

DATE: 27 May 2020
DESIGNER: Kimberly Bartlett
PROJECT No: 70067793-WSP-XX-BR-CA-E-1301
PROJECT NAME: Brill Place



Existing Lighting Installation. Lighting Calculation deemed to be in accordance with the requirements of BS 5489-1:2013 & BS EN 13201-2:2015 Class P2.

Required Levels:	Achieved Levels:
Eav = 10.0 to 15.00	Eav = 13.39
Emin = 2.0	Emin = 2.69

MF: $0.84 \times 0.93 = 0.78$
 $0.84 \times 0.86 = 0.72$

Existing equipment: 6m & 8m columns complete with bracket arms and functional luminaires. Equipment optics assumed based on LB Camden online inventory.
([opendata.camden.gov.uk/ Environment/Camden-Street-Lighting/dfq3-8wzu](https://opendata.camden.gov.uk/Environment/Camden-Street-Lighting/dfq3-8wzu))

Outdoor Lighting Report

Designer:

Checked:

Approved:

PREPARED BY: WSP
Unit 9 The Chase
John Tate Road
Foxholes Business Park
Hertford
SG13 7NN

Layout Report

General Data

Dimensions in Metres Angles in Degrees
 Grid Origin 529774.4m x 183043.7m
 Area 204.5m x 125.8m
 Sample Spacing 1.49m x 1.50m

Luminaires

Luminaire X Data

Supplier	Philips
Type	2685 CNN-E#
Lamp(s)	1 MT 90 10450 2800 PGZ12
LampFlux(klm)/Colour	10.45 2800 / 70
File Name	Arc 2685 CNN E# 1 MT 90 10450 2800 PGZ1 2.ltd
Maintenance Factor	0.78
Imax70,80,90(cd/klm)	447.0, 68.0, 1.0
No. in Project	6

Luminaire Y Data

Supplier	Philips
Type	2685 CNN-G#
Lamp(s)	1 MT 60 6800 2800 PGZ12
LampFlux(klm)/Colour	6.80 2800 / 70
File Name	Arc 2685 CNN G# 1 MT 60 6800 2800 PGZ1 2.ltd
Maintenance Factor	0.72
Imax70,80,90(cd/klm)	509.0, 83.0, 1.0
No. in Project	2

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
7	X	529818.29	183076.74	8.00	303.00	0.00	0.00	1.50			
6	X	529835.51	183088.11	8.00	303.00	0.00	0.00	1.50			
5	X	529849.25	183098.46	8.00	302.00	0.00	0.00	1.50			
4	X	529869.62	183111.91	8.00	303.00	0.00	0.00	1.50			
3	X	529892.38	183126.94	8.00	303.00	0.00	0.00	1.50			
2	X	529917.63	183143.37	8.00	303.00	0.00	0.00	1.50			
7	Y	529827.55	183106.14	6.00	32.00	0.00	0.00	0.50			
8	Y	529821.27	183136.10	6.00	210.00	0.00	0.00	0.50			

Horizontal Illuminance (lux)

Grid 1

**Results**

Eav	13.39
Emin	2.69
E _{max}	32.59
E _{min} /E _{max}	0.08
E _{min} /E _{av}	0.20

DATE: 27 May 2020
DESIGNER: Kimberly Bartlett
PROJECT No: 70067793-WSP-XX-BR-CA-E-1302
PROJECT NAME: Brill Place



Proposed Lighting Design. Lighting Calculation in accordance with the requirements of BS 5489-1:2013 & BS EN 13201-2:2015 Class P2.

Required Levels:	Achieved Levels:
Eav = 10.0 to 15.00	Eav = 13.83
Emin = 2.0	Emin = 2.77

MF: $L0.90 \times F0.1 \times 0.92 = 0.83$
 $0.84 \times 0.86 = 0.72$

Proposed equipment: 8m column in NAL temporary 750mm surface concrete foundation complete with 1.25m bracket arm and ASD Highway Diamond MAXI 92LED 600mA M2 optic luminaire. Re-heading of existing column 3 with ASD Highway Diamond MAXI 92LED 600mA M2 optic luminaire.

Outdoor Lighting Report

Designer:

Checked:

Approved:

PREPARED BY: WSP
Unit 9 The Chase
John Tate Road
Foxholes Business Park
Hertford
SG13 7NN

Layout Report

General Data

Dimensions in Metres Angles in Degrees
 Grid Origin 529774.4m x 183043.7m
 Area 204.5m x 125.8m
 Sample Spacing 1.49m x 1.50m

Luminaires



Luminaire A Data

Supplier	ASD Lighting
Type	HWD6-#4LED09260-M2 Osram Rev 1
Lamp(s)	4000K Osram LED
LampFlux(klm)/Colour	16.72 4000/72
File Name	HWD6-#4K09260-M2 (167w).ldt
Maintenance Factor	0.83
Lum. Int. Class	None
No. in Project	2

Luminaire X Data

Supplier	Philips
Type	2685 CNN-E#
Lamp(s)	1 MT 90 10450 2800 PGZ12
LampFlux(klm)/Colour	10.45 2800 / 70
File Name	Arc 2685 CNN E# 1 MT 90 10450 2800 PGZ1 2.ltd
Maintenance Factor	0.78
Lum. Int. Class	G3
No. in Project	3

Luminaire Y Data

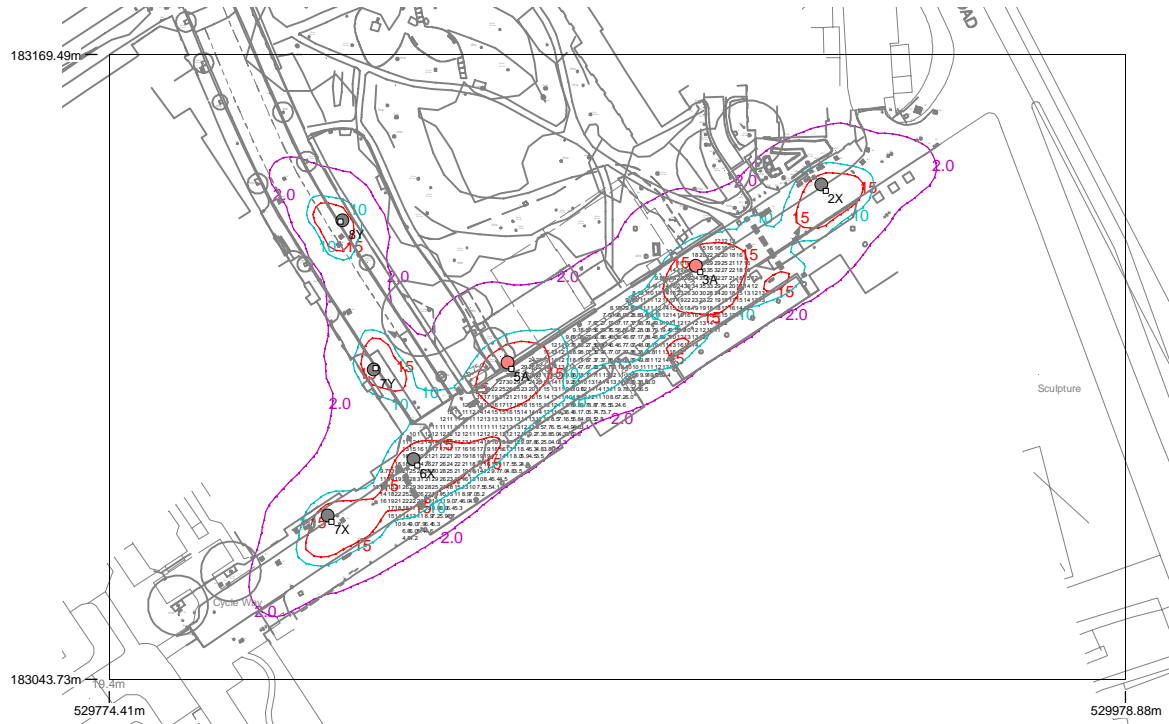
Supplier	Philips
Type	2685 CNN-G#
Lamp(s)	1 MT 60 6800 2800 PGZ12
LampFlux(klm)/Colour	6.80 2800 / 70
File Name	Arc 2685 CNN G# 1 MT 60 6800 2800 PGZ1 2.ltd
Maintenance Factor	0.72
Lum. Int. Class	G3
No. in Project	2

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
7	X	529818.29	183076.74	8.00	303.00	0.00	0.00	1.50			
6	X	529835.51	183088.11	8.00	303.00	0.00	0.00	1.50			
5	A	529854.45	183107.54	8.75	302.00	0.00	0.00	1.50			
3	A	529892.38	183126.94	8.00	303.00	0.00	0.00	1.50			
2	X	529917.63	183143.37	8.00	303.00	0.00	0.00	1.50			
7	Y	529827.55	183106.14	6.00	32.00	0.00	0.00	0.50			
8	Y	529821.27	183136.10	6.00	210.00	0.00	0.00	0.50			

Horizontal Illuminance (lux)

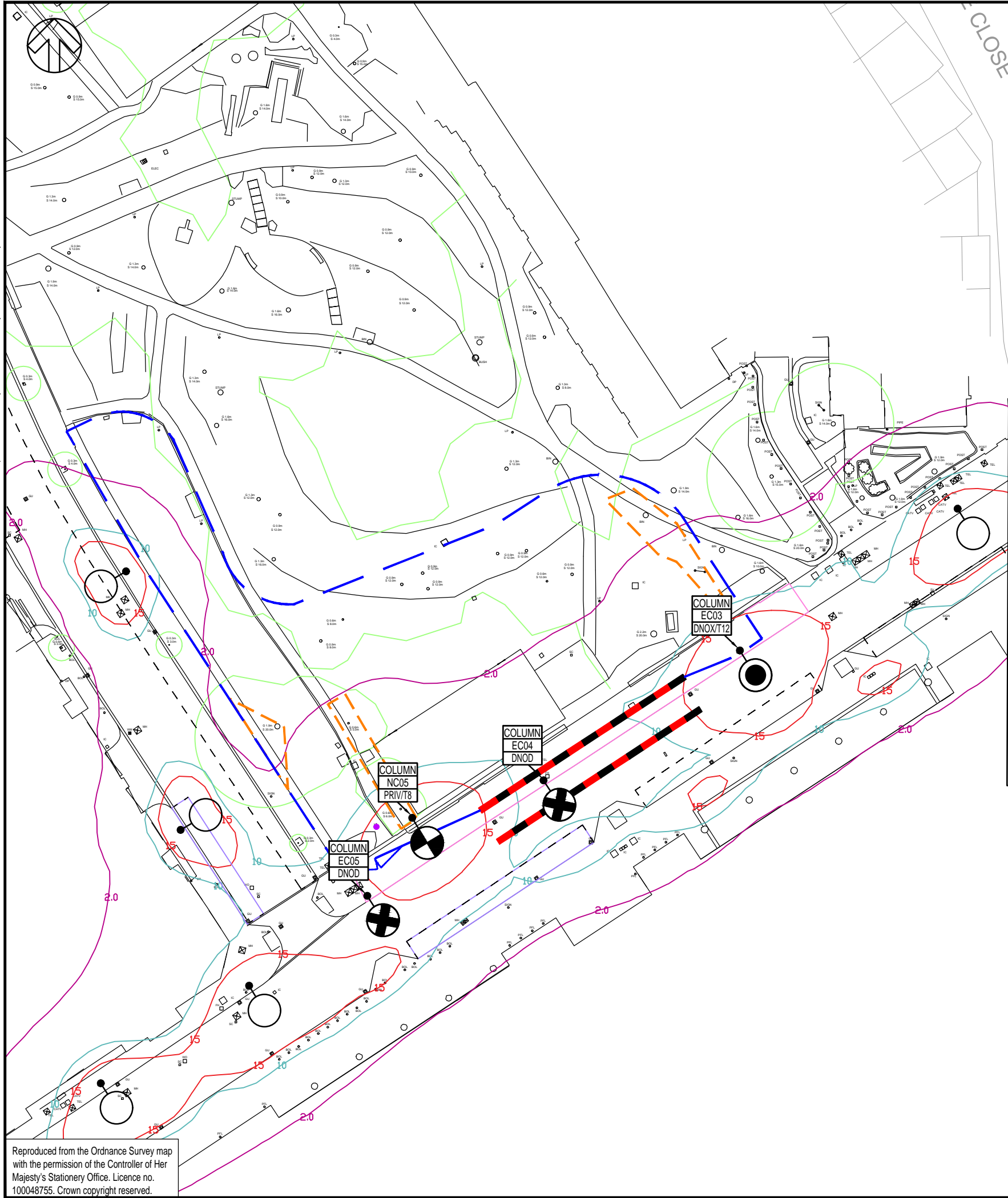
Grid 1



Results

Eav	13.83
Emin	2.77
E _{max}	37.05
E _{min} /E _{max}	0.07
E _{min} /E _{av}	0.20

File name \\UK.WSPGROUP.COM\CENTRAL DATA\PROJECTS\70067793 - BRILL PLACE\02 WIP\LIGHTING\02 DRAWING\70067793-WSP-XX-BR-DR-E-1301.DWG, printed on 29 May 2020 13:11:26, by Bartlett, Kimberly



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PROPOSED EQUIPMENT ATTRIBUTE BOX:

COLUMN	
NC00	- EQUIPMENT TYPE
DNOC/T12	- MAINTENANCE NUMBER
	- CONNECTION TYPE, ACTION REQUIRED/TERMINATION TYPE

ELECTRICAL SUPPLY ABBREVIATIONS.

NC	- NEW COLUMN
EC	- EXISTING COLUMN
DNO	- DISTRIBUTION NETWORK OPERATOR
DNOD	- PERMANENT DISCONNECTION
DNOC	- NO DNO WORKS REQUIRED
PRIV	- PRIVATE SUPPLY

NOTES:

- CONTRACTOR TO LIAISE WITH DISTRIBUTION NETWORK OPERATOR PRIOR TO COMMENCEMENT OF WORKS.
- CURRENT STATS DRAWING TO BE OBTAINED BY CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS.
- ALL EXISTING EQUIPMENT TO BE MADE ELECTRICALLY SAFE PRIOR TO COMMENCEMENT OF WORKS.
- ALL ELECTRICAL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH BS7671 IET WIRING REGULATIONS.
- RE-USE OF EXISTING COLUMN 3 IS SUBJECT TO SATISFACTORY STRUCTURAL TESTING RESULTS. SHOULD THESE RESULTS NOT BE SATISFACTORY, APPROVAL SHOULD BE SOUGHT FROM LB CAMDEN FOR A REDUCTION IN LIGHTING LEVELS THROUGH USE OF THE EXISTING LUMINAIRE.
- ELECTRICAL SUPPLY DESIGN TO BE UNDERTAKEN BY OTHERS.
- INSTALLATION AND MAINTENANCE DETAILS FOR THE TEMPORARY CONCRETE BLOCK FOUNDATION ARE TO BE SOUGHT FROM THE MANUFACTURER PRIOR TO COMMENCEMENT OF WORKS:
BEN PARSONS - NAL LTD
WEIR LANE, WORCESTER, WR2 4AY.
PHONE: 01905 427 100. FAX: 01905 427 030
EMAIL: SALES@NAL.LTD.UK

HEALTH AND SAFETY SYMBOLS LEGEND

	INDICATES A RESIDUAL RISK REQUIRING A COMPULSORY ACTION
	INDICATES A RESIDUAL RISK FOR INFORMATION
	INDICATES A RESIDUAL RISK REQUIRING A PROHIBITIVE ACTION
	INDICATES A RESIDUAL RISK AS A WARNING
	PRIVATE CABLE NETWORK TO BE DESIGNED BY OTHERS. ELECTRICAL DESIGN REQUIRES EARLY CONTRACTOR INVOLVEMENT PRIOR TO COMMENCEMENT OF WORKS, TO CONFIRM ORIGIN AND ROUTE OF ELECTRICAL SUPPLIES.
	STATUTORY UNDERTAKERS PLANS NOT AVAILABLE AT TIME OF DESIGN. CONTRACTOR TO ENSURE AVAILABILITY OF CURRENT STATS PRIOR TO COMMENCEMENT OF WORKS

KEY:

- EXISTING 8m COLUMN AND LUMINAIRE TO BE REMOVED TO CONTRACTORS OFF SITE RECYCLING FACILITY.
- EXISTING COLUMN TO REMAIN. EXISTING LUMINAIRE TO BE REMOVED TO CONTRACTORS OFF SITE RECYCLING FACILITY AND REPLACED WITH TYPE A LANTERN.
- PROPOSED 8m TEMPORARY ROAD LIGHTING COLUMN WITH TYPE A ASD HIGHWAY DIAMOND MIDL LUMINAIRE COMPLETE WITH 7 PIN NEMA SOCKET. OUTREACH BRACKET ARM: 1.25m
LAMP: 92LED 600mA 4000K 16.72klm
OPTIC SETTING: M2
CONTROL GEAR: INTEGRAL ELECTRONIC ISOLATION: SECONDARY ISOLATOR FITTED WITH BS88 FUSE
SWITCHING: LB CAMDEN SPECIFICATION
FOUNDATIONS: NAL 750mm TEMPORARY CONCRETE FOUNDATION.
- EXISTING COLUMN TO REMAIN IN SITU.
- RHINO BARRIERS FOR PIT LANE
- 2.4m SOLID HOARDING
- TREE PROTECTION (FENCING)

P01	27/05/2020		FIRST ISSUE		
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: S3 - FOR REVIEW

wsp

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wsp.com

CLIENT: LBS PROPERTIES LTD

ARCHITECT:

PROJECT: BRILL PLACE

TITLE: TEMPORARY HIGHWAY LIGHTING WORKS DURING BASEMENT WORKS PHASE

SCALE @ A3: 1:500	CHECKED: PT	APPROVED: PJB
PROJECT No: 70067793	DESIGNED: KB	DRAWN: KB
		DATE: May 20
DRAWING No: 70067793-WSP-XX-BR-DR-E-1301		
REV: P01		

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T446: Design Risk Management Schedule

Project No	70067793	Project Name	Brill Place
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Guidance Notes (see guidance notes page for more details)
Design risk management should be an integral part of the overall design development and designers should think of it in terms of considering constructability, maintainability, etc. Designers only need to document their consideration of risks in this simple risk register format. There is no requirement for quantative design risk assessments to be carried out/documented and these should be avoided
* Risks should be considered in a logical sequence relating to the location/operational environment, constructability/installability, operability (normal/emergency), maintainability (inc routine cleaning, replacement, etc.), and alteration/decommissioning/dismantling/demolition, and should be categorised against those headings, CIRIA guidance documents C755, C756, C686, C607 etc. provide a useful checklist and detailed guidance on the identification of risks to be considered during design and how those risks might be addressed - see detailed guidance notes for more details
§ Significant residual risks are those which are unusual, not obvious, difficult to manage, or where critical design assumptions apply. The documentation by designers of residual risks that cover well-known and understood hazards should be avoided.

Ref	Risk Category* & Phase where appropriate, e.g. location/environment, construction, operation, maintenance, alteration/demolition	Work Element/Location (where appropriate)	Hazard or Risk Issue Identified	Risk Management Owner	Design ERIC Action Required (e.g. hazard elimination/risk mitigation action, information to be provided to others)	Significant Temporary Works Requirements/Management Arrangements and/or any Special Erection/Installation Sequences or Requirements	Design Action Status/Final Resolution Notes (e.g. traceability of ERIC action, communication of significant residual risk, critical design criteria, etc.)	Significant Residual Risk§	Date Logged/ Reviewed	Raised By
001	Construction, maintenance, demolition	Lantern installation	Working at height - 'topping out' columns with lanterns	Contractor	removal of columns not possible, raise and lower columns not appropriate for temporary installation. Standard columns and MEWP access only reasonable solution for scheme.	none	Closed. Working at height for this type of work is standard procedure for contractors working on street lighting columns. Risk is mitigated through trained and competent MEWP operators, clipping on, use of lanyards and torqued helmets.	No	28/05/2020	K Bartlett
002	Location	All	Potential disruption/nuisance affecting the genetic research facility, The Crick Institute on adjacent site	Lead Designer	Reduce construction activities likely to disrupt operation of facility, designing positions on the oppositie side othe road only.		Initial design review carried out with design team. Further regular design reviews planned to review issues. No outstanding issues currently to be addressed	No	28/05/2020	K Bartlett
003	Working adjacent to live traffic	location	works are on public highway, adjacent to live traffic and construction vehicles at all times.	Contractor	road closure ideal scenario however not possible due to emergency routes, proximity to St Pancras International station and live construction site.	Pit Lane in use and full site hoarding.	Closed. Risk already mitigated in contractors design and highway pit lane design by others.	No	28/05/2020	K Bartlett
004	Construction, maintenance, demolition	Column installation	risk of electrocution whilst connecting temporary supply to temporary column.	Electrical Engineer	Electrical design undertaken by others and managed by the contractor. Reasonable risk mitigation provided on dwgs stating design to be to BS7671 and liaison with DNO required prior to commnecmenet of works.	Early contractor involvement required by electrical designer to verify source of supply for temporary lighting. Earthing electrodes may be required for the temporary installation.	Closed. Notes provided on dwgs.	No	28/05/2020	K Bartlett
005	Construction, maintenance, demolition	Temporary foundation	Risk of damage to foundation, crushing injuries during install and removal	Contractor	contractor to work with the foundation supplier and meet all requirement laid down by same. Note and contact details for foundation manufacturer provided on 1301 dwg.	none	Closed. Notes provided on dwgs.	No	28/05/2020	K Bartlett

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Issue 3.0