		
1	ORIGINAL ISSUE		23-03-99			JOB NO. 72819		
REV	DESCRIPTION	C.N.	CHK'D	DATE		SCALE: N/A	SHEET 1 OF 5 SHEETS	

A3

(C) FEDERAL SIGNAL Ltd.

SNAPE ROAD - MACCLESFIELD - CHESHIRE - SK10 2NF - TEL: 01625 617341

AKUSTA

No.
72819011

RIBBON INTERFACE UNIT		CORE COLOUR	CORE NUMBER	DESTINATION	WIRE TYPE	SIGNAL/FUNCTION
0	1	GY	367	R12-B	16/0.2	AMP 1B TO STAND-BY B C/D
1	3	GY	368	R13-B	16/0.2	AMP 2B TO STAND-BY B C/D
2	5	GY	369	R14-B	16/0.2	AMP 3B TO STAND-BY B C/D
3	7	GY	370	R15-B	16/0.2	AMP 4B TO STAND-BY B C/D
4	9	GY	371	R16-B	16/0.2	AMP 5B TO STAND-BY B C/D
5	11	GY	372	R17-B	16/0.2	AMP 6B TO STAND-BY B C/D
6	13	GY	373	R18-B	16/0.2	AMP 7B TO STAND-BY B C/D
7	15	GY	374	R19-B	16/0.2	AMP 8B TO STAND-BY B C/D
8	2	GY	375	R20-B	16/0.2	AMP 9B TO STAND-BY B C/D
9	4	GY	376	R21-B	16/0.2	AMP 10B TO STAND-BY B C/D
10	6	GY	377	R22-B	16/0.2	AMP 11B TO STAND-BY B C/D
11	8	GY	378	FANS	16/0.2	FAN CONTROL
12	10					
13	12					
14	14					
15	16					
-12V	17					
+12V	18					
GROUND	19					
GROUND	20					

1	ORIGINAL ISSUE		✓	24-03-99	THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM FEDERAL SIGNAL Ltd	TITLE CARLTON GARDENS P.A./V.A. SYSTEM RACK OP3 RIBBON INTERFACE WIRING INFORMATION	DRAWN: K.PARR DATE: 24-03-99 APPR'D: <i>[Signature]</i>	DRAWING No: 72819011
REV	DESCRIPTION	C.N.	CHK'D	DATE			JOB No. 72819 SCALE: N/A	REV 1 SHEET 1 OF 1 SHEETS

30 MAR 1999

ORIGINAL

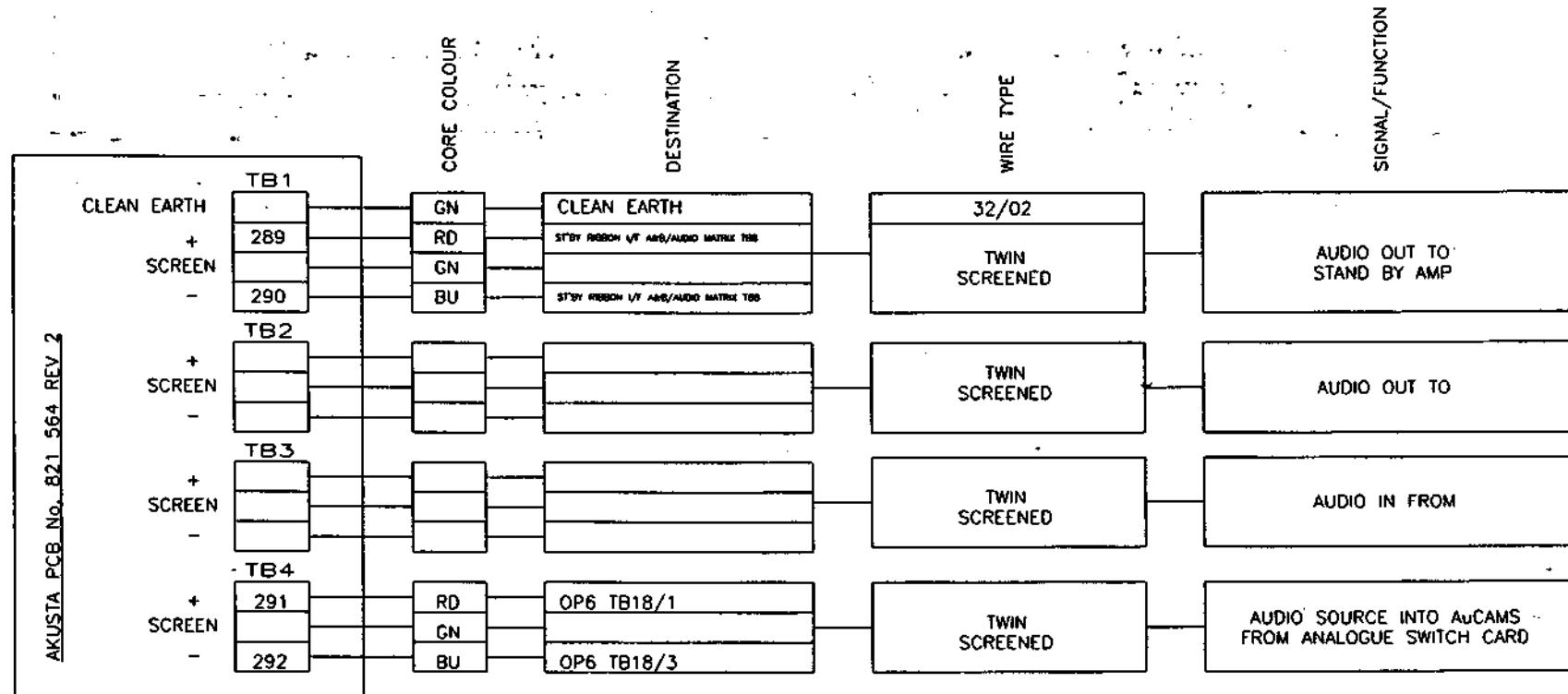
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(C) FEDERAL SIGNAL Ltd.

SNAPE ROAD - MACCLESFIELD - CHESHIRE - SK10 2NF - TEL: 01625 617341

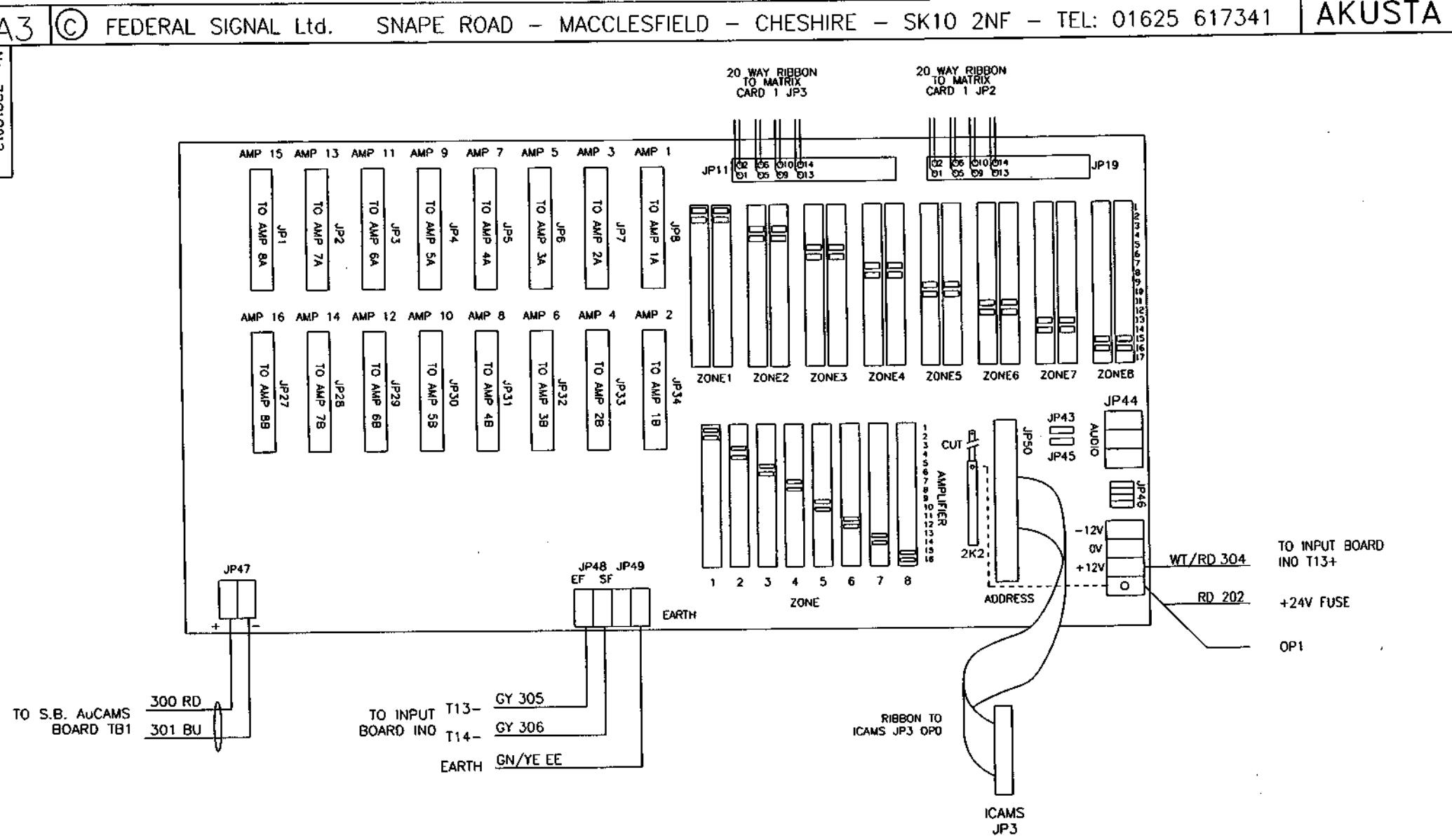
AKUSTA

21061991 72819012



				THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM FEDERAL SIGNAL Ltd	TITLE CARLTON GARDENS P.A./V.A. SYSTEM RACKS AUDIO MIXER TERMINATION CARD	DRAWN: K.PARR	DRAWING No:	REV
						DATE: 24-30-99		
1	ORIGINAL ISSUE.		24-03-99			APPR'D:	72819012	1
REV	DESCRIPTION	C.N.	CHK'D	DATE		JOB No. 72819	SHEET 1 OF 1 SHEETS	

No. 72819013

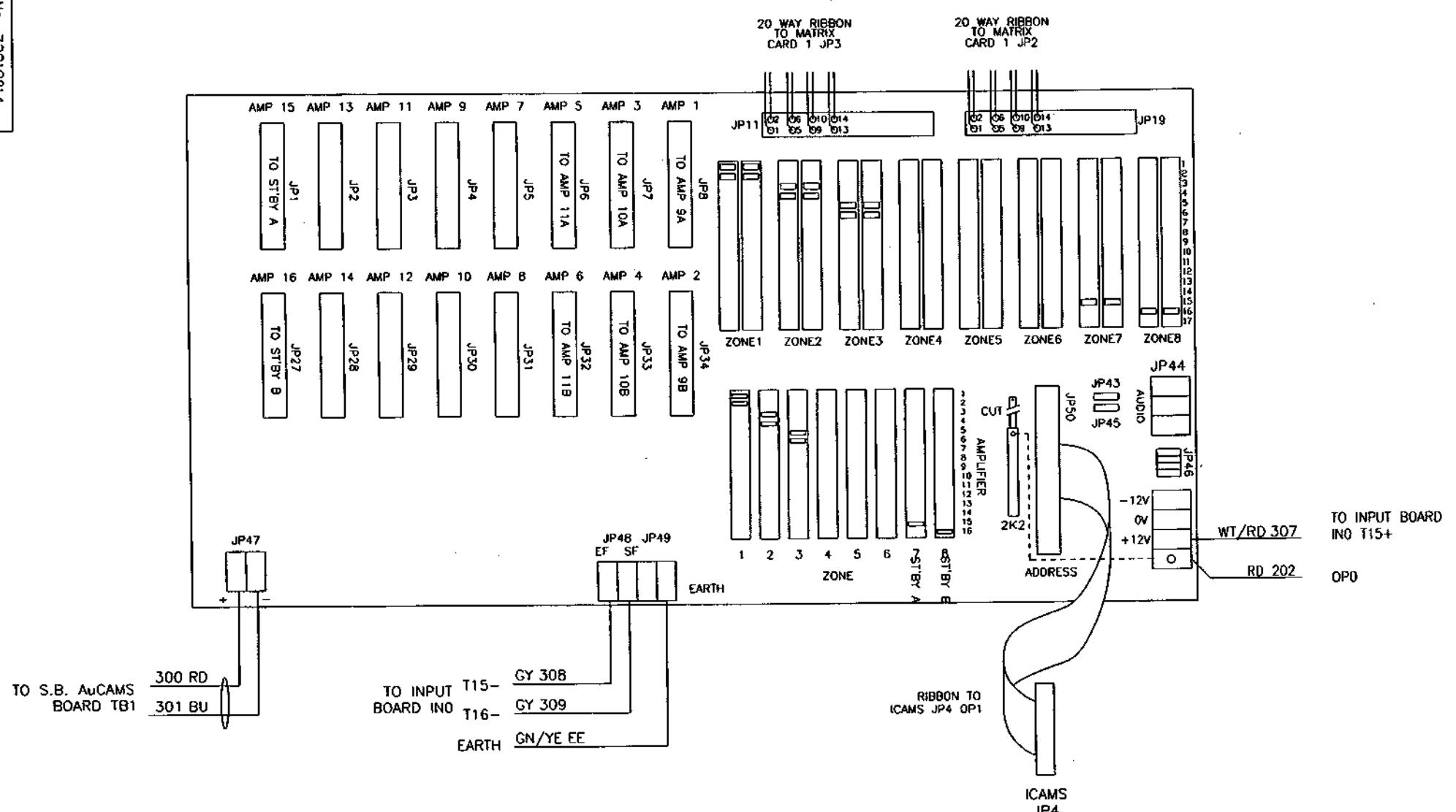


REV	ORIGINAL ISSUE	703	24-03-99	THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM FEDERAL SIGNAL Ltd	TITLE	CARLTON GARDENS P.A./V.A. SYSTEM RACK	DRAWN: K.PARR	DRAWING No: 72819013	REV 1
REV	DESCRIPTION	C.N.	CHK'D	DATE	JOB No.	72819	SCALE: 1:1	SHEET 1 OF 1 SHEETS	
1									

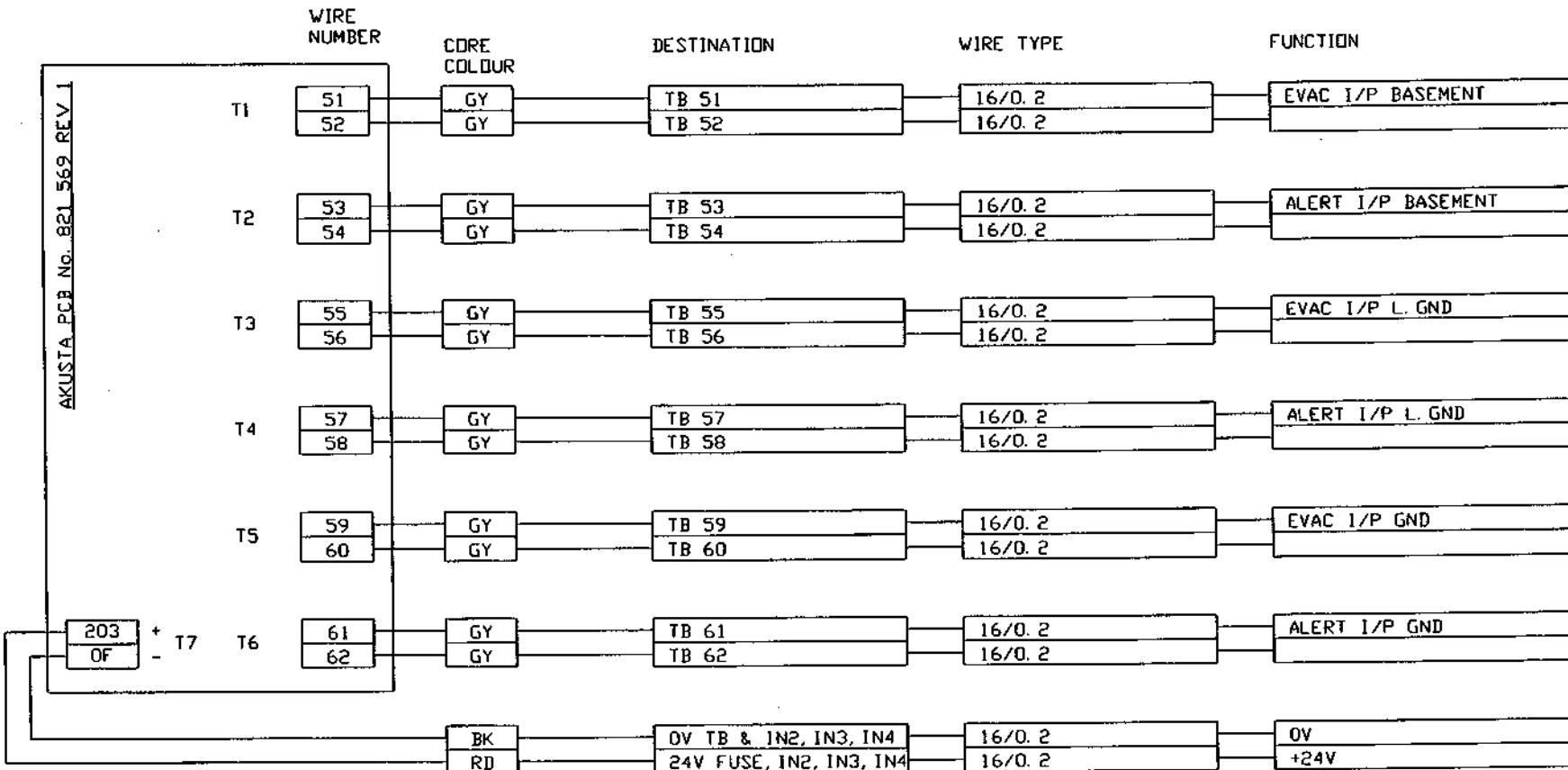
A3 (C) FEDERAL SIGNAL Ltd. SNAPE ROAD - MACCLESFIELD - CHESHIRE - SK10 2NF - TEL: 01625 617341

AKUSTA

NO. 72819014

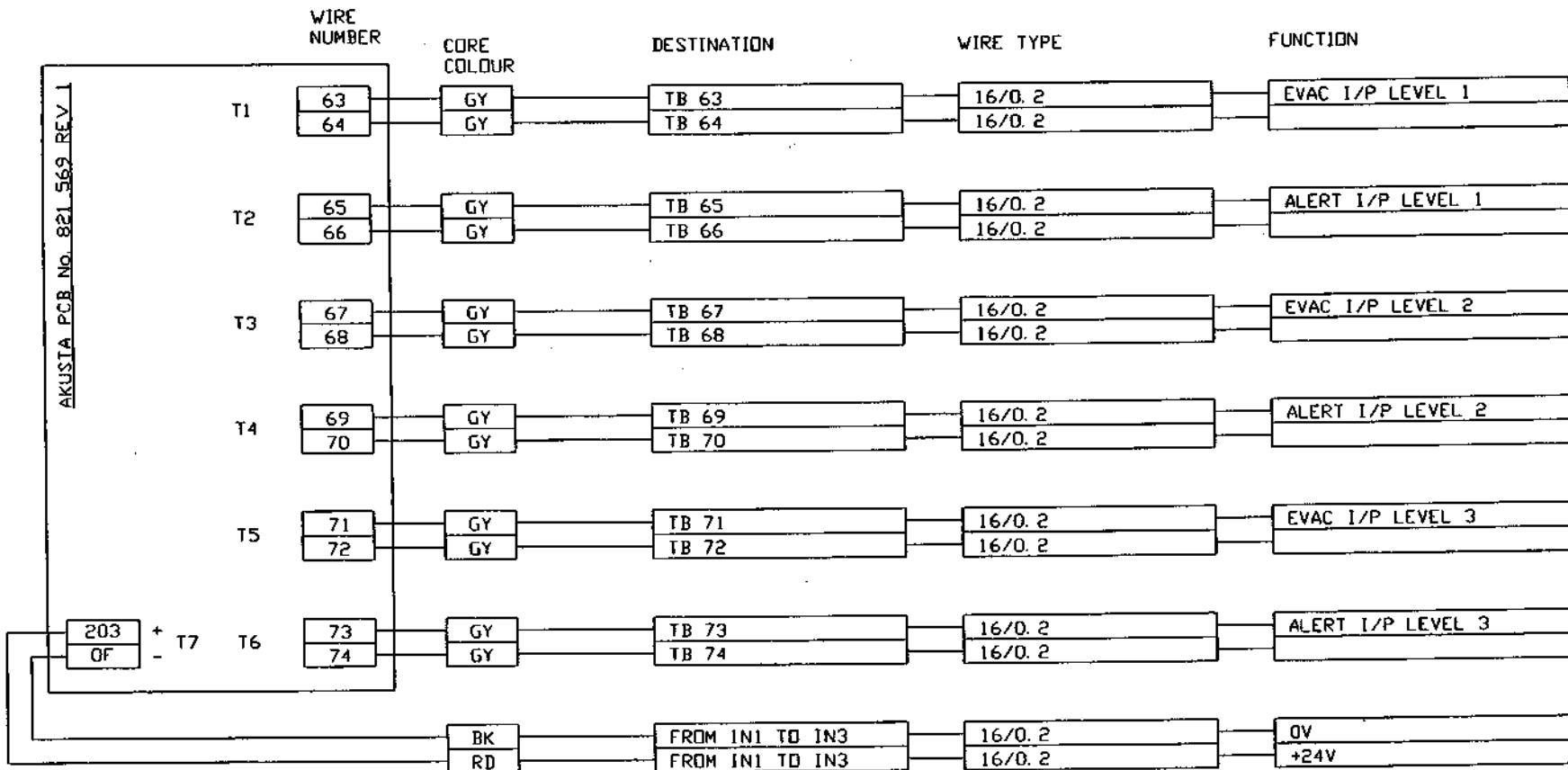


					THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM FEDERAL SIGNAL Ltd	TITLE CARLTON GARDENS P.A./V.A. SYSTEM RACK AMPLIFIER MONITOR CARD A OP1	DRAWN: K.PARR DATE: 24-03-99 APPR'D: <i>[Signature]</i>	DRAWING No: 72819014	REV 1
1	ORIGINAL ISSUE:	100	24-03-99	C.N. CHK'D DATE					
REV	DESCRIPTION	C.N.	CHK'D	DATE				SHEET 1 OF 1 SHEETS	



					THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM FEDERAL SIGNAL Ltd	TITLE CARLTON GARDENS P.A./V.A. SYSTEM RACK S.B. AuCAMS MONITORED INPUT CARD IN1 WIRING INFORMATION	DRAWN: K.PARR	DRAWING NO: 72819015	REV 1
1	ORIGINAL ISSUE			✓ 20			DATE: 24-03-99		
REV	DESCRIPTION	C.N.	CHK'D	DATE			APPR'D: <i>[Signature]</i>		
							JOB No. 72819		
							SCALE: N/A		
							SHEET 1 OF 1 SHEETS		

No. 72819016



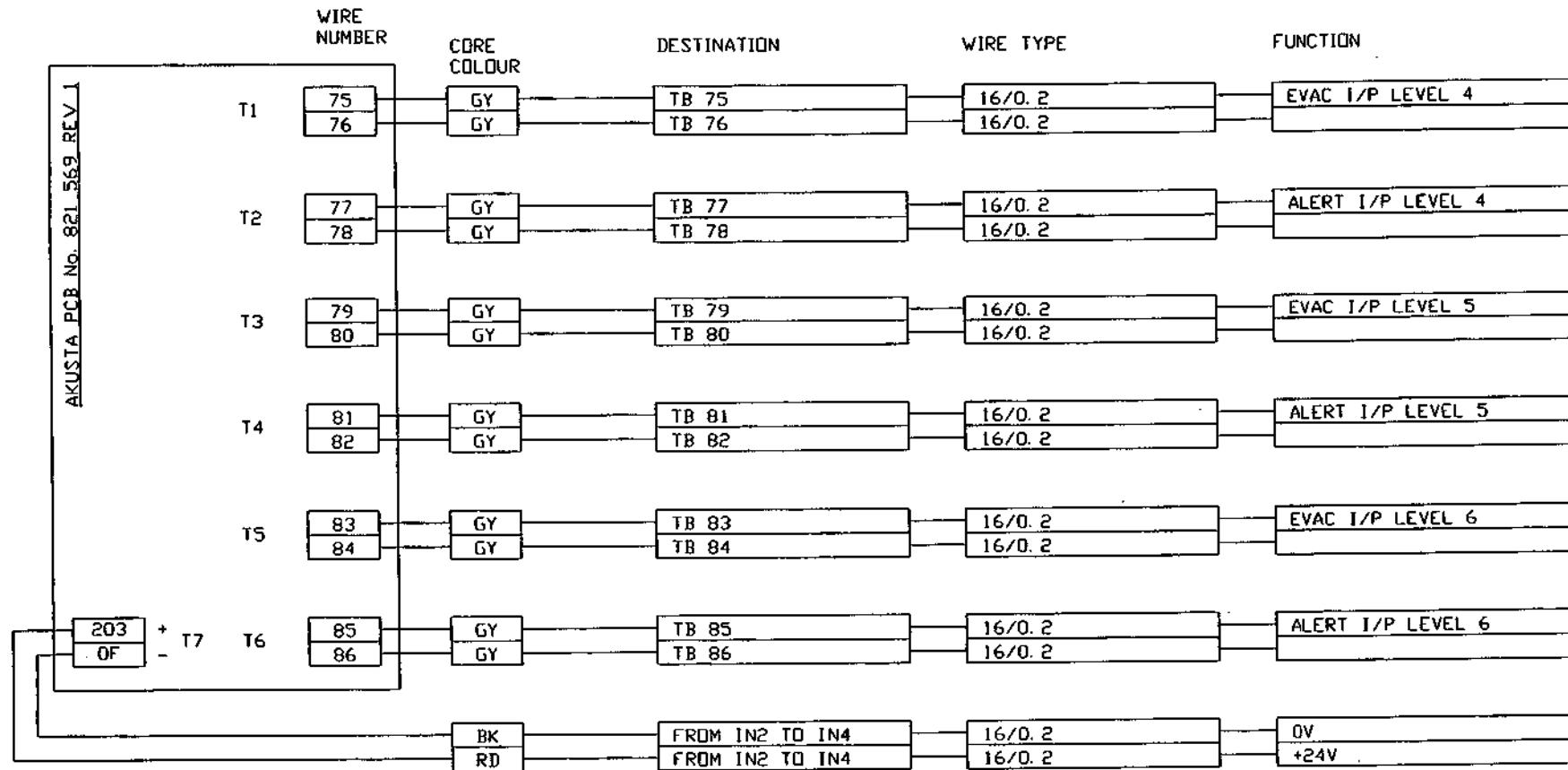
				THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM FEDERAL SIGNAL Ltd	TITLE CARLTON GARDENS P.A./V.A. SYSTEM RACK S.B. AuCAMS MONITORED INPUT CARD IN2 WIRING INFORMATION	DRAWN:	K.PARR	DRAWING No: 72819016 REV 1
1	ORIGINAL ISSUE		Mos			DATE:	24-03-99	
REV	DESCRIPTION	C.N.	CHK'D			APPR'D:	<i>[Signature]</i>	
						JOB No.	72819	
						SCALE:	N/A	
						SHEET	1 OF 1 SHEETS	

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AKUSTA

No.72819017

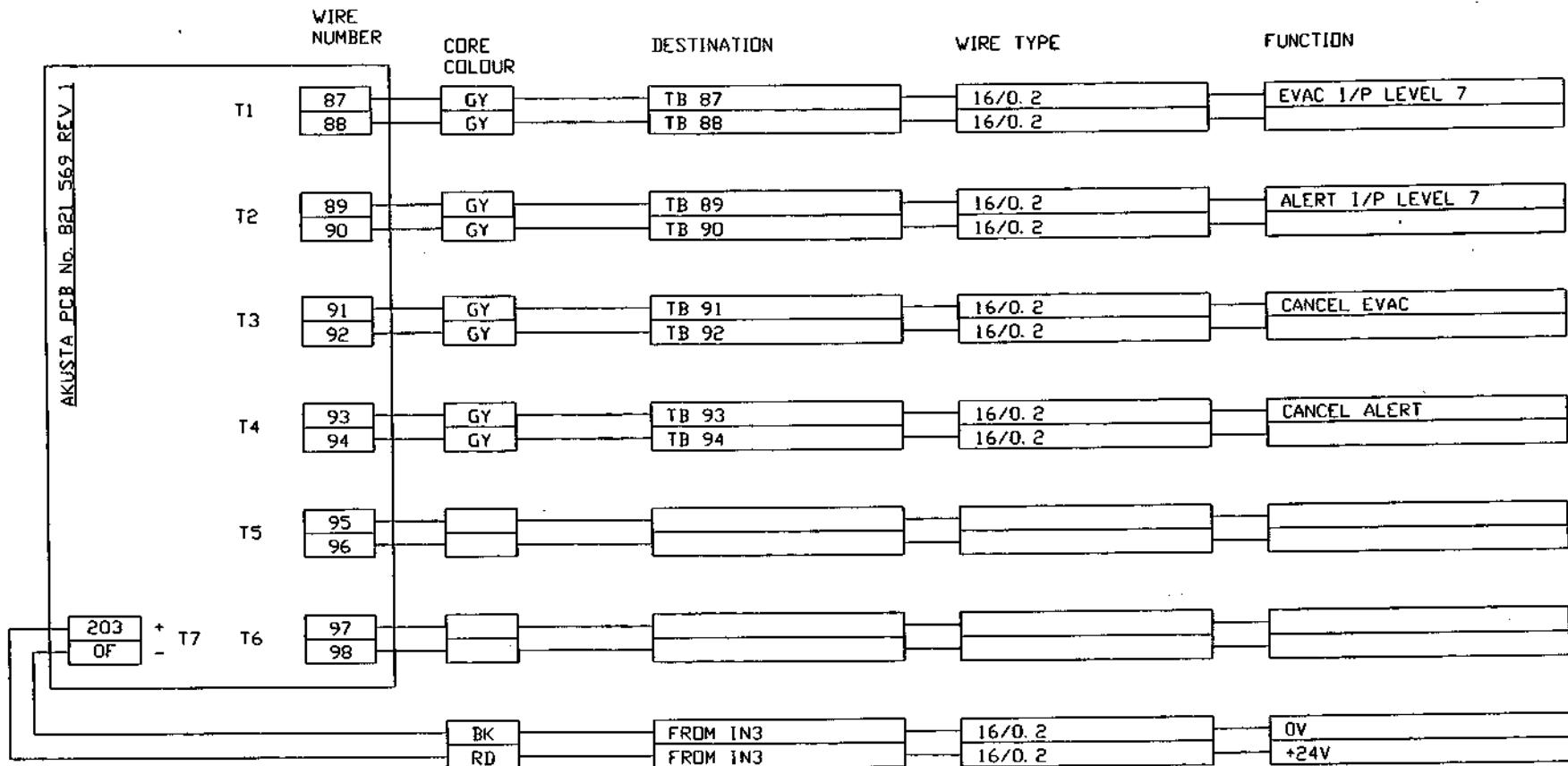


REV	DESCRIPTION	C.N.	CHK'D	DATE	THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM FEDERAL SIGNAL Ltd	TITLE CARLTON GARDENS P.A./V.A. SYSTEM RACK S.B. AuCAMS MONITORED INPUT CARD IN3 WIRING INFORMATION	DRAWN: K.PARR DATE: 24-03-99 APPR'D: <i>[Signature]</i>	DRAWING NO: 72819017	REV 1
1	ORIGINAL ISSUE	/908		24-03-99			JOB No. 72819 SCALE: N/A	SHEET 1 OF 1 SHEETS	

30 MAR 1999

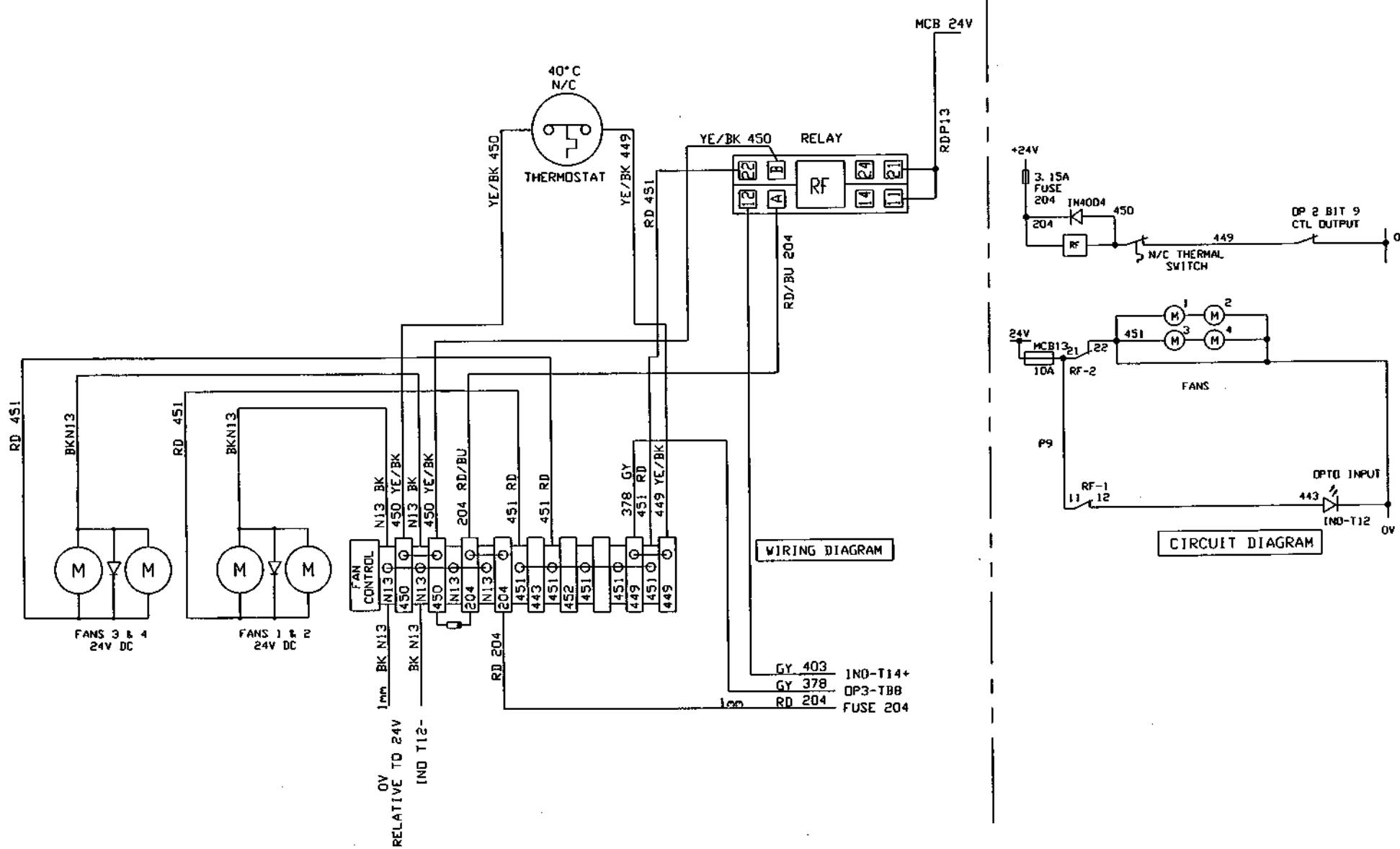
ORIGINAL

AKUSTA PCB No. 821569 REV 1



				THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM FEDERAL SIGNAL Ltd	TITLE CARLTON GARDENS P.A./V.A. SYSTEM RACK S.B. AuCAMS MONITORED INPUT CARD IN4 WIRING INFORMATION	DRAWN: K.PARR DATE: 24-03-99 APPR'D:  	DRAWING No: 72819018	REV: 1
1	ORIGINAL ISSUE	P22	24-03-99			JOB No. 72819		
REV:	DESCRIPTION	C.N.	CHK'D	DATE		SCALE: N/A	SHEET 1 OF 1 SHEETS	

No. /2819616



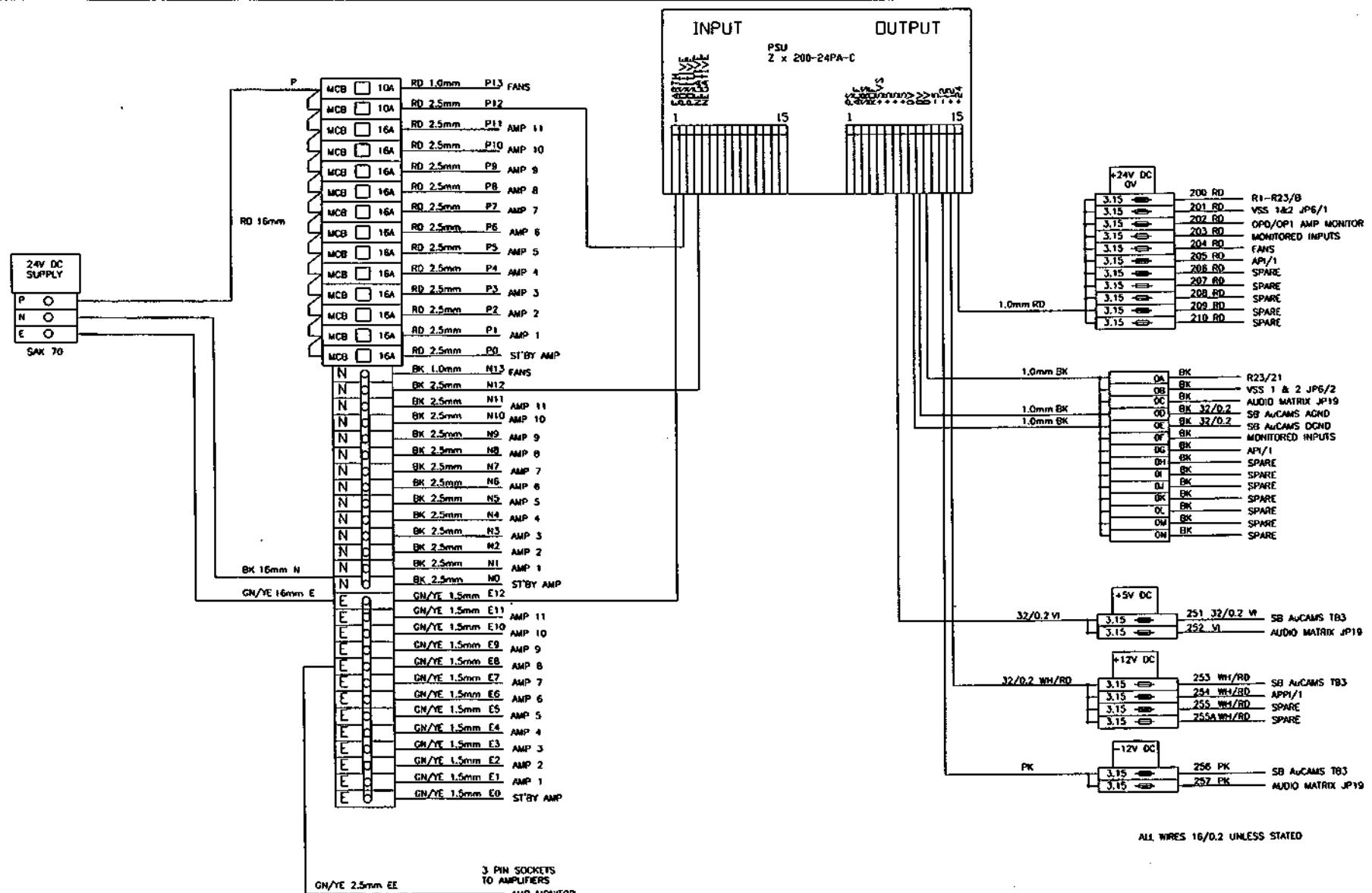
1	ORIGINAL ISSUE	/77	24/03/99
REV	DESCRIPTION	C.N.	CHK'D
			DATE

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FEDERAL SIGNAL Ltd

LE
CARLTON GARDENS
P.A./V.A. SYSTEM
CONTROL/AMPLIFIER RACK
FAN WIRING & CIRCUIT DIAGRAMS

DRAWN: K.PARR	DRAWING No:	REV
DATE: 24/03/99	72819019	1
APPR'D: <i>[Signature]</i>		
JOB No. 72819	SHEET 1 OF 1 SHEETS	
SCALE: 1:1		

No. 72819020



ALL WIRES 16/0.2 UNLESS STATED

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						DATE: 25/03/99		
1	ORIGINAL ISSUE		✓	25/03/99		JOB NO. 72819		
REV	DESCRIPTION	C.N.	CHK'D	DATE		SCALE: 1:1	SHEET 1 OF 1 SHEETS	

A3

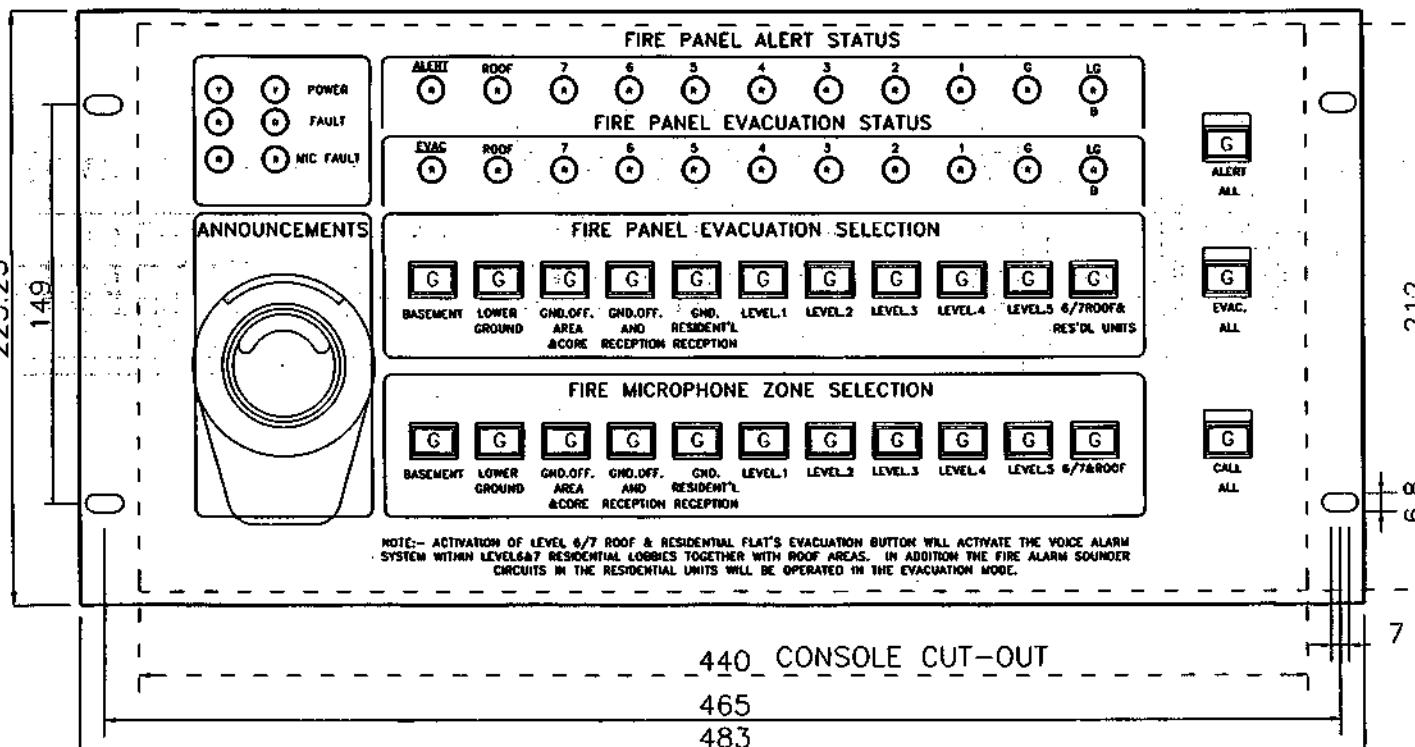
(C) FEDERAL SIGNAL Ltd.

SNAPE ROAD - MACCLESFIELD - CHESHIRE - SK10 2NF - TEL: 01625 617341

AKUSTA

No.
72819101

225.25



PCB 821709

164.3

SIDE VIEW OF
ACCESS PANEL

11 MAY 1999

ORIGINAL

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REV	DESCRIPTION	C.N.	CHK'D			DATE: 15.03.99 APPR'D: <i>[Signature]</i>		
2	LAYOUT RE-DESIGNED	B019	<i>[Signature]</i>	27.04.99				
1	ORIGINAL ISSUE.	MJS		15.03.99				
REV	DESCRIPTION	C.N.	CHK'D	DATE			SHEET 1 OF 1 SHEETS	

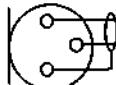
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(C) FEDERAL SIGNAL Ltd. SNAPE ROAD - MACCLESFIELD - CHESHIRE - SK10 2NF - TEL: 01625 617341

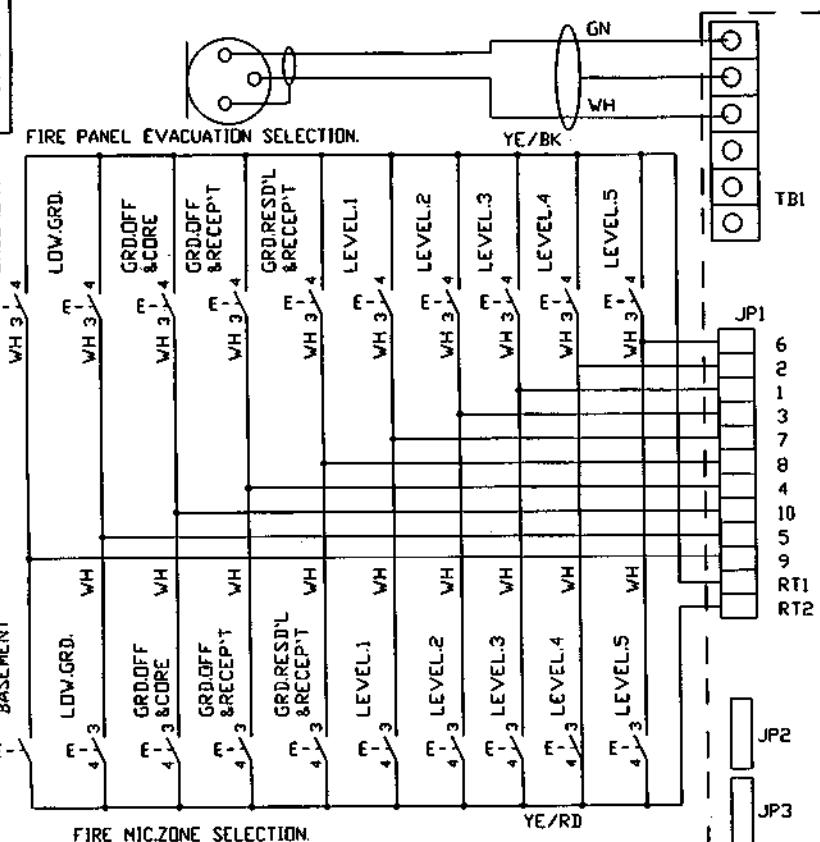
AKUSTA

ON
20161827

MICROPHONE



FIRE PANEL EVACUATION SELECTION.



NOTES:

- 1) ALL WIRES ARE 7/0.2 UNLESS OTHERWISE STATED
- 2) FIT LINK JP6 FOR FAULT BUZZER OUTPUT ON BIT 34

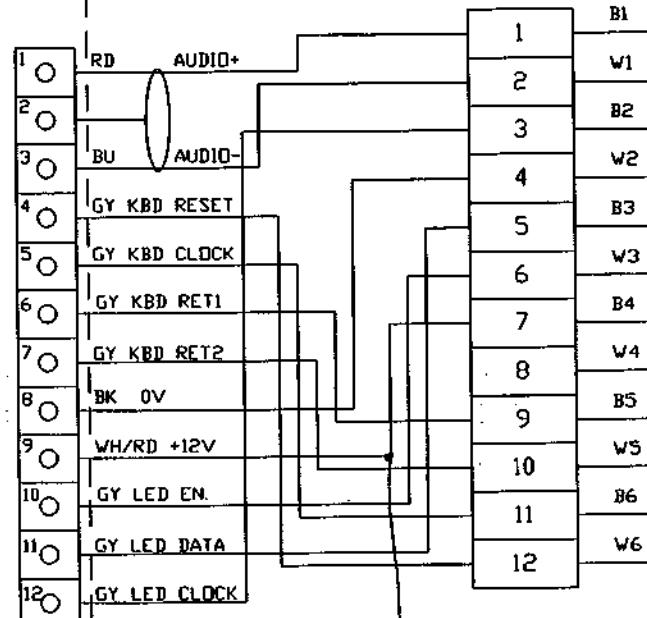
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FEDERAL SIGNAL Ltd

TITLE

CARLTON GARDENS
P.A./V.A. SYSTEM
FIREMAN'S ACCESS PANEL A1
WIRING DIAGRAM

12 PR INDIVIDUALLY
SCREENED
CABLE TO RACK

22 x AKZ4
TERMINALS

FIRE PANEL
EVACUATION SELECTION

FIRE MICROPHONE ZONE SELECTION

FIRE MIC ZONE SELECTION

LEVEL 1

LEVEL 2

LEVEL 3

LEVEL 4

LEVEL 5

LEVEL 6

LEVEL 7

LEVEL 8

LEVEL 9

LEVEL 10

LEVEL 11

LEVEL 12

LEVEL 13

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LEVEL 16

LEVEL 17

LEVEL 18

LEVEL 19

LEVEL 20

LEVEL 21

LEVEL 22

LEVEL 23

LEVEL 24

LEVEL 25

LEVEL 26

LEVEL 27

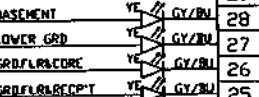
LEVEL 28

LEVEL 29

LEVEL 30

LEVEL 31

LEVEL 32

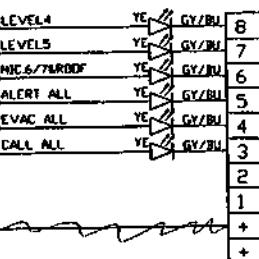


JP2

JP3

JP4

JP5

ACCESS PANEL DRIVER
BOARD 821709

JP6

JP7

JP8

JP9

JP10

JP11

JP12

SUPPLY MUST BE 12V dc
LEDs LOCATED IN SURFACE

11 MAY 1999

ORIGINAL

DRAWN: K.PARR

DATE: 16-03-99

APPR'D: *[Signature]*

JOB NO. 72819

SCALE: N/A

DRAWING NO:

72819102

REV

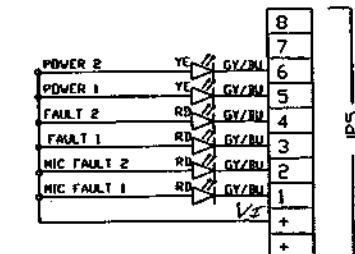
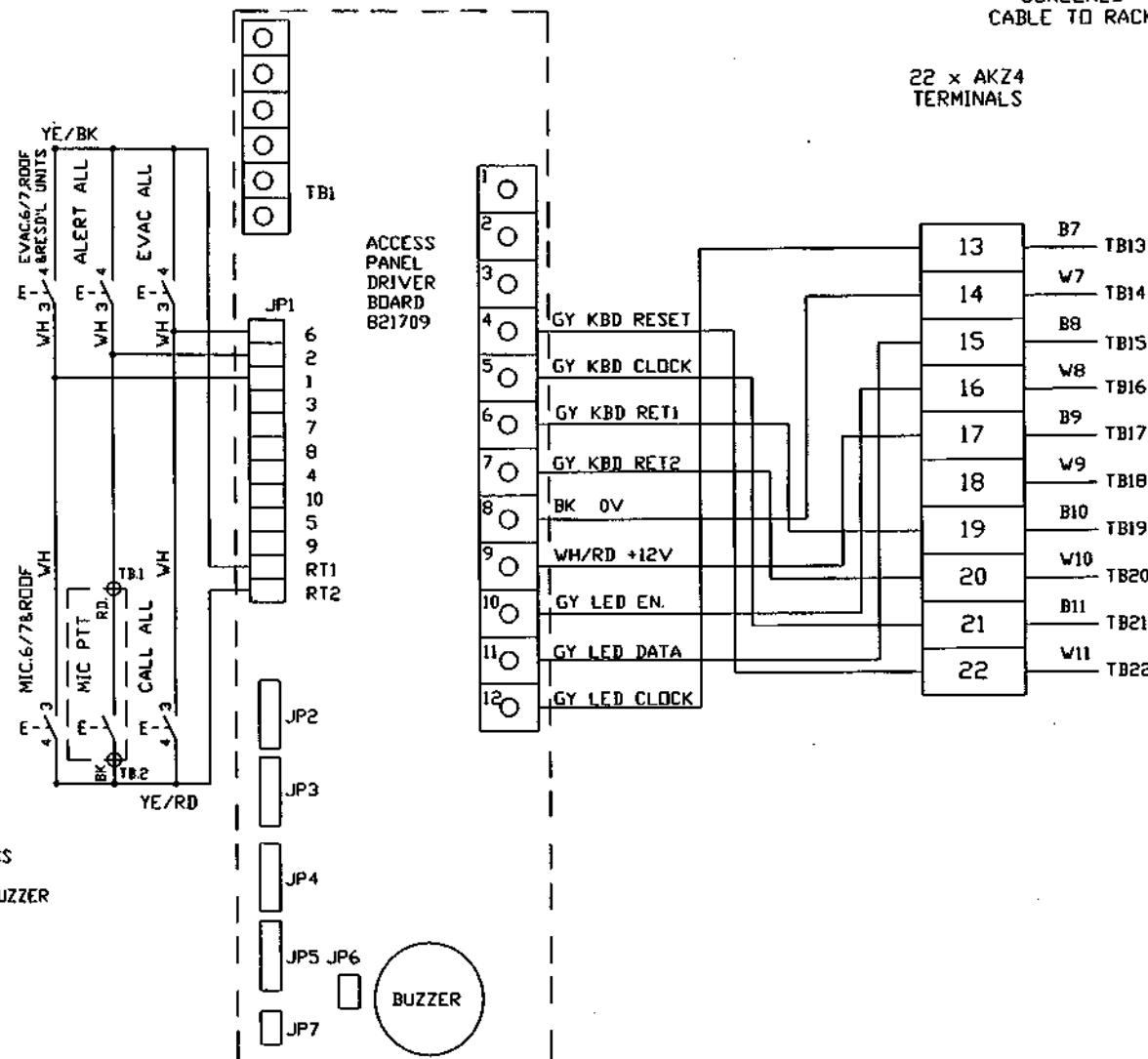
2

2	SW.IDENTS CHANGED	B019	<i>[Signature]</i>	27.04.99
1	ORIGINAL ISSUE.	MJS	16-03-99	
REV	DESCRIPTION	C.N.	CHK'D	DATE

SHEET 1 OF 1 SHEETS

A3

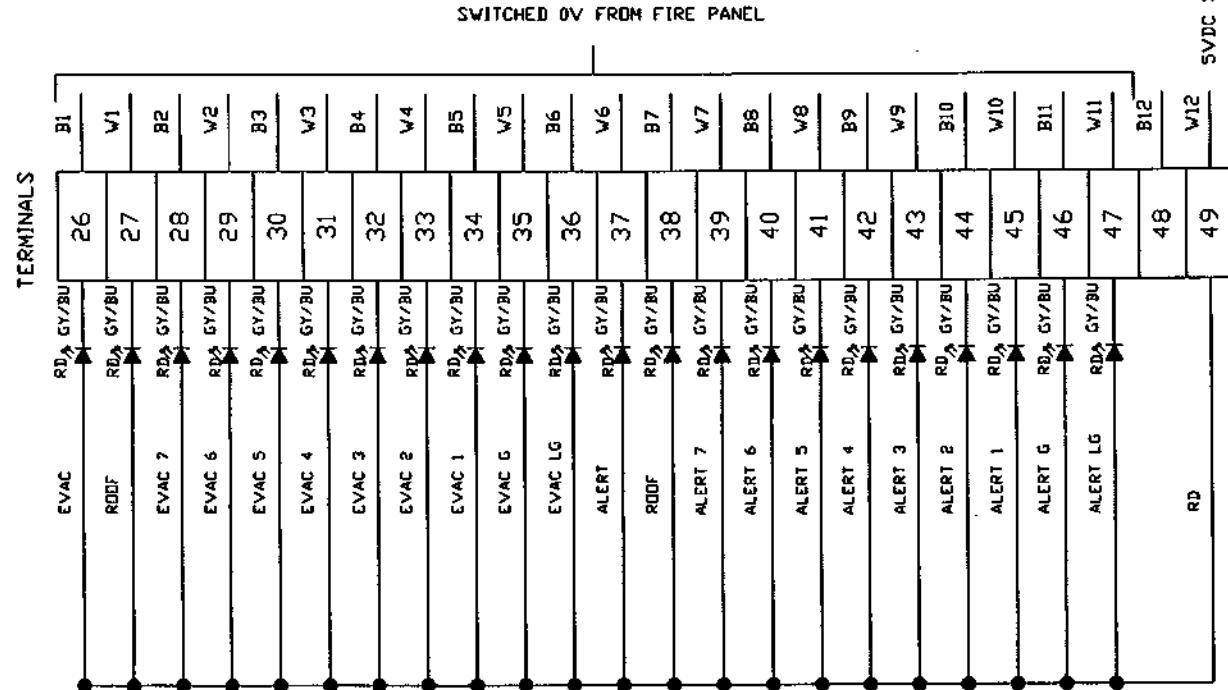
(C) FEDERAL SIGNAL Ltd. SNAPE ROAD - MACCLESFIELD - CHESHIRE - SK10 2NF - TEL: 01625 617341 AKUSTA

12 PR INDIVIDUALLY
SCREENED
CABLE TO RACK22 x AKZ4
TERMINALSLED'S LOCATED IN SWITCH

11 MAY 1999

ORIGINAL

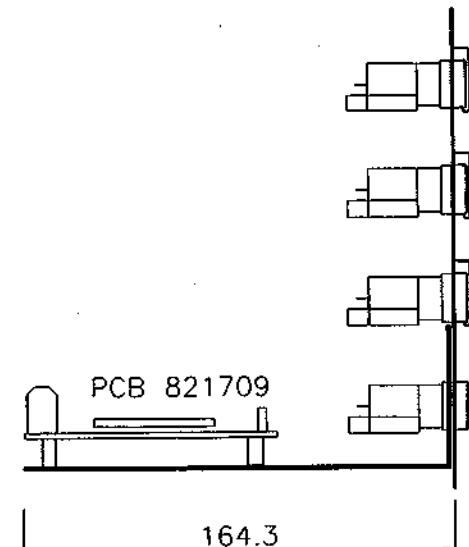
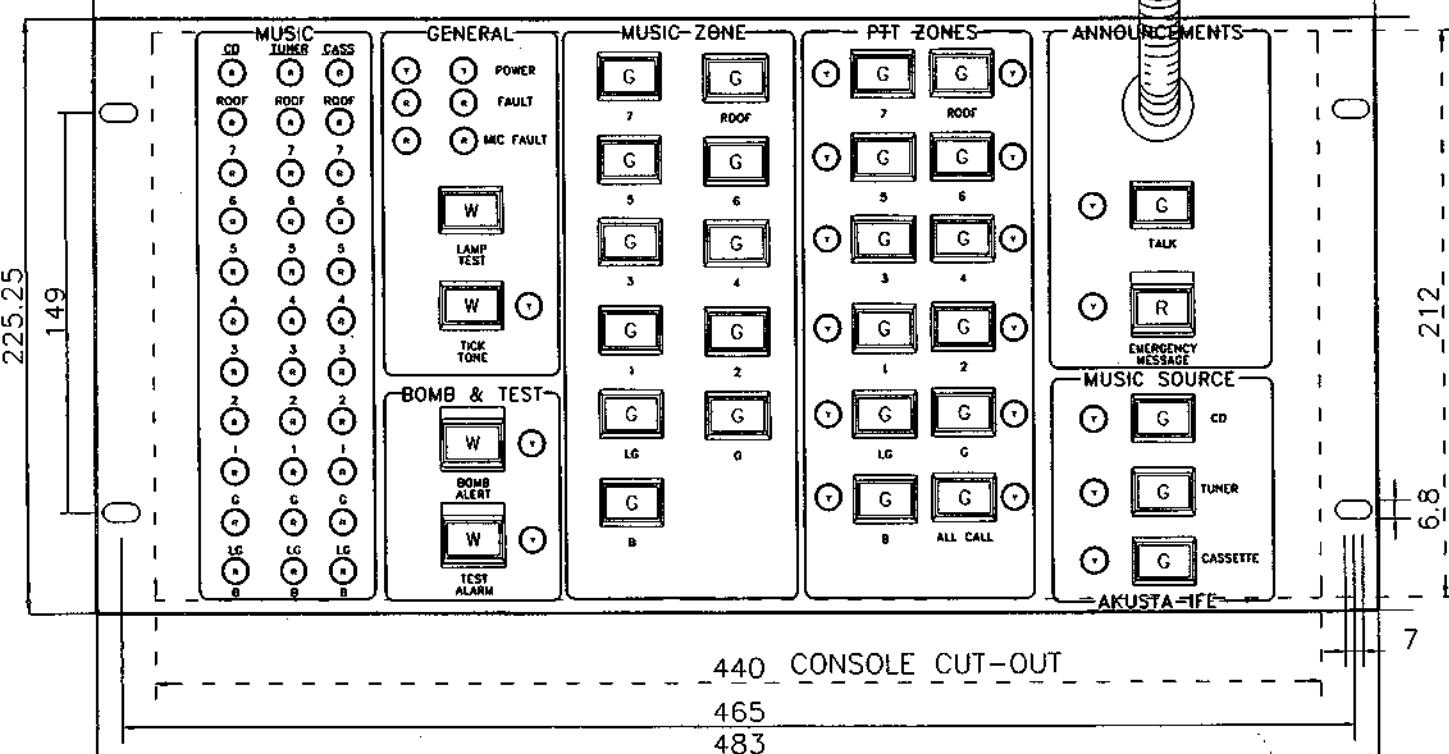
REV	DESCRIPTION	C.N.	CHK'D	DATE	THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM FEDERAL SIGNAL Ltd	TITLE CARLTON GARDENS P.A./V.A. SYSTEM FIREMAN'S ACCESS PANEL A2 WIRING DIAGRAM	DRAWN: K.PARR DATE: 16-03-99 APPR'D: <i>[Signature]</i>	DRAWING NO: 72819103 REV: 2
2	SW. IDENT'S CHANGED	B019	<i>[Signature]</i>	11-05-99				
1	ORIGINAL ISSUE.	MJS		16-03-99				



SV LED'S TO HAVE INTEGRAL RESISTOR

ORIGINAL

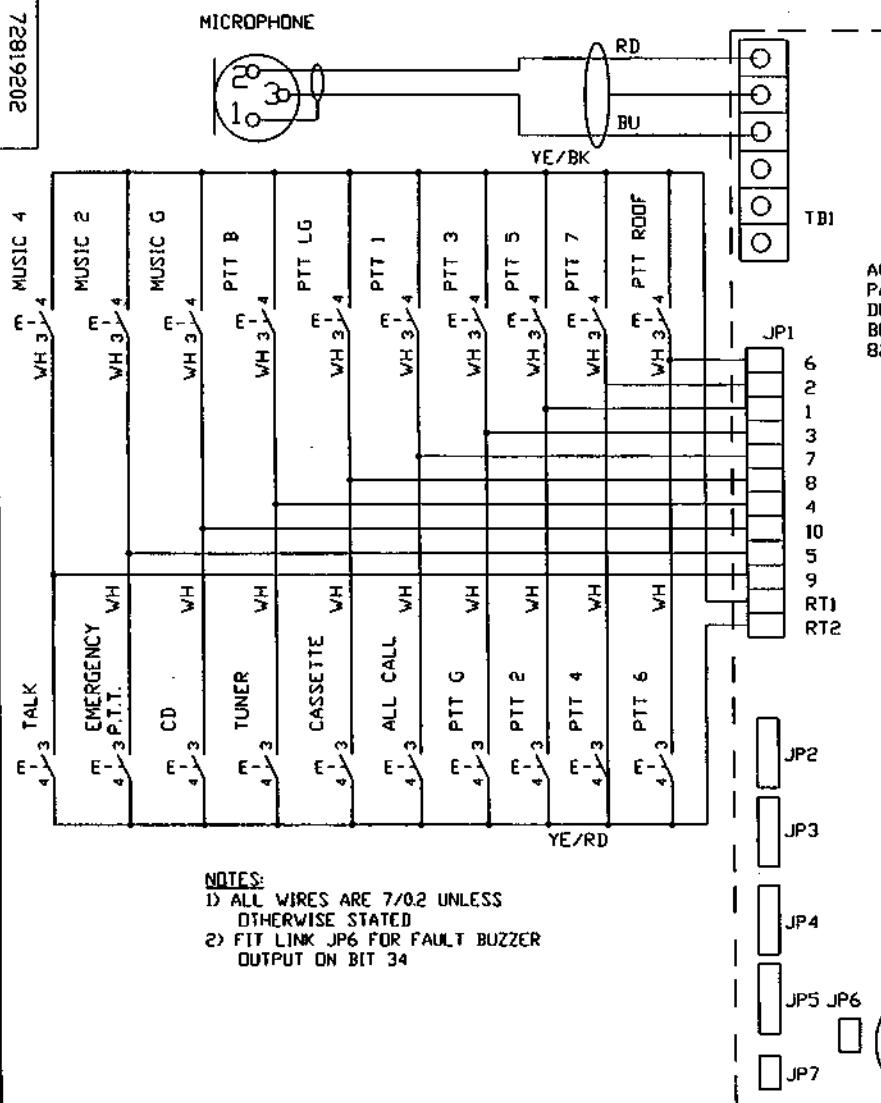
2	CIRCUIT IDENT'S CHANGED	B019	27.04.99	
1	ORIGINAL ISSUE.	MJS	16-03-99	
REV	DESCRIPTION	C.N.	CHK'D	DATE

No.
72819201

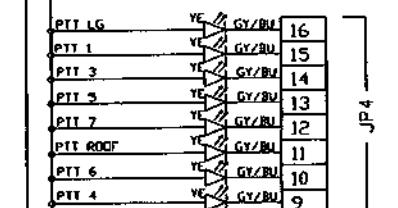
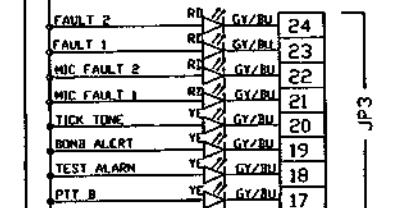
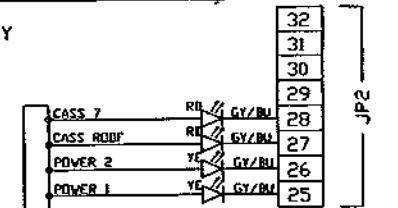
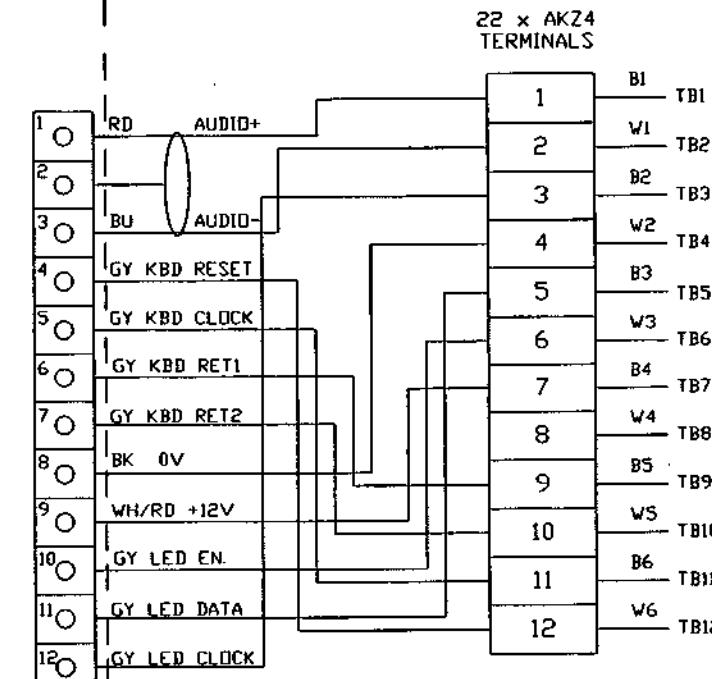
ACCESS PANEL FASCIA
COLOUR RAL 7032

REV	ORIGINAL ISSUE.	C.N.	CHK'D	DATE	THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM FEDERAL SIGNAL Ltd	TITLE	DRAWN: K.PARR DATE: 15.03.99 APPR'D: <i>[Signature]</i>	DRAWING No: 72819201	REV 1
1				15.03.99		CARLTON GARDENS P.A./V.A. SYSTEM SECURITY MICROPHONE PANEL GENERAL ARRANGEMENT	JOB No. 72819 SCALE: 1:2	SHEET 1 OF 1 SHEETS	

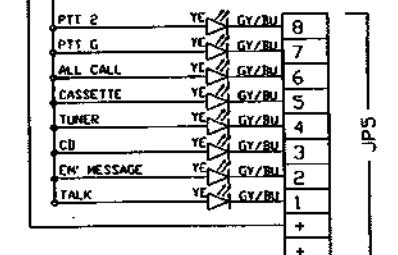
NO. 2022627



12 PR INDIVIDUALLY SCREENED CABLE TO RACK

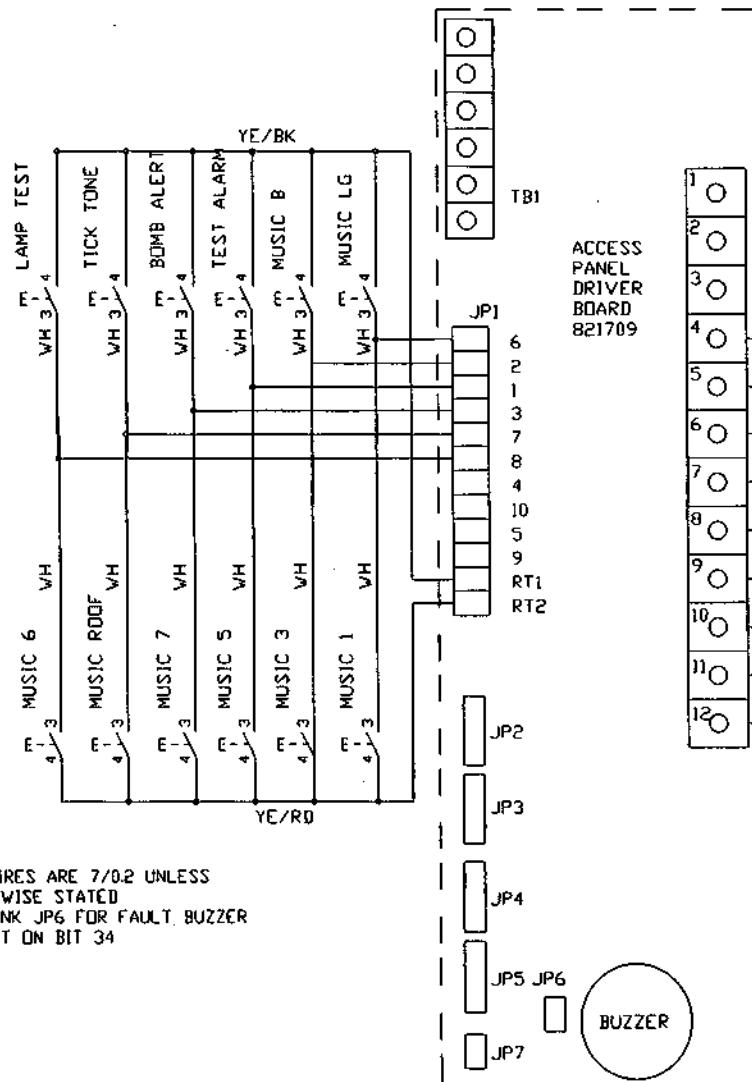


ACCESS PANEL DRIVER BOARD 821709



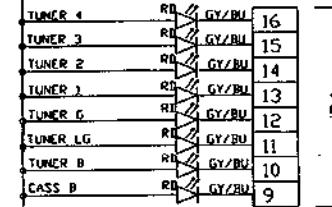
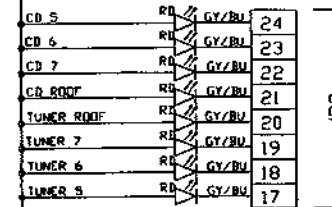
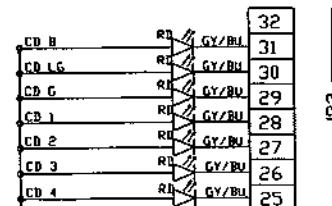
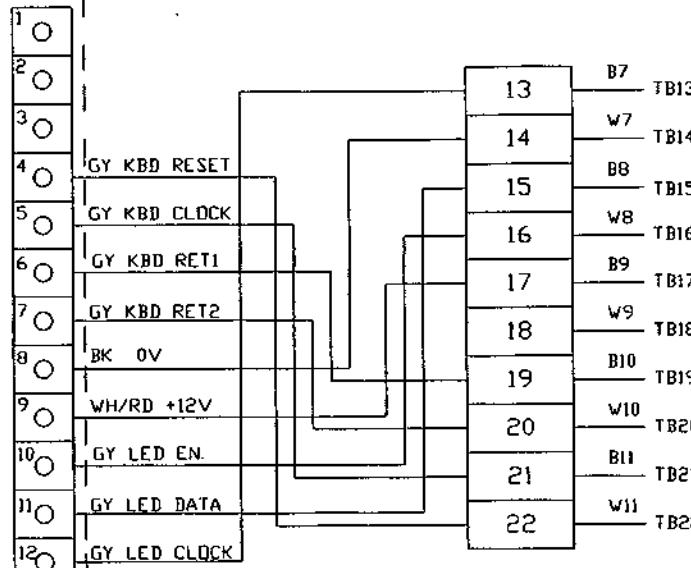
1	ORIGINAL ISSUE.	16-03-99	THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM FEDERAL SIGNAL Ltd	TITLE	DRAWN: K.PARR	DRAWING NO:	REV
REV	DESCRIPTION	C.N. CHK'D DATE		CARLTON GARDENS P.A./V.A. SYSTEM SECURITY ACCESS PANEL A1 WIRING DIAGRAM	DATE: 16-03-99 APPR'D: <i>[Signature]</i>	72819202	1

NO. 72819203

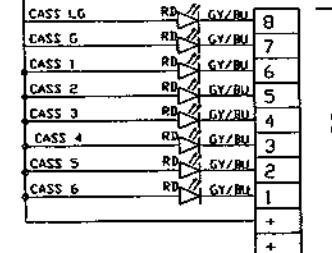


12 PR INDIVIDUALLY
SCREENED
CABLE TO RACK

22 x AKZ4
TERMINALS



ACCESS PANEL DRIVER
BOARD 821709



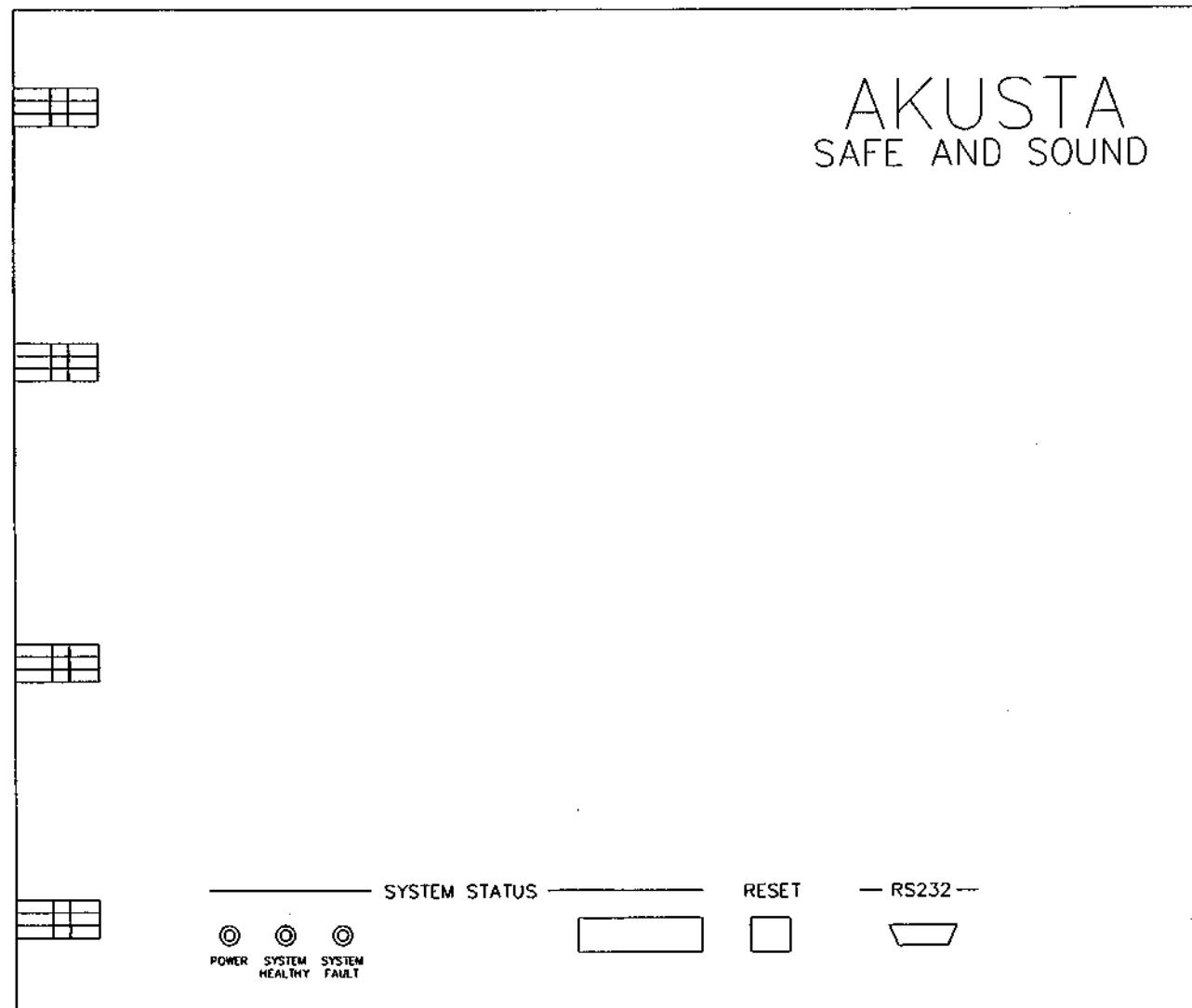
1	ORIGINAL ISSUE.	22-03-99
REV	DESCRIPTION	C.N. CHK'D DATE

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TITLE
CARLTON GARDENS
P.A./V.A. SYSTEM
SECURITY ACCESS PANEL A2
WIRING DIAGRAM

DRAWN: K.PARR
DATE: 22-03-99
APPR'D: *[Signature]*
JOB No. 72819
SCALE: N/A

DRAWING No:
72819203
REV
1
SHEET 1 OF 1 SHEETS

No.
72819301

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1	ORIGINAL ISSUE.	✓101	19.03.99			DATE: 19.03.99		
REV	DESCRIPTION	C.N.	CHK'D	DATE		JOB No. 72819	SHEET 1 OF 1 SHEETS	SCALE: N/A

A3

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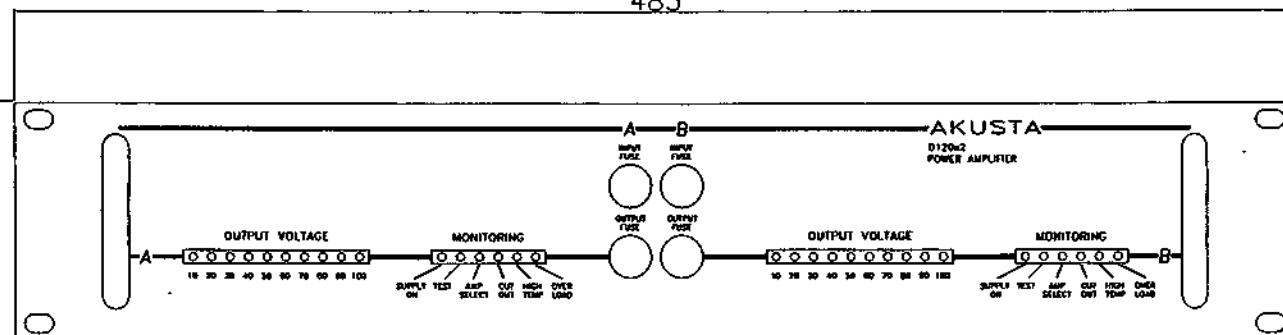
SNAPE ROAD - MACCLESFIELD - CHESHIRE - SK10 2NF - TEL: 01625 617341

AKUSTA

No. 72819401

483

45 (1u)

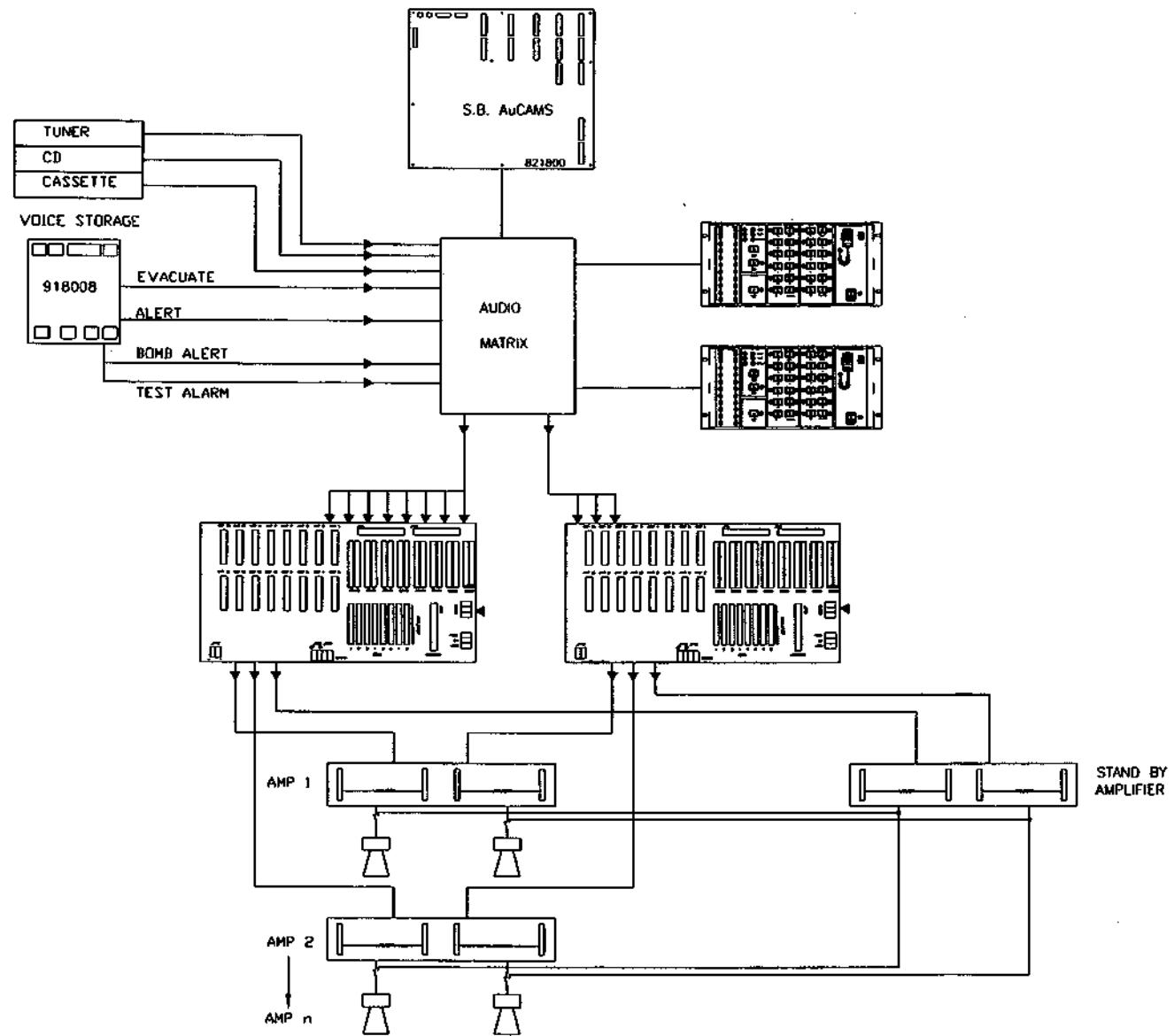


				THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM FEDERAL SIGNAL Ltd	TITLE CARLTON GARDENS P.A./V.A. SYSTEM 120 WATT DUAL AMPLIFIER GENERAL ARRANGEMENT	DRAWN: K.PARR	DRAWING No: 72819401	REV 1
						DATE: 19.03.99		
						APPR'D: <i>[Signature]</i>		
1	ORIGINAL ISSUE.		19.03.99			JOB No. 72819		
REV	DESCRIPTION	C.N.	CHK'D			SCALE: N/A		

30 MAR 1999

ORIGINAL

No. 72819501



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1	ORIGINAL ISSUE:		24/03/99	DATE:			24/03/99		1
REV	DESCRIPTION	C.N.	CHK'D	DATE		JOB No. 72819	SCALE: N/A	SHEET 1 OF 1 SHEETS	

-AKUSTA-IFE-

A4

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ITEM	QTY	CODE	PART No.	DESCRIPTION	SUPPLIER	SUPP' REF	COST	TOTAL	NOTES
1	1	58	A2445	5U BLANK	RS	508-295			PAINTED RED
2	1			MICROPHONE SHURE 577B	MILLBANK	5350014			
3	2	4	B0075	ACCESS PANEL DRIVER	AKUSTA	821709.LST			
4	3			SWITCH GUARD	OMRON	A3CJ-5050			
5	25			SWITCH SCREEN	OMRON	A3CJ-500GY			
6	25			SWITCH LED	OMRON	A3B-012G			
7	25			SWITCH UNIT	OMRON	A3CJ-7011			
8	2	45	A3208	LED 5mm YELLOW	FEC	HLMP4719			LOW CURRENT
9	4	45	A3206	LED 5mm RED	FEC	HLMP4700			LOW CURRENT
10	6	45	A1274	LED BEZEL	FEC	145470			
11	46	72	A2982	AKZ4 TERMINALS	FEC	177-108			
12	2	72	A2984	END PLATE, AKZ4					
13	4	72	A2983	END STOPS TS15	FEC	177123			
14									
15	1	58	A4376	A.P.DRIVER MOUNTING PLATE					WITH INTEGRAL RESISTOR
16	22			LED 5mm RED 5V	FEC	322-787			
17									
18									
19									
20									
21									
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34									
35									
2	P/B DETAILS CHANGED		B019	27.4.99					
1	ORIGINAL		-	29-03-99					
REV	DESCRIPTION	C.N.	CHK'D	DATE					

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PARTS LIST FOR:-
CARLTON GARDENS
P.A.V.A. SYSTEM
FIREMANS ACCESS PANEL

DRAWN K. PARR
DATE 29-03-99
APPR'D *[Signature]*
JOB No. 72819

DRAWING No.
PL72819101
REVISION 2
SHEET 1 OF 1
SHEETS

13 MAY 1999

ORIGINAL

A4	© AKUSTA-IFE - SNAPE ROAD - MACCLESFIELD - CHESHIRE - SK10 2NF - TEL: 01625 617341								-AKUSTA-IFE-
ITEM	QTY	CODE	PART No.	DESCRIPTION	SUPPLIER	SUPP' REF	COST	TOTAL	NOTES
1	1	58	A2445	5U BLANK	RS	508-295			
2	1	52	A1917	MICROPHONE	CRANFORD	53-091			REMOVE BASE FROM 53-085
3	2	4	B0075	ACCESS PANEL DRIVER	AKUSTA	821709.LST			
4	32	71	A2939	PUSHBUTTON	T&H	511008			
5	32	71	A4055	SWITCH BLOCK	T&H	593560			
6	4	71	A2943	LENS WHITE	T&H	460021			
7	1	71	A2942	LENS RED	T&H	460421			
8	27	71	A2944	LENS GREEN	T&H	460221			
9	2	71	A2941	FLAP GUARD	T&H	593035			
10	22	45	A3208	LED 5mm YELLOW	FEC	HLMP4719			LOW CURRENT
11	37	45	A3206	LED 5mm RED	FEC	HLMP4700			LOW CURRENT
12	59	45	A1274	LED BEZEL	FEC	145470			
13	26	72	A2982	AKZ4 TERMINALS	FEC	177-108			
14	2	72	A2984	END PLATE, AKZ4	FEC	177123			
15	4	72	A2983	END STOPS TS15	FEC				
16									
17	1	58	A4376	A.P.DRIVER MOUNTING PLATE					
18									
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1	ORIGINAL	-	29-03-99		THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM:- AKUSTA-IFE.	PARTS LIST FOR:- CARLTON GARDENS P.A.V.A. SYSTEM SECURITY ACCESS PANEL	DRAWN K. PARR DATE 29-03-99 APPR'D  JOB NO. 12819	DRAWING No. PL72819201 REVISION 1 SHEET 1 OF 1	
REV	DESCRIPTION	C.N.	CHK'D	DATE					

30 MAR 1999

ORIGINAL

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ITEM	QTY	CODE	PART No.	DESCRIPTION	SUPPLIER	SUPP' REF	COST	TOTAL	NOTES
1	24	02	A1245	3 PIN XLR PLUGS	ANGLIA	A25M103			
2	12	04		120 WATT DUAL AMP	AKUSTA				1U 24VDC
3	1	04	A4046	S.B.AUCAMS 9U PANEL	BOLLIN				
4	1	04	B0071	OPTO-INPUT TERMINATION CARD	AKUSTA	821565			
5	2	04	B0077	AMPLIFIER MONITOR BOARD	AKUSTA	821802			
6	4	04	B0091	MONITORED INPUT CARD	AKUSTA	821569			
7	1	04	B0076	S.B. AUCAMS	AKUSTA	821800			
8	1	04	B0093	AUCAMS EXPANSION BOARD	AKUSTA	821801			
9	2	04	B0099	VOICE STORAGE CARD	AKUSTA	918008			
10	2	04	B0209	AUDIO MATRIX CARD	AKUSTA	821812.001			
11	12	18	A4073	MCB 16A	HTE	678265			
12	2	18	A3412	MCB 10A	HTE	678315			
13	1	24	A2600	9 WAY MALE 'D' CONNECTOR	ANGLIA	TD09MB			
14	1	24	A3188	FIXING KIT FOR 9 WAY 'D' CONNECTOR	FEC	105-025			
15	4	25	A1145	120x120x25 FANS 24VDC	ANGLIA	410833A			
16	0.5	09	A3409	BUSBAR, SINGLE POLE BREAKERS	HTE	SZ-PFB-56N			
17	0.5	09	A1296	10 X 3 EARTH RAIL	HTE	25980			
18	40	09	A1297	CLAMP ZB4	HTE	31650			
19	2	09	A1298	EARTH RAIL SUPPORTS	HTE	29986			
20	1	09	A3629	CLAMP ZB35	HTE	26650			
21	48M	12	A1008	10 WAY RIBBON	ANGLIA	670010			
22	20M	12	A2778	20 WAY RIBBON CABLE	ANGLIA	670020			
23	0	13	A3451	100uF 16V ELECTROLITIC CAPACITOR	FEC	580-417			
24	0	13	A3971	CAPACITOR 35V 4700uF	RS	205-1937			
25	32	32	A1006	10 WAY IDC SOCKETS	ANGLIA	T110CS			
26	22	32	A2324	20 WAY IDC SOCKET	ANGLIA	T120CS			
27	23	63	A4043	DPCO RELAYS 24VDC, 8 AMP	RS	376-155			
28	23	63	A4269	RELAY DIODE	FEC	735-061			
29	23	63	A2050	D.P. RELAY BASES	ANGLIA	KSD2P			FINDER 95.85.10
30	0.5M	65	A1281	TS15 DIN RAIL	HTE	011-750			
31	10M	65	A1336	TS35 DIN RAIL	HTE	067-620			
32	1mtr	65	A3124	SNAP TRACK	RICOH	PCT-3000-04			
33									
34									
35									
1	ORIGINAL	-	27	26-03-99	THIS DRAWING IS CONFIDENTIAL & MUST NOT BE COPIED, DUPLICATED OR PASSED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM:- AKUSTA-IFE.	PARTS LIST FOR:- CARLTON GARDENS P.A.V.A. SYSTEM RACK	DRAWN	K PARR	DRAWING No.
REV	DESCRIPTION	C.N.	CHK'D	DATE			DATE	29-03-99	PL-72819001
							APPR'D		
							JOB No.	72819	REVISION 1
							DISK REF	PL	SHEET 1 OF 3

30 MAR 1999

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A4

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**PARTS LIST FOR:-
CARLTON GARDENS
P.A.V.A SYSTEM.
RACK**

DRAWN K PARR	DRAWING No.
DATE 29-03-99	
APPR'D 	PL-72819001
JOB NO. 72819	REVISION 1
DISK REF PL	SHEET 2 OF 3

1 ORIGINAL

29-03-9

BEV	DESCRIPTION
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C.N. CHK'D DATE

30 MAR 1999

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**PARTS LIST FOR:-
CARLTON GARDENS
P.A.V.A. SYSTEM
RACK**

DRAWN	K PARR
DATE	29-03-99
APPR'D	
JOB No. 72819	
DISK REF PL	

DRAWING No.
PL-72819001

JOB No. 72819
DISK REF PL

REVISION 1
SHEET 3 OF 3

1 ORIGINAL - 78 29-03-9

REV	DESCRIPTION	C.N.	CHK'D	DATE
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30 MAR 1999

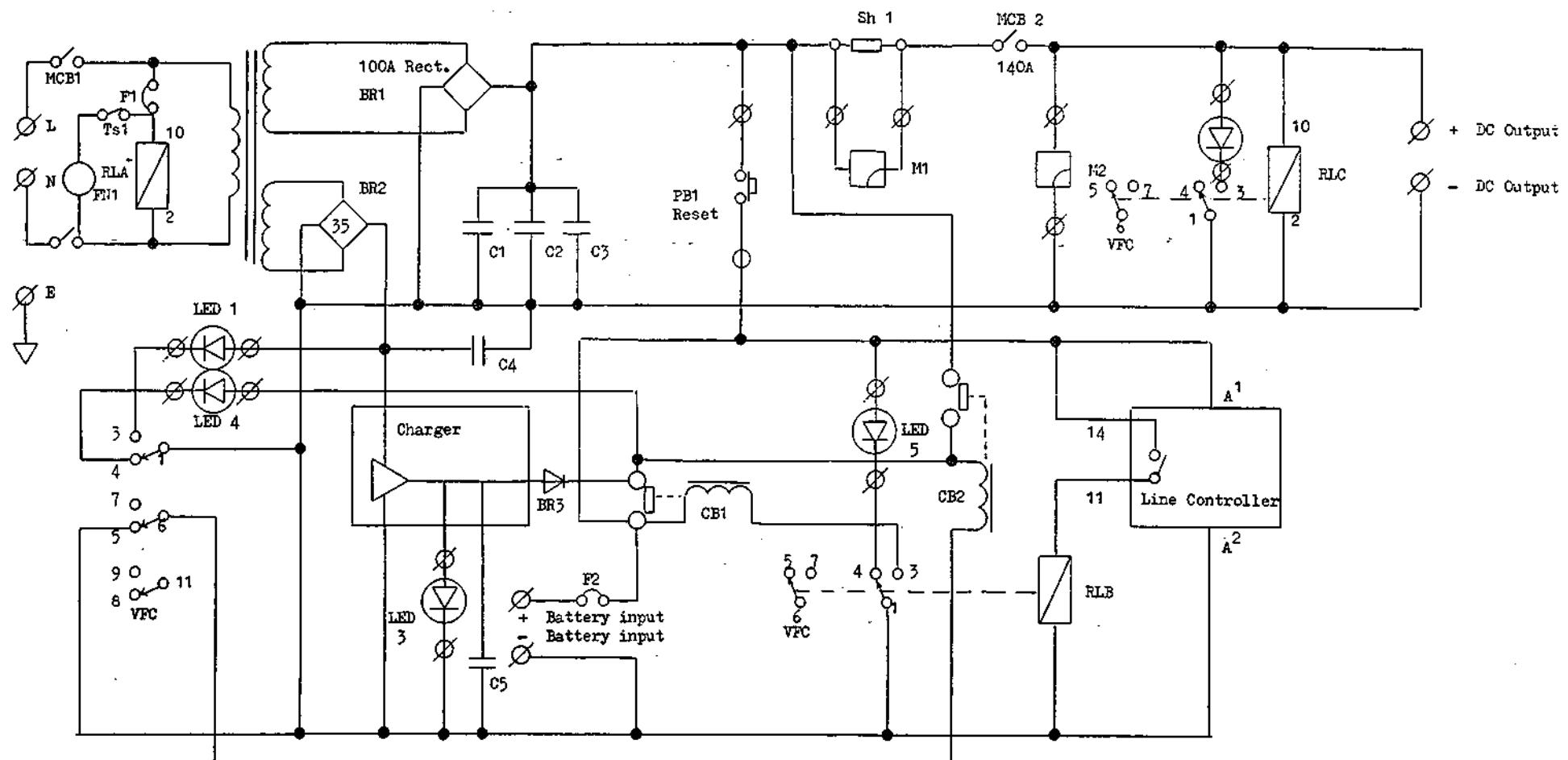
ORIGINAL

11 POWER SUPPLY MODULES

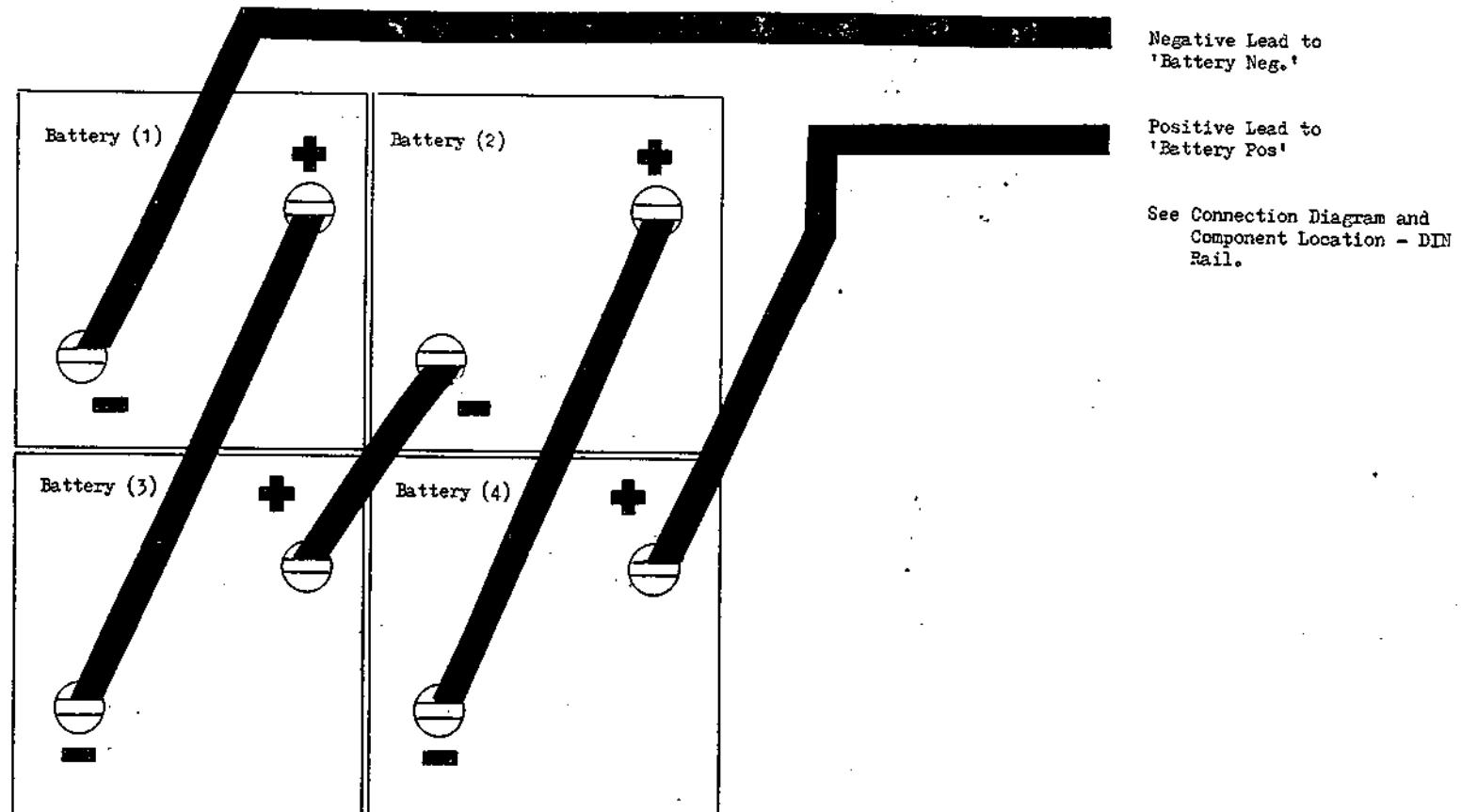
R.N. GRANT 240V AC to 24V DC Type G2800

X.P. Power Products ZX 200 Series.

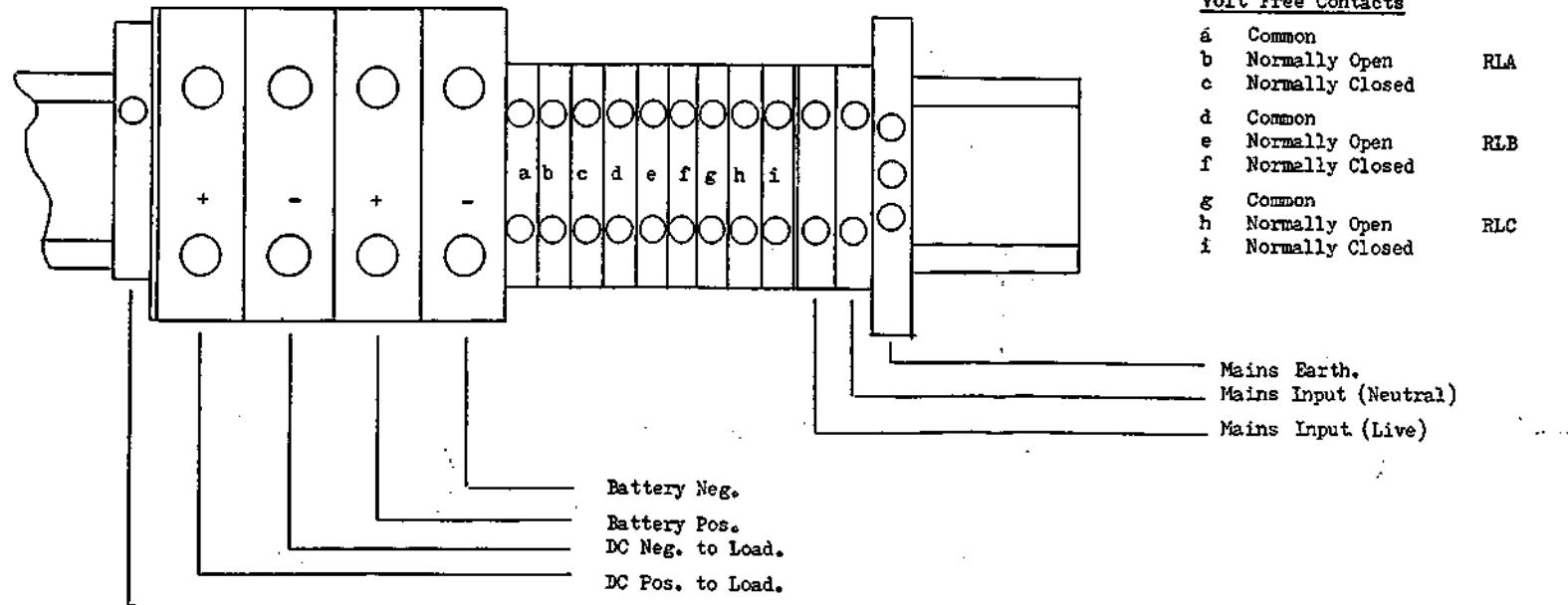
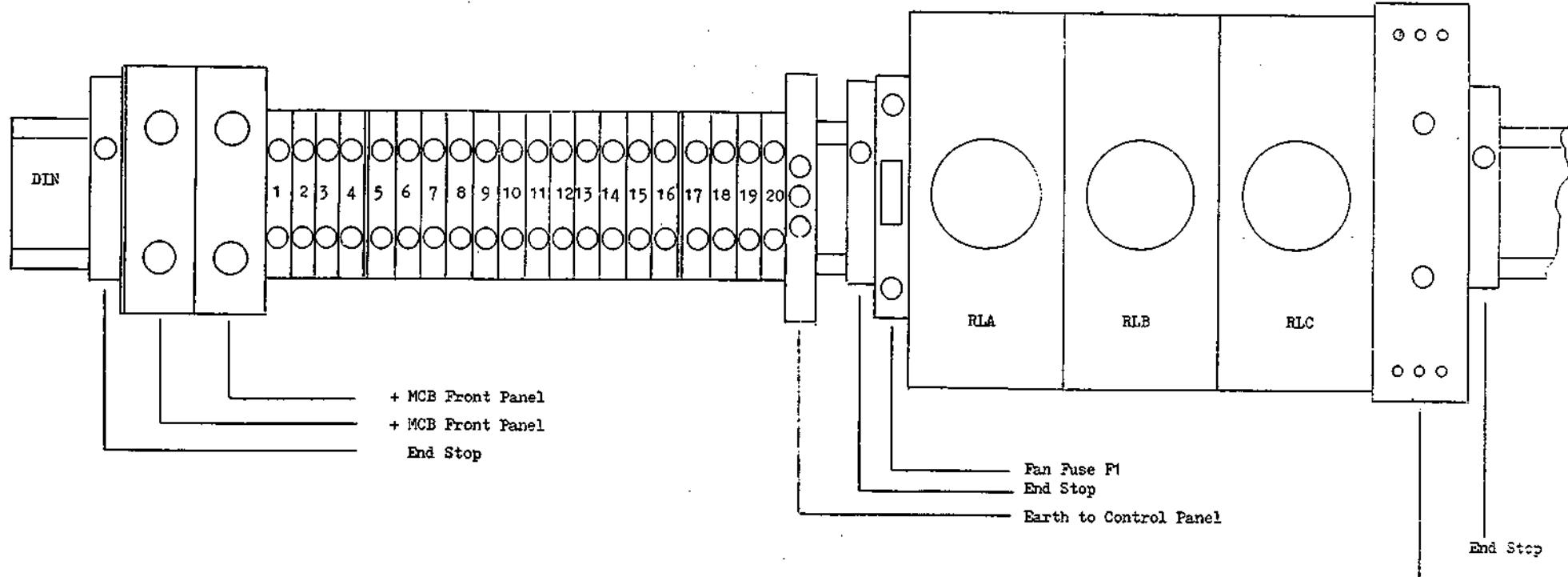
G - 24VDC POWER SUPPLY



G1700 24VDC OUTPUT - BATTERY CONNECTIONS.



CONNECTION DIAGRAM AND COMPONENT LOCATION - DIN RAIL

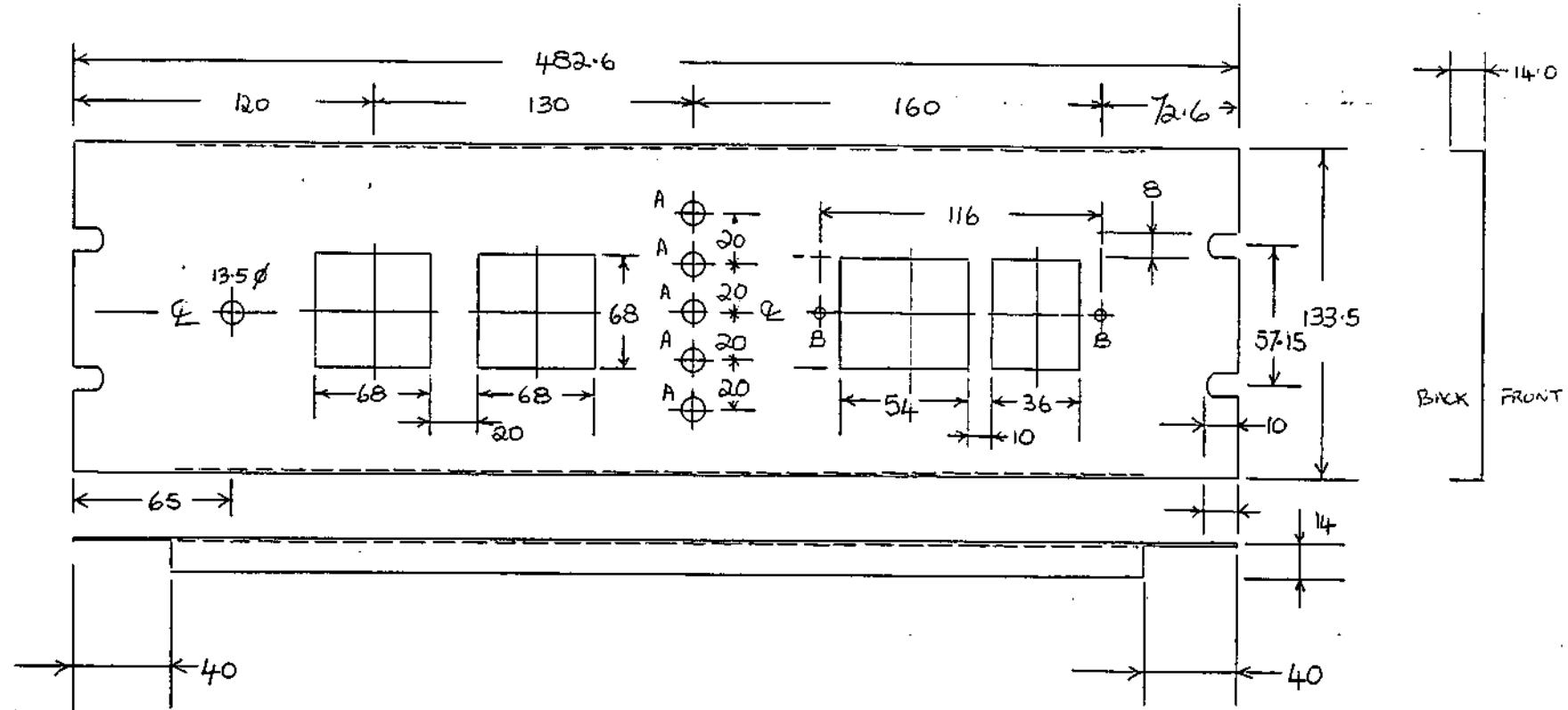


<u>ITEM</u>	<u>CIRCUIT REF.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>
1	MCB1	16A DP Input MCB	542-581
2	F1	DIN Fuse Lever/3Amp 20mm	575-069
3	RLA	3PCO 230VAC Relay Schrack.	MR306230
4	BR1	100A Full Bridge Rectifier	B40/34-75H2B
5	BR2	35A Full Bridge Rectifier	234-140
6	C1, C2, C3	150K MFD Filter Capacitor/40VDC	776-944
7	C4	22K MFD Filter Capacitor/63VDC	240-034
8	C5	15K MFD Filter Capacitor/40VDC	471-446
9	LED1	Input Healthy (GREEN) Indicator	620-671
10	LED4	Load on Battery (Red) Indicator	620-660
11	LED3	Charger Health(GREEN) Indicator	620-671
12	BR3	35A Full Bridge Rectifier	234-140
13	F2	125A Battery Fuse Link	248-617
14	CB1	24V 100A Contact Breaker	179-731
15	PB1	Normally Open momentary SP Switch	519-327
16	Sh1	100A/60mV Meter Sunt	472-086
17	M1	Ammeter 100A Fsd 1%. DIN.	471-938
18	MCB2	120A DC Output MCB	542-751
19	M2	0-40 VDC Voltmeter 1% DIN.	471-914
20	LED2	Output Healthy (GREEN) Indicator	620-671
21	RLB	3PCO 24VDC Relay Schrack.	MR301024
22	RLC	3PCO 24VDC Relay Schrack.	MR301024
23	LED5	Battery Low (Red) Indicator	620-660
24	L1	Line Controller EUGC724	606-108
25	T1	Input Transformer	K5031/G99
26	CH1	Linear Pass 10A Charger	G10/3527
27	FP1	Front Panel	
28	CH1	565X565mm Base Plate	
29	TS1	Thermal Sw. N/O Heat Sink 60°C	491-548

Q9301 FRONT PANEL

2KVA 24 VDE DESL.

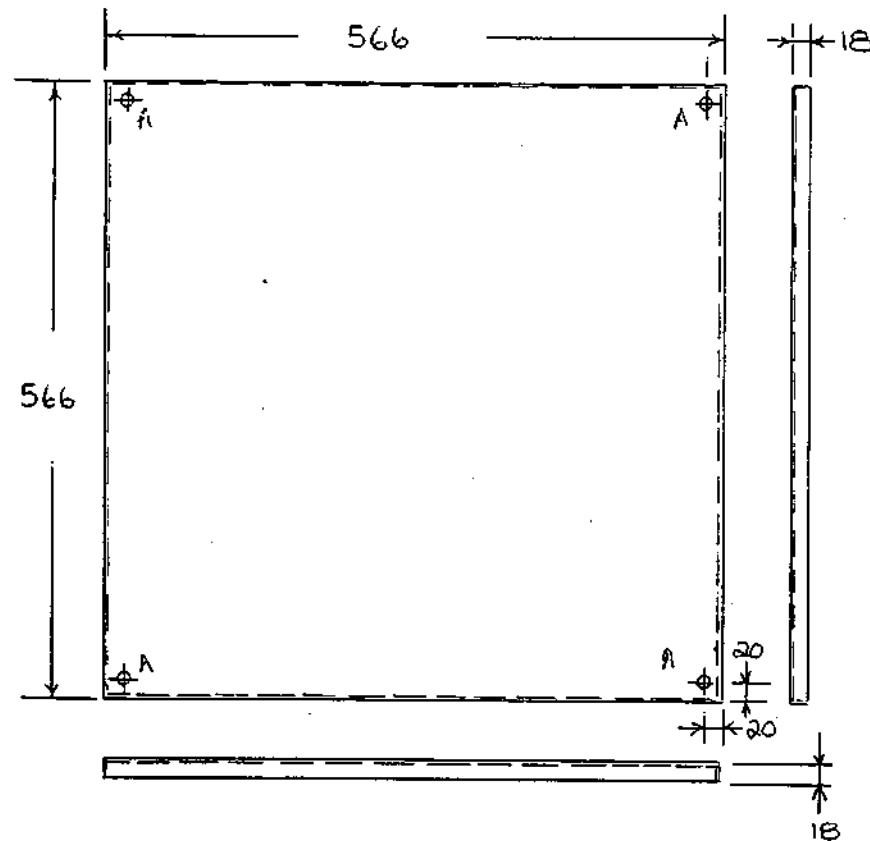
DO NOT SCALE



FRONT PANEL		
CODE	DESIG.	NO OFF
A	12.6MM ϕ	5
B	M4 CLR	2
MTL : 1.5 MM MILD STEEL.		
FINISH: RAL 7032, MATT.		
NO OFF: 1		
Q9301 F/P RNG. MAY 99		

Q9074 COMPONENT SHELF
2KVA 24 VDC PSU

DWG ①



MTL: 2.8 MM MILD STEEL.

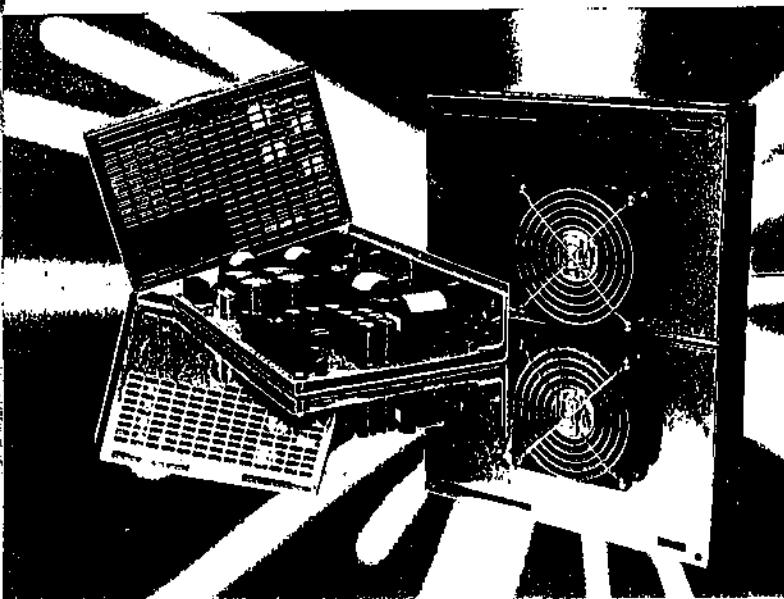
'A' = 4x M8

FINISH: CAD OR ZINC + PASS. (HIGH QUALITY)

NO SCRATCHES TO BE VISIBLE ON SURFACE (TOP)
AS DRAWN.

Series

Single and Multi Output Switchers



- CE Marked - LVD
- Select, Autorange or PFC Input
- Modified Standard Facility
- High Load Surge Rated
- Power Share & Monitor Option
- BABT, ISO9001 Manufacture

SPECIFICATIONS

Input Voltage	<ul style="list-style-type: none"> • 90-132V/175-264V AC (250-370V DC), 55V, 400V AC and Autoranging Optional - call office for Power Factor Correction front end option
Input Frequency	<ul style="list-style-type: none"> • 40-440 Hz
Input Noise Immunity	<ul style="list-style-type: none"> • To IEC801
Inrush Current	<ul style="list-style-type: none"> • 15A/25A
Hold Up Time	<ul style="list-style-type: none"> • 28mS - 200 & 350W, 18mS - 550W
Power Fail Warning	<ul style="list-style-type: none"> • Optional Signals Board available
Earth Leakage Current	<ul style="list-style-type: none"> • 1.6mA/2.5mA, 115/230V AC
Total Regulation	<ul style="list-style-type: none"> • $\pm 0.2\%$ Single O/P models
Line Regulation (multi O/P)	<ul style="list-style-type: none"> • $\pm 0.02\%$ main O/P • $\pm 0.5\%$ aux O/P • $\pm 1\%$ main O/P • $\pm 2\%$ aux O/P
Load Regulation (multi O/P)	<ul style="list-style-type: none"> • $25\% \Delta i < 1\% \Delta v < 1mS \Delta t$ • $10\% \Delta i$ main O/P $< 1\% \Delta v$ aux O/P • 0.1% rms, 1% pk-pk single O/P • 0.2% rms, 2% pk-pk multi O/P
Dynamic Regulation	<ul style="list-style-type: none"> • Constant current approx 110% I_{nom} - single O/P
Cross Regulation	<ul style="list-style-type: none"> • Overpower limit with timed foldback - multi O/P
Output Ripple & Noise	<ul style="list-style-type: none"> • 120% approx V_{nom} • 80-95%
Overload Protection	<ul style="list-style-type: none"> • 0 to +40°C, derate to +70°C, consult sales office
Overvoltage Protection	<ul style="list-style-type: none"> • -20°C to +85°C
Efficiency	<ul style="list-style-type: none"> • 0.02%/C° main O/P
Operating Temperature	<ul style="list-style-type: none"> • 0.04%/C° aux O/P
Storage Temperature	<ul style="list-style-type: none"> • Optional varnishing of pcbs etc for harsh environments - Option E
Temperature Coefficient	<ul style="list-style-type: none"> • 6KV dc 1 min I/P-O/P (Y caps disconnected)
Tropicalisation	<ul style="list-style-type: none"> • VDE 0871, FCC, EN55022 level B conducted & radiated noise
Dielectric Strength	<ul style="list-style-type: none"> • IEC801-2,-3,-5 & -6 level 3 & IEC801 - 4 level 2
EMC	<ul style="list-style-type: none"> • Units are designed to meet stringent International Safety Standards and are compliant with IEC 950 class I & II construction. An approvals programme exists where LX versions have been submitted for approval to UL, CSA, BABT, EN & VDE - Contact Sales Office for details
Immunity	
Safety Approvals	

Refer to page 75 for detailed application notes

OUTPUT RATINGS - SINGLE OUTPUT MODELS

Nominal O/P Voltage	2 Volts	3.3 Volts	5 Volts	12 Volts	15 Volts	24 Volts	36 Volts	48 Volts	60 Volts
Adjustment Range	1.8-2.3V	3.0-3.8V	4.5 - 5.8V	11.0 - 14.0V	13.7-17.5V	22.0-28.0V	33.0-42.0V	44.0-56.0V	55.0-70.0V
ZX200	2v@60.0A	3.3v@47.0A	5v@35.0A	12v@18.0A	15v@14.5A	24v@9.0A	36v@6.0A	48v@4.5A	60v@3.6A
ZX350	2v@105.0A	3.3v@82.0A	5v@60.0A	12v@30.0A	15v@24.0A	24v@16.0A	36v@10.7A	48v@8.0A	60v@6.5A
ZX550	2v@165.0A	3.3v@130.0A	5v@100.0A	12v@48.0A	15v@38.5A	24v@24.0A	36v@16.0A	48v@12.0A	60v@10.0A
ZX750†	-	-	-	12v@62.0A	15v@50.0A	24v@31.0A	36v@21.0A	48v@15.0A	60v@13.0A

†These models are for 230V AC mains use only.

Table shows open frame models. Similar outputs are available in modular, 3U and 6U rack mount versions - see model numbering below.

OUTPUT RATINGS - MULTI-OUTPUT MODELS

Model Number	Output 1	Output 2	Output 3	Output 4	Output 5	Maximum Continuous Power
ZX200 - PA	5v@20A	-5V@4A	-12V@4A	+12v@8A	+24v@4A	200 watts
ZX200 - PB	5v@20A	-5V@4A	-15V@3A	+15v@3A	+24v@4A	200 watts
ZX200 - PD	5v@20A	-5V@4A	-12V@4A	+12v@8A	+12v@8A	200 watts
ZX350 - PA	5v@50A	-5V@4A	-12V@4A	+12v@8A	+24v@4A	350 watts
ZX350 - PB	5v@50A	-5V@4A	-15V@4A	+15v@4A	+24v@4A	350 watts
ZX350 - PD	5v@50A	-5V@4A	-12V@4A	+12v@8A	+12v@8A	350 watts
ZX550 - PA	5v@60A	-5V@5A	-12V@5A	+12v@10A	+24v@5A	550 watts
ZX550 - PB	5v@60A	-5V@5A	-15V@5A	+15v@5A	+24v@5A	550 watts
ZX550 - PD	5v@60A	-5V@5A	-12V@5A	+12v@10A	+12v@10A	550 watts

Peak Ratings: ZX200 - All outputs can deliver 200% minimum peak current for up to 10 secs - 300w max

ZX350/550 - All outputs can deliver 200% minimum peak current for up to 10 secs - 600w max

Other input and output combinations and modifications available for small quantities - call technical sales.

MODEL NUMBERING

Style

Power (watts)

Inputs:

Outputs:

Options:

ZX = Open Frame
ZB = Box
ZC = 3U Cassette
ZE = 6U Eurorack
ZM = Module

200
350
550
750*
1K*
2K*
nK*

55 Vac = 26
115 Vac = 36
230 Vac = 46
400 Vac = 56
Autoranger = 76
PFC = 96†

Multi O/Ps = PA....PZ (see table)

Single O/Ps

2V = 02
3.3V = 03
5V = 05
12V = 12
15V = 15
24V = 24
36V = 36
48V = 48
60V = 60

Cover = -C
Signals (TTL) = -S
Signals (Relay) = -R
Signals (Relay) = -B
OTP = -T
'OR'diode = -D
Tropicalisation = -E

Note: -B available for battery back up & charging applications

*Subject to one off engineering charge if not previously designed
†Available for 350W & 550W standard units

EXAMPLE:

ZX 350 - 46 24 - C S

X=Open Frame
350 = Power Output

S = Signals Board
C = Safety Cover Fitted
24 = Output 24V dc
46 = AC Input Set to 230V AC

Note: All units are 115/230V selectable by closing or opening 115/230V link on psu.
Products are not available in all configurations

HAZARD SAFETY

ELECTRIC SHOCK WARNING

Hazardous voltages and temperatures are accessible inside the unit during, normal operation, while unit is in 'REMOTE-OFF' condition and for a period of 2 minutes after input disconnection. The user must ensure that these hazards are not accessible after installation.

Refer to PRODUCT SAFETY INFORMATION SHEET for further information and guidance.

SAFETY STANDARDS

When installed correctly these units meet the requirements of IEC 950 which encompasses the safety standards of UL, CSA, VDE and BSI for data processing and office equipment. In addition factory has BABT facility approval.

OPERATION

OVERLOAD CHARACTERISTIC (200W)

O/P 1 - 60A peak 15A continuous.
O/P 4 - 25A peak 4A continuous.
O/P 5 - 12.5A peak 2A continuous.
O/P's 2 & 3 - protected by 4A MultiFuse™.

OVERLOAD CHARACTERISTIC (350/550W)

O/P 1 - 120A peak 30A continuous.
O/P 4 - 50A peak 8A continuous.
O/P 5 - 25A peak 4A continuous.
O/P's 2 & 3 - protected by 4A MultiFuse™.

OVERPOWER PROTECTION

Fitted to standard multi-output units.

Output power limited to 300W for ZX200 models and 600W for ZX350/550 models, the unit will enter power fold-back if it is operated for more than 10 seconds in power limit. The unit can only be reset if either the input voltage or the loads are removed for a period of not less than 1 second.

CONSTANT CURRENT OVERLOAD

Fitted to standard single output units, making them suitable for battery charging.

Refer to PRODUCT SAFETY INFORMATION SHEET for guidance.

OVERVOLTAGE PROTECTION

The unit is electronically switched-off if the main output exceeds 120% of its set voltage. The unit can only be reset by interruption of the input voltage for 30 seconds minimum.

REMOTE SENSE

Available via connections +VS and OVS, to compensate for up to 500mV cable drop.

REMOTE ON-OFF

Output can be 'disabled' using logic '0' - call sales office for details.

CONNECTIONS (200W)

INPUT - 15 Way terminal block - 5mm pitch

OUTPUT - 15 Way terminal block - 5mm pitch

INPUT - H15 male connector to DIN41612

OUTPUT - H15 male connector to DIN41612

SIGNALS - 8 Way single row right angle 0.1" Molex
901210128

Note: See drawings for 11 way option.

OPTIONS

SAFETY COVER "-C"

Hazardous voltages are accessible. Therefore the user must render the unit inaccessible or fit the optional safety cover. (Standard on ZX550 & ZX750)

SIGNALS OPTION "-S"

Available when the signals board is fitted.

ACF signal, a logic transition '1' to '0' indicates an imminent output failure due to line disturbance, minimum 10mS warning before output voltage falls below 90-95% of nominal.

DCF signal, a logic '0' indicates output voltage is less than 90-95% of nominal.

SYSRST signal, a logic '1' indicates system OK (AC good + DC good + reset timing [200mS])

SINGLE OPTION "R"

Based on standard option -S above & uses volt free relay contacts on SYSRST signal, ideal for remote signalling.

SINGLE OPTION "B"

For battery back up and charging application. Provides Power fail and battery fail indication via volt free changeover relay contacts. This option also includes power share, power monitor and temperature compensation of -3mV/C per cell. The battery fail relay may be used to drive a contactor configured for battery discharge protection to disconnect the battery.

POWER SHARE AND MONITOR SIGNALS

Available when the signals board is fitted. The Power Share (PS) connections are joined when two or more units are operated in parallel, this ensures that the system power is shared equally by the individual power units. (When operating units in parallel the system power cables should be connected in a star configuration with the load being the star centre.)

For correct operation of power share circuit, the output voltages of each supply must be set within ±5% of one another; a load must also be applied to ensure units start up. There is no limit to the number of units that can be connected in parallel.

The Power Monitor (PM) signal is proportional to the output power - the ratio is 20mV per watt for 200 Watt units and 10mV per watt for 350 and 550 Watt models.

OVER TEMPERATURE PROTECTION "-T"

The unit is electronically switched-off if its internal temperature exceeds design maximum. The unit can only be reset by interruption of the input voltage for a minimum of 3 minutes to allow for the temperature to reduce. (Standard on 550W & 750W designs).

ENVIRONMENT

OPERATING TEMPERATURE

0 to +40°C natural air convection up to 3000 metres altitude. With forced convection the unit may operate to +70°C if over-temperature protection limit is not exceeded. 0 to 90% relative humidity, non-condensing.

STORAGE TEMPERATURE

-25 to +85°C, 0 to 90% relative humidity, non condensing.

VIBRATION AND SHOCK

Operating 5-50Hz 0.05mm pk-pk, 50-100Hz 0.025mm pk-pk. Non operating 100mm drop on to chassis face.

CONNECTIONS (350/550W/750W)

INPUT - 3 way 9.5mm barrier strip with M4 x 8 fixings
250V 20A

OUTPUT - 11 way 9.5mm barrier strip with M4 x 8 fixings
250V 20A

SIGNALS - 8 way single row right angle 0.1" Molex
90121028.

The flexible design of the Z Series which utilises separate input and output circuit boards allows us to provide a wide range of variants based on the standard product range. Variants can normally be delivered within five working days.

INPUT VARIATIONS

Single phase, 40-440Hz, 55V up to 440V, sine/square wave.
Three phase, 40-440Hz, 170V up to 440V phase-phase.
DC Input, 12V up to 600 Volts.
AC auto-ranger, AC universal input, power factor correction.

OUTPUT VARIATIONS

Single output modules from 2V up to 200 Volts.
Multi-output, up to 6 separate voltages, from 2V to 200 Volts.
Additional AC ringer from 1W up to 5 Watts.
Battery charging/Back-up Systems - see below.
Integral de-coupling diodes for redundant/hot-swap systems.
Very High Peak Power - up to 250% of the thermal rating can be made available ie a 200W unit could deliver 500W for up to 20 seconds, ideal for peak power applications such as printers and disc drives.

SUB RACKS

Complete 6U 19" sub rack power systems can be configured to customers requirements. These systems may incorporate such features as N+1 redundancy (incorporating de-coupling diodes), hot swap, VME utility bus signals, custom front panels with LED's and test points, custom connections and back-planes.

These racks can be made up of standard 200 Watts, 350 or 550 Watt supplies mounted on a tray with H15 DIN connectors and front panel to form a 6U x 14HP x 340mm plug in unit, de-coupling diodes can be incorporated on this tray. See ZE configurations

Enclosed 3U by 42TE (Half rack width) units ZC version may be used in redundant, hot swap systems.

BATTERY CHARGING

Single output units have been designed to operate in constant current - constant voltage mode. This makes them ideal for battery charging.

They will deliver a constant current when connected to a battery until the float voltage is attained, then the unit will maintain the battery at the float charge voltage i.e. a 24 cell lead acid battery connected to a Z-200 48 Volt power supply will be charged at 4.5A until battery terminals reach 54V, this voltage will be maintained thereafter by the applied constant voltage of the power supply unit.

List of available standard Z units available:-

	NOM BATT VOLTAGE	FLOAT VOLTAGE	CHARGING CURRENTS			
			Z-200	Z-350	Z-550	Z-750
Z*** - "06	6V	6.75V	35A	60A	100A	-
Z*** - "12	12V	13.5V	18A	30A	48A	-
Z*** - "24	24V	27V	9A	16A	24A	31A
Z*** - "36	36V	40.5V	6A	10.7A	16A	21A
Z*** - "48	48V	54V	4.5A	8A	12A	16A
Z*** - "60	60V	67.5V	3.6A	6.5A	10A	13A

The output voltage may be adjusted via a potentiometer on board to facilitate different battery manufacturers recommended float voltages. However, care should be taken not to exceed the overvoltage protection trip point, or recommended float voltage.

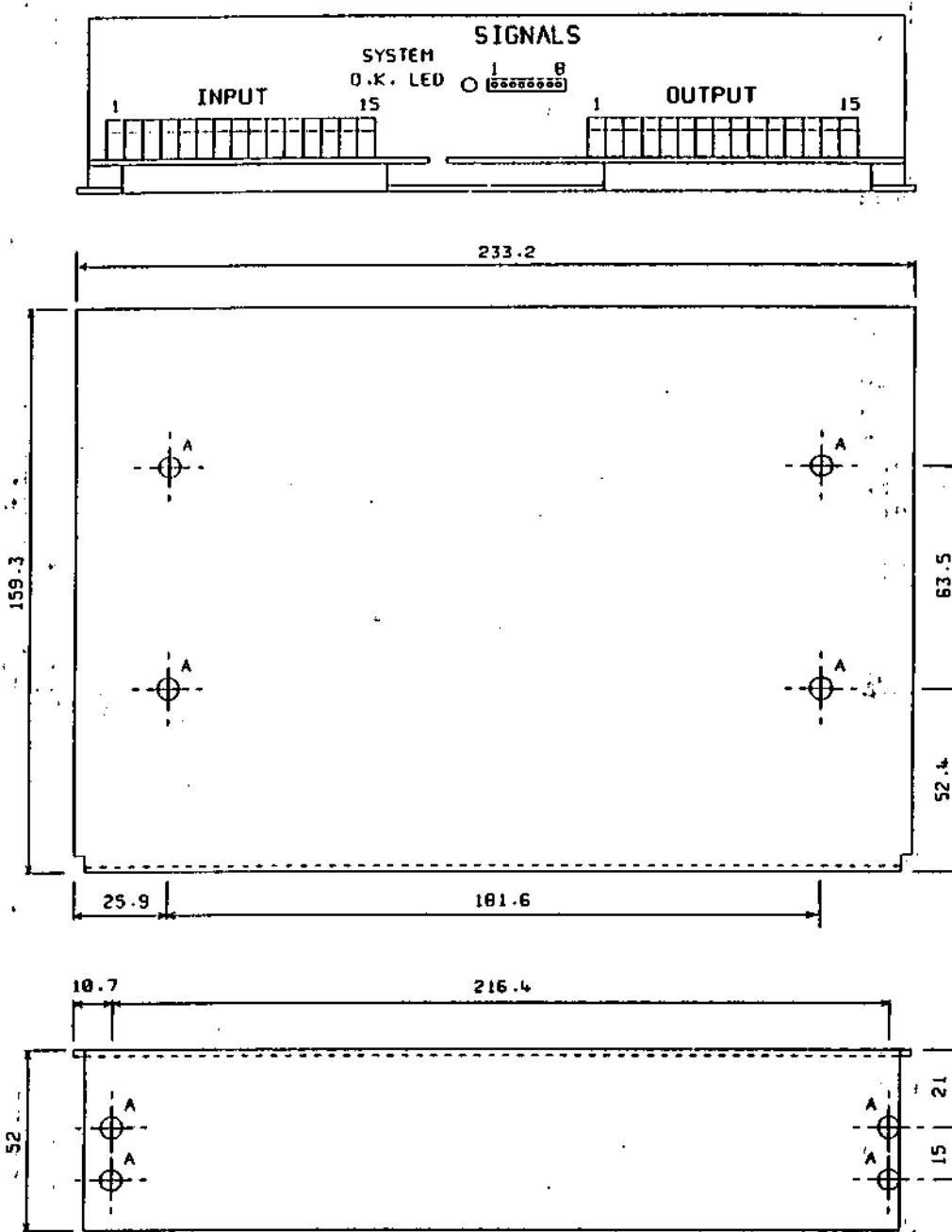
If the battery is to be permanently connected to a power unit no precautions need to be taken against reverse polarity connection, however there will be a small drain on the battery if the power unit is turned off (approximately 1% of charging current).

For added security in the event of reverse polarity and mains failure we recommend an isolation diode be fitted between power unit and battery.

Possible variants of standard product. Some available as standard options - see page 75

- a) Isolation diode fitted inside power unit
- b) Adjustable constant current
- c) Battery low voltage indication
- d) Externally programmable voltage and current
- e) Temperature compensated float charge voltage
- f) Battery disconnect to prevent excessive discharge.

Mechanical Drawing ZX150/200/200WAT/200WAT MODELS



Connections

INPUT		
	A.C.	D.C. Version
1	EARTH	EARTH
2	-POSITIVE	POSITIVE
3	NEUTRAL	NEGATIVE
4	-	NEGATIVE
5	LINE	NEGATIVE
6	-	-
7	+15V	-
8	LINK	-
9-15	NOT USED	

AC FUSE: 5A 110V 20mm
Ceramic Fast Blow

OUTPUT		
	MULTI	SINGLE
1	PS	PS
2	ACF	ACF
3	SRS	SRS
4	ROF	ROF
5	+5VS	0VS
6	+5	0V
7	+5	0V
8	+5	0V
9	0V	0V
10	0V	0V
11	0V	+V
12	-5	+V
13	-12	+V
14	+12	+V
15	+24	+VS

SIGNALS			
Pin No.	option 'S'	option 'R'	option 'B'
1	system reset	power-fail NO	battery-fail NO
2	input-fail	power-fail COM	battery-fail COM
3	output-fail	power-fail NC	battery-fail NC
4	power-monitor	power-monitor	power-monitor
5	power-share	power-share	power-share
6	remote-on-off	remote-on-off	power-fail NO
7	+Vs	+Vs	power-fail COM
8	0Vs	0Vs	power-fail NC

NOTES:

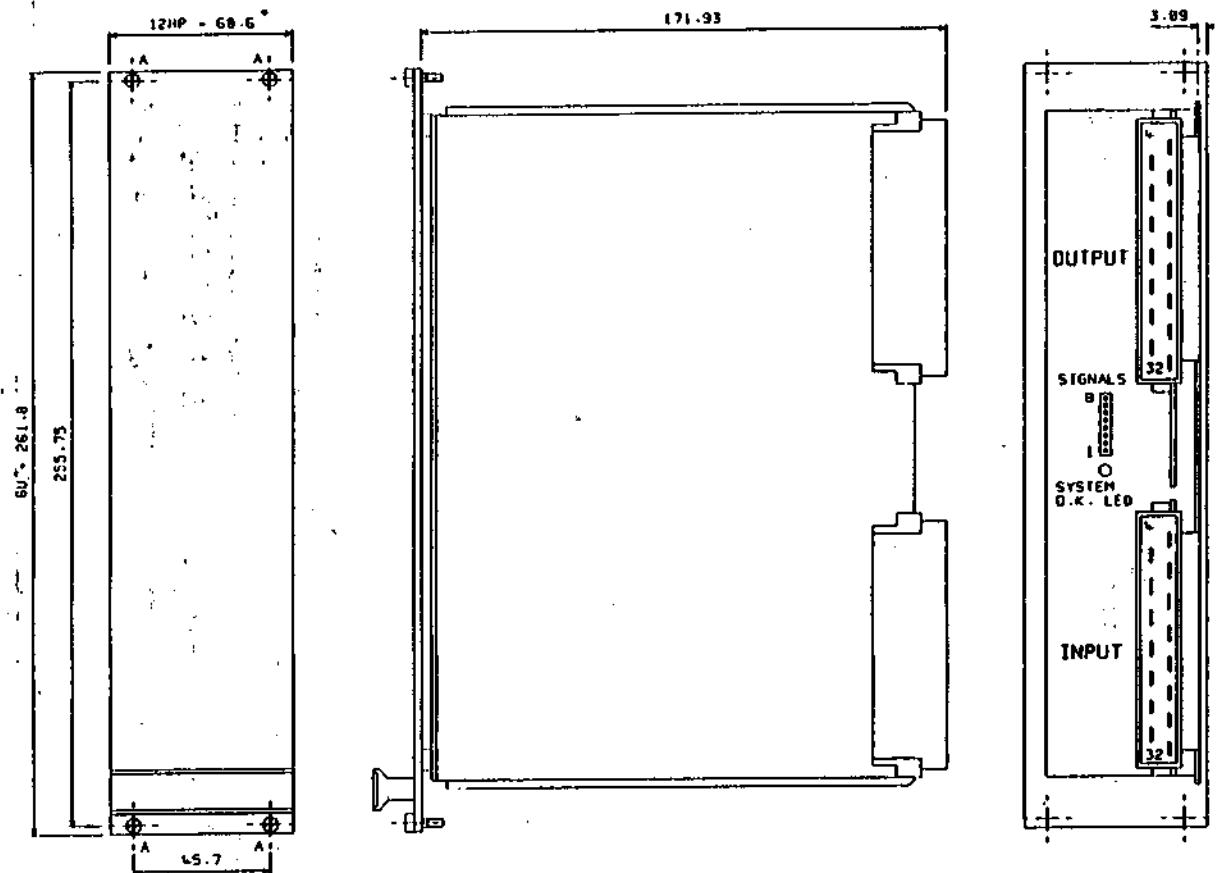
- CUSTOMER FIXINGS: A = M3 ISO METRIC
- FIXING SCREWS MUST NOT PENETRATE INTO UNIT BY MORE THAN 5mm
- OUTLINE DRAWING IS IN THIRD ANGLE PROJECTION
- DO NOT SCALE
- DIMENSIONS IN mm
(DIMENSIONS INCLUDE COVER)

WEIGHT 1.3kg

*Note: ZX150 low profile 150 watt version available to meet 1U applications, contact office for details.

ZQ200 series are still available with 11 way 7.5mm screw terminals, these are non preferred product intended for replacement of industry format and should not be designed into new projects.

MECHANICAL DETAILS ZE150E 200WATTS MODELS



Connections

INPUT		
	A.C.	D.C. Version
32	EARTH	EARTH
30	-	POSITIVE
28	NEUTRAL	POSITIVE
26	-	NEGATIVE
24	LINE	NEGATIVE
22	-	-
20	115V	-
18	LINK	-
16	-	-
14	-	-
12	-	-
10	-	-
8	-	-
6	-	-
4	-	-

AC FUSE: 5A HRC 20mm
Ceramic Fast Blow

OUTPUT		
	MULTI	SINGLE
32	PS	PS
30	ACF	ACF
28	SRS	SRS
26	ROF	ROF
24	+5VS	0VS
22	+5	0V
20	+5	0V
18	+5	0V
16	0V	0V
14	0V	0V
12	0V	+V
10	-5	+V
8	-12	+V
6	+12	+V
4	+24	+VS

SIGNALS		
Pin No.	option 'S'	option 'R'
1	system reset	power-fail NO
2	input-fail	power-fail COM
3	output-fail	power-fail NC
4	power-monitor	power-monitor
5	power-share	power-share
6	remote-on-off	remote-on-off
7	+Vs	+Vs
8	0Vs	0Vs

NOTES:
 1. CUSTOMER FIXINGS: A = M3 ISO METRIC
 2. FIXING SCREWS MUST NOT PENETRATE INTO UNIT BY MORE THAN 5mm
 3. DO NOT SCALE
 4. DIMENSIONS IN mm

WEIGHT 1.3kg

*Note: ZE150 8HP front panel width 150 watt version available where rack space is at a premium with both H11 (ZQ150E) and H15 (ZX150) connector options.

ZQ200E series is still available with DIN 41612 H11 connectors and HP front panels, these are non preferred product intended for replacement of old industry format and should not be designed into new projects.

ZQ150E and ZQ200E have front panel, power good LED, and output adjustment potentiometer.

159.3

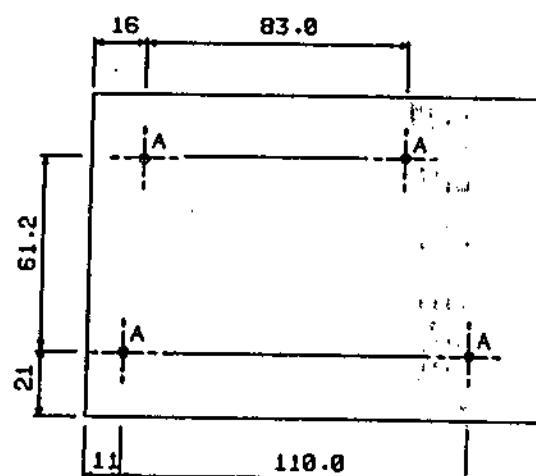
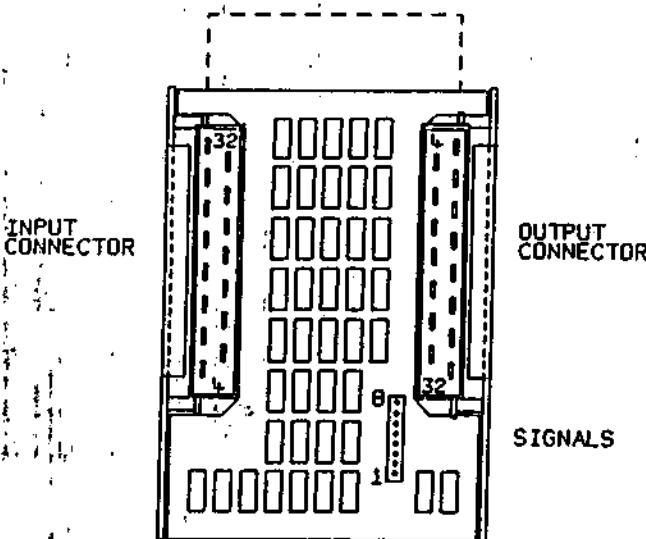
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25

144

30

100.8

FAN IF REQUIRED
(80x80mm)

VIEW IN DIRECTION OF ARROW "A"

Connections

INPUT		
	AC	DC
1	EARTH	EARTH
2	N/C	POSITIVE
3	NEUTRAL	POSITIVE
4	N/C	NEGATIVE
5	LINE	NEGATIVE
6	N/C	N/C
7	115V	N/C
8	LINK	N/C
9	N/C	N/C
10	N/C	N/C
11	N/C	N/C
12	N/C	N/C
13	N/C	N/C
14	N/C	N/C
15	N/C	N/C

OUTPUT		
	MULTI	SINGLE
1	N/C	N/C
2	N/C	N/C
3	N/C	N/C
4	ROF	ROF
5	+VS	DVS
6	OP1	0V
7	OP1	0V
8	OP1	0V
9	0V	0V
10	0V	0V
11	0V	+V
12	OP2	+V
13	OP3	+V
14	OP4	+V
15	OP5	+VS

SIGNALS			
Pin No.	option 'S'	option 'R'	option 'B'
1	system reset	power-fail NO	battery-fail NO
2	input-fail	power-fail COM	battery-fail COM
3	output-fail	power-fail NC	battery-fail NC
4	power-monitor	power-monitor	power-monitor
5	power-share	power-share	power-share
6	remote-on-off	remote-on-off	power-fail NO
7	+Vs	+Vs	power-fail COM
8	0Vs	DVs	power-fail NC

NOTES:

- CUSTOMER FIXINGS: M3 ISO METRIC - REF A
- FIXING SCREWS MUST NOT PENETRATE UNIT BY MORE THAN 5mm
- DRAWING IS IN THIRD ANGLE PROJECTION
- DO NOT SCALE
- DIMENSIONS IN mm & INCLUDE COVER