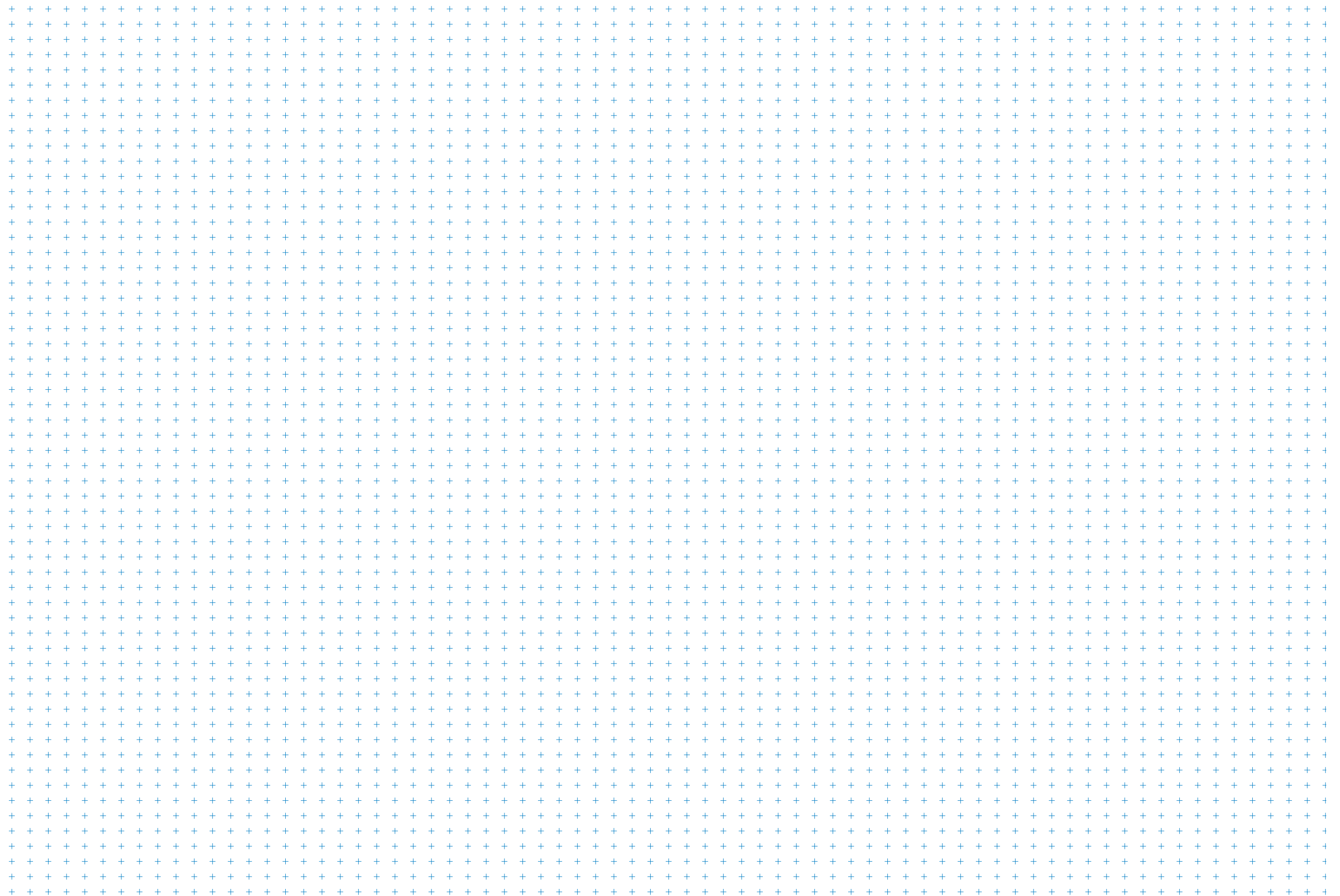




Contents

- 1 Introduction
- 2 Site Description
- 3 Policy and Statutory Requirements
- 4 Flood Risk
- 5 Sources of Flood Risk
- 6 Existing Drainage
- 7 Surface Water Hierarchy
- 8 Proposed Foul Water Drainage
- 9 Conclusion

Appendices

- A Site Location Plan
- B Topographical Survey & Existing Site Information
- C Proposed Layout
- D Landscaping Proposals
- E Environment Agency’s Flood Map & PFRA extracts
- F Thames Water Asset Plan
- G Proposed Surface Water Strategy
- H Surface Water Calculations
- I Overland Flows
- J Thames Water Pre-development correspondence
- K SuDS Flows and Volumes – Hillingdon LLFA Technical Assessment Proforma
- L Maintenance Strategy

Status: Planning
Date: 31/07/2020
Revision: D
Job no: 2006
Prepared by: George Westgarth
Approved by: Carmel Lennon



1. Introduction

Heyne Tillett Steel Limited have been instructed by Healey Development Solutions (Hayes) Ltd to undertake a Flood Risk Assessment (FRA) and Drainage Strategy Report for the proposed development at 9 Nestles Avenue, London, UB3 4SA in the London Borough of Hillingdon.

The report has been based on the following available information:

- Proposed development/planning drawings by Tate Hindle.
- Proposed landscape drawings by Exterior Architecture.
- Asset Location Search Sewer Map by Thames Water.
- Topographical Survey by Greenhatch Group.

1.1 Changes since Appeal Scheme

- Reduction in ground floor built footprint by 35% to provide clear breathing space and significantly improved landscaping around the development;
- Removal of ground floor commercial accommodation;
- Introduction of duplexes at ground and first floor level to the eastern and southern boundaries;
- Introduction of some car parking at ground floor level for disabled occupants and the larger 3-bed units;
- Incorporation of part basement to accommodate the plant;
- Additional storey of accommodation, increasing maximum building height by approximately 200mm.

2. Site Description

2.1 Site Location

The site is located at 9 Nestles Avenue, London, UB3 4SA (National Grid reference of 509852 E, 179229 N). The site is neighbouring Squirrels Trading Estate to the north of the site, a factory site to the north east and Hayes & Harlington station beyond. 7 Nestles Avenue neighbours the site immediately to the west, with the Nestle Factory redevelopment to the east and Nestles Avenue to the south.

The site has an area of approximately 0.233 Ha, or 2,330 m².

Please refer to Appendix A for a site location plan.

2.2 Existing Development

The existing site comprises of a single commercial building measuring 2 floors in height, as well as a small car parking area at the front. The building covers most of the site area.

The building on site has a ground floor level of approximately 31.4m AOD and the car park falls gently from north to south at an approximate gradient of 1:60.

The existing site is considered to be 100% impermeable.

A topographical survey was produced by Greenhatch Group, this can be found in Appendix B.

2.3 Proposed Development

Architects drawings of the proposal can be seen in Appendix C, landscaping plans can be found in Appendix D.

The proposals include demolition of the existing building and redevelopment to provide a building up to 11 storeys high, with 103 residential units, associated landscaping, access, car parking and cycle parking.

Proposed ground floor level of the building is set at approximately 31.460 m AOD.



Figure 1 – Site Location Plan

3. Policy and Statutory Requirements

The report aims to incorporate and demonstrate compliance with the following national, regional and local planning policy guidance and statutory requirement as far as reasonably possible.

- National Planning Policy Framework (NPPF) – February 2019
- National Planning Practice Guidance (NPPG) – October 2018
- New London Plan Intend to Publish – December 2019
- Hillingdon Local Plan: Part 1 – Strategic Policies – November 2012
- LB of Hillingdon Unitary Development Plan (adopted 1998) Saved Policies – September 2007
- Hillingdon Local Plan: Part 2 – Development Management Policies – January 2020
- LB of Hillingdon Local Flood Risk Management Strategy (LFRMS) – 2016
- LB of Hillingdon Preliminary Flood Risk Assessment (PFRA) – 2011
- LB of Hillingdon Surface Water Management Plan (SWMP) – Evidence Base – January 2013
- LB of Hillingdon Sustainable Drainage Design & Evaluation Guide – 2018
- LB of Hillingdon Sustainable Drainage Design & Evaluation Guide – 2018

Extracts for various relevant policies are set out below:

Hillingdon Local Plan: Part 1 – Strategic Policies – November 2012

Policy EM6: Flood Risk Management

“The Council will require new development to be directed away from Flood Zones 2 and 3 in accordance with the principles of the National Planning Policy Framework (NPPF).

...

The Council will require all development across the borough to use sustainable urban drainage systems (SuDS) unless demonstrated that it is not viable. The Council will encourage SuDS to be linked to water efficiency methods. The Council may require developer contributions to guarantee the long term maintenance and performance of SuDS is to an appropriate standard.

...

8.91 SuDS come in a variety of different types, from infiltration techniques through to water harvesting. Wherever possible, a SuDS technique should seek to contribute to each of the three goals identified below with the favoured system contributing significantly to each objective. Where possible SuDS solutions for a site should seek to:

- *Reduce flood risk (to the site and neighbouring areas);*
- *Reduce pollution; and*
- *Provide landscape and wildlife benefits.”*

Policy EM7: Biodiversity and Geological Conservation

“Hillingdon’s biodiversity and geological conservation will be preserved and enhanced with particular attention given to:

...

6. The provision of green roofs and living walls which contribute to biodiversity and help tackle climate change.

7. The use of sustainable drainage systems that promote ecological connectivity and natural habitats.”

From LB of Hillingdon website, ‘Sustainable drainage requirements for planning applications’

“SuDS information required for major applications:

1. To speed up the review of proposals by the Lead Local Flood Authority, please provide summary information in the form of the ... ‘Volumes and Flows Proforma’.
2. Detailed site layout at an identified scale.
3. Topographical survey of the site.
4. Inclusion of maps showing the current risks to and from the site, from topography, such as overland flow routes.
5. Plans, drawings and specification of SuD’s proposed. This should include detail of hard construction, soft landscaping and planting, as well as routes flow will take should the drainage system be exceeded.
6. Demonstration of the consideration of the spectrum of SuD’s in accordance with the SuD’s hierarchy, and clear justification provided where a traditional piped drainage system is provided.
7. Calculations must adhere to the revised Environment Agency guidance on Climate Change produced in Jan 2016. This requires attenuation to be provided for Commercial 1 in 100year plus 20% and residential 1 in 100 year plus 40%.
8. Calculations should be provided to demonstrate water is controlled to green field run off rates, at a variety of return periods- off site works.

9. A 5l/sec rate should not be used as a minimum, as flow control devices have evolved to allow smaller discharge rates.
10. S106 may be considered for off site works where space is limited.
11. Information on the receptors of the drainage system. Where infiltration is proposed a suitable site investigation must be provided including information on groundwater levels, or sizing for a tanked or no infiltration must be assumed, together with necessary consents ie statement from any water utilities that there is suitable capacity in the foul and surfaces water networks or if not that suitable upgrades have been agreed. Methods of appropriate water quality control to be provided.
12. Management and maintenance plan for all SuD’s to be provided. To ensure there is ongoing maintenance over the lifetime of the development, a management and maintenance plan will be expected to be provided along with the details of the body legally expected to maintain the system where it is anyone other than a single private land owner. Conditions will be added to planning decisions, or developers will be expected to enter into a legal agreement under S106 of the Town and Country Planning Act 1990 (as amended). An example of an appropriate management plan can be found on Susdrain – Useful frameworks and checklists.”

4. Flood Risk

4.1. Planning Policy Context

The Environment Agency (EA)’s Flood Map for Planning show that the site is located in Flood Zone 1 – an area with a low probability of flooding.

As confirmed by the SWMP (extract included in Appendix E), the site is not located in a Critical Drainage Area (CDA).

The risk of flooding to the site will be assessed in accordance with the technical guidance document to the NPPF and the NPPG for flood risk and coastal change.

Table 2 of the technical guidance document to the NPPF states that the flood risk vulnerability classification of the proposed development is “More Vulnerable”.

More Vulnerable					
• Hospitals					
• Residential institutions such as residential care homes, children’s homes, social services homes, prisons and hostels.					
• Buildings used for dwelling houses, student halls of residence, drinking establishments, nightclubs and hotels.					
• Non-residential uses for health services, nurseries and educational establishments.					
• Landfill and sites used for waste management facilities for hazardous waste.					
• Sites used for holiday or short-let caravans and camping, subject to a specific warning and evacuation plan.					

NPPF Table 1 – Flood risk vulnerability classification

Flood risk vulnerability classification	Essential infrastructure	Water compatible	Highly vulnerable	More vulnerable	Less vulnerable
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	✓	Exception Test required	✓	✓
Zone 3a	Exception Test required	✓	x	Exception Test required	✓
Zone 3b functional floodplain	Exception Test required	✓	x	x	x

NPPF Table 2 – Flood risk vulnerability and flood zone ‘compatibility’

Key: ✓ Development is appropriate.
 x Development should not be permitted.

Table 2 above confirms that the development is appropriate and the Sequential and Exceptions Test are therefore passed.

5. Sources of Flood Risk

5.1 Flooding from Rivers and Sea

The Environment Agency (EA)'s Flood Map for Planning (Appendix E) show that the site is located in Flood Zone 1 – an area defined as land assessed of having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1%). The EA's long term flood risk maps were used to assess the flood risk from rivers and sea; Figure 2 illustrates the risk of flooding from rivers and sea in the area surrounding the site.

The risk of flooding from Rivers and Sea is therefore considered to be low.

5.2 Flooding from Surface Water

Surface water flooding is caused when the volume of rainwater falling does not drain away through the existing drainage systems or soak into the ground, but lies on or flows over the ground instead.

The EA's long term surface water flood risk map shows that there are small patches of low risk areas within the vicinity of the site, see Figure 3. These risks are linked to topographical variance in the existing site levels.

As part of the development, the site levels will be locally adjusted, and all low points to be adequately drained. There are no known recorded incidents of surface water flooding in the vicinity of the site, as shown by Hillingdon records.

Additionally, as described in Section 7 an attenuation system is proposed for the scheme which will contain all storms up to and including the 1 in 100 year + 40% climate change storm events. Flood flow paths have been identified to fall away from the building's access points and door thresholds. The FFL for the ground floor level of the proposed building has been set at 31.46m AOD. These levels set the building above the surrounding soft landscaping and highway level which is at approximately 31.07m AOD.

This source of flooding is therefore considered to be low risk.

5.3 Flooding from Sewers

Flooding from sewers often occurs in areas prone to overland flow and can result when the sewer is overwhelmed by heavy rainfall and will continue until the water drains away. It can also occur when the sewer becomes blocked or is of inadequate capacity.

The PFRA contains a map titled 'Summary Map of Past Floods – Sewer Incidents'. It indicates there are no historical sewer flooding events within the site postcode (UB3 4). The extract can be found in Appendix E.

The most likely reason for sewer flooding onsite is due to capacity issues during heavy rainfalls within the TW network. The development proposes to reduce surface water runoff rates, as indicated in Section 7, hence will contribute towards reducing the risk of flooding from sewer within the neighbouring area.

The risk of flooding from sewers is therefore considered to be low.

5.4 Flooding from Reservoirs, Canals and other Artificial Water Sources

The EA's long term flood risk map shows that there is no identified risk of flooding from Reservoirs within the vicinity of the site, see Figure 4. This source of flooding is therefore considered to be very low risk.

5.5 Flooding from Groundwater

High groundwater levels are usually the key source of groundwater flooding, which occurs when excess water emerges at the ground's surface.

The PFRA contains a map titled 'Summary Map of Past Floods – Ground Water Incidents'. It indicates there are no historical ground water flooding events within the site proximity.

The PFRA also contains a map of 'Increased Potential for Elevated Groundwater'. It indicates that the site is located within an area of Permeable Superficial Deposits.

Historical borehole logs in the surrounding area show that groundwater was not encountered until 8.6m below the surface.

The proposed basement will be adequately waterproofed, details will be confirmed at a detailed stage by a specialist.

Relevant extracts from the PFRA can be seen in Appendix E.

Based on the above the risk of flooding from groundwater on site is considered to be low.



Figure 2 – Flood Risk from Rivers and Sea

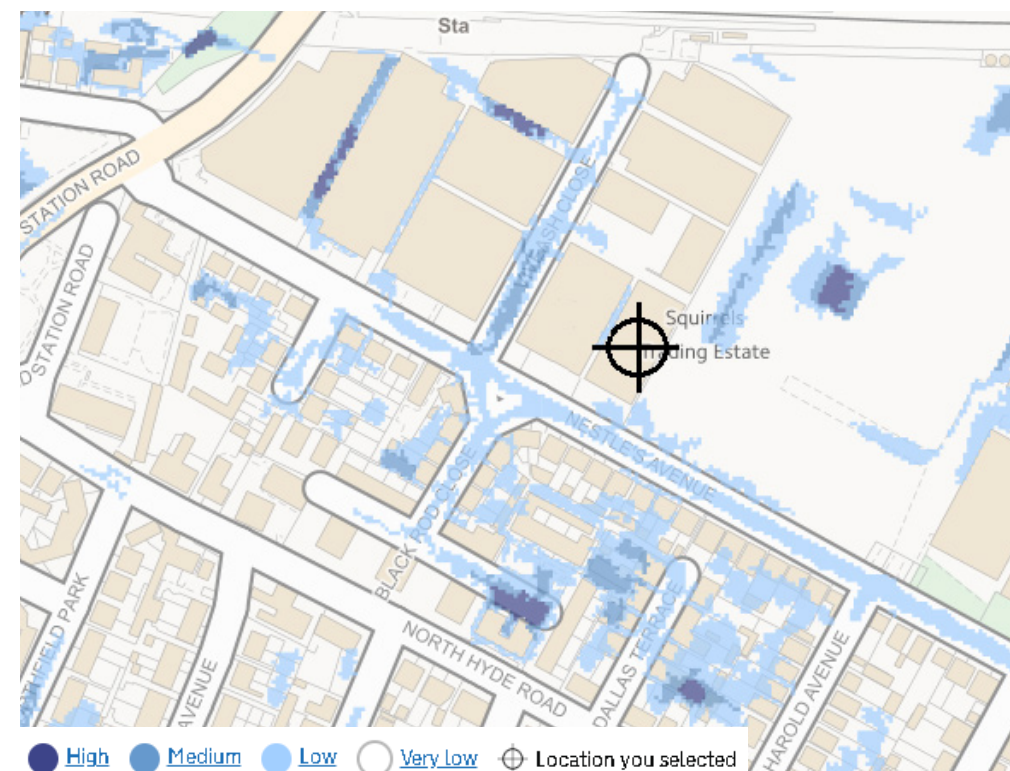


Figure 3 – Flood risk from Surface Water



Figure 4 – Flood Risk from Reservoirs

6. Existing Drainage

6.1 Private Drainage

The topographical survey found in Appendix B provides locations of existing manholes on site. It can be seen that there are a number of inspection chambers and gullies located around the perimeter of the building and in the car park. Unfortunately, due to a lack of CCTV drainage survey data existing outfall locations are unknown.

6.2 Public Drainage

The Thames Water asset location map confirms the location of surface and foul water sewers near the site. A copy of the Thames Water Asset Map is included as Appendix F.

There are two sewers in Nestles Avenue to the south of the site, a 225mmØ FW sewer and a 450mmØ SW sewer, both running in a west to east direction. Close to the site cover levels are at 31.07 m AOD and Close to the site the sewer cover levels are approximately 31.21m AOD and invert levels are estimated to be approximately 29.64m AOD for FW and 29.895m AOD for SW – this gives approximate depths of 1.57m and 1.315m respectively to the public sewer pipes.

Overall the surface water sewers are very shallow and are run at shallow gradients due to relatively small variance in topographical levels, with minimal depth of soil/road cover above the pipes.

6.3 Pre-development Runoff Rates

In accordance with the Modified Rational Method, the peak existing run-off from the site is calculated from the formula:

$$Q = 3.61 \times C_v \times i \times A$$

Where:

- C_v is the volumetric runoff coefficient (0.95 as recommended by the Hillingdon LLFA Technical Assessment Proforma),
- A is the catchment area in hectares.
- i is the peak rainfall intensity in mm/hour (using FEH rainfall data for 15min storm)

For the peak 1 in 2-year return period storm event this gives an existing discharge rate from the site of:

$$Q_2 = 3.61 \times 0.95 \times 30.16 \times 0.255 = 26.4 \text{ l/sec}$$

For the peak 1 in 30-years return period storm event this gives an existing discharge rate from the site of:

$$Q_{30} = 3.61 \times 0.95 \times 87.88 \times 0.255 = 76.9 \text{ l/sec}$$

For the peak 1 in 100-years return period storm event this gives an existing discharge rate from the site of:

$$Q_{100} = 3.61 \times 0.95 \times 114.36 \times 0.255 = 100.0 \text{ l/sec}$$

The QMED Urban Greenfield rate for the site was calculated to be 0.9 l/sec, using MicroDrainage software. Extract can be seen in Appendix H.

SuDS Flows and Volumes – Hillingdon LLFA Technical Assessment Proforma can be found in Appendix K of this report.

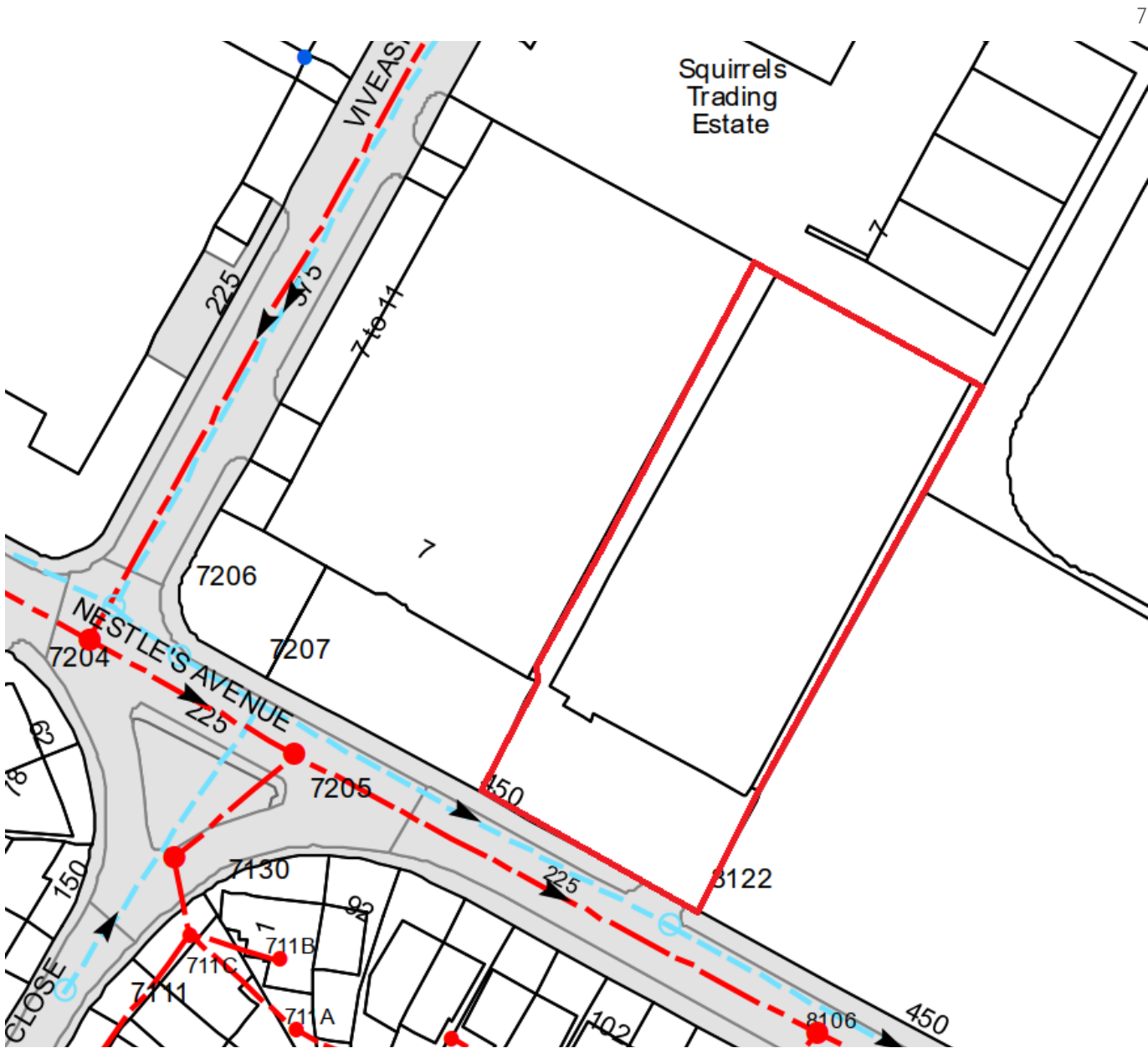


Figure 5 – Thames Water Asset Map

7.2 Summary of Runoff Rates

SuDS have been incorporated into the Proposed Development, in line with the requirements set out in the relevant policies and guidance.

It is important to note that this strategy is based on preliminary information and may change as the project progresses.

A summary of the various run-offs in question for the development site are presented in Table 4. As can be seen, the SuDS interventions proposed result in a significant reduction to the peak SW run-off from the development site to a 99% betterment.

7.3 Sustainable Drainage Systems Summary

Sustainable Drainage Systems, known as SuDS mimic natural processes to drain surface water and encourage groundwater recharge to reduce the flow of surface water from a developed site to something akin to that of an undeveloped site.

As mentioned previously, the proposals will utilise rain gardens located at the frontage of the development along Nestles Avenue to provide biodiversity, treatment, and localised infiltration.

Permeable paving and blue roofs will also be utilised to provide storage, treatment and allow for a restricted runoff rate from surfaces unable to drain via the rain garden.

Attenuation tank will be used to provide additional storage required to achieve the reduction in runoff rates.

Return Period	Run-off Rate (L/s)			Reduction
	Rainfall Intensity (15-minute storm)	Existing (unmitigated)	Proposed	
1 in 2	30.16 mm/hr	26.4 l/s	1.5 l/s	94%
1 in 30	87.88 mm/hr	76.9 l/s	1.5 l/s	98%
1 in 100	114.36 mm/hr	100 l/s	1.5 l/s	99%
1 in 100 +40%	149 mm/hr	130 l/s	1.5 l/s	99%

Table 4 – Comparison of Existing and Proposed Run-off rate

8. Proposed Foul Water Drainage

8.1 Design Standards

The design of the foul water drainage will be in accordance with:

- BS EN 752 (Drain and sewer systems outside buildings. Pumping Installations)
- BS EN 12056 (Gravity drainage systems inside buildings)
- Building Regulations 2015 – Approved Part H
- Sewer for Adoption 7th Edition

All foul and surface networks will be kept separate.

Foul water from site will connect to the existing Thames Water network via gravity. Drainage from the basement will be pumped towards the nearest onsite manhole and then continued to be drained by gravity, to provide backflow protection against any potential sewer surcharge.

8.2 Proposed Foul Flows

TW have been contacted to confirm capacity for the Proposed Development. They have confirmed capacity for the scheme is acceptable.

9 Conclusion

The EA’s Flood Map for Planning show that the site is located in Flood Zone 1 and the findings of this FRA suggest that the risks of flooding from all sources is considered as low risk.

In the unlikely scenario of a flood exceedance event on the site, flood flow paths have been identified to run away from the building’s access points and door thresholds. An exceedance overland flow route plan is included in Appendix I.

The Thames Water sewers surrounding the site are very shallow and as a result the runoff rates achievable from site are very dependent on the architectural layouts. During the detailed design stages, the areas available for storage may change, which will have a direct impact on the achievable runoff rates.

It is therefore recommended that a best endeavors approach to achieve the most optimum drainage strategy is accepted, rather than a target runoff rate or a betterment.

The proposals are to discharge surface water to the existing sewer network via gravity. The current layout utilises a shallow below ground geocellular attenuation tank, permeable paving, blue roof and a raingarden to achieve a total discharge of 1.5 l/sec for all storm durations up to and including 1 in 100-years + 40% climate change event, which equates to a betterment of up to 99% over the existing scenario.

Peak surface water runoff rates for each storm event were calculated and are given in section 6 and 7 of this report.

As required by Policy EM6: Flood Risk Management section 8.91 of the Hillingdon Local Plan, the development will provide reduction in flood risk, reduce pollution and provide landscape and wildlife benefits.

In addition, in line with Policy EM7: Biodiversity and Geological Conservation, the development will provide raingardens which contribute to biodiversity and help tackle climate change. It will also use SuDS that promote ecological connectivity and natural habitats.

SuDS Flows and Volumes – Hillingdon LLFA Technical Assessment Proforma can be found in Appendix K of this report.

Appendix A

Site Location Plan



Site Plan



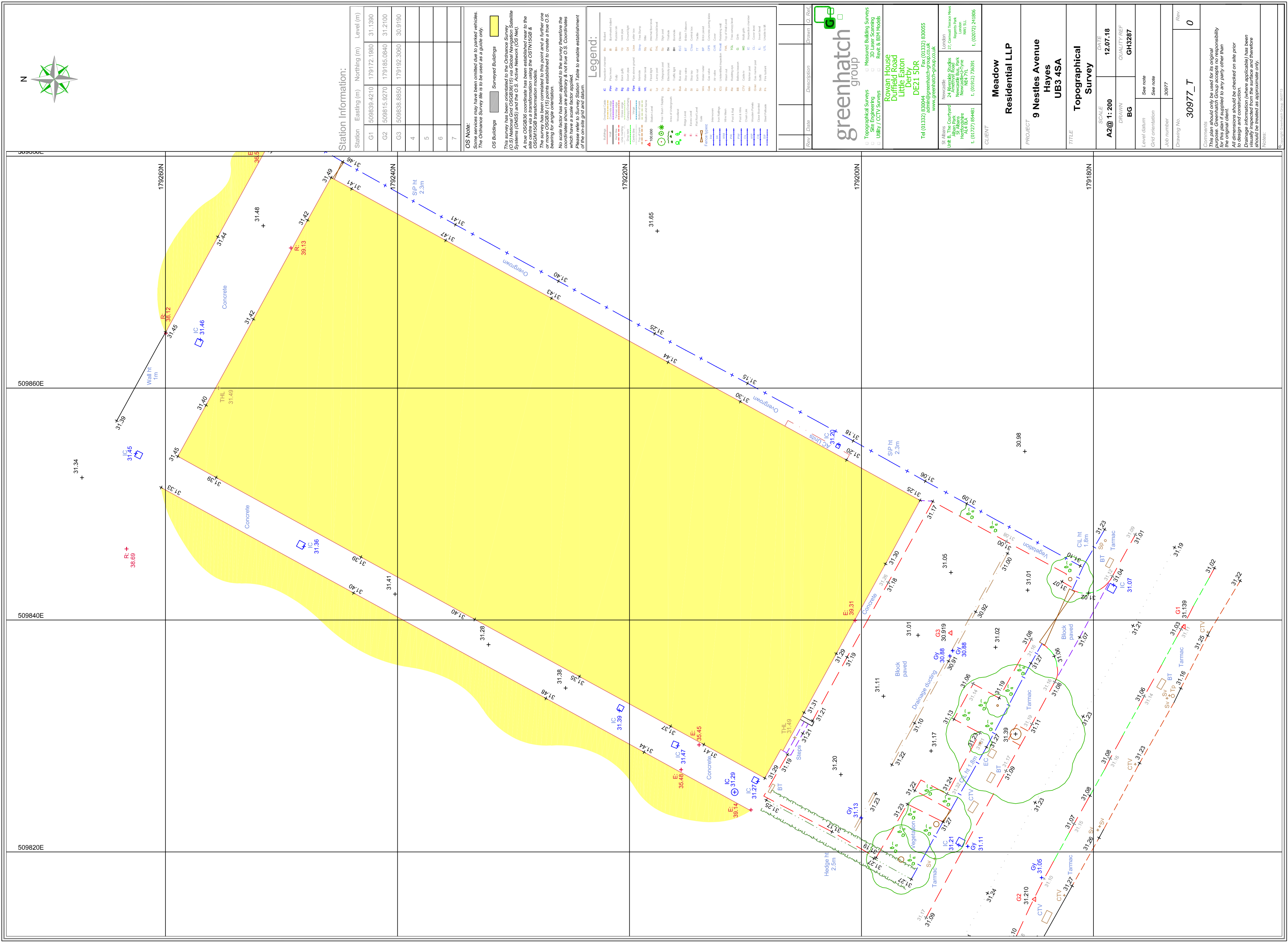
Aerial View from the South



Aerial View from the North

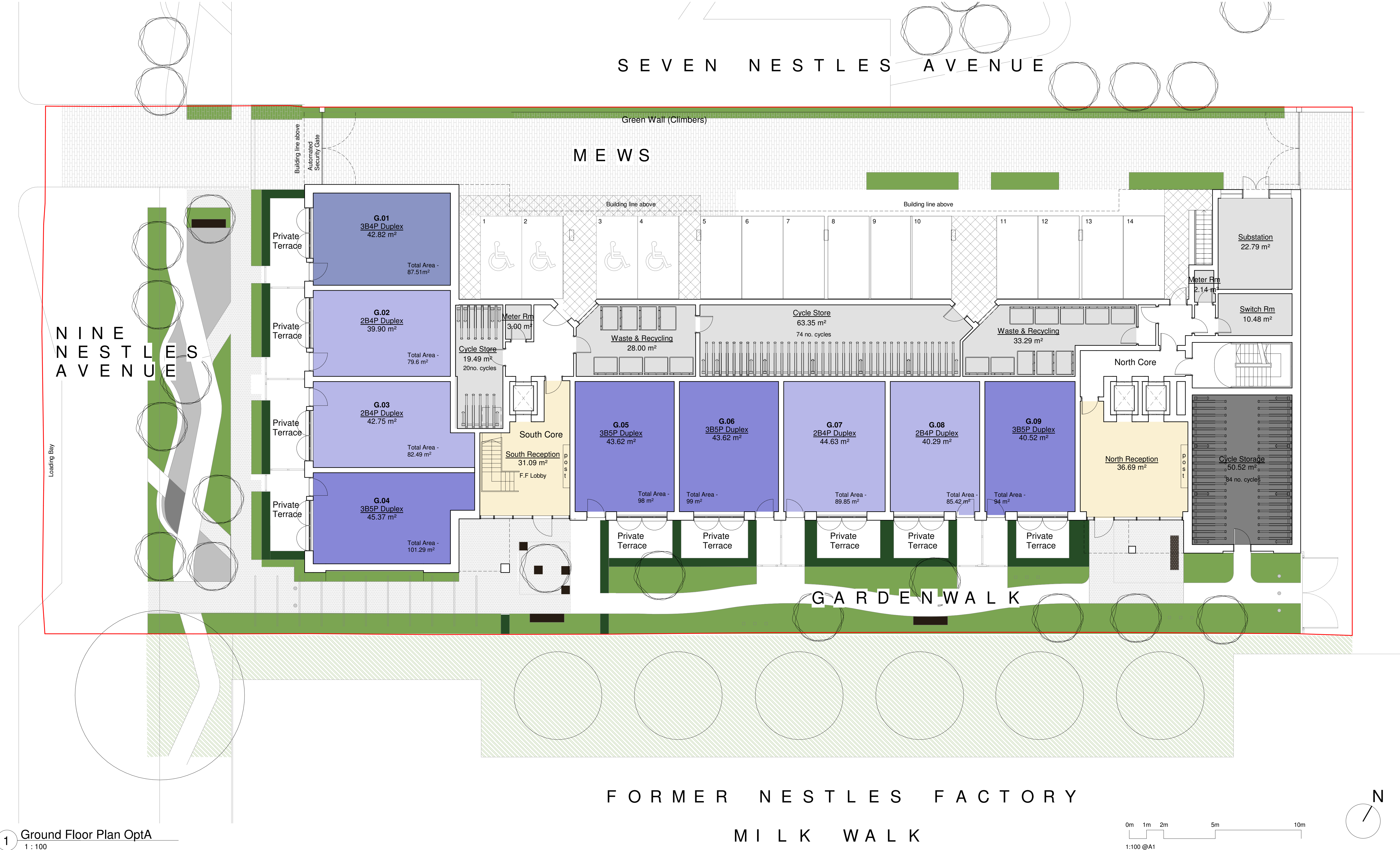
Appendix B

Topographical Survey & Existing
Site Information



Appendix C

Proposed Layout



1 Ground Floor Plan OptA
1 : 100

DO NOT SCALE THIS DRAWING

Contractors are to check all dimensions prior to commencement on site and notify the architect of any errors, omissions, or discrepancies.

TateHindle Limited retain copyright of this drawing. It may not be copied, altered or reproduced in any way without their written authority.

Rev	Description	Date	Checked
01	Draft issue	23/06/20	HEG
02	Parking amended	03/07/20	HEG
03	Updated with parking and plant changes	06/07/20	JS

Project
9 Nestles Avenue

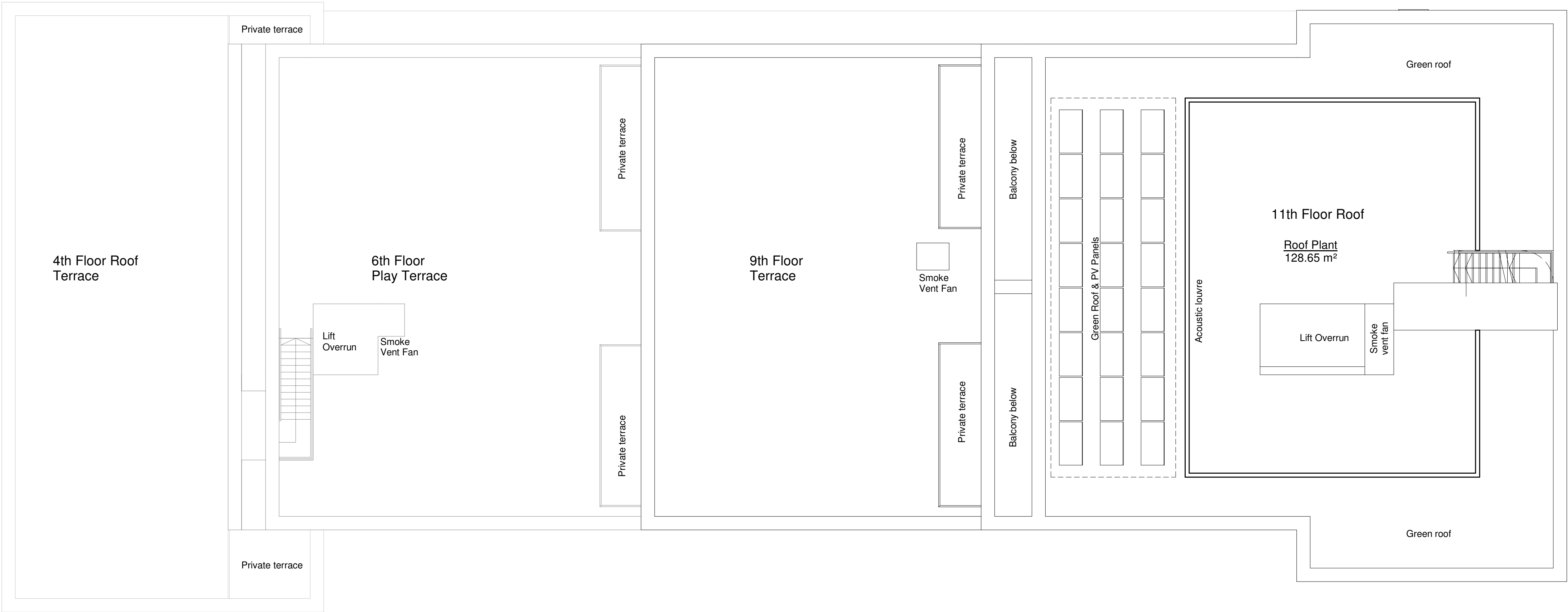
Status
For Information
Client
Healey Development Solutions (Hayes) Ltd

Drawing
Ground Floor Plan - OptA

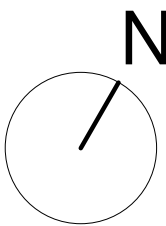
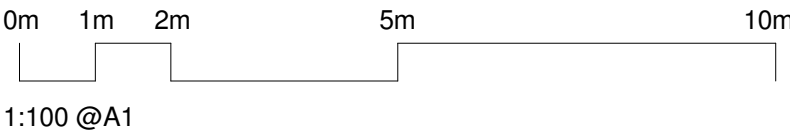
Scale	Drawn	Checked	Date
1 : 100	JS	SB	07/02/20
Project no.	Drg	Revision	
15406	A - (03) - 100A	03	

tatehindle

TateHindle Limited
1 Lindsey Street
Smithfield
London EC1A 9HP
T 020 7332 4850
mail@tatehindle.co.uk
www.tatehindle.co.uk



1 11th Floor Roof
1 : 100



DO NOT SCALE THIS DRAWING

Contractors are to check all dimensions prior to commencement on site and notify the architect of any errors, omissions, or discrepancies.

TateHindle Limited retain copyright of this drawing. It may not be copied, altered or reproduced in any way without their written authority.

Rev	Description	Date	Checked
01	Draft issue	03/06/20	HEG
02	Issue to landscape	09/06/20	HEG
03	Pre-app presentation	11/06/20	HEG
04	Issue to client	17/06/20	JS
05	Terrace outlines added to sheets for Landscape Architect	14/07/20	JS

Project
9 Nestles Avenue

Drawing
Eleventh Floor Roof Plan

Status
For Information

Client
Healey Development Solutions (Hayes) Ltd

Scale	Drawn	Checked	Date
1 : 100	HE	SB	06/02/20
Project no.	Drg	Revision	
15406	A - (03) - 111	05	

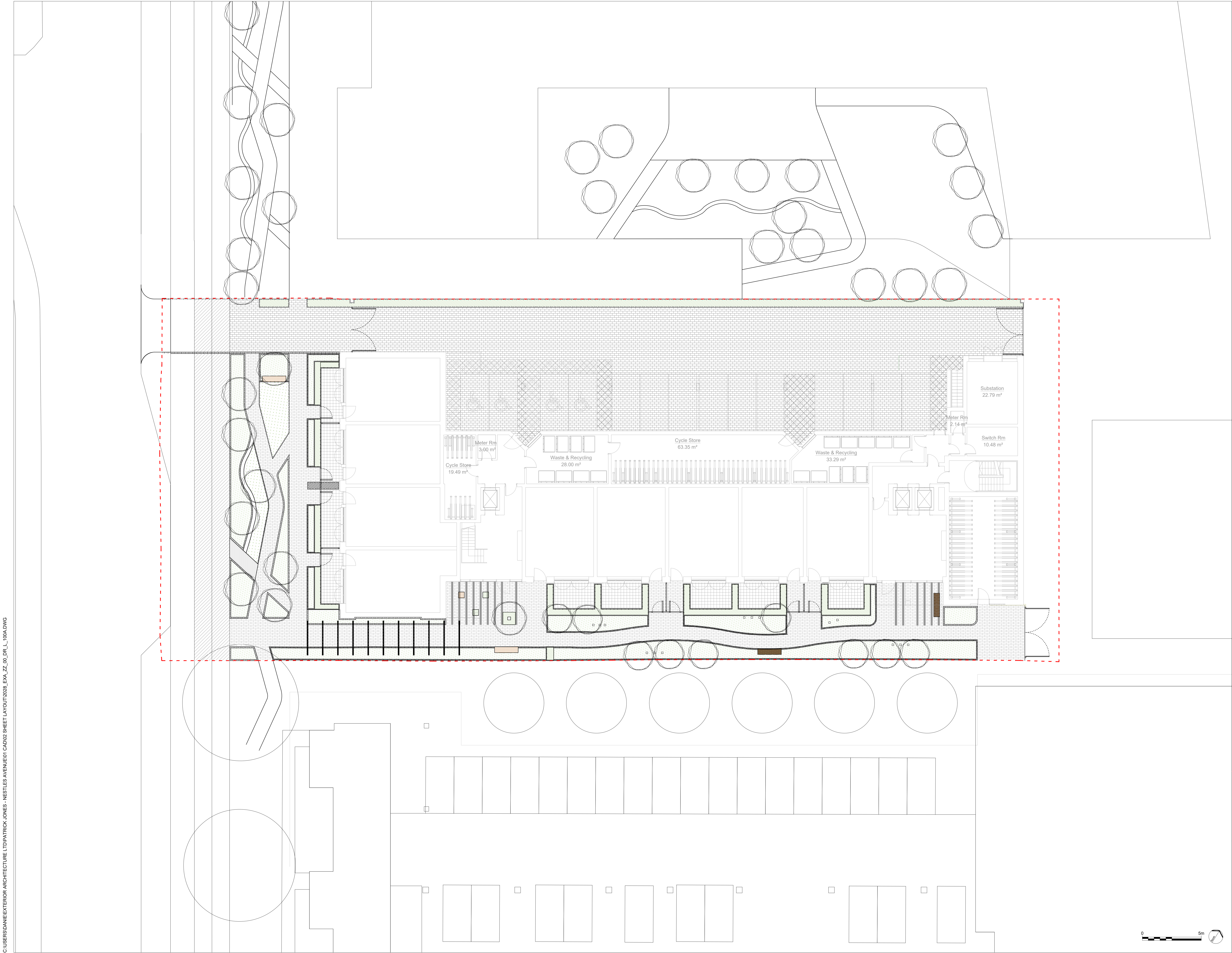
tatehindle

TateHindle Limited
1 Lindsey Street
Smithfield
London EC1A 9HP
T 020 7332 4850
mail@tatehindle.co.uk
www.tatehindle.co.uk

Appendix D

Landscaping Proposals

C:\USERS\AME\EXTERIOR ARCHITECTURE LTD\PATRICK JONES - NESTLES AVENUE\01 CAD\02 SHEET LAYOUT\2028_EXA_ZZ_00_DR_L_100A.DWG



No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site.
Area measurements for indicative purposes only.

This drawing is the property of Exterior Architecture Ltd.
No part of the drawing may be reproduced in any manner
without permission from Exterior Architecture Ltd.

Client
Meadow Partners

LEGEND

SITE BOUNDARY

SURFACE TYPES

PT1 PAVING TYPE 01
TYPED
LAYING INDICATION AS SHOWN

PT2 PAVING TYPE 02
INTERGRADED PATTERN

PT3 PAVING TYPE 03
PERMEABLE CONCRETE
BLOCK PAVING

PT4 SURFACE TYPE 04
COMPOSITE GRADING

PT5 PAVING TYPE 05
CYCLE LANE PAVING

EDGING TYPES

ET1 EDGING TYPE 01
FLUSH EDGING

ET2 EDGING TYPE 02
ROAD AND PAVEMENT
UPSTANDING EDGING

ET3 EDGING TYPE 03
ROAD AND PAVEMENT
FLUSH GRANITE EDGING

SOFT LANDSCAPE

PROPOSED TREES
REFER TO PLANTING
PLANS

PROPOSED TURF

PROPOSED AMENITY
PLANTING

PROPOSED HEDGING

MSC EXISTING
THRESHOLD DRAIN
BY ENGINEER

PROPOSED ASYMMETRIC
BRICK SLOOT DRAIN

FURNITURE

FT1 FURNITURE TYPE 01
STEEL AND TIMBER BENCH

FT2 FURNITURE TYPE 02
STEEL AND TIMBER STOOL

FT3 FURNITURE TYPE 03
FEATURE WOODEN
PLAYSET

FT4 FURNITURE TYPE 04
OVERHEAD PORTAL
FEATURE

FT5 FURNITURE TYPE 05
RAILINGS

FT6 FURNITURE TYPE 06
GATES

Rev Description

DRAFT

24.07.2020

DATE

**EXTERIOR
ARCHITECTURE**

LONDON: Unit 17.1 The Leather Market, 11-13 Weston
Street, London SE1 3ER
MANCHESTER: Studio 537, The Royal Exchange, St Anns
Square, Manchester, M2 7DH
E-Mail: office@exteriorarchitecture.com
Web: www.exteriorarchitecture.com

Project title
NESTLES AVENUE

Drawing title
**GENERAL ARRANGEMENT PLAN
OVERALL LEVEL 00 DAY 2**

Issued By London
Scale 1:100 @ A0
Status PLANNING
Date 09.07.2020

T: 020 7978 2101
Drawn EJA
Checked PJ
Approved EJA

Drawing number
2028_EXA_ZZ_00_DR_L_100A

Revision

0 5m

LEGEND	SITE BOUNDARY	MISC	EXISTING THRESHOLD DRAIN BY ENGINEERS
PAVING TYPES PT1 PAVING TYPE 01 TBC LAYING ROTATION AS SHOWN PT2 PAVING TYPE 02 INTEGRATED PATTERN PT3 PAVING TYPE 03 PERMEABLE CONCRETE BLOCK PAVERS PT5 PAVING TYPE 05 COMPOSITE DECKING		FURNITURE FT1 FURNITURE TYPE 01 STEEL AND TIMBER BENCH FT2 FURNITURE TYPE 03 STEEL AND TIMBER STOOL FT8 FURNITURE TYPE 08 FEATURE WOODEN PLINTHS FT10 FURNITURE TYPE 10 OVERHEAD PORTAL FEATURE FT11 FURNITURE TYPE 11 RAILINGS FT12 FURNITURE TYPE 12 GATES	
EDGING TYPES ET1 EDGING TYPE 01 FLUSH EDGING ET2 EDGING TYPE 02 ROAD AND PAVEMENT UPSTAND EDGING ET3 EDGING TYPE 03 ROAD AND PAVEMENT FLUSH GRANITE EDGING			
SOFT LANDSCAPE PROPOSED TREES PROPOSED TURF PROPOSED AMENITY PLANTING PROPOSED HEDGING PROPOSED WILDFLOWER MEADOW PLANTING			

----	-----	-----
----	-----	-----
----	-----	-----
----	-----	-----
----	-----	-----
----	-----	-----
----	-----	-----
----	-----	-----
----	-----	-----
-	DRAFT	24.07.2020
Rev	Description	Date

EXTERIOR
ARCHITECTURE

LONDON: Studio 1S, Hewlett House, Havelock Terrace,
London, SW8 4AS

MANCHESTER: Studio 537, The Royal Exchange, St Anns
Square, Manchester, M2 7DH

E-Mail: office@exteriorarchitecture.com
Web: www.exteriorarchitecture.com

Project title

NESTLES AVENUE

Drawing title

GENERAL ARRANGEMENT PLAN
LEVEL 00 SHEET 1 OF 2

Issued By	London	T: 020 7978 2101
Scale	1:100 @ A1	Drawn ExA
Status	PLANNING	Checked PJ
Date	09.07.2020	Approved SM
Drawing number		Revision
2028 ExA ZZ 00 DR L 101		----

LEGEND	SITE BOUNDARY	MISC	EXISTING THRESHOLD DRAIN BY ENGINEERS
PAVING TYPES			PROPOSED ASYMMETRIC BRICK SLOT DRAIN
PT1	PAVING TYPE 01 TBC LAYING ROTATION AS SHOWN		
PT2	PAVING TYPE 03 INTEGRATED PATTERN	FURNITURE	
PT3	PAVING TYPE 03 PERMEABLE CONCRETE BLOCK PAVERS	FT1	FURNITURE TYPE 01 STEEL AND TIMBER BENCH
PT5	PAVING TYPE 05 COMPOSITE DECKING	FT2	FURNITURE TYPE 03 STEEL AND TIMBER STOOL
		FT9	FURNITURE TYPE 09 FEATURE WOODEN PLINTHS
EDGING TYPES		FT10	FURNITURE TYPE 10 OVERHEAD PORTAL FEATURE
ET1	EDGING TYPE 01 FLUSH EDGING	FT11	FURNITURE TYPE 11 RAILINGS
ET2	EDGING TYPE 02 ROAD AND PAVEMENT UPSTAND EDGING	FT12	FURNITURE TYPE 12 GATES
ET3	EDGING TYPE 03 ROAD AND PAVEMENT FLUSH GRANITE EDGING		
SOFT LANDSCAPE			
	PROPOSED TREES		
	PROPOSED TURF		
	PROPOSED AMENITY PLANTING		
	PROPOSED HEDGING		
	PROPOSED WILDFLOWER MEADOW PLANTING		

----	-----	-----
----	-----	-----
----	-----	-----
----	-----	-----
----	-----	-----
----	-----	-----
----	-----	-----
----	-----	-----
----	-----	-----
-	DRAFT	24.07.2020
Rev	Description	Date

EXTERIOR
ARCHITECTURE

LONDON: Studio 1S, Hewlett House, Havelock Terrace,
London, SW8 4AS

MANCHESTER: Studio 537, The Royal Exchange, St Anns
Square, Manchester, M2 7DH

E-Mail: office@exteriorarchitecture.com
Web: www.exteriorarchitecture.com

Project title

NESTLES AVENUE

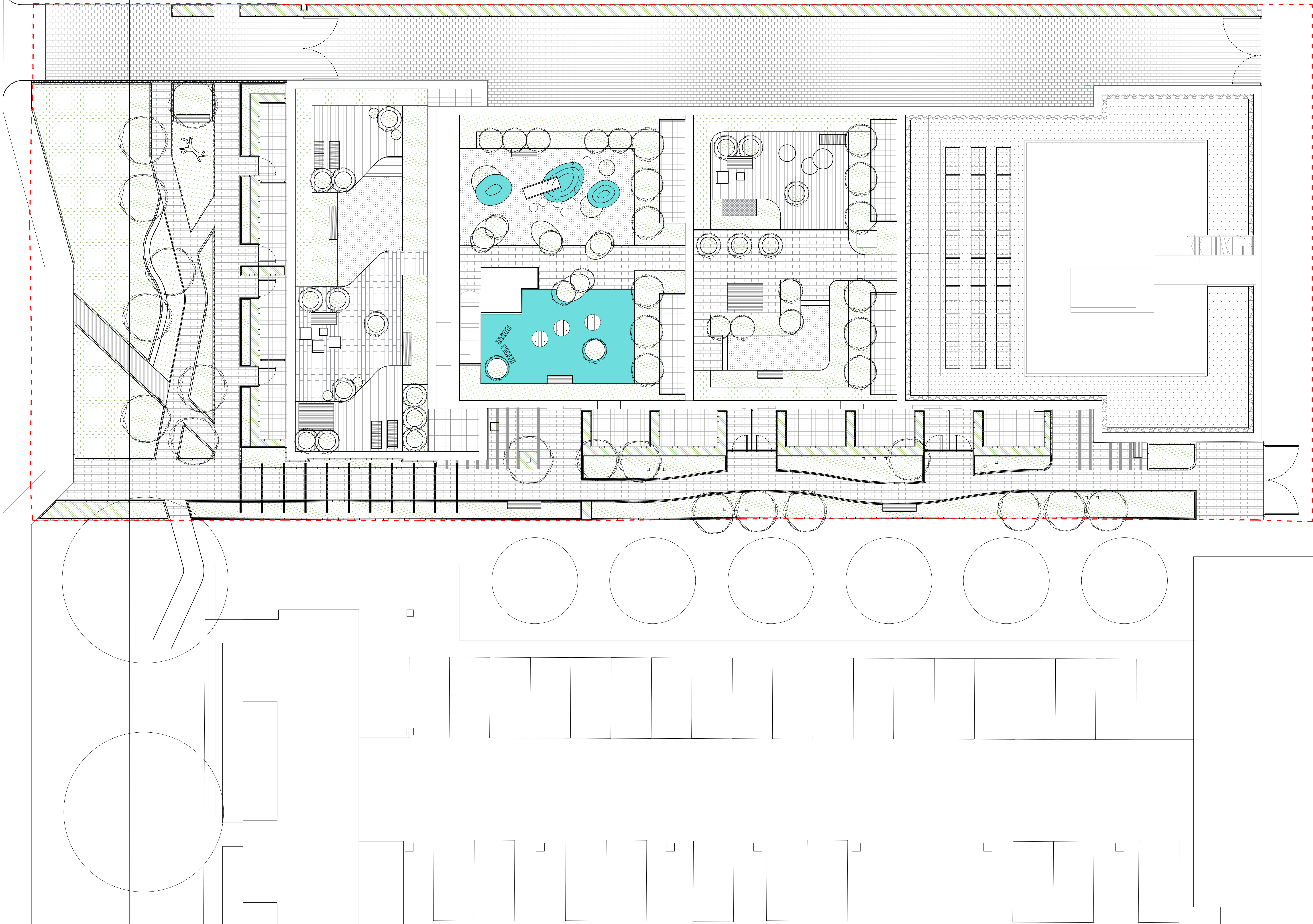
Drawing title

GENERAL ARRANGEMENT PLAN
LEVEL 00 SHEET 2 OF 2

Issued By	London	T: 020 7978 2101
Scale	1:100 @ A1	Drawn ExA
Status	PLANNING	Checked PJ
Date	09.07.2020	Approved SM
Drawing number		Revision
2028_ExA_ZZ_00_DR_L_102		----



C:\USERS\AME\EXTERIOR ARCHITECTURE LTD\PATRICK JONES - NESTLES AVENUE\01 CAD\02 SHEET LAYOUT\2028_EXA_ZZ_00_DR_L_110.DWG



No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site.
Area measurements for indicative purposes only.

This drawing is the property of Exterior Architecture Ltd.
No part of the drawing may be reproduced in any manner
without permission from Exterior Architecture Ltd.

Client
Meadow Partners

LEGEND	SITE BOUNDARY	FURNITURE	
		F13	FURNITURE TYPE 03 STEEL AND TIMBER BENCH
SURFACE TYPES	PAVING TYPE 04 PRIVATE TERRACE PAVING	F14	FURNITURE TYPE 04 STEEL AND TIMBER LOUNGER
		F15	FURNITURE TYPE 05 STEEL AND TIMBER POND SET
PAVING TYPE 05 COMPOSITE DECKING	PAVING TYPE 06 ASTRO TURF	F16	FURNITURE TYPE 06 STEEL AND TIMBER SOFA
		F17	FURNITURE TYPE 08 STEEL ARMCHAIR
PAVING TYPE 07 SUBSIDIZED PLAY SURFACING	PAVING TYPE 08 CONCRETE FLAG PAVING	F18	FURNITURE TYPE 06 STEEL STYL
		F19	FURNITURE TYPE 12 CONCRETE PLANTER
SOFT LANDSCAPE	PROPOSED TREES	SOLAR PANEL	
PROPOSED WILDOFLOWER MEADOW PLANTING	PROPOSED MEDIUM GREEN ROOF SYSTEM		

Rev	Description	Date
1	DRAFT	24.07.2020

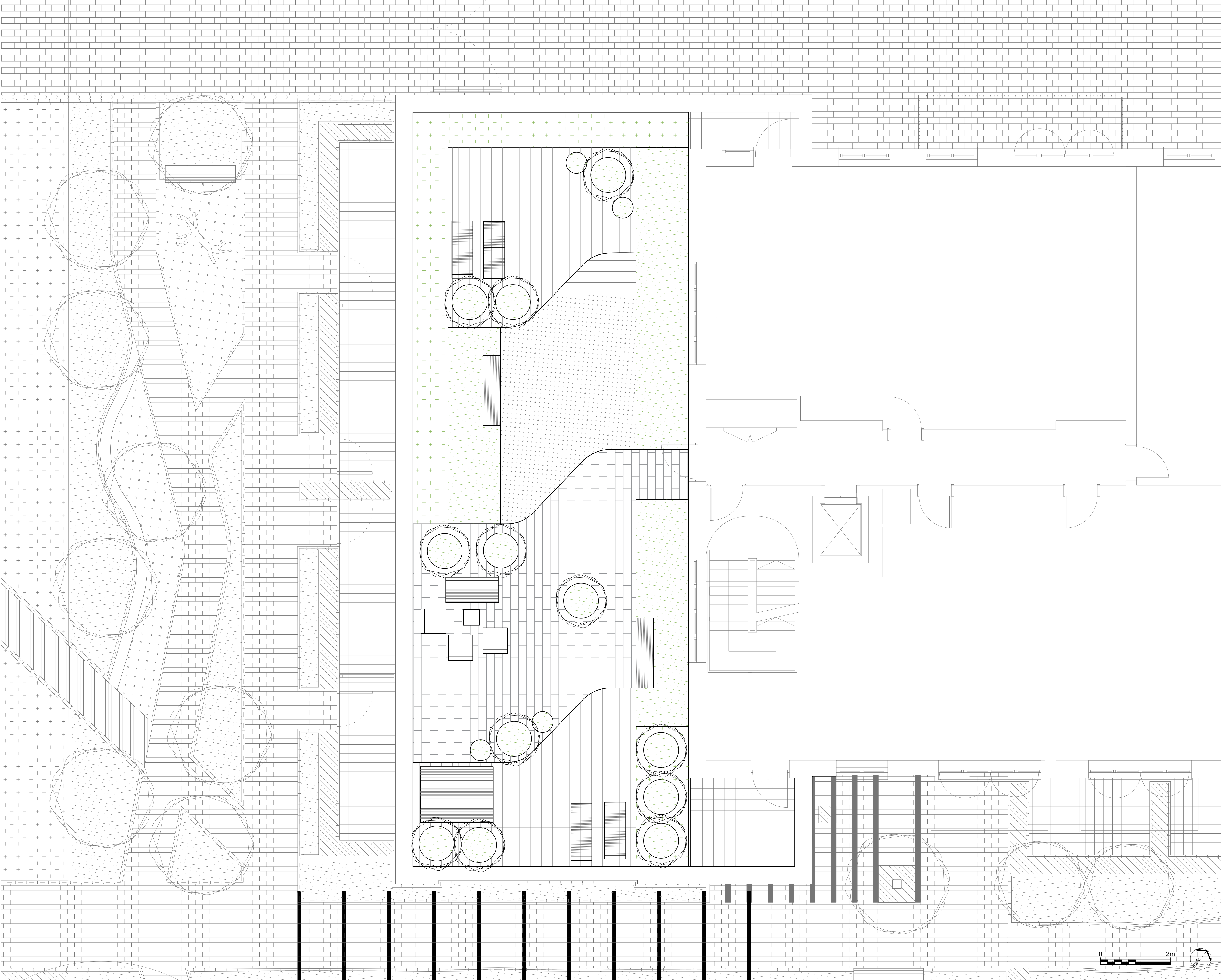
**EXTERIOR
ARCHITECTURE**
LONDON: Unit 17.1 The Leather Market, 11-13 Weston
Street, London SE1 3ER
MANCHESTER: Studio 537, The Royal Exchange, St Anns
Square, Manchester, M2 7DH
E-Mail: office@exteriorarchitecture.com
Web: www.exteriorarchitecture.com

Project title
NESTLES AVENUE

Drawing title
**GENERAL ARRANGEMENT PLAN
OVERALL TERRACES**

Issued By	London	T: 020 7978 2101
Scale	1:100 @ A0	Drawn EJA
Status	PLANNING	Checked PJ
Date	09.07.2020	Approved EJA
Drawing number	2028_EJA_ZZ_00_DR_L_110	Revision

C:\USERS\DA\EXTERIOR ARCHITECTURE LTD\PATRICK JONES - NESTLES AVENUE\01 CAD\02 SHEET LAYOUT\2028_EXA_ZZ_00_DR_L_111.DWG



No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site.
Area measurements for indicative purposes only.

This drawing is the property of Exterior Architecture Ltd.
No part of the drawing may be reproduced in any manner
without permission from Exterior Architecture Ltd.

Client
Meadow
Partners

LEGEND

SITE BOUNDARY

SURFACE TYPES

ST4

PAVING TYPE 04
PRIVATE TERRACE
PAVING

PT5

PAVING TYPE 05
COMPOSITE DECKING

PT6

PAVING TYPE 06
ASTRO TURF

PT8

PAVING TYPE 08
CONCRETE FLAG PAVING

SOFT LANDSCAPE

PROPOSED TREES

PROPOSED AMENITY
PLANTING

PROPOSED WILDFLOWER
MEADOW PLANTING

FURNITURE

FT2

FURNITURE TYPE 02
STEEL AND TIMBER BENCH

FT4

FURNITURE TYPE 04
STEEL AND TIMBER LOUNGER

FT5

FURNITURE TYPE 05
STEEL AND TIMBER PICNIC
SET

FT6

FURNITURE TYPE 06
STEEL AND TIMBER SOFA

FT7

FURNITURE TYPE 06
STEEL ARMCHAIR

FT8

FURNITURE TYPE 06
STEEL STOOL

FT9

FURNITURE TYPE 12
CONCRETE PLANTER

----	----	----
----	----	----
----	----	----
----	----	----
----	----	----
----	----	----
----	----	----
----	----	----
----	----	----
----	----	----
Rev	DRAFT Description	24.07.2020 Date

EXTERIOR
ARCHITECTURE

LONDON: Studio 1S, Hewlett House, Havelock Terrace,
London, SW8 4AS

MANCHESTER: Studio 537, The Royal Exchange, St Ann's
Square, Manchester, M2 7DH

E-Mail: office@exteriorarchitecture.com

Web: www.exteriorarchitecture.com

Project title
NESTLES AVENUE

Drawing title
GENERAL ARRANGEMENT PLAN
TERRACES LEVEL 04

Issued By	London	T: 020 7978 2101
Scale	1:50 @ A1	Drawn ExA
Status	PLANNING	Checked PJ
Date	09.07.2020	Approved SM

Drawing number	Revision
2028_ExA_ZZ_00_DR_L_111	----

C:\USERS\DA\EXTERIOR ARCHITECTURE LTD\PATRICK JONES - NESTLES AVENUE\01 CAD\02 SHEET LAYOUT\2028_EXA_ZZ_00_DR_L_112.DWG

No dimensions are to be scaled from this drawing.
All dimensions are to be checked on site.
Area measurements for indicative purposes only.

This drawing is the property of Exterior Architecture Ltd.
No part of the drawing may be reproduced in any manner
without permission from Exterior Architecture Ltd.

Client

Meadow

Partners

LEGEND

--- SITE BOUNDARY

ST4 PAVING TYPE 04 PRIVATE TERRACE PAVING

PT5 PAVING TYPE 05 COMPOSITE DECKING

PT6 PAVING TYPE 06 ASTRO TURF

PT7 PAVING TYPE 07 RUBBERIZED PLAY SURFACING

PT8 PAVING TYPE 08 CONCRETE FLAG PAVING

FT1 FURNITURE TYPE 01 STEEL AND TIMBER BENCH

FT2 FURNITURE TYPE 02 CONCRETE PLANTER

FT3 FURNITURE TYPE 03

FT4 FURNITURE TYPE 04

FT5 FURNITURE TYPE 05

FT6 FURNITURE TYPE 06

FT7 FURNITURE TYPE 07

FT8 FURNITURE TYPE 08

FT9 FURNITURE TYPE 09

FT10 FURNITURE TYPE 10

FT11 FURNITURE TYPE 11

FT12 FURNITURE TYPE 12

FT13 FURNITURE TYPE 13

FT14 FURNITURE TYPE 14

FT15 FURNITURE TYPE 15

FT16 FURNITURE TYPE 16

FT17 FURNITURE TYPE 17

FT18 FURNITURE TYPE 18

FT19 FURNITURE TYPE 19

FT20 FURNITURE TYPE 20

FT21 FURNITURE TYPE 21

FT22 FURNITURE TYPE 22

FT23 FURNITURE TYPE 23

FT24 FURNITURE TYPE 24

FT25 FURNITURE TYPE 25

FT26 FURNITURE TYPE 26

FT27 FURNITURE TYPE 27

FT28 FURNITURE TYPE 28

FT29 FURNITURE TYPE 29

FT30 FURNITURE TYPE 30

FT31 FURNITURE TYPE 31

FT32 FURNITURE TYPE 32

FT33 FURNITURE TYPE 33

FT34 FURNITURE TYPE 34

FT35 FURNITURE TYPE 35

FT36 FURNITURE TYPE 36

FT37 FURNITURE TYPE 37

FT38 FURNITURE TYPE 38

FT39 FURNITURE TYPE 39

FT40 FURNITURE TYPE 40

FT41 FURNITURE TYPE 41

FT42 FURNITURE TYPE 42

FT43 FURNITURE TYPE 43

FT44 FURNITURE TYPE 44

FT45 FURNITURE TYPE 45

FT46 FURNITURE TYPE 46

FT47 FURNITURE TYPE 47

FT48 FURNITURE TYPE 48

FT49 FURNITURE TYPE 49

FT50 FURNITURE TYPE 50

FT51 FURNITURE TYPE 51

FT52 FURNITURE TYPE 52

FT53 FURNITURE TYPE 53

FT54 FURNITURE TYPE 54

FT55 FURNITURE TYPE 55

FT56 FURNITURE TYPE 56

FT57 FURNITURE TYPE 57

FT58 FURNITURE TYPE 58

FT59 FURNITURE TYPE 59

FT60 FURNITURE TYPE 60

FT61 FURNITURE TYPE 61

FT62 FURNITURE TYPE 62

FT63 FURNITURE TYPE 63

FT64 FURNITURE TYPE 64

FT65 FURNITURE TYPE 65

FT66 FURNITURE TYPE 66

FT67 FURNITURE TYPE 67

FT68 FURNITURE TYPE 68

FT69 FURNITURE TYPE 69

FT70 FURNITURE TYPE 70

FT71 FURNITURE TYPE 71

FT72 FURNITURE TYPE 72

FT73 FURNITURE TYPE 73

FT74 FURNITURE TYPE 74

FT75 FURNITURE TYPE 75

FT76 FURNITURE TYPE 76

FT77 FURNITURE TYPE 77

FT78 FURNITURE TYPE 78

FT79 FURNITURE TYPE 79

FT80 FURNITURE TYPE 80

FT81 FURNITURE TYPE 81

FT82 FURNITURE TYPE 82

FT83 FURNITURE TYPE 83

FT84 FURNITURE TYPE 84

FT85 FURNITURE TYPE 85

FT86 FURNITURE TYPE 86

FT87 FURNITURE TYPE 87

FT88 FURNITURE TYPE 88

FT89 FURNITURE TYPE 89

FT90 FURNITURE TYPE 90

FT91 FURNITURE TYPE 91

FT92 FURNITURE TYPE 92

FT93 FURNITURE TYPE 93

FT94 FURNITURE TYPE 94

FT95 FURNITURE TYPE 95

FT96 FURNITURE TYPE 96

FT97 FURNITURE TYPE 97

FT98 FURNITURE TYPE 98

FT99 FURNITURE TYPE 99

FT100 FURNITURE TYPE 100

FT101 FURNITURE TYPE 101

FT102 FURNITURE TYPE 102

FT103 FURNITURE TYPE 103

FT104 FURNITURE TYPE 104

FT105 FURNITURE TYPE 105

FT106 FURNITURE TYPE 106

FT107 FURNITURE TYPE 107

FT108 FURNITURE TYPE 108

FT109 FURNITURE TYPE 109

FT110 FURNITURE TYPE 110

FT111 FURNITURE TYPE 111

FT112 FURNITURE TYPE 112

FT113 FURNITURE TYPE 113

FT114 FURNITURE TYPE 114

FT115 FURNITURE TYPE 115

FT116 FURNITURE TYPE 116

FT117 FURNITURE TYPE 117

FT118 FURNITURE TYPE 118

FT119 FURNITURE TYPE 119

FT120 FURNITURE TYPE 120

FT121 FURNITURE TYPE 121

FT122 FURNITURE TYPE 122

FT123 FURNITURE TYPE 123

FT124 FURNITURE TYPE 124

FT125 FURNITURE TYPE 125

FT126 FURNITURE TYPE 126

FT127 FURNITURE TYPE 127

FT128 FURNITURE TYPE 128

FT129 FURNITURE TYPE 129

FT130 FURNITURE TYPE 130

FT131 FURNITURE TYPE 131

FT132 FURNITURE TYPE 132

FT133 FURNITURE TYPE 133

FT134 FURNITURE TYPE 134

FT135 FURNITURE TYPE 135

FT136 FURNITURE TYPE 136

FT137 FURNITURE TYPE 137

FT138 FURNITURE TYPE 138

FT139 FURNITURE TYPE 139

FT140 FURNITURE TYPE 140

FT141 FURNITURE TYPE 141

FT142 FURNITURE TYPE 142

FT143 FURNITURE TYPE 143

FT144 FURNITURE TYPE 144

FT145 FURNITURE TYPE 145

FT146 FURNITURE TYPE 146

FT147 FURNITURE TYPE 147

FT148 FURNITURE TYPE 148

FT149 FURNITURE TYPE 149

FT150 FURNITURE TYPE 150

FT151 FURNITURE TYPE 151

FT152 FURNITURE TYPE 152

FT153 FURNITURE TYPE 153

FT154 FURNITURE TYPE 154

FT155 FURNITURE TYPE 155

FT156 FURNITURE TYPE 156

FT157 FURNITURE TYPE 157

FT158 FURNITURE TYPE 158

FT159 FURNITURE TYPE 159

FT160 FURNITURE TYPE 160

FT161 FURNITURE TYPE 161

FT162 FURNITURE TYPE 162

FT163 FURNITURE TYPE 163

FT164 FURNITURE TYPE 164

FT165 FURNITURE TYPE 165

FT166 FURNITURE TYPE 166

FT167 FURNITURE TYPE 167

FT168 FURNITURE TYPE 168

FT169 FURNITURE TYPE 169

FT170 FURNITURE TYPE 170

FT171 FURNITURE TYPE 171

FT172 FURNITURE TYPE 172

FT173 FURNITURE TYPE 173

FT174 FURNITURE TYPE 174

FT175 FURNITURE TYPE 175

FT176 FURNITURE TYPE 176

FT177 FURNITURE TYPE 177

FT178 FURNITURE TYPE 178

FT179 FURNITURE TYPE 179

FT180 FURNITURE TYPE 180

FT181 FURNITURE TYPE 181

FT182 FURNITURE TYPE 182

FT183 FURNITURE TYPE 183

FT184 FURNITURE TYPE 184

FT185 FURNITURE TYPE 185

FT186 FURNITURE TYPE 186

FT187 FURNITURE TYPE 187

FT188 FURNITURE TYPE 188

FT189 FURNITURE TYPE 189

FT190 FURNITURE TYPE 190

FT191 FURNITURE TYPE 191

FT192 FURNITURE TYPE 192

FT193 FURNITURE TYPE 193

FT194 FURNITURE TYPE 194

FT195 FURNITURE TYPE 195

FT196 FURNITURE TYPE 196

FT197 FURNITURE TYPE 197

FT198 FURNITURE TYPE 198

FT199 FURNITURE TYPE 199

FT200 FURNITURE TYPE 200

FT201 FURNITURE TYPE 201

FT202 FURNITURE TYPE 202

FT203 FURNITURE TYPE 203

FT204 FURNITURE TYPE 204

FT205 FURNITURE TYPE 205

FT206 FURNITURE TYPE 206

FT207 FURNITURE TYPE 207

FT208 FURNITURE TYPE 208

FT209 FURNITURE TYPE 209

FT210 FURNITURE TYPE 210

FT211 FURNITURE TYPE 211

FT212 FURNITURE TYPE 212

FT213 FURNITURE TYPE 213

FT214 FURNITURE TYPE 214

FT215 FURNITURE TYPE 215

FT216 FURNITURE TYPE 216

FT217 FURNITURE TYPE 217

FT218 FURNITURE TYPE 218

FT219 FURNITURE TYPE 219

FT220 FURNITURE TYPE 220

FT221 FURNITURE TYPE 221

FT222 FURNITURE TYPE 222

FT223 FURNITURE TYPE 223

FT224 FURNITURE TYPE 224

FT225 FURNITURE TYPE 225

FT226 FURNITURE TYPE 226

FT227 FURNITURE TYPE 227

FT228 FURNITURE TYPE 228

FT229 FURNITURE TYPE 229

FT230 FURNITURE TYPE 230

FT231 FURNITURE TYPE 231

FT232 FURNITURE TYPE 232

FT233 FURNITURE TYPE 233

FT234 FURNITURE TYPE 234

FT235 FURNITURE TYPE 235

FT236 FURNITURE TYPE 236

FT237 FURNITURE TYPE 237

FT238 FURNITURE TYPE 238

FT239 FURNITURE TYPE 239

FT240 FURNITURE TYPE 240

FT241 FURNITURE TYPE 241

FT242 FURNITURE TYPE 242

FT243 FURNITURE TYPE 243

FT244 FURNITURE TYPE 244

FT245 FURNITURE TYPE 245

FT246 FURNITURE TYPE 246

FT247 FURNITURE TYPE 247

FT248 FURNITURE TYPE 248

FT249 FURNITURE TYPE 249

FT250 FURNITURE TYPE 250

FT251 FURNITURE TYPE 251

FT252 FURNITURE TYPE 252

FT253 FURNITURE TYPE 253

FT254 FURNITURE TYPE 254