

London Road (South) Local Development Order July 2014: Proposed Changes

Planning and Technical Summary
October 2015

1. Introduction

- 1.1 The adopted London Road South Local Development Order (The LDO) approves a mixture of business space and the development of a new data centre campus. Development on part of the site is underway and plans for the data centre phase will soon be ready for submission.
- 1.2 Data centre design has evolved and improved since the LDO was prepared and this requires a change to the Design Code that controls the development of the site. To accommodate a much more energy efficient operation, the proposal is to increase the height of the data centres from 12m to 14m. The type and amount of space that the LDO allows remains the same, as does the access to the site and the treatment of the site's boundaries.

2. Improving Data Centre Design

- 2.1 Data centres house complex machinery. The temperature inside needs to be carefully controlled so that the technology and machinery they contain remain cool. Until recently, this required refrigeration plant that would house chillers and power hungry and relatively noisy compressors. This method of cooling has existing for over 30 years and is highly inefficient.
- 2.2 It is now possible to use a new form of data centre cooling which operates without compressors or any substantial cooled water distribution network. In its place it uses a process of simple air circulation. This system has been developed over the last 12-18 months and allows air to circulate with air from outside which passes over a (cool) plate exchanger. This system has a number of advantages:
- It is enclosed, with the plant blocks effectively becoming part of the data centre buildings
 - It will significantly improve the appearance of the data centre zone
 - It generates a fraction of the noise associated with refrigeration cooling plant
 - Cooling and air conditioning is significantly more energy efficient
 - The footprint of the data centres can be reduced. This means that there can be more space around the buildings. On the site's eastern boundary no buildings will be built within 40m of the gardens of the Maypole Cottages. The LDO currently allows buildings 30m away from the property's gardens/boundaries

3. The Changes Proposed to the LDO

- 3.1 To accommodate the new plant solution, the height of the data centre buildings need to be increased. At the moment the LDO allows buildings of up to 12 metres in height and this needs to rise to a maximum of 14 metres. This triggers the need for three main changes to the Design Code.

Table/Paragraph and Page Reference	Current Wording	Proposed Wording/Treatment
Table 1: Maximum Building Heights, page 4	B8 – maximum building height 12m	B8 – maximum building height 14m
Principle R3: Max height of any storage and distribution buildings in relation to a residential boundary, page 21	>40m – 12m	>40m – 14m
Section/Image on Page 21	Illustrates current heights	Adjustment to show/allow buildings of 14m at a distance greater than

		40m from residential boundary.
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3.2 Whilst the performance of the new plant will be better than that currently allowed by the LDO, an additional control is proposed for part of the data centre zone that is closest to the nearest residential properties (Maypole Cottages). This will be a new condition which will require the submission and approval of an acoustic assessment (of existing and proposed noise levels) on the south eastern corner of the site.

3.3 The proposed wording of this new condition is:

“E16 Acoustic Assessment (Maypole Cottages)

No operation of data centre 4 (as shown on plan reference 2224/PL-05) shall take place until an acoustic assessment of background and proposed noise levels along part of the site’s eastern boundary (also as shown on plan reference 2224/PL-05) has been submitted to and approved in writing by the local planning authority”

4. Other Minor Changes

Amendment to Part 2 of the LDO

4.1 In the Business Park (Zone B), there is an absence of approval for the construction of internal roads. This is allowed in Zone A and new wording is proposed to allow internal road construction in zone B. This uses the definitions already included in the LDO.

“Part 2 – Operational Development in Zone B

Addition of:

Schedule B – Road Infrastructure

Class 3 – Construction of Internal Road

Development Permitted:

Within Zone B:

- 1) ***The construction of a road to provide access to office buildings***
- 2) ***The provision of associated highway infrastructure directly required for development permitted by class 1(a) of Schedule B***

Conditions:

Planning permission is provided under Class 1 of Schedule B subject to the following:

- a) ***General Conditions G1, G3, G4, G5***
- b) ***Phasing Conditions PH2***
- c) ***Highways Conditions H1, H2, H3, H4, H6***
- d) ***Environmental Conditions: E1, E7, E8, E13, E14, E15***

Development not permitted:

Development is not permitted by Class 1(a) of Schedule B if:

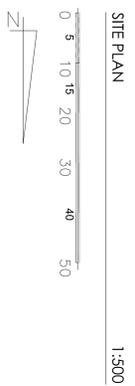
- a) ***The carriageway would be more than one lane in each direction***
- b) ***The width of the entire carriage way would exceed 7 metres”***

Amendment to Appendix D Access Map

4.2 It is also proposed that a revision to the appended Access Map is made to clarify the position on access point C1 (the shared pedestrian and cycle link connection to the north). At this stage, the exact design details of this connection are not clear, but it will not have the dimensions shown on the plan in Appendix D. It is proposed that the shaded area is replaced with a more straightforward arrow and dotted line showing where the connection is to be made and run to. This would provide greater clarity on what is required (which is a link rather than a corridor).



Acoustic assessment required
at marked boundary location
prior to operation of DC4



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Client: HPL
Project: PROJECT MODEL
Drawing No: 2224/PL-05
Rev: 0

Category	Item	Date
Project	DATA CENTER COMPLETION MASTER SITE PLAN	
Scale	AS SHOWN	APRIL 2015
Drawn by	PL	
Checked by	PL	
Drawn Status	PLANNING	
Project No	2224/PL-05	
Rev	0	

Attachment 2
Data Centre Zone Images



Indicative View of the data centre complex



View of side elevation with proposed new plant solution