

John Davies **Landscape**

Urban Greening Factor Calculation Report

Lynton Grange

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1 Introduction

1.1 Urban Greening Factor (UGF)

Urban Greening Factor is used to evaluate the quality and quantity of urban greening included in new built environment. It helps to demonstrate urban greening as a fundamental element of construction industry. UGF encourages gains in both surface permeability and biodiversity in all projects regardless of their purpose.

The London Plan sets out UGF scores as minimum 0.4 for residential and 0.3 for commercial developments where a score is not set out in Local Plans.

1.2 Lynton Grange Road Project Site

The site is located at the rear of two apartment blocks which face Fortis Green. The site is approximately 574 m² in area. The site currently contains lock up garages. It is proposed to demolish the existing structures on site and redevelop the land to provide a residential building. The program includes a driveway access from Fortis Green, a single car parking area and private amenity gardens. The proposition also includes landscaping to some building facades as well as a green roof.

2 Methodology of Assessment

The Assessment is carried out by quantifying all habitat types within the project and then matching them with corresponding classifications as defined by the London Plan Guidance. According to the guidance, each surface cover type has a factor as shown on the table below.

Table 1: Urban Greening Factors for each surface cover type

Surface Cover Type	Factor
Semi-natural vegetation	1
Wetland or open water	1

Intensive green roof	0.8
Tree pits (high volume soil)	0.8
Extensive/biodiverse green roof	0.7
Flower-rich perennial planting	0.7
Rain gardens/ other SUDs	0.7
Hedges	0.6
Tree pits (low volume soil)	0.6
Green wall	0.6
Groundcover planting	0.5
Amenity grassland	0.4
Sedum mat	0.3
Water features/detention basins	0.2
Permeable paving	0.1
Hardstanding	0

The area of each surface habitat type is then multiplied by the factor, which is a value between 1 and 0. The factor is highest for the most valuable habitat types. For tree canopy areas these are added in addition to the area of habitat underneath, but the final "contribution" figure is still divided by the actual site area. The totals of habitat areas x factors are then added to give an overall total which is then divided by the total site area. The resulting figure is the overall Site Urban Greening Factor.

The assessment is carried out using the information on drawings:

- JDL-Lynton_Grange-100L-Landscape Plan

(See Annexes)

Areas of each type of habitat on site are calculated from landscape plans. The tree canopy areas were calculated using the tree canopy size used on plan and published maximum canopy area stated by plant nurseries.

Should plans change, then it may be necessary to recalculate the factor, depending on the nature of the changes.

2.1 Result of Assessment

The Urban Greening Factor score for the site based on current plans is **0.42**

Urban Greening Factor Calculator Table				
Surface Cover Type	Factor	Area (m ²)	Contribution	Notes
Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1.00	0.00	0.00	
Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	1.00	0.00	0.00	
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm.	0.80	0.00	0.00	
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree.	0.80	18.20	14.56	
Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014.	0.70	55.80	39.06	
Flower-rich perennial planting.	0.70	57.30	40.11	Perennials and shrubs. Based on planting list most similar habitat in table is flower-rich perennial planting
Rain gardens and other vegetated sustainable drainage elements.	0.70	0.00	0.00	
Hedges (line of mature shrubs one or two shrubs wide).	0.60	10.60	6.36	

Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.60	7.00	4.20	
Green wall –modular system or climbers rooted in soil.	0.60	137.80	82.68	
Groundcover planting.	0.50	0.00	0.00	
Amenity grassland (species-poor, regularly mown lawn).	0.40	60.60	24.24	
Extensive green roof of sedum mat or other lightweight systems that do not meet GRO Code 2014.	0.30	0.00	0.00	
Water features (chlorinated) or unplanted detention basins.	0.20	0.00	0.00	
Permeable paving.	0.10	180.90	18.09	SUDs compliant hardstanding
Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone).	0.00	0.00	0.00	
Total contribution			229.30	
Total Site Area m²			574	
Urban Greening Factor			0.40 (Total contribution/Site Area)	

3 Conclusion

The project has achieved the minimum target score set out by the London Plan. The proposal achieves this via the use of extensive green roofs, 8 new mainly native trees, perennial planting beds, permeable paving used on the ground floor landscaping and linear grasscrete paving in driveway. The newly created habitats will form a rich and immersive environment, enhancing ecological biodiversity.

4 Annexes

Following annexes demonstrates the site and project layout after development.

4.1 Annex 1 – JDL-Lynton_Grange-100L-Landscape Plan

