

Condition 11 – Internal lighting connected to presence detection

Contents:

Description

Specification

Contractors Technical Submittal PIR sections

Drawings showing PIRs on floors:

- **Atrium building 5 level B1**
- **Level 2 Building 1**
- **Level 6**
- **Level 6A**

Description

Presence detection is provided in a number of areas within the BM WCEC. It is omitted in favour of traditional switching only when occupant safety or artefact protection require.

In all laboratory areas and plantrooms traditional switching is utilised. This is for protection of scientists who can be very still whilst performing their experiments and for safety of operatives in plantrooms where PIR location can be shielded by equipment.

In artefact storage the client preference was for the majority of the lighting to be hand switched. This would allow small bays to be illuminated at one time subjecting the minimum number of artefacts to the minimum number of hours illuminated. It also protects a conservator from the lights switching off while working very still in a potentially lone worker situation.

Job Title: The British Museum World Conservation & Exhibition Centre
Job Number: 124020

Purpose of Issue: Construction
Revision: C2
Date: 02/05/2013

Level	Room Number	Room Name	Switch (S) or Dim(D)?	Lighting Control Equipment					Notes
				Photocell Linked	Occupancy (O) / Absence (A) Sensing	Timeclock	Remote Control	Wall Stations / Switches	
Level 6A	10a	Metal, Ceramics & Glass	D	●	O			5GS	On photocell, and occupancy control to switch on only when area is occupied; off when area is not occupied. Manual Scene Setting switch to allow photocell override and dimming up to 1,000lx.
	11c	Dirty Noisy Room	D	●	O			●	as Room 10a
	17	Shared Fume Cupboard Room	D	●	O			●	as Room 10a
	18	Dry Strong Room	S		O			●	as Room 10a
	11	Shared Archaeological Processing Room	D	●	O			●	as Room 10a
	11a	Cooled Storage	S		O			●	as Room 10a
	11b	X-Ray	S		O			●	
	15	Machine Tool Room	D	●	O			●	as Room 10a
	3	Inorganic Wet Room	D		O			●	as Room 10a
	14	Air Abrasion Room	D		O			●	as Room 10a
	12	Hot Suite Works	D	●	O			●	as Room 10a
	28	Strong Room	D		O			●	as Room 10a
	24	Dying Room	D		O			●	as Room 10a
	25	Spray Room	D		O			●	as Room 10a
	19 & 30	Small Inorganics & Organics Office	D	●	O			2GS	as Room 10a
	21	Organic Artifacts	D	●	O			5GS	as Room 10a
	27	Special Organic Project Room	D	●	O			5GS	as Room 10a
	29b	Equipment Store	S	●	O				as Room 10a
	26	Organic Wet Room	D	●	O			●	as Room 10a
	29a	Equipment Store	D	●	O				as Room 10a
	-	Dark Room	D					●	as Room 10a
	23	Part - Mounting Studio	D	●	O			●	as Room 10a
	22	Paper Studio	D	●	O			●	as Room 10a
	-	Circulation	S	●	O	●			as Room 10a
	-	WC	S		O				
	-	Plant	S					●	
	-	Storage	S		O				
	-	Staircores	S	●	O				
Facade	-	Luminaire type ALX-E4 located between double skin glazing	D	●		●			All roof lighting controlled by local switching at entrances/exits to roof level.
Roof	-	Roof	S						All roof lighting controlled by local switching at entrances/exits to roof level.

BALLAST LEVEL

The current output level is shown.

MIN AND MAX LEVELS

The minimum and maximum levels which the ballasts can be controlled to may be set by adjusting the slide bars.

DUSK DAWN DURATION

The time period, in minutes, over which the luminaires fade up at dusk and down at dawn may be set.

BIORHYTHM

For projects requiring this function please see separate data sheet.

2.10.3 Motion

Where a group contains one or more PIRs motion sensors the motion parameters may be set by selecting the left Motion tab



The icon at left will flash red whenever motion is detected by any of the sensors in the group.

PIRS, when motion is sensed, will switch the group to a selectable level, and after a period of inactivity will switch the luminaires to the min level, and to the exit level after a further period of inactivity.

PIR ACTIVE LEVEL

The level that the luminaires switch on at when triggered by a PIR may be selected by adjusting the slider bar.

PIR ON TIME

The time delay following the space being vacated after which the lights switch to the Min level. This is set by selecting the number of seconds in the window with the up and down arrows. The time remaining when in this mode is shown to the left of the selection box.

PIR MIN LEVEL

The level that the luminaires switch to at the end of the On period may be selected by adjusting the slider bar.

PIR MIN TIME

The time delay following the lights switching to Min level after which the lights switch to the Exit level. This is set by selecting the number of seconds in the window with the up and down arrows. The time remaining when in this mode is shown to the left of the selection box.

PIR EXIT LEVEL

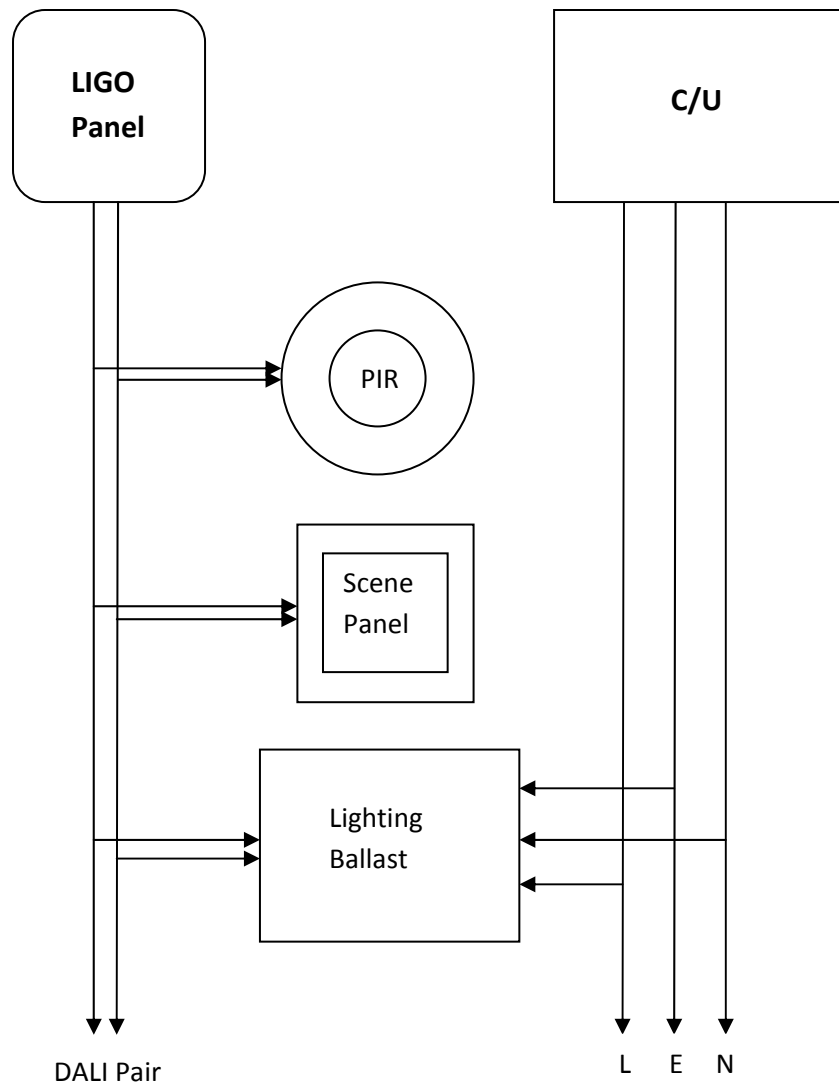
The level that the luminaires switch to at the end of the Min period may be selected by adjusting the slider bar.

PIR EXIT TIME

The time delay following the lights switching to Exit level after which the lights switch Off. This is set by selecting the number of seconds in the window with the up and down arrows. The time remaining when in this mode is shown to the left of the selection box.

- **Max Level**
Sets group(s) to maximum output.
- **Max+PIR**
Sets group(s) to maximum output and to operate from PIR which switches lights ON in daylight mode when triggered and OFF 20 minutes (default, but user selectable) after the space is vacated.
- **Max+PIR+level**
Sets group(s) to maximum output and to operate from PIR which switches lights ON in daylight mode when triggered and to Min level (user selectable) 20 minutes (default, but user selectable) after the space is vacated.
- **Min Level**
Sets virtual group(s) to minimum output.
- **Min+PIR**
Sets virtual group(s) to operate at minimum on PIR.
- **Min+PIR+level**
Sets group(s) to minimum output and to operate from PIR which switches lights ON in daylight mode when triggered and OFF 20 minutes (default, but user selectable) after the space is vacated.
- **Off**
Sets group(s) to Off.
- **Switched Level**
Sets group(s) to the level preset in the virtual group.
- **Sequence**
Sets virtual group(s) to operate a sequence - for RGB control.
- **Dawn**
Sets a period to bring lights from Off or Min to daylight level.
- **Dusk**
Sets a period to bring lights from daylight level to Off or Min.
- **White Inhibit PIR**
If a virtual group is Off then other virtual groups (set in group inhibits panel) with PIRs may only be switched to red light (protects sensitive areas e.g. labs from white light).
- **White Inhibit SW**
If a virtual group is Off then other virtual groups (set in group inhibits panel) with switches may only be switched to red light (protects sensitive areas e.g. labs from white light).

Typical LIGO Wiring Method

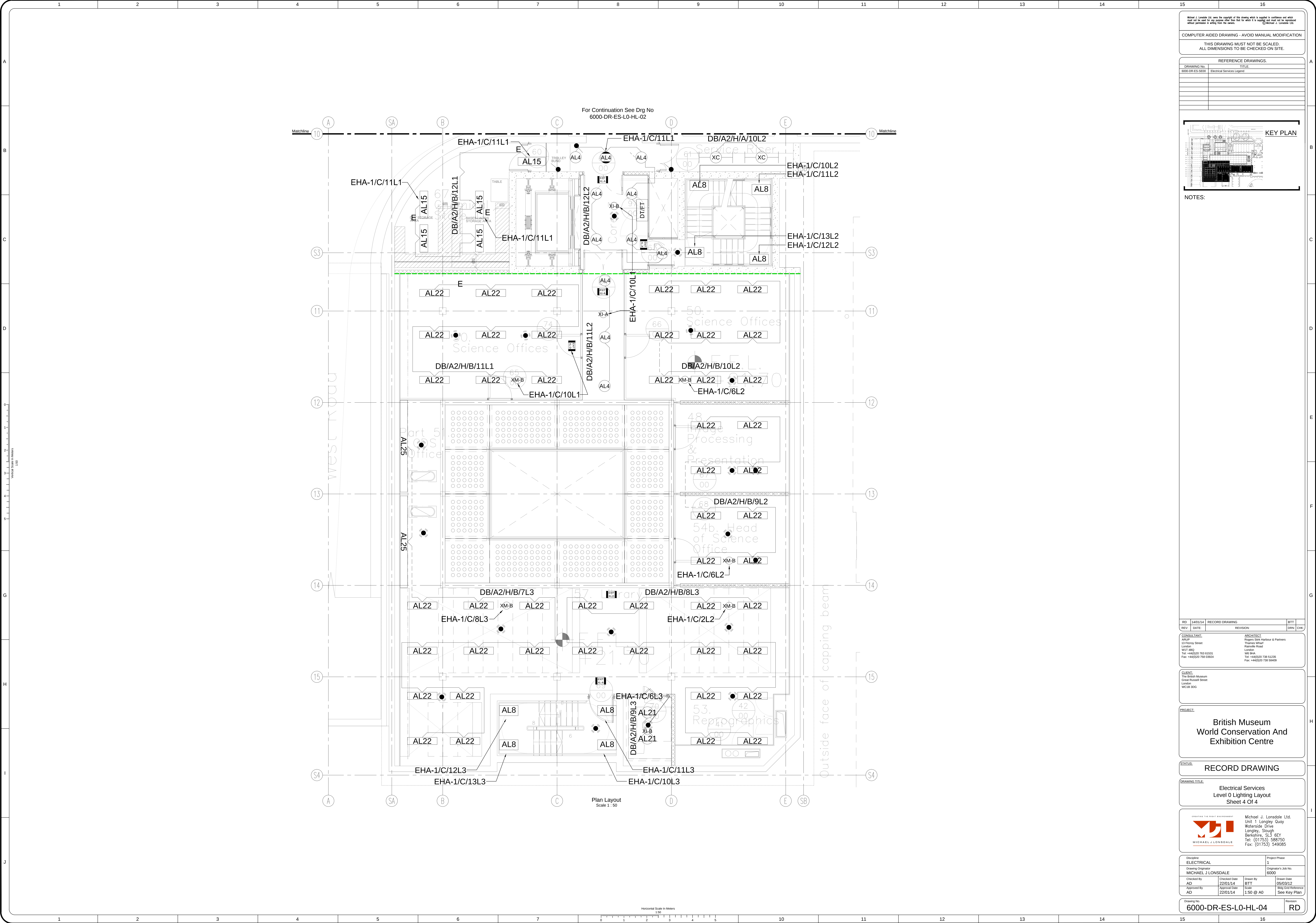


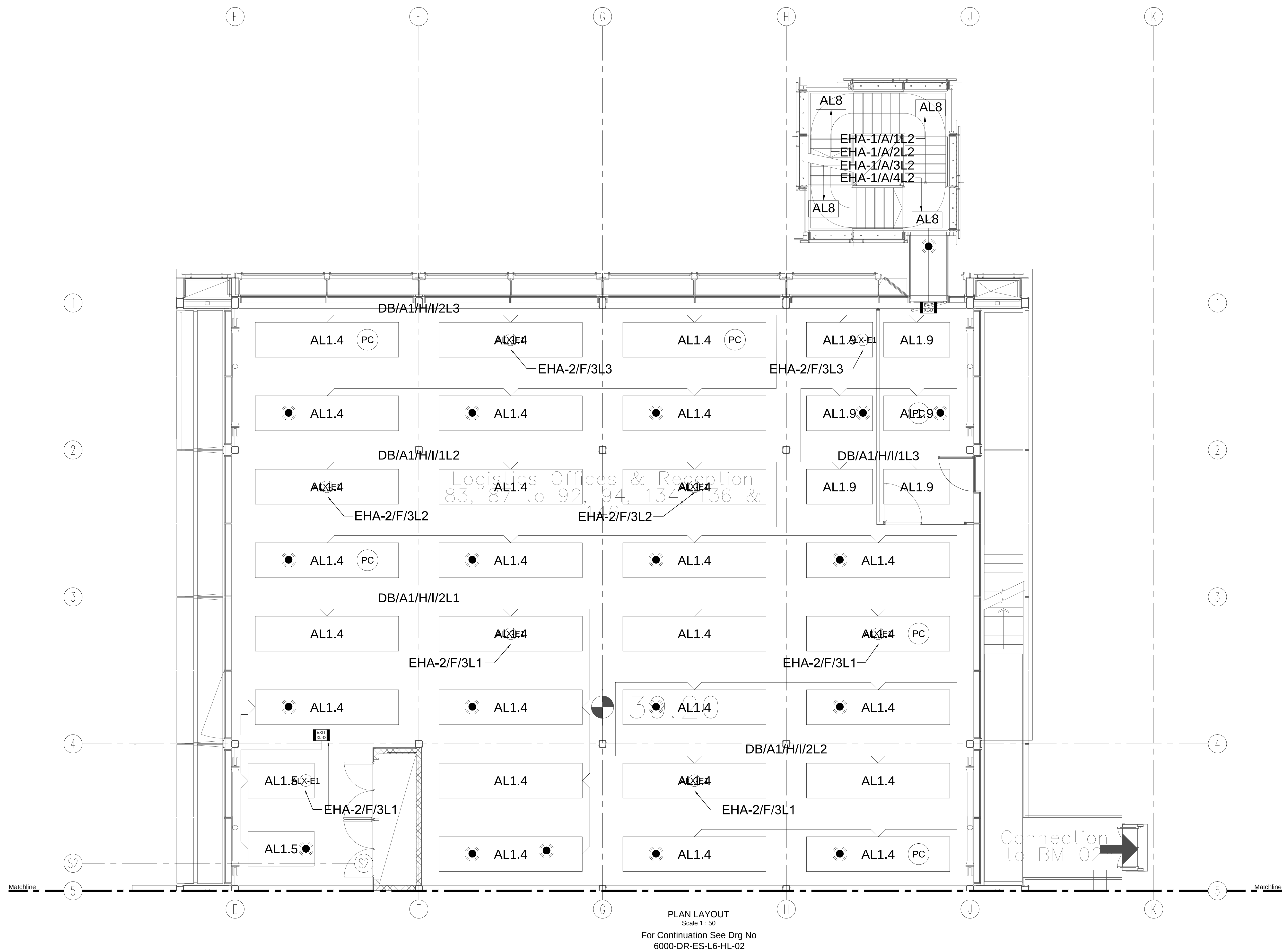
NOTES

PIR and Scene Setting Panels require Bus connection only

64 Devices per DALI Pair Max

300m DALI Bus runs Max



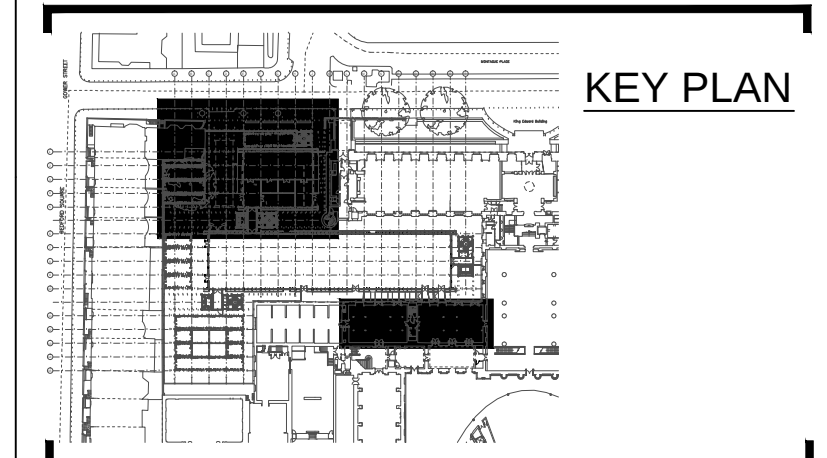


PLAN LAYOUT
Scale 1 : 50
For Continuation See Drg No
6000-DR-ES-L6-HL-02

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DRAWING NO.	TITLE



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WC1B 3DG

PROJECT:
**British Museum
World Conservation And
Exhibition Centre**

STATUS:
RECORD DRAWING

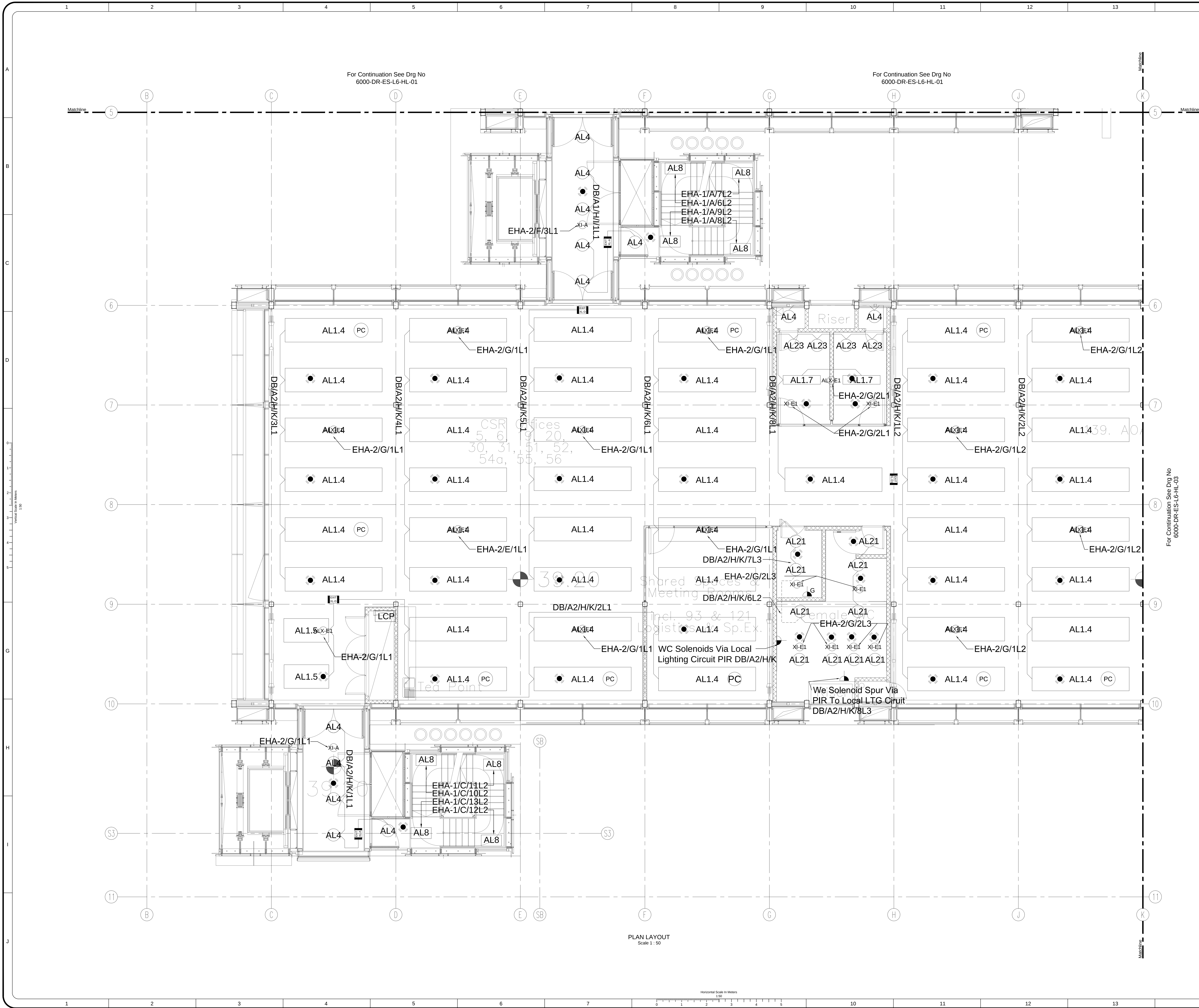
DRAWING TITLE:
**Electrical Services
Level 6 Lighting Layout
Sheet 1 of 3**

**MICHAEL J. LONSDALE**
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Discipline		Project Phase	
ELECTRICAL		1	
Drawing Originator MICHAEL J. LONSDALE		Originator's Job No. 6000	
Checked By AD	Checked Date 27/01/14	Drawn By BT	Drawn Date 27/01/14
Approved By AD	Approved Date 27/01/14	Scale 1:50 @ A0	Revision See Key Plan

Drawing No:
6000-DR-ES-L6-HL-01

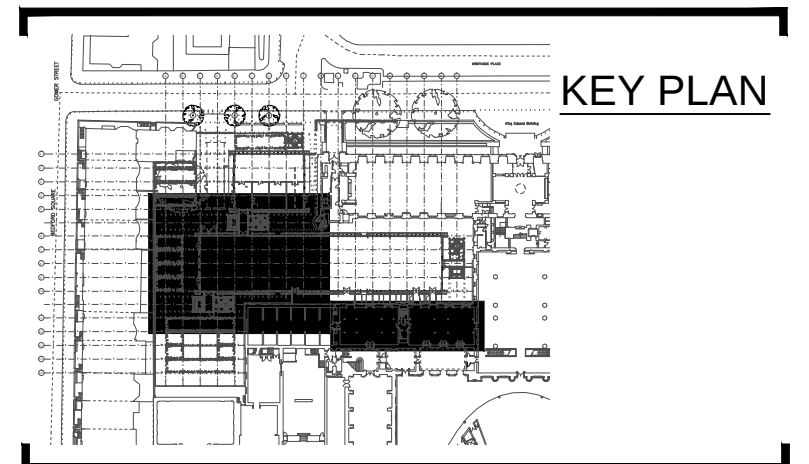
Revision
RD



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DRAWING No.	TITLE
6000-DR-ES-01	Electrical Drawings Legend



NOTES:

REV.	DATE	REVISION	BY	CHK
1	11/02/14	RECORD DRAWING	BT	CH

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---	--

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PROJECT:
**British Museum
World Conservation And
Exhibition Centre**

STATUS:
RECORD DRAWING

DRAWING TITLE:
**Electrical Services
Level 6 Lighting Layout
Sheet 2 Of 3**

DISCIPLINE:
ELECTRICAL

Project Phase:
1

Drawing Designer:
MICHAEL J LONSDALE

Originator's Job No:
6000

Checked By:
AD

Checked Date:
27/01/14

Drawn By:
BT

Drawn Date:
27/01/14

Approved By:
AD

Approved Date:
27/01/14

Scale:
1:50 @ AO

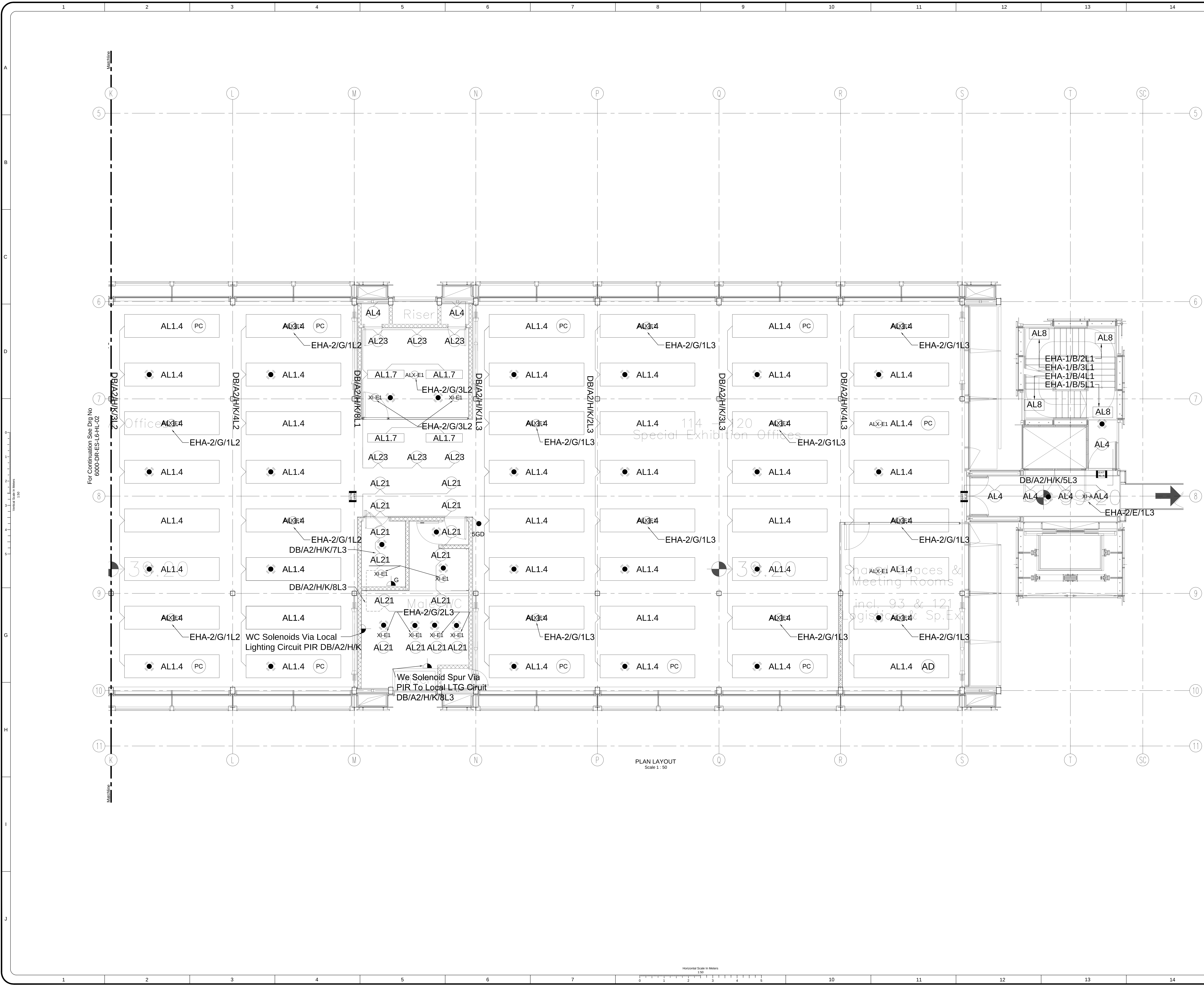
Drawn Date:
27/01/14

Bill of Materials:
See Key Plan

Revision:
C1

Discipline: ELECTRICAL	Project Phase: 1
Drawing Designer: MICHAEL J LONSDALE	Originator's Job No: 6000
Checked By: AD	Checked Date: 27/01/14
Drawn By: BT	Drawn Date: 27/01/14
Approved By: AD	Approved Date: 27/01/14
Scale: 1:50 @ AO	Drawn Date: 27/01/14
Bill of Materials: See Key Plan	Revision: C1

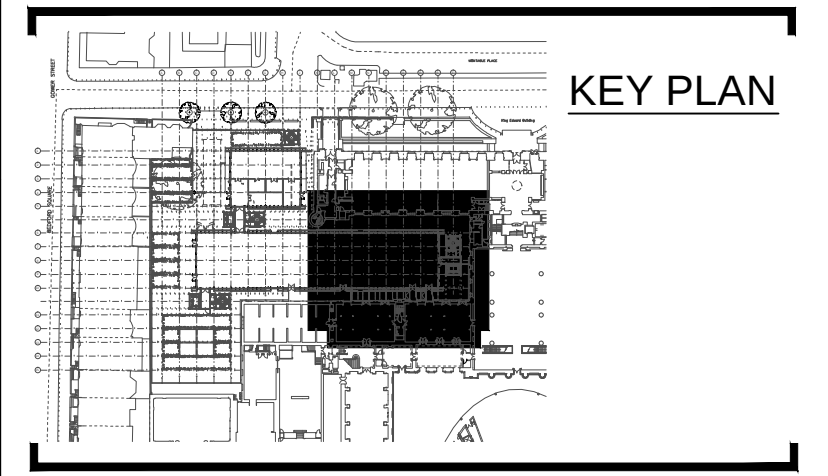
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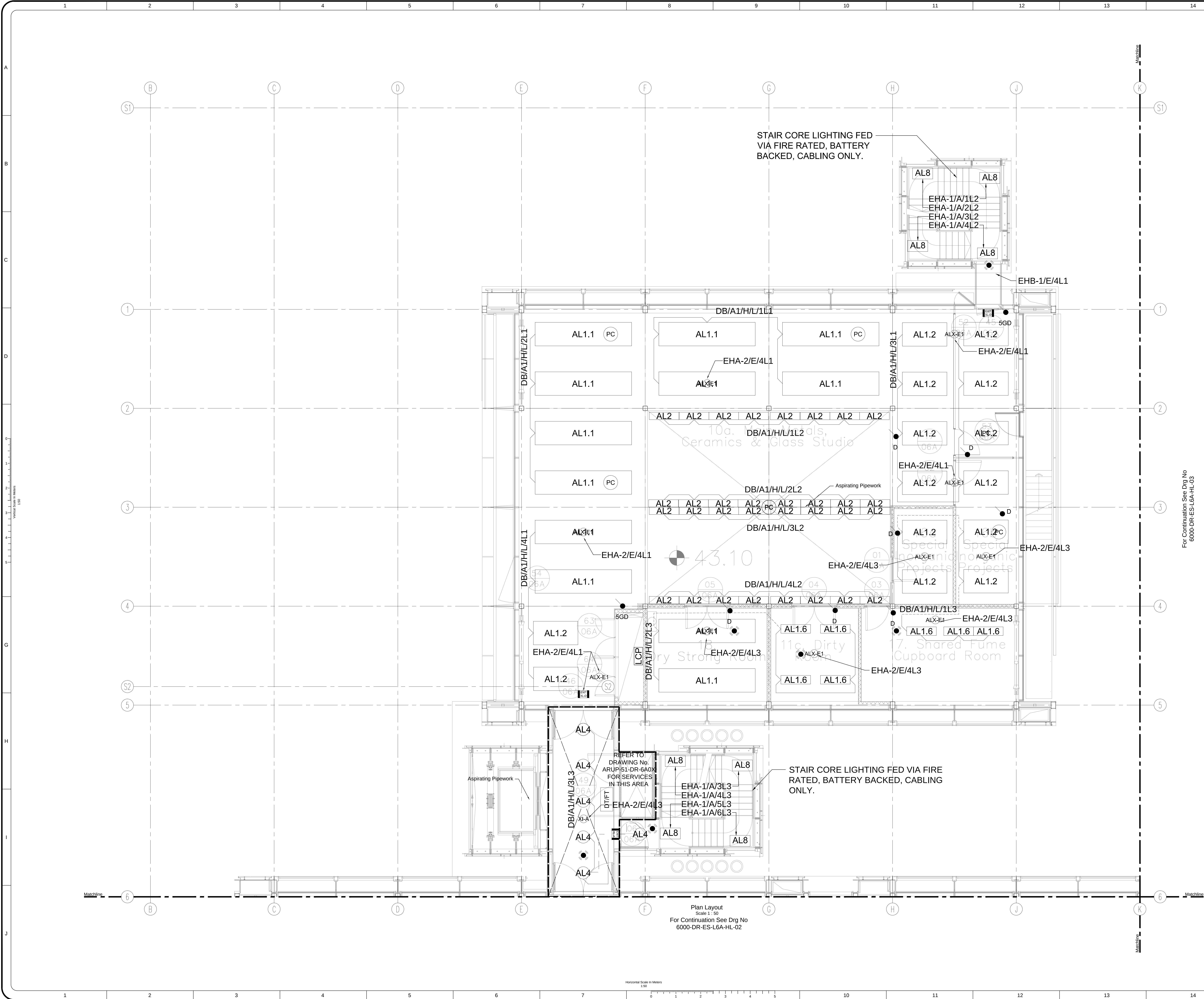
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6000-DR-ES-02	Electrical Drawings Legend



NOTES:

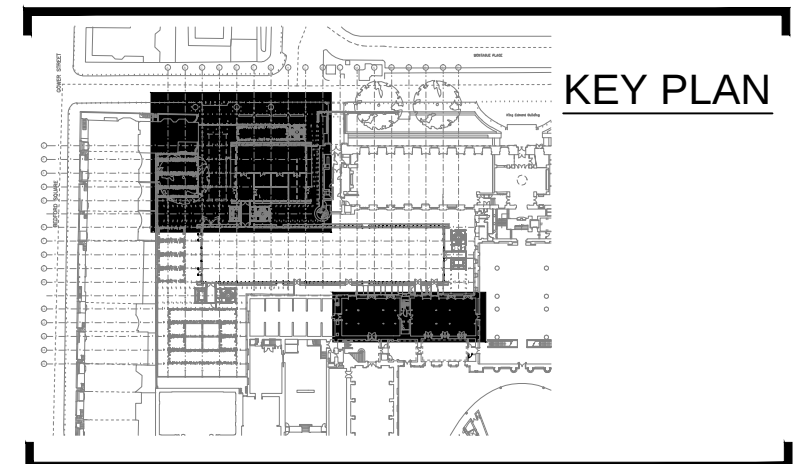
RD	27/01/14	RECORD DRAWING	BTT
REV:	DATE:	REVISION:	DRN: CHK:
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DRAWING No.	TITLE
6000-DR-ES00	Electrical Services Legend



NOTES:

CL	17/07/13	Issued for Construction	BTJ
0	17/09/12	Issued for Approval	BTJ
REV.	DATE	REVISION	DRN

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PROJECT:
**British Museum
World Conservation And
Exhibition Centre**

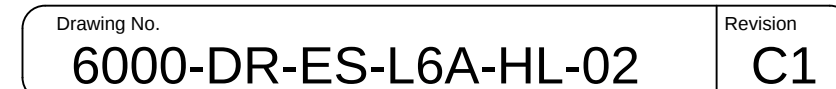
STATUS:
CONSTRUCTION

DRAWING TITLE:
**Electrical Services
Level 6A Lighting Layout
Sheet 1 Of 3**



Originator:	Project Phase:
ELECTRICAL	2
Drawing Originator:	Originator's Job No.:
MICHAEL J. LONSDALE	6000
Checked By:	Checked Date:
AD	23/03/12
Drawn By:	Drawn Date:
BTJ	05/03/12
Approved By:	Approval Date:
AD	23/03/12
Scale:	1:50 @ A0
Big Grid Reference:	See Key Plan

Drawing No.	Revision
6000-DR-ES-L6A-HL-01	C1



STAIR CORE LIGHTING FED VIA FIRE
RATED, BATTERY BACKED, CABLING
ONLY.

For Continuation See Drg No
6000-DR-ES-L6A-HL-01

For Continuation See Drug No
6000 DRUGS & ALLIES

PLAN LAYOUT
Scale 1 : 50

Horizontal Scale in Meters

