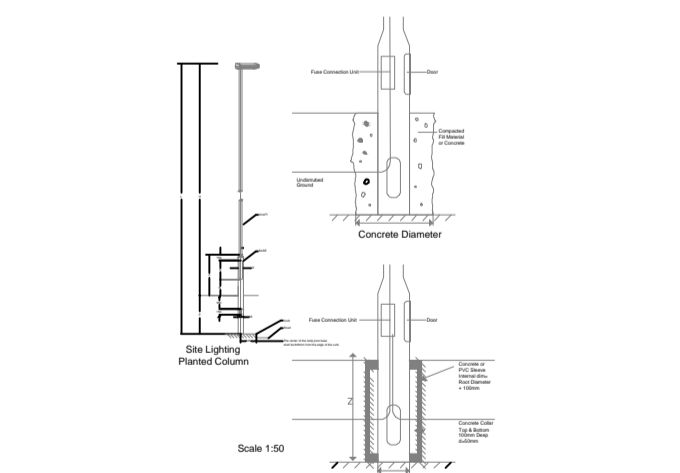
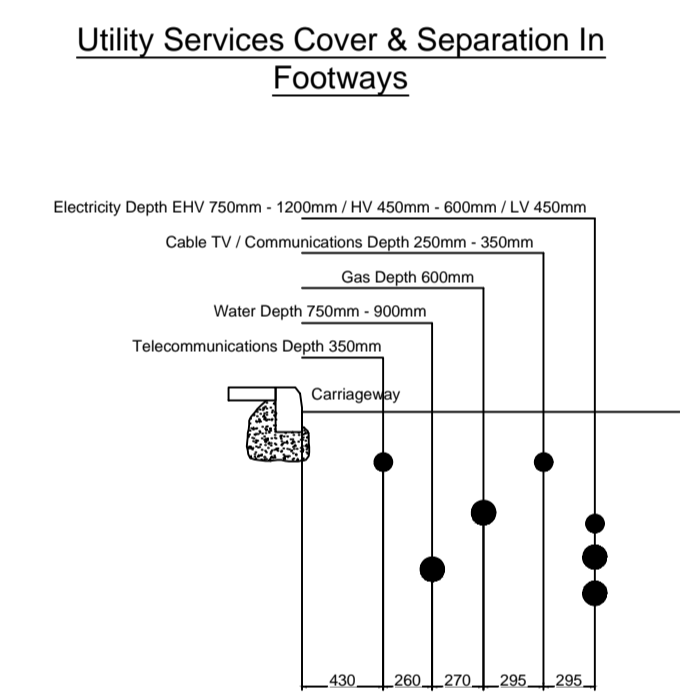
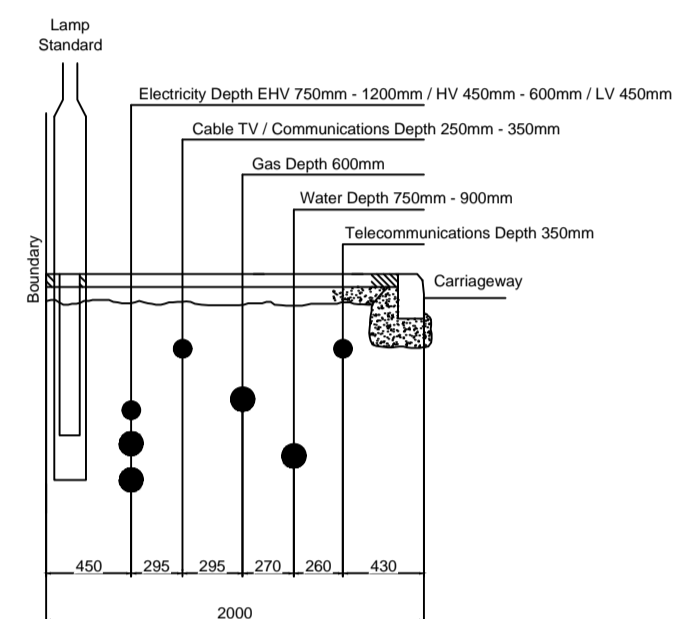
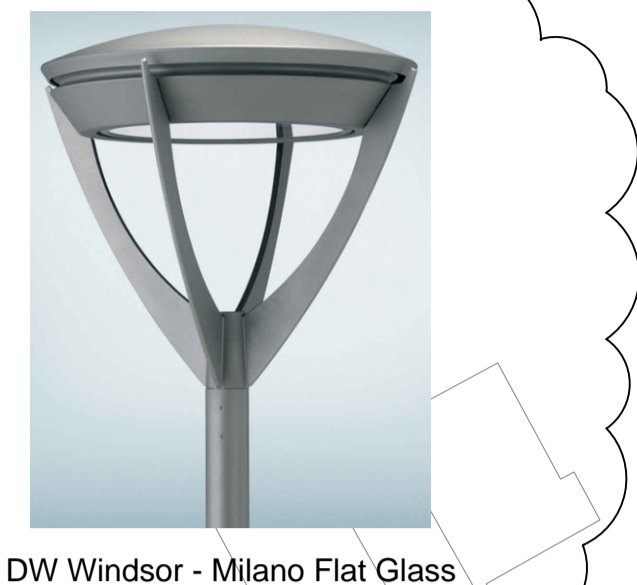


- Notes & Details Legend.**
- This drawing shall be read in conjunction with all other site layout drawings provided by other members of the Design team.
 - The information on this drawing remains the responsibility of the originator.
 - The services shall follow the requirements of the NJUG publication for services within carriage way & footpath.
 - The contractor shall note that all ducts shall be provided with slow radius bends.
 - All ducts shall be approved by the Utility company whose service shall be installed within.
- All ducts shall be twin walled rigid duct:
- Black - Electricity
 - Blue - Water
 - Yellow - Gas
 - BT - Approved
- Where road crosses are indicated these shall be through dedicated approved ducts. Ducting shall be 150mmØ HDPE (Black) complete with draw wires to ease installation.
 - Where services are installed in close proximity to trees, these shall be protected by the provision of risk barriers approved by the specialist contractor.
 - The centre of the lamp column shall be 625mm from edge of kerb.



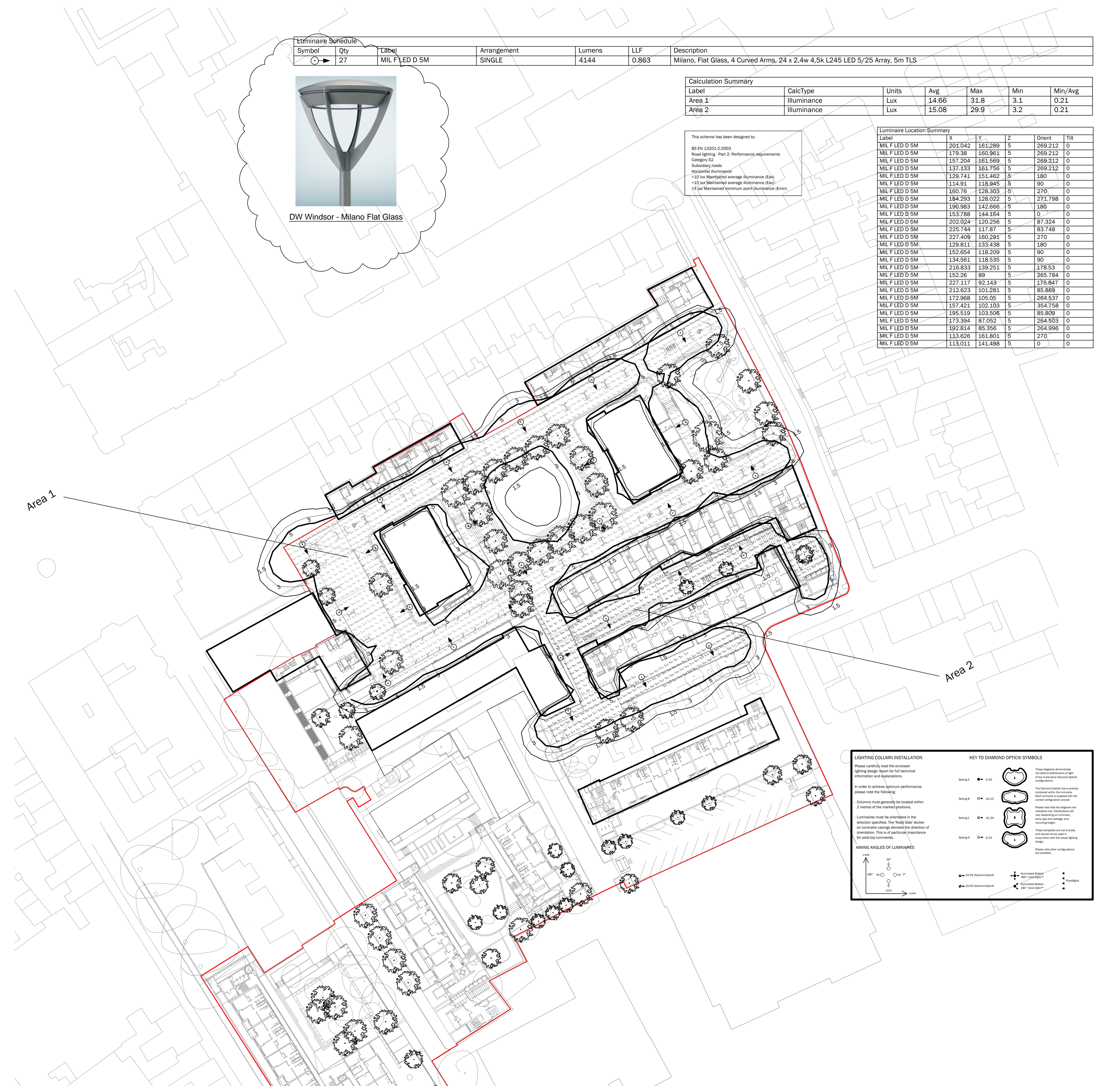
Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Lumens	LLF	Description
	27	MIL F LED D 5M	SINGLE	4144	0.863	Milano, Flat Glass, 4 Curved Arms, 24 x 2.4w 4.5k L245 LED 5/25 Array, 5m TLS



Calculation Summary						
Label	CalcType	Units	Avg	Max	Min	Min/Avg
Area 1	Illuminance	Lux	14.66	31.8	3.1	0.21
Area 2	Illuminance	Lux	15.08	29.9	3.2	0.21

This scheme has been designed to:
 BS EN 13201-2:2003
 Road lighting - Part 2: Performance requirements
 Category S2
 Subcategory roads
 Horizontal Illuminance
 >10 lux Maintained average illuminance (Eav)
 <15 lux Maintained average illuminance (Eav)
 <5 lux Maintained minimum point illuminance (Emin)

Luminaire Location Summary						
Label	X	Y	Z	Orient	Tilt	
MIL F LED D 5M	201.042	161.289	5	269.212	0	
MIL F LED D 5M	179.38	160.961	5	269.212	0	
MIL F LED D 5M	157.204	161.569	5	269.212	0	
MIL F LED D 5M	137.133	161.756	5	269.212	0	
MIL F LED D 5M	129.741	151.462	5	180	0	
MIL F LED D 5M	114.91	118.945	5	90	0	
MIL F LED D 5M	160.76	128.303	5	270	0	
MIL F LED D 5M	184.293	128.022	5	271.798	0	
MIL F LED D 5M	190.983	142.666	5	180	0	
MIL F LED D 5M	153.788	144.164	5	0	0	
MIL F LED D 5M	202.024	120.256	5	87.324	0	
MIL F LED D 5M	225.744	117.87	5	83.748	0	
MIL F LED D 5M	227.409	160.291	5	270	0	
MIL F LED D 5M	129.811	133.438	5	180	0	
MIL F LED D 5M	152.654	118.209	5	90	0	
MIL F LED D 5M	134.561	118.535	5	90	0	
MIL F LED D 5M	216.833	139.251	5	178.53	0	
MIL F LED D 5M	152.26	89	5	265.784	0	
MIL F LED D 5M	227.117	92.143	5	175.847	0	
MIL F LED D 5M	212.623	101.281	5	85.889	0	
MIL F LED D 5M	172.968	105.05	5	264.537	0	
MIL F LED D 5M	157.421	102.103	5	354.758	0	
MIL F LED D 5M	195.519	103.506	5	85.809	0	
MIL F LED D 5M	173.394	87.052	5	264.503	0	
MIL F LED D 5M	192.814	85.356	5	264.996	0	
MIL F LED D 5M	113.626	161.801	5	270	0	
MIL F LED D 5M	113.011	141.488	5	0	0	



LIGHTING COLUMN INSTALLATION
 Please carefully read the enclosed lighting design report for full technical information and explanations.

In order to achieve optimum performance, please note the following:
 Columns must generally be located within 2 metres of the marked positions.
 Luminaires must be orientated in the direction specified. The 'Road Side' sticker on luminaire casings denotes the direction of operation. This is of particular importance for post top luminaires.

AMING ANGLES OF LUMINAIRES

KEY TO DIAMOND OPTIC SYMBOLS

Setting A	● 1/30		These diagrams demonstrate the beam distribution of light at the 4 specified Diamond Optic configurations.
Setting B	● 10/10		The Diamond Optic may be entirely orientated either side of the column. Each luminaire is supplied with the correct configuration sticker.
Setting C	● 30/30		Please note that the diagrams are indicative only. Disturbances will only happen on luminaires, lamp type and setting, and mounting height.
Setting D	● 1/25		These templates are not to scale, and should not be used in conjunction with the actual lighting design.

Please note other configurations are available.

AMOUNTED BUFFER
 180° Glass Optic
 180° Glass Optic
 180° Glass Optic
 180° Glass Optic

PLACEMENTS
 180° Glass Optic
 180° Glass Optic

Notes:-
 This drawing is the property of Designbrook Ltd and as such may not be copied or communicated to a third party without written authorisation.
 This drawing conveys design intent and is provided to assist the contractor in the development of their working drawings.
THE CONTRACTOR SHALL NOT INSTALL TO THIS DRAWING.
 Please do not scale from this drawing.

CDM Regulations			
Hazards	Date Added	Date Mitigated	Risk Assessment Date

T1 13.01.16 External Lighting Layout
 - 05.10.15 Preliminary External Lighting Layout

Revision	Date	Description

Offices 5 & 6, Ground Floor,
 Unit 12 Indigo House,
 Mulberry Business Park,
 Wokingham,
 Berkshire, RG41 2GY
 TEL: 0118 9 773 011
 FAX: 0118 9 773 044
 General Enquiries e-mail: admin@designbrook.com

Client:
 Durkan
 4 Elstree Gate,
 Elstree Way,
 Borehamwood, Herts
 WD8 1LD
 T 020 8619 9736
 F 020 8619 9800

Project Description:
 Tybalds Estate Regeneration

Drawing Title:
 External Lighting Layout - Adoptable Roads

Status:
TENDER ISSUE

Drawn by: SL	Checked by: -	Approved by: -
Job Number: 5711	Original Sheet Size: A1	Scale: 1:500
Drawing number: DBR-EC-SITE-63-100-01		Rev: T1