East Village

Plot N18/19

RESERVED MATTERS APPLICATION

Design Development Report

Applicant Stratford Village Property Holdings 1 (SVPH1) & Stratford Village Property Holdings 2 (SVPH2)

February 2023

Glenn Howells Architects

grant associates

getliving

Document Name

Reserved Matter Application – Design Development Report

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Glossary of Terms

2012 Olympics	2012 Olympic and Paralympic Games
ADF	Average Daylight Factor; testing method to determine the level of daylighting within a defined space; testing of ADF performed by daylight/sunlight consultant
Approved Zones 3–6 ZMP	Zones 3–6 Zonal Masterplan; N18 and N19 sits within Zone 3
Athletes' Village	The name of the area before East Village and during the 2012 Olympics when the buildings were used as athlete dormitories
BEAP	Built Environment Access Panel
Design Team	GHA and some or all of the consultants listed in section 1.2
The Dynamic Façade	The performance based design strategy for the façade which responds to environmental and microclimate conditions to inform window placement, size, detail and private amenity strategy
DLR	Docklands Light Railway (operated by TfL); Stratford DLR station runs adjacent to the southern edge of the N18 and N19 plot boundary
DoV	Section 106 Agreement Deed of Variation
EA	Environment Agency
EV	East Village
Extant RMA	Approved N18/N19 RMA; consented in 2014
GA	Grant Associates
The Gateway	The public realm between N18 and N19 which provides lift free access from the station to Victory Park
GHA	Glenn Howells Architects
GL	Get Living
GLA	Greater London Authority
HMLE	High Meads Loop Exchange; the train line that runs adjacent to the northwest edge of the N18 and N19 plot boundary
IQL North	International Quarter London North
LAP	Local Area of Play
LBN	London Borough of Newham
LEAP	Local Equipped Area of Play
LLDC	London Legacy Development Corporation (the local planning authority)
MLG	Manhattan Loft Gardens (aka The Stratford Hotel); Plot N24
MoL	Mayor of London
NEAP	Neighbourhood Equipped Area of Play
POS	Public Open Space
PPDT	Planning Policy and Decisions Team
QD	Qatari Diar
QRP	Quality Review Panel
RMA	Reserved Matters Application
Solarium	Internalised private amenity; minimum areas to comply with the London Plan Policy D6 for Private Outside Space like balconies; the area allocated to the solarium does not count toward RGEA as defined by the SC OPP
The SC OPP	Stratford City Outline Planning Permission (ref: 10/90641/EXTODA)
SIS	Stratford International Station
Stratford International DLR Station	Stratford International Docklands Light Railway Station
SVPH1 & SVPH2	Stratford Village Property Holdings 1 (SVPH1) and Stratford Village Property Holdings 2 (SVPH2)
SWHS	Site Wide Housing Strategy
SWS	Site Wide Strategies
TfL	Transport for London
UGF	Urban Greening Factor
Wilderness Area	Biodiversity Area (in Victory Park)

Foreword from Get Living

Background

In the ten years since the 2012 Olympic and Paralympic Games, the area in and around E20 and East Village has undergone the most remarkable, positive and inspiring change. Get Living has been investing in East Village (formerly the Athletes' Village) since 2013 and is proud to be playing its part in delivering the legacy aims of the 2012 Olympic and Paralympic Games.

Get Living currently operates around 2,450 market rental homes at East Village, including the newly launched Portlands Place (Plot N06) adjacent to the wetlands. Together with the affordable housing managed by Triathlon Homes, over 7,000 people call East Village home and that total will rise to over 10,000 on completion of the final phases of East Village. It is becoming a small town in its own right, with everything our residents need, right on their doorstep.

For Get Living, this is a long-term commitment so alignment of vision, mission and objectives with LLDC is essential.

East Village is on the threshold of another critical era. An even more exciting future lies ahead. If our original vision was to disrupt the rental sector which wasn't working for renters, it's now much bigger than that. The aim now is to provide a great home that is affordable to those on typical London salaries with a beautiful public realm in a sustainable neighbourhood where people can thrive. A place with community at its heart, delivering genuine social value with hundreds of activities and social groups every year. Homes on flexible terms that are fully furnished with the ability to decorate freely, equipped with the latest technology and benefit from a reliable maintenance service; all in a well-managed and safe environment.

So why is this a new era?

East Village is maturing; people are staying longer, the demographic is broadening and residents' preferences are changing. While some residents work in the City and Canary Wharf, many of our residents are self-employed and there is a much higher incidence of hybrid working. The NHS is still our most referenced employer. We are also seeing more and more young families calling East Village their home. The activity that has built up around East Village over the last ten years, makes it something of a hub and a permeable settlement through which millions of people pass through each year.

East Bank, the new and major cultural and education District, will significantly reinforce this area as a centre for creative enterprises; London College of Fashion (LCF), the BBC, the V&A among others are making this an amazing, inter-dependent, cultural, social and economic quarter.

Get Living's own research into the future demographic and personas of our residents, shaped by the last two years of the pandemic is giving us renewed insight.

We are seeing:

– A recognition of the need for sustainable futures, ambient well-being and natural rhythms.

– The community spirit comeback, smaller worlds and intergenerational living.

– A supercharged slowdown as people seek creative pursuits, meaningful occupations and more flexible working patterns.

– The home as a sanctuary, but within a hub where living, employment, leisure and amenity co-exist.

– More single occupancy households.

Ambition

This leads us to a few key tenets:

1. We want East Village to align with LLDC's key legacy aims and be interdependent with everything around it. Homes, employment, amenity, public realm, retail within East Village and beyond exist in a powerfully symbiotic way.

2. The resident proposition must be compelling but bring genuine social value and environmental sustainability. Given our long term owner perspective, the pursuit of a low carbon lifestyle informs every decision.

3. The architecture must build on the quality that already exists.

4. There has to be an iconic gateway into East Village and sense of a theatre commensurate with the scale of the neighbourhood.

5. With LCF as our nomination partner at Plot N16, we can cultivate a hub for creative enterprises in fashion, art and other cultural endeavours by retaining the talent from graduation to establish new jobs in diverse fields.. This is not a daydream. We have strong engagement with the British Fashion Council, the Institute for Positive Fashion, the Creative Land Trust, Christopher Raeburn and others, manifested in the E20 Lab in East Park Walk.

6. The public realm must evolve in response to this new era – more vibrant, varied, characterful and sustainable.

Building out Plots N18 and N19, N16, and refining the public realm are the final pieces of the East Village jigsaw. Our ambition is to do something exemplary, of London importance, all in service to our residents, local businesses, neighbours, LLDC and the local community.

The engagement with LLDC has been most constructive, through the medium of officers, the Quality Review Panel (QRP) and Members of the LLDC's Planning Committee.

With a continued collaborative spirit, we're confident that East Village, through the completion of N16 and N18 and N19 and the further evolution of the public realm, can lead to a place of which everyone can be associated with enormous pride.

Rick de Blaby, CEO of Get Living Plc

'We want East Village to align with LLDC's key legacy aims and be interdependent with everything around it. Homes, employment, amenity, public realm, retail within East Village and beyond exist in a powerfully symbiotic way'

Rick de Blaby, CEO of Get Living Plc

1.0
Introduction

1.1 East Village Overview

Public Realm and Site Principles

East Village benefits from an abundance of green open spaces and rivulets that tie together wide open parkland to the many pocket parks and landscaped pathways that link to the surrounding neighbourhoods. To the east, Queen Elizabeth Olympic Park is a well used London amenity that captures the significance and spirit of the 2012 Olympics. Part of East Village, the Waterglades is an area for habitat creation with a mix of wetlands, woodland and meadows as part of the sculpted landscape. And, at the heart of East Village is Victory Park, the much loved amenity that acts as a place to gather, relax and play. Green spaces, such at the Portlands, perform important sustainable urban drainage functions whilst also acting as a much loved amenity to the residents.

East Village is also a short walk or cycle ride from the creative hub of Hackney Wick, the East Back Cultural Quarter, which is currently under construction, and the well established residential community of Leyton. The neighbourhood also benefits from access to well-connected transport infrastructure, Westfield Stratford City, Chobham Academy and Sir Ludwig Guttmann Health and nearby sporting venues such as the VeloPark.

The Former Athletes' Village

As the former athletes' village, East Village is one of the largest build-to-rent communities in London. The first 2,818 residential units were used temporarily as the Athletes' Village during the Games. After the Games the units were fitted out in their final form as new homes, with the first flats occupied in early 2014. The buildings are mostly medium-density perimeter blocks, of 8–12 stories, such as those surrounding Mirabelle Gardens. The buildings are arranged in a simple grid with each block facing outward toward the green space and inward to a private communal garden. Each building was designed by a different architect to help bring a range of character to the façade treatments.

In line with the intent of the outline plan, higher rise blocks in the southern part of East Village, adjacent to Stratford International Station, will form a legible townscape crescent to include plots N06, N08 and N18 and N19, with Manhattan Loft Gardens as the tallest building in the area.

Fig.1 East Village as of 2022

Fig.2 Typical East Village perimeter blocks on Mirabelle Gardens

Waterglades

Victory Park

Queen Elizabeth Olympic Park

1.2 Executive Summary

Introduction

This document has been prepared by Glenn Howells Architects and Grant Associates in conjunction with the professional team listed on the right, and forms part of the Reserved Matters Application (RMA) submitted by Stratford Village Property Holdings 1 (SVPH1) and Stratford Village Property Holdings 2 (SVPH2) for Plot N18/N19 Zone 3, Stratford City, London.

The plot location is shown on Site Location Plan, sheet 2292-GHA-ZZ-ZZ-DR-A-050001 contained within the application drawings which accompany this DDR.

This RMA by SVHP1L and SVPH2L comprises Plot N18/ Plot N19 and represents the post-Games RMA for one of the remaining legacy Plots within East Village. The purpose of this document is to set out how the design responds to the parameters and principles of the approved Zonal Masterplan (ZMP) October 2007 and the approved addendum document dated May 2010 whilst achieving exceptionally good design. This includes the analysis, design development and concepts that have been applied to the proposals.

The proposals have been the subject of extensive application consultation with, amongst others, the LLDC PPDT, design and landscape officers; the LLDC's Quality Review Panel (QRP); the LLDC's Built Environment Access Panel (BEAP) and the LLDC's Planning Committee, as well as been the subject of public consultation. Details on how the scheme has developed, including in response to the pre-application process is set out within this DDR.

The report provides part of the required detail for the RMA for the items to be discharged under Conditions B1, B8, B9, B10, Q1 and Q4 of the Stratford City Outline Planning Permission (ref: 10/90641/EXTODA). This document should be read in conjunction with all other RMA documents, including the application drawings which include:

- The application forms.
- ZMP Conformity Statement (Quod).
- ZMP Environmental Compliance Statement (Arup).
- EIA Screening Letter (Arup).
- Access Statement (Earnscliffe).
- Application drawings (Glenn Howells Architects and Grant Associates).

Project Description

Plots N18 + N19 comprise a high-density development of two tall residential buildings, forming the key gateway into East Village.

Located adjacent to Stratford DLR and International stations, the site is perfectly located to access the open space and amenities of East Village, as well as high speed transport connections to central London.

The gateway delivers two defining features of the design: (1), a level-access, intensively landscaped route up to Victory Park, and (2), a subterranean residential lobby space that acts as a focal point for this new community.

The scheme will provide 848 build-to-rent homes, commercial and retail space, and a range of residential amenities including a ground level cycle and mobility hub that promotes active travel through a range of storage and supporting functions.

The buildings are arranged as a pair of stepped towers with connecting mansion blocks of 11 storeys that respond to the scale of the park edge. N18 is the primary tower facing onto Victory Park at 40 storeys, while N19 is 35 storeys tall. The buildings' symmetrical relationship reinforces the gateway and contributes to the distinctive surrounding skyline.

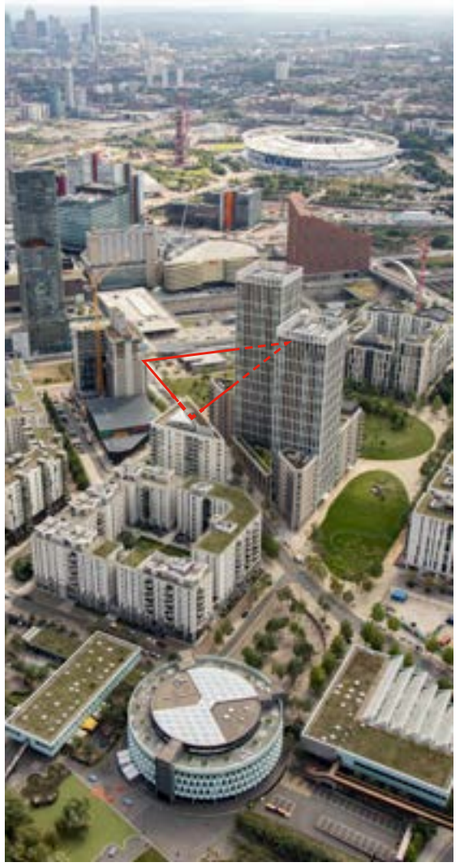
The design features various passive design measures that will enable reductions in embodied carbon and operational energy use. The façade design responds to the influence of local microclimate, using its high-performance fabric and window proportions to suit each elevation's orientation, maximising internal light levels while minimising overheating.

Merging architecture, landscape and organic patterns, the design celebrates the natural environment of East Village and the sustainable, creative organisations that are increasingly drawn to this relatively new East London neighbourhood.

Design Team

The following consultants contributed to this process and this document:

Architect	**Glenn Howells Architects**
Landscape Architect	**Grant Associates**
Transport Consultant	**Transport Planning Practice**
Project Management	**Cast**
Cost Management	**Arcadis**
Principal Designer	**ORSA Projects**
MEP, Sustainability, and VT	**Chapman BDSP**
Structure	**Walsh**
Fire Engineer	**Jensen Hughes**
Acoustic Consultant	**RBA acoustics**
Access Consultant	**Earnscliffe Making Access Work**
Planning Consultant	**Quod**
Daylight Sunlight	**GIA Surveyors**
Wind Microclimate	**FD Global Limited**
Strategic Views	**Miller Hare Limited**
Townscape Consultant	**City Designer**
Public Consultation	**London Communications Agency**



1.3 Design Summary

Development Context

Over the years, Get Living have proven themselves to be one of the most successful owners and operators of build-to-rent communities in the UK. Their commitment to the long-term success of East Village is apparent in their ambitious vision not just for N18 and N19, but for the re-imagining of Victory Park and the Belvedere (refer to separate application). With the recent completion of the high-quality communities at Plots N06 and N08, their unique perspective on both the day to day operations and overseeing large scale residential developments makes them poised to create a new statement building at the threshold to Victory Park as a gateway to East Village and a long term legacy of the Olympic Games.

There is currently an approved RMA for Plot N18 and N19 (ref: 14/00141/REM dated 08.07.2014) for a scheme of 710 apartments and commercial retail at the base (ref: 14/00141/REM). Get Living recognizes the merits of this scheme, but also acknowledges that a more efficient and sustainable solution will better secure the longevity of the development as a more socially responsible strategy.

Site Constraints and Opportunities

The site is located directly adjacent to the DLR, in a highly accessible location with a public transport accessibility level (PTAL) of 6b, making it a prime location for high-quality, tall buildings that respond to the Tall Building Policy D9 in the London Plan. Taller buildings in this location are inherent and approved under the overarching Stratford City Outline Planning Permission. The triangular plot is challenged by an approximate five metre level change from the DLR up to Victory Park, but benefits from its prime location overlooking Victory Park. However, the northwest plot edge is challenged by the underground HMLE and the southern edge by the DLR. Along the east edge is Celebration Avenue, a main thoroughfare with significant pedestrian use and a cycle lane. Since two of the plot edges do not have road access, this creates a challenge for vehicular access, particularly servicing, as there are few opportunities to bring in vehicles. This pairs with the challenge to create a pedestrian priority, safe environment that can handle the significant flow of people through the site whilst also accommodating service access to allow for the efficient operation and maintenance of the building.

Greeted by Green

During early design development, the design team and Get Living agreed that the new community at N18 and N19 must reflect East Village's greatest asset: it's abundant and beloved green, natural environment. This led to the concept of 'Greeted by Green' which draws the green lush environment of Victory Park toward the station, reflecting the prioritisation of the natural environment, a healthy lifestyle and environmental responsibility. This concept influenced the design team to focus on:

– The creation of a statement piece of public realm that balances the movement of people through the significant level change, with a lush and attractive landscape that relates to the emerging Victory Park design.

– The desire to create amenity and apartments that connect to nature and emphasise the commitment to the health and well-being of the residents.

– The vision to create truly sustainable architecture that interrogates and integrates the impact of microclimate, materiality and a high performing building envelope.

These concepts led to the focus of three key architectural moves:

– The Gateway.

– The Residents' Experience.

– The Dynamic Façade.

The Gateway

One of the key drivers of the scheme is to provide a unique, green area of public realm that emphasises the commitment to inclusive design with a gently sloped route to navigate the five metre level change. This ambition led to the decision early in the design process to maximise the space between the DLR station and Victory Park to allow for generous public realm to create a unique outdoor space for this important threshold to the Village. This priority informed the building massing strategy for both towers and allowed the shoulder blocks heights to be modest and comparable to neighbouring blocks, opening up the ground plane to abundant sunlight to the public realm. This results in a big, impactful area of public realm called 'The Gateway.'

The design of the Gateway by Grant Associates (GA) includes a gently sloped route surrounded by greenery that is easily navigated by those with physical challenges without the need for a public lift. The Gateway design has also been coordinated with the entrance to the residents' lobby, the skylights that allow light to flood into the lobby below the retail frontages. As the designers of the remodelled Victory Park, GA have a coordinated planting strategy to tie together the landscape concepts, securing the intention of the 'Greeted by Green' concept.

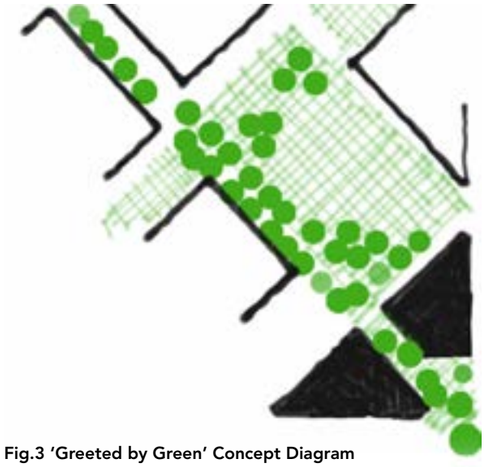


Fig.3 'Greeted by Green' Concept Diagram

Fig.4 Illustration of The Gateway reflecting the 'Greeted by Green' concept

The Residents' Experience

Get Living want to create a community that offered a unique shared space to facilitate a true community environment. The design team expanded upon this vision and established three key principles for the residents' experience:

- **Naturally Sociable:** Establish use and create environments that nurture casual encounters to build community and friendships.
- **Biophilic Design**: In line with the 'Greeted by Green' concept, create spaces that seek to satisfy our inherent desire to connect to nature through design.
- **The Extended Home**: Consider how conveniences and shared activities can help residents with the practicalities of daily life.

These principles informed the concept for the lobby, also called 'The Living Room,' which sits underneath the upper level of the Gateway. The Living Room connects both tower cores to create a conveniently located social hub that is accessed through the main residential entrance off the lower level of The Gateway, also known as Station Square. Residents travel through the Living Room daily to pick up their post, walk their dog or get to the DLR, increasing the chance of running into a neighbour or meeting someone new. The entrance is conveniently designed for those with cycles who can walk straight through the entrance and into the high-quality cycle store adjacent to the lobby.

The lobby is animated with large round overhead skylights that penetrate a sculptural concrete ceiling to flood the space with daylight. From the Gateway, passers-by can catch glimpses down into the lobby. The raw feel of the sun-washed concrete coffers are balanced by the warmth of wood clad walls. The main feature of the Living Room is the glass enclosed courtyard that houses a feature tree rooted in the lobby level with a tree canopy that animates the Gateway above. The lobby design epitomises the three key principles and offers a site specific and unique character for the residents' experience.

Lifts, corridors and the apartments have undergone a thorough review with Get Living and LLDC to ensure a continuously high quality experience. Lifts are designed to be quick and efficient even to the top most levels. Corridors in the towers are designed to be short and direct whilst the shoulder blocks have daylight and larger breakout areas to enhance longer journeys.

Apartment layouts are designed to ensure living rooms are generous and bright, with layouts that allow for flexible furnishing arrangements. Every apartment has its own private amenity which may be a balcony or solarium depending on daylight and/or wind conditions. As a response to recent lockdowns, outdoor balconies directly off of living spaces are preferred except where wind conditions don't allow for outdoor comfort.

The Average Daylight Factor for the scheme has excellent results, with 90% of rooms achieving the benchmark minimums.

Fig.5 Illustration of The Living Room and the Skylights Animating The Gateway

Fig.6 Illustration of section through the living room and cycle store

The Dynamic Façade

Both Get Living and their residents have high expectations for social and environmental responsibility. Given this, the design team decided early on that the architecture, including massing, layouts and articulation should all directly inform design decisions to achieve a highly efficient and sustainable building. The primary drivers of decision making are the operational and embodied energy commitments including:

– Operational energy: <35 (kWh/m^2/yr)* RIBA 2030; UKGBC.

– Embodied energy (A1–A5): 450–500 (kgCO2/m^2).

The proposed massing is optimised to achieve a highly efficient form factor, minimising energy loss. The composition of the building envelope is engineered, alongside a highly qualified consultant team, to minimise energy loss whilst optimising resident comfort. The structural engineer developed an efficient structural solution that minimises concrete use, reducing the impact on embodied energy.

The building articulation is an homage to traditional, articulated punched opening façades that can be found in many historic buildings. Each façade was interrogated alongside a consultant team to understand the impact of the building orientation, changing seasons and wind conditions. Highly technical testing for overheating, daylight/sunlight levels and wind speeds inform the private amenity treatment, size of the openings (including glazing ratio) and window detailing. The results of the Stage 2 testing for overheating, daylight/sunlight levels, wind analysis and energy performance are highly favourable, proving the dynamic façade concept.

The punched opening façade varies subtly from top to bottom, reflecting the changing microclimate and offering a unique, high-quality aesthetic for the pair of tall buildings. For example, high wind speeds at the tops of the buildings inform locations for solariums whilst the shoulder blocks benefit from projecting balconies. And, in between, inset balconies offer sheltered outdoor space where wind speeds are tolerable.

The punched openings are detailed with projecting surrounds that enhance shading during the summer. The surrounds also add shadow-play on the façade to enhance the significance of the opening. Within the punched openings are glazed units and textured solid or perforated panels that can be use for ventilation where required. The result of this complex and rigorous testing is a modern yet timeless façade aesthetic that has a unique character that is different from and complementary to its neighbours. The design supports the Get Living vision for a highly sustainable building that will stand the test of time and responsibly address the climate crisis.

* subject to Engie decarbonisation

Fig.8 Illustration of Inset Corner Balcony

Fig.7 Illustration of Park Facing Punched Opening Façade

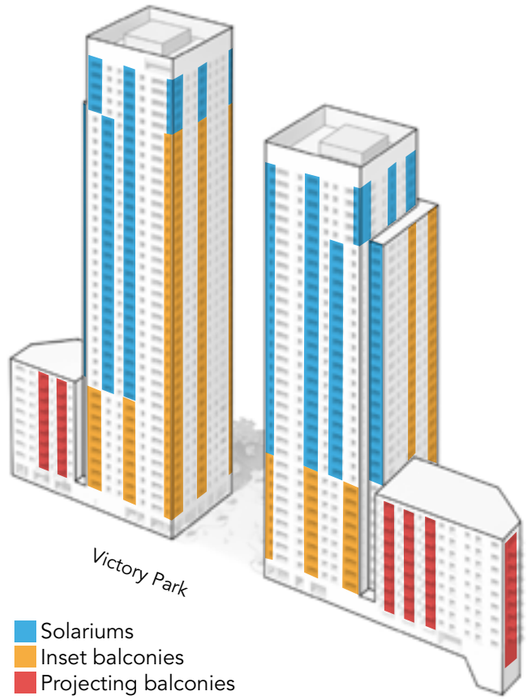


Fig.9 Diagram of Private Amenity Locations

1.4 Scheme Summary

Key Facts

Area within the application boundary: 9,694 m^2

Zone within the SC OPP: Zone 3

Tenure: 100% market residential units (build-to-rent)

Amount of shared amenity per unit: 2.0** m^2/unit

* based upon net adjusted site area with N16 removed from Zone 3
** Includes: Living Room, post rooms, package room, lobbies, co-working, lounges, eleventh floor lounges, furnished alcoves in shoulder blocks

Building Heights Summary	
	AOD
N18 Shoulder Blocks	50.5
N18 Top of Tower	147.6
N19 Shoulder Blocks	50.5
N19 Top of Tower	132.0

Note: Plot N18 proposes to exceed the SC OPP height parameter to the same degree as the agreed exceedance in the previously approved RMA. There are no proposed other exceedances. See Masterplan chapter for further details.

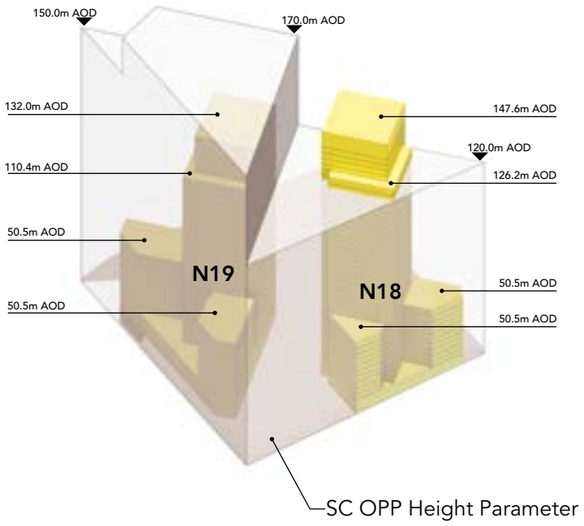
Accommodation Summary			
		TOTAL	of which are adaptable
Studios	10.0%	84	0
1 Bedroom/2 Person	50.0%	424	40
2 Bedroom/3 Person	4.1%	35	35
2 Bedroom/4 Person	31.3%	265	10
3 Bedroom/5 Person	3.5%	30	0
4 Bedroom/6 Person:	1.1%	10	0
TOTAL		**848**	**85**

Note: Detailed breakdown of accommodation and area schedules can be found in the Appendix

Area Summary	
GEA	87,997 sqm
GIA	80,866 sqm
NIA	53,733 sqm

Planning Area (GEA)*	
Residential (Use Class C3)	77,347 sqm
Retail (Use Class E)	875 sqm
Leisure (Use Class E)	0

* Measured in accordance with Condition D2 of the SC OPP; shared amenity and internalised private amenity are excluded



Cycle Parking				
	Required	Provided	Additional breakout	
5% Provision for Larger cycles	70	70	Sheffield stands	35
			Adapted cycles/mobility scooters/ cargo bikes	35
Secure Cycle Racks	1,330	1,330		
Commercial Cycles	6	6		
TOTAL	**1,406**	**1,406**		

Car Parking	
Accessible (Blue Badge) Spaces in N18	7
Accessible (Blue Badge) Spaces in N19	19
TOTAL Accessible (Blue Badge) Spaces*	26

* Represents 3% of total unit count; additional 7% can be provided within existing car parking within built plots

1.5 Planning Context

East Village forms part of the Stratford City development that benefits from outline planning permission (the SC OPP) for a comprehensive mixed use development. The SC OPP is subject to a number of conditions and accompanying Section 106 Agreement which control the form and implementation of development within the entire Stratford City site. East Village (or, Zones 3a, 4a, 5 and 6 of the SC OPP) represent the main residential component of the SC OPP.

East Village was bought by the applicant and Triathlon Homes (a joint venture between First Base, East Thames Group and Southern Housing Group). Those Plots originally developed for the Athletes' Village comprise 2,818 homes which are now occupied. Of these, 1,439 comprise built to rent market units, operated by Get Living. The remainder, 1,379, comprise the vast majority of the affordable homes permitted under the SC OPP (comprising both social rent and intermediate units), owned by Triathlon Homes. Collectively, this represents 59% of total units to be delivered at East Village; 43% of the total market units and 97% of the total affordable housing units.

Retail and leisure facilities also complement the existing built units, typically at ground floor. Vast areas of open space (including Stratford Wetlands and Victory Park) and play area in addition to significant infrastructure including in-ground services/utilities; bridges; roads and pedestrian and cycle networks were all delivered to support the new residential community at East Village.

In addition to the built Plots at that time, the SC OPP also permits a further 2,000 (circa) residential units in East Village for the remaining development Plots (which comprise N05, N06, N08, N16 and N18/N19).

Detailed RMA's for each of the above were approved in 2014. Plots N08 (482 market units) and N06 (524 market units) have been constructed and occupied since, whilst a further 48 social rented units are currently being constructed at Plot N05. The total number of units delivered to date comprise 2,445 market units and 1,427 affordable units (48 of which are under construction) – a total of 3,872 units. Plots N18/N19 is the last remaining residential development Plot to come forward at East Village. Plot N16 is planned to be delivered as student accommodation.

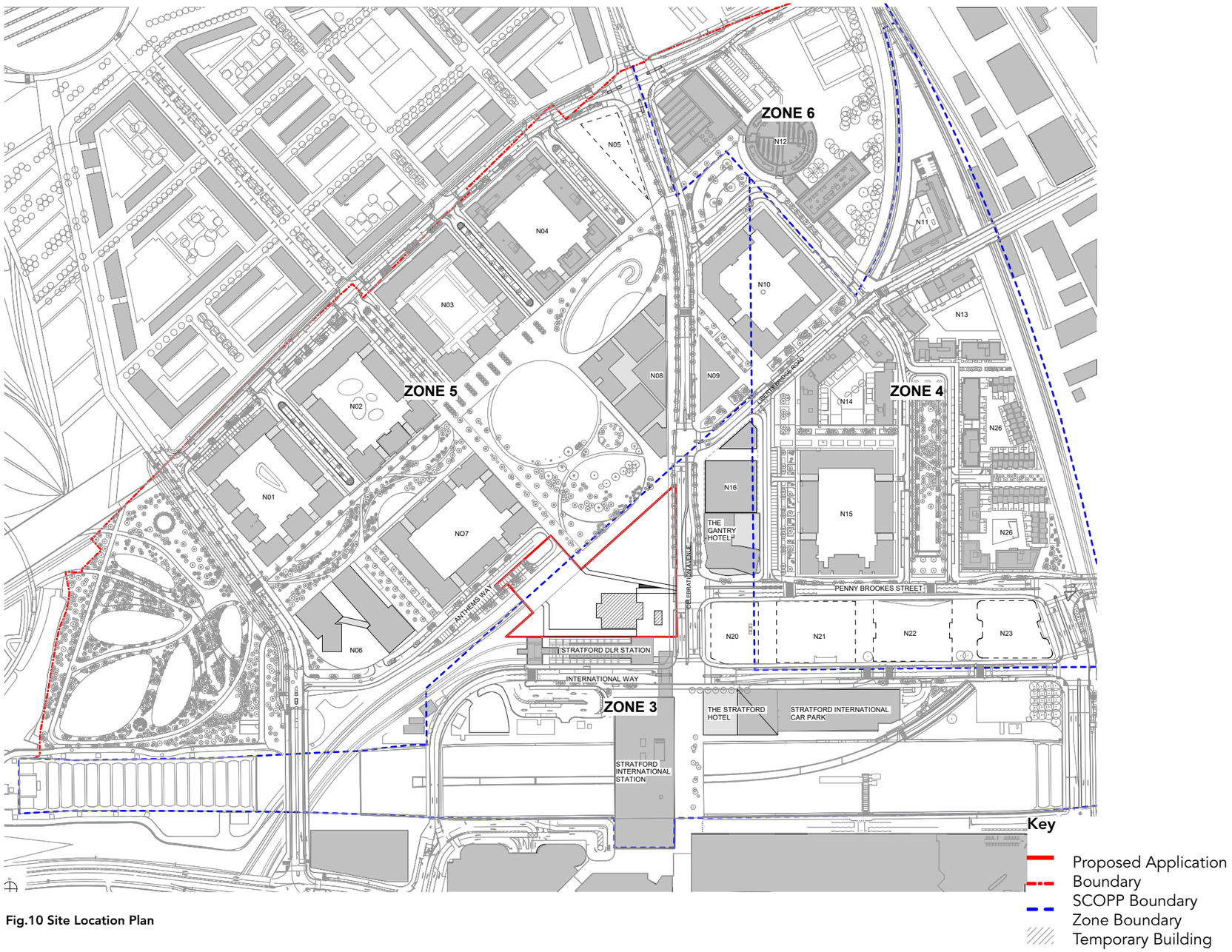


Fig.10 Site Location Plan

1.6 Masterplan Context

Background

In 2020, GHA and Get Living undertook a feasibility study to explore how the two remaining plots at East Village, N16 and N18 and N19, could benefit and tie into a wider masterplan to include the enhancement of the public realm. Proposals were reviewed with LLDC through pre-apps and workshops. The process, conclusions and Matters for Agreement were recorded and provided to LLDC in a report called 'Key Planning Principles Report' dated November 2020.

This report served as the basis for the next stage of design which is broken into three projects, led by two architects and a landscape architect:

– Victory Park, The Belvedere, The Gateway (N18 and N19), the NEAP (N18 and N19) and Fashion Square (N16): led by Grant Associates.

– N16 led by TP Bennett.

– N18 and N19 led by Glenn Howells Architects.

Coordination of Projects

The proposal for N18 and N19 developed alongside the proposals for Plot N16 and Victory Park (both shown as proposed on the adjacent drawing). This intentional strategy by Get Living provides a more coordinated and comprehensive long term design solution for the Village.

The introduction of purpose built student accommodation at N16 is a coordinated effort with UAL London College of Fashion to provide a home to the many students who will travel every day to the new campus at East Bank. This young and creative population will further integrate fashion into the Village culture, which has already seen success from Christopher Raeburn's E20 lab.

The landscape proposals by Grant Associates successfully tie together the various areas of public realm with a continuous landscape theme whilst also reacting to uses, constraints and microclimate. Specific to N18 and N19 is the Gateway and the NEAP, both which use organic forms akin to those found in Fashion Square and Victory Park. Whilst the three projects have been developed alongside one another, they will be submitted as three separate planning applications.

Fig.11 Masterplan by Grant Associates with N18 and N19 Application Boundary

N02

N08

Victory Park
(New proposals detailed in separate planning application)

N07

N16
(New proposals detailed in separate planning application)

N18

The Gantry Hotel

Anthems Way

N19

Celebration Avenue

Penny Brookes Street

N06

N20

Stratford
DLR Station

International Way

Key

Proposed Application Boundary

Telford Homes (consented)

Stratford International Station

The Stratford Hotel (MLG)[17]

1.7 Summary of the 2014 Consented Scheme

Overview of 2014 Consented Scheme

In 2014, a detailed RMA was approved for Plots N18/N19 (ref: 14/00141/REM dated 08.07.2014). The approved RMA comprises 710 residential units arranged within six buildings including two towers of equal height (ground plus 36 storeys) and four podium buildings. Complementary retail and leisure floorspace occupy the lower floors of the building together with public realm and open space provision. The RMA was in general conformity with the SC OPP and S106 Agreement, with exceedances deemed acceptable and subsequently approved. The RMA has not yet been implemented, but is capable of implementation.

The consented scheme is comprised of two ground plus eight storey podia buildings, two ground plus twelve storey podia, and two ground plus thirty six storey towers. The six buildings form a perimeter development with a public courtyard at its centre. The courtyard is part of a sequence of new open spaces forming a public route through the site and new arrival piazza in front of the DLR. This route connects the DLR and Stratford International Station to the key public open spaces within East Village, and further afield, the Lee Valley VeloPark.

The height of the N18 tower exceeded the SC OPP parameter height and was proposed to provide an enhanced townscape approach with two equal sized towers. This design approach was supported by the LLDC and was subsequently approved as part of the 2014 RMA. Further details can be found in the previous section on the SC OPP.

Housing Mix

The 2014 RMA scheme consists of 710 market residential units. Unit mix and area summary as follows:

- Studio: 68 / 10%.
- 1 Bed: 284 / 40%.
- 2 Bed: 292 / 41%.
- 3 Bed: 58 / 8%.
- 4 Bed: 8 / 1%.

Level Change and Open Space

The five metre level change is addressed with a flight of steps and an adjacent public lift just outside of the DLR entrance. The raised courtyard is at the level of Victory Park, approximately 13.0 AOD. The courtyard is surrounded by buildings and allows for access to the residential lobbies.

Service and Access

The raised courtyard allows for a back of house level underneath which is used for refuse collection, servicing and car park. Access to the ground floor service level is from a new bridge proposed to be built above the DLR. There is also a basement underneath this level for dedicated car parking. This level is accessed from a vehicle lift inside the building adjacent to the vehicle access.

Fig.12 Massing Overview

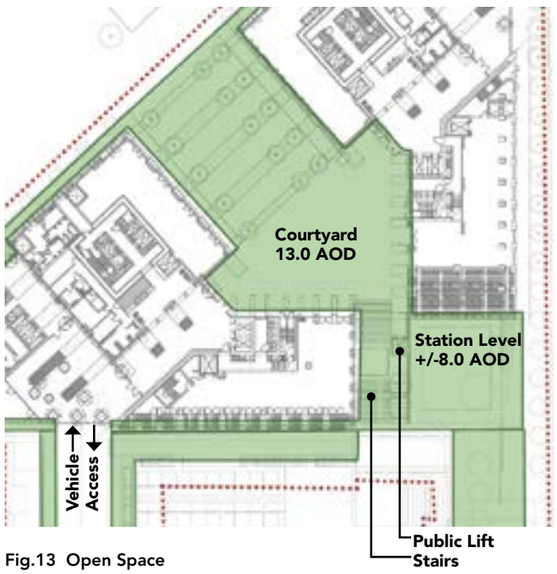


Fig.13 Open Space

Fig.14 View of Courtyard

Fig.15 View from Westfield

1.8 Relevant Policy References

Key Planning Policy and Guidance Documents	
National	
NPPF	National Planning Policy Framework (July 2021)
NPPG	National Planning Practice Guidance (first published March 2014)
–	Technical Housing Standards – nationally described space standard (March 2015)
NDG	National Design Guide (October 2019)
Strategic Policy Documents	
Adopted	
The London Plan	The London Plan – the Spatial Development Strategy for London (March 2021)
Guidance	
Housing SPG	Housing Supplementary Planning Guidance (March 2016)
Affordable Housing SPG	Affordable Housing & Viability Supplementary Planning Guidance (August 2017)
Crossrail Funding SPG	Crossrail Funding – Use of Planning Obligations and the Mayoral Community Infrastructure Levy Supplementary Planning Guidance (Updated March 2016)
Crossrail SPG	Use of Planning Obligations and the Mayoral Community Infrastructure Levy Supplementary Planning Guidance (April 2013)
Accessible London SPG	Shaping Neighbourhoods Accessible London: Achieving an Inclusive Environment Supplementary Planning Guidance (October 2014)
Dust and Emissions SPG	The Control of Dust and Emissions during Construction and Demolition Supplementary Planning Guidance (July 2014)
LVMF SPG	London View Management Framework Supplementary Planning Guidance (March 2012)
Olympic Legacy SPG	Olympic Legacy Supplementary Planning Guidance (July 2012)
Play and Informal Recreation SPG	Shaping Neighbourhoods: Play and Informal Recreation Supplementary Planning Guidance (September 2012)
Character and Context SPG	Character and Context Supplementary Planning Guidance (June 2014)
Equality and Diversity SPG	Planning for Equality and Diversity in London Supplementary Planning Guidance (October 2007)
City in the East	City in the East (May 2016)

Draft Guidance	
Fire Safety LPG	Fire Safety London Planning Guidance Consultation Draft (February 2022)
Be Seen Energy Monitoring LPG	'Be Seen' Energy Monitoring London Plan Guidance Consultation Draft (September 2021)
Circular Economy Statements LPG	Circular Economy Statements London Plan Guidance Consultation Draft (March 2022)
Whole Life-Cycle Carbon Assessments LPG	Whole Life-Cycle Carbon Assessments London Plan Guidance Consultation Draft (March 2022)
Housing Design Standards LPG	Housing Design Standards London Plan Guidance Consultation Draft (February 2022)
Optimising Site Capacity LPG	Optimising Site Capacity: A Design-led Approach London Planning Guidance Consultation Draft (February 2022)
UGF LPG	Urban Greening Factor (UGF) London Plan Guidance Consultation Draft (September 2021)
Sustainable Transport, Walking and Cycling LPG	Sustainable Transport, Walking and Cycling London Plan Guidance Consultation Draft (September 2021)
Air Quality Positive LPG	Air Quality Positive London Plan Guidance Consultation Draft (November 2021)
Air Quality Neutral LPG	Air Quality Neutral London Plan Guidance Consultation Draft (November 2021)
Energy Assessment Guidance	Energy Assessment Draft Guidance (April 2020)

Local	
Adopted Policy Documents	
LLDC Local Plan	London Legacy Development Corporation Local Plan 2020–2036 (Adopted July 2020)
Guidance	
Adopted	
LLDC Planning Obligations SPD	Planning Obligations Supplementary Planning Document (November 2016)
LLDC Carbon Offset SPD	Carbon Offset Supplementary Planning Document (August 2016)
Other Guidance	
Tall Buildings Advice	Tall Buildings: Historic England Advice Note 4 (March 2022)

1.9 Planning Policy Context

Planning Policy Summary

This Section provides a summary of relevant national, regional and local planning policy and guidance relating to design and designations affecting the Site.

Design

National Planning Policy Framework (July 2021)

In March 2012 the Government published the National Planning Policy Framework (NPPF) which sets out the Government's planning policies for England and how these are expected to be applied. This has been updated subsequently, with the latest update published in July 2021.

The NPPF states that the Government attaches great importance to design of the built environment and that good design is a key aspect of sustainable development (Paragraph 126).

Paragraph 134 states that development that is not well designed should be refused, specifically where it does not reflect local design policies and government guidance on design. It attaches great weight to: (a) development which reflects local design policies including guidance and supplementary planning documents such as design guides and codes; and to (b) outstanding or innovative designs which promote high levels of sustainability, help raise the standard of design more generally in an area and fit in with the overall form and layout of their surroundings.

Other relevant material considerations are provided in the National Planning Practice Guidance (March 2014 and updated thereafter).

National Design Guide (January 2021)

The National Design Guide was first published by the Government in October 2019 and updated January 2021 as planning practice guidance to ensure that all aspects of good design are considered in planning proposals. The guidance outlines the Government's priorities for well-designed places in the form of following ten characteristics:

- Context – enhances the surroundings.
- Identity – attractive and distinctive.
- Built form – a coherent pattern of development.
- Movement – accessible and easy to move around.
- Nature – enhanced and optimised.
- Public spaces – safe, social and inclusive.
- Uses – mixed and integrated.
- Homes and buildings – functional, healthy and sustainable.
- Resources – efficient and resilient.
- Lifespan – made to last.

Development Plan

The adopted Development Plan for the Site is comprised of the following:

- The London Plan – the Spatial Development Strategy for Greater London (March 2021) ("the London Plan").
- London Legacy Development Corporation (LLDC) Local Plan 2020–2036 (adopted July 2020).

Planning Designations

The London Plan (March 2021)

The London Plan is the overall strategic plan for London. The site is located within the Olympic Legacy Opportunity Area (OA) within the London Plan (the former Lower Lea Valley OA) (as shown in Figure below). Table 2.1 of the London Plan up to states that the Olympic Legacy OA has an indicative development capacity of 65,000 jobs and 39,000 homes up to 2041.

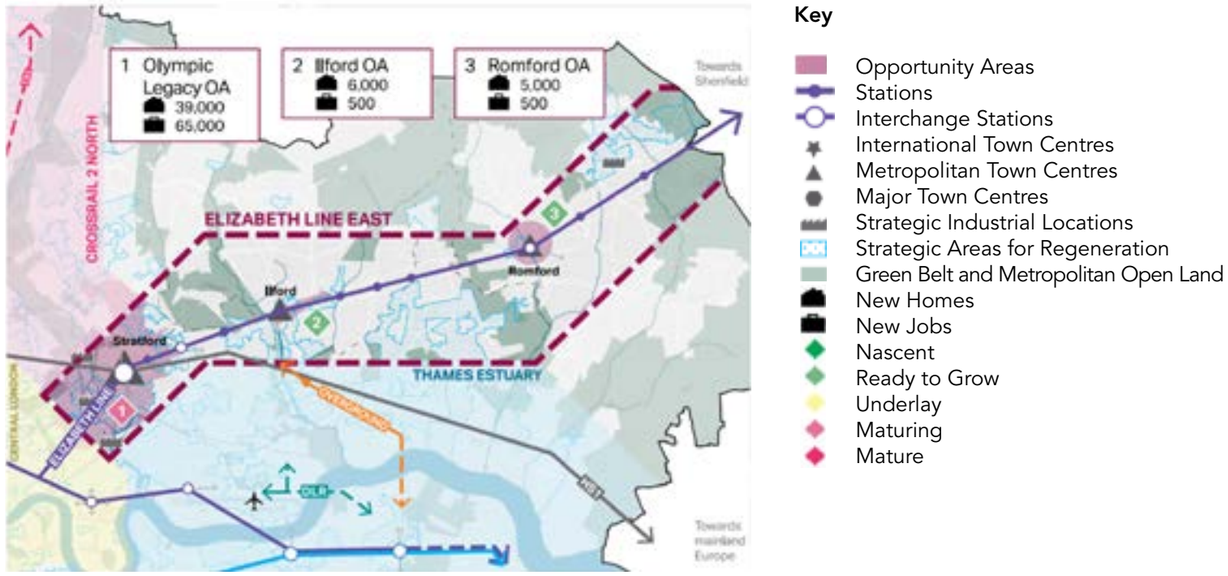


Fig.16 Opportunity Area

LLDC Local Plan (July 2020)

The Site is located within the East Village Local Centre and Site Allocation SA2.2 as shown below.

The Site is defined as a Development Parcel within Site Allocation SA2.2 where remaining plots will help achieve a minimum of 1.950 homes across the allocation, with development principles to:

– Develop around existing open space and street network.

– Locate tall buildings and higher densities in the south of the allocation close to Stratford International Station.

– Provide retail and non-residential activities onto route between Stratford International Station and Chobham Manor.

– Ensure strong pedestrian and cycle links to Chobham Academy and Sir Ludwig Guttmann Health Centre.

Key

- Open Space
- Development Parcels
- Active Frontage
- Primary Frontage
- Local Centre
- Playspace
- Key Connections

Fig.17 Extract of Site Allocation SA2.2 Key Diagram

Design Quality

The London Plan (March 2021)

London Plan Policy D3 'Optimising site capacity through the design-led approach', states that all development must make the best use of land by following a design-led approach that optimises site capacity. London Plan Policy D4 'Delivering good design' considers that Design and access statements submitted with development proposals should demonstrate that the proposal meets the design requirements of the London Plan. London Plan Policy D4 sets out that proposals should be thoroughly scrutinised through design reviews and that the maximum detail ensuring maximum detail appropriate for the design stage is provided to ensure scheme quality.

LLDC Local Plan (July 2020)

LLDC Local Plan Policies SP.3 'Integrating the natural, built and historic environment' and BN.1 set out design considerations for new development. They seek the enhancement of the architectural, historic and landscape context to maintain and promote local distinctiveness and consideration of connectivity, infrastructure, mix of uses, amenity and wellbeing.

LLDC Local Plan Policy BN.4 'Designing Development' considers mixed-used development should take account of the local scale and grain, make a positive contribution to streetscape, generation active frontage, help define public routes and spaces, promote the legibility of the site and preserve heritage assets.

Residential Quality and Amenity

The London Plan (March 2021)

London Plan Policy D6 'Housing quality and standards' sets out the various design standards for development with regards to layout, orientation, form, outside space, usability and ongoing maintenance, daylight and sunlight, accessibility and space standards.

London Policies D5 'Inclusive Design' and D7 'Accessible housing' seeks to ensure that all new development achieves the highest standards of accessible and inclusive design.

London Policy D8 'Public realm' encourages the provision of new public realm where appropriate and considers that the design should be well-designed, safe, accessible, inclusive and use good quality materials.

Tall Buildings

The London Plan (March 2021)

London Plan Policy D9 'Tall buildings' states that development proposals should address the visual, functional, environmental and cumulative impacts associated with tall buildings.

London Plan Policies HC3 and HC4 are supported by Table 7.1 and Figure 7.5 which identify Stratford beyond the Wider Setting Consultation Area of Linear View 9 King Henry VIII's Mound, Richmond to St Paul's Cathedral. These policies establish how proposals within the London View Management Framework will be assessed and seek to that new development should not harm, and where possible make a positive contribution to strategic views and their landmark elements.

Criterion 3) of Policy HC4 Part F adds that development in the background should not harm the composition of the Protected Vistas, nor the viewer's ability to recognise and appreciate the Strategically-Important Landmark, whether the development proposal falls inside the Wider Setting Consultation area or not.

LLDC Local Plan (July 2020)

Policy BN.5 'Proposals for Tall Buildings' states that tall buildings should be located within the centre boundaries, in order of hierarchy, with Stratford Metropolitan Centre the top of this hierarchy and sets out tall buildings must demonstrate:

1. An appropriate proportion, form, massing, height and scale in context with the character of its surroundings.

2. The use of material appropriate to the height of the building.

3. Acceptable access and servicing arrangements.

4. A positive contribution to the public realm at ground level.

5. A positive contribution to the surrounding townscape.

6. A creation of new or an enhancement to existing views, vistas and sightlines where there is an opportunity to do so.

LLDC Local Plan Policy BN.10: Protecting key views, considers that developments within key views shown in Figure 18 of the Local Plan, should make a positive contribution to the characteristics and composition of that view. The key views are illustrated in Local Plan figure 18.

Supplementary Guidance and Other material Considerations

London View Management Framework (March 2012)

The purpose of the London View Management Framework (LVMF) is to explain the policy approach to protected views in the London Plan in greater detail and to classify protected views into four categories. Further detail is provided where assessments should be taken from and the important elements of the landmarks in the view.

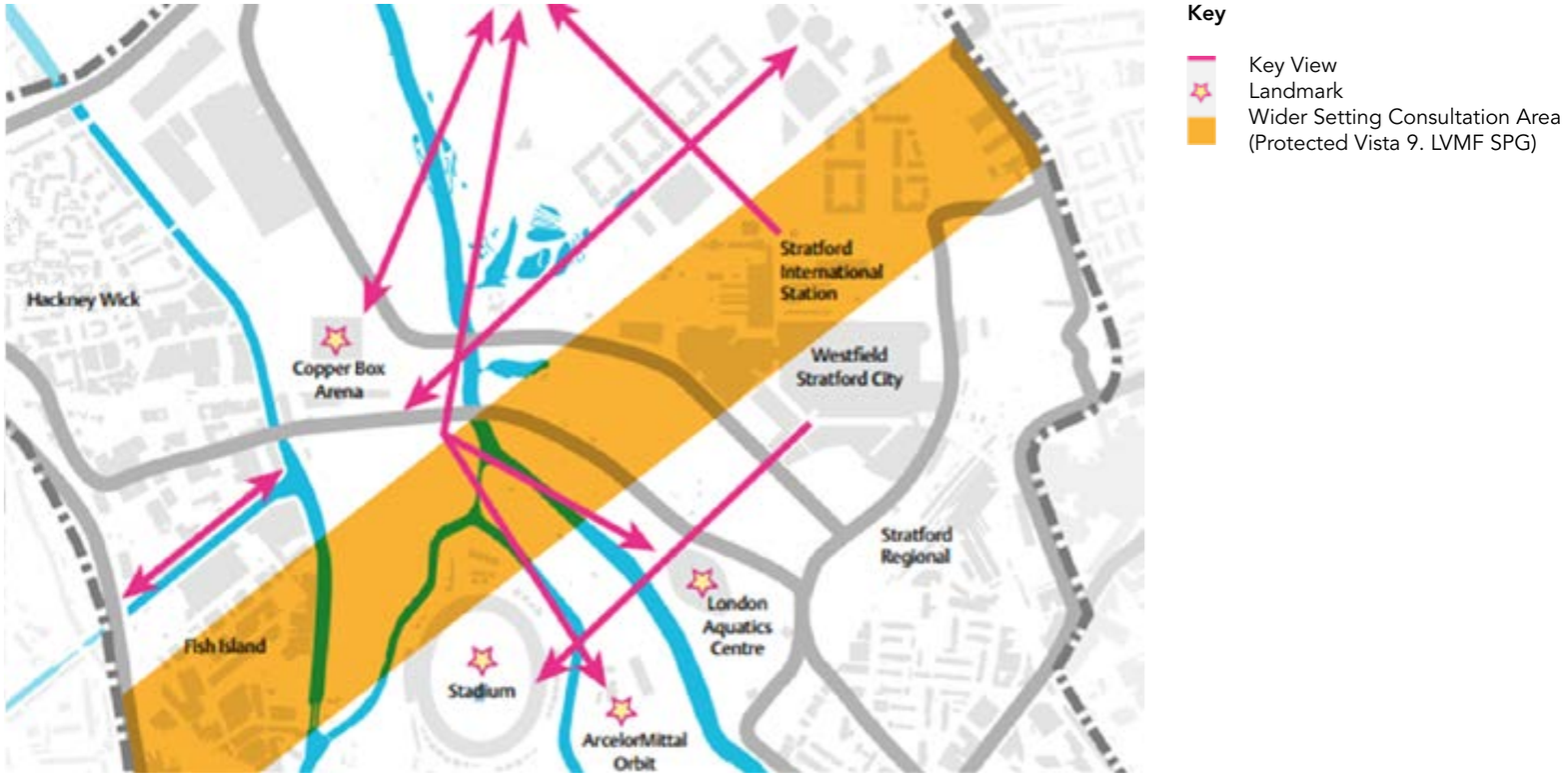


Fig.18 LLDC Local Plan Figure 18 Diagram

1.10 The Consultation Process

Summary

Throughout the design process comprehensive consultations have been undertaken with the London Legacy Development Corporation (LLDC) and the LLDC Quality Review Panel (QRP).

The adjacent table records the meetings and workshops with LLDC starting from Stage 0/1a in 2020 through Stages 1b/2, leading to the submission of this application.

There have been a total of four QRP's where N18 and N19 was reviewed (aforementioned QRPs were detailed for Plots N18/N19. A number of previous QRPs were conducted to agree the wider approach to masterplan and key principles).

There have been two Committee Members' Briefings.

Stage 0/1a Planning Meetings

		2020				
		June	July	August	September	October
N16 & N18 and N19 Pre-App 01	02.06.20	●				
N18 and N19 Workshop 01	15.06.20	●				
N16 & N18 and N19 Pre-App 02	29.06.20	●				
N16 & N18 and N19 Workshop 02	13.07.20		●			
N16 Workshop 03	05.08.20			●		
N18 and N19 Pre-App 03	06.08.20			●		
N18 and N19 & Public Realm Strategy Pre-App 04	25.08.20			●		
N16 Pre-App 05	02.09.20				●	
N18 and N19 Pre-App 06	21.09.20				●	
N16, N18 and N19 & Public Realm Strategy Quality Review Panel	24.09.20				●	
N16, N18 and N19 & Public Realm Strategy Pre-App 07 (QRP Debrief)	30.09.20				●	
N16, N18 and N19 & Public Realm Strategy LLDC Members' Briefing	13.10.20					●

Stage 1b/2 Planning Meetings

		2021										
		Aug	Sept	Oct	Nov	Dec	Feb	Mar	Apr	May	Jun	Jul
QRP 01			●									
LLDC Workshop 1	12.08.21	●										
LLDC Workshop 2	08.09.21		●									
Pre-app 03	21.10.21			●								
Pre-app 04	23.11.21				●							
QRP 02	09.12.21					●						
Pre-app 05	09.02.22						●					
Pre-app 06	16.03.22							●				
QRP 03	24.03.22							●				
Pre-app 07	23.04.22								●			
Members' Briefing Meeting	26.04.22								●			
Pre-app 08	18.05.22									●		
QRP 04	09.06.22										●	
Pre-App 09	15.06.22										●	
BEAP Meeting	30.06.22											●
LFB Meeting	07.07.22											●

1.11 Public Consultation

Public Consultation

The popular E20 lab in N08 has been the venue for two public 'drop-by' consultation events in March 2022 where East Village residents could view emerging imagery of N16, Victory Park and N18 and N19. Get Living, QD and representatives from each design team were there to answer questions and guide people through the details of the emerging design. Both events were well attended and several more, both live and virtual, are upcoming. There was a second phase of consultations followed in June. Two drop-in sessions and a webinar were held in the E20 lab to provide further development of the proposed scheme whilst responding to the first stage of consultation. All 3 sessions have been received positively by the public.

A series of information boards and a website has been provided to maximise public engagement. This process has been managed by London Communications Associates (LCA).

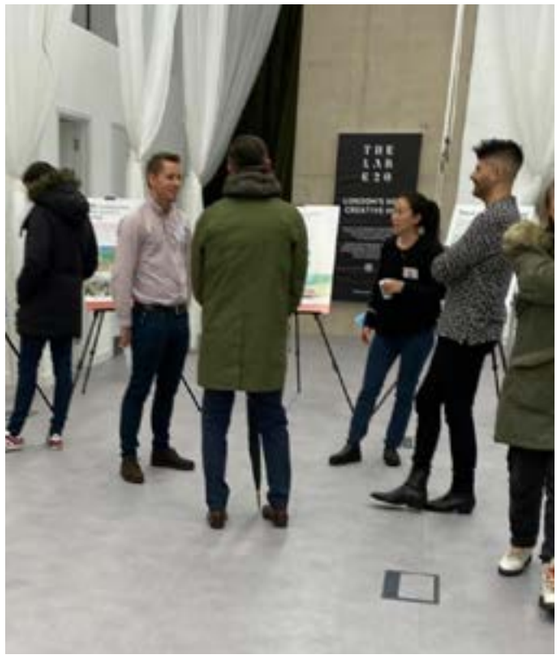


Fig.19 Photos from March 2022 Public Consultation Event at E20 Lab

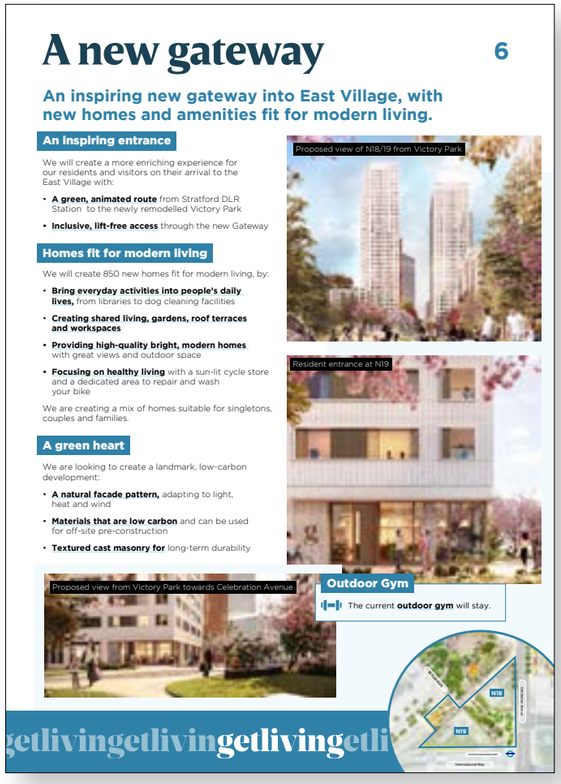


Fig.20 Informational Boards by LCA

1.12 Public Consultation Feedback and Responses

Summary of feedback

- The majority of respondents said ourvision was ‘great’ or ‘good’
- 93% found the consultation events useful or informative
- New proposals for green spaces well-received, especially with efforts to increase biodiversity
- There continued to be strong support to enhance community engagement activities on the public spaces
- 70% of respondents thought the plans to transform the public space were ‘great’ or ‘good’
- The majority of residents wanted to see more children play spaces, anoutdoor cinema and/or a food market at Victory Park & Belvedere
- Questions asked on the sustainability targets for the developments to support the climate recovery
- Residents left comments requesting to see improved accessibility across East Village as part of the proposals

Public Consultation Feedback and Responses

The following table addresses how the design of the N18/19 has evolved following feedback from the local community and key stakeholders, and how the design team has responded to any queries and/or concerns raised.

This reflects the issues raised via the digital and written surveys, emails, freephone and verbal feedback.

Topic	Detailed Comment	Applicant’s Response
Homes	Some residents enquired about the need for more homes on this site.	Approved in 2012, the Stratford City Outline Planning Permission (SC OPP) provides guidelines for the overall development of East Village, Westfield Stratford City and the International Quarter London (IQL). It establishes the principle for around 5,000 homes at East Village, together with complementary amenity and leisure uses and open spaces – which N18/19 forms a part of. In 2014, permission was granted as part of the overarching SC OPP to build around 2,000 homes on the remaining development plots at East Village. Some of these have been built and are now occupied or under construction. The principle and quantum of residential development to come forward at East Village is therefore already established. This RMA simply provides the detail on how that floorspace/development can come forward through a design led process.
Affordability	Some residents enquired about the affordability of the new homes.	While we have not yet determined our price points for N18/19, the rental levels at our other developments reflect our ambitions to create homes for people from all walks of life and backgrounds – from singletons, sharers, couples and families. The vast majority of “affordable housing” units have already been delivered under the SC OPP with a further 48 under construction at Plot N05. Only market housing units remain to come forward on the remaining development Plots.
Public realm and open space	At the public consultation events and arts competition, local people said they would like to see greater activation, events and uses on the public spaces.	We have significantly increased the amount of public space at N18/19 in comparison to the existing consent. We have sought to incorporate suggestions and feedback from local residents into the design evolution where possible. For this reason, the public realm plans have advanced to include an amphitheatre at Victory Park, increased seating/benches and canopies. This is in addition to the wider range of landscaping, greenery, planting and trees proposed to create a more attractive entrance to East Village.
Safety	Some residents raised concerns around safety in the area and how the Applicant will manage this.	The Applicant is already investing in refreshing this area with a focus on improving safety/security and addressing ASB. Although their plans are still emerging, they are looking to make the neighbourhood more user friendly at all times of the day. This will include improved lighting and play equipment. The Applicant also expects, with their plans to transform the public spaces and realm around N18/19, alongside the removal of the dividing walls across the park, will help to manage any safety and security issues within the area. The lighting scheme has been also developed in the proposed N18/19 area, which can enhance safety and deter the criminal from committing offences which includes: – Adequate illuminance levels. – Good Uniformity / High levels for CCTV. – Low light pollution. – Good Aesthetic appearance. – Regular maintenance. – Vandal resistant equipment & materials.

Topic	Detailed Comment	Applicant's Response
Height	Although the majority of residents were pleased to hear that the building heights will be reduced from the levels in the existing plans, some were concerned they still represented an overdevelopment of the local area and the scheme would have an impact on daylight/sunlight on neighbouring properties.	The overarching height parameters for Stratford City are established under the SC OPP. These identify that the taller elements are to be located on areas such as Plots N18/N19 immediately adjacent to major transport interchanges, well served by public transport and supporting amenities. A more detailed strategy for building heights at East Village was further established in 2014 for the remaining development Plots. This results in building heights increasing at Plots N08 and N06 (now built) culminating in Plots N18/N19 being the taller elements. The Applicant and its design team have undertaken a design led approach from the outset. Through rigorous shaping of the massing, the proposed height of the tall building is consistent with the building height previously approved for Plots N18 in 2014. The tall building at N19 is reduced in height by approximately 16 metres as compared to the 2014 RMA. In line with the Stratford City Outline Planning Permission (SC OPP) and the LLDC Local PlanN16 and N18/19 are located within and/or immediately adjacent to the East Village local centre and/or within the Stratford Metropolitan Centre where tall buildings are considered appropriate. The proposed height of the building at N18 stays within the same height as the approved scheme, while the building at N19 will be reduced in height by approximately 16 metres. Following rigorous testing (including technical daylight/sunlight and overshadowing and wind microclimate), we do not expect there to be a significant impact on daylight/sunlight levels on Victory Park from N18/19 compared with the 2014 RMA. Our studies have shown that the new proposals will actually increase daylight/sunlight levels in Victory Park (73%), in comparison to the consented plans (67%).
Social infrastructure	Some residents asked whether local services like dental surgeries could be provided.	The Ludwig Guttman Health Centre and East Village Dental were delivered as part of the SC OPP and is to directly support the residential development at East Village, including N18/N19.
Commercial use	Some residents asked what the new retail/ commercial spaces would be used for.	We have designed the retail and amenity spaces (875sqm) to be flexible, capable of supporting businesses of varying sizes and uses, to meet the needs of East Village.

Topic	Detailed Comment	Applicant's Response
Gateway to East Village	Some residents commented that although the neighbourhood was an established centre in the area, there is no clear signage directing visitors and local people to the Village.	The signage strategy will be designed in accordance to relevant guidance and regulatory compliance to help navigating N18/19 EV and beyond in the next stage of design.
Wind	Some residents asked whether local services like dental surgeries could be provided.	The wind microclimate around the proposed buildings has been analysed to ensure unsuitable wind conditions are not created. The wind analysis has helped to inform the landscape design by identifying optimal areas for seating and dwell spaces to be located. Environmental Impact Analysis (EIA) was carried out to maintain comfort levels throughout the seasons and improve the performance of the current scheme. Refer to further details in the Wind engineer's report within EIA.
Materials	Some residents asked questions around the materials that would be used for the buildings.	In keeping with the overarching character of N18 and N19 as sustainable and informal buildings, material will be selected to present a sense of the organic and human scale, as opposed to precisely engineered, 'perfect' finishes mainly using textured pre-cast concrete and textured metal work. These natural feeling materials will be complemented with a warm timber finish on interior common spaces, such as the lobbies and shared amenities.
Sustainability	Some residents asked questions around the sustainability credentials of the scheme.	The Applicant has a strong commitment to sustainability and this mission is embedded in the N18/19 RMA. At the outset, the architects and engineers integrated sustainable principles into the design, resulting in a 'dynamic facade' concept, where architectural elements, such as the size of openings, locations of balconies and details around the windows, respond to environmental conditions to create the optimal energy efficient building envelope. In addition, the design team has selected materials that minimise the impact on the environment whilst also providing a robust, long-term solution that will stand the test of time. Testing by engineers has proven the strategy to be successful, as results show significant reductions in embodied and operational energy use compared to requirements by current regulations.

Topic	Detailed Comment	Applicant's Response
Noise	Some residents raised concerns around additional noise due to the increased number of people coming into the area from the proposals.	East Village has a dedicated security team based on site responsible for the safety of all residents living, working and visiting the neighbourhood. They will ensure that any noise disturbances or issues involving residents from N18/19 are addressed promptly, to minimise disruptions to the community.
Construction	Some residents asked questions around how construction will be managed and the impact on access/ running of train services from Stratford International DLR	A Construction Method and Management Plan will be submitted as part of the planning application. This will ensure that the works are undertaken in such a way as to avoid or minimise any impact and disruption to the local surroundings and neighbours. Construction Environmental Management Plans are also in development for N16 and the public realm improvements, to ensure all works taking place across East Village are conducted to the highest safety standard. All works, servicing, and associated logistics will be carefully planned and coordinated between N16, N18/19, and Victory Park and Belvedere, with regular communications and updates provided to local residents. Elements of Victory Park will always remain open to residents during the construction works. Servicing of the sites will be respectful of the surrounding road network – consideration will be given to key congestion areas, and cyclist routes and hotspots. Heavy Goods Vehicle movements will be restricted as far as possible to avoid peak traffic flow periods, and contractors will use low emission vehicles, and will not park with engines running in East Village. Safe and accessible passage through East Village will be maintained for pedestrians throughout. Works will be undertaken by suitably qualified, experienced, and capable contractors, who have a demonstratable track record in safe and considerate construction. Once complete, the new development will be maintained by Get Living to a high standard by the selection of highly qualified subcontractors. There will be no impact on access to and from Stratford DLR Station and the running of train services during the construction period.

The points below outline the changes that have been made to the application following the Applicant's consultation with the community.

- An increase in the amount of green space, both in the Gateway and in the 'Garden Lounge'.
- An increase in the amount of play space provision through the addition of the 'Garden Lounge'.
- Greater detail on the external lighting strategy to respond to security concerns.
- Confirmation of the heights of the lower-rise buildings facing onto Victory Park.
- Validation of the wind microclimate conditions for pedestrian safety and comfort.
- Developed proposals for seating and benches in the public realm.
- The introduction of an amphitheatre on the mound in Victory Park, alongside a shelter/canopy, following ideas presented at the school art competition.

1.13 QRP Comments and Responses

QRP Nr1 Comments	Design Team Response
Strategic vision	
The panel considers the strategic vision to be moving in a positive direction. It welcomes the scheme's clear diagram – based around a generous green pedestrian route cutting through the centre of a symmetrical plan.	N/A
The aspiration to provide homes for a broader demographic is commended.	N/A
The panel encourages the design team to aim high, aspiring toward an exemplar scheme that might deliver East Village as London's first neighbourhood that is free from private cars?	Only blue badge parking will be provided per statutory requirements.
Public realm and landscaping – East Village	
Redesigning the existing 'oversized Olympic' public realm, to provide welcoming spaces, pedestrian friendly streets with a residential character – more trees and greening – and active frontages is commended.	N/A
The early inclusion of a landscape architect is crucial, to ensure that the landscape and public realm is fully interwoven into the East Village N16 and N18 / N19 schemes. The panel requests further details on the brief for the proposed competition and would welcome the opportunity to comment on the early design proposals.	Grant Associates appointed as landscape architect in next stage of design
The redesign of Victory Park, to provide a more engaging and flexible green open space for people to gather and linger at the heart of East Village is also supported.	N/A
Consideration afforded the wider public realm is commended, in particular, the priority given to pedestrian and cycle routes and the linking of green spaces. The panel feels that this is integral to the success of the scheme, connecting East Village to the Queen Elizabeth Olympic Park and beyond.	N/A
Legible pedestrian connectivity – extending beyond the red lines of the N16 and N18 / N19 sites – will contribute to good placemaking. Key routes identified, include: east west from Mirabelle Gardens to the Wetlands – via Ribbons Walk through the new Fashion Square and Victory Park; and south, to the Stratford rail and DLR stations.	This will be studied as part of the masterplan project.
An additional connection to the UAL College of Fashion, East Bank – via the international rail station – should also be considered.	Improving connections within the ownership boundary will be considered.

QRP Nr1 Comments	Design Team Response
The priority that will be afforded cyclists and key cycling routes is also commended. Might Dutch-style roundabouts be considered, to support the priority of cyclists and pedestrians above vehicles?	Safe mixing of pedestrians, cycles and vehicles will be considered, alongside the wider proposals for the public realm.
As noted above, the panel encourages the design team to aspire to designing East Village as London's first neighbourhood that is free from private cars.	Private cars will be required for blue badge parking; all others will be minimized or eliminated where feasible.
The new public open space for Plot N16 – Fashion Square – on the north perimeter of the site has the potential to be very successful in linking the east west pedestrian route.	This will be explored as part of the N16 and public realm projects.
Scale and massing	
In general, the panel considers the proposed scale and massing to be moving in the right direction. However, further details will be needed, to enable the panel to comment fully on the required high quality of the architecture to meet the criteria of policy BN.5 for tall buildings.	Details to be provided as the design develops.
The retention of both the gross floor area and the gross external area – as per the consented scheme – are welcomed. The design team's efforts to create a more efficient plan, comprising 850 smaller units, is commended.	N/A
The panel looks forward to commenting on more detailed drawings of the plan and layout, to ensure that the required high quality of life is provided.	Details to be provided as the design develops.
The pair of towers – with their square plans – work well together in townscape terms. The panel also likes the symmetrical layout / plan of the towers on the site. It is keen to see how the treatment of the two façades evolves to further strengthen their relationship.	Details to be provided as the design develops.
The panel feels that the taller building is suited to the park edge location and considers that the differing heights work well, acknowledging the asymmetrical relationship between the plot and Victory Park.	N/A
While the square plan of the tall buildings ensures sunlight reaches Victory Park, there is inevitable overshadowing from the towers at times throughout the course of the day.	Design team to work with a daylight consultant to understand the impact of overshadowing.
The height of the shoulder blocks is of greater concern. It is crucial that their height is no taller than that of the existing shoulder blocks around the perimeter of Victory Park. The panel notes that the height of the shoulders, to the south of Victory Park, match the height of their neighbours and suggests that this height could be 'continued around the block', to express a clear datum.	Design team to test options to accommodate this comment.

QRP Nr1 Comments	Design Team Response
While acknowledging the early stage of the designs, the panel feels that a second 'human scale' datum could also be included, to provide more articulation to the tower volumes.	Design team to explore this option further.
The panel recommends that the massing be adjusted by 'breaking the shoulders away from the towers on the south east'. This has the potential to refine the scheme by increasing the number of dual aspect units and bringing more daylight / sunlight into the central route.	Design team to explore this option further.
Public realm and landscaping – the central route	
The panel commends the design team's exploration of options for the central route. It welcomes the generosity that the 'greeted by green' concept affords the public realm. The ramped landscape has the potential to provide a distinctive public open space – a fully accessible path meandering through the landscape. This promises to deal effectively with the level change, while enabling a direct and legible route with clear views from Station Square to Victory Park, and beyond to the velodrome.	Details to be provided as the design develops.
As noted above, it is crucial that a landscape architect be appointed as early as possible, to ensure that the landscape and public realm are fully interwoven into the scheme.	Grant Associates appointed as landscape architect in next stage of design.
The panel wonders if the units facing onto the central route might reflect the 'softness' of the landscape in their materiality and architectural expression, while the units located on the exterior of the towers might have a complementary treatment?	Design team to explore this option further.
The panel is also interested to see how the landscaping of the central route relates to the garden bridge.	Details to be provided as the design develops.
Plan, layout and use	
It considers that it is worth exploring separation of the shoulders – in particular on the south east – from the towers. This might help to reduce the number of single aspect units, and improve daylight / sunlight to the central route.	Design team to explore this option further.
Alternatively, moving the cores to the centre of the shoulder blocks (rather than in the corner of the towers) could also increase the number of dual aspect units.	Design team to explore this option further.
Another option could be the inclusion of bay windows or indents in the façades, to enable more light into the units.	Design team to explore this option further.

QRP Nr1 Comments	Design Team Response
The panel questions if all the units will be naturally ventilated?	Details to be provided as the design develops.
Generous floor to ceiling heights are encouraged, to provide flexibility for alternative future uses.	Details to be provided as the design develops.
The provision of generous balconies – in particular for the smaller units – and the investigation into a solarium are welcomed, as is the provision of daylight into circulation spaces.	Details to be provided as the design develops.
Amenity spaces	
Might shared amenity spaces – for example, a tool library; a laundry – be considered, to provide additional opportunities for residents to meet informally?	Design team to explore this option further.
Car parking and servicing	
The panel is concerned that Anthem Way is too vehicle focussed with its provision of car parking, the servicing / deliveries zone and an entrance to the underground car parking.	Design team to explore this option further.
Consideration should be given to the removal of motorised vehicles from Anthem Way, or at least a reconfiguration of the right angle car parking, to provide a green non-motorised route for this key pedestrian and cycle thoroughfare. This would help to accommodate students walking and cycling to / from the UAL College of Fashion and residents travelling to / from the rail and DLR stations.	Design team will be developing a robust access and servicing strategy to be presented as the design develops.
The location of servicing and access / egress to underground car parking on Celebration Avenue is not ideal. Might the space along the south boundary of the site, adjacent to the DLR, provide an alternative solution?	Providing a bridge over the DLR is not feasible due to constructibility issues and concerns over health and safety; design team will consider alternative approaches.
Further thought is needed to determine the most effective means of servicing 850 homes. For example, has an assessment been made of the number of refuse vehicles and the time that it will take to complete each collection for the towers?	Design team will be developing a robust access and servicing strategy to be presented as the design develops.
Ideally refuse bins and the movements of refuse vehicles should be contained within the site if possible.	Design team will be developing a robust access and servicing strategy to be presented as the design develops.
Architectural expression	

QRP Nr1 Comments	Design Team Response
As noted above, the architectural expression of the units facing onto the central route could reflect the 'softness' of the landscape, while the units located on the exterior of the towers could have a complementary treatment.	Design team to explore this option further.
It is suggested that the size of the fenestrations, on each aspect, respond accordingly to the need to mitigate / absorb solar gain.	Design team to explore this option further.
Environmental sustainability	
The panel would encourage the design team to aim for Passivhaus standards for the residential units.	Design team will provide a robust sustainability strategy as the design develops.

QRP Nr2 Comments	Design Team Response
Scale and massing	
The panel welcomes the positive moves to the changes in the massing. The sculpting of the towers and the reduction in the height of the shoulder blocks has created two elegant towers that sit comfortably in the ground plane.	N/A
The increased distance between the N18 and N19 towers provides greater generosity to the pedestrian route cutting through the centre of the plan and a welcome improvement to the daylight / sunlight afforded the homes.	N/A
Public realm and landscaping	
The panel welcomes the inclusion of a landscape architect in the design team and looks forward to commenting on the detailed design of this key piece of public realm forming a green gateway from the DLR station to Victory Park, and beyond to the Queen Elizabeth Olympic Park.	Grant Associates appointed as landscape architect through the planning process.
The substantial level change, between the corner of Celebration Avenue and International Way and Victory Park, has been elegantly incorporated into the design through the provision of a basement lobby with trees and greening visible above and planting cascading over the building.	N/A
Further consideration should be given to the level of exposure in Station Square due to the openness of the south and east edges. The panel feels that existing adverse wind conditions in the 'oversized' Olympic public realm will likely be heightened, and mitigating this will be challenging with trees and planting.	The landscape architect will work closely with the wind consultant to identify areas which require mitigation to ensure comfort is optimised wherever possible.
The panel also has concerns regarding the exposure of the accessible route, especially the section pushed up to the east edge adjacent to Celebration Avenue, and wonders if the route would be better located centrally, where vulnerable people will be sheltered by the planting. Alternatively, rain gardens could be incorporated into Celebration Avenue to give both the route and the square an added sense of enclosure and protection.	The details of the route will be further developed by the landscape architect .
The function of the commercial ground floor units, around the remaining perimeter of Station Square, must be carefully tenanted to ensure that the two enclosed edges are activated and contribute positively to the pedestrian experience.	GHA to work with Get Living to develop a retail strategy.
The panel suggests that an area forming the social heart of the scheme should also be incorporated into the scheme, to deliver key concepts of the proposals such as sharing, lending and coworking.	Details to be provided as the design develops.

QRP Nr2 Comments	Design Team Response
There needs to be a better balance between the level of planting, provision of amenity space for residents and adequate areas of open space to accommodate larger public gatherings.	Details to be provided as the design develops.
It is crucial that ongoing microclimate and daylight / sunlight studies are undertaken to inform the landscape design, including the location of seating, and to assess the impact of the proposals on Victory Park.	The landscape architect will develop this further with the daylight consultant.
The panel urges the selection of species that will flourish in this environment and also provide seasonal delight.	Details to be provided as the design develops.
A generous contribution to the wider public realm is crucial, to mitigate the increase in the quantum of development that is sought. The panel welcomes any contribution that the applicant can make to support the Legacy Corporation's plans to improve Celebration Avenue including reducing the amount of carriageway and providing dedicated cycleways as well as additional trees and planting.	Get Living is seeking to refurbish Victory Park, the Belvedere and Anthems Way alongside the N18 and N19 planning application; areas outside the ownership boundary cannot be considered.
The proposed improvements to Victory Park, Belvedere and Anthem Way are beneficial. The panel encourages the design team to take advantage of the client's East Village audience to research residents' preferences for the public realm. For example, whether they would like to see a single generous, dedicated play area or the provision of incidental play.	Details to be provided as the design develops.
Play space	
Further details are required regarding the relocation and reorganisation of the existing Neighbourhood Equipped Area for Play (NEAP) within Victory Park, including the size, quality and character of the play area(s).	Details to be provided as the design develops.
The panel supports the concept of play embedded in the landscape, but it feels that a generous, high-quality play space, including seating for parents to socialise, will provide a welcome community space for existing and new families to gather.	Details to be provided as the design develops.
The panel highlights the potential to ensure that the play space caters to marginalised groups, such as teenage girls.	Details to be provided as the design develops.
Environmental sustainability	
The panel supports the design team's ambition to reach the targets of the RIBA 2030 Climate Challenge, but encourages higher aspirations beyond merely meeting the policy requirements of the London Plan and Part L of the Building Regulations. It would like to see stretch targets to meet the challenge that we will face in 25 years' time.	Design team will provide a robust sustainability strategy as the design develops.
The targeting of, for example, Passivhaus Standard certification will provide the necessary mechanism to achieve this ambition and will ensure that what has been designed is actually built. In addition, certification will provide a valuable marketing tool to differentiate the high quality of East Village homes from other developments.	Design team will provide a robust sustainability strategy as the design develops.
The panel has concerns that the height and spacing of the tall buildings may create downwash that could have an adverse effect on the surrounding open space. Ongoing and timely microclimate studies are crucial to allow sufficient time for evidence-based design development.	The design team will work closely with a wind consultant to identify and address any areas requiring mitigation.
The panel also emphasises the need to analyse the levels of daylight / sunlight within homes, especially for dwellings at the lower levels of the towers, to ensure that a good quality of life will be provided for residents.	The design team will work closely with a daylight consultant to test all apartment layouts and identify strategies for improvement where needed.
Further work is needed to reduce the number of single aspect units.	Design team to explore this option further.
The panel questions if all the units will be naturally ventilated.	Details to be provided as the design develops; initial design indicate all units will be naturally ventilated.
Drawings illustrating the design of the green roofs, biodiversity and the onsite generation of renewable energy are requested as the detailed design progresses.	Details to be provided as the design develops.
Plan and layout	
The panel is concerned that the plan and layout, resulting from the high number of studio and one bedroom homes, will not provide the required high quality of life for residents. Options for reducing the number of units per corridor and the number of single aspect units should be fully explored, and all units should have access to private amenity space.	Details on a high-quality residential experience will be developed and presented as a holistic approach. Proposal is for 100% of units to have LHDG compliant private amenity space.
Generous internal space, including floor to ceiling heights, are essential to provide the flexibility to accommodate alternative future uses and changing ways of living.	Design team to explore this option further.
The panel welcomes the consideration given to the plan and layout of the units, but it is concerned that the kitchens are located at the back of a very deep plan with work surfaces facing away from any natural light.	The design team will work closely with a daylight consultant to test all apartment layouts and identify strategies for improvement where needed.

QRP Nr2 Comments	Design Team Response
It supports the design team's ambition to design a new living experience to accommodate all stages of life and to enable residents to remain living in East Village. The client's East Village audience provides a valuable research resource that could help to establish fine-grained understanding of people's preferences and aspirations in a post-covid society.	Design team is working closely with Get Living to understand their existing and emerging community and how the design can best respond to their changing needs.
Important lessons should be learned from The Collective's failing during the pandemic, and the more successful The Bow Quarter.	Design team to consider how this may impact design development.
Entrance lobby	
The panel welcomes the proposed 'naturally sociable' ground floor lobby / cycle hub and feels that the focus on cycling has the potential to work well. It wonders if this could be extended to include, for example, a cycle café in the ground floor retail / commercial space, the hire of an array of bicycle types, a repair shop and/or a library of tools for self-repair.	Design team to explore this option further.
Adequate amenity space is essential to ensure the safety, comfort and inclusiveness of all residents and, potentially, the wider community. Further details and drawings are requested to demonstrate, for example, how cyclists wheeling a bicycle will navigate through young families and dogs in the shared lobby.	
Shared amenity	
The panel has concerns that the amount of shared amenity space is not sufficient for the number of people who will occupy approximately 850 homes. In addition to the provision of shoulder building rooftop gardens, additional amenity space could be provided at mid-height within each tower, to ensure that all residents have easy access to amenity within close proximity to their front door.	Details to be provided as the design develops.
Private amenity	
It is crucial that all units enjoy good-quality private amenity space and the panel would like to see how the three balcony types – inset, projecting, solarium – are developed in response to orientation of the elevations.	This is in line with our approach; to optimize the type of amenity space according to its aspect and microcllimate.
Architectural expression and materiality	
Dynamic façade design, that responds to orientation to mitigate / absorb solar gain, has the potential to be very successful. The panel would like to see further detail on the architectural expression and materiality as the design development progresses.	Details to be provided as the design develops.

QRP Nr2 Comments	Design Team Response
Car parking and servicing	
Details regarding servicing / delivery zones and access to blue badge car parking are required.	Details to be provided as the design develops.

QRP Nr3 Comments	Design Team Response
Architecture and sustainability	
The scheme is notable for its sustainability strategy, which is integral to many aspects of the design approach.	N/A
The building massing minimises surface-area to reduce heat loss, providing an energy efficient 'form factor'. However, it also results in a high proportion of single aspect flats, and every effort should be made to maximise dual aspect.	Unlike most form efficient towers that have 50% dual aspect, the double diamond tower shape results in 60% dual aspect; Shoulder blocks have been optimised to balance form factor with dual aspect; overall scheme has the same amount of dual aspect as the 2014 RMA but with a significantly improved form factor.
The panel supports the decision to vary the proportion of window to wall in different areas of the façades, in response to orientation and height, to optimise thermal performance and daylighting. It would be interested to see the technical analysis that has informed this process.	Technical information on the impact of overheating, wind and daylight sunlight will be provided alongside the cumulative impact it has on the architecture.
It also welcomes the variety of balconies and solariums proposed. This will give choice to potential residents, add interest to the façades, and provide shading of windows, and shelter from wind where needed.	N/A
The window designs incorporate fixed glazing, and louvred ventilation, which as well as maximising clear views, will improve safety for families with small children.	N/A
The panel would like to see further refinement of the window designs, and their louvred panels, to minimise the use of aluminium. Lower carbon materials could be considered, such as Accoya, a highly durable wood.	These suggestions will be considered, however Accoya is not permitted under fire legislation and composite windows do not meet the required performance criteria for this building.
Lightweight precast concrete sandwich panels are being explored as the primary façade material. The panel feels this would be positive because of their low embodied carbon.	N/A
The panel understands that there is an obligation for the buildings to be connected to the LLDC's district heat and power network – and that this makes it very challenging to achieve Passivhaus certification. Never-the-less, it would encourage design to Passivhaus standards, which would avoid ambiguity in sustainability performance, and allow future accreditation once the energy supply is decarbonised. For example, double glazing is currently proposed, and triple glazing would be needed to achieve Passivhaus standards.	Design team to further demonstrate how Passivhaus principles are being implemented where possible; triple glazing is not currently being considered as testing indicates it does not significantly improve thermal performance.

QRP Nr3 Comments	Design Team Response
At application stage it will be essential that sustainability targets are translated into firm commitments, with planning conditions to secure these.	Details to be provided as the design develops and will be included in the application.
Landscape and inclusive design	
The panel is broadly supportive of the landscape design proposals, welcoming the rich planting palette, and the aim to create an immersive garden experience.	N/A
Whilst the panel is broadly supportive of the landscape design, it asks for continuing work to ensure that people who are unable to negotiate steps have the same quality of experience as others.	Inclusive principles will continue to be employed throughout the landscape design; the access consultant will also review and provide advice on inclusive strategies.
It understands the team have extensively tested ways in which a ramped route through the centre of the site could be achieved, and have concluded that this is not possible. As a result, the proposal currently shows part of the step free route along Celebration Avenue. If this is the case, the panel asks that high quality street planting is introduced, to achieve an experience that matches routes through the centre of the site.	Details to be provided as the design develops.
The 1 in 21 ramped route will need landings with seating to provide opportunities for people to rest.	Details to be provided as the design develops.
The panel also encourages consideration of a public lift within one of the buildings, to provide improved universal access. Some people will struggle with a ramped route of the length required for the 5m level change.	A public lift is not desirable as it can introduce anti-social behaviour, often break down and can be subject to abuse. Landscape architects are working closely with the access consultant to develop a lift-free strategy that will be comfortable and safe for those with mobility challenges.
The risk that cyclists will use the ramped routes, causing conflicts with pedestrians should be carefully considered. Changes in surface materials and signage could help avoid this. Introducing a planter to the north of the open space where it meets Victory Park, could be one way of signalling that cyclists should slow down.	Details to be provided as the design develops.

QRP Nr3 Comments	Design Team Response
Further information on how the planting supports biodiversity and achieves the required Urban Greening Factor would be welcomed.	Introducing a planter to the north of the open space where it meets Victory Park, could be one way of signalling that cyclists should slow down.
The gated maintenance access route required to the south of the site adjacent to the railway may be an opportunity to introduce more planting.	Landscape architect to consider strategies to provide planting without hindering access to plant rooms or means of escape routes.
The panel would also like to see the analysis of microclimate, to be assured that the wind conditions and shading resulting from the tall buildings have been optimised.	Design team is working with a daylight consultant and wind consultant to test the impact of the buildings and provide mitigation where needed.
Communal spaces	
With the density of residential development proposed for this site, the attention paid to making every-day activities pleasurable and easy is welcomed.	Design team will consider this as part of the shared amenity strategy.
The station and park levels of the building include resident lounges, library, event space and a dog wash. However, the panel asks if the space allowance of 1.5 m sq shared amenity space per unit could be more generous?	The allowance has been benchmarked against comparable schemes and has been found to be appropriate for the scale of the building. Further details will be provided.
The expressive use of concrete in the communal living room at station level, promises to create a characterful space. There may be scope to extend this character to communal areas at park level.	Design team to explore this option further.
The presentation included concept images of biophilic design and the extended home. The panel looks forward to seeing these translated into the scheme.	Details to be provided as the design develops.
Play facilities were only briefly described, and the panel would like a more detailed presentation on this at the next review.	Details to be provided as the design develops.
Residential layouts	
Detailed residential layouts were not included in the presentation, but the highlights some issues that it would like to know more about at the next review.	Details to be provided as the design develops.
The panel highlights the need to define the number of accessible and adaptable units, and show where these will be provided.	10% of units will be adaptable. Design team is working with the access consultant to ensure a high quality residential experience for all. Details to be provided as the design develops.
A robust fire escape strategy will be essential for a scheme proposing two residential tall buildings.	This is under review and details will be provided as the design develops.
Practicalities such as how residents of upper units access bin stores to dispose of refuse and recycling will be important to resolve.	Refuse chutes for both recycling and waste will be provided and easily accessible on every residential floor. Further details to be provided.

QRP Nr4 Comments	Design Team Response
The panel finds much to admire in the development of the building's façades and it commends the consideration that the design team has given to microclimate optimisation for each elevation, based on orientation.	n/a
It likes the generosity of the crowns of the buildings. Their simple, yet distinctive design, will be recognisable from a distance and will help to guide people to Stratford International and the DLR station.	n/a
The materiality is moving in the right direction and the panel supports the design team's use of textured panels made from lightweight precast concrete. It feels that the irregular vertical pattern would work well, complementing the tactile quality of the hard landscape.	n/a
The panel welcomes any further improvements that can be made to break up the 'squareness' of the shoulder buildings' elevations, and to impart some of the lively quality of the tower block elevations to them.	The base of the towers has a more open expression due to the use of inset balconies, this is a conscious move to keep them distinct from the shoulder 'mansion blocks', which have projecting balconies. This gives some variety to the park facing elevation. The façade treatment on the shoulder buildings does vary more around the buildings, in places being more open and similar to the towers – largely resulting from the varying types of amenity space.
As noted in the previous report, the panel would like to see further refinement of the window designs, and their louvred panels, to minimise the use of aluminium. Lower carbon materials could be considered, such as Accoya, a highly durable wood.	These suggestions have been considered, however Accoya is not permitted under fire legislation and composite windows do not meet the required performance criteria for this building.
The projecting balconies, above the park level retail units, are positioned at a comfortable height.	n/a
The panel likes the elegant elevation of N18, fronting onto Celebration Avenue. It welcomes the building's improved relationship with the avenue, but suggests that this could be enhanced for pedestrians if the width of the pavement is retained as one continuous surface, along the full length of the building, with a shared surface used to demarcate the layby.	Shared surface option would be an improvement. The landscape architects will make best efforts to achieve this with the transport and the requirements of Newham.

QRP Nr4 Comments	Design Team Response
The panel urges the design team to plant an additional tree along the avenue, to the south of the layby.	This can be further explored but cannot conflict with the existing pedestrian crossing.
The panel is supportive of the landscape design proposals, welcoming the rich planting palette, and the aim to create an immersive garden experience.	n/a
The panel welcomes the design team's ambition to incorporate a feature tree in the internal entrance level courtyard, with its canopy extending through an opening, into the open air of the Park Level Plaza above. However, further thought must be given to the species of the tree and to how it will be watered, to ensure that it will thrive.	
Consideration must also be given to how it will appear through all seasons and the impact that it will have on the amount of light allowed into the entrance area.	
The panel supports the design team's decision to designate The Gateway as a pedestrian only area. It suggests that this be reinforced by additional planting at the Victory Park end, to deter cyclists from using the ramp.	
The panel suggests that a backup plan should be put in place, in the event that the tree does not survive.	The courtyard will include some low level planting that can be retained and enhanced should the tree not survive.
Consideration must be given to microclimate analysis, given that the tree line on Celebration Avenue does not extend its full length, but stops adjacent to the south end of plot N18.	This will be further considered but cannot impede the existing pedestrian crossing.
The panel welcomes the provision of the Garden Lounge, to the northwest of plot N19. The doorstep play and informal seating makes good use of the area formerly accommodating the Neighbourhood Equipped Area of Play.	
Noting the underground constraints in the area, the panel still feels that the Garden Lounge area would benefit from further greening and notes that this may help to increase the Urban Greening Factor.	
Additionally, detailed drawings are requested, to show the sustainable urban drainage system, and the relationship between the Garden Lounge and the cycle route.	
Details should be provided on the biodiversity net gain of the site, including support mechanisms put in place for creatures such as bats and bees.	

QRP Nr4 Comments	Design Team Response
The panel suggests that the gate to the maintenance access route, on the south side of N19 adjacent to the railway, should be moved forward, to improve security.	This will be considered as details develop in the next stage of design.
The specification of high-quality materials and careful detailed design for the interiors is crucial, to ensure that what is delivered meets the aspiration illustrated in the visual drawings.	This will be considered as details develop in the next stage of design, however the current arrangement compares favourably with similar developments in providing the majority of residents with a generous view/ daylight access into the journey to the apartment door.
The panel likes the residents' entrance sequence, with the landscaped arrival from the street and the layout and sequencing to accommodate pedestrians and cyclists.	This will be considered further
The provision of a cycle hub, beyond merely storage, is welcome. The panel feels that the amount of space allocated to cargo bike parking will need to increase, given their growing popularity. It suggests that consideration could be given to a carpool for cargo bikes.	This will be considered as details develop in the next stage of design.
The panel welcomes any further improvements that can be made to increase the amount of daylight penetrating the internal corridors.	This will be considered as details develop in the next stage of design.
Similarly, any further improvements to the design of the inside corner units, on the lower levels of block N18, and to the sequencing of the block's south facing units, to avoid access via the bedroom, is welcome.	
Consideration should be given to how the evacuation of the accessible units will be managed.	In line with London Plan, evacuation lifts and a place of refuge are provided. A communication system will be implemented by Get Living. This will be considered as details develop in the next stage of design.
The positioning and legibility of wayfinding and retail signage should also be considered.	This will be developed closely with Get Living to ensure the signage strategy aligns with what is currently offered in the Village, but detailed to work with the particulars of the N18 and N19 façade.
The panel supports the design team's commitment to low carbon design. At planning application stage, it will be essential that sustainability targets are translated into firm commitments, in line with the fast-paced change in environmental sustainability standards.	This will be included in the planning application.

QRP Nr4 Comments	Design Team Response
The panel welcomes the inclusion of skylights, to increase the natural daylight into the residential entrance lobby and the cycle hub. Daylight studies should be undertaken, to confirm that the quality of daylight meets the aspiration illustrated in the drawings.	The daylight consultant will be engaged to test the space.
The panel considers that the proposals will meet the requirements of Local Plan Policy BN.5, if the comments for further refinements in this report area addressed, in consultation with planning officers, and if high-quality materials are specified and careful detailed design is carried through to construction.	Noted.
The panel is available to review any aspects of Plot N18 and N19, post submission, that the planning officers consider would benefit from a Chair's review.	We appreciate this offer and are always open to further design dialogue. Any future engagements will be agreed by the project team and LLDC.

1.14 LFB Consultation

Both N18 and N19 are classified as tall buildings as they are taller than 50m above Ground level. As part of the Qualitative Design Review (QDR) an initial meeting attended by the Client, Building Control, Architect, Project Manager and Fire Consultant was held on 4 May 2022. A second meeting introduced the LFB Fire Engineering Group to the scheme on 7 July 2022.

At this meeting, the design team presented the emerging design in response to emerging fire safety legislation (Draft BS 9991). The scheme comprises a wide range of fire safety measures to provide resilience to the strategy, and the additional level of protection can be summarised in the following key points:

- Each tower is accessed by two stairs of which one stair forms part of the firefighting shaft whilst the other is an escape stair.
- All lifts accessing the tower levels can be either firefighting lifts or evacuation lifts i.e. can be designated from one use to another.
- A protected smoke-ventilated lobby is created in front of the lifts and firefighting stairs to facilitate enhanced safety for the firefighters accessing the floor to fight a fire in the apartment as well as creating a safe refuge space for the evacuation of any residents who rely on the lift for evacuation.
- The basement stair is strictly separated from the stairs accessing the residential levels.
- All stairs are provided with a separate final exit corridor to the outside.
- An evacuation alert system can form part of the evacuation strategy. In the case of fire an alarm system can be activated in all apartments or apartments adjacent at the discretion of the fire officer in charge.

The LFB's initial comments during the meeting were generally positive in recognition of the wide range of additional safety measures planned to be put in place in the scheme.

LFB Comments	Design Team Response
Due to the height of buildings, the LFB may consider the issue of an 'Alteration Notice'. This notice requires the building owner and person(s) in charge of maintenance and management to notify the enforcing authority of any future changes to the building that may affect the fire safety provisions.	Noted.
Fire brigade access: the provision and maintenance of sufficiently wide enough access corridors are required for the fire engines to allow good movement around a parked fire engine. Details of traffic management measures (bollards) in the landscape are to be considered as the design progresses.	Noted.
Car parking: the projected increase of electrical cars may increase the complexity and amount of fire load. The design team to consider how this is mitigated.	Noted.
It is anticipated that the amount of E-bikes users increase in the future. The safety provision in the bike storage is to be considered.	Noted.
The design team is to consider the failure of sprinklers and smoke extraction as critical safety systems.	Noted.
CFD modelling for smoke ventilation in residential corridors: the LFB's input and comment on the scoping for the analysis and an identification of the apartments considered most at risk is welcomed by the design team.	Noted.
Apartments that are accessed along the short communal corridors (less than 7.5m in length) without smoke extraction were noted to follow BS9991 guidance. Further comments will be provided by the LFB on this point.	The corridor and smoke venting strategy is code compliant and there is no further requirement for additional smoke venting. The arrangement of a non smoke vented corridor leading into a smoke vented stair lobby is specifically shown in guidance in the Approved Document B vol 1 and BS9991 (both the current and Draft update).
Fire signage, to be clear and logical especially in relation to the access doors as these are all separated it must be clear where each of the doors leads gives access to.	Noted.

2.0
Site Context

2.1 Local Context

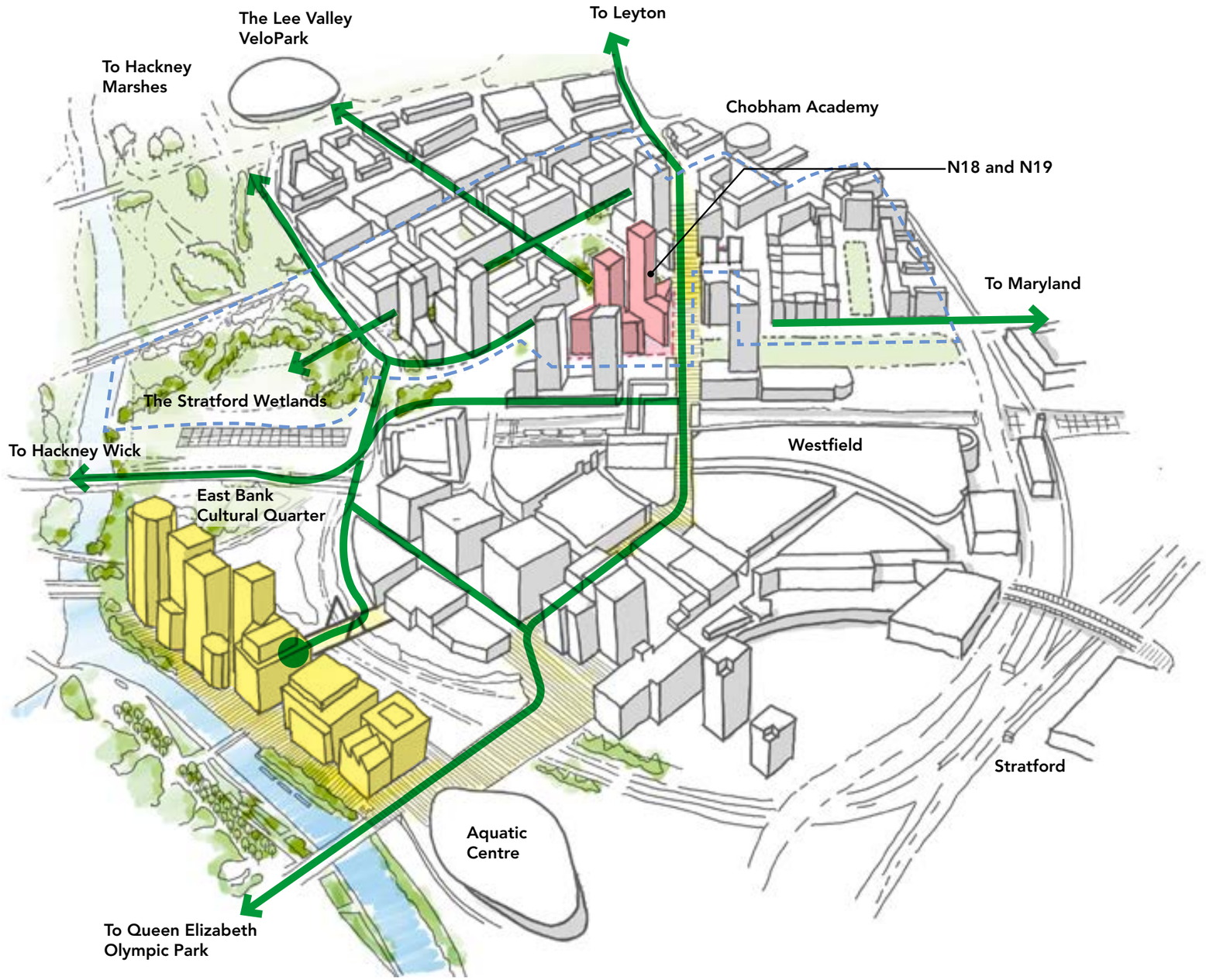
East Village sits at the heart of several existing communities and local assets within the London Borough of Newham. Pedestrian and cycle routes connect East Village to Stratford, Maryland, Leyton and Hackney. Residents from existing neighbourhoods conveniently enjoy many of East Village's assets, so enhancing these wider connections benefits these communities along with the residents of East Village. East Village also benefits from the footfall generated by events at The Lee Valley VeloPark and the London Stadium.

These wider connections have influenced how the public realm ties into the wider context. Consideration has been given to:

– Improving pedestrian and cycling connections to surrounding amenities and areas of interest – including the Wetlands, Queen Elizabeth Olympic Park (QEOP), the East Bank Cultural Quarter, the Velodrome, Hackney, Stratford and the Olympic Park facilities.

– Inviting the local communities into the Village to use the open space and visit the cafés and retailers.

– Improving the green space in East Village to enhance and expand it as its greatest asset.



Key

- East Village Ownership Boundary
- Pedestrian/Cycle link
- East Bank Cultural Quarter
- N18 and N19

Fig.21 Connectivity Diagram

2.2 Existing Context

Assets

East Village and N18 and N19 benefit from:

- Excellent public transport links such as Docklands Light Rail; Stratford International Station; Central and Jubilee London Underground Lines; London Overground and National Rail services and numerous bus stops. The PTAL rating of N18 and N19 is 6b, the highest rating available.
- Recently completed high quality communities at N06 and Manhattan Loft Gardens (MLG), both neighbours to N18 and N19. Delivered by Get Living, N06 offers 524 high quality PRS units with abundant shared amenity. MLG includes private apartments, a luxury hotel and a Michelin star restaurant. Whilst MLG is designated to be the tallest building in the SC OPP area, N18 and N19 will be slightly taller than N06 in line with the townscape strategy.
- Nearly completed, Chobham Manor is a low rise residential community to the north of East Village. Phases 1–3 are complete. It will deliver 880 private homes.
- A wide range of ecological parkland and leisure spaces including Queen Elizabeth Olympic Park (QEOP), the much loved 560 acre park that hugs the Lea Valley. Just next to it is East Village's ecological asset, the Stratford Wetlands.
- A number of world class sporting venues originally built for the former Olympic venues including The ArcelorMittal Orbit, London Stadium and Lee Valley VeloPark.
- Proximity to Westfield Stratford City.
- Health and education facilities such as the Sir Ludwig Guttmann Health and Wellbeing Centre and Chobham Academy.

Challenges

The buildings and infrastructure for the Westfield Stratford City create unintuitive options for walking or cycling from Stratford Station to East Village. The most direct route is through the shopping centre but it is difficult to navigate with poor signage and a counter-intuitive route. Despite this challenge, the Stratford International DLR, which is adjacent to N18 and N19, is a key opportunity to better integrate existing transit infrastructure into the public realm and character of the Village.

1 Manhattan Loft Gardens

2 Plot N06

3 Chobham Manor

4 Queen Elizabeth Olympic Park

5 Stratford Wetlands

6 The Lee Valley VeloPark

7 Westfield Stratford City

8 Chobham Academy

9 Sir Ludwig Guttmann Health & Wellbeing Centre

2.3 Emerging Context

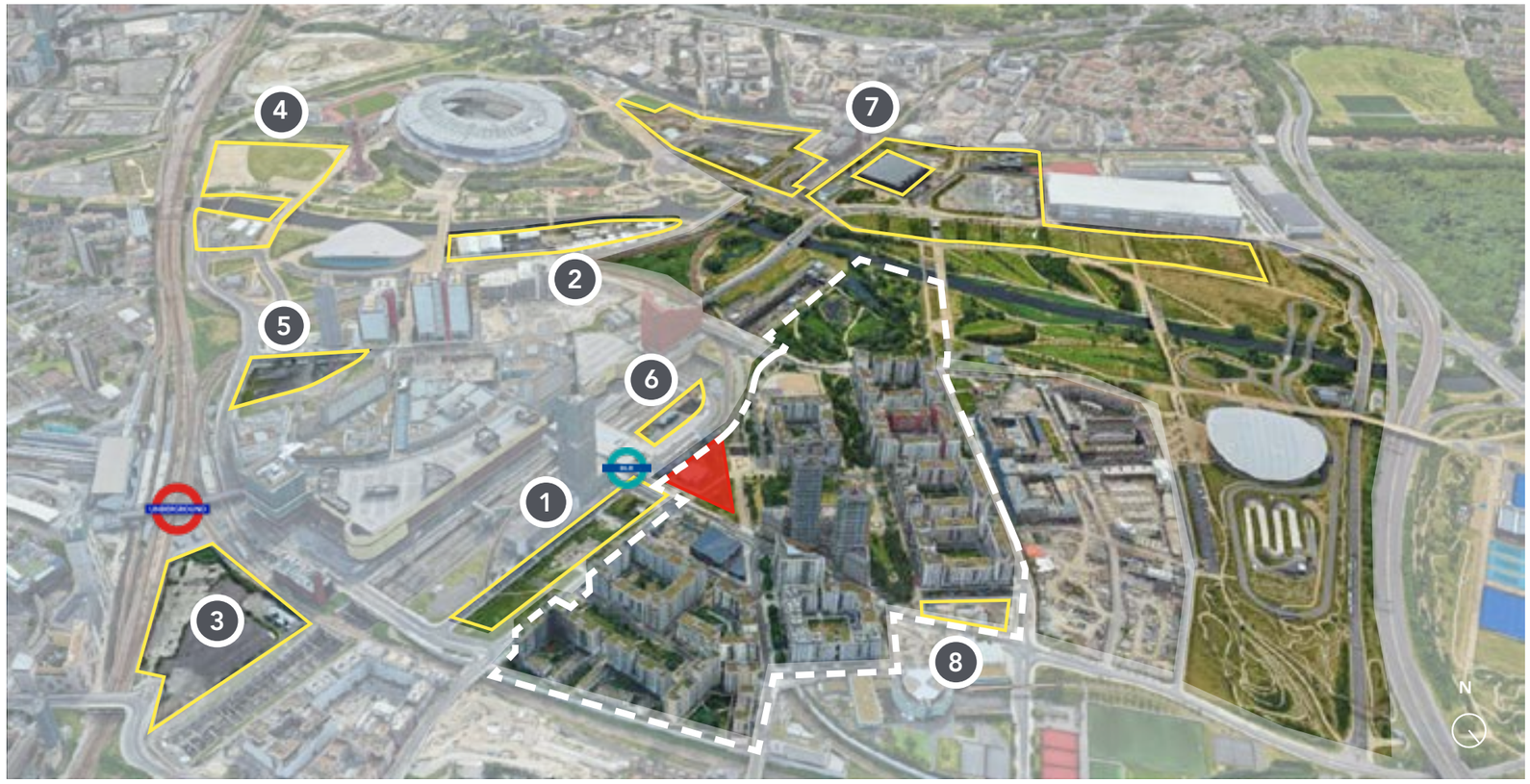
New Cultural and Educational Buildings

East Bank Cultural Quarter brings highly renowned institutions, including the Victoria and Albert Museum, Sadler Wells, BBC Music and the University of the Arts London College of Fashion, to their new home in Stratford. Additionally, the MSG sphere, a 21,000 seat indoor entertainment venue, has resolution to grant permission (subject to signing of the S106) and will further promote Stratford as an entertainment hub in East London. A new UCL east campus, that includes student accommodation, is near completion.

Residential and Commercial Development

Emerging residential and commercial development will expand the population around East Village. The new communities of East Wick and Sweetwater cumulatively provide around 1,900 new homes along with Cherry Park which will bring another 1,224. Part of East Village, N05 will deliver 48 affordable units and Telford Homes, just south of N18 and N19, another 380. Plot N16, submitted in a separate application, will bring approximately 500 student rooms to the Village.

Adjacent to N18 and N19 is International Quarter London (IQL) North, currently approved for outline planning. IQL North has insufficient commercial floorspace remaining under the SC OPP to be built out to parameters and is expected to come forward for a residential-led mixed-use development. IQL South is partially completed and will provide the main commercial office district and residential development.



Commercial
Outline planning approved

Part of SC OPP; RMA approved for one plot, not yet implemented; adjacent to N18 and N19

1 IQL North

Cultural and Educational
In construction

V&A museum, Sadler Wells, BBC Music, UAL College of Fashion, UCL

2 East Bank Cultural Quarter

Entertainment and commercial
Resolution to grant planning permission (subject to S106)

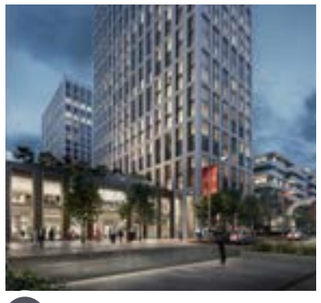
21,500 person capacity

3 Madison Square Garden Sphere

New educational campus including student accommodation
In construction

Expected completion 2022

4 University College London



Residential
In construction

1,224 units; PRS

Expected completion 2023

5 Cherry Park

Residential
Approved in 2022

380 units; PRS and affordable

Expected completion 2025

6 Telford Homes

Residential
In construction

1,900 units; mixed tenure and community facilities

Delivered in several phases

7 Sweetwater and East Wick

Residential
In construction

48 affordable units

8 Plot N05

2.4 Site Analysis

Overview

The existing site is currently occupied by a single storey temporary building and coffee kiosk, both which will be removed in preparation for site works. The forecourt to the building includes steps and a sloped pathway that are heavily used by residents to navigate the five metre level change up to Victory Park and surrounding buildings.

The following provides a summary of the key opportunities and constraints of the site as evaluated by the design team.

Opportunities

- Proximity to Transport – Site is well positioned to the DLR, International Station and several bus routes. The Central Line, Jubilee Line and Overground are a short walk away (PTAL 6b).
- DLR station square – A new square can provide spill-out from the station whilst also hosting retail and a new landscaped gateway up to Victory Park.
- Opportunity for two landmark buildings as described by the ZMP.
- Excellent aspect from the new building with views to Victory Park, the City and surrounding parkland.

Constraints

- The building falls within the viewing corridor from King Henry's Mound in Richmond to St. Paul's Cathedral. Verified views are required to assess any impact.
- The existing DLR station and platform run along the South edge of the site requiring coordination with TfL.
- Similarly, the edge of the site facing Victory Park runs alongside the High Meads Loop Enclosure (HMLE). This will require any associated subterranean structure to be carefully coordinated with the HMLE.
- There is a five metre level change from Celebration Avenue up to Victory Park. This creates a challenging condition and will require a detailed strategy to ensure access is inclusive and easy to navigate.

Key

- Future Active Frontage
- Existing Active Frontage
- Rail Line (Uncovered)
- Rail Line (Covered)

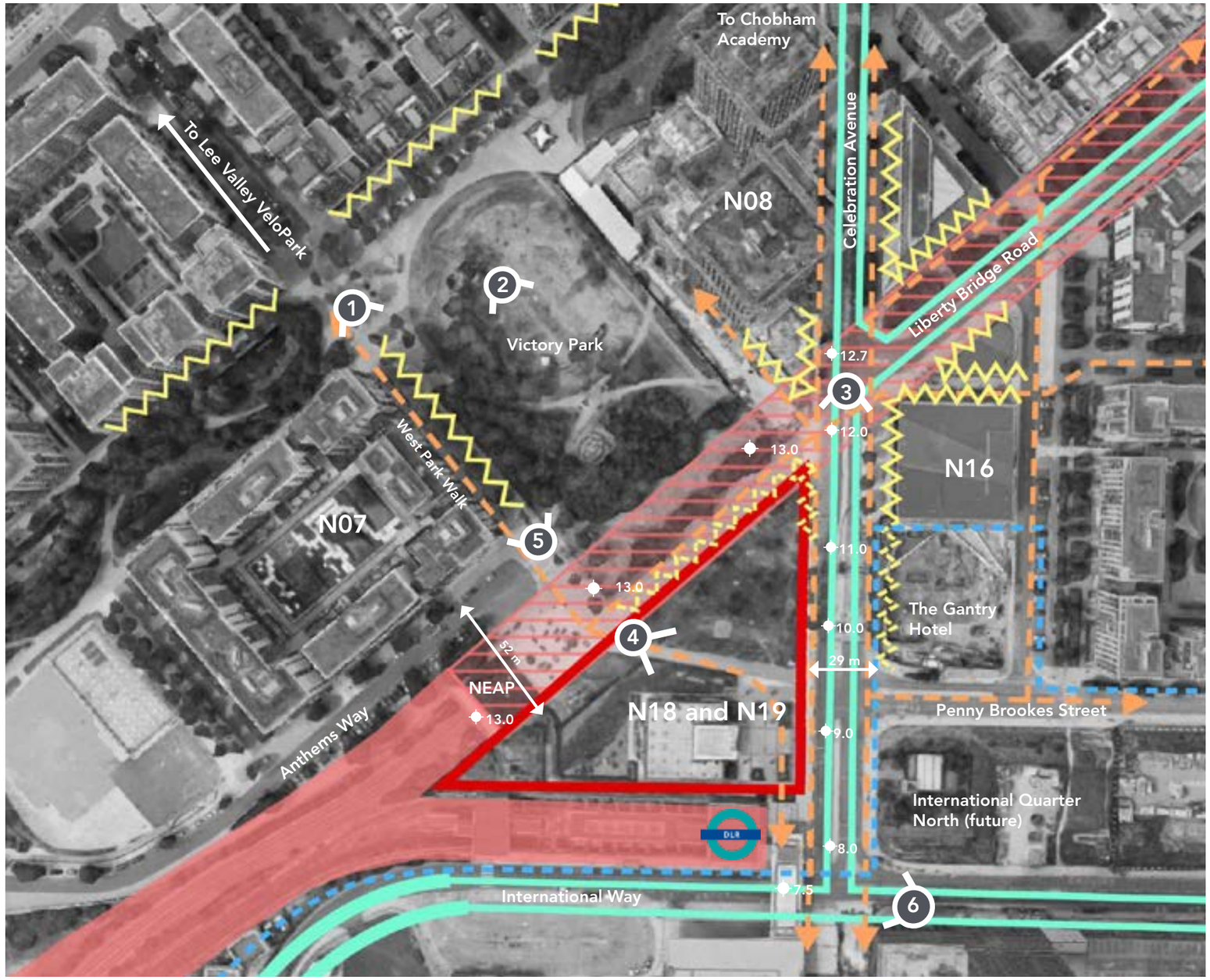


Fig.22 Existing Site

2.5 Site Analysis

Heights and Massing

The height strategy for East Village as set out in the outline plan is primarily mansion block height buildings (about eleven storeys) with a gradual increase to the southeast corner of the site, culminating with Manhattan Loft Gardens as the tallest building. N18 and N19 reflects these principle and respects the maximum heights assigned by the parameters of the SC OPP/ZMP and the principles of the subsequent 2014 RMA. The shoulder buildings of the tall blocks also create a clear townscape relationship with the adjacent mansion blocks.

Key Views

The SC OPP identifies the view from N18 and N19 to the Lee Valley VeloPark (Image 5) as a key view within the masterplan. The view from the VeloPark back to N18 and N19 is considered as equally important given the impressive view of Manhattan Loft Gardens (Image 1) which signals an instinctive pedestrian route toward Stratford International Station. Long, impressive skyline views from across the park (View 2) are enhanced by the proposed massing.

International Way

This road is identified as a primary route in the SC OPP. However, it is burdened by two large, overlapping canopies at the DLR and International Stations (View 6). Whilst this road and the junction at Celebration Avenue is outside of the East Village ownership boundary, it overlaps with a key corner of the N18 and N19 site.

Celebration Avenue

Celebration Avenue is also identified as a primary route in the SC OPP and is the main thoroughfare of the Village today. It has significant daily footfall, as residents travel to and from work, and is activated by retail, including Sainsbury's and local restaurants (View 3). The road presents an opportunity for N18 and N19 to balance vehicular access to the new building with a safe and enjoyable journey up the sloped footpath toward Victory Park.

1 Key View – Victory Park toward N18 and N19

2 View from Victory Park toward N18 and N19

3 View from Liberty Bridge Road looking South on Celebration Avenue

4 View from N18 and N19 and level change through the site

5 Key View – N18 and N19 to Lee Valley VeloPark

6 View from International Way looking toward N18 and N19

3.0
Masterplan Response

3.1 SC OPP Design Principles

Overview of the Principles of the ZMP

The Zonal Masterplan for Zone 3–6: Design Statement (12 October 2007) – ZMP – and the subsequent Design Statement Addendum (May 2010) and ZMP Plans set out the Key Design Principles that define Plot N18 and N19 and are summarized on the following pages. The ZMP and subsequent Addendum was approved pursuant to the SC OPP. All RMA's need to demonstrate how they conform with the principles of the SC OPP and SCMP parameters and principles set out in the ZMP.

Building Height Principles of the ZMP

The adjacent diagrams are extracted from the ZMP and provide clear parameters to inform principles established for N18 and N19 and the surrounding plots. These inform proposed design solutions for locations of tall (landmark) buildings and how mass and height is intended to be distributed per the ZMP.

Fig.23 **Proposal with townscape arch**

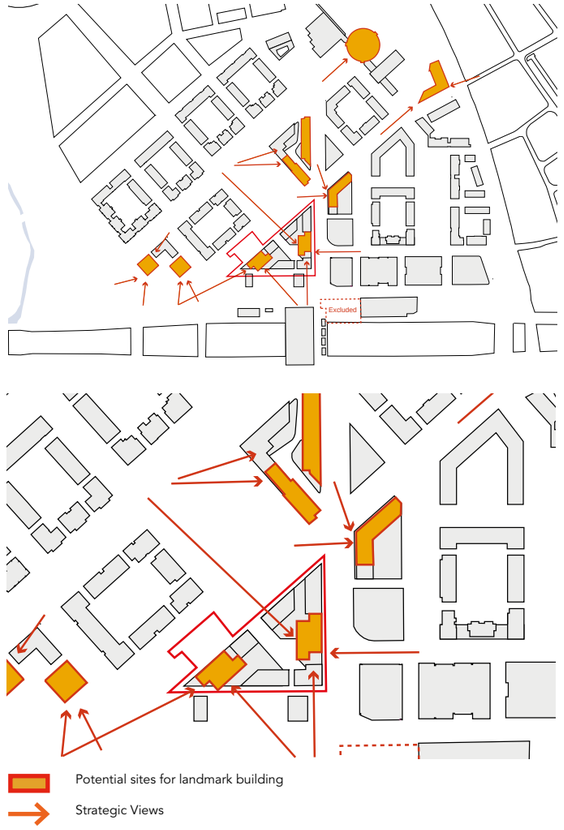
The diagrams on the following two pages include extracts from the Zonal Masterplan for Zone 3–6: Design Statement (12 October 2007) – ZMP – and the subsequent Design Statement Addendum (May 2010). The diagrams demonstrate some of the masterplan principles of the SC OPP. Parameter compliance can be found in section 3.2 and 3.4.

Building Heights Principle Plan

Two tall buildings, one up to 30 storeys and one up to 50 storeys, are permitted on the site. Surrounding shoulder blocks of up to 15 storeys are allowed.

N18 and N19 Proposed Response

Whilst two tall buildings (34 and 39 storeys tall) are proposed, their location varies from these diagrams and is more akin to the logic set out in the 2014 Consented scheme. This proposal has been rigorously reviewed and accepted as part of a design led process with LLDC. Further information can be found in sections 3.4 and 3.6.

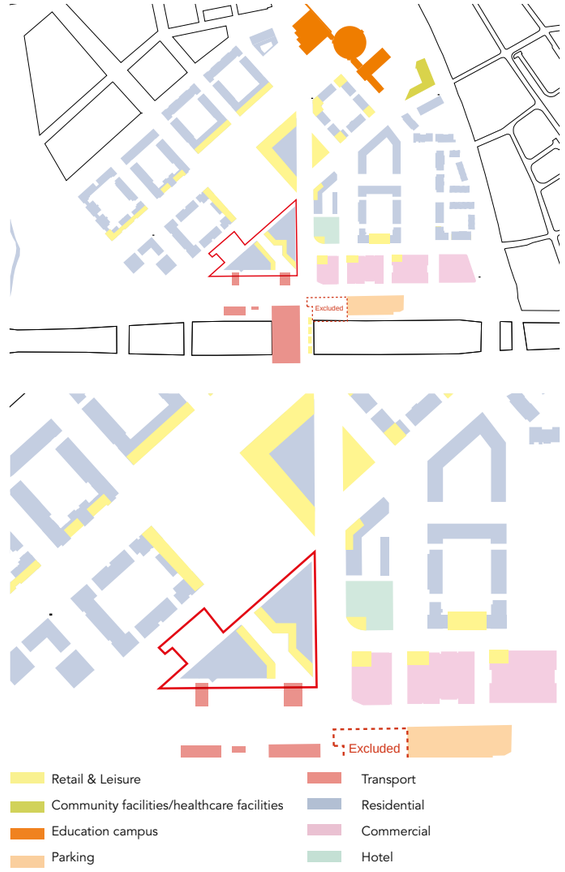


Landmark Building Principle Plan and Key View

Two positions have been identified for 'landmark' buildings. These positions were changed by the Consented RMA but the intent to create tall buildings viewed from key points, such as from across the park, remain consistent.

N18 and N19 Proposed Response

The landmark buildings proposed have been rigorously reviewed and accepted as part of a design led process with LLDC. Further information can be found in sections 3.4 and 3.6. Key views to the Velodrome and from Penny Brooks Street have been protected and enhanced by opening up the public realm to maximise visual permeability through the site.

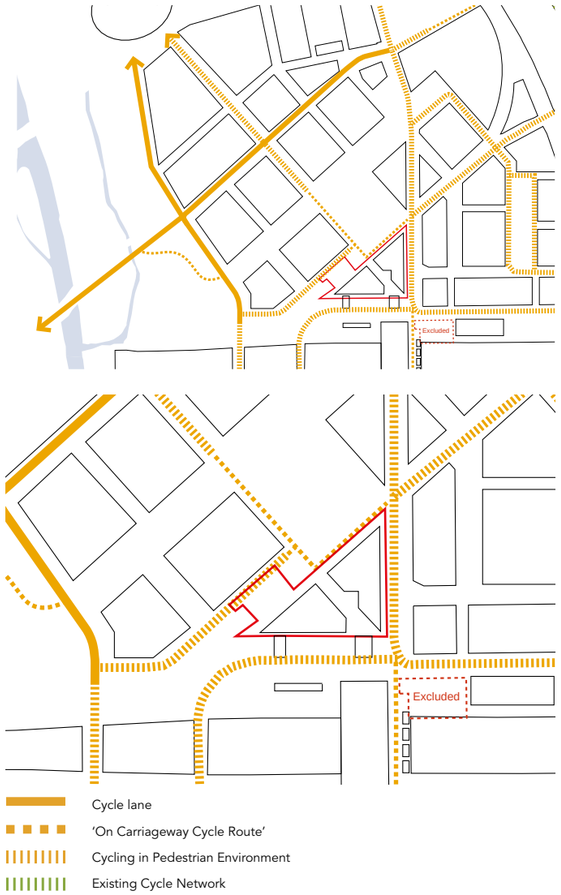


Illustrative Ground Floor Uses Diagram

The open space leading from the DLR station up to Victory Park is to be lined with active frontage.

N18 and N19 Proposed Response

The proposal uses retail and residential frontages to animate the route through the park. Interfaces have been closely coordinated with the landscape strategy to optimise retail access and visibility. In addition, there is retail facing Victory Park and retail wrapping the corners at Celebration Avenue.

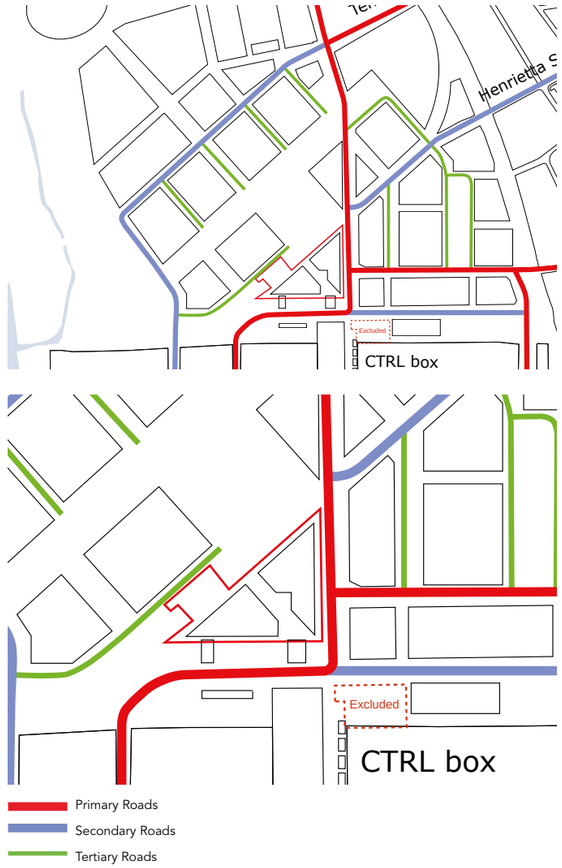


Cycling Network Plan

Cycle lanes are positioned along Celebration Avenue and International Way. It also suggests cyclists share the pedestrian footway in Victory Park before continuing the journey to Anthems Way. These cycle lanes are in place today.

N18 and N19 Proposed Response

The existing cycle network is unaffected by N18 and N19. The route through the middle of the site is for pedestrians only and the landscape proposal has considered strategies to discourage cyclist from using the gateway. The proposal has made a strong gesture in support of cycling by providing an easy to access and attractive cycle store to the residents. This will encourage more people to use their cycle regularly and take advantage of the existing cycle network.

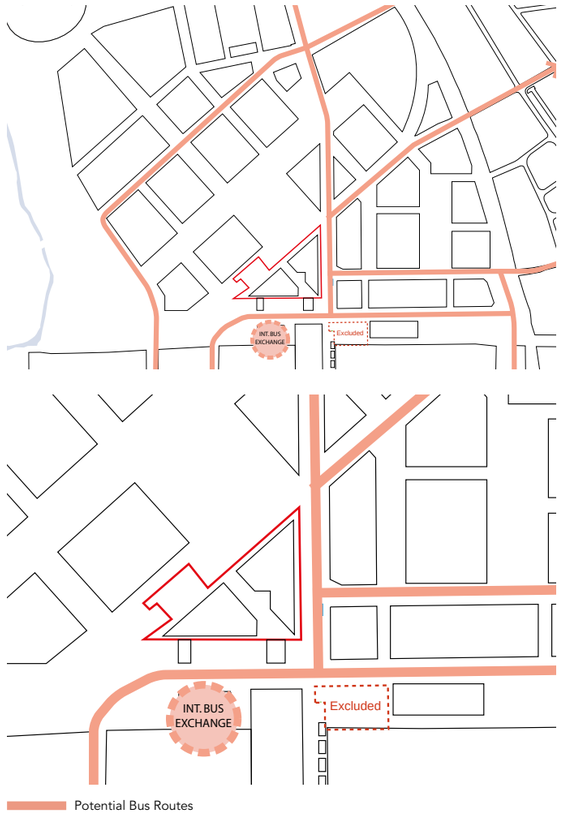


Road Network Plan

Plot N18 and N19 faces Celebration Avenue which is a primary route along with Penny Brookes Street, which runs perpendicular to the Eastern boundary of plot N18 and N19.

N18 and N19 Proposed Response

The proposal takes advantage of access to Celebration Avenue with a new discrete car park entrance to the building and a shared surface lay-by for servicing. However, both are anticipated to receive low usage so pedestrian movement up the Avenue is still expected to be pleasant and frequent. Anthems Way sees very little vehicle traffic. A new service road off Anthems Way provides for the primary service and car park entrance into the building, allowing these functions to be hidden and removed from the public realm.



Illustrative Bus Routes Plan

Bus routes run along Celebration Avenue, International Way and Penny Brookes Street. These bus routes and stops are in place today.

N18 and N19 Proposed Response

There is an existing bus stop at Celebration Avenue, close to the DLR. The function of this bus stop will not be impacted by the development, but rather will be enhanced as it will sit within the new public realm design of Station Square and the Gateway. Further details can be found in the landscape proposal.

Potential Traffic Calming and Shared Surfaces Plan

Anthems Way, Celebration Avenue, International Way and Penny Brookes Street have been identified as suitable for traffic calming.

N18 and N19 Proposed Response

These roads do not see an excess of use and are generally safe. N18 and N19 will only have car parking for blue badge holders, therefore the impact from resident vehicle movement will not impact traffic. Daily deliveries and servicing will have the most impact, but this will primarily be served from the service yard in the car park.

3.2 SC OPP Parameter Compliance

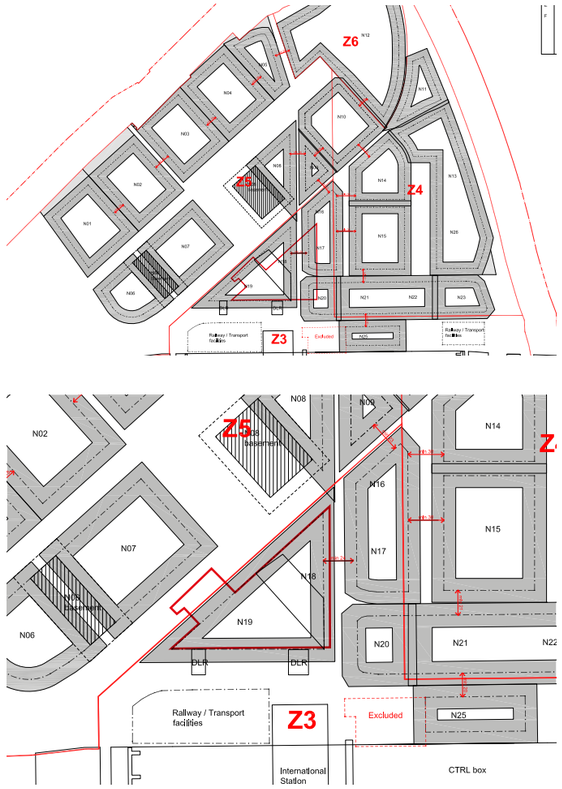


Diagram extracted from the Zonal Masterplan for Zone 3–6: Design Statement (12 October 2007) – ZMP – and the subsequent Design Statement Addendum (May 2010)

Fig.24 FPA-XXXX-SW-20-GRD-ZMP-121 Rev H

10m Deviation

35m Deviation

Plot Boundaries

The plot boundary is clearly defined for N18 and N19 and a ten metre limit of deviation is established for the minimum and maximum built area. The minimum distance between N18 and N19 and N17 is 24 metres.

Compliance of Design Proposal

The design proposal for the built form sits well within the plot boundary and respects the limits of deviation. The distance between N18 and N19 and N17 will be approximately 27m metres. (Refer to the drawing *'2292-GHA-ZZ-ZZ-DR-A-050004_ - Key Dimensions Plan'.)*

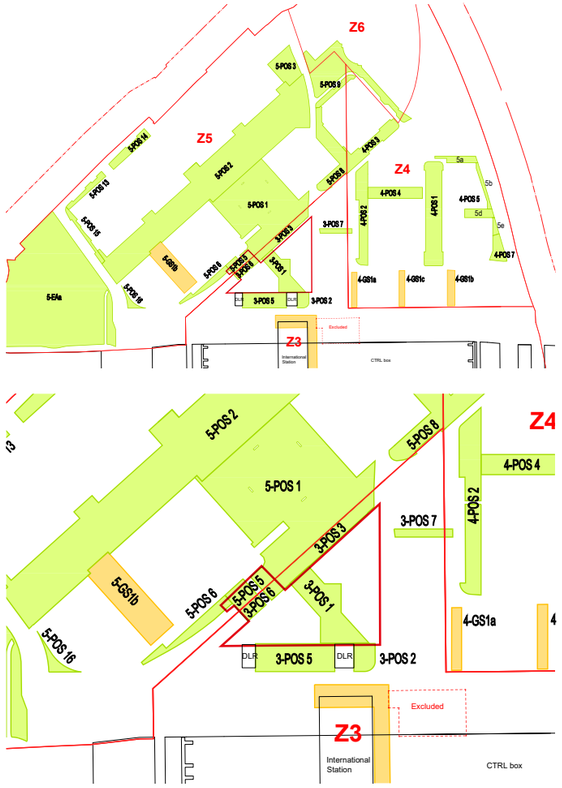


Diagram extracted from the Zonal Masterplan for Zone 3–6: Design Statement (12 October 2007) – ZMP – and the subsequent Design Statement Addendum (May 2010)

Fig.25 FPA-XXXX-SW-20-GRD-ZMP-122 Rev I

Public Open Space and Accessible Ecological Area

Urban Green Space

Planning and Zonal Boundaries

Open Space Plan

Public open space is to be provided through the centre of the plot between the DLR and Victory Park. 3-POS-1 requires the area to be a minimum of 1,880 m^2.

Compliance of Design Proposal

The design proposal indicates that the comparable space for the Gateway to be 3,368 m^2, far exceeding the minimum requirement for 3-POS-1. POS-2 and POS-5 for all the intended public open spaces in the area are also delivered, exceeding the minimum requirements. Further details on the open space compliance can be found in the appendix.

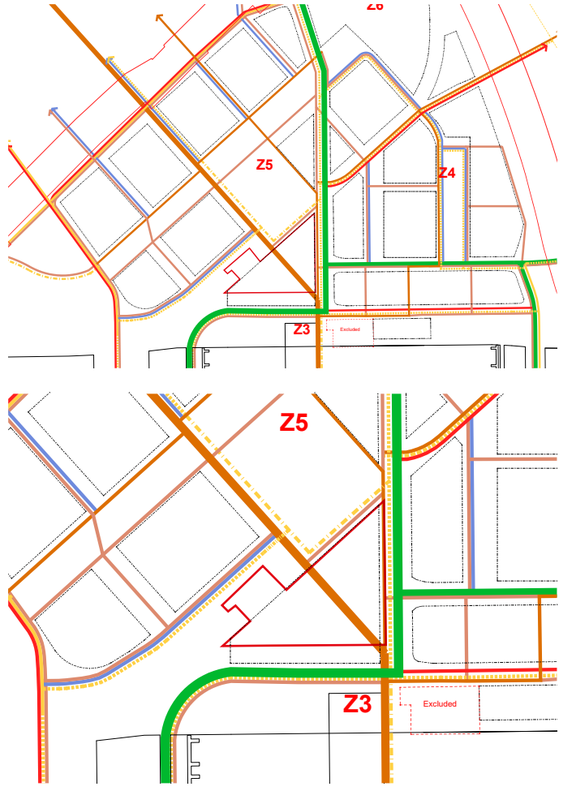


Diagram extracted from the Zonal Masterplan for Zone 3–6: Design Statement (12 October 2007) – ZMP – and the subsequent Design Statement Addendum (May 2010)

Fig.26 FPA-XXXX-SW-20-GRD-ZMP-123 Rev I

Primary Road

Primary Pedestrian Route

Secondary Pedestrian Route

Secondary Road

Cycling Pedestrian Environment

Tertiary Road

Composite Circulation Diagram

A primary pedestrian route is clearly indicated to bisect the site.

Compliance of Design Proposal

Pedestrian priority and abundant public realm has been a key driver throughout the design process. The design proposal provides a pedestrian only route directly through the site. The route is lift free and legibly links to the DLR station. The pavement along Celebration Avenue will be respected. An existing lay-by will be relocated for servicing and will be enhanced with shared surface.

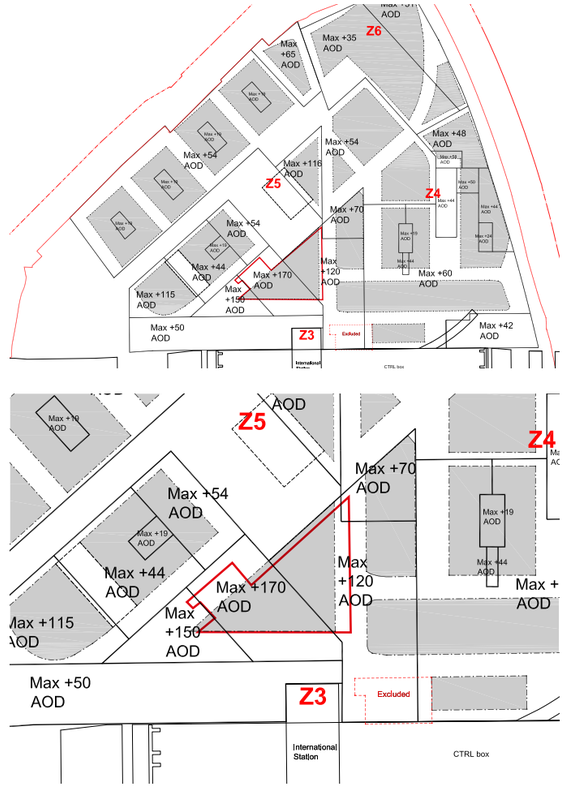


Diagram extracted from the Zonal Masterplan for Zone 3–6: Design Statement (12 October 2007) – ZMP – and the subsequent Design Statement Addendum (May 2010)

Fig.27 FPA-XXXX-SW-20-GRD-ZMP-124 Rev J

Building Height Parameter Plan

The maximum height parameter defined by the ZMP has three zones which define maximum heights. The 2014 consented RMA scheme breached the parameter height in one location but this was deemed justified as it respects the townscape and flagposts Victory Park.

Compliance of Design Proposal

The design proposal does not exceed the parameter heights with exception of the tall building at N18 which breaches the parameter height no more than the 2014 consented scheme. This proposal has been rigorously reviewed and accepted as part of a design led process with LLDC. Further detail on the justification for the heights can be found in sections 3.4 and 3.6.

3.3 Evolution of the Masterplan

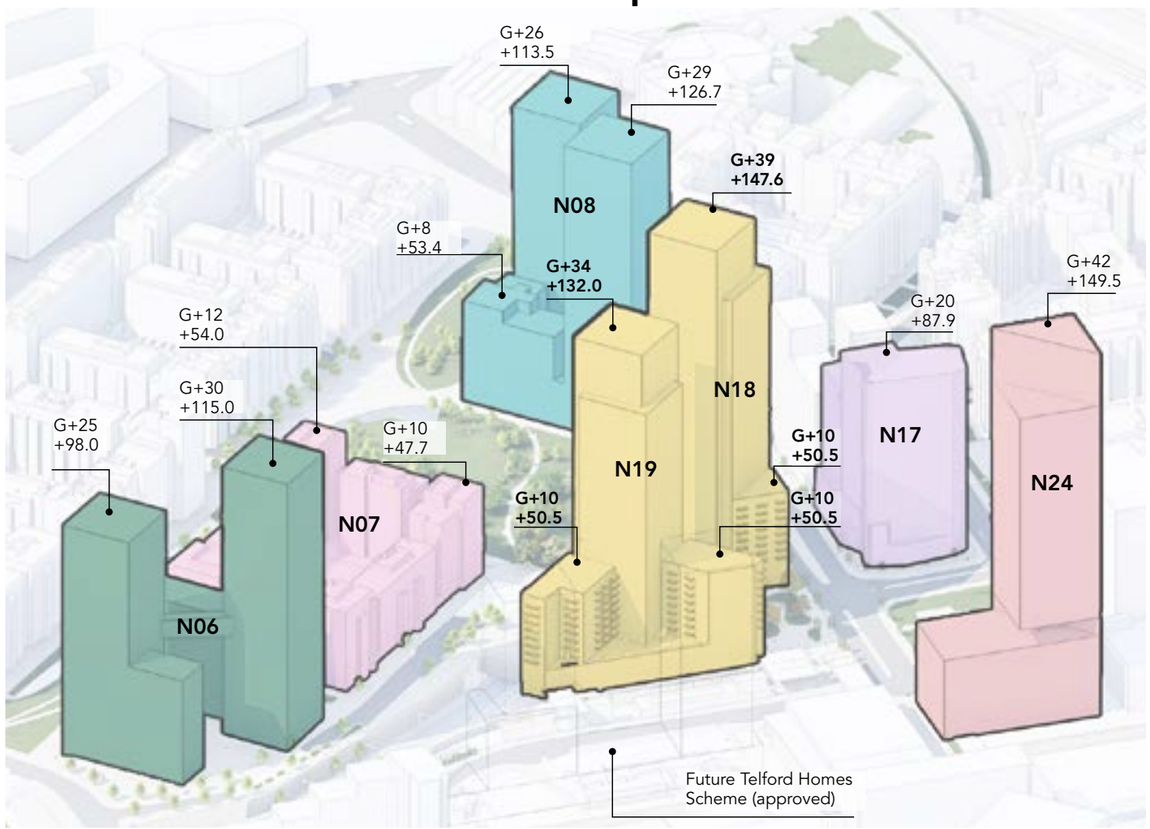


Fig.28 View 1 – N18 and N19 Heights and Massing in Context

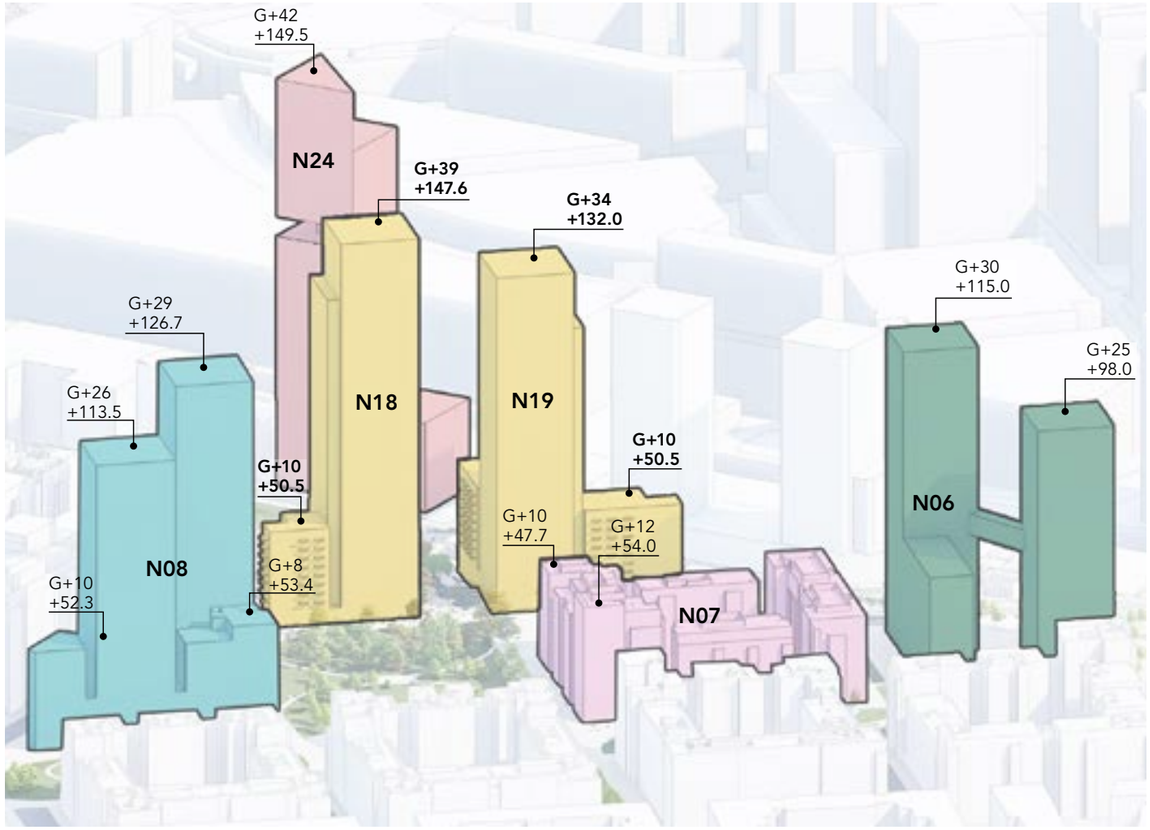


Fig.29 View 2 – N18 and N19 Heights and Massing in Context

Overview

The landmark buildings on Plots N06, N08 and N18 and N19 (proposal shown) are similar in form and orientation, increasing in scale from the lower areas from the North to the more civic centre at the South of the site, leading to Manhattan Loft Gardens (N24) whose height and prominence are intended to signpost the transport node and threshold to the Village. Note that Manhattan Loft Gardens is outside the SC OPP.

London Plan Tall Building Policy D9 Context

Whilst the site has been designated for a landmark building, the design team has approached the massing, access, material quality and articulation to take into consideration the policy requirements as set out in Policy D9 of the London Plan, ensuring that the quality expected from this policy is achieved.

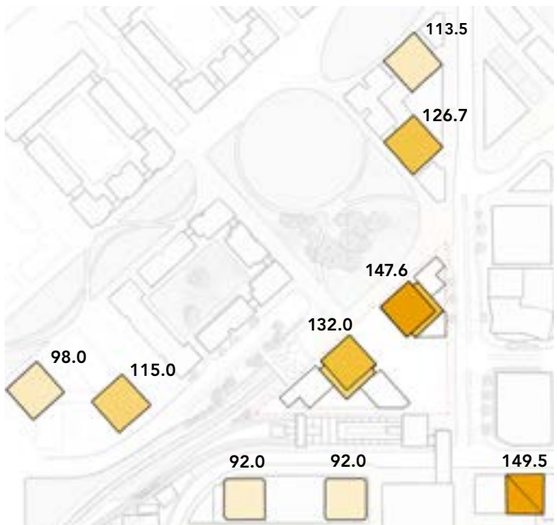


Fig.30 Tall building diagram

Principles of the SC OPP

The SC OPP principles that led to the proposed massing are as follows:

- **Landmark**: Proposal responds with two landmark buildings as per the SC OPP. These create a clear townscape relationship with surrounding towers at N06 and N08. The tallest proposed tower is lower than Manhattan Loft Gardens.
- **Limits of Deviation:** The proposal respects the limits defined by the SC OPP.
- **Building Height:** The proposed design complies with height parameters with exception of the park-facing tower which will exceed the parameters to the same agreed extent as the consented RMA.
- **Open Space:** The proposed scheme upholds the principle of the central open space which connects the DLR station up to Victory Park.
- **Ground Floor Uses:** Whilst some non-residential uses will face the central space, non-residential uses are also proposed to address Victory Park and Celebration Avenue. This is to add critical mass to the existing retailers around Victory Park and to uphold Celebration Avenue as a primary route.

Design-led Approach – Policy D3

Following the principles of the London Plan, the preferred massing solution results from a design-led approach which has been thoroughly reviewed with LLDC. The massing takes into consideration a wide range of factors as recommended under Policy D3 of the London Plan to ensure the quality of the design proposal is upheld.

3.4 Parameter Compliance with Heights

Building Height of the 2014 Consented Scheme

The height strategy for the 2014 consented scheme comprises two towers of equal height. This is consistent with the broader height strategy for East Village that culminates in MLG as the tallest building. This approach results in one tower exceeding the permitted height parameters by 27.6m, whilst the other sat well within it.

Rationale of Design Proposal

As part of the design process, GHA has reviewed the height strategy of the 2014 consented RMA and provided a rationale to vary from it:

- The tall building facing the park (N18) are to be taller than N19 to create a clear hierarchy and 'flagpost' the importance of Victory Park.
- The tallest building proposed, N18, must be lower than MLG to ensure the original intent of the SC OPP is maintained.
- Create a clear townscape arch culminating at MLG.

The heights and massing of the proposal have been through a thorough design led strategy in collaboration with LLDC. N18 is proposed to be the same height as the 2014 consented scheme (147.6m AOD) whilst the tall building at N19 is proposed to be reduced in height from the 2014 consented scheme by 15.6m.

Fig.31 SC OPP Height Parameter massing

Fig.32 2014 Consented Massing

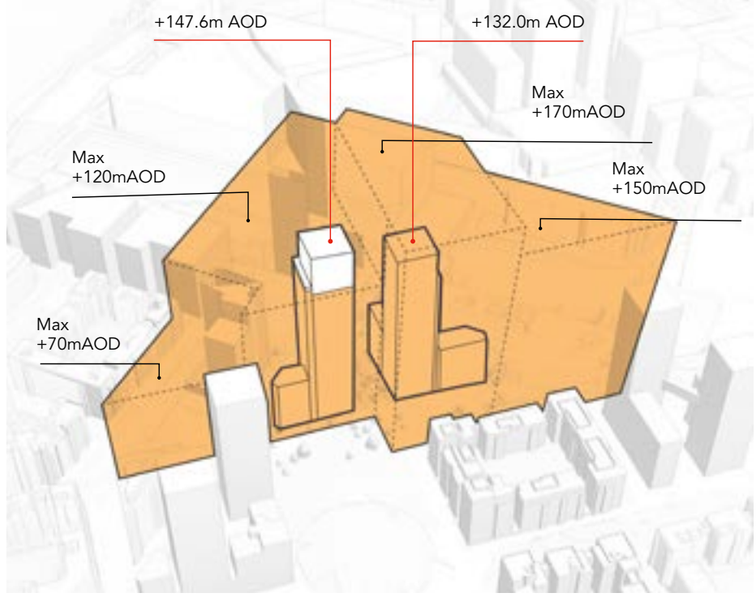


Fig.33 GHA Proposed Massing

Key

SC OPP parameter envelope

3.5 Height Strategy per the SC OPP

Building Height Parameter Comparison

Parameter plan 7 'Development Heights' (ref: 118 718/P-98-007 RevG) and the 'ZMP Planning Development Heights' (ref: FPA-XXXXX-SW-20-GRDZMP- 124 Rev H) define the maximum heights permissible within the SC OPP and ZMP.

The zonal masterplan below illustrates the height parameters for the East Village plots.

2014 Consented Scheme Height Strategy

As part of the suite of RMA's approved in 2014 for the remaining development plots at East Village, a height strategy was adopted that resulted in the provision of a sweeping arch of towers through Plot N06/N08, increasing in height to Plots N18 and N19, culminating with Manhattan Loft Gardens (N24) approved in 2011 (ref: 10/90285/FUMODA) up to 42 storeys as the tallest building. The principle of this approach was approved under application ref: 14/00143/NMA (dated 02.06.2014).

Figure 25 and 27 below provide extracts from the design reports that accompanied the previous Plots N18/N19 of the 2014 consented RMA and helpfully demonstrates the approved height strategy.

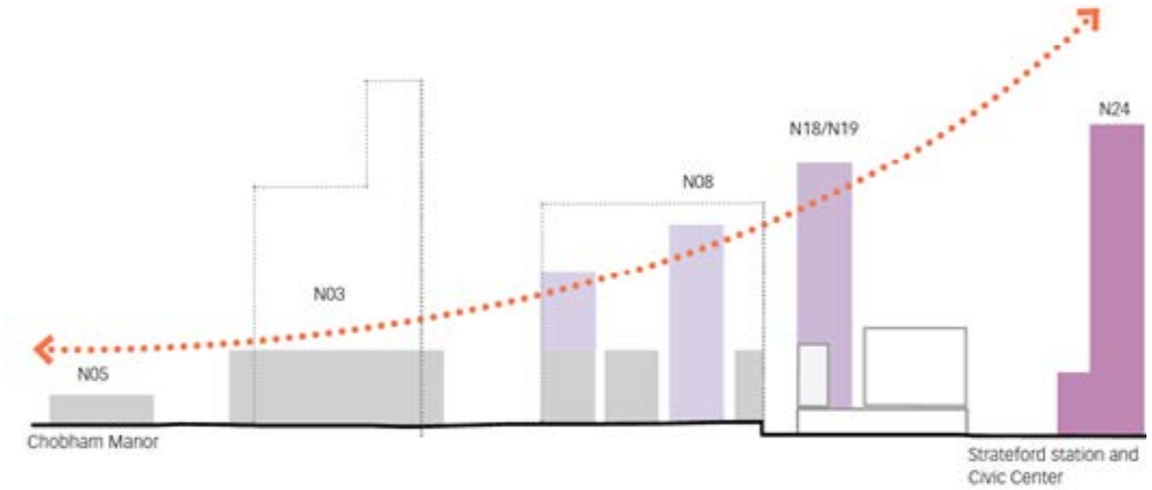


Fig.34 Extract from the DDR from the 2014 Consented Scheme RMA (by LDS)

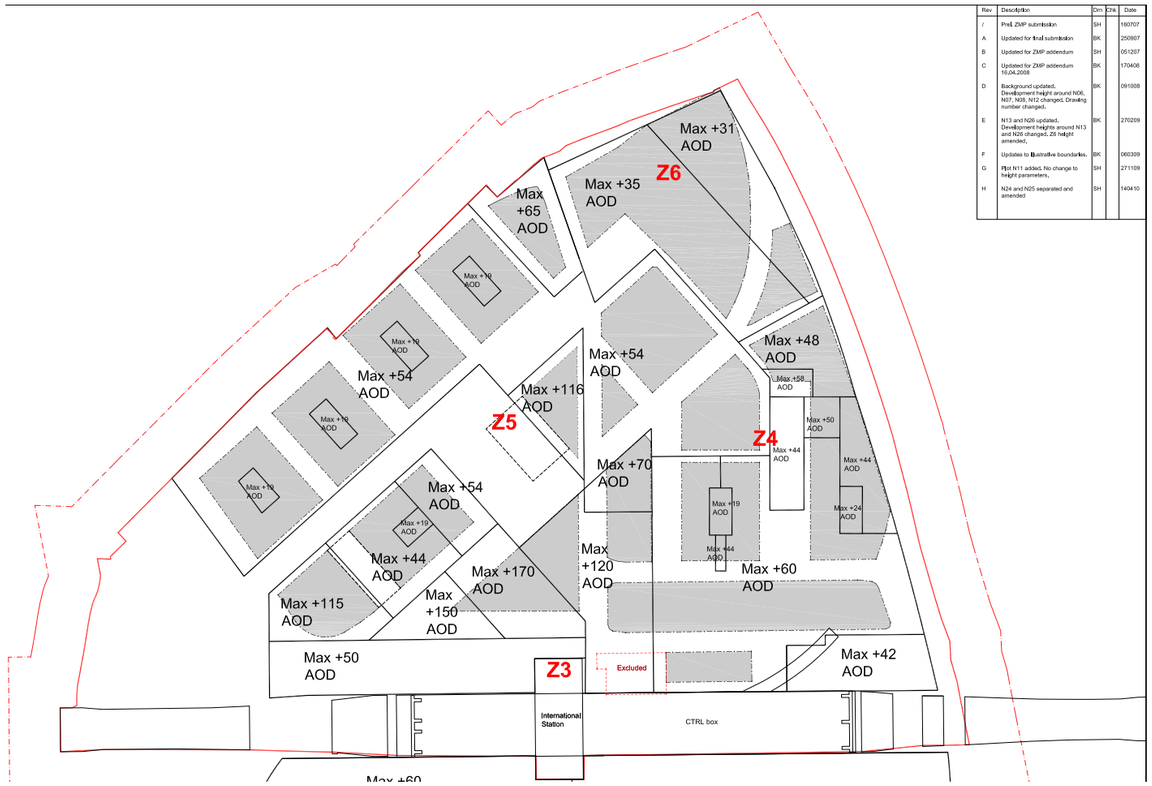


Fig.35 ZMP Development Heights (FPA-XXXXX-SW-20-GRDZMP- 124 Rev H)

Fig.36 Extract from the DDR from the 2014 Consented Scheme RMA (by LDS)

3.6 Proposed Height Response

Building Height Parameter Response

With one exception, proposals for Plots N18 and N19 remain within the approved height parameters, and in many cases are well below the allowable heights. The only exception is Plot N18, where the height is no taller than that approved in the 2014 RMA. This strategy has been through a thorough design-led review process with LLDC planning officers, Quality Review Panel and BEAP, in line with the principles of London Plan Policy D3. Justification for the taller height of this tower includes:

- Maintaining the clarity of the townscape arch per the intent of the ZMP height strategy.
- A positive townscape response by demarcating the prominent south edge of Victory Park.
- No negative impact to overshadowing and microclimate when compared to the Consented RMA.
- N18 and 19 provide steps from N06 and N08 to N24 completing a sweeping arch.
- Respecting the townscape hierarchy of Manhattan Loft Gardens (N24) as the tallest building.
- Design is of outstanding quality for a tall building as required by LLDC Local Plan Policy BN.5 and London Plan policy D9.
- Building is located in appropriate location for tall buildings within the East Village Local Centre and adjacent to Stratford Metropolitan Centre according to LLDC Local Plan Policy BN.5 and London Plan Policy D9.
- The taller building optimises the highly accessible (Site has a PTAL of 6b, the most accessible) brownfield site in line with design-led approach set out London Plan Policy D3.
- The proposal will meet the requirements for Policy BN.5.

Building Heights			
	AOD	Parameter	Difference
N18 Shoulder Blocks	50.5	120.0	-69.5
N18 Top of Tower	147.6	120.0	+27.6
N19 Shoulder Blocks	50.5	150.0	-95.5
N19 Top of Tower	132.0	170.0	-38.0

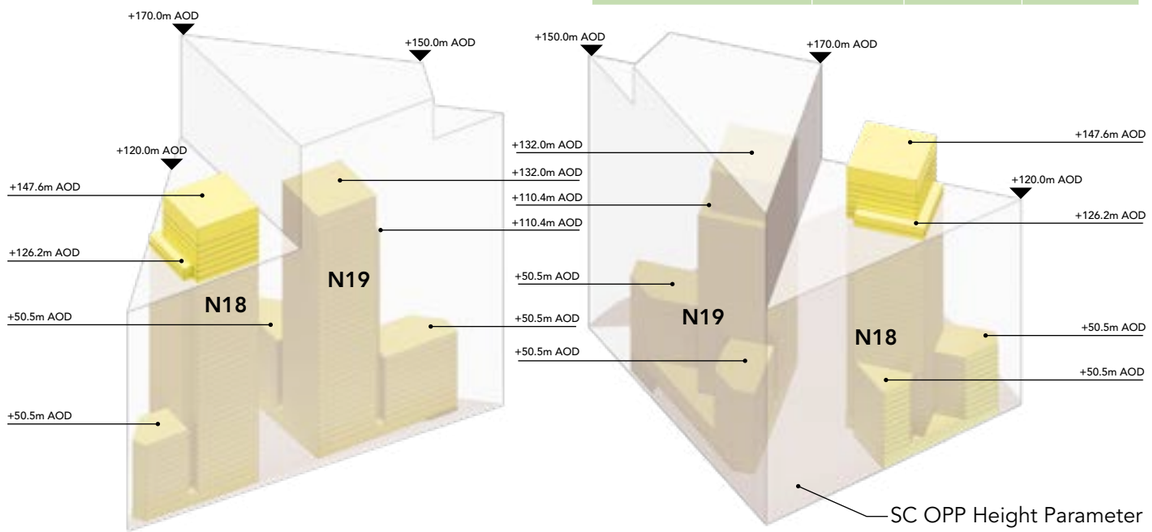


Fig.39 N18 and N19 Height Diagram with SC OPP Parameters

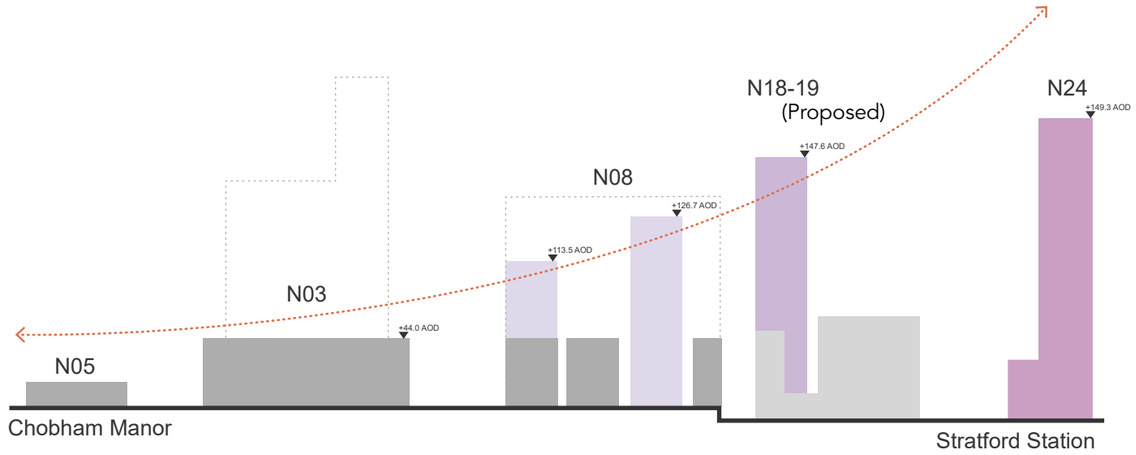


Fig.37 N18 and N19 Proposal in Context

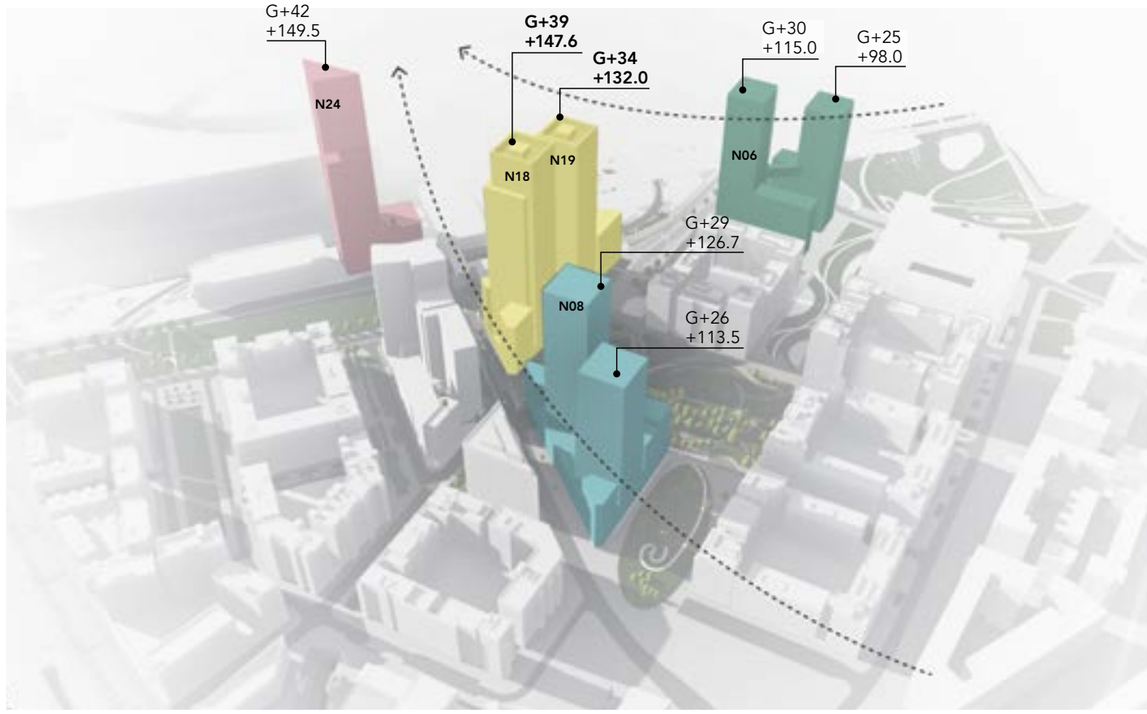
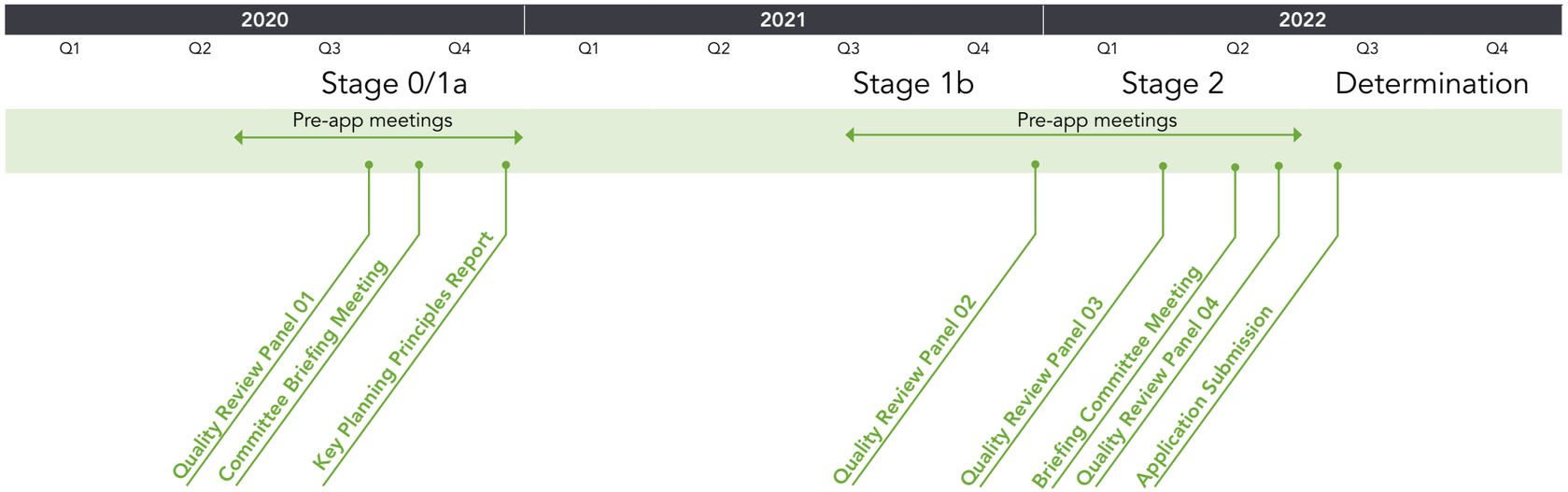


Fig.38 N18 and N19 Proposal Townscape Crescent Diagram

4.0
Design Evolution

4.1 Overview of Timeline



Establishment of Key Planning Principles

The design team first engaged with LLDC in June 2020 when an overall approach to the masterplan was the initial focus. Pre-application meetings demonstrated how a comprehensive masterplan, including Victory Park, the Belvedere, N18 and N19 and N16, informed an overall public realm and massing strategy to establish a robust, long term and coordinated approach to the completion of the SC OPP. The design team performed a thorough evaluation of the 2014 Consented Scheme with the Client and the consultant team to determine where the brief and the design required reconsideration.

The design team provided LLDC with a 'Key Planning Principles Report' at the conclusion of Stage 0. The report established 'Matters to be Agreed' and 'Matters for the Next Design Stage' as a clear record of how to approach the next stage of design. There was one QRP presentation in September 2020 which received an overall positive response. There was one Planning Committee Briefing Meeting in October 2022.

Stage 1b Concept Design

Plot N18 and N19 became an independent project in Stage 1b in August 2021. Initial pre-application meetings responded to the 'Key Planning Principles Report' with testing around massing and building arrangement. The final massing solution was a significant improvement from Stage 0 and addressed several of the 'Matters for the Next Design Stage'. There was also a focus on the quality of the residential accommodation, the general arrangement of the residential levels, coordination for servicing and access and the establishment of the architectural vision. This resulted in one of the key moves that unlocked the scheme: the reshaping of the massing to enlarge the public realm into a lush, landscaped gateway. The stage concluded with a presentation to the QRP in December 2021 which received an overall positive response to this key move. The Stage 1b scheme received broad support from LLDC.

Stage 2 Design Development

Stage 2 began in January 2022 and has carried on until the submission of this application. The design underwent significant development during this time and was reviewed monthly with LLDC. This stage included two presentations to the QRP in March and June 2022. Both received an overall positive response. There was one Planning Committee Briefing Meeting in May 2022.

4.2 Evaluation of the 2014 Consented Scheme

Evaluation of the 2014 Consented Scheme

The decision to re-examine the consented scheme at the start of Stage 0 was based not on deficiencies in this design, but rather the opportunity to consider this plot together with N16 and the whole of the public realm to offer a more comprehensive and coordinated solution, more fitting to its time and able to leverage the full potential of the landscape environment.

Opportunities identified for alternative design strategies:

- Provide East Village with a forward-looking and sustainable legacy, as defined by N18 + N19, the largest building plot and gateway to Victory Park, its primary public space.
- Enhance the sightlines and physical movement from the DLR station to Victory Park to create a more legible route that does not rely on a lift for inclusive access.
- Increase the capacity of Plot N18 and N19 by transferring the allowable area and units from N16, freeing up N16 to apply for a new planning application for student accommodation to diversify the residential offer in East Village.
- Consider how the building form and public realm strategy that creates a unique threshold which draws people into the Village from outside the DLR and from afar.
- Create a true residential link between buildings N18 and N19 to better connect it as one community.
- With exception of blue badge, remove car parking from the brief to reduce or remove the need for a basement. The number of blue badge spaces must also be reviewed in the context of the Village where there is an over-provision of car parking.
- Re-examine the housing mix to better reflect current demand.
- Increase the number of balconies as compared to solariums in response to more demand for comfortable outdoor private amenity.
- Further interrogate the heights and arrangements of the towers in light of emerging context since this application was approved.
- Reconsider the strategy for service and accessing, as a bridge over DLR may now be too difficult to achieve.
- Establish high-quality principles for residential apartments and allow these to influence the overall building arrangement and approach to the façade design.
- Consider how the architecture can evolve to better reflect sustainable principles and to differentiate itself from neighbouring layered articulation of N06 and N08.
- Establish ambitious sustainability commitments to address the climate crisis and identify how the building form, materials and envelope design can enhance overall building performance.

Summary

N18 + N19 offers a huge opportunity to transform the experience of East Village's residents and visitors alike, by seamlessly connecting Victory Park to the DLR and Stratford beyond, creating richer a public realm where the community can dwell and interact, and providing sustainable buildings that can respond to the climate emergency and the evolving needs of the residential population.

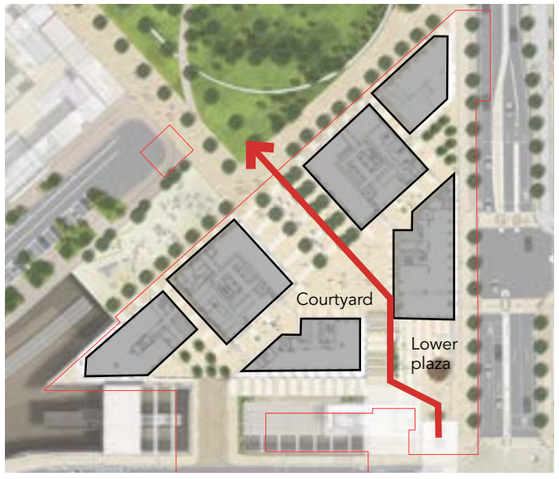


Fig.40 Movement from DLR to Victory Park

Fig.41 View looking Towards Victory Park

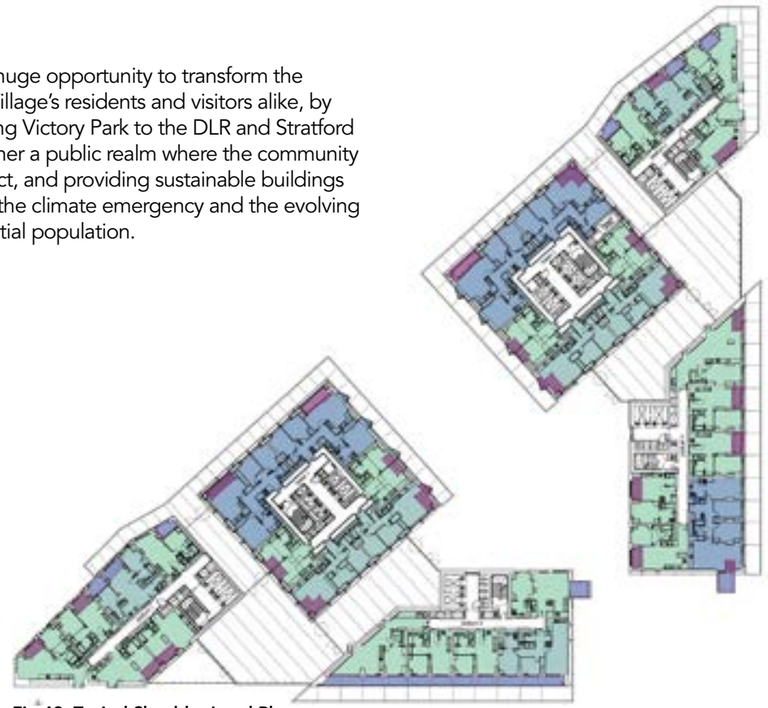


Fig.42 Typical Shoulder Level Plan

Fig.43 View from Victory Park

4.3 Stage 0/1a – Site Arrangement

Key Moves to Unlock the Public Realm

Stage 0/1a began with an interrogation of the project brief with the Client which resulted in:

- Desire to make the public realm inclusive so that movement does not rely on a lift. The public realm must also address the level change with a unique and vibrant green space that reflects the natural environment of the Village.
- Integration of active frontages on primary edges to help with wayfinding and complement the curated offer of the Village.
- Integration of a comprehensive and ambitious sustainability strategy, specifically targeting reduced embodied and operational energy. This is tied into the desire to create a community focused on health and well-being.
- Elimination on-site car parking (with exception to blue badge minimum requirement) resulting in the elimination of the basement. Basements contribute significantly to the embodied energy calculation and encourage domestic car use, both which do not align with the sustainability principles.

Testing of Routes through the Plot

Eliminating the basement unlocked the ability to create a more gracious solution to the level change that could be legible, natural and inclusive. Three different strategies were considered:

- A central route with a pair or towers, the taller one facing the park.
- An offset route with one tall tower and a series of shorter towers and mansion blocks.
- A hybrid route that maintains the two tower strategy.

The central route was preferred because of its legible, clear sightlines and the simplicity of the massing. The options were reviewed with LLDC who were active members in this key decision.

Fig.44 Central Route – View to MLG

Fig.45 Offset Route Plan – View to MLG

Fig.46 Hybrid Route Plan – View to MLG

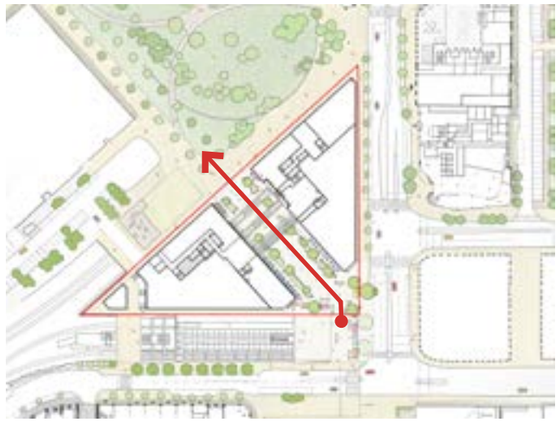


Fig.47 Central Route Plan

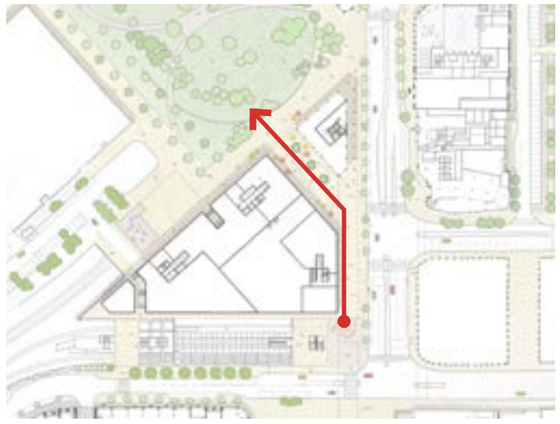


Fig.48 Offset Route Plan

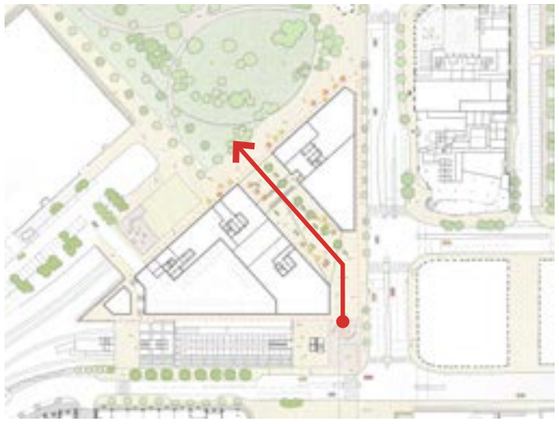


Fig.49 Hybrid Route Plan

Fig.50 Central Route Massing

Fig.51 Offset Route Massing

Fig.52 Hybrid Route Massing

4.4 Stage 0/1a – Residential Quality

Commitment to Quality

Get Living's vision is for a community of competitively priced rental accommodation with high-quality indoor and outdoor amenity geared toward promoting social value, sustainability and well-being. The proposed massing carves out green resident gardens surrounded by a variety of indoor shared amenity for the whole of the first floor. This level, which opens to Victory Park, connects to the superlobby at ground floor.

Greeted by Green

The 'Greeted by Green' concept is inspired by the lush, green surroundings which are well loved by the residents and give East Village its unique character. Allowing the natural environment of Victory Park to extend through the central route creates a strong identity for the plot. The proposal respects the principles set out in the SC OPP for open space which offers 'public open space and accessible ecological areas.'

Heights and Massing

The massing and heights have been developed on a design-led approach (in line with Policy D3 of the New London Plan), informed by the principles of the SC OPP and the consented RMA. Whilst the park-facing tower was made the tallest, in keeping with the principles of the consented scheme. LLDC was in broad agreement with the massing and height strategy but questioned the heights of the mansion blocks and the overshadowing into the Gateway. The mansion blocks heights were subsequently reduced in response to LLDC comments.

Shared Amenity Strategy

The use and arrangement of the shared amenity was a response to post Covid living trends and need for more practical social uses such as a dog wash and cycle repair. The superlobby was proposed at Park Level along with majority of the shared amenity and adjacent roof terraces. This strategy was replaced in Stage 2 with one that favoured the lower level, however access to the Park remained.

Garden Bridge and Outdoor Amenity

This 'garden bridge' concept pulls the greenery of the private courtyards along the structure and becomes a unique architectural feature nestled in the tree canopies with views to the Lee Valley VeloPark. It connects the two buildings to enhance the sense of a single community. The bridge is located on the first floor and links the outdoor amenity and the shared amenity.

This concept was found to be intriguing by LLDC for it's connectivity but questioned for its impact on the views through the site and its general usefulness. This garden bridge was replaced in Stage 2 with the 'Living Room' which connects the building cores underneath the Gateway, allowing for uninhibited views from the Gateway to the VeloPark.

Fig.53 Stage 0 – Shared Amenity at First Floor with Park Level Lobby

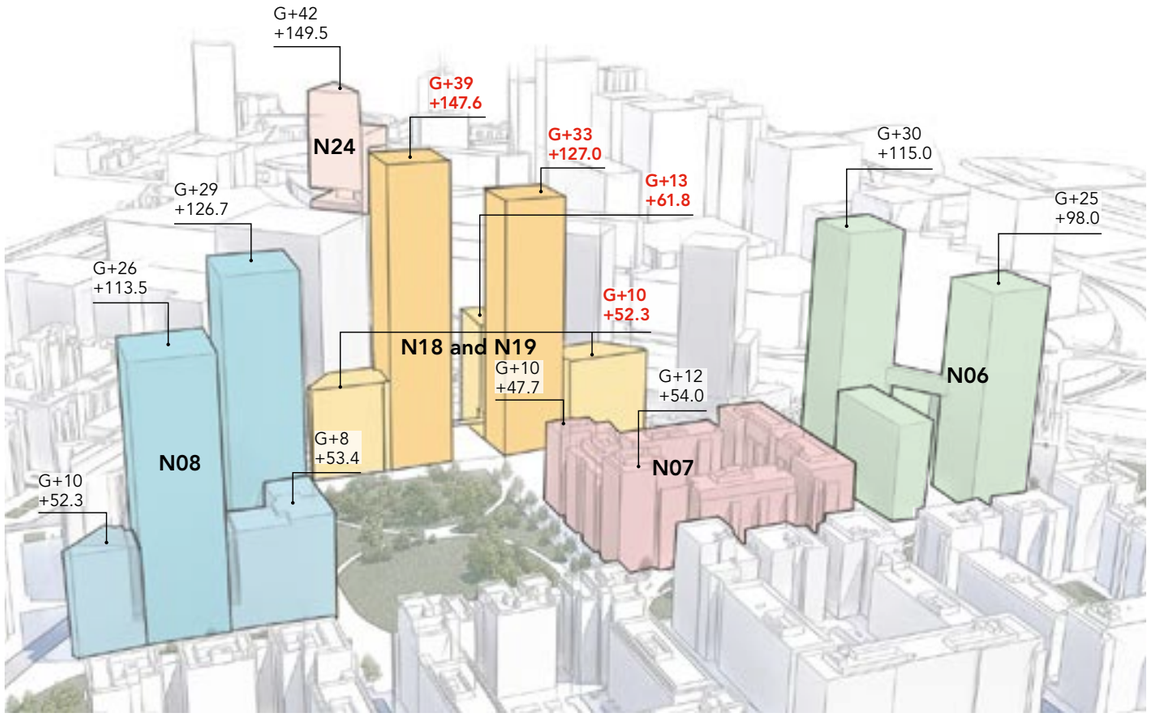


Fig.54 Stage 0 – Building Heights and Massing as Proposed

Fig.55 Greeted by Green Concept Sketch

Fig.56 Stage 0 – Concept Sketch of the Garden Bridge

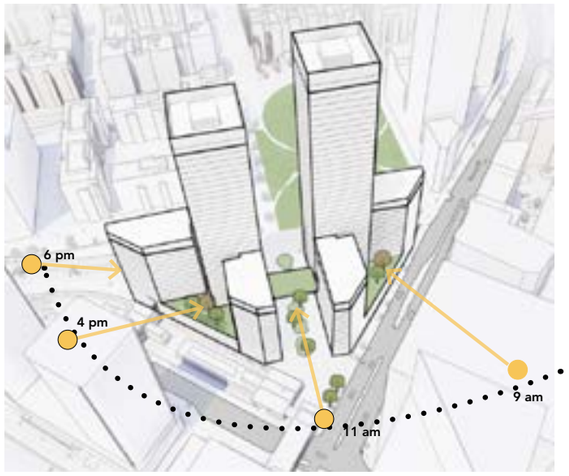


Fig.57 Stage 0 – Sun Path and Outdoor Amenity

Fig.58 N18 and N19 Stage 0/1a Concept Sketch

4.5 Stage 1b – Key Changes in Response to LLDC Comments

Stage 1b: Strategy to Address Comments

Prior to the formal start of Stage 1b, GHA reviewed the LLDC comments from the Stage 0/1a 'Key Planning Principles Report' to determine if there were fundamental changes to the site arrangement that could address several of the key comments. The team reconsidered the massing and found a strategy that unlocked the site, resulting in a significant improvement to the quality of the scheme whilst addressing the LLDC comments. The two key changes included:

1. The reduction in the podium footprint resulted in larger public open space between the DLR station and Victory Park.

2. Optimisation of the tower footprints to reduce the height of the shoulder blocks.

Tower Footprints

By increasing the capacity of the tower footprint, there is less pressure on the massing of the shoulder blocks. This results in smaller shoulder blocks both in footprint and height, and more open space for the Gateway. The design team studied comparable tower footprints to ensure the scale of N18 and N19 would not be perceived as significantly different. This included N06, N08 and Manhattan Loft Gardens (MLG). This informed the proposed 'double diamond' layout which results in a similarity in dimension to the neighbouring towers and provided 60% dual aspect. The strategy was thoroughly reviewed in collaboration with LLDC.

Massing Changes

Enlarging the public realm around the DLR station increased the public space by 30%, unlocking the possibilities for a gentle, sloped access through the site that receives plenty of sunlight and creates a true threshold to the Village. The public realm, known as 'The Gateway' is much bigger than the Stage 0/1a proposal, allowing the landscape architects with more opportunity to integrate the 'Greeted by Green' principle.

Summary of Benefits

The design changes made during Stage 1b resulted in the following benefits:

- Reduction in the heights of the shoulder blocks to be nearly level with neighbouring N07 and N08 mansion blocks, as requested by LLDC during Stage 0/1a.

- Significant improvement to VSC analysis, demonstrating improvements to façades that were indicated as compromised.

- More public open space, resulting in a general improved strategy to navigating the level changes through the Gateway with inclusive design principles.

- Increase in the number of dual aspect units.

- Replacement of Garden Bridge with a semi-underground lobby underneath The Gateway, addressing one of LLDC's Stage 0/1a concerns.

- Increase in gap between N18 and N19 to increase privacy and enhance daylight to façades.

Fig.60 Massing Changes from Stage 0/1a to Stage 1b

Fig.59 Open Space Diagrams – Stage 0/1a and Stage 1b

4.6 Stage 1b – Impact of Massing Changes

View from Victory park

View from Anthems Way

View from DLR station

View from Penny Brookes St.

Fig.61 Stage 0/1a Massing – Key Views

View from Victory park

Reduction of height and volume in the podium to create more open space. Articulation of massing in the towers improve the townscape. Increased distance between the two towers to 27m from 24m to improve the quality of daylight and sunlight of the residential units.

View from Anthems Way

Enhancement of the streetscape by reducing the massing heights from G+10 to G+9 in the podium.

Reduction in building length enabling enhanced views to MLG

View from DLR station

Enhancement of the streetscape by reducing the volumes in the podium level. The corner of N18 cuts back perpendicular to Celebration Avenue and creates an opening to the gateway entrance.

View from Penny Brookes St.

The podium is set back to increase the area of public realm whilst providing better daylight conditions in the public realm.

Fig.62 Stage 1b Massing – Key Views

4.7 Stage 1b Summary

Stage 1b Proposal

Stage 1b concluded in December of 2021. This included a presentation to the Quality Review Panel (QRP 02). Overall, the proposed scheme was well received by the panel, providing assurance that the key massing moves; mix, quantum and design vision would serve as a solid basis for the brief moving into Stage 2.

Stage 1b provided key conclusions including:

- Support for the emerging residential general arrangements.
- The formation of 'The Gateway' which is the result of the key massing changes, mainly the ten unit per core towers which reduce the bulk at the ground level.
- Residential access from Station Square with the main lobby linking the towers underneath the Gateway.
- Shared entrance for cycles and pedestrians.
- Agreement with LLDC to the 60:40 mix (60% studios+one beds, 40% two+three+four bed) and no more than 10% studios.
- General support for the 'dynamic façade' principles and the punched opening façade strategy.
- Use of shoulder roofs for garden residential amenity.

Key Comments from Planning Authority

The key items that the LLDC and the QRP requested to see developed for Stage 2 included:

- Clarity on sustainability goals.
- Development of details on servicing strategy including; refuse, deliveries, retail access and residential access.
- More information on the dynamic façade, specifically how they respond to environmental testing supported by data.
- Daylight/sunlight testing on all units.
- Amount, character and distribution of shared amenity.
- Interfaces of ground floor shared amenity and retail units with the landscape.
- Development of rooftops.
- Play strategy.
- Acoustic information.
- Development of the interlocking tower forms as seen from afar.
- Progress on reducing the number of single aspect units.
- Landscape development of the Gateway, including the 1:21 route.

Typical Lower Level Plan | Typical Mid Level Plan | Typical High Level Plan

Fig.63 General Arrangement Plans

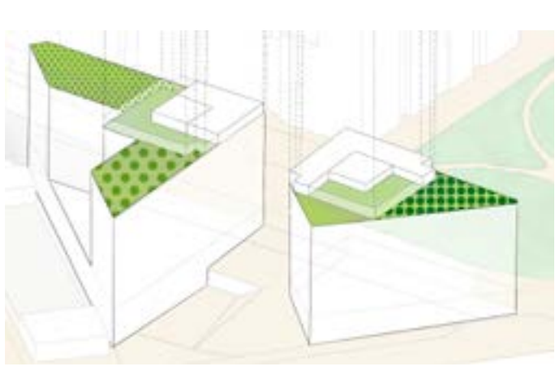


Fig.64 Amenity opportunity at shoulder rooftops

Fig.65 Stage 1b Residential Lobby Section Linking N18 and N19

Fig.66 Stage 1b Bay Study

Fig.67 Stage 1b Residential Entrance

4.8 Stage 1b Concept Visual

4.9 Stage 2 – Enhanced Fire Strategy

Evaluation of the Two-stair Solution

At the beginning of the Stage 2 process, the Client requested that GHA, along with the fire engineer and M&E engineer, investigate the merits and implications of changing the stair configuration from the dual scissor stair to a fire separated two stair solution. The two stair approach has been taken as the most conservative view of the consultation draft of the BS9991. This approach has been reviewed and is supported by the fire engineer and building control.

This evaluation process resulted in the following conclusions:

- London Fire Brigade generally disapproves of scissor stairs, so this option is not acceptable.
- There is no requirement in any current regulation to provide more than one stair for each tower.
- An additional stair would be an enhancement above and beyond current regulations and provide a safeguard should regulations change in the future.
- The lift lobbies will be separated from the corridor circulation via fire doors and dedicated ventilation provision.

Further details can be found in the Fire Statement.

Conclusion

Get Living has taken a proactive decision and instructed the design team to proceed with the two-stair solution as an enhancement above current regulations.

General Core Arrangement

The residential cores have been arranged to minimise the walking distance from the lift lobby to an apartment entrance. This is in response to planning policy which discourages long corridors and prefers short journeys, optimising the residential experience. The core arrangement has also been coordinated to ensure travel distances to the protected core are less than 7.5m per BS9991.

Lifts

In response to the London Plan Policy D5 for dignified emergency evacuation for all building users, residents with ambulatory challenges, specifically wheelchair users, are provided with a dignified escape. The proposal includes one evacuation lift per core, per the London Plan, and wheelchair refuge within a fire separated lobby. One fire fighting lift is required per regulation for the tower levels. The lifts have been sized to meet regulatory requirements and the Client brief. We are providing one evacuation lift per core, as per London Plan.

Refuse Chutes

There will be one refuse chute for waste and one for recyclables on every level. The chutes are then coordinated with collection points in the podium levels. The chute will be separated from the corridor circulation via fire doors and dedicated ventilation provision to minimise any fire risks.

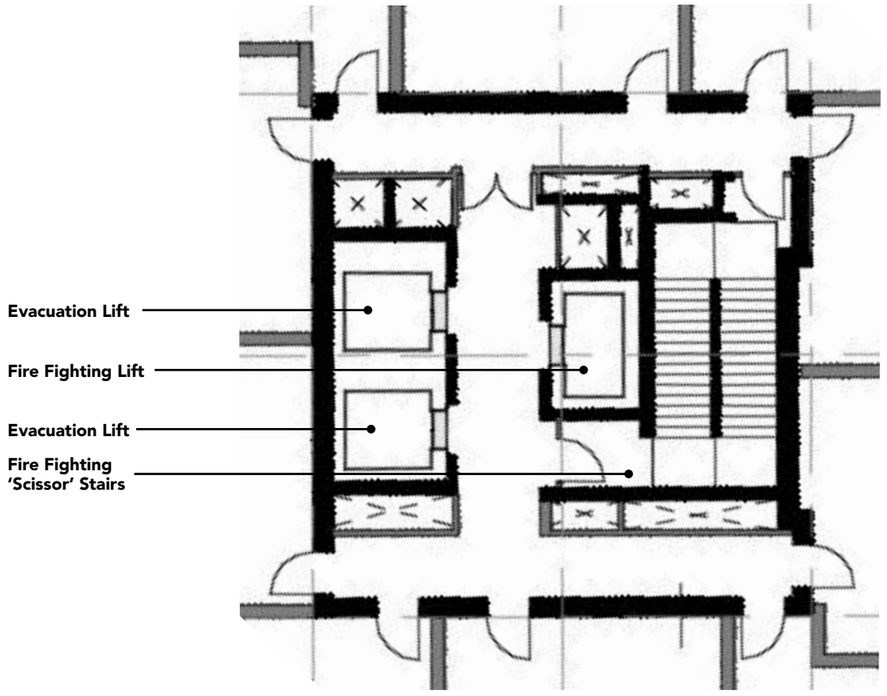


Fig.68 Stage 1b Core Arrangement with Dual Scissor Stairs – towers

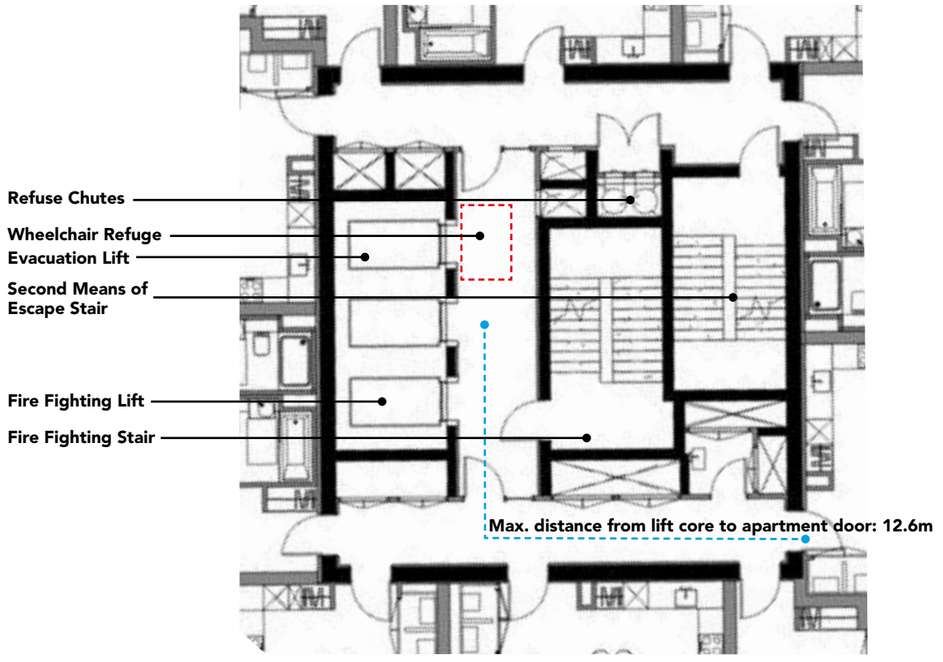


Fig.69 Stage 2 Core Arrangement with Two Fire Separated Stairs – towers

4.10 Stage 2 – Key Changes in Response to LLDC Comments

Access and Cycle Store

The residents' entrance at Station Level is intended to be shared with cyclists who could then head straight to the cycle store adjacent to the lobby, making an ordinary experience extra-ordinary. This creates an equitable experience for cyclists whose needs are typically a secondary consideration that amount to a poor experience. The design promotes cycling by making the experience easy and hassle free. This strategy was well received but the LLDC.

The blue badge parking was developed in both building N18 and N19 so that distances from cores to cars could be minimised. Access for servicing was developed from Anthems Way requiring a new service road to lead to the car park.

Park level lounges offer a secondary residential access. These lobbies link to the Station Level lobby below with two sculptural feature stairs. More detail on the design of the shared amenity and access can be found in the 'Design Configuration' chapter.

Quality of Studio Units

LLDC requested further development on the quality of the studio units early in Stage 2. High-quality layouts are distributed on the shoulder levels and the upper tower levels. Locations of studios and layouts were developed in response to microclimate to ensure comfort and quality is optimised. Daylight testing results in 100% pass rate (Average Daylight Factor minimum of 1.5% for LKD's).

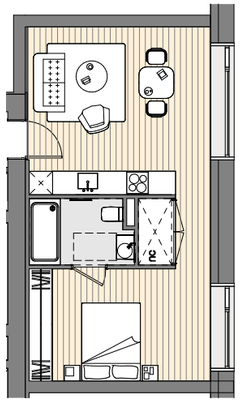
Material Research and Testing

The design team researched options for façade materials and their impact on embodied carbon. It was determined early on in Stage 2 that a precast material would outperform a terracotta or aluminium system. More detail on the development of the façade can be found in the 'Design Configuration' chapter.

Microclimate Testing with Consultant Team

During Stage 1b, LLDC's request to see more detailed information on microclimate. Stage 2 included many weeks of testing and coordination with the consultant team to verify and optimise the dynamic façade concept. More detail on this process and the findings can be found in the 'Design Configuration' chapter.

Fig.70 Stage 2 – Typical Studio Unit with Solarium



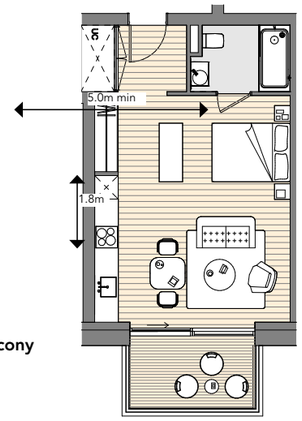


Fig.71 Stage 2 – Typical Studio Unit with Projecting Balcony

210 kg CO2kg/m2
Terracotta façade on Steel Frame System (Keratwin)

290 kg CO2kg/m2
Profiled Aluminium on unitised system

175 kg CO2kg/m2
Precast façade as sandwich panel

185 kgCO2kg/m2
UHPC (Ultra High Performance Concrete)

Fig.72 Material Research during Stage 2 – Embodied Carbon

Fig.73 Stage 2 – Park Level Access Diagram

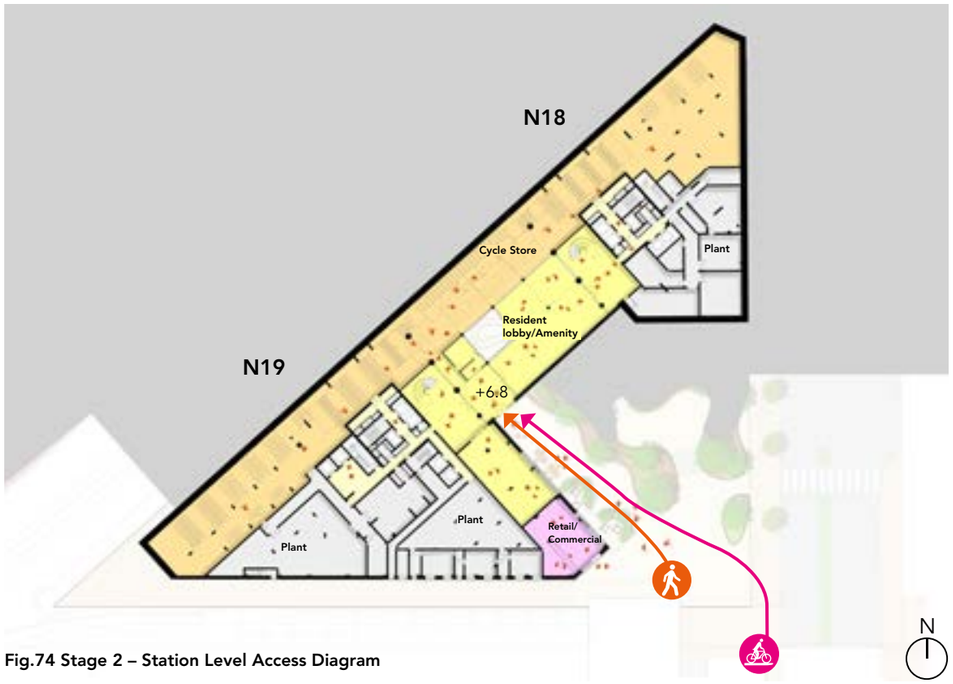


Fig.74 Stage 2 – Station Level Access Diagram

4.11 Comparison of Proposal and 2014 Consented Scheme

Summary

The 2014 Consented RMA can be implemented, however, Get Living believe that it is in the long term interest of East Village to implement the proposed scheme due to the many improvements that will benefit the residents, address the climate crisis and solidify the building as a long-term and valued asset.

Additionally, the proposed scheme has been developed in coordination with the revised proposal for Victory Park, the NEAP and the Belvedere.

Fig.75 2014 Consented RMA

Fig.76 Proposal

	2014 Consented RMA	Proposal	Improvement	Comments
Lift-free Access through Public Realm	No	Yes	✔	
1:21 Part M Compliant Route through Public Realm	No	Yes	✔	
Bridge over DLR for Vehicular Access	Yes	No	✔	Removal of bridge will reduce the duration of construction, health & safety risk, and prevent train service restrictions
Basement	Yes	No	✔	Basements contribute to embodied energy
Domestic Car Parking (except Blue Badge)	Yes	No	✔	
Sustainability/Energy Reduction Commitments	No	Yes	✔	
Dual Aspect	57%	56%	≈	DA balanced with form factor to optimise form factor and building efficiency
Heat Loss Form Factor*	0.76	0.60	✔	
External Private Amenity	14% balconies	57% balconies	✔	More demand for outdoor private amenity from residents
Daylight Compliance Rate (by rooms)	81%	90%	✔	
Overheating Pass Rate (TM59)	n/a	100%	✔	Detailed overheating assessment not provided in RMA

* A lower heat loss form factor indicates an efficient form, therefore reduced energy loss and improved façade performance. It is the ratio of the surface area of the façade that can lose heat (the thermal envelope) compared to the floor area (GIA).

5.0
Building Configuration

5.1 Overview

Influence of the 'Greeted by Green' Vision

The 'Greeted by Green' vision led to key design decisions, such as the creation of The Gateway. This large, open area of public realm links Station Square to Victory Park with a gently sloped, inclusive landscape that is surrounded with active frontage with space carved away for a welcoming residential entrance. The vision also led to the commitment to make a highly sustainable building that minimises energy use and facilitates a healthy environment for the residents. The building configuration is the result of the significant collaboration with LLDC from Stages 0 through Stage 3a.

The Podium

The podium includes all levels surrounding The Gateway: Station level, Mezzanine level and Park level. From Station level to Park level there is approximately a five metre level change. Along the south edge of the site, adjacent to the DLR, there is a required five metre setback from the existing fencing. And, along the park edge is the High Meade Loop Enclosure (HMLE), owned by National Rail, which is covered to form the south edge of Victory Park.

The podium responds to the various level changes, creates a strong relationship between the façades and surrounding public realm, and creates legible access to residential entrances. The discrete vehicular access points from Celebration Avenue and Anthems Way facilitate service vehicle and blue badge movement in and out of the building while prioritising active frontage and minimising crossover with pedestrian flows. Taking advantage of the required five metre setback along the south façade are plant rooms, car park and substation access. The area is gated off and not accessible to the public.

The Shoulder Blocks

The height of the shoulder blocks are comparable to the surrounding blocks of N08 and N07, a clear response to the local context. The ten levels of apartments benefit from outdoor balconies directly off living spaces. Corridors are enhanced with natural daylight and two cores are provided per block to accommodate the population and reduce travel distances.

The Towers

Including levels 11 through 39 at N18 and 11 through 34 at N19, the towers are identical in layout with exception to areas where solariums and balconies change in response to wind condition and daylight/sunlight. The 'double diamond' layout provides 60% dual aspect at a typical floor. The top five floor of each tower are setback from the main tower and finish with simple illuminated openings within the raised parapet.

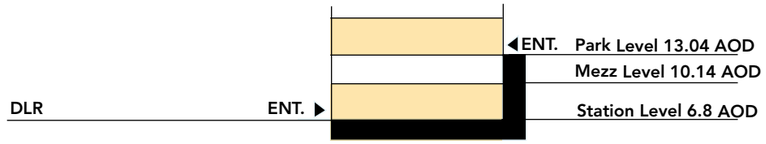


Fig.77 Resident Amenity Space

5.2 The Gateway

The Gateway

One of the fundamental architectural principles of the proposed scheme is the creation of 'The Gateway.' This new, prominent area of public realm is the result of the rigorous reshaping of the massing that was well received by the Client and LLDC during Stage 1b. The new plaza adjacent to the DLR, known as Station Square', is a robust spill out space for daily commuters and establishes a strong relationship with Celebration Avenue and the neighbouring buildings of Manhattan Lofts, the Gantry Hotel and, one day, International Quarter. The Gateway highly benefits the scheme by providing:

- A response to the significant amount of anticipated pedestrian flow that can also accommodate robust planting, promoting the 'greeted by green' concept.
- A front door to East Village, referred to as 'Station Square' that is welcoming and unique.
- A more generous area to allow for a lift free solution to navigate the five metre level change.

Details on the design evolution and configuration of the Gateway and Station Square can be found in the Landscape chapter.

Importance of the Podium

The residents and visitors will have significant exposure to the podium façades who will engage with these public areas daily on their commute to work, while walking their dog or going out for some exercise. The active frontages, those that are either dedicated to retail or shared amenity, face Station Square, The Gateway, Celebration Avenue and Victory Park. The proposed architecture of the podium and its interface with the public realm respond to the various site constraints and briefing requirements including:

- Maintaining as much continuous active frontage as possible along the public facing routes to create a high-quality journey whilst responding to the various servicing requirements and the level change.
- Creating a residential entrance off Station Square that is legible and welcoming.
- Locating car park entrances, servicing areas and operational requirements so that they make the least impact on the residential journey through the site.
- Placing retail and commercial frontages and entrances so they respond to the landscaped route through the site, activate edges and welcome patrons into their cafe, shop or business.
- Responding to the various conditions with appropriate scale, prominence and architectural character.

The Stage 2 design development has taken all of these briefing requirements and constraints into consideration and has responded with a robust proposal that positively addresses these challenges.

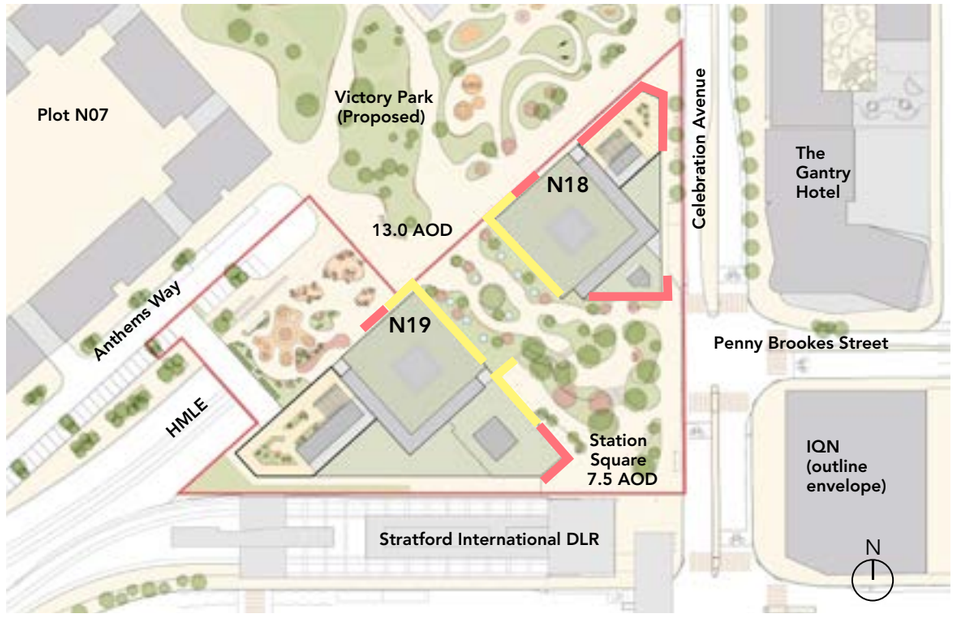


Fig.78 The Gateway Site Plan with Active Frontages

Fig.79 Illustrative Visual of The Gateway

5.3 The Resident Experience

Ambitions for a Vibrant Community

East Village is a thriving build-to-rent community which owes a lot of its success to the amenity that residents enjoy on a daily basis. This includes the abundant open green space, including Victory Park, the well-curated independent shops and cafés, and the events and activities organised throughout the year. With the emergence of N06, the bar has been raised even higher with high-quality shared internalised amenity that will be an attractive offer to potential residents looking to be part of an active community atmosphere.

Whilst a lot can be learned from the well thought out N06 shared amenity offer, N18 and N19 must respond to its unique set of characteristics, including The Gateway and the level changes. It's offer must engage with the overall ambitions for the community and provide a high-quality environment that will impress residents and engage with the surrounding green space.

Key Drivers

The design team has given much consideration to the vision for the shared amenity so that it can uphold the ambitions of Get Living. To determine the key design drivers, the team considered who currently lives at East Village, who is anticipated to live there in the coming years, how recent lockdowns have changed the meaning of 'home' and 'work', and how the space can flex and change to meet future needs whilst upholding its unique architectural character. These considerations have lead to the following key design drivers:

- **Naturally Sociable**
- **The Extended Home**
- **Biophilic Design**

Naturally Sociable

Establishes uses and create environments that nurture casual encounters to build community and friendships.

The Extended Home

Consider how conveniences and shared activities can help residents with the practicalities of daily life.

Biophilic Design

In line with the 'Greeted by Green' concept, create spaces that seek to satisfy our inherent desire to connect to nature through design.

Fig.80 Concept Sketch Through Living Room and Cycle Store

5.4 Station Level

Overview

The coordination for the resident access and vehicle access has been especially challenging at N18 and N19 due to:

- The five metre level change from Station Level to Park Level.
- The prioritisation on pedestrian access and significant flow of people coming from the DLR, Stratford International and Westfield.
- The ambition to separate residents from the workings of the building as much as possible.
- The desire to maximise active frontage and create a calming and engaging landscaped area at The Gateway.

A few key observations were determined early on. The south facing façade, which is required to be set back from the DLR by five metres, is an opportunity for servicing and ventilation at Station Level. This works equally well at Park Level where a level connection is made between Anthems Way and the building to provide a discrete service entrance leading to a car park and refuse collection. It was also determined that the Gateway be as animated as possible with active frontage given the significance of this new public realm. Last, Celebration Avenue was identified as an opportunity for secondary servicing while also protecting the key corners with animated commercial space.

Resident Access Shared with Cyclists

The residential entrance is highly visible from 'Station Square.' Since it is at the lower Station Square level, it provides a natural separation from the significant flow of people heading toward the Park. The residents' entrance is sized and arranged to accept cycles rather than provide the 'side door' which is typically found in residential buildings. The arrangement includes two automatic sliding doors, creating a draught lobby to minimise heat loss. The cycle store benefits from an area dedicated to cycle repairs and cleaning along with an area for a dog wash. All access is step free and compliant with Part M. More information on the cycling journey can be found in the following section.

Fig.81 Station Square – Resident Access

5.5 Station Level – Cycle Store

Concept for a High-Quality Cycling Experience

Get Living recognises the growing number of cyclists in East Village and how this physical activity benefits health and well-being and reduces the pressure on transport. In reaction, the proposal includes a high-quality journey to the unique and exemplary cycle store.

The residents' entrance is through a draught lobby with automatic doors on timers, making entry for a cyclist, or anyone else, seamless and inclusive. Cyclists continue straight through the lobby and directly to the cycle store. The flow of people with and without cycles has been studied by the Transport consultant and the size and arrangement is coordinated with his findings.

The central area of the cycle store is a double height space animated with skylights and wall graphics. Whilst a majority of the cycle stands will be double stacked, stands for oversized bikes, mobility scooters and electric bikes are provided in this central space. In N19, large windows provide natural light into the double height cycle store. There are also three convenient points of access to each set of lift cores. Due to the size of the cycle store, additional fire walls and doors have been added under advice from the fire engineer and in compliance with Building Regulations.

The numbers of cycles spaces have been coordinated with the minimum statutory requirements.

Dog Wash and Cycle Wash/Repair

In keeping with the 'extended home' concept, an area within the cycle hub provides for people who need to repair their bike, allowing for this convenient and often times messy occurrence for those who use their bike regularly. This zone includes sinks, hoses and drains to that cycles can be washed down after a muddy day. And, given the recent boom in dog ownership in the Village, this space is also used for dog washing, a much needed amenity for owners and an easy way to keep muddy paws from dirtying up common areas.

	Total required	Total provided	Additional breakout	Total provided
5% Provision for larger cycles*	70	70	Sheffield stands	35
			Adapted cycles/ Mobility scooters	35
Standard Racks	1,330	1,330	Semi Vertical	100
			2 Tier Stands	1230
Commercial Cycle Storage	6	6	Long-Stay Commercial 2-Tier Stands Bike Storage	6
Total	**1,406**	**1,406**		

Windows to allow daylight into cycle store

Skylights to allow daylight into cycle store

Double height space

Access to cycle store from cores or lobby

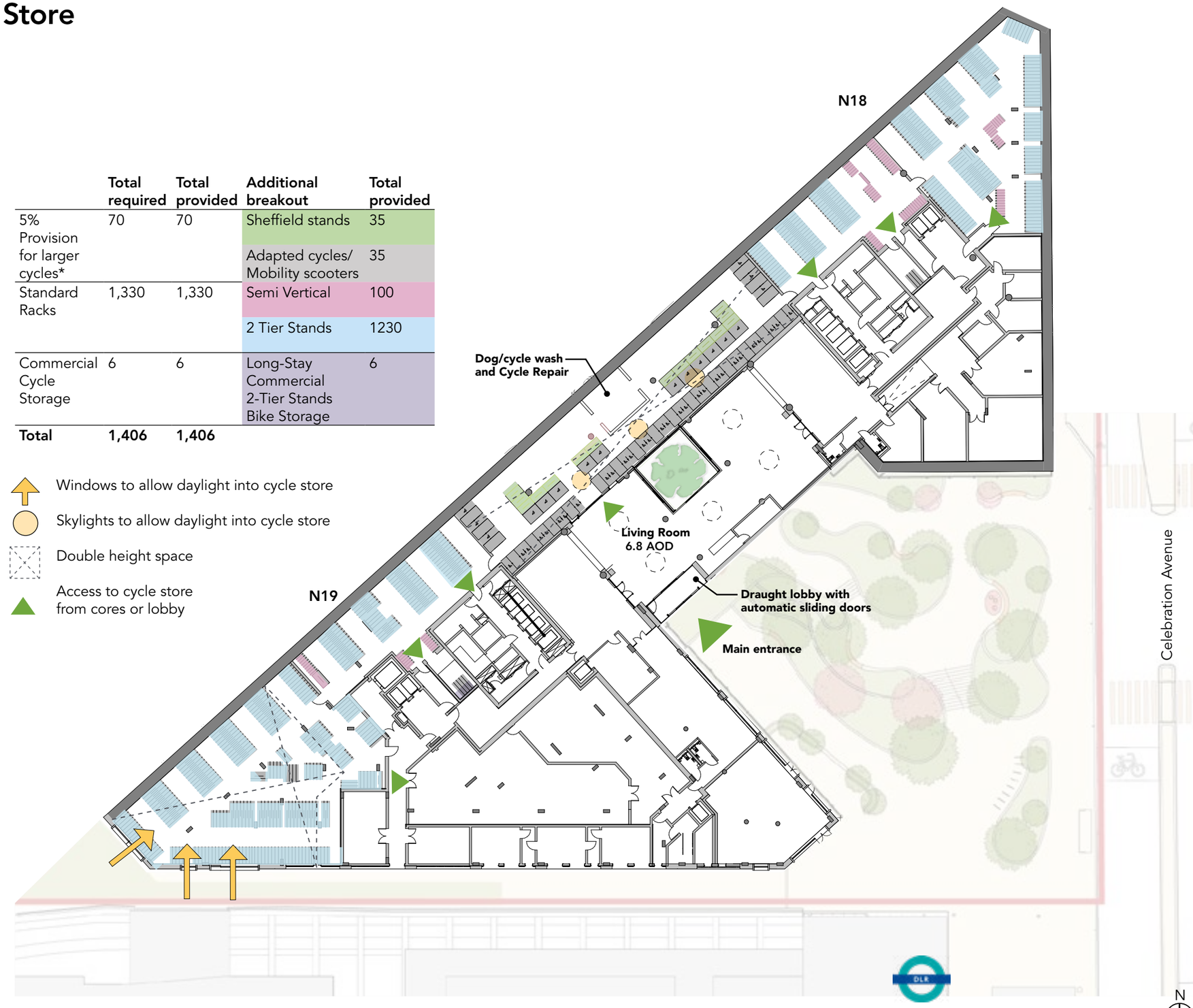


Fig.82 Station Square – Cycle Store

5.6 Mezzanine Level

Overview

The mezzanine level is used for back of house purposes only, except where one retail space benefits from the level change allowing a prime entrance off The Gateway. The retail space wraps the corner of the building and has active frontage animating the Gateway.

The blue badge car parking for N18 is coordinated with the levels of Celebration Avenue. More information on the parking strategy can be found in the next section.

The refuse collection for N18 occurs in a new lay-by off Celebration Avenue. Refuse for N19 is stored in a room on the mezzanine then moved up through a service lift to the Park Level where it is collected. More information on the parking strategy can be found in the next section.

Fig.83 Mezzanine Level

5.7 Park Level

Overview

The Park Level is used for shared amenity, retail, means of escape, car parking, servicing and back of house purposes. The shared amenity spaces are a continuation from those as Station Level and offer access to Victory Park from the cores. The shared amenity overlooking the Gateway includes lounge space, an events space and a media room.

Three retail spaces face Victory Park: one in N19 and two in N18. Whilst two of them are modest in size, RU 3 can be let to a large commercial tenant or subdivided for two small tenants.

The blue badge car parking for N19 is accessible from a new service road off Anthems Way. The road is level, it is protected by low level planting to create a separation from public space and is coordinated with the transport consultant for clearances and tracking. The car park includes a large service bay for up to two service or delivery vehicles. More information on the parking and servicing/delivery strategy can be found in the next section.

The refuse collection for N19 occurs inside the building. The collection room is sized and arranged to accept a refuse vehicle with space to allow for a three point turn. More information on the parking strategy can be found in the next section.

Fig.84 Park Level

5.8 Shared Amenity Uses and Layouts

Uses and Arrangement

The uses of the shared amenity have been thoroughly reviewed with LLDC for its size, quality and arrangement. The resident demand, some of it influenced by the Covid lockdowns, is for space to work from home, meet up with friends, participate in events and enjoy outdoor space. However, the spaces must be designed with flexibility in mind so they can adapt to changes in trends and preferences.

Station Level

At Station Level, the 'living room' has active spaces that surround the courtyard for lounging, games and group working. A desk and small office for a part-time concierge is conveniently located near the entrance. On either side of the 'living room' are post rooms where residents can easily pick up their post on the way to the lift core. A package room is also conveniently located near the entrance. Adjacent to the 'living room' is the cycle store with the dog wash and cycle repair that's easily accessible through the front door.

Just off the 'living room' in N19 is a large co-working space with large windows overlooking the Gateway. Whilst there may be an opportunity to connect to the adjacent retail space, the levels vary so a lift and/or ramp need to be provided.

Park Level

At Park level, a large space in N19 provides active spaces to lounge, watch a movie with friends and gather for lectures and events. The Park Level also has secondary residential lobbies at both N18 and N19 that connect to directly to Victory Park. These lobbies are complemented with feature stairs that connect directly to the 'living room' below.

Roof Gardens at Eleventh Floor

In addition, the roof of the 11th floor will have an outdoor roof terrace at both N18 and N19. These terraces will have long views to the city and to Victory Park. The rooftops are currently still in development. However, the concepts for these rooftops can be found in the Landscape Architect's report.

Amount of Shared Amenity

The shared amenity provision is **2.0 m² per unit**. This has been benchmarked against other build-to-rent schemes including:

- N06: 2.2 m² per unit.
- Cherry Park: 0.9 m² per unit.
- Ferrum Living Wembley: 1.1 m² per unit.

Fig.85 Station Level Shared Amenity

Fig.86 Park Level Shared Amenity

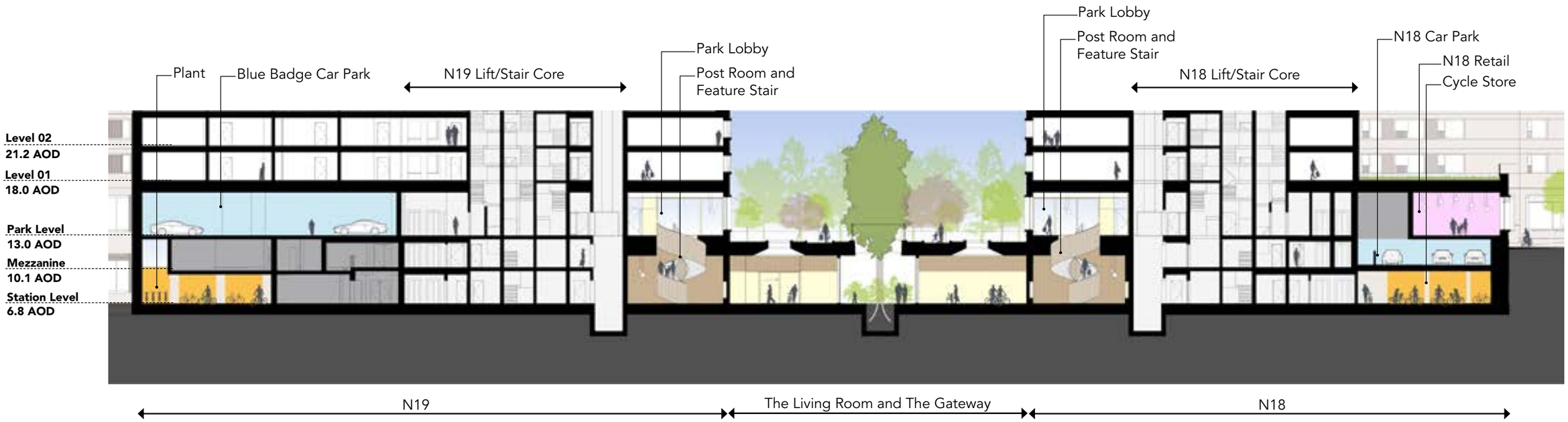


Fig.87 Section Through N18, The Gateway and N19

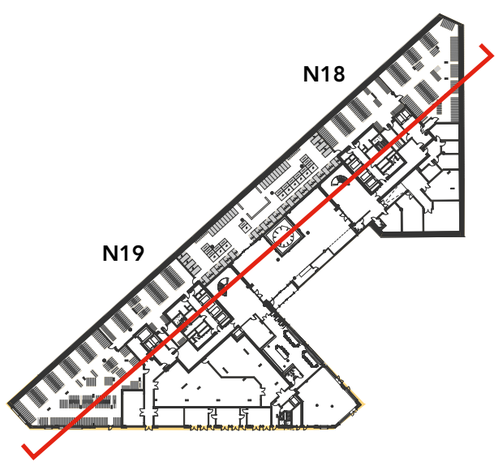
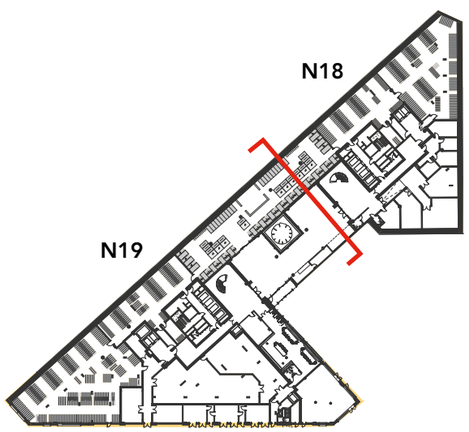


Fig.88 Illustrative Section Through Living Room and Cycle Store



5.9 The Living Room

The Opportunity

Which includes:
- Connecting the resident community as one.
- Taking advantage of the change in level from station to park.
- Integrating landscape and architecture.
- A dramatic arrival moment and threshold to Victory Park.

Many BtR developments design-in uses such as gyms, cinemas or pools, which have high operational energy usage and are highly bespoke, making them difficult to replace in the future when resident demands inevitably change.

The idea behind our Living Room and wider amenity offer is to create space that is 'long life, loose fit', so it can host a wide variety of functions over the lifecycle of the building. With the potential to change use through the year on a seasonal basis, or over longer time periods of 5–10 years.

One of the key architectural and massing moves was to create a physical link underneath the Gateway that connects the cores of both towers.

This connection strengthens the feeling that this is one building and one community. However, it comes with some significant challenges to overcome which include:
- How to bring light into the space given it is underneath the Gateway and has limited frontage.
- How to create a strong, unique character that is specific to N18 and N19 and enhances its identity.
- Opportunities to incorporate nature to enhance the biophilic nature of the space.
- How to navigate the level change from Station Level to Park Level inside the building.

The Concept for the 'living room'

The design team considered these challenges as opportunities to create something unique for East Village.

The key design drivers (naturally sociable, biophilic design and extended home) could redefine a traditional residential lobby into an environment that is unique and exciting where residents can meet up, work or unwind.

The space is essentially the communal lobby, or 'living room,' for the residents.

Bringing Light and Nature into the Living Room

Taking cues from the fluid forms and the green gardens of the Gateway, large circular skylights flood the 'living room' with natural daylight from above.

These skylights reflect the geometry of the Gateway landscape, coordinate with a legible structural column arrangement and provide a visual connection up to the Gateway.

To bring a sense of nature into the environment, a small interior courtyard features a tree that grows into the Gateway as a bold, natural feature to create a truly biophilic environment.

A Unique, Naturally Sociable Environment

Traditionally, many residential lobbies act only as a pass through space on the way to a lift core. However, the 'living room' is large with statement architectural features and well-curated uses to encourage people to stay a while to enjoy the unique environment.

The lounge area and entertainment spaces feature large skylights directly and flank on either side of the glassy tree-filled courtyard, inviting people to meet up in these one of a kind spaces.

Residents can choose to walk directly through the Living Room when they are in a hurry, stop and say hello to the concierge or use it as a meet up point with a friend before going for an evening walk.

Feature Stairs to Link to the Park

Like the Gateway, it is important to create legible internal connections from Station Level to Park Level. To navigate the level change and create a strong connection, two unique and sculptural staircases, one on either side of the living room, create an inviting and enjoyable journey up to the Park.

The convenience stairs share the space with the post boxes near the main residential core, so people who need to or prefer to take the lift can easily navigate this vertical journey as well.

Fig.89 Illustration of the Lounge Area in the Living Room

Fig.90 Illustration of the Feature stair from Station to Park Level

5.10 Level 11 Roof Terrace

The shoulder level roof at level 11 will provide residents with communal lounge spaces and extensive landscaped roof terrace space, in the mid-region of both N18 and N19 towers.

The lounges will be accessed from the buildings' cores and provide for a flexible programme including a large dining table, lounge seating and prep counter space with extensive glazing to maximise views. The lounges will lead directly out to the external terraces with level access.

These roof terraces will be extensive and feature a range of different communal spaces including an external dining area, communal growing gardens, sun lounging areas and space for enjoying far reaching views amongst verdant landscaping. Afforded with views of the City to the west, Victory Park to the north and the parks and forests of north-east London. Seating areas are designed to enjoy the views whilst a pergola will be provided to enhance wind comfort of the dining space on the N19 terrace.

The terraces will be provided with two escape routes, with escape possible to both stairs. Travel distances will be limited to 18m in a single direction and 45m where there is a choice of escape within the amenity space room.

The roof terrace has been coordinated with various consultants including the architect, landscape designer, façade access consultant, fire engineer, wind engineer, lighting designer and MEP engineers to ensure a well organised, safe and comfortable environment for residents to enjoy.

Further details can be found in the landscape section in this document.

Key
Constraints

- 2.2m Façade maintenance Zone
- 1.5m Façade Maintenance Zone
- Fire Escape Route 1
- Fire Escape Route 2

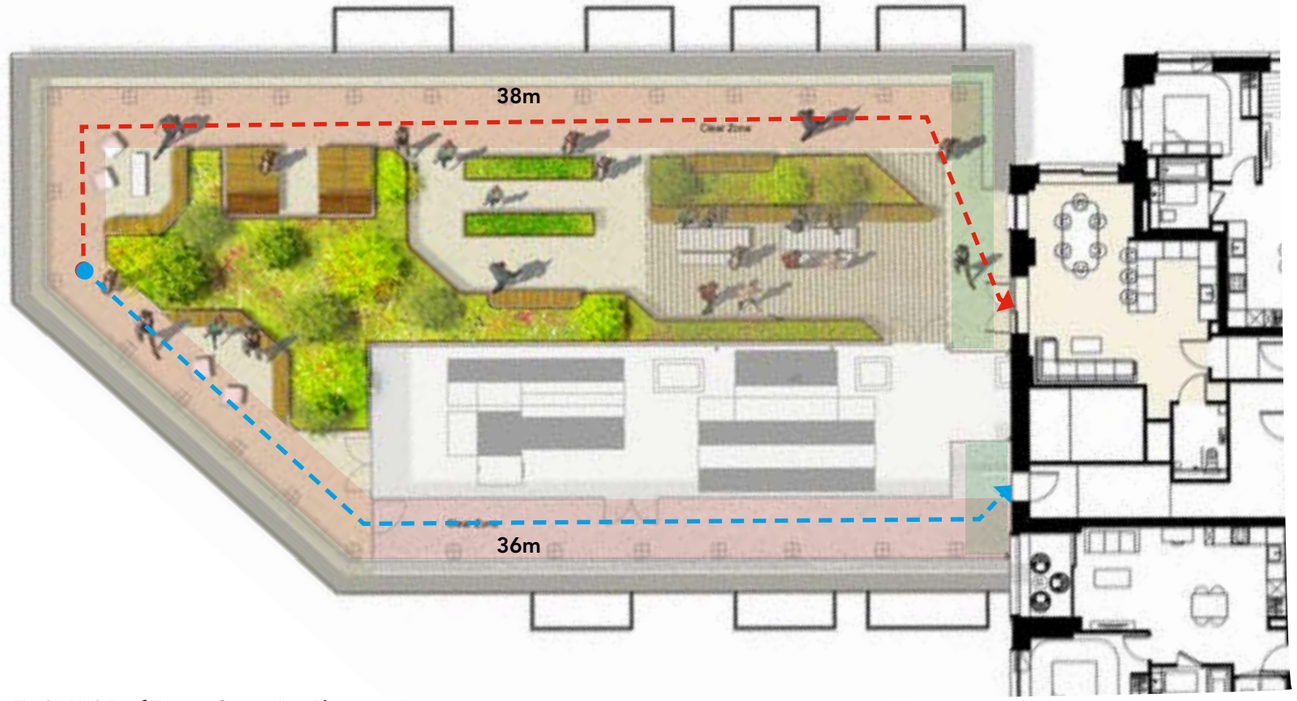


Fig.91 N19 Roof Terrace Constraints Plan

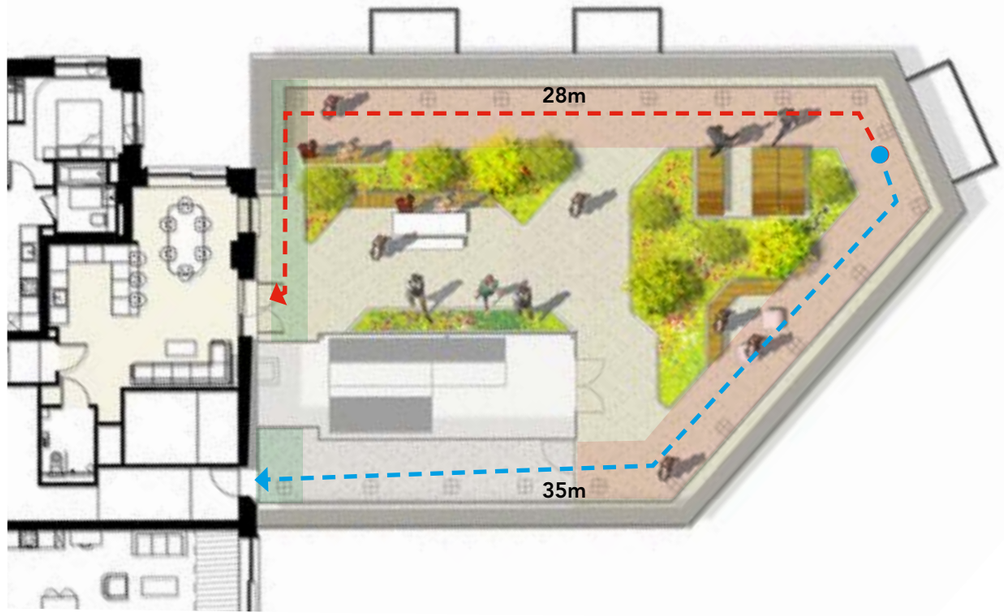


Fig.92 N18 Roof Terrace Constraints Plan

Fig.93 View from N19 Roof Terrace

Fig.94 View from N19 Roof Terrace

Fig.95 Aerial View from N19 Roof Terrace

5.11 Residents' Shared Amenity Locations

Rationale Behind Locations

The majority of the shared amenity is located at Station Square and Park Level. This move is intended to make the shared amenity readily accessible to all and enhance the daily journey of residents who will pass through the lobby as they come and go to work. This will facilitate a 'naturally sociable' environment where one can run into their neighbour or meet a new one. One small area of outdoor amenity at Station Level is the courtyard that houses the feature tree.

Further to the station level main entrance, the courtyard and cycle store provides a visible and integral extension of the internal amenity of the living room.

At the eleventh floor, the roof provides an outdoor shared amenity to the residents which is accessed through a small lounge and kitchenette. Details on the rooftops can be found in the landscape chapter.

Quantum

The amount of internal shared amenity has been reviewed extensively with LLDC and the QRP. The design proposal approximately 2.0 m^2 of shared amenity per unit, which has been reviewed in QRP 04 and found to be sufficient.

Internal and External Shared Amenity (m^2)				
	Station Level	Park Level	Eleventh Floor	**TOTAL**
Internal	917	880	107	**1,904**
External	52	-	522	**574**

Key

Internal Shared Amenity

External Shared Amenity

Fig.96 Residents Shared Amenity Space – 11th Level

Fig.97 Residents Shared Amenity Space – Park Level

Fig.98 Residents Shared Amenity Space – Station Level

5.12 Refuse Strategy

Overview

As with any residential development, the location and management of waste must be carefully considered to ensure it can be easily managed for storage and removal whilst not impacting the quality of the residential experience. Issues such as noise, smells and cleanliness must be prioritised to ensure the health and safety of those managing the waste. Additionally, residents must be able to easily dispose of their refuse with little to no exposure to areas of waste management.

Two refuse chutes are provided in each tower: one for general waste and one for recyclables. The chutes are behind a set of doors to ensure smells are kept contained. The waste is collected and managed in the podium levels of each tower.

The design team has worked closely alongside the transport consultant and Get Living to provide a robust response to allow for the separation of the residents and refuse whilst ensuring the solution is efficient and workable.

Residential Refuse Collection for N18

It was determined early on that given the split between N18 and N19, two access points for the refuse collection are required for each plot.

Given the limited size and the level change on Celebration Avenue, the transport consultant determined that a refuse vehicle could not physically be brought into the N18 podium. Therefore, a new shared surface lay-by is provided along Celebration Avenue to allow temporarily parking of the refuse vehicle adjacent to the collection room on collection days, which occur twice weekly. The lay-by also provides extra servicing relief for retail deliveries. The lay-by is set away from residential balconies above. Within the N18 podium, the building management will rotate full and empty bins between the storage room and the collection room.

Residential Refuse Collection for N19

At N19, a service road from Anthems Way allows refuse vehicle access directly into the building. This new road is protected with a green landscaped buffer to optimise the safety of those using the public realm. The refuse vehicle parks inside the collection room and then turns-around with a three point turn inside the building. This strategy has been designed with the transport engineer who has provided a tracking layout that is coordinated with the structure and architecture.

Each bin will first be stored in the storage room in N19 on the mezzanine level, where the chutes terminate. Bins are managed via a dedicated refuse lift up to Park Level. This strategy has been developed to coordinate with the protected means of escape corridors at Park Level.

Below is a summary of the required number of bins for both N18 and N19 based upon the assessment from the transport consultant who has used Newham's requirement (BS 5906:2005) as the basis for the requirement based upon the specific unit mix and count.

Waste Requirement Calculation (per BS 5906: 2005)					
	No. of Units	General Waste per week (l)	General Waste per week in 1280 (l) bins	Recyclables per week (l)	Recyclables per week in 1280 (l) bins
N18	409	54,550	43	13,638	11
N19	439	57,550	45	14,388	12

Retail Refuse rooms

There are three refuse rooms for the retail units, all which are within easy walking distance of each unit:

– At Station Level, directly adjacent to the retail unit along the south façade.

– At Mezzanine Level, directly adjacent to the residential refuse room and lay-by.

– At Park Level, directly adjacent to the residential refuse room.

Fig.99 Park Level — Refuse Strategy

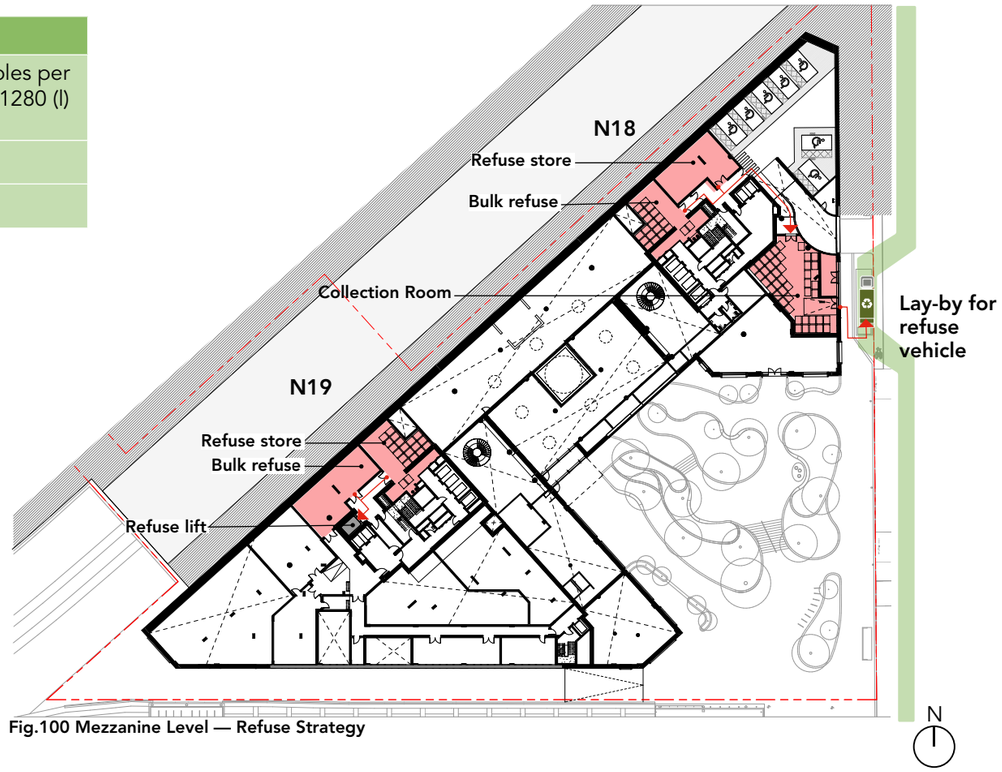


Fig.100 Mezzanine Level — Refuse Strategy

5.13 Deliveries and Servicing

Overview

The servicing strategy of the building ensures the key residential areas, such as the 'living room,' be free of trolleys and service movement as much as possible. Servicing needs include retail deliveries, post and residential parcels (DHL, Amazon, etc). The distance from the delivery zone to the retail units is minimised and easy to navigate from vehicle to each unit.

Station Level Servicing

At Station Level, there is no servicing through the residential entrance, ensuring this space is used by residents only. Service parking is accommodated from a service yard at Park Level. One service lift provides access from the service yard down to the lobby, access to the post boxes and parcel room. Another service lift allows for access to the retail unit adjacent to Station Square. This unit will likely be a food and beverage offer.

Mezzanine Level Servicing

The retail unit on mezzanine level facing the Gateway is serviced from the new lay-by on Celebration Avenue.

Park Level Servicing

The three retail units facing the park are serviced from the existing parking on Anthems Way.

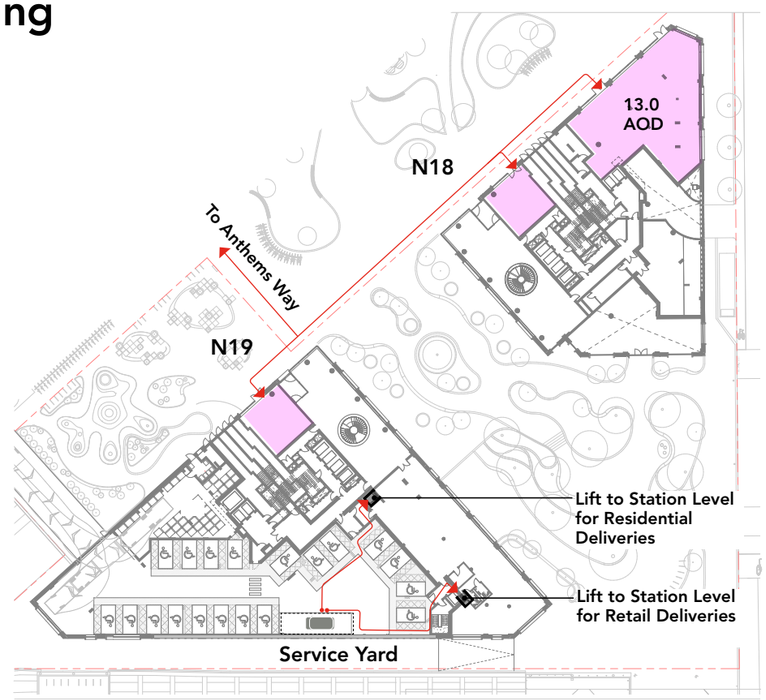


Fig.101 Park Level — Delivery and servicing strategy

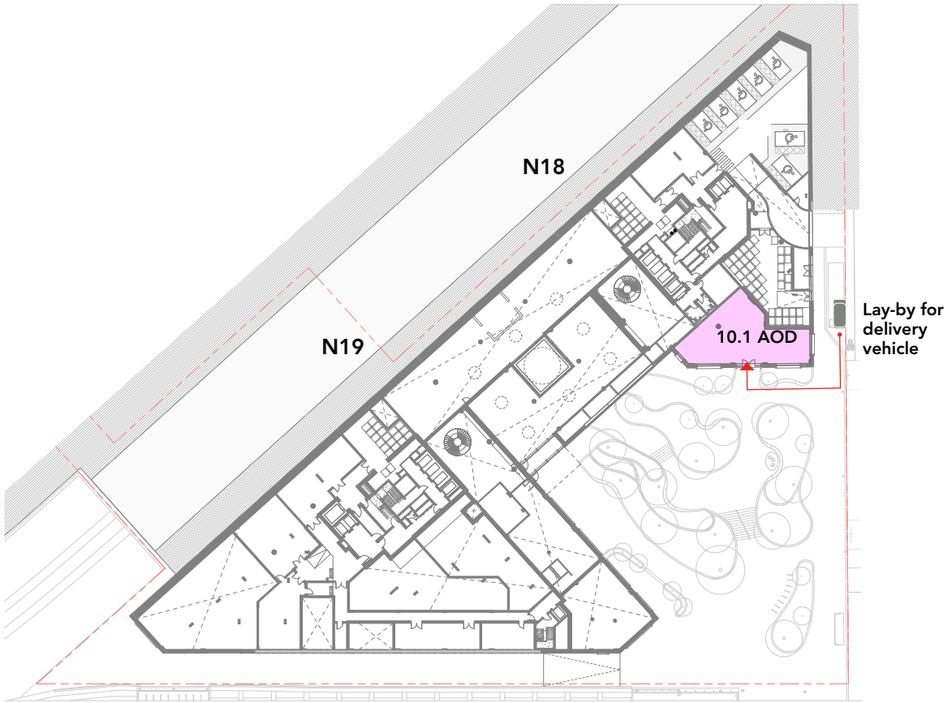


Fig.102 Mezzanine Level — Delivery and servicing strategy

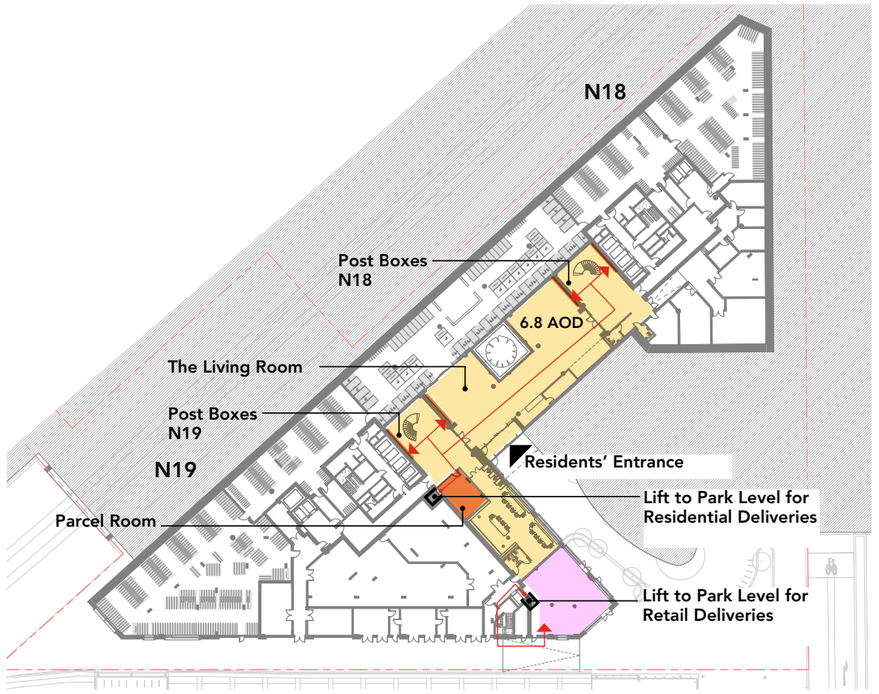


Fig.103 Station Level — Delivery and servicing strategy

KEY

- Retail
- Shared Amenity
- Post/Parcel store

5.14 Car Parking

Overview

As agreed with LLDC during Stage 0, the location of the blue badge parking is to be evenly distributed between the two towers. Therefore, more blue badge parking has been allocated to N19 than N18. Additionally, the maximum horizontal distance between any blue badge space and the front door to a wheelchair apartment is 50 metres.

The car parking provision is proposed in accordance with the London Plan standards set out in Policies T6 and T6.1–T6.5. The number of required on-site blue badge spaces is 3% of the total unit count, as required by London Plan Policy T6.1. The additional 7% can be located elsewhere in East Village as described on the following page. This strategy has been reviewed and approved by LLDC in pre-app 09.

The only parking will be for blue badge; no other domestic parking, including motor bikes, will be provided. All parking requirements are designed in compliance with Part M.

Car Park at N18

At N18, there is an entrance from Celebration Avenue at the mezzanine level. There is a small ramp (1:10 slope) from the street down into the car park to overcome the level change. Also, given the extremely limited amount of movement anticipated in this car park, the entrance and ramp are one way to minimise the impact on the façade. A waiting space is provided to allow one car to leave as another is entering. Once the resident parks their vehicle, their journey to the core is direct and legible.

Car Park at N19

At N19, the same service road used for deliveries and refuse accommodates access to the car park. Unlike N18, this condition is flat, therefore no ramping is needed. The car park allows for a two way vehicle movement and columns have been coordinated to with the required layout. Two entrances leading to the residential cores minimize the journey for the resident.

	N18	N19	Total Required (3%)	Total Provided
Adaptable Units	30	55	**85**	**85**
Blue badge spaces	7	19	**26**	**26**

KEY

- Retail
- Blue badge parking
- Cycle Store

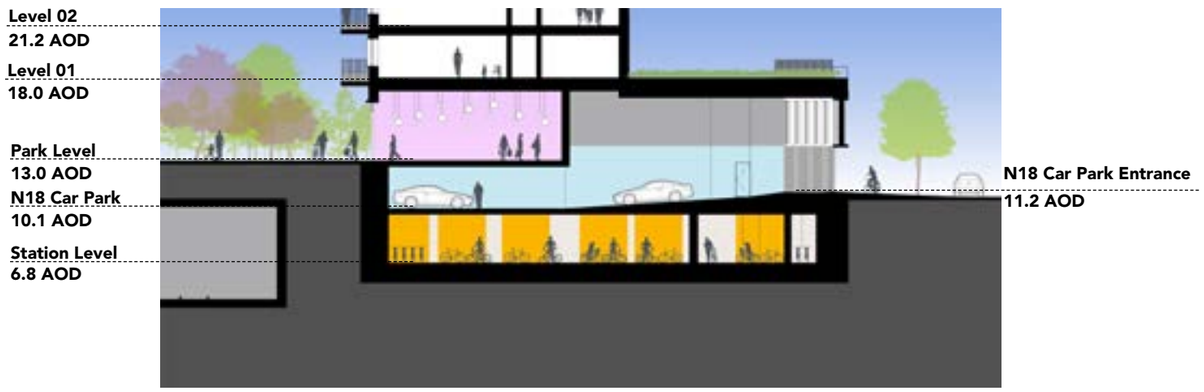


Fig.106 Section through N18 Car Park

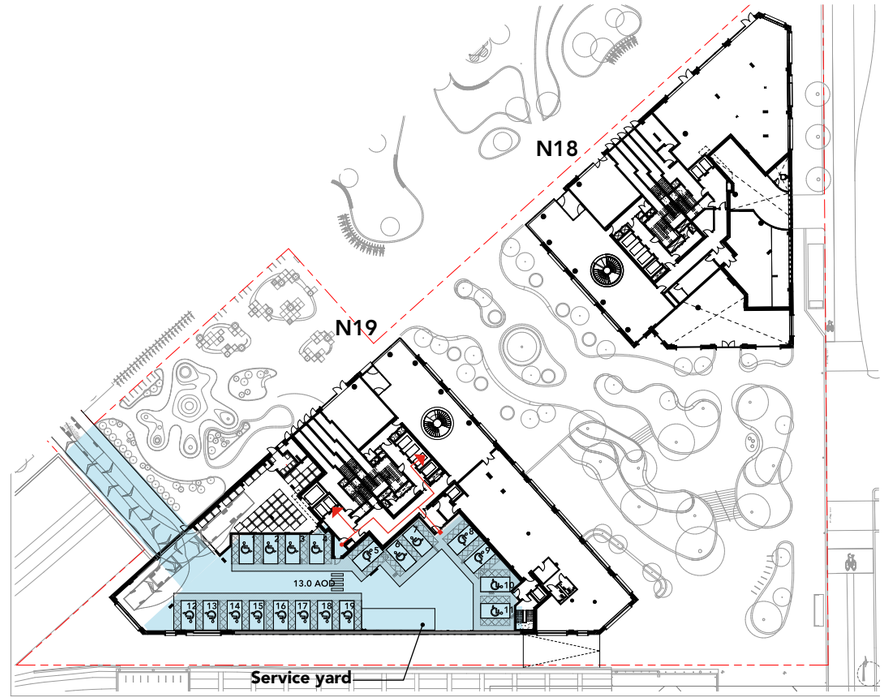


Fig.104 Park Level – Car Park at N19

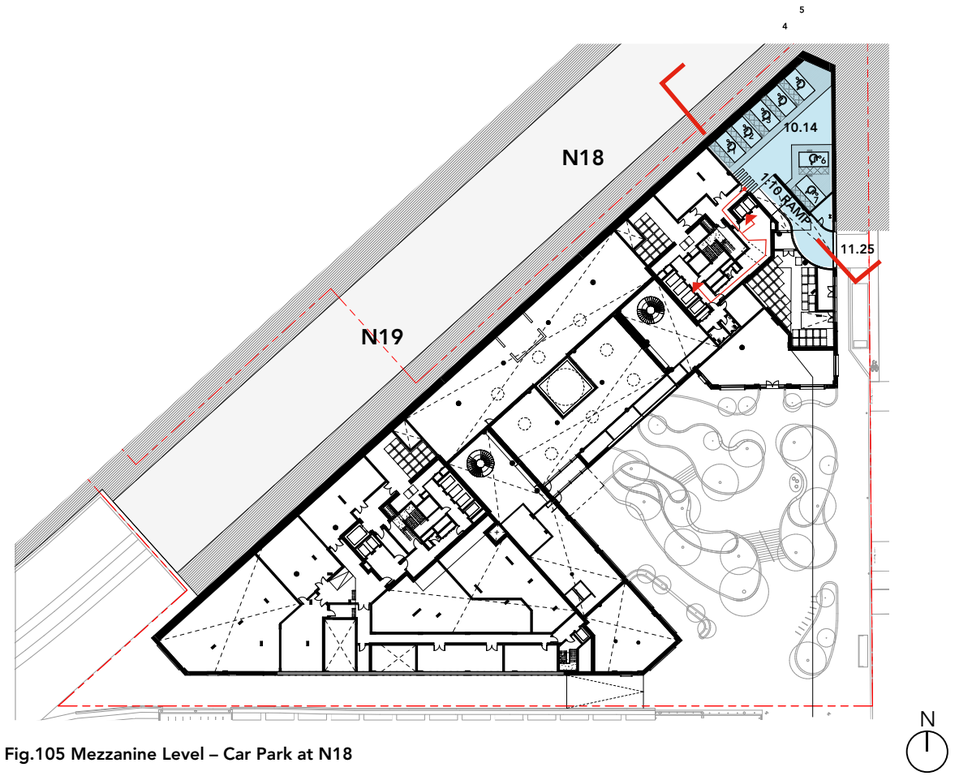


Fig.105 Mezzanine Level – Car Park at N18

Length of Journey

All car parking spaces are within the 50 metre maximum horizontal travel distance from each blue badge space (as demonstrated in the adjacent diagrams). This is achieved by assigning the car park spaces further from the door to apartments which are closest to the core. This strategy will be managed by Get Living by assigning car parking spaces to adaptable units to ensure the 50 meter minimum is always maintained.

Additional Blue Badge Parking Outside N18 and N19

As demonstrated on the previous page, the number of blue badge parking spaces located within N18 and N19 is 26 (3%) of total unit count. Based upon precedent in East Village, statistical uptake of blue badge parking for N18 and N19 is expected to be 1.18%. However, in the unlikely event that additional parking is required (up to an additional 7% or an additional 59 spaces) the following strategies will be applied in this order:

- Utilise existing 7 blue badge spaces along Anthems Way.
- Convert existing permit parking to 27 new blue badge along Anthems Way.
- Assign unused car park spaces in N07 (approx. 30).

KEY

Existing blue badge spaces (7 total)
New blue badge spaces (27 total)
Path from N07 lobby to N19 lobby
Proposed seating areas along the journey

Fig.109 Site Plan of Additional Blue Badge Parking

Whilst some of these additional spaces would be further than 50 metres horizontal distance, the proposal above utilises the existing parking infrastructure and does not impact the public realm.

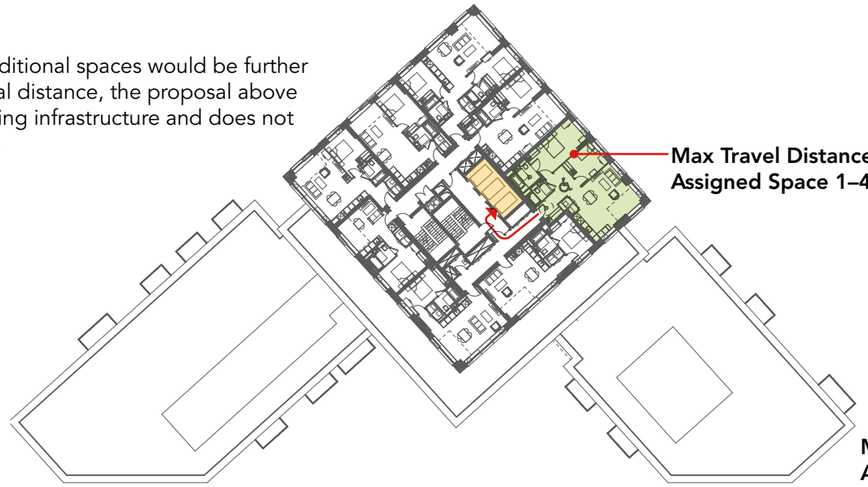


Fig.107 N19 – Levels 30–34

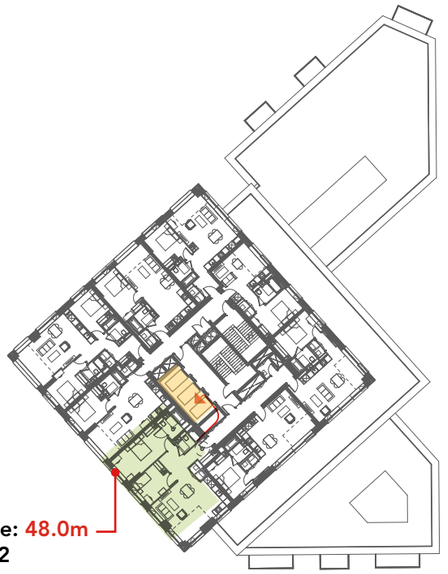


Fig.108 N19 - Levels 35–39

KEY

1B/2P Adaptable unit
2B/3P Adaptable unit
2B/4P Adaptable unit

Fig.110 N19 – Levels 1–10

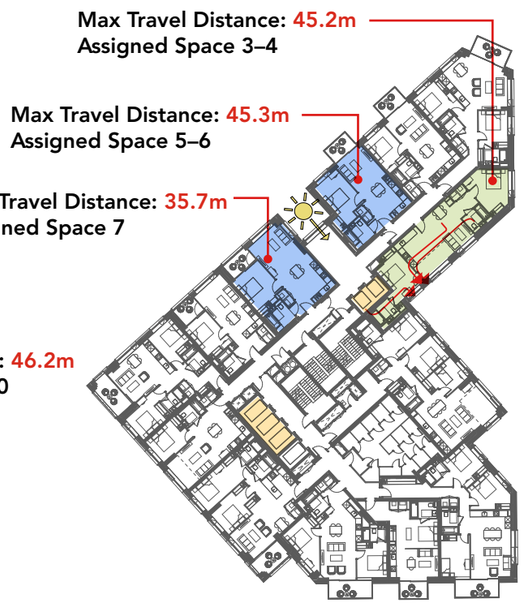


Fig.111 N18 Levels 1–10

5.15 Podium Façade – Victory Park

Retail/Commercial Podiums

The retail podiums facing Victory Park are simple punched openings with a precast projecting surround, in keeping with the residential punched openings above. Large glass windows set within an aluminium glazing system allow the activity of the commercial tenant to animate the public realm. A signage and louvre band are provided at the top of the shopfront. The design team will work closely with Get Living ensure that the architecture will be able to tie into the character and language of those around East Village, and offer flexibility for signage and branding.

Park Facing Residential Lobbies

The corners facing the Gateway and Victory Park are animated with park facing residential lobbies for both N18 and N19. These lobbies will be well-used by residents so they must be prominent and active. The corners are glazed to maximise visibility through to the animated interior and a canopy creates a welcoming gesture and differentiates itself from the neighbouring retail language.

Signage

Whilst the retail signage will be developed further with Get Living at a later date, the overall strategy will tie into the current language around the Village.

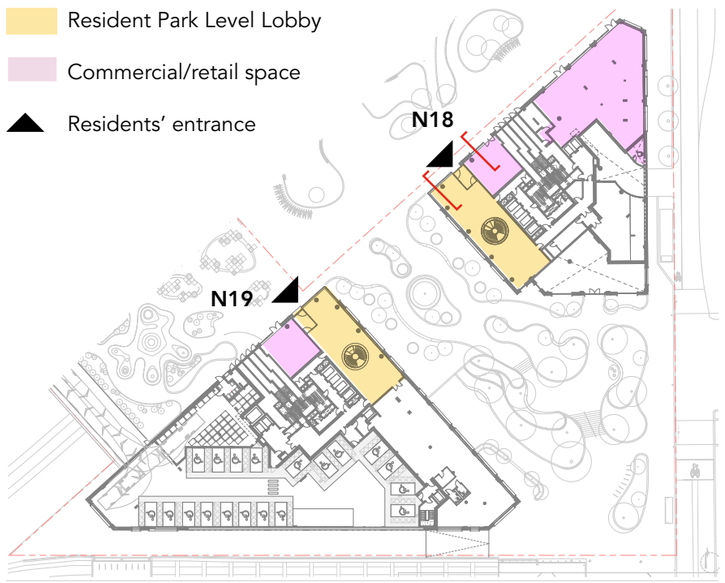


Fig.112 Park Level Plan

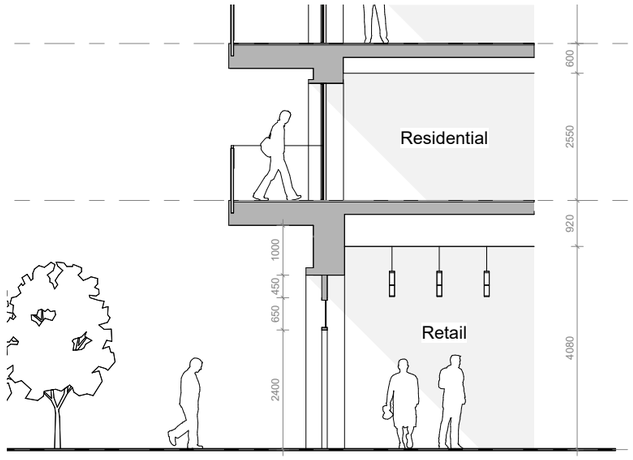


Fig.115 Section through Park Facing Retail Unit

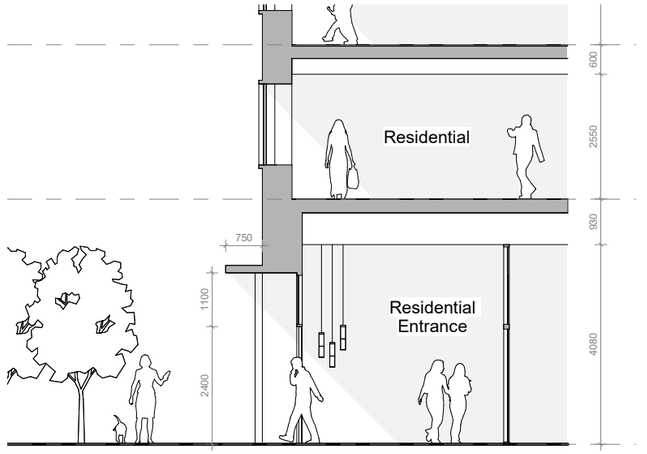


Fig.116 Section through Park Facing Residential Lobby

Fig.113 Park Facing Retail Unit

Fig.114 Park Facing Residential Lobby – N18

5.16 Podium Façade – First Floor Balconies on N18 facing Celebration Avenue

Balconies relationship with the retail frontage

Maintaining a good relationship between first floor level balconies and the retail frontage is an important aspect of the design.

The emerging scheme will provide a generous and clear architectural distinction between retail and residential units whilst embracing the importance of the retail frontage. The underside of balcony soffit from the pavement level is proposed approximately 4.5m clear, affording a generous civic scale to the street whilst providing adequate privacy to the first floor units.

Signage for retail units

A simple projecting blade sign design will be implemented on the ground level façade for retail units in keeping with the current strategy of the buildings on the other corners of the park. The finer details of the blade signage will be further developed during the next stage of design.

Projecting balconies proximity to Celebration Avenue

The approach to the balustrade design of the projecting balconies on the first floor of N18 around the corner of the park and Celebration Avenue was further developed to mitigate concerns with privacy due to the proximity to Celebration Avenue and the surrounding more urban setting on this elevation.

Generally, 100mm metal upstands/kick-boards are provided behind the balustrade to all projecting balconies on the shoulder levels for N18 and N19. The 3 nr. corner balconies on Celebration Avenue were provided with a taller 300mm upstand to provide an enhanced feeling of privacy in this location.

This approach to the three projecting balconies on the corner of Celebration Avenue was well received by the QRP.

Fig.117 Projecting Balcony Upstand Details

Fig.120 View from North of Celebration Avenue

Fig.118 Retail Frontages and the first floor balcony

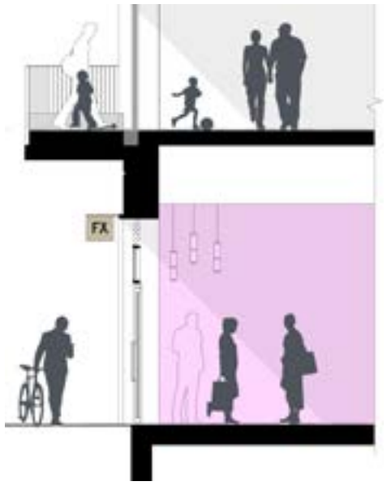


Fig.119 Section through retail area

5.17 Podium Façade – South Façade DLR Elevation

Context

The south edge of the site sits along the DLR. There is a required five metre clear zone between the fence of the DLR and permanent structures. This zone cannot be made accessible to the public. Whilst this is a considerable constraint, it is also a prime opportunity to locate plant, service and car park. This provides more freedom around the building edges which are public-facing.

Uses

The uses at station level include: cycle store, plant, servicing, means of escape, commercial refuse and retail. At Park level, most of the south façade is dedicated to the car park which will include area for service vehicles. This space will be gated to ensure the public cannot access this zone.

Architectural Expression

The architectural expression creates a clear but simple organisation that masks the many doors and louvres required for the building to function. On either end, the windows bring light into the car park, cycle store, shared amenity and retail space. They align with the punched windows above to continue this legible rhythm. The primary material is pre-cast concrete to match the rest of the podium. A textured metal panel construction is secondary to the pre-cast and is designed to easily allow doors and louvres to be integrated without much distraction.

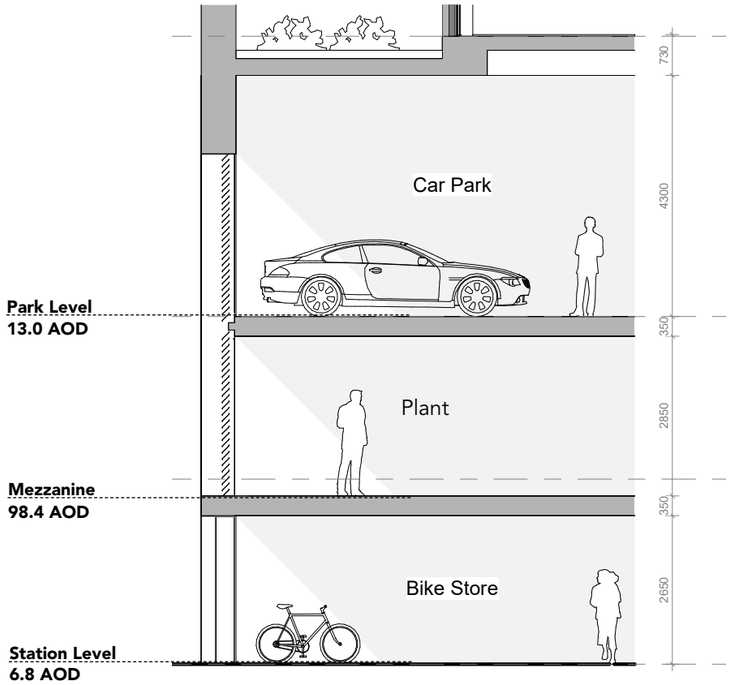


Fig.121 Section

Fig.122 Oblique view from DLR

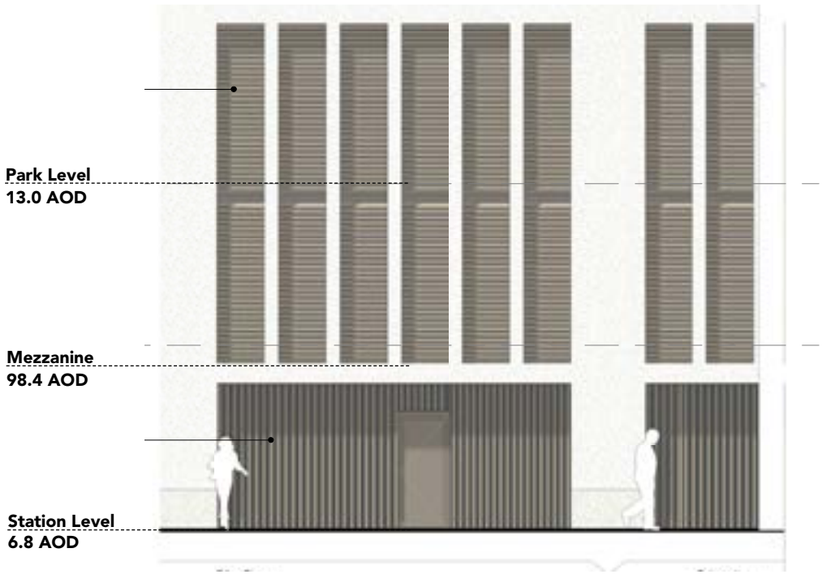


Fig.123 Enlarged Elevation

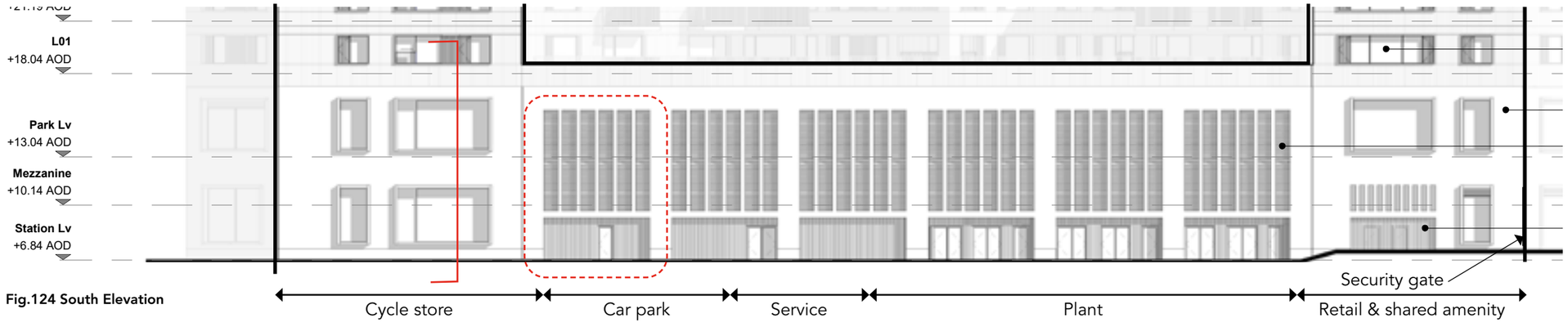


Fig.124 South Elevation

5.18 Podium Façade – Station Level Residential Entrance

Residential Entrance

The residents' entrance from Station Square will have a close relationship to the landscape of the Gateway. This key interface is carefully integrated with the geometry of the landscape, but made prominent enough that it feels like a generous and welcoming entrance.

The projecting canopy accepts the intensive landscaping with a safety guardrail set back to prevent people from walking above. The area of glazing is optimised to allow as much light into the lobby as possible. The entry doors are part of a draught lobby with two sliding automatic doors that are timed to allow residents to easily walk right through whilst also creating a heat lock to minimise energy loss. This will allow both pedestrians and cyclists to easily use this entrance. The doors will have controlled access and security measures managed by Get Living to optimise safety, especially during evening hours.

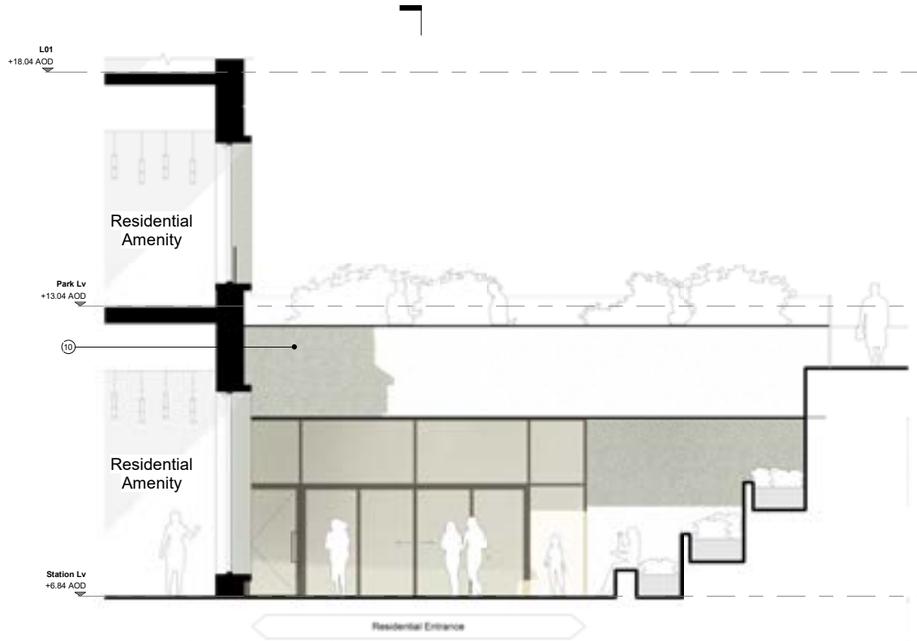


Fig.126 Residential Entrance Elevation

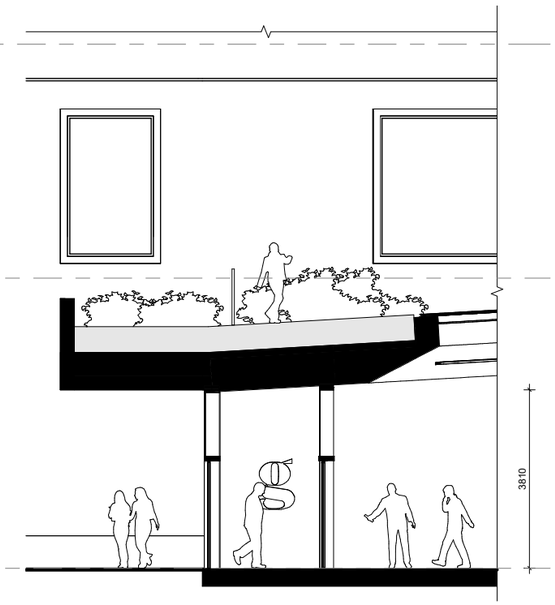


Fig.127 Section of Residential Entrance

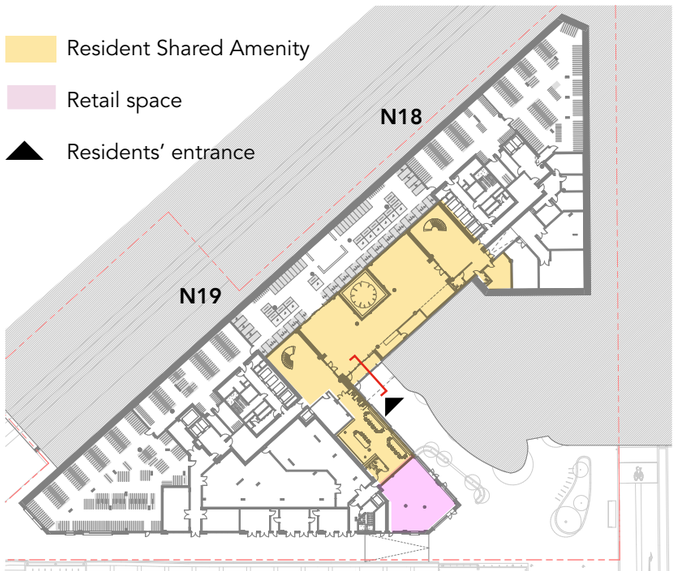


Fig.125 Station Square

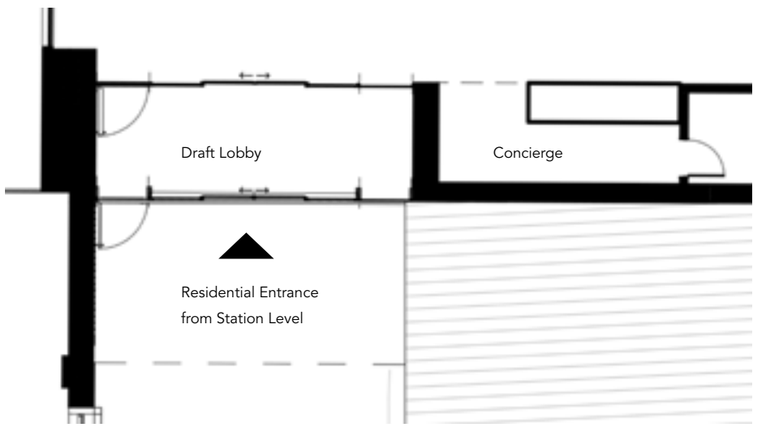


Fig.128 Draught Lobby at Residential Entrance

Fig.129 Illustration of Residential Entrance

5.19 Podium Façade – Celebration Avenue

Importance of Celebration Avenue

Celebration Avenue is a highly significant route within East Village. It facilitates over one million trips up and down the avenue yearly, with people going to and from work or home and students and parents walking to Chobham Academy.

The street follows the topography from Station Level up to the Park and includes an existing cycle lane adjacent to the pedestrian pavement which will remain in place as part of the proposal.

Uses

At N18, Celebration Avenue is the only point around the podium which is available for vehicle access. The proposal takes advantage of this opportunity by incorporating a lay-by for refuse collection and an entry to the blue badge car park.

The design of these access points is discreet and thoughtfully integrated into the architectural language to ensure the pedestrian journey is safe and pleasant. Building corners along the avenue have glass shopfronts to activate the pavement with an animated retail presence.

Architectural Expression

The Celebration Avenue elevation needs to bring together a wide variety of different internal functions, entrances and levels, while retaining an appropriately elegant civic presence for this main street within East Village.

Our approach has been to develop a limited palette of architectural treatments to ensure the elevation retains a sense of calm and proportion that is sympathetic to its neighbours and feels comfortable as part of the overall development.

At the retail units on either corner, large glass shopfronts will anchor the corners with active frontage. This ensures the façade continues to enhance the street as an important area of public realm.

At the service zone and car park entrance, the architectural expression is similar to the South façade. A textured metal wall panel system is recessed behind vertical pre-cast fins to create an architectural rhythm.

This helps to mask service doors and louvres required to make the building function. The car park is for blue badge vehicles only, so the car park gates are minimised to lessen the impact on the façade. A new lay-by is proposed to accommodate the refuse collection, which will be twice weekly. Further details on the surface treatments of the lay-by can be found in the landscape section.

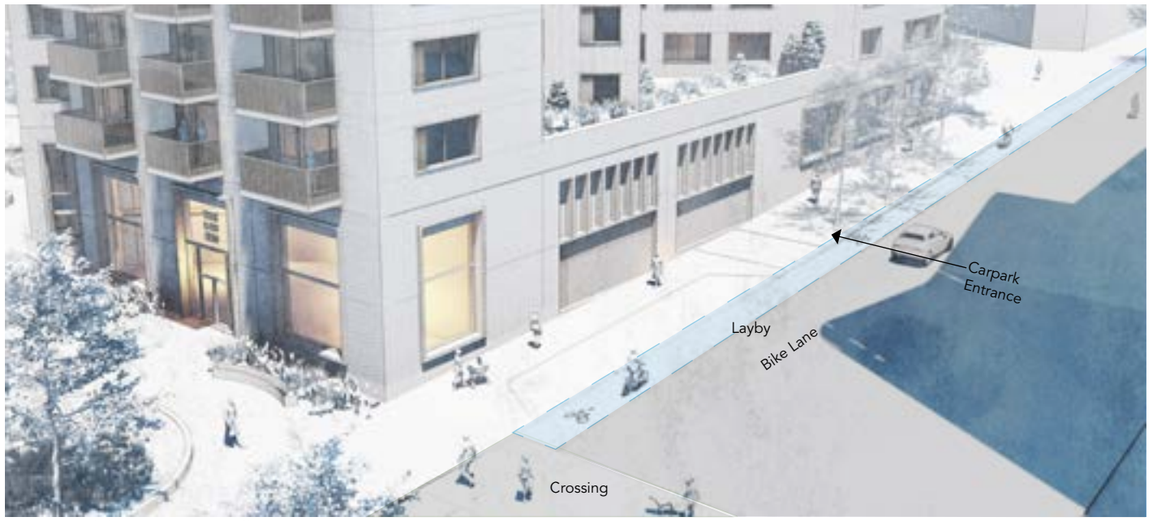


Fig.131 Celebration Avenue illustration

Fig.132 Celebration Avenue Illustration

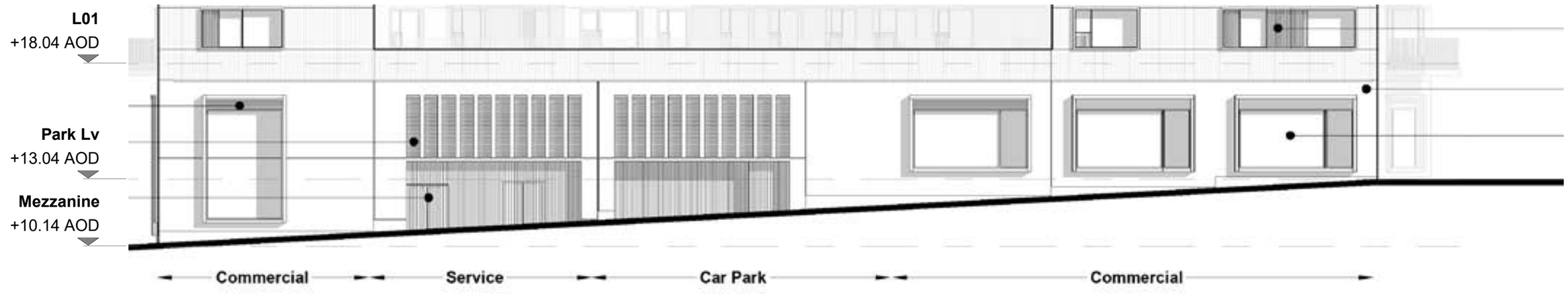


Fig.130 Celebration Avenue Elevation

5.20 Designing Out Crime

Overview

There is an ongoing priority in London to improve safety around the city, especially for women and girls. This priority has been discussed with LLDC during pre-apps and has been considered throughout the design process. LLDC is currently working on coordinating planning guidance to help inform design. The design team has considered the following in advance of guidance:

- Lighting to prevent dark spots where anti-social behaviour may occur.
- Public realm that helps to discourage intimidation and harassment.
- Avoid niches or landscape where people can hide.
- Make public pathways and connections clear and legible.
- Manage and upkeep the public realm.

In addition, the established principles of Secure by Design have been considered throughout the design process. The layout and massing of the proposal is optimised for personal safety through clear routes, ample access and long, unobstructed sightlines to prevent anti-social behaviour and prevent crime. Whilst the project will not be seeking certification, the strategies, principles and guidance in Secure by Design is thoroughly integrated into the proposal.

General Layout and Landscape

- Straight, well-maintained, well-lit footpaths which are not near gaps or insets which could encourage anti-social behaviour or hiding.
- External lighting should achieve Level 4, Institute of Lighting Professional (ILP).
- All doors and windows at ground and first floor level will meet the required Secured by Design criteria.
- Lobby entrances should be well marked, easy to find and seen from afar, have clear glazing, be well-lit and have a robust access control system.
- Planting should not impede the opportunity for natural surveillance and wayfinding, and must avoid the creation of potential hiding places.
- CCTV on all key routes should be in the public realm.
- Windows and doorsets which are within 2 metres vertically of an accessible surface are to be designed to follow the objectives set out in Section 22 of SBD 2019.
- All communal areas (lift lobbies, corridors, etc) are to have 24 hour lighting which may be operated by sensors.
- There should be a visitor door entry systems and access control which can be easily operated by residents (see section 27.24 SBD 2019 for details on large developments).
- Communal post and package delivery areas should be design with a robust construction to prevent theft and vandalism. Post and package rooms should be visible from other areas and be monitored by CCTV.

Bicycle Parking

- All areas are to be well-lit to meet required standards and have CCTV.
- Bicycle racks should contain multiple locking points.
- Racks to be constructed of robust materials, with preference for welded connections.

Car Parking

- All areas are to be well-lit to meet required standards and have CCTV.
- Avoid inward opening access gates. Rolling shutters or collapsing gates preferred.
- Measures to be employed to prevent tailgating into entrance.

Fig.133 Secured by Design Homes 2019

5.21 Sustainability Commitments

Summary of Sustainability Commitments

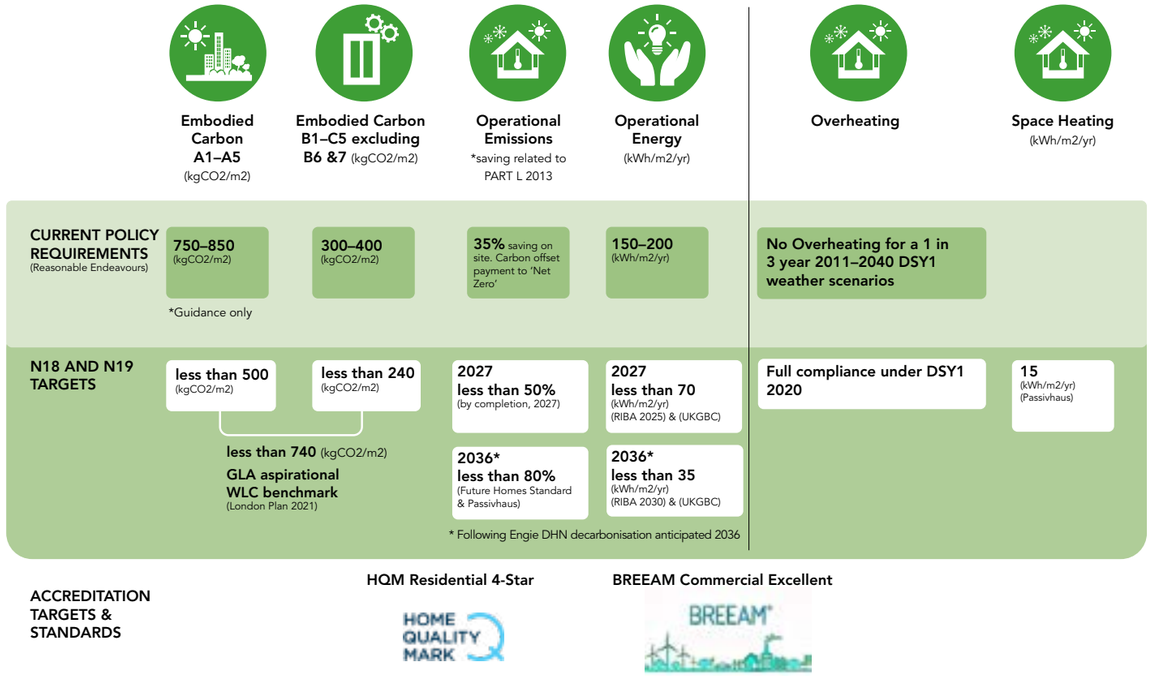
The diagram to the right summarises the sustainability commitments for N18 and N19. They are compared alongside the current policy requirements. Given these ambitious targets, sustainable and low carbon design has been at the forefront of the design vision. These targets guided decision making on the development of the façade and will continue to be a top priority as the project progresses.

Details

- **Proposed % reduction in CO2 emissions beyond Building Regulations:** The proposed development aim to achieve at least 35% reduction in CO2 emissions beyond Building Regulations (to be improved upon once Engie DHN is decarbonised). This will be detailed in the Energy Statement backed by SAP and SBEM calculations.
- **Building or material re-use / low embodied carbon materials:** The proposed development will utilise concrete with high GGBS content and maximise the use of recycled steel and aluminium to reduce embodied carbon. Our aim is to limit the embodied carbon over the building's lifecycle to 500 kgCO2e/m², as per GLA's guidance and exceeding current regulation. A detailed analysis will be included in the Whole Life Carbon Assessment and Circular Economy report.
- **Building heat loss form factor / approach to minimising exposed surface areas:** Form factor of proposal is 0.60, an improvement to the 2014 form factor of 0.76.
- **Proportion of each elevation that is window as a %:** 30–35% generally, with up to 40% facing northeast where solar gains are significantly reduced.
- **U-value target for external wall:** 0.14 W/m².K.
- **U-value target for roof:** 0.10 W/m².K.
- **U-value target for floor:** 0.10 W/m².K.
- **U-value target for windows**: 1.2 W/m².K.
- **U-value target for doors:** 1.2 W/m².K.
- **Design air permeability target (m³/m²/h@50Pa):** The target air permeability for the proposed development is 1.0–3.0 m³/m²/h@50Pa.

Summer and winter ventilation strategy description

- The apartments will be primarily naturally ventilated in summer, with MVHR providing background ventilation in bypass mode.
- In winter, MVHR will provide fresh air for the apartments to minimise ventilation, heat loss and reduce the heating demand.
- **Strategy for mitigating overheating risk / TM59/TM52 overheating analysis:** The glazing ratio and balconies are carefully designed on each façade to respond to different levels of solar exposure. Other passive measures such as projecting frame details are been adopted to mitigate overheating risk. Detailed TM59/TM52 overheating analysis has been undertaken on residential, commercial and amenity areas of the scheme, which confirm that 100% of units pass the TM59 assessment, a highly favourable result.
- **Heating / cooling system description:** Wet LTHW system connected to the Engie Olympic Park District Heating Network, distributed around the building to HIU units in each of the apartments, with radiators to heat apartments. No cooling is proposed to the development.
- **Location of mechanical ventilation fans / heat recovery units / heat pumps**: AHU's serving Back of House areas and amenity spaces located at basement and first floor levels. Apartment MVHR's located in the utility cupboards. Corridor vent/smoke fans located at roof levels.
- **Predicted energy use intensity of building excluding renewable contribution (kWh/m²/yr)**: Target energy use intensity: 70 kWh/m².yr.
- **Predicted space heating and/or cooling demand (kWh/m²/yr):** Target space heating demand: 15 kWh/m².yr.



- **Estimated annual generation from renewables (kWh):** The feasibility of renewables has been evaluated, specifically PV's on the rooftops, and it has been determined (alongside coordination with the environmental engineer) that due to demand on rooftop space for plant, private amenity, shared amenity (two resident rooftop terraces), building maintenance requirements and urban green factor, the amount of rooftop available for PV's would not provide a great enough impact. The sustainability strategy continues to focus on the principles of the dynamic façade and a high-performing, efficient envelope.
- **Embodied carbon assessments covering at least the primary building structure:** A Whole Life Carbon Assessment will be undertaken for the proposed development. This will cover the product stage, construction stage, in-use stage and end of life stage of the building and provide full details of the embodied carbon performance of the scheme.

5.22 Principles of High-Quality Apartment Layouts

Focus on Residential Quality

Upholding principles of residential quality has been a key objective of both Get Living and the design team. This includes such architectural aspects as:

- Views from within 2 steps of the apartment door wherever possible.
- Optimising layouts to minimise inefficient or dark space (such as hallways).
- Provide living areas that are wide enough to accommodate a flexible and comfortable seating arrangement, ideally 3.5m.
- Raised window sills to allow views out as well as flexibility for furnishing arrangements.
- Provide private amenity so that it feels like an extension of the living space.
- Identifying where solariums, inset balconies and projecting balconies best enhance the quality of the apartment by responding to environmental conditions.
- Optimise daylight/sunlight.

The build-to-rent apartments will be provided fully-furnished, therefore the apartments need to be able to easily accommodate a comfortable and flexible furnishing arrangement. Ceiling heights in the main living space to be 2.55m (enhancement from minimum requirement of 2.50m).

Apartment Layouts

GHA has worked closely with the design team and Get Living to ensure apartment layouts are high-quality, comfortable and attractive. All units have been tested for overheating and daylight/sunlight with generally favourable results (see sections on microclimate for further information).

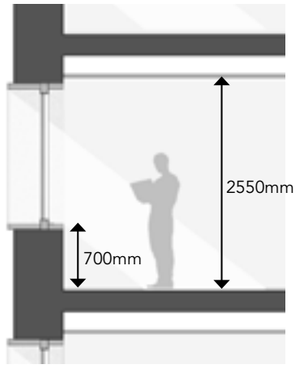


Fig.135 Typical Section Through Apartment Window

Fig.134 Visual of Living Room with Inset Balcony

5.23 Studio Apartments

Studio Units

The design team has put a particular focus on the quality of the studio units to ensure they are of a high standard. The studios have been tested for daylight/sunlight and have demonstrated 100% compliance with the minimum Average Daylight Factor. Studio units will also be enhanced with a privacy screen to provide a sense of privacy between the living space and bedspace. The studios in the tower tops have a unique layout that includes a solarium (since wind conditions are not favourable for a balcony) and a separate bedroom area.

Quantum: 84 total units; 10% of total units
Of which are adaptable: 0

Tower Top Level (N18 – L35–39, N19 L30–34)

Typical Shoulder Level

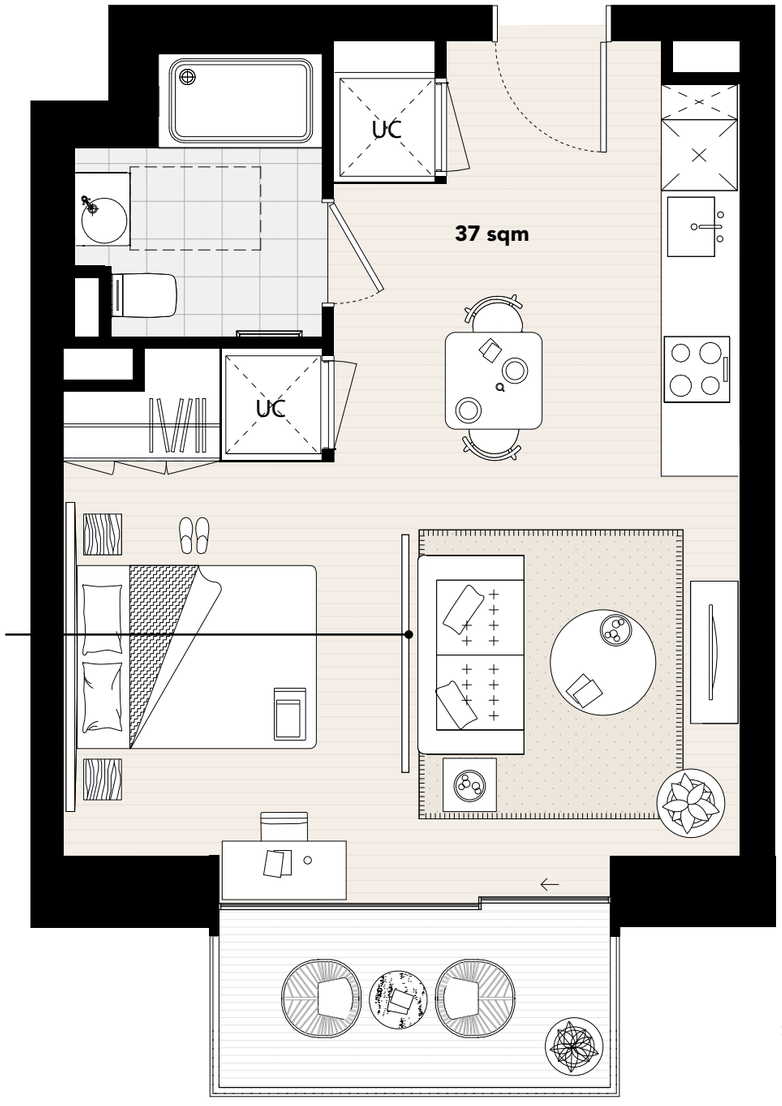


Fig.136 Typical Studio Apartment in Shoulder Blocks

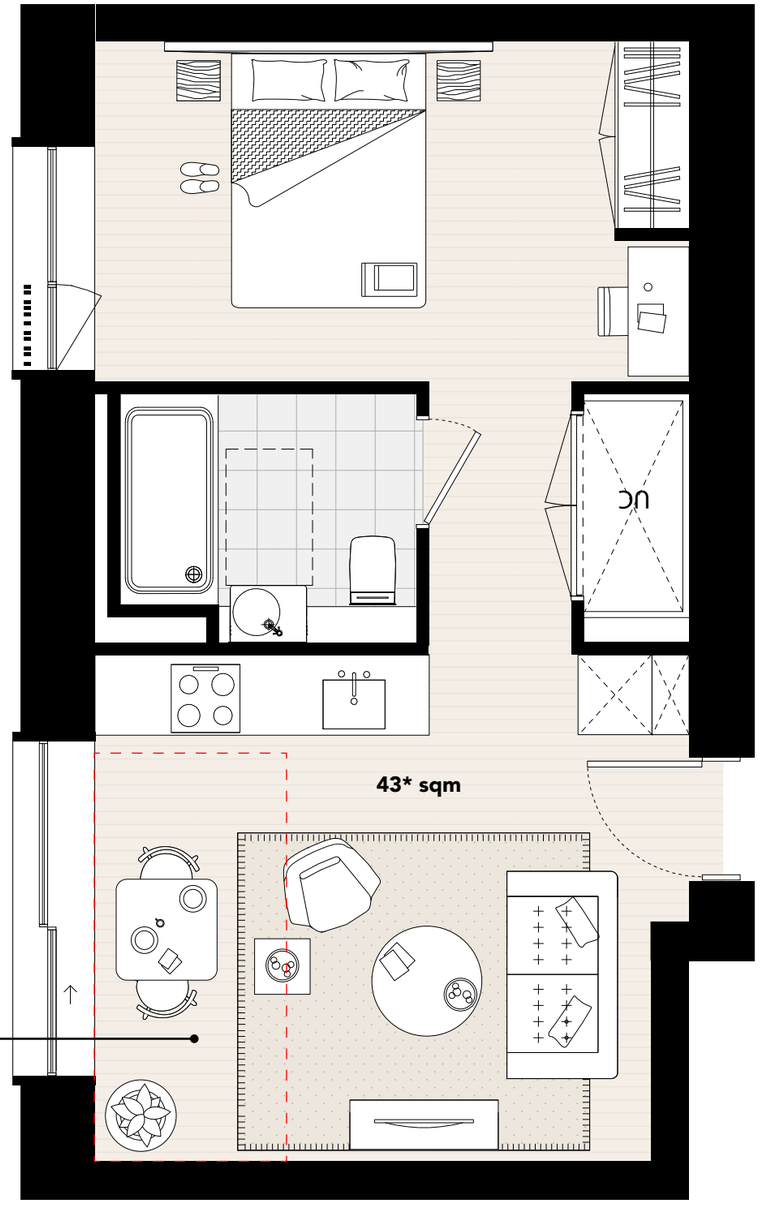


Fig.137 Typical Studio Apartment in Upper Tower Levels

*** Includes 5 sqm of internalised amenity (38 sqm + 5 sqm)**

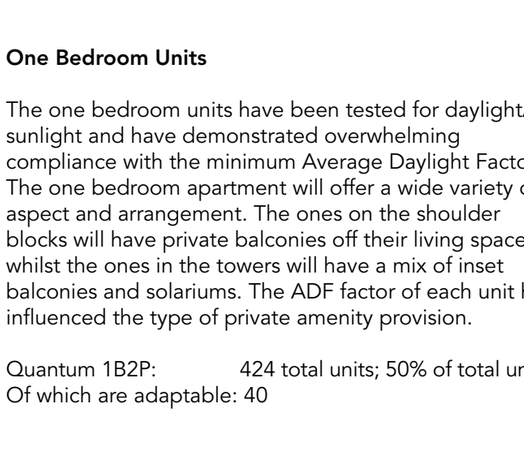
Area of solarium (internalised amenity)

5.24 One Bedroom Apartments

One Bedroom Units

The one bedroom units have been tested for daylight/ sunlight and have demonstrated overwhelming compliance with the minimum Average Daylight Factor. The one bedroom apartment will offer a wide variety of aspect and arrangement. The ones on the shoulder blocks will have private balconies off their living spaces whilst the ones in the towers will have a mix of inset balconies and solariums. The ADF factor of each unit has influenced the type of private amenity provision.

Quantum 1B2P: 424 total units; 50% of total units
Of which are adaptable: 40



Typical Tower Level

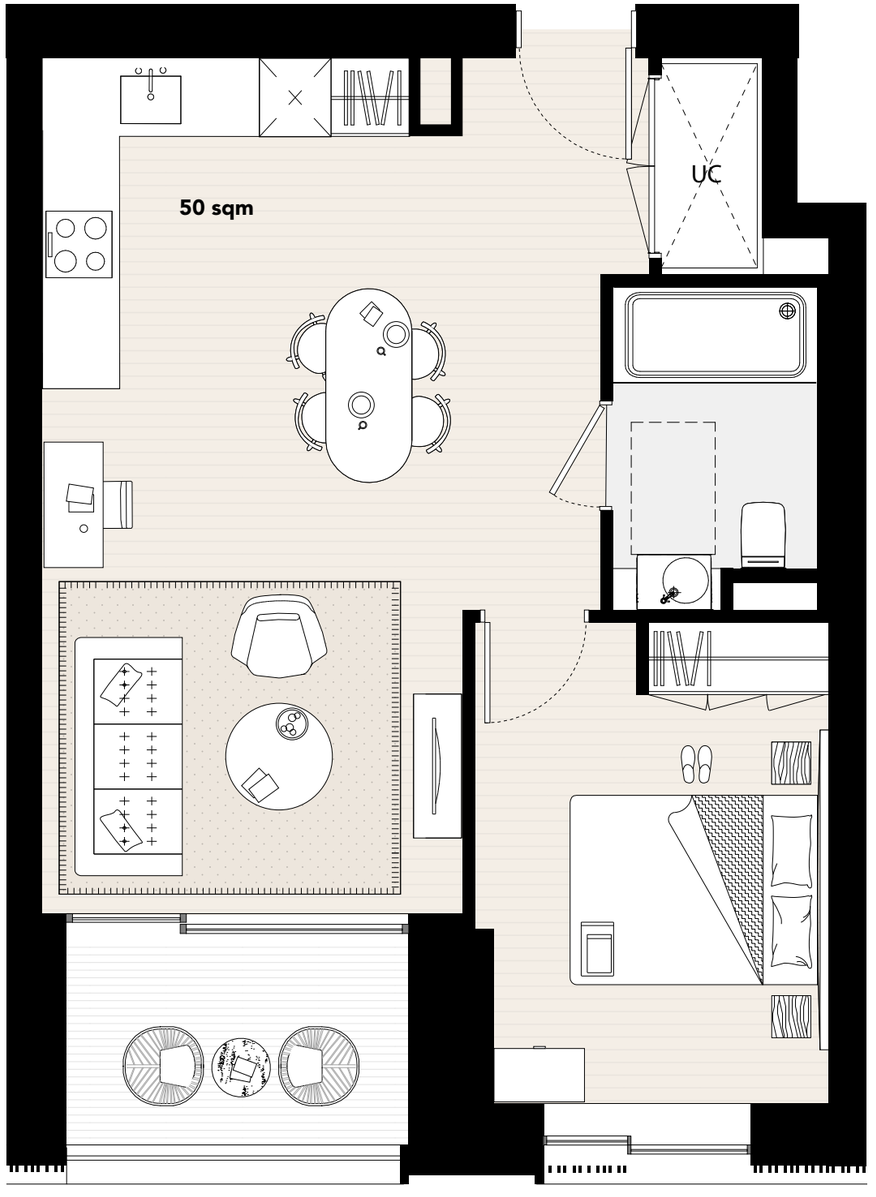


Fig.138 Typical One Bedroom Layout in Tower

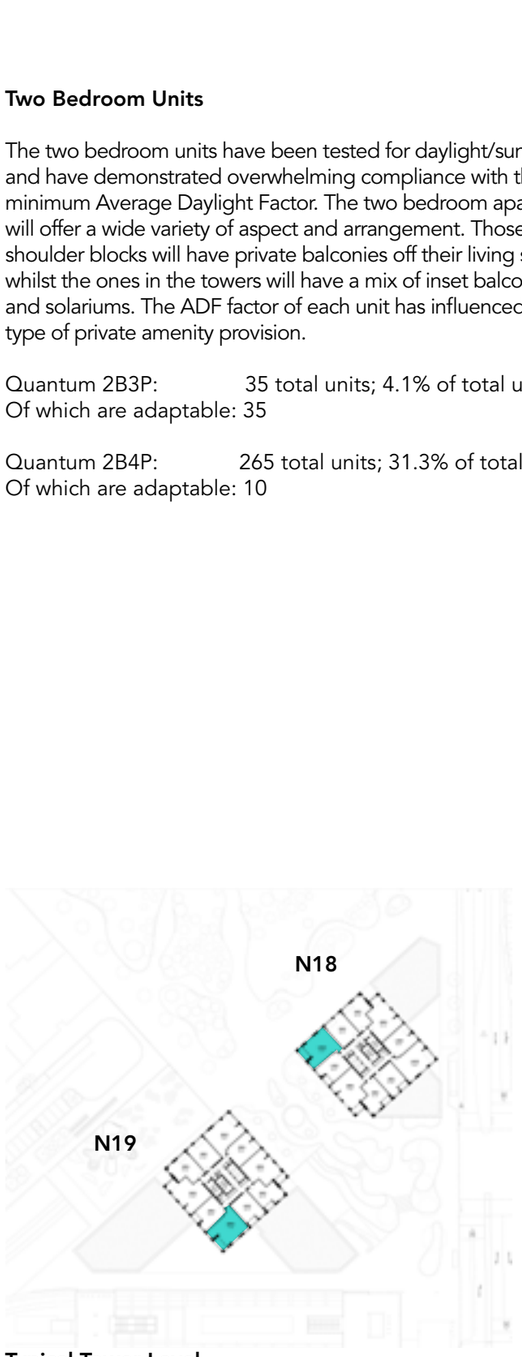
5.25 Two Bedroom Apartments

Two Bedroom Units

The two bedroom units have been tested for daylight/sunlight and have demonstrated overwhelming compliance with the minimum Average Daylight Factor. The two bedroom apartments will offer a wide variety of aspect and arrangement. Those in the shoulder blocks will have private balconies off their living spaces whilst the ones in the towers will have a mix of inset balconies and solariums. The ADF factor of each unit has influenced the type of private amenity provision.

Quantum 2B3P: 35 total units; 4.1% of total units
Of which are adaptable: 35

Quantum 2B4P: 265 total units; 31.3% of total units
Of which are adaptable: 10



Typical Tower Level

Fig.139 Typical Two Bedroom Layout in Tower

5.26 Three Bedroom Apartment

Three and Four Bedroom Units

The tree and four bedroom units have been tested for daylight/sunlight and have demonstrated a majority compliance with the minimum Average Daylight Factor. These units are located in the shoulder blocks and are typically on corners, making them dual aspect. The ADF factor of each unit has influenced the type of private amenity provision.

Quantum 3B5P: 20 total units; 2.4% of total units
Of which are adaptable: 0

Quantum 3B6P: 10 total units; 1.1% of total units
Of which are adaptable: 0

Quantum 4B6P: 10 total units; 1.1% of total units
Of which are adaptable: 0

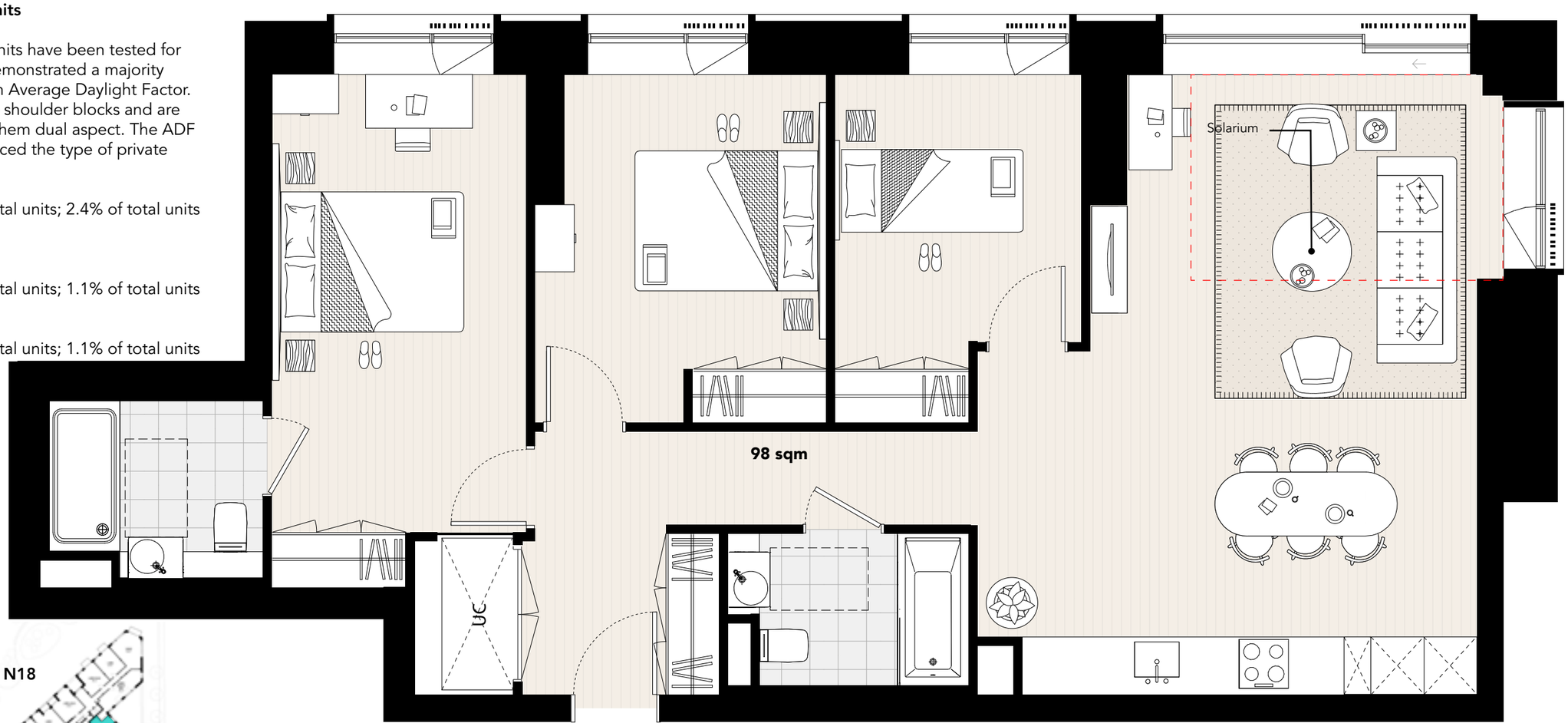


Fig.140 Typical Three Bedroom Five Person Layout in Shoulder Block (Solarium)
* Includes 8 sqm of internalised amenity (90 sqm + 8 sqm)

Area of solarium (internalised amenity)

Typical Shoulder Level

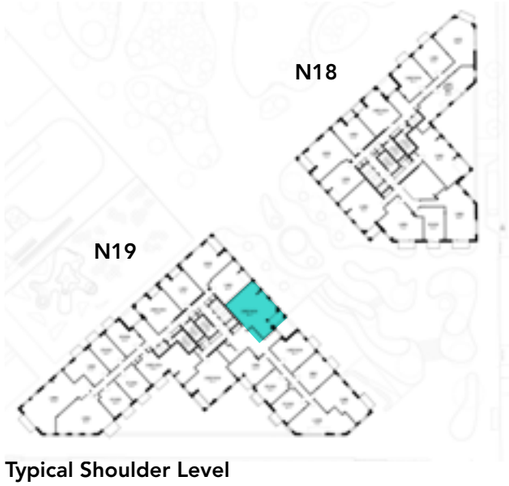
5.27 Adaptable Apartments

Adaptable Units

Eighty five units, 10% of the total, will be designed to be adaptable to achieve Part M4(3) requirements for wheelchair user dwellings. An adaptable unit is one that can be easily modified into a compliant wheelchair unit. For example, the bathrooms must be sized and plumbed to anticipate compliance, but typical fixtures and door can be installed until modifications are needed to accommodate a wheelchair user.

The adaptable units have been allocated throughout the building to offer a variety of layouts and aspects. This strategy has been reviewed with the access consultant and coordinated with the blue badge parking strategy. The horizontal journey from the assigned blue badge car park bay to the apartment door will not exceed 50 metres.

Further details can be found in the access statement. The adaptable layouts of each unit can be found in the drawings included in this application.



Typical Shoulder Level

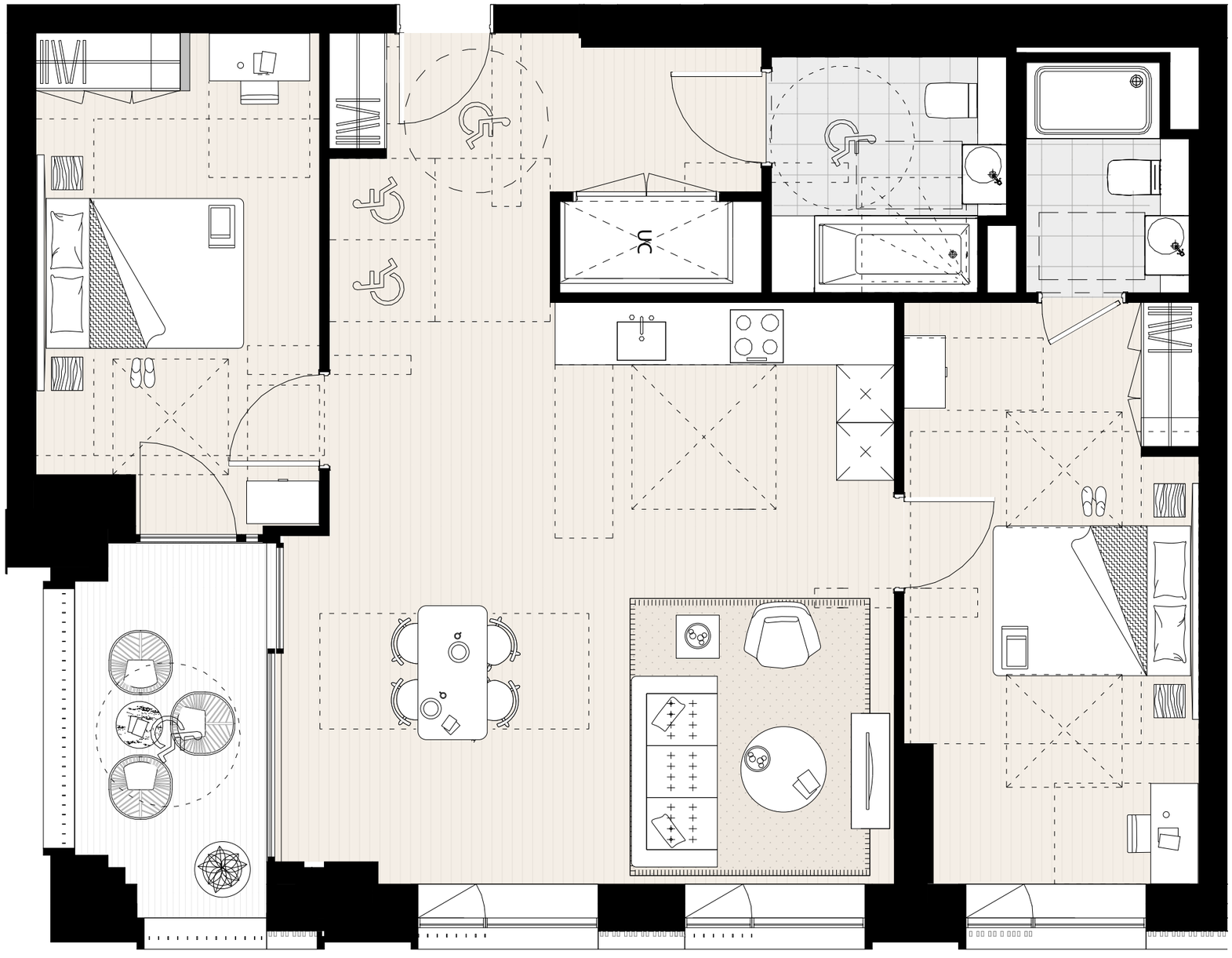


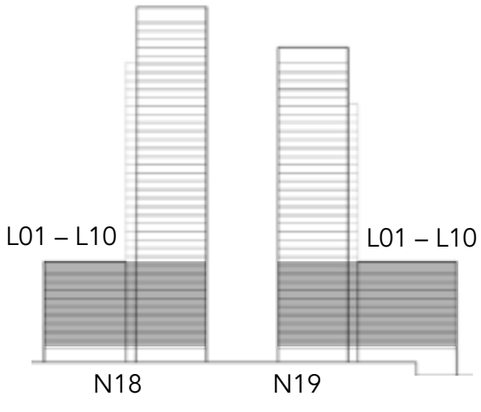
Fig.141 Typical Two Bedroom Four Person Layout Fitted Out for Part M4(3) Compliance

5.28 Residential Layouts – Shoulder Blocks

Shoulder Block Layouts

The shoulder block levels start at level 01 and go up to level 10. The arrangement demonstrates the following principles:

- Lifts and stairs are efficiently located to ensure the travel distance from the lift lobby to the apartment doors is optimised. One additional lift core and stair is added to both N18 and N19.
- Daylight is introduced to the corridors to enhance residential quality. These alcoves will have furnishing for shared resident use.
- All homes are provided with private amenity space, solariums or balconies, that feel like extensions of the living space.
- Adaptable units are located to provide a variety of aspect.
- Dark space that is not usable is given over to residential storage (this principle was also implemented in N06).

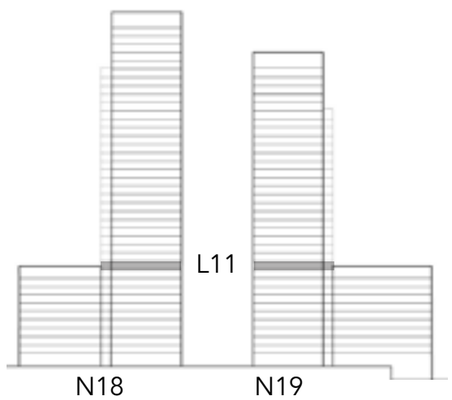


5.29 Residential Layouts – Eleventh Floor

Eleventh Floor Layouts

The eleventh floor has been designed to allow resident access to two large roof terraces overlooking the park. The remaining footprint stacks as much as possible with the tower arrangement above. The eleventh floor arrangement demonstrates the following principles:

- Access to the roof terrace on both N18 and N19 is through a small resident lounge that will be fitted with a wheelchair accessible bathroom, a small storage area, and a kitchenette. Small lounge and dining furniture will be included.
- Access to the roof terrace has been coordinated with the plant room requirements for exhaust fans. These fans will only be run when there is a fire alarm or when testing is required, keeping the impact of noise to a minimum.
- Two means of escape are provided from the roof in coordination with the fire engineer.
- Storage of maintenance equipment for façade cleaning/ repair has been coordinated with the plant enclosure
- Other rooftops are coordinated with plant and service access and will receive green roofs where achievable
- Further details on the residents' roof terraces can be found in the Landscape chapter



Key

- Private Internalised Amenity
- Space
- Studio
- 1B2P
- 1B2P (Adaptable)
- 2B3P (Adaptable)
- 2B4P
- 2B4P (Adaptable)
- 3B5P
- 3B6P
- 4B6P
- Shared Amenities

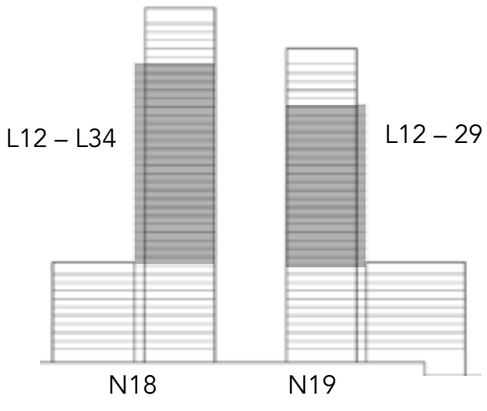
N

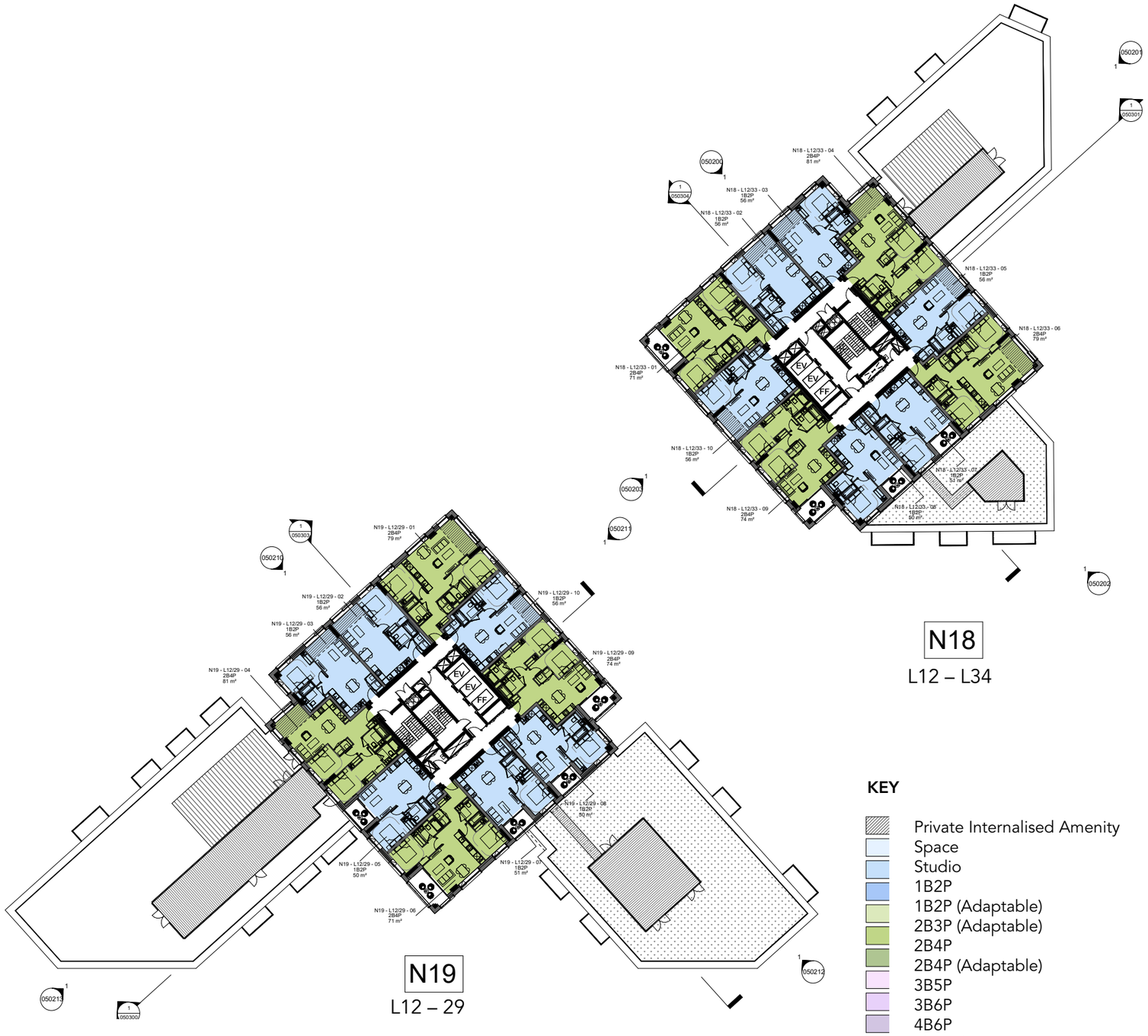
5.30 Residential Layouts – Tower Levels

Tower Layouts

The tower levels start at level 12 and go up to level 34 in N18 and level 29 in N19. The arrangement demonstrates the following principles:

- Interlocking ten unit per core form results in 60% dual aspect on a typical level
- All levels stack
- Unit types made typical and/or mirrored to create efficiency in unit types
- The locations of inset balconies and solariums are coordinated with the microclimate conditions in both plan and elevation





KEY

- Private Internalised Amenity
- Space
- Studio
- 1B2P
- 1B2P (Adaptable)
- 2B3P (Adaptable)
- 2B4P
- 2B4P (Adaptable)
- 3B5P
- 3B6P
- 4B6P
- Shared Amenities

N

Fig.142 N18: Levels 12 – 34; N19: Levels 12 – 29

5.31 Residential Layouts – Tower Setback Levels

Tower Setback Layouts

The tower setback levels start at levels 35–39 at N18 and levels 30–34 for N19. The arrangement demonstrates the following principles:

- Stacking of typical units from below.
- Adaptable unit to provide variety of aspect.
- All solariums due to high wind speeds.
- Oversized studio unit with unique layout.

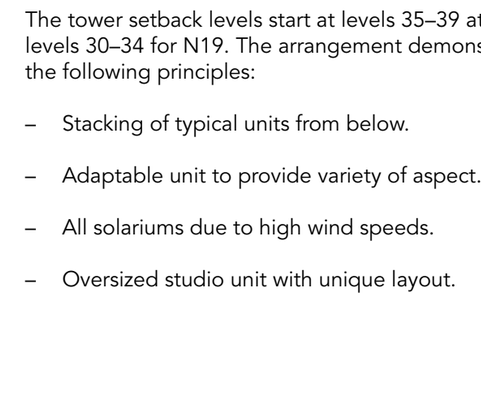


Fig.143 N18: Levels 35–39; N19: Levels 30–34

5.32 Rooftops and Façade Maintenance

Maintenance and Cleaning Strategy

There will be three means of cleaning and maintaining the façade:

- At podium level, the heights permit maintenance from ground level. Mobile elevated work platforms (MEWP) and/or minicranes will be used for glass replacement.
- The 11th floor rooftops of the shoulder blocks will contain davit arms, a davit hoist and a cradle that will be launched from the roof. Recessed davit arm socket points will be located around the façade adjacent to the parapet. Maximum railing height to be 1.5 metres to allow the craddle to sail over top.
- The towers will be maintained from a building maintenance unit (BMU) from the roof of the top most level. A parking area will be coordinated with the raised parapet design so that the BMU is not visible when not in use.

Roof Access

All roof access will be provided through safe means whether by direct access or a hatch and ladder. Final strategy for each will be coordinated with the wind consultant, principle designer and M&E engineer.

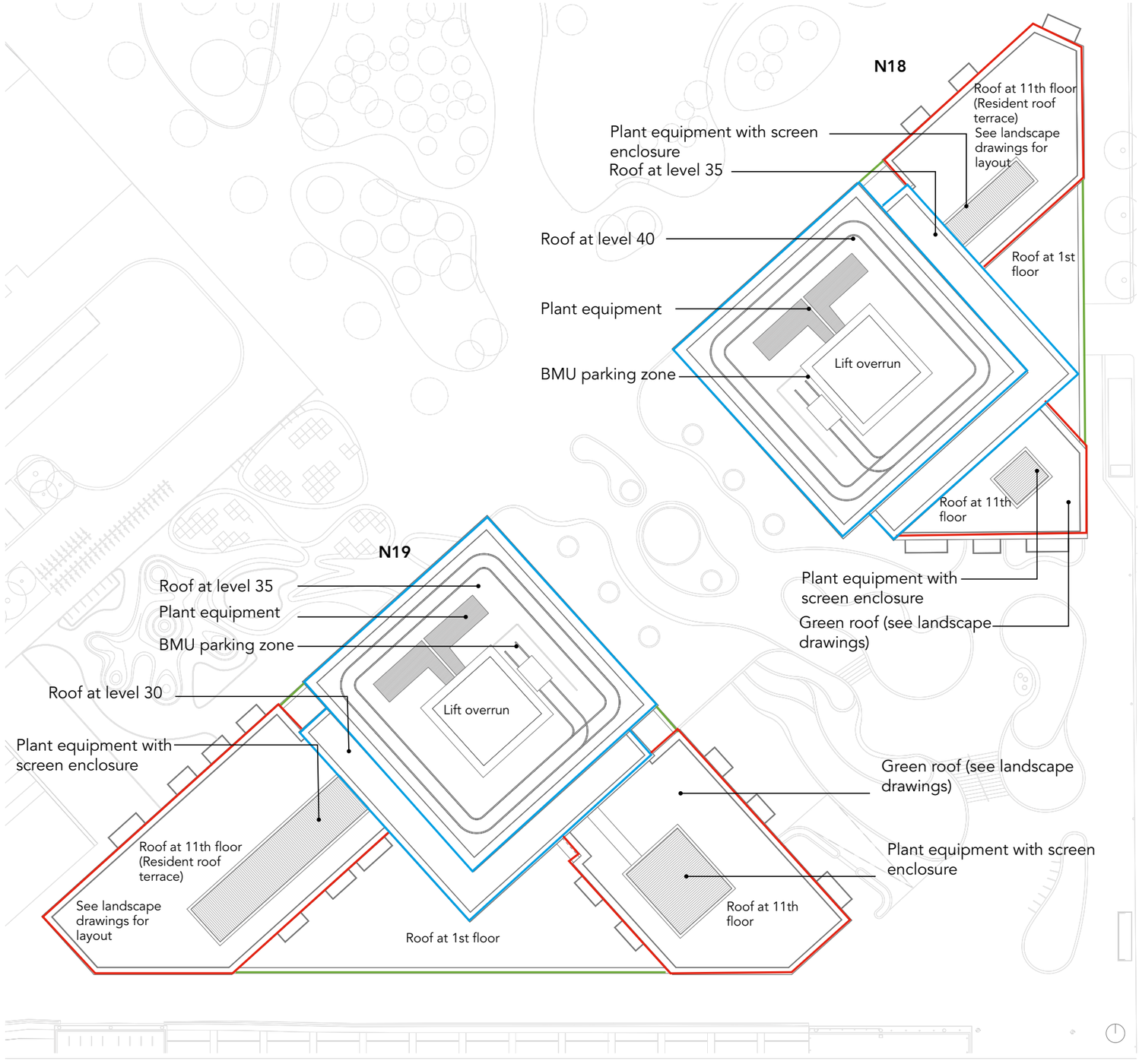


Fig.144 Roof Levels

5.33 Outwardly Sustainable Identity

Learning from the Past

- In the pre-modern era, buildings had to be designed to manage light and heat without relying on mechanical systems to keep them cool. This might now be considered ‘passive design’ and we have returned to these principles to inform our low-carbon architectural approach.
- This results in façades which have a higher ratio of solid area to glass, and therefore have a ‘solid’ rather than ‘framed’ appearance.
- Our approach is to celebrate the more solid façade surface as a visible indication of the building’s passive design approach.
- As with older buildings, the nature of this surface is very important: it should have richness and detail that elevates it and demonstrates its robust quality when seen close-up. This can be expressed through the texture, colour and material choice, as well as the detailing around window openings.

Fig.148 Art Deco Tower with Punched Windows

Fig.146 Typical Terrace House Façade

Fig.147 Typical Terrace House Window

Fig.145 N18 and N19 Concept Sketch

5.34 Dynamic Façade Principles

Learning from Nature

In addition to the more solid, fabric-first approach, we also considered how the building could respond and adapt to its microclimate.

Similar to natural structures which are formed by the influences of light, heat and wind, our building façades are designed to vary according to their immediate surroundings.

This approach improves internal residential comfort and reduces operational energy demand. Effectively, each elevation is different, in direct response to sun path, daylight exposure and prevailing winds.

A 'dynamic façade' approach, rather than 'one size fits all.'

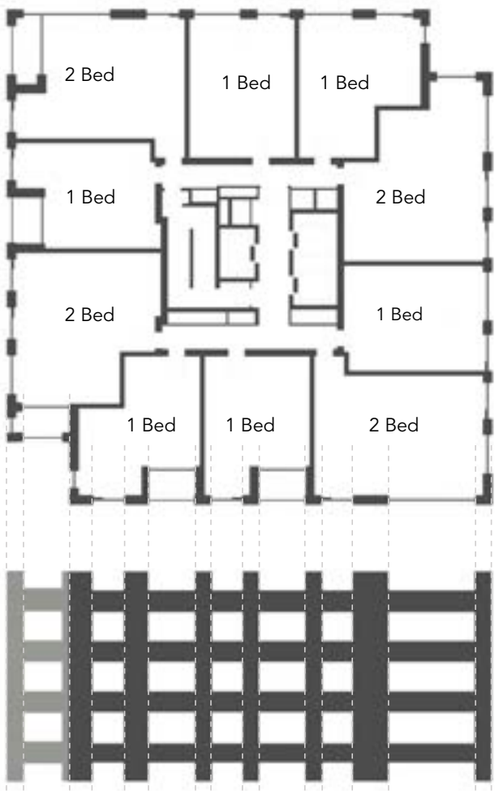


Fig.149 Typical Tower Diagram

The Dynamic Façade

A 'dynamic façade' is one that is designed to optimise energy efficiency yet is balanced by the interior comfort of the resident. Not unlike the historic punched opening precedents, the primary decision making on the architectural language is based on performance and interior environmental control.

The first step is to allow the interior layouts to inform the locations of solids and voids to create a simple elevational grid. This base grid is then refined and influenced by the local microclimate conditions.

This includes conditions on each façade in response to orientation of the sun and conditions from the bottom of the building to the top. The openings respond to these environmental changes to create an adaptive grid.

This adaptive grid creates a subtle yet playful expression that celebrates the punched openings into a unique, dynamic pattern that is both responsive and expressive.

This dynamic façade concept can only be successful if it is tested for optimisation with the following microclimate criteria:

– Overheating of the units.

– Daylight/sunlight to the units.

– Wind conditions.

The private amenity provisions, whether projecting balconies, inset balconies or solariums, will also influence the microclimate and will also be a primary feature of the dynamic façade concept.

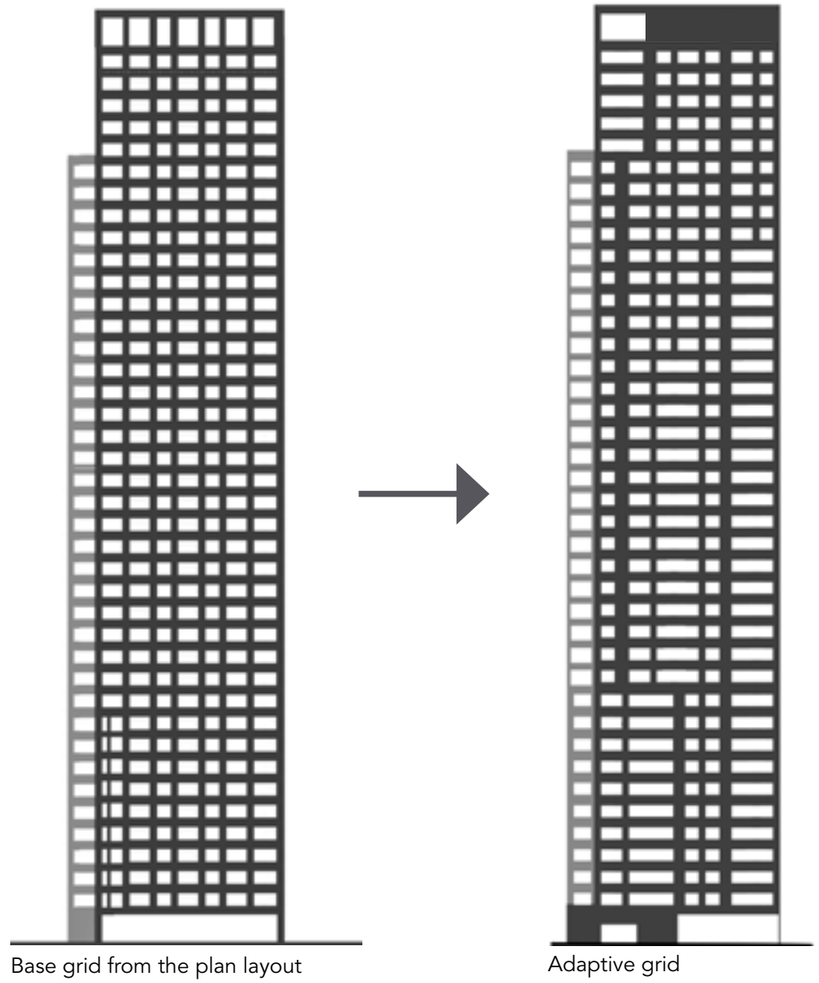
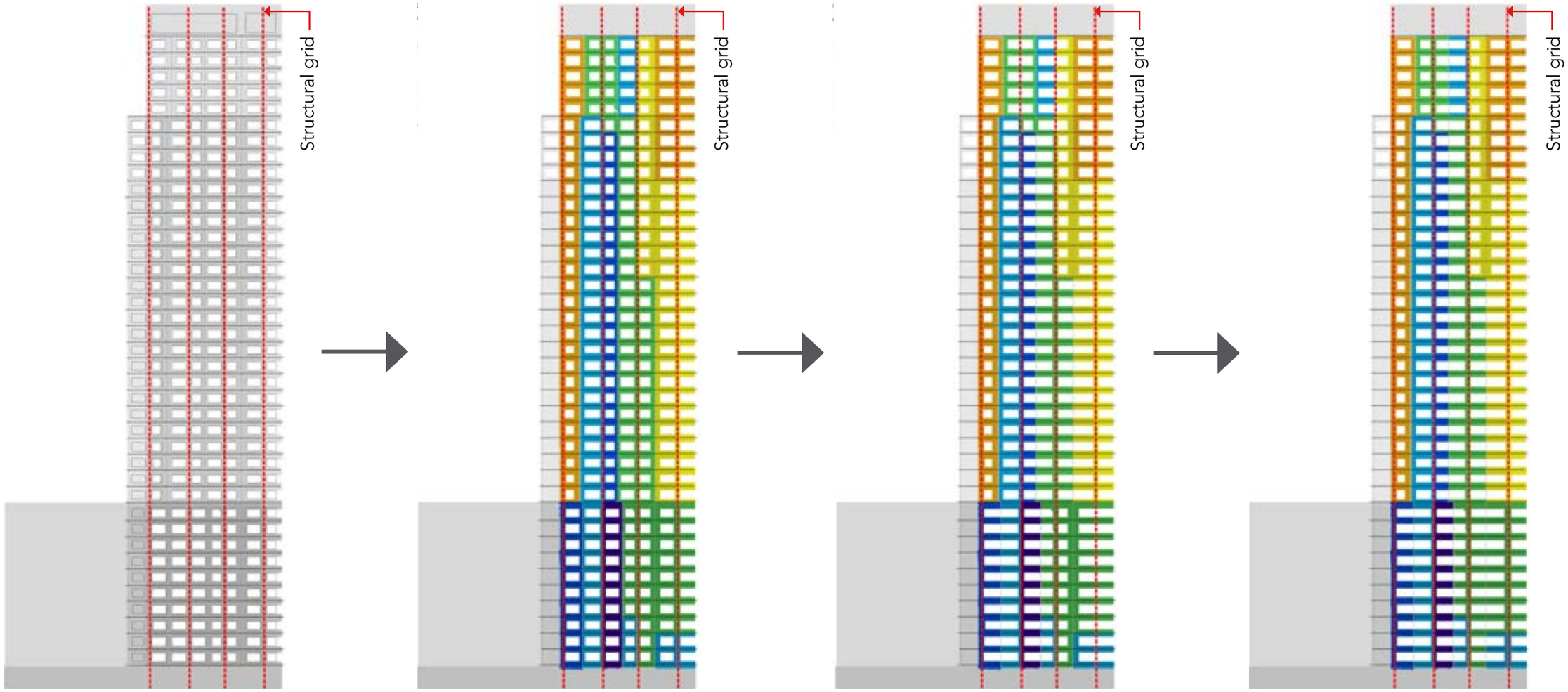


Fig.151 Concept Diagram for the Dynamic Façade

Fig.150 Precedents – Nature Adapting to the Environment

5.35 Façade Coordination with Microclimate Input



1. Punched opening based on structural grid

The following diagrams represent the process of technical input into the dynamic façade which has informed the punched openings, glazing ratio, private amenity provision and fenestration detailing.

- Openings per the internal plan.
- Punched opening with a deep window sill preferable to the fully glazed façade to mitigate overheating issues.
- Optimised façade glazing ratio based on environmental testing of the façade.

2. ADF map

The results from initial daylight/sunlight testing, Average Daylight Factor (ADF) are then considered so that adjustments can be made to improve results where needed. Results have been colour coded to display sunlight levels.

3. ADF optimisation

Where apartments receive lower levels of sunlight, punched openings are merged with inset panels to reduce the depth of reveal and help increase light exposure.

Punched openings are kept in areas with more sun as deeper reveals are more beneficial in these locations to help mitigate overheating risk.

4. ADF + structural expression

The final proposal coordinates optimised openings with the structural grid.

ADF relative to the pass rate

- 2.0% above the pass rate
- 1.5% to 2.0%
- 1.0% to 1.5%
- 0.5% + 1.0%
- 0.0% to 0.5%
- -0.5% to 0.0%

5.36 Typical Residential Façade Bay

Punched Opening Principles

The primary solid material (precast concrete) hide the structural columns and have a subtle vertical texture. The punched openings include the windows (with aluminium frames), ventilation panels and some fixed metal panels. Inset balconies and solariums will be integrated into the punched openings to allow for wind protection at high levels.

The openings are detailed with a projecting surround that creates a subtle shadow around the frame and provides additional protection from the sun in the summertime. It is an architectural device that emphasizes the expression of the dynamic façade when seen from afar whilst also responding to microclimate.

Ventilation

Incorporated into the window system, fixed perforated metal panels with an openable glass pane on the interior allow for maximum resident control of natural ventilation.

This strategy allows the glass panel behind the metal screen to be fully openable, eliminating the need for safety restrictors, which can hinder ventilation. Adjacent to the panels are large fixed picture windows that provide expansive views uninterrupted by mullions. At solariums, large sliding panels provide for increased ventilation. At balconies and inset balconies, sliding glass doors achieve ample ventilation and access to the external amenity.

Fig.152 Illustrative Apartment – Ventilation Panels and Picture Window

Fig.153 Precedent – Glass Picture Window

Key

1 Precast concrete panel with organic vertical pattern

2 Projecting precast concrete window reveal with smooth finish

3 PPC Aluminium window system with clear glazing, metalic finish

4 PPC Aluminium profiled panel with vertical pattern, metallic finish

5 PPC Aluminium profiled perforated panel with openable glazing behind, metallic finish

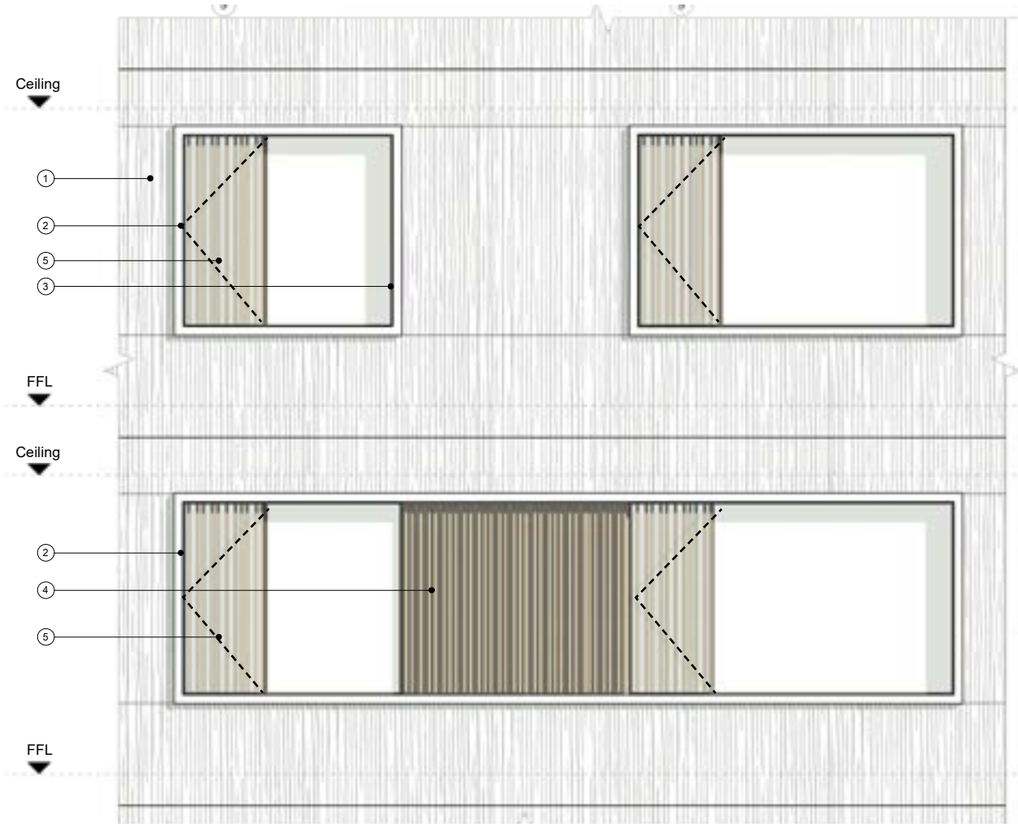


Fig.154 Illustrative Bay Study – Tower Level

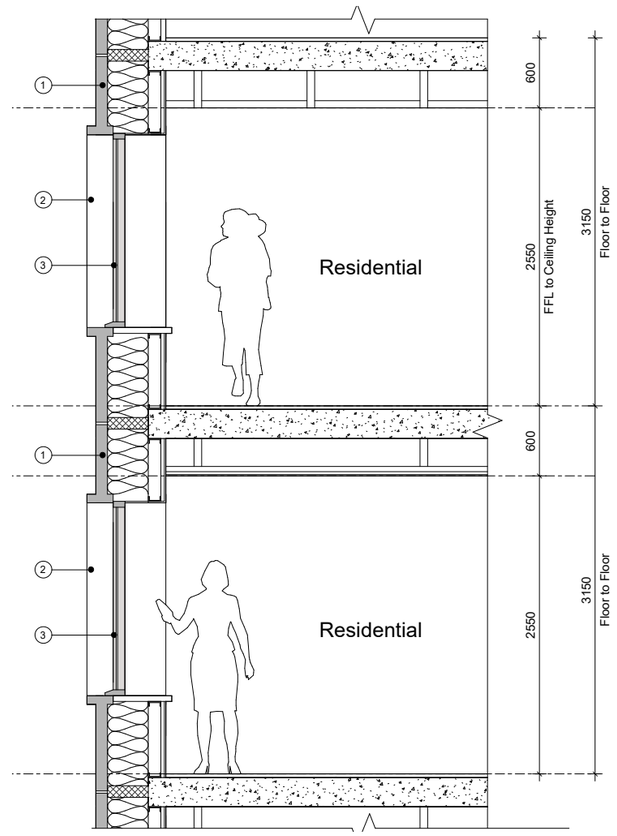


Fig.155 Illustrative Section

5.37 Materials

Materials

In keeping with the overarching character of N18 and N19 as sustainable and informal buildings, material will be selected to present a sense of the organic and human scale, as opposed to precisely engineered, 'perfect' finishes.

1. Textured pre-cast concrete (Type 1): Located at the residential façades, the texture will be a non-regular vertical expression with a matte finish; the precast colour will be a warm off-white.

2. Textured pre-cast concrete (Type 2): Located at the podium base, the texture will be expressed with a matte finish, with some panels being smooth/ honed to define significant entrance.

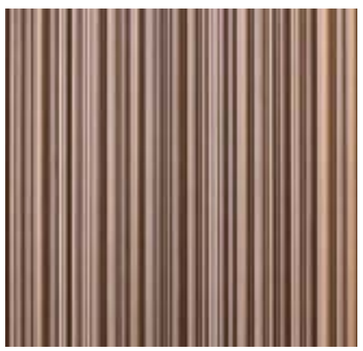
3. Textured metalwork: Located within the residential openings, the metalwork will be used for both the fixed insulated panels and at the vent panels; the colour will have a warm, bronze character.

These natural feeling materials will be complemented with a warm timber finish on interior common spaces, such as the lobbies and shared amenities.

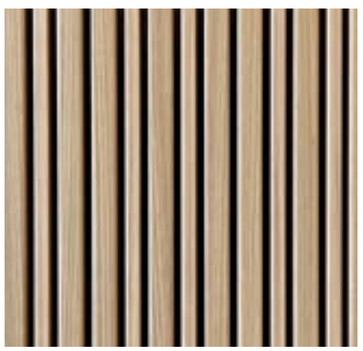
Note: All final material specifications will be submitted for approval at a later date pursuant to SC OPP Condition B10.

1 Residential façades

2 Podium base



3 Metal work



Interior timber/Acoustic panels

5.38 Façade Material Inspiration

The primary façade pattern takes reference from natural rhythms, such as the reed beds found in the Wetlands, and historically up and down the nearby River Lea. Reeds have long been associated with local craft and industry, being harvested for roof thatching over centuries.

This visual reference aligns the organic and sustainable identity of the design with the more recent re-emergence of creative small businesses, that will form part of the local circular economy around East Village.

5.39 Microclimate – Overheating

Summary of Results

GHA has closely coordinated the performance of the façade proposals with the environmental consultant. This coordination has informed the size and location of the openings. It is to be noted that this was also balanced with the daylight performance to optimise results. The final overheating assessment is very favourable and can be summarised as:

- Testing has indicated **100% compliance with TM59.**
- An additional criterion is assessed at night: night-time temperature to be below 26 °C in the bedroom.
- TM59 criteria is met across N18/ N19 well under the acceptable deviation: all bedrooms under 0.6% and 13 hours, all LKDs under 1%.
- Testing of different balcony scenarios proved that the current arrangement of private amenities (solariums on NW/NE facing units/inset balconies on SW/SE) gives the best scenario in terms of overheating assessment.

Target **Results**

	Assessment Criteria	Acceptable Deviation	Bedrooms	Living/Kitchen/Dining	SUMMARY
Criterion A	Living room, Kitchen, bedrooms and studios: Frequency of occupied hours ΔT≥1 °C	Up to 3% of occupied hours during May – September	**Between 0% – 0.6%** ✔	**Between 0.1% – 1.0%** ✔	**100% pass rate for TM59**
Criterion B	Bedroom & Studios: Frequency of occupied hours when operative temperature ≥26 °C	1% of annual hours from 10 pm to 7am, i.e. 32 hrs for bedrooms & studios	**above 26 °C between 8–13 hours per year** ✔	**n/a**	**100% pass rate for TM59**

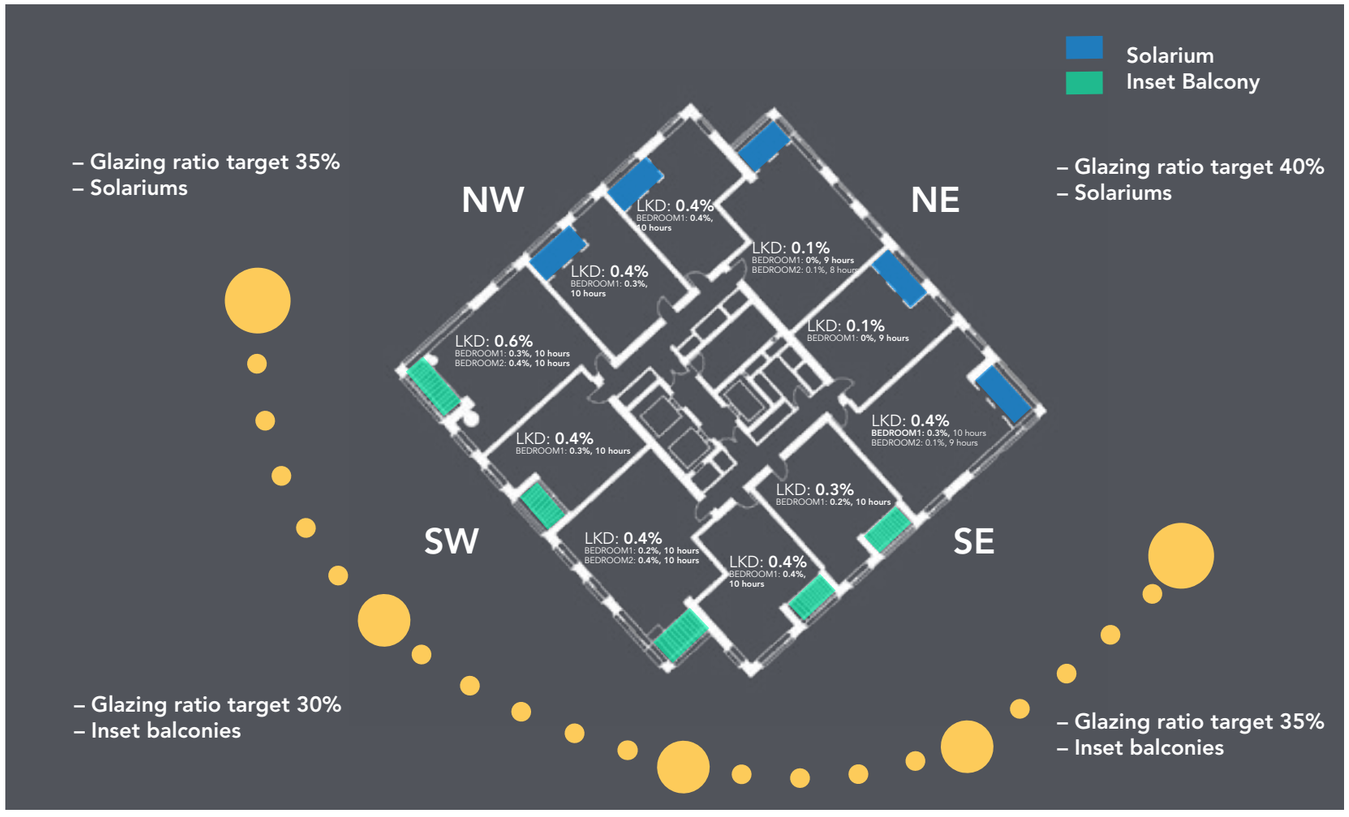


Fig.156 Summary Diagram of Overheating Results in a Typical Tower Level

DSY Scenarios

Weather File		Frequency	Minimum requirement
DSY 1	A Moderate warm summer	1 in 3 years	Comply
DSY 2	A summer with a short intense warms spell	1 in 7 years	Report
DSY 3	A summer with a long, less intense warm spell	1 in 11 years	Report

5.40 Microclimate – Daylight/Sunlight

Summary of Results

GHA has closely coordinated the apartment layouts, window sizes and private amenity arrangement with the daylight consultant. Several rounds of testing were performed to determine the Average Daylight Factor for every unit. Units that were under-performing were retested where required with the goal of achieving the minimum standards which are defined as:

– 1.5% for living/kitchens/dining rooms (LKD's).

– 1.0% for bedrooms.

The final ADF assessment is very favourable and can be summarised as:

– Results are that **90% of the rooms** are currently meeting or exceeding the 1.5% for LKD's and the 1.0% for bedrooms.

– Full details can be found in the environmental report.

Comparison with 2014 Consented RMA

ADF results are improved by 9% compared to the 2014 RMA. This is exceptional because the 2014 RMA had many more solariums than balconies, which should indicate better daylighting, but this is not the case. It can be concluded that the setting out of the proposed building, detailed coordination with the environmental consultants and study of the opening sizes and private amenity have successfully resulted in a high performing dynamic façade that has optimised interior quality.

	Studio	Compliant (1.5) LKDs & Living Rooms	Compliant (1.0%) Bedrooms	Total Compliance (ADF)
N18	100%	85%	98%	93%
N19	100%	75%	97%	89%
TOTAL	**100%**	**80%**	**97%**	**90%**

* These figures are estimated based on the ongoing stage 2 coordination and the final figures may change due to any minor changes in the stage 3a coordination.

2014 RMA		**69%**	**89%**	**81%**

Proposed N18/19

Balconies	Solariums
57%	43%

2014 RMA

Balconies	Solariums
14%	86%

Fig.157 Vertical Sky Component Diagrams

Units Not Achieving Targets

The 10% of units that are not achieving the minimum ADF targets are located in the shoulder blocks.

The daylight for individual units has been analysed and optimised for all units to feature good levels of daylight and sunlight. There are several schemes coming forward near the site and the assessment considers the proposal in the context of nearby relevant emerging schemes both already under construction and consented. This includes the consented N16, Stratford International East and West and the outline volume of N20 (IQL North). The study, therefore, portrays a worst-case scenario in terms of surrounding obstructions.

VSC façade studies of both the consented RMA and the proposed scheme demonstrates that N18 will have a limited view of the sky due to the surrounding context, making internal daylight conditions challenging.

Fig.158 2014 Consented RMA Overshadowing Diagram

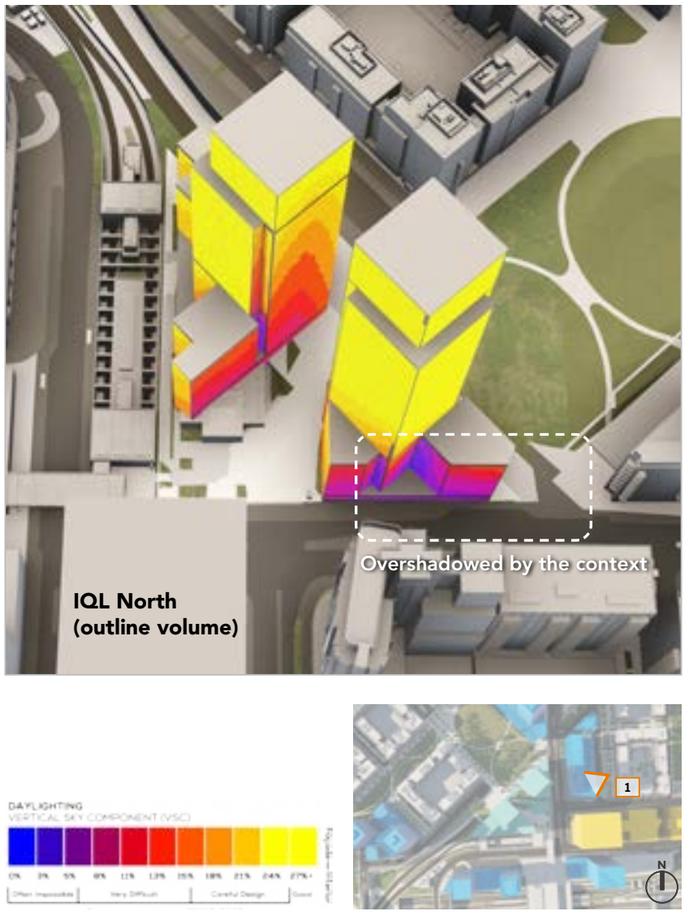


Fig.159 Current Proposal Overshadowing Diagram

5.41 Daylight Improvement

Units facing Celebration Avenue at the podium level have been particularly affected by the presence of N16 RMA and 40–42 Celebration Ave. At the tower level, south facing units are also affected in some locations by the presence of the N20 outline application volume. For those units affected, GHA has manipulated the façade conditions in a number of ways to improve conditions, namely:

- The size of openings increased.
- Perforated metal vent panels designed only for ventilation changed to sliding glazed panels to increase daylight levels.
- Internal layouts have been amended, where needed, to reduce room depths and ensure a more uniform distribution of light.
- Balconies converted to solariums where possible.

Fig.160 Daylight Improvement on CA facing units

2 Bedroom unit (adaptable at floors 1–5)			
Level	LKD (1.5% target)	Bed 1 (1.0% target)	Bed 2 (1.0% target)
10	✓	✓	✓
9	✓	✓	✓
8	✓	✓	✓
7	✓	✓	✓
6	✓	✓	✓
5	✓	✓	✓
4	✓	✓	✓
3	✓	0.9	✓
2	1.4	0.8	✓
1	1.4	0.8	✓

3 Bedroom unit				
Level	LKD (1.5% target)	Bed 1 (1.0% target)	Bed 2 (1.0% target)	Bed 3 (1.0% target)
10	✓	✓	✓	✓
9	✓	✓	✓	✓
8	✓	✓	✓	✓
7	✓	✓	✓	✓
6	✓	✓	✓	✓
5	✓	✓	✓	✓
4	✓	✓	✓	✓
3	✓	✓	✓	0.9
2	✓	✓	✓	0.9
1	✓	✓	✓	0.8

N18 tower level 1 bed unit LKD (1.5% target)		
Level	LKD (w/ balcony)	LKD (w/solarium)
L30	1.1	✓
L5	< 0.6	✓
L4	< 0.6	1.4
L1	< 0.6	1.3
***note:**	**Not meeting the target on all levels**	**Meeting the target from Level 4**

Converted from balconies to solariums between L11 and L34 and currently meeting daylight target between those levels.

Fig.161 Daylight Improvement by converting inset balconies to solariums

South facing units on the N19 podium level (fig. 121) have gone through a series of changes to improve the daylight conditions, the details are:

– Reduced depth of the unit and refined layout to allow more living/kitchen/dining.

– Maximised the size of the openings.

– Introduced solariums to allow more light whilst improving the privacy of the units.

As a result of the above amendments, the majority of units within N18 and N19 will meet the recommended criteria. A limited number of units will fall short of the target although the overall compliance rate is very good, particularly with the inherent constraints of the site in mind.

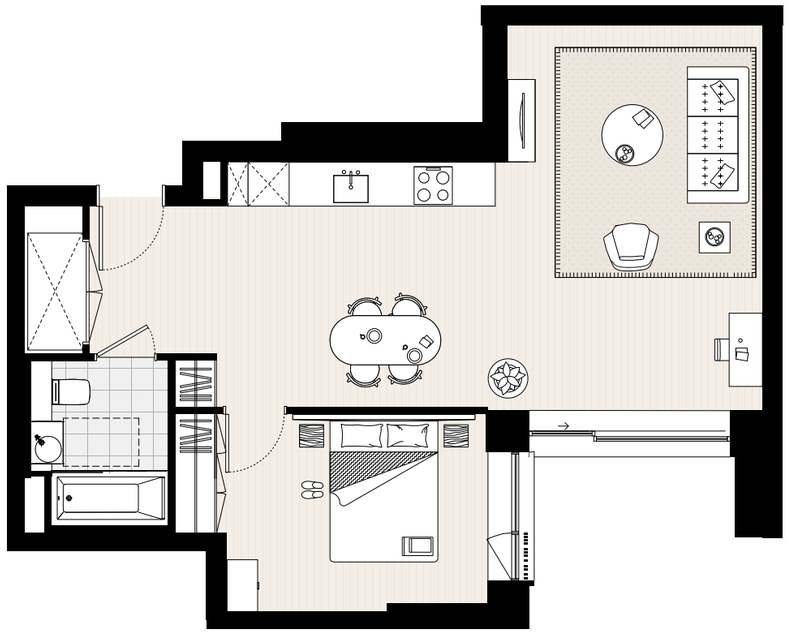


Fig.162 Previous layout – Pre-app 08 on N19 shoulder level unit

1 Bedroom unit – Pre-app 08		
Level	LKD (1.5% target)	Bed 1 (1.0% target)
10	1.3	✔
9	1.3	✔
8	1.3	✔
7	1.2	✔
6	1.2	✔
5	1.2	✔
4	1.2	✔
3	1.2	✔
2	1.1	✔
1	1.1	✔

Fig.164 Daylight improvement on N19 shoulder level unit

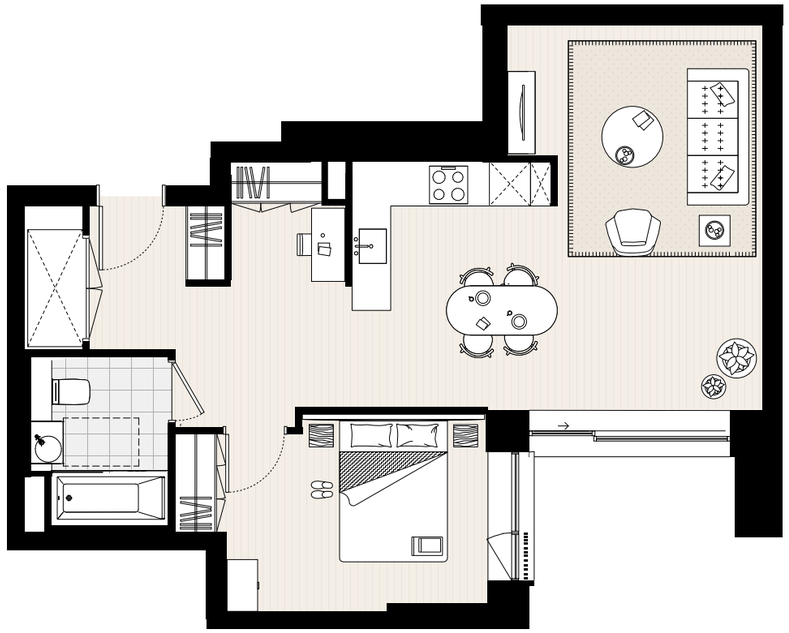


Fig.163 Proposed layout on N19 shoulder level unit

1 Bedroom unit – Proposed		
Level	LKD (1.5% target)	Bed 1 (1.0% target)
10	✔	✔
9	✔	✔
8	1.4	✔
7	1.4	✔
6	1.4	✔
5	1.4	✔
4	1.3	✔
3	1.3	✔
2	1.3	✔
1	1.3	✔

5.42 Form Factor and Dual Aspect Ratio

The layout and massing of the proposal results in an efficient overall form factor of 0.6 which represents a significant improvement over the 2014 RMA scheme which is 0.76. Form factor is the ratio of the building façade compared to the GEA and is a common indicator of the building's energy performance. 0.6 is considered an efficient form factor and is one of the key contributors to the overall sustainability goals.

In addition to a well performing form factor, a majority of the units are dual aspect at 56%, which is comparable to the 2014 RMA scheme. The diagrams illustrate the locations of single, dual and triple aspect units across the scheme. Single aspect units within the tower will be afforded either great views towards the city or the verdant park.

Unit aspect type and provision (internalised and external)

Unit Aspect	Unit Provision
Dual/Triple Aspect	57%
Single Aspect North Facing	0%

Units per core

Units Per Core					
	N18			N19	
	Core 1 (4nr. lifts)	Core 2 (2nr. lifts)		Core 1 (4nr. lifts)	Core 2 (2nr. lifts)
Level 35-39	8		Level 30-34	8	
Level 12-34	10		Level 12-29	10	
Level 11	9		Level 11	9	
Level 01-10	9	4	Level 01-10	13	8
UPC (Aver.)	9.4	4	UPC (Aver.)	6.7	8

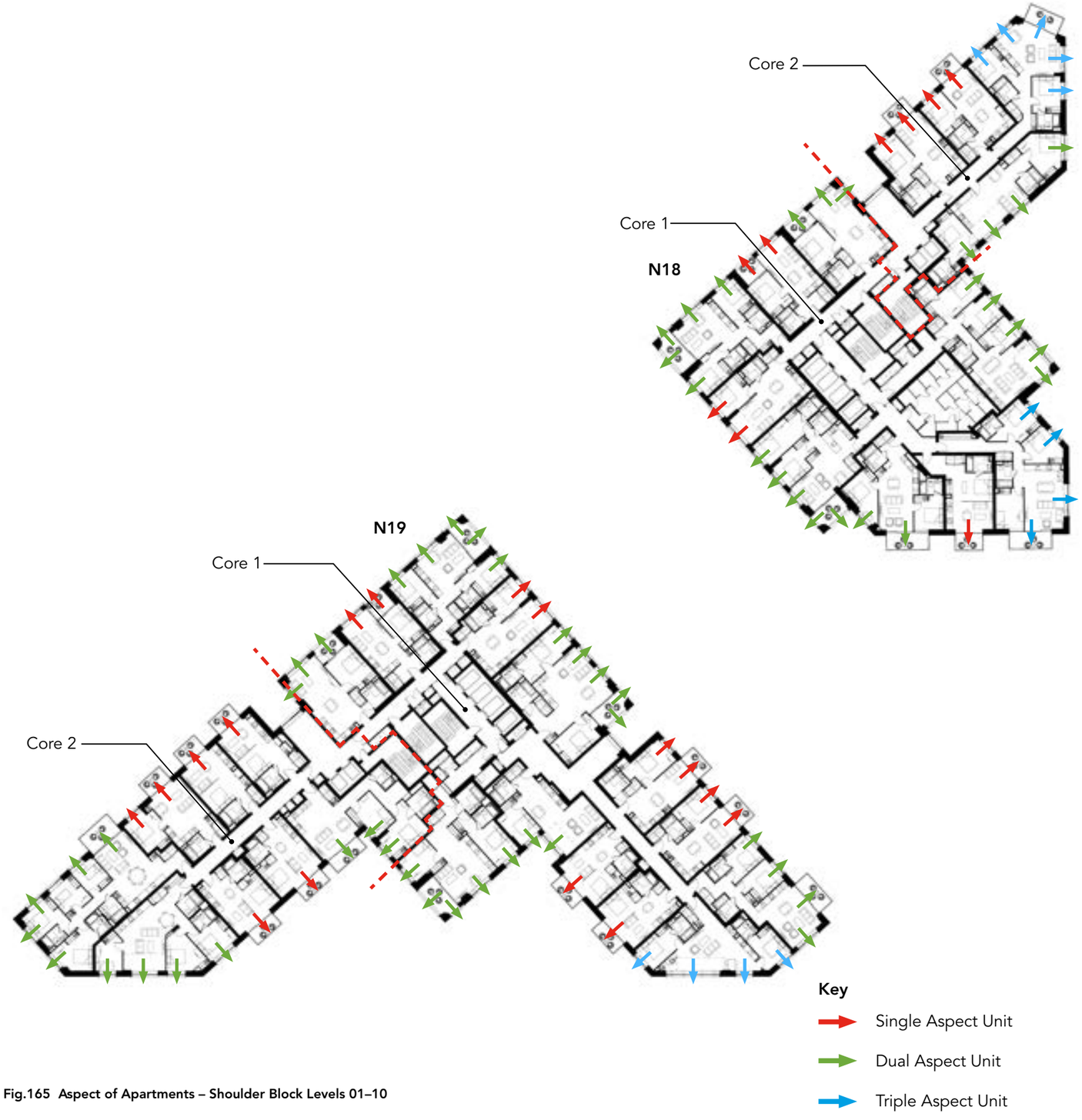


Fig.165 Aspect of Apartments – Shoulder Block Levels 01–10

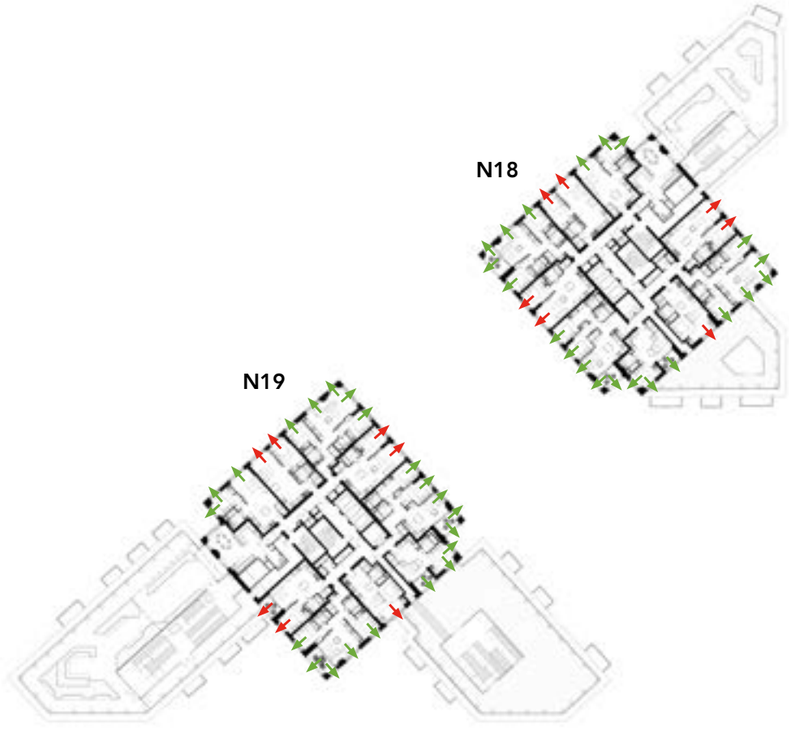


Fig.166 Aspect of Apartments – Tower Level 11

Fig.167 Aspect of Apartments – Tower Levels N18 – L12–34, N19 – L12–29

Fig.168 Aspect of Apartments—Tower Top Levels N18 – L35–39, N19 – L30–34

KEY

- Single Aspect Unit
- Dual Aspect Unit
- Triple Aspect Unit

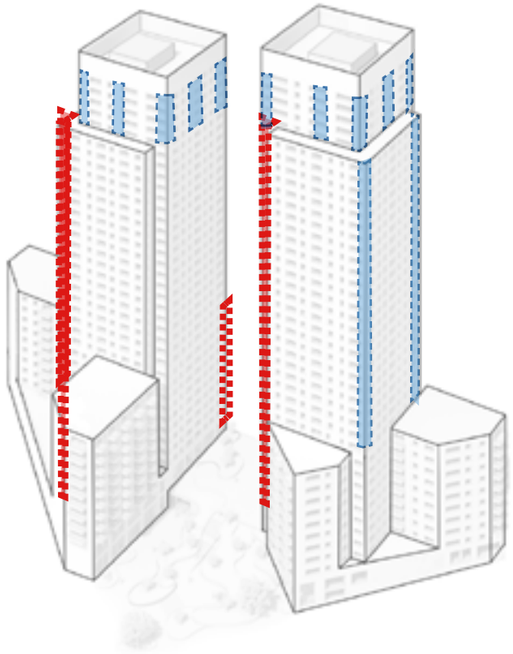
N

5.43 Microclimate – Wind

Summary of Results

GHA and the wind consultant coordinated the design proposals to ensure the private amenity solution is optimised for wind conditions. Mitigation strategies ensure that residents can comfortably enjoy their private amenity. The final wind assessment is very favourable and can be summarised as:

- The proposed locations for projecting balconies, inset balconies and solariums are coordinated with input from the consultant to optimise resident comfort and safety.
- To maximise the amount of private external amenity, the corners (highlighted in red on the adjacent diagram) are inset balconies with wind protections screens approximately 1500 mm tall to allow for a comfortable outdoor amenity solution, even in windy conditions.
- Solariums (private internalised amenity) are applied in locations where winds are strong and internal daylight benefits from enhancement.
- Solariums (indicated in blue on the adjacent diagram) are used at the top five floors and select corners where the conditions area is most windy.



Wind protection screens at inset balcony
Solariums due to high winds

Fig.169 Locations of Wind Protection Screens and Solariums at the Corners

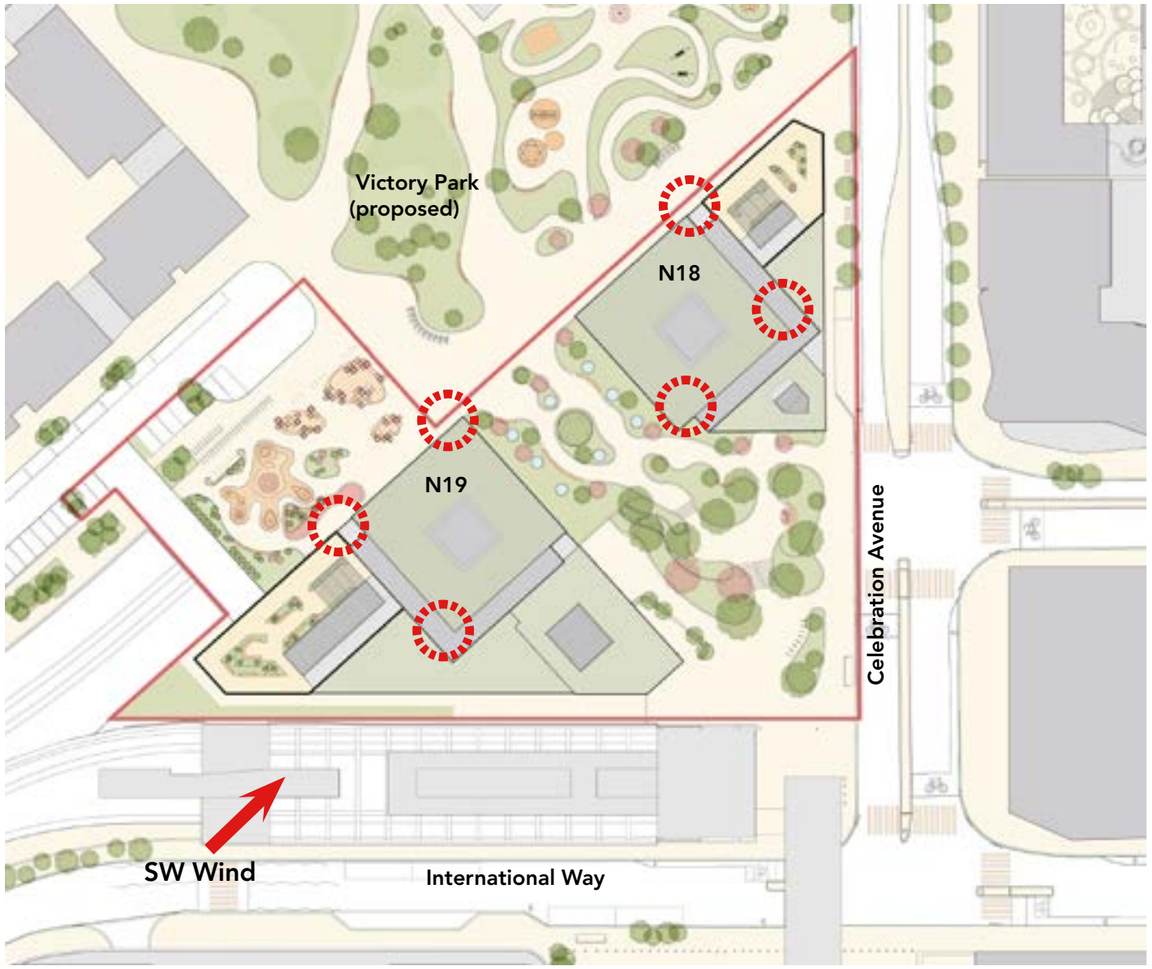


Fig.170 Summary of Highest Wind Conditions in Plan

5.44 Private Amenity Provision

Private Amenity as a Response to the Microclimate

The principles of the dynamic façade have considered how each type of private amenity can optimise microclimate. For example, in locations where daylight may be compromised, a solarium may be used to eliminate overshadowing from a balcony and bring more light into living spaces. In the same respect, balconies help south facing façades from overheating. And, solariums or insets used where wind conditions are high. All of these factors have been tested and coordinated with the various environmental consultants.

The Get Living brief prioritises outdoor private amenity, which is in high demand especially after the recent lockdowns. However, they also understand that where environmental conditions are compromised a solarium may be the optimal solution. It is to be noted that 100% of apartments have LHDG compliant private amenity space (in line with Policy D6 of the London Plan).

After much coordination with the environmental consultants, each type of private amenity can be summarised below:

- Projecting balconies: Optimal in lower levels where wind conditions are mild.
- Inset balconies: Optimal in upper levels where the inset provides some protection from wind and an additional sense of security and privacy. Some insets will be provided with raised glass balustrades for additional protection from wind.
- Solariums: To be used only when daylight conditions are compromised and where high winds do not allow for a balcony.

The diagrams to the right summarise where each type of private amenity is provided. In general, projection balconies are located at the shoulder levels, a mix of solariums and inset balconies are provided in the towers, and solariums are provided in the tower setbacks. Full details of the locations of private amenity can be found on the general arrangement plans and elevations.

Fig.171 Illustrative Projecting Balcony

Fig.172 Illustrative Inset Balcony

Fig.173 Illustrative Solarium

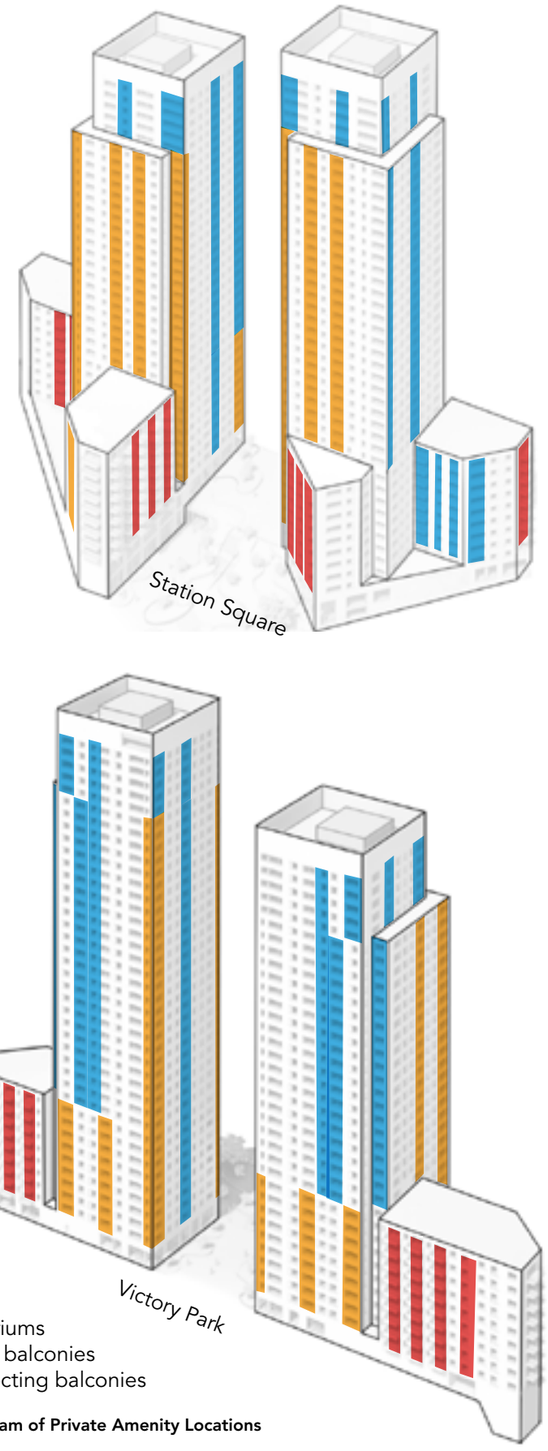


Fig.174 Diagram of Private Amenity Locations

5.45 Residential Private Amenity Provision

Summary of Compliance

The minimum space standard apartment and private amenity area, illustrated in the below table, as required by Policy D6 of The London Plan is achieved or exceeded in all homes throughout the development.

Where amenity space is internalised (solarium), the space requirement is separate to the interior space requirement. A detailed accommodation schedule of the apartment can be found in Appendix 9.0.

Minimum gross internal floor area and private amenity (internalised and external)

	Required GIA (m^2)per London Plan Policy D6		Proposed GIA (m^2)	
	Internal	Amenity	Internal	Amenity
0 Bed 1 Persons	37	5	38-44	5
1 Bed 2 Persons	50	5	50-61	5
2 Bed 3 Persons	61	6	71-88	6
2 Bed 4 Persons	70	7	71-96	7-8
3 Bed 5 Persons	74	8	86-98	8
4 Bed 6 Persons	99	9	113	9

Private amenity type and provision (internal and external)

Amenity Type	Provision
Solarium	43%
Balcony	57%

Key

Solarium

Balcony

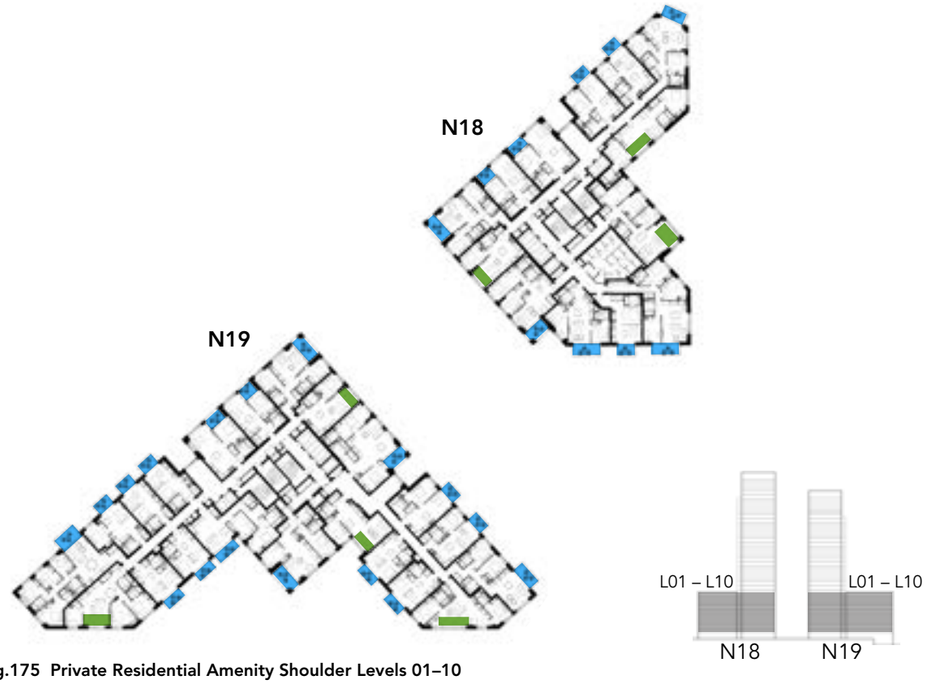


Fig.175 Private Residential Amenity Shoulder Levels 01–10

Fig.176 Private Residential Amenity – Tower Level 11

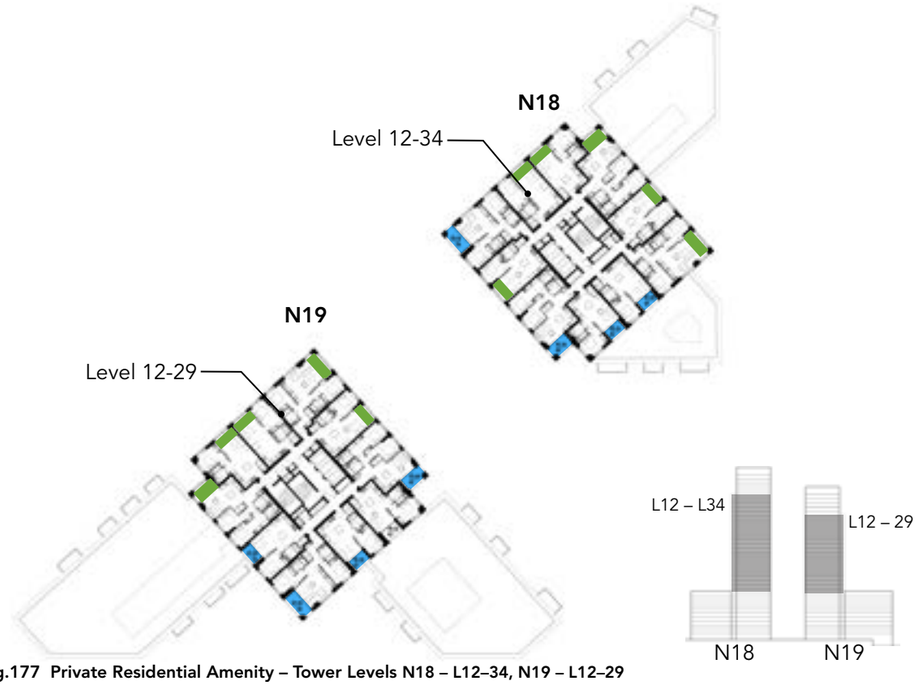


Fig.177 Private Residential Amenity – Tower Levels N18 – L12–34, N19 – L12–29

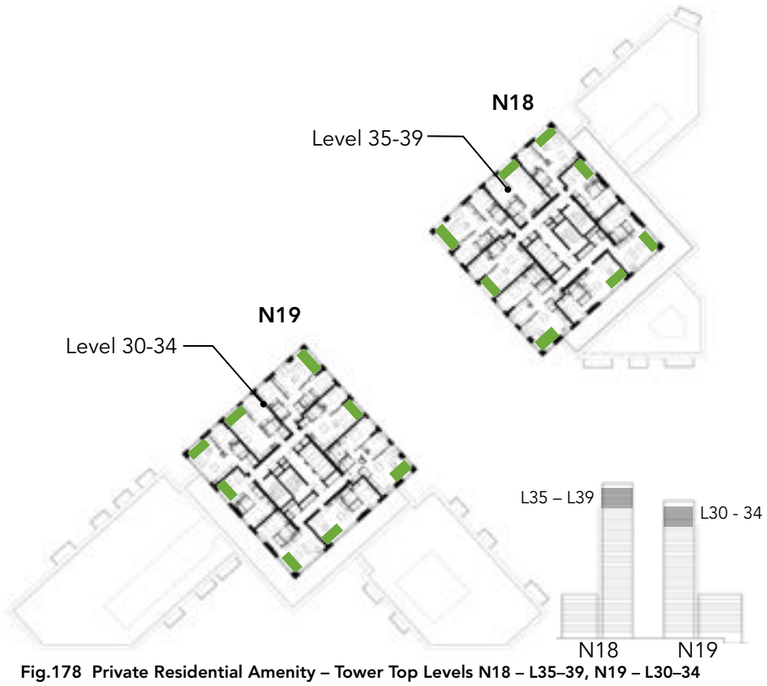


Fig.178 Private Residential Amenity – Tower Top Levels N18 – L35–39, N19 – L30–34

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6.0
Access Statement

6.1 Overview

National Statutory and Regulatory Background

Access consultant Earnscliffe, Making Access Work, prepared this Access Statement. It seeks to demonstrate how the design proposals take full account of the following national legislation and building standards, and local planning and development policy requirements in relation to C3 planning class:

Equality Act 2010 and in particular the Disability Discrimination Act 1995 (DDA). Get Living has ongoing obligations under the DDA as developer, employer and service provider.

- DDA Code of Practice Code of Practice: Access – Goods Facilities, Services and Premises, Disability Rights Commission, March 2003.
- Provision required under Approved Document M of the Building Regulations 2010, Access to and use of buildings, 2015 edition Volume 1: Dwellings M4 (2) Category 2: Accessible and adaptable, M4 (3) Category 3: Wheelchair user dwellings (2) (a) – to allow simple adaptation of the dwelling to meet the needs of occupants who use wheelchairs and (2) (b) – to allow the needs of occupants who use wheelchairs.
- Provision required under Approved Document M of the Building Regulations 2010, Access to and use of buildings, 2015 edition Volume 2: Buildings other than Dwellings, relating to common parts.
- Approved Document K of the Building Regulations 2010, Protection from falling, collision and impact.
- BS8300:2018 Design of an accessible and inclusive built environment Part 1: External environment – Code of Practice, and Part 2: Buildings.
- British Standard 9999:2008, Code of practice for fire safety in the design, management and use of buildings.
- Dff Inclusive Mobility (A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure).

Local

The access provisions have also been reviewed against the following:

- Stratford City Outline planning permission, Ref 10/90641/EXTODA).
- Planning and Access for Disabled People – A Good Practice Guide, department for Communities and Local Government (DCLG).
- LLDC Inclusive Design Standards, May 2019.
- Wheels for Wellbeing 'A Guide to Inclusive Cycling', 4th Ed. 2020.
- PAS 6463 Design for the Mind.
- Approved Zonal Masterplan for zones 3-6 pursuant of Condition 1.
- Zonal Masterplan Access Statement prepared by David Bonnett Associates.
- The London Plan.
- Planning for Equality and Diversity, London SPG.

In addition to the specific requirements in relation to disabled access:

- Reflect the policy requirements on inclusive access specified in the Newham UDP and supplementary planning guidance issued further to the Newham UDP.
- Apply the contents of the Access Statement and other relevant guidance on accessibility.
- Take into account comments made by the Consultative Access Group on such Zonal Masterplans or applications for approval of Reserved Matters and advise the ODA of SV's response to such comments.
- PAS 6463 Design for the Mind.

Design Philosophy

The Access Statement is based on the social model of disability and the philosophy of inclusive design that maximises access, choice and opportunities for disabled people. Inclusive design is the process by which the needs of everybody are considered and embedded in the proposals for the design, development and subsequent management of the built environment from the outset. The key elements of inclusive design, which benefit everyone, are:

- Ease of use.
- Freedom of choice and access to mainstream activities.
- Embracing of diversity and difference.
- Legibility and predictability.
- High quality.

Access has been considered in its broadest sense to reflect the needs of individuals with sensory, mobility, cognitive and hidden impairments, neuro-diverse conditions, mental health needs, reduced or hypersensitivity to temperature, and limited reach and stature. Others for whom the built environment can be disabling including people who have little understanding of written English, are also considered. This approach should facilitate an inclusive approach to access and ensure that opportunities for maximizing access to all areas of the site development are identified throughout the design process.

Process

The development strives to maximise access for disabled people, be they residents, staff, or visitors, the process of which will be recorded in the Access Statement as this document develops through the life of the project.

A suitably qualified access consultant (Earnscliffe) has been appointed to the design team since the Concept Design Stage and will be employed to RIBA Stage 7. Access has been a regular agenda item of design workshops and meetings, and the design team and client have a collective aim of achieving the best possible accessibility across the project through a process of inclusive design and monitoring.

A formal consultation programme has been undertaken with LLDC since September 2020 and has included several Pre-App meetings, Quality Review Panel meetings and presentations and liaison with LLDC BEAP - Built Environment Access Panel. Feedback has informed the design development.

This report draws out the key access related aspects of the proposals shown on the following drawings:

General Arrangement Plans

2292-GHA-ZZ-00-DR-A-200100–Station Level Floor Plan
2292-GHA-ZZ-00-DR-A-200101–Park Level Floor Plan
2292-GHA-ZZ-M1-DR-A-200101–Mezzanine Floor Plan
2292-GHA-ZZ-ZZ-DR-A-010100–GIA Area Plans 1 of 2
2292-GHA-ZZ-ZZ-DR-A-010101–GIA Area Plans 2 of 2
2292-GHA-ZZ-ZZ-DR-A-010103–L01-10 Floor Plan
2292-GHA-ZZ-11-DR-A-200104–L11 Floor Plan
2292-GHA-ZZ-ZZ-DR-A-010105– L12-29 Floor Plan
2292-GHA-ZZ-ZZ-DR-A-200106–L30-34 Floor Plan
2292-GHA-ZZ-ZZ-DR-A-010107–L35-39 Floor Plan

6) Typical Unit Layouts:

2292-GHA-ZZ-ZZ-DR-A-700510_P01–Studio Apartment Type 1 of 2
2292-GHA-ZZ-ZZ-DR-A-700511_P01–Studio Apartment Type 2 of 2
2292-GHA-ZZ-ZZ-DR-A-700520_P01–1 Bed Apartment Type 1 of 4
2292-GHA-ZZ-ZZ-DR-A-700521_P01–1 Bed Apartment Type 2 of 4
2292-GHA-ZZ-ZZ-DR-A-700522_P01–1 Bed Apartment Type 3 of 4
2292-GHA-ZZ-ZZ-DR-A-700530_P01–2 Bed Apartment Type 1 of 4
2292-GHA-ZZ-ZZ-DR-A-700531_P01–2 Bed Apartment Type 2 of 4
2292-GHA-ZZ-ZZ-DR-A-700532_P01–2 Bed Apartment Type 3 of 4
2292-GHA-ZZ-ZZ-DR-A-700533_P01–2 Bed Apartment Type 4 of 4
2292-GHA-ZZ-ZZ-DR-A-700540_P01–3 Bed Apartment Type
2292-GHA-ZZ-ZZ-DR-A-700550_P01–4 Bed Apartment Type

7) Typical Adaptable Unit Layouts:

2292-GHA-ZZ-ZZ-DR-A-700500_P01–Adaptable Unit Layouts 1 of 2
2292-GHA-ZZ-ZZ-DR-A-700501_P01–Adaptable Unit Layouts 2 of 2
2292-GHA-ZZ-ZZ-DR-A-700501_P01–Adaptable Unit Layouts 2 of 2

6.2 Context

The site is located south east of Victory Park, north west of Stratford International and DLR stations, and east of Queen Elizabeth Olympic Park and the Wetlands. It is bordered by Celebration Avenue to the south east and Anthems Way to the north west, and provides a gateway to the heart of East Village, Stratford. The site has no vehicular access and can only be accessed on foot.

Get Living whose philosophy is healthy living with easy access to nature and working from home provision will develop the site. The demographic is Generation Z/ Millennials, young families, singles over 50s, creatives, and 'beyond 9–5' professionals such as NHS workers.

The 848 no. residential apartments will be provided in two tower blocks, N18 and N19, arranged over ground plus 34 and 39 floors with generous amenity on the entrance and roof levels. Each tower is flanked by an adjoining (G+11) storey shoulder. Provision will include Studio, 1, 2 and 3/4 bed apartments, each with a level approach, flush entrance and level access throughout. Projecting balconies are provided to shoulder blocks whilst the main towers have inset balconies or solariums.

Public Realm

Context

The design strategy is for an inclusive and immersive landscape that will form a green gateway with the approaches from Stratford DLR Station exit / Stratford International and Celebration Avenue at L00 Station Level rising up towards L00 Park Level, creating an accessible connection to Victory Park north of the site and on towards Lee Valley.

Station Square will provide 805m^2 of new public realm that connects to the pocket space between N18 and N19 and will comprise paving and planters. Clear signage will indicate the wheelchair accessible route via Celebration Avenue and the stepped route through the public realm that has direct access off Station Square.

Challenges

The existing level changes, most notably the 5m level difference across the site from south to north, constrains what can be achieved within this space without severely eroding the greening of the public realm. A fluid design has been developed in which both stepped and accessible sloped provision can be integrated, that offer a similar experience to all users and provide unsegregated enjoyable means of accessing the upper level, with shared destination points and clear navigation.

The triangular plot is approximately 0.7 hectares. The greatest challenge of the scheme is to resolve the interface between cyclists and pedestrians for the safety of all users, particularly at junctions such as that at the southern edge of Victory Park and N18 /19 Park entrance approaches. The second key challenge is to provide clear and strong connectivity, visually and physically, between the public realm and surrounding areas and destinations including Stratford stations, Celebration Avenue, Queen Elizabeth Olympic Park, Penny Brooke Street, The Academy, (future) Fashion Square, Victory Parade, Victory Park and Belvedere.

It should be noted that the existing route from Station Square across the site entails steps. As part of the proposals a consistent 1:21 slope will replace an existing series of irregular ramps along Celebration Avenue making this 5m wide route easier. Although outside the boundary line of this application, it is a necessary enhancement that will enable easy access for those with impaired mobility into the proposed landscape, albeit at the N18 end of the site. Due to the existing level, it is not feasible to access the site directly from the Station Square end of the site without significant loss of soft landscaping and or creating a more convoluted longer route.

Entry

The entry points into the public realm along Celebration Avenue coincide with existing pedestrian crossings.

Addressing level changes

On the guidance of the LLDC it was decided not to consider the option of an external lift, which was felt undesirable. Instead the routes are truly inclusive and not reliant on a mechanical solution that may break down, leaving disabled people unable to access the site at all. An internal lift for use by non-residents is also undesirable from a Secure by Design viewpoint, breaching security and compromising the safety of residents.

Instead a 110m long curving sloped route, a generous 4.5m wide will provide a gentle gradient of 1:21 with regular level landings, with secondary routes a minimum 3.5m wide. The landscape will be punctuated by a series of meaningful 'pocket spaces' that will provide wide generous break out areas with level access for work and relaxation of up to 10m diameter coinciding with these landings offering and meeting opportunities, along Celebration Avenue where they will help to activate the hard landscape of the street. Seating will include niches for wheelchair users to sit amongst companions whilst 50% will incorporate arm and back rests to suit ambulant disabled users. All seating and other furniture will have rounded corners and smooth edges for safety and will contrast visually against the predominant background colours and tones.

6.3 Access Provisions

Features and materiality

Swales run through part of the public realm and planted edges will prevent pedestrians falling into these.

Stone pavers and flush setts will provide a suitable level access route for all. The subtle patterning and high visual contrast to assist visually impaired people in particular, to navigate through the landscape. Cross falls along all principal accessible paths do not exceed 1:40.

Routes

Clear sightlines are provided through the landscape towards building entrances. The planted edge alongside Building N18 will further support the experience of being immersed in the landscape, and internal planting in the ground floor commercial space will offer an additional strong visual connection along all approaches.

At the top end of the site there will be a series of curved island planters where the route divides, designed to slow down cyclists approaching the urban link between the site and Victory Park by a change of materiality.

The shorter stepped route that runs through the middle of the landscape will have steps with a cycle wheel channel to aid movement of bikes up the stair whilst encouraging cyclists to use this short cut route.

The wheelchair accessible sloped route is sufficiently wide for the passage of wheelchair users travelling in opposite directions and for cyclists passing. Signage will encourage them to 'share with care'. The provision of delineation between cyclists and pedestrians has been considered at length and the outcome is for a non-segregated shared route on the basis that a designated cycle path would only encourage cyclists to speed, making it particularly unsafe for pedestrians at pathway crossing points.

At L00 Station Level a 1:21 slope falls from Celebration Avenue down towards the shared Lobby of buildings N18 and N19, becoming level beyond the retail unit (a proposed café with external seating) whilst the adjacent residential amenity will have level access and will be provided with an external communal area, semi enclosed by the building and sloped bank opposite, that can be used for home working or socialising.

Garden Lounge

To the North West of N19 Park Entrance is a Garden Lounge with an outdoor lounge area, geared towards people above the age of 10. This comprises a universally accessible surface with some patterning that will be faintly discernible at ground level. Care will be taken with use of colour and pattern to avoid it being confusing to visually impaired people.

A clear separation is made to the service road of N19.

Fitness and play equipment will encourage children above the age of 10 and adults to engage in outdoor leisure activities whilst being attractive and safe for young women to participate.

Seating

Seating will be provided at intervals of a maximum 50m apart and as elsewhere throughout the public realm, will include 50% with arm and back rests and will be at a comfortable height, suitable for ambulant disabled users, and highly visible. There will be room for wheelchair users to sit amongst companions.

Lighting

Signage and lighting strategies will be developed at the next design stage.

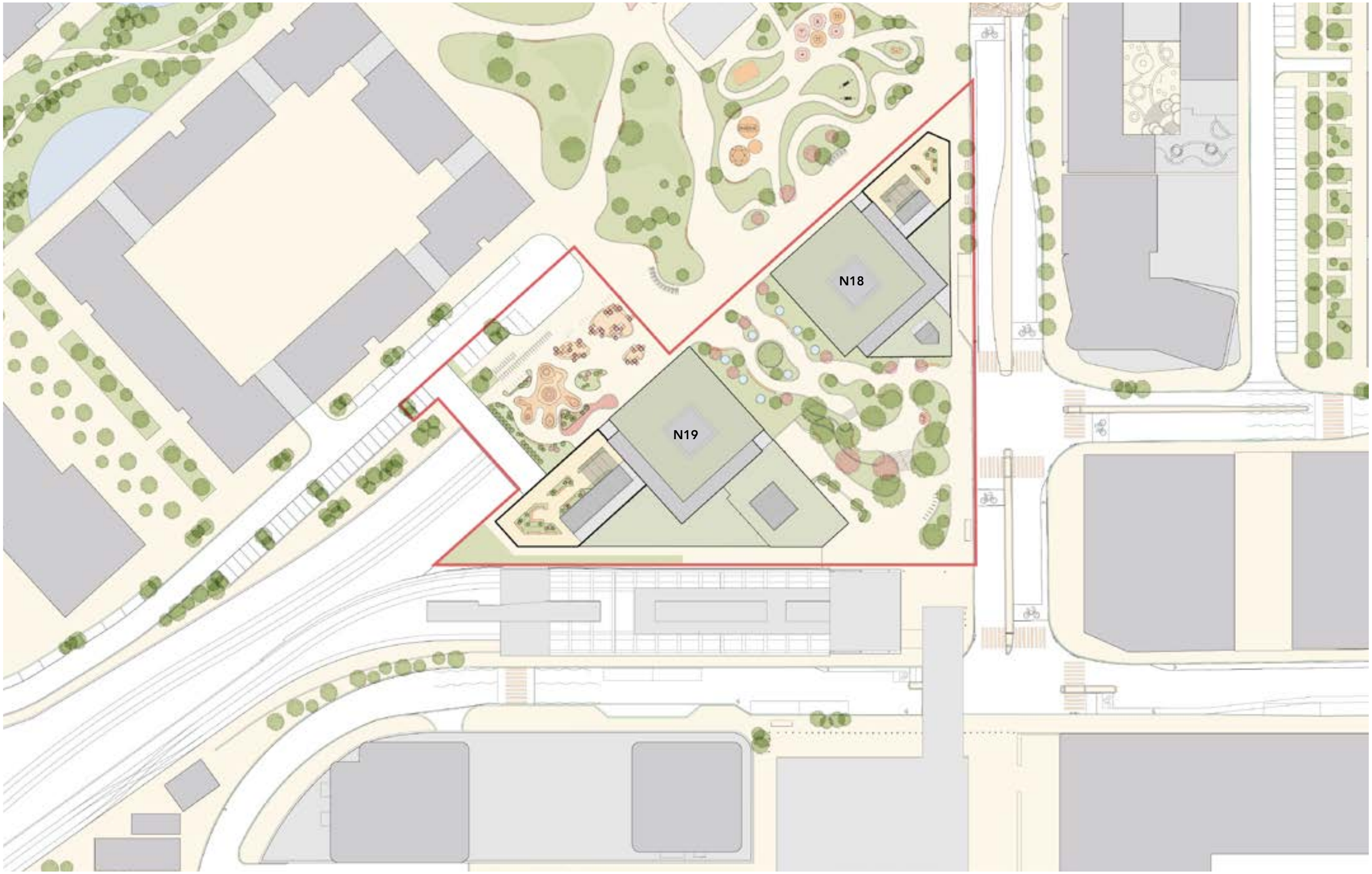


Fig.179 N18 and N19 site plan

6.4 Access: Car Parking and Cycles

Drop off and car parking

- Level drop off will be possible on Anthems Way close to the park entrance of N19, within 50m. This will also be within 50m travel distance of N18 entrance. There is an additional drop off point close to Station Square, adjacent to N19 retail.

- This is a car-free development and car parking is only provided for Blue Badge holders. The access controls to enter the car parks will be usable by disabled drivers without the need to leave their vehicle or to stretch over.

- Blue Badge parking will be provided in both towers. N18 car park is located at L00 Mezzanine Level below retail units and accessed from Celebration Avenue at Station Level via a ramp of 1:10 that becomes 1:21 to car park level. It will comprise 7 no. bays within easy access of the lift core (less than 50m), with suitable transfer zones.

- Blue Badge parking in N19 will include 19 no. bays to be accessed at L00 Park Level from Anthems Way. It will be reached via a minimum 6m wide road with shared access for goods vehicles accessing the service yard (parking) at car park level.

- The car park will have level access throughout. For the safety of disabled drivers, a crossing will be provided between bays 12-19 and the two lift cores to ensure delivery drivers stop to enable safe crossing.

- The accessible car parking bays are located very near to the circulation cores and within 50m horizontal travel distance of wheelchair accessible units (Max 39.5m) in all cases subject to Get Living management plan allocating bays 1–11 for the unit furthest away.

- The bay dimensions in both car parks provide the full length (6000mm) and full width requirements (3600mm) as set out in Approved Document M inclusive of side transfer zones. The bays share the safe transfer zones, which are 1200mm wide and provided at one end and to one side of all the bays. The zones are to be demarcated and the bays indicated with signage as described by Approved Document M. A minimum ceiling height of 2.2m is provided to all accessible car parking bays and routes into them.

- Blue Badge Parking provision of 26 no. bays equates to 3% of the M4 (3) wheelchair adaptable apartments (85 no.) which has been accepted by LLDC since the remaining 7% can be located elsewhere within the masterplan. There are Blue Badge spaces provided on-street at ground level in Anthems Way (8 no.) and Olympic Park Avenue. [see attached justification doc].

- Whilst London Plan Policy (provision 3.8) requires one parking space for each wheelchair accessible home, considering the high PTAL rating (6b being the highest) for the site, and adequate provision of Blue Badge parking nearby, this development provides 26 accessible on-site car parking bays only and no standard bays.

- A low uptake of these spaces is anticipated based on the experienced of N06 although the reasonable level of provision still future proofs the scheme to meet the needs of an increasingly ageing and correspondingly disabled population.

- Should there be additional demand for Blue Badge parking for residents then 7 no. un-utilised on Anthems Way could be allocated for use. Additional provision could be made here by converting existing parking permit parking to 27 no. Blue Badge bays. Unused Blue Badge bays in N07 could also be assigned.

- Where additional Blue Badge parking is provided more than 50m travel distance away from residential entrances, seating and rest points will be provided at 50m intervals within the public realm.

Cycle Parking and storage

- There will be dedicated visitor cycle racks close to N19 entrance and retail units located along the eastern side of the NEAP. They will include 5% provision for non-standard cycles. There are also existing hire bike cycle racks nearby. There are also visitors' cycle rack (including the provision for retail) at the station level by Station Square.

- It is Get Living's policy to create high quality provision for residents with cycles. To meet this policy a large cycle storage with space for approx. 1500 bikes plus a repair space are proposed. The cycle hub will have direct and easy access from the entrance lobby of N18/ N19, at Station Level. Both the entrance doors and the aligned doors to the cycle store will be wide double

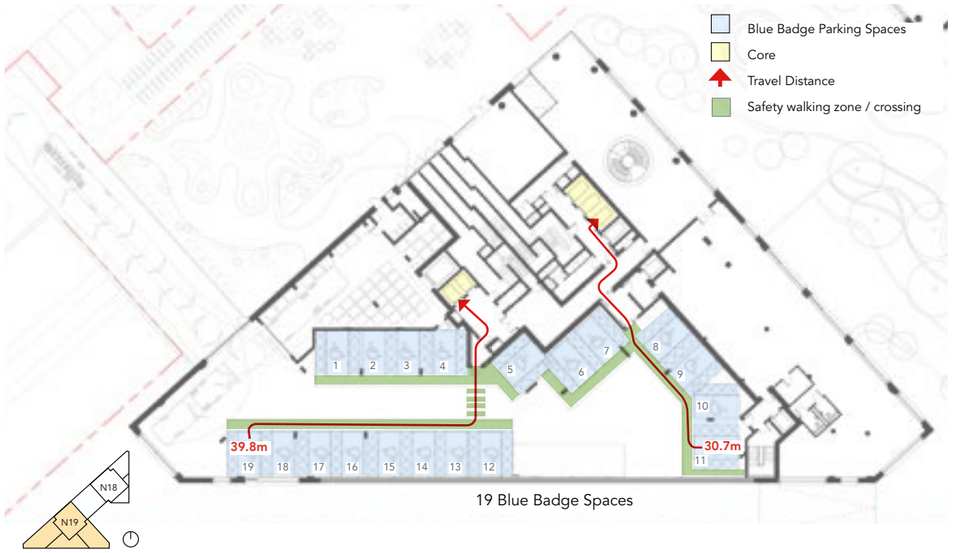


Fig.180 N19 Blue Badge Parking Travel Distances

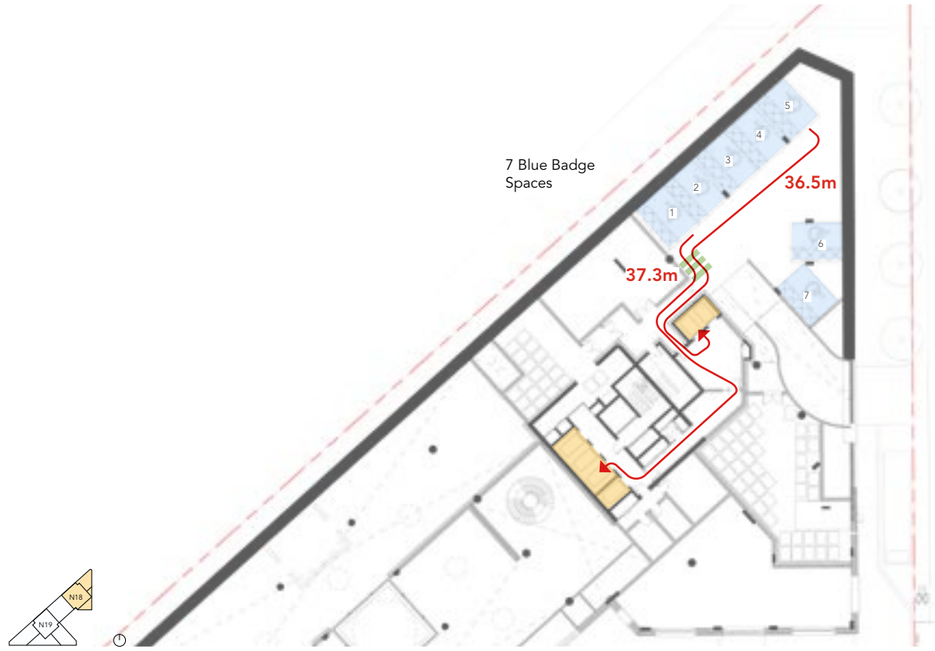


Fig.181 N18 Blue Badge Parking Travel Distances

doors (door type in abeyance due to fire strategy) to facilitate ease of access, particularly for residents with large cargo or mobility bikes. Doors within the store will also be automated for ease of access.

– Cycle parking provision will include 5% non-standard cycle parking that will comprise 3m wide bays to accommodate 2 no. cargo bikes and 1 no. non-standard cycles, and 2m wide bays for cargo bays – all with 3m clearance to the rear. Provision for non-standard bikes will also be provided at the ends of a run of regular Sheffield stands with 1.5m space on the open side.

– 25 no. mobility scooter parking spaces with electric power outlets will also be provided, being 850mm wide with a 1.2m shared transfer zone and 1.8m clearance to the rear. The store will be fire compartmented, as there is a fire risk from scooters. There will also be parking provision for electric bikes again with nearby electric outlets.

– The store will include a cycle repair shop, and will have inbuilt flexibility to accommodate a different mix of cycle types according to demand. There will also be bike and dog wash facilities within the hub.

Main entrances

– The primary grand entrance to the spacious shared Lobby/Amenity in N19 will offer level access across Station Level for residents of both N18 and N19 approaching from Station Square Celebration Avenue via a 1:21 slope that runs adjacent to the amenity and retail areas of N19. Beyond this point, the approach widens to 5.5m and is level.

– The entrance doors will comprise two sets of automatic sliding doors. The doors will offer a clear opening width of 2.3m, sufficient for the passage of large and recumbent cargo bikes, users of mobility scooters. To the right of the entrance on entering will be a concierge with adjacent staff office with a view to the external area to enhance the security.

– From the spacious 9m wide entrance lobby there will be level access to the lift cores of both buildings. The entrance arrangements will give priority to wheelchair users and others with impaired mobility or vision.

– Each tower has a level access Park Entrance at Park Level. Entered via a wide single leaf door, the entrances lead into spacious entrance Lounges, that in N19 connecting through to a large Residential Amenity space. Each framed entrance will have a distinct architectural language that will help distinguish it from the entrance to adjacent retail space. The canopies will be 750mm deep.

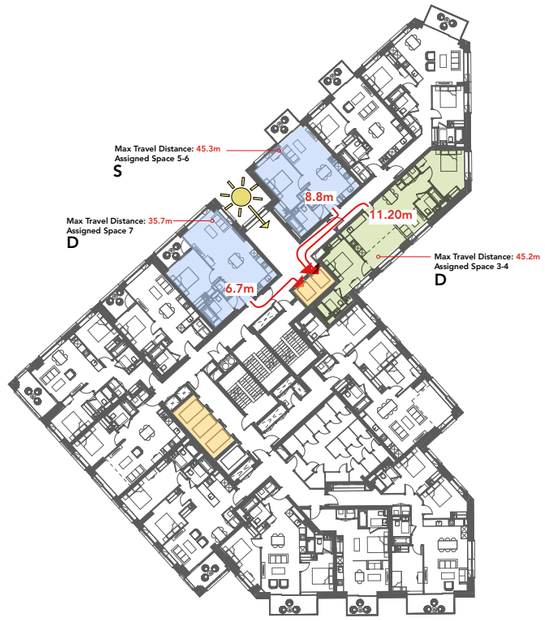


Fig.182 N18 Typical Shoulder Level Travel Distances

Fig.183 N19 Typical Shoulder Level Travel Distances

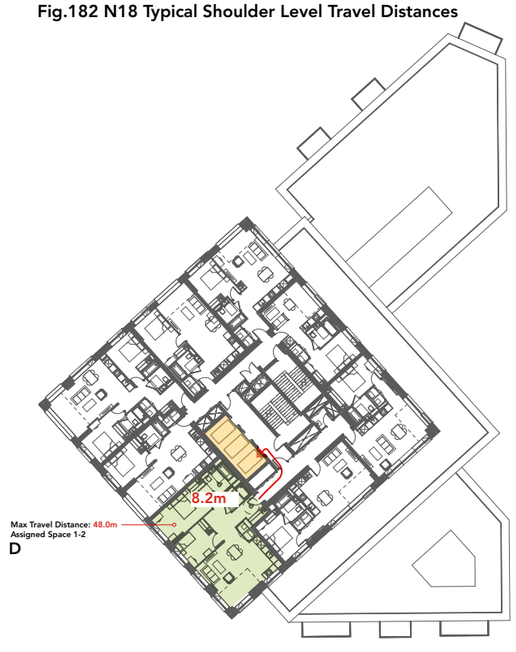


Fig.184 N18 Typical Top Level Travel Distances

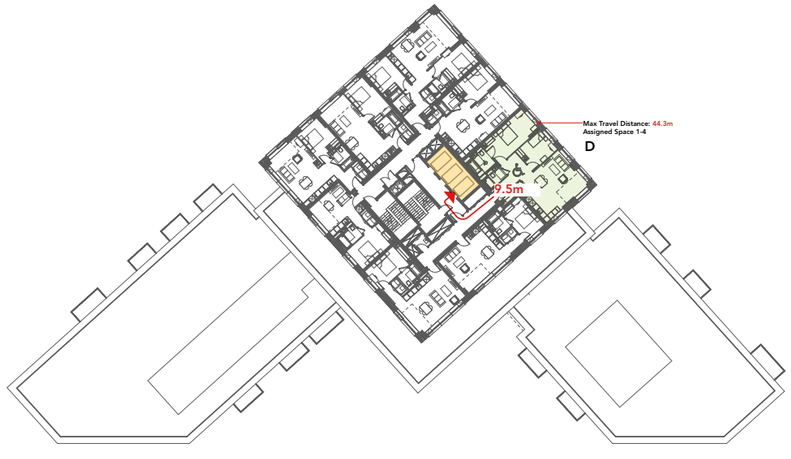


Fig.185 N19 Typical Top Level Travel Distances

Adaptable Unit: 1 Bed/2 Persons
Adaptable Unit: 2 Bed/3 Persons
Core
Travel Distance
S Single Aspect
D Dual Aspect

N

Vertical Circulation

- Lift access in each tower will be via three evacuation standard passenger lifts per core and a Fire Fighting Lift, giving access to all upper storeys L1 to L40, including the communal terrace at L10 for both N18 and N19. These lifts are 2.1m deep by 1.1m wide. Lift access in each tower will be via three evacuation standard passenger lifts per core and a Fire Fighting Lift, giving access to all upper storeys L1 to L40, including the communal terrace at L10 for both N18 and N19.

- These lifts are 2.1m deep by 1.1m wide. Whilst the size of individual lifts does not fully comply with LLDC standard for a width of 1.4m, this is not a single lift. There are three lifts provided in the main cores. We believe our proposal represents high quality design that will reduce waiting times to only 60 seconds. An increase in size would reduce the number of lifts per core to two resulting in increased waiting times which would not be desirable.

- There are also secondary fire escape cores both in N18 and 19 with an evacuation standard lift and fire fighting lift. These are 1.4m L x 1.1m W.

- Circulation stairs and lifts will all meet or exceed Approved Document M standards.

- As well as stairs adjacent to the lifts in all circulation cores, there will be stepped access in the form of concrete spiral stairs located at ether end of the shared Amenity Lounge for access to the Station Level of N18 and N19, proving a link from Park Level to Station Level. The stairs have gentle risers of 170mm, minimum treads of 250mm, with a tread width of 1500mm and therefore meet Part K of the Building Regulations. There is alternative lift access nearby.

Amenity spaces

- The key Amenity at ground floor may include a living room, games room, dog/bike wash facility, and an at home work space. At the N18 end of the Amenity will be WCs, including a wheelchair accessible cubicle. Similarly, within the Amenity in N19 at this level, there are two accessible WCs which will exceed minimum Part M dimensions.

- The Amenity will benefit from natural light provided by skylights set into planters within the public realm. These will also help activate the landscape with glimpses through to Station Level as will the central courtyard with a feature tree that will rise from the amenity up to the landscape above where it will be contained within a large tall planter to prevent pedestrian access. This feature tree will provide a useful orientational aid at both levels.

- Additional Amenity will be provided at Park Level of N19 and will include a residents kitchenette, bar and events space, with associated toilets including two accessible facilities. An evacuation standard lift 1.4m L x 1.1m W will provide access between Park and Station levels.

- There will also be a residents lounge on L11 of both towers, overlooking the Roof Terrace.

- There will also be Roof Terraces for both towers, accessed by lift. Terraces will be designed for ease of access by all, including wheelchair users and visually impaired people, with wide clearly navigable routes, appropriate furniture, sun shading and safety measures.

- Both amenities include a wide clear circulation zone around the perimeter for viewing the park and public realm. There are similarly clear circulation zones throughout the lounge with seating areas and winter gardens. There will be opportunities for residents to grow plants and raised beds will include space for wheelchair wheels. Similarly, the kitchenette will be accessible, with knee recess beneath the sink and easy grip mixer lever taps. The shared counter height of 850mm ffl is compliant for a food and drink preparation area used by wheelchair users and those standing.

- Toilets, including accessible cubicles, will be provided at L11, located conveniently close by, adjacent to the residents lounge and lift.

Fig.186 Station Level

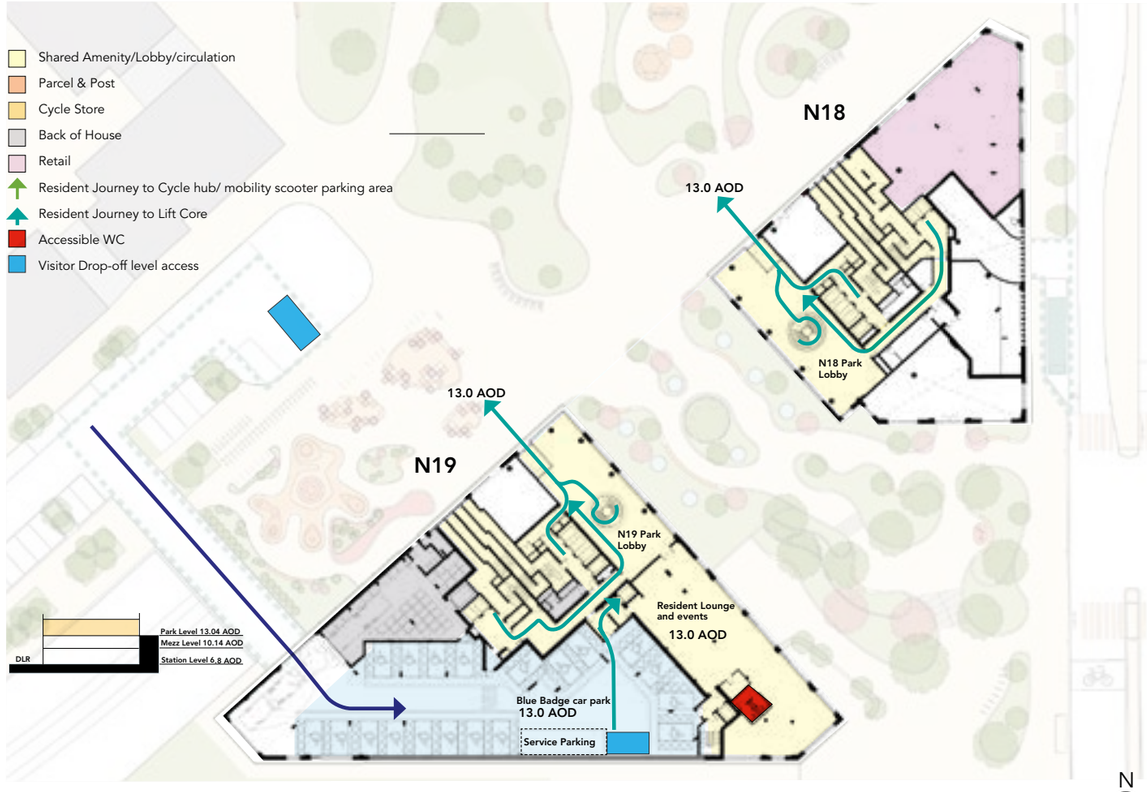


Fig.187 Park Level

6.5 Residential Accommodation N18 and N19

Accommodation – General Principles

All proposed apartments meet Building Regulations 2015 Part M4 (2) in terms of layout and provision of an accessible bathroom. 10% of apartments meet Part M4(3) Category 3: Wheelchair user dwellings (2) (a) with a level access shower from day one.

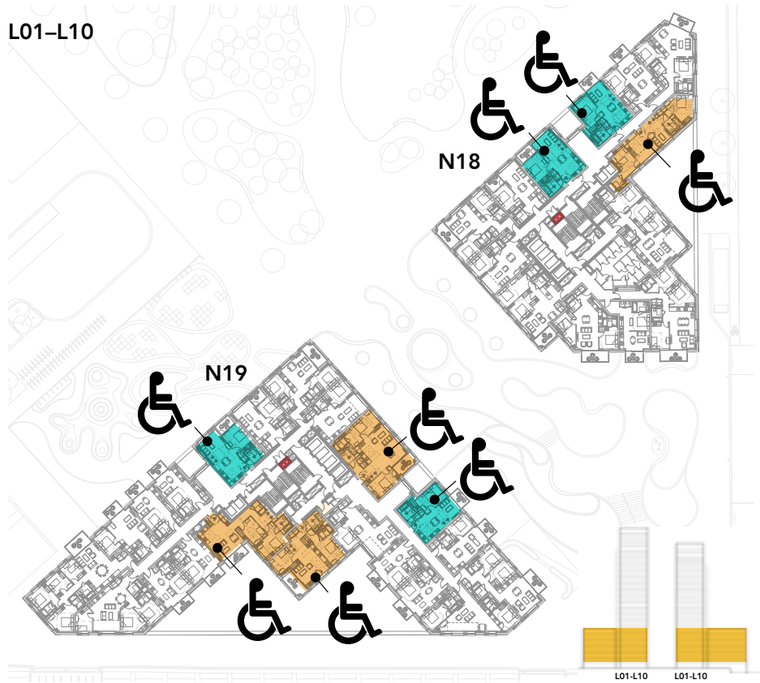
Details of standard apartments include:

As a minimum, provision across all units will include:

- Level/step free thresholds from the external public realm via communal entrances and lift access to all storeys.
- Entrance doors with minimum 1200mm deep sheltered area (canopy / recessed doors).
- Spacious lift lobbies with ample level landings exceeding 1500mm², with passenger lifts that exceed the required minimum 1100mm wide x 1400mm deep.
- Communal stairs in the vertical circulation cores meeting Part K for utility stairs.
- Level approach to each private dwelling with external landings exceeding 1200mm wide, and wide circulation core doors.
- Main circulation corridors 1500mm wide to enable wheelchair turning with provision of passing points of 1800mm and clear sight lines between passing spaces.
- Private entrance door a minimum 850mm clear opening width, and with lever handles at 900mm ffl for ease of reach, and high visibility door numbers.
- Door nibs of 300mm on the leading edge.
- Internal doors a minimum 850mm exceed minimum widths, with 300mm clearance from wall on the leading edge.
- Wide entrance lobbies that exceed minimum widths.
- Living area with glazing to principal window starting at 700mm ffl (compliant with Part M maximum height of 850mm ffl).
- Deep sills can accommodate a shrine or altar to meet LLDC Inclusive Design Standards IDS 15.9.
- 3–4 bed apartments have sufficient space to accommodate large gatherings / extended families to meet LLDC Inclusive Design Standards IDS 15.9.
- Minimum 1200mm clearance in front of kitchen units.
- Every bedroom having a minimum clear 750mm approach zone from the doorway to the window.
- Minimum 750mm circulation around both sides and foot of the bed in the master bedroom.
- Step free access to a WC with an outward opening door, with a clear zone of 1100mm in front of the pan.
- Wheelchair adaptable main bathroom with side access to WCs and shower access with suitable wall structure to accommodate future installation of grab rails.
- Power sockets will be located at 450-1200mm ffl.
- Window handles at 450-1200mm ffl, to window in principal living area at 700-1000mm ffl.
- Handles to sliding doors to balconies will be at 1200mm ffl. Should an apartment be adapted in the future for use by a disabled resident then motorised opening can be provided.
- Refuse chutes are located on main circulation corridors. On corridors where a wheelchair accessible unit is occupied by a wheelchair user, doors will be provided with hold open doors to enable wheelchair users to enter and turn around to exit. A push to close button will be provided. The doors will remain open for as long as someone is within the space. High contrast edging to the doors will help prevent visually impaired people from walking into them when they are open. These fire rated doors will be in a door and a half configuration to enable a wheelchair user to gain access through the larger leaf.

	N18 and N19
1 Bed	40
2 Bed	45
Total	85 units

Refuse chute



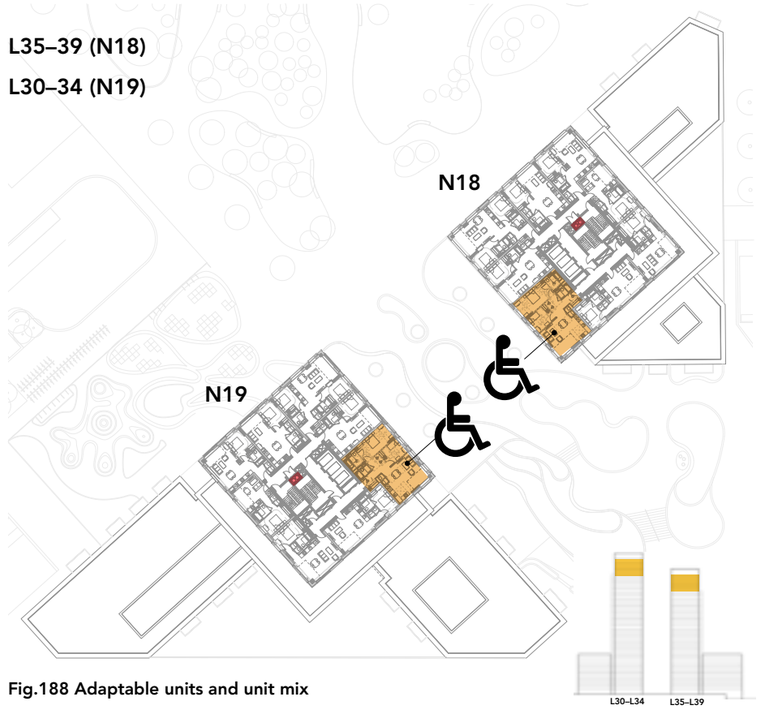


Fig.188 Adaptable units and unit mix

3) Details of 10% units (85 no.) to Part M4 (3) (a) include:

- Minimum 1500mm² entrance landings
- Minimum 1500mm wide x 1800mm deep clear landing inside the entrance door
- Level threshold
- Minimum 850mm entrance door clear opening width minimum 1500mm² internal landing clear of door swings
- Where doors are adjacent to another outward opening door the leading edge is a minimum 800m
- Minimum internal door openings of 850mm with 300mm nib on leading edge, 200mm on following edge
- No corridors to compromise circulation
- Circulation within living, dining and kitchen areas to include at least 1500mm² turning space
- Kitchen worktop lengths – for two bedspaces a minimum 4330mm plus additional provision for adapting to fully accessible of 6130mm; for 3 and 4 bedspaces 4730mm rising to 6530mm for adapting to fully accessible
- 2200mm height adjustable worktop length and min. 400mm to at least one side of the oven and fridge
- 1500mm clear space in front of worktops and cabinets
- Bedroom space with 1000mm clear zone to each side and end of double bed and in front of wardrobes and 750mm clear route to a window
- Principal double bedroom a minimum 13.5m² and min. 3000mm wide
- Minimum storage area of 1.5m² for 1 bedroom, 2m² for two bedrooms
- Level access shower and sufficient turning circles, shown with bath installed at day one
- Apartments with four bedspaces have a fully accessible bathroom with second bathroom capable of being adapted as a fully accessible WC
- Ceiling structure can accommodate future installation of ceiling track hoists between principal bathroom and principal bedroom with 200kg tolerance
- Wall structure via pattressing to enable future installation of grab rails sufficient to take a 1.5kN/m² load
- Slip resistant floors
- Basins clear of pan with 1100mm clearance to enable frontal transfer
- Window controls to side hung ventilation windows in principal living space at a height of 700-1000mm ffl
- Elsewhere window controls between 450 and 1200mm ffl
- Windows start at 700mm ffl (whilst LLDC requirement is for 500mm window sill height, this would not be favourable to the residential unit quality in terms of daylight and overheating aspects as it will increase the glazing ratio. 700 mm provides good views out to the window from a seating position).
- There will be no sliding balcony doors within these apartments, with the exception of N18 L35/39 – 07 2B3P where there is an internal solarium where a handle height of 1000mm ffl is not feasible. In this instance the nearby side hung window achieves 1000mm. Motorisation could be provided to the sliding doors if the resident has difficulties with a 1200mm handle height.
- Mobility scooter/buggy parking and charging points within the cycle store at ground floor
- Wheelchair storage, transfer and charging area 1700mm x 1100mm with clear 1200mm zone to the side or front located either within the hall or living area
- Private balconies (either inset or projecting) offering a minimum 1500mm clear width and turning circle and sliding door access with level threshold

Fig.189 One bedroom with balcony – single aspect; Apt ID: 1.2W

Fig.190 One bedroom with internalized amenity – dual aspect; Apt ID: 1.6W

Fig.192 Two bedroom with internalized amenity – dual aspect; Apt ID: 2.13W

Fig.193 Two bedroom with balcony – Dual aspect; Apt ID: 2.2W

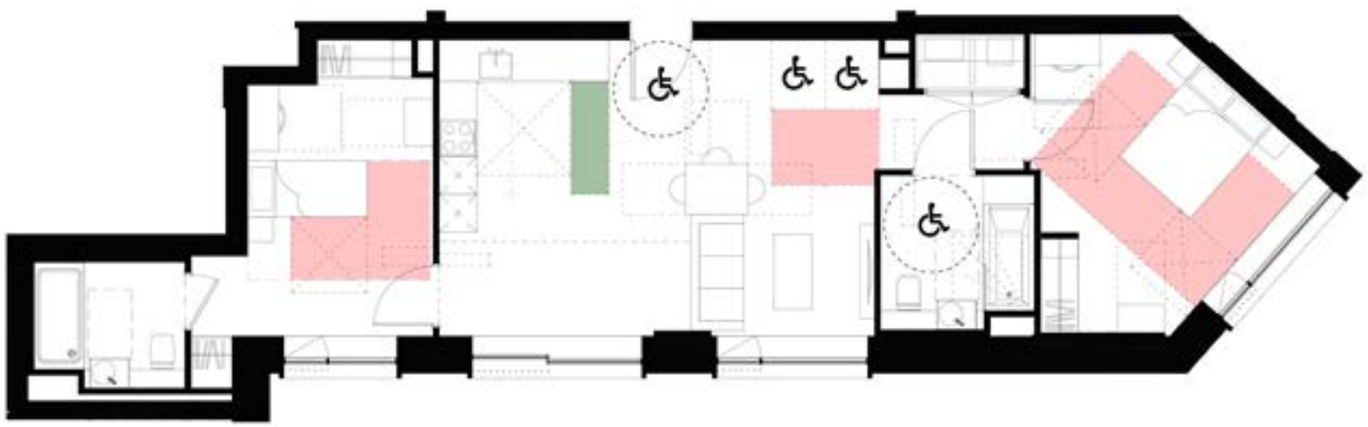


Fig.191 Two bedroom with internalized amenity – dual aspect; Apt ID: 2.8

Fig.194 Two bedroom with balcony – Dual aspect; Apt ID: 2.6W

Apartment ID	Location	Type	LDK Area m² Part M4(3)	Number this type	Adaptable kitchen length Part M4(3) *	Single/dual aspect	Private amenity type
1.2 WCH	N19 Shoulder	1B2P	25.6 (25) **	10	4500mm (4330)	Single	Balcony
1.2WCH	N18 Shoulder	1B2P	25.7 (25) **	10	4500mm (4330)	Single	Balcony
1.6WCH / 1.6H WCH	N18 and N19 Shoulders	1B2P	33.6 (25) **	20	4500mm (4330)	Dual	Balcony
2.2 WCH	N19 Shoulder	2B4P	39.4 (29) **	10	4730mm (4730)	Dual	Balcony
2.5 WCH	N19 Shoulder	2B3P	31.9 (27) **	10	4800mm (4730)	Dual	Balcony
2.6 WCH	N19 Shoulder	2B3P	30.3 (27) **	10	4800mm (4730)	Dual	Balcony
2.8 WCH	N18 Shoulder	2B3P	27 (27) **	5	5130mm (4730)	Dual	Solarium
2.13 WCH / 2.13H WCH	N18 and N19 Tower Top	2B3P	31.8 (27) **	10	5100mm (4730)	Dual	Solarium
Total				**85** representing 10% of 848			

*** Kitchens include an allowance to extend the worktop to meet the minimum length requirements for a WCH accessible layout**

There is a good spread of apartment types, locations and aspects, and with inset and projecting balconies.

Fire Strategy

The tower cores will have two evacuation stairs and three lifts to fire evacuation standard with an adjacent fire fighting lift whilst the Podium cores will have a fire evacuation lift and fire fighting lift. Between levels 10 and 11, the number of lifts reduces from 4 to 3 in the tower. Additionally, there will be areas of safe refuges in the main circulation stair cores of each block.

Personal Emergency Evacuation Plans (PEEPs) will be developed by Get Living to ensure the safe emergency egress of disabled residents.

Summary

The design proposals for both the buildings and public realm demonstrate a carefully considered approach to access.

There are currently no access constraints within the designs.

The designs have been developed through a formal integrated process of consultation with LLDC, BEAP, QRP and with reference to LLDC Inclusive Design Guidelines and as a result represent a considered approach to inclusive design.

The designs are also compliant and consistent with the Zonal Masterplan and Zonal Masterplan Access Statement.

The proposals are compliant with the performance indicators being Approved Document M 2010 (2015 edition), Access to and use of buildings, Volume 1: Dwellings, and Volume 2 – Buildings other than Dwellings, and BS8300:2018 Part 1 (External Environment) and Part 2 (Buildings), and LLDC Inclusive Design Standards May 2019.

Jayne Earnscliffe,
Director Earnscliffe,
Making Access Work

7.0
Landscape Proposal

7.1 Purpose of Document

This Landscape Strategy forms part of the Design Development Report and has been prepared by Grant Associates Landscape Architects on behalf of Get Living, the applicant, for the redevelopment of the site. For the purpose of the application the development may be referred to as 'N18/N19' or 'the site.'

The Landscape Strategy is submitted in support of the following;

The development of the propose design will comprise new residential buildings with commercial uses at ground level as well as cycle parking, hard and soft landscaping and associated works.

This document should be read in conjunction with the application drawings and other documents submitted as part of the application. The development is the culmination of extensive consultation with officers from LLDC, stakeholders, and local residents.

The Landscape Strategy is illustrative with the details being submitted for approval being shown on the separate suite of landscape plans submitted with the application. Reference the matters for approval being set out in Appendix 03, which are related to landscaping and those that are illustrative.

The landscape strategy outlines the vision, design principles and concepts which have guided and informed the landscape for the development. The landscape proposals present an integrated and holistic approach to the development in response to the site conditions, the building design, intended uses and the rich and unique local context of the East Village Masterplan. This strategy describes a series of proposals for the various spaces around the ground floor public realm and the external areas at roof level. The proposals seek to create a vibrant, verdant and welcoming landscape that makes the most of the strategic location within East Village. The Landscape Strategy sets out the design intent for the materials and planting, with details to be approved post determination through planning condition(s).Please refer to the matters for approval set out within Appendix 03. The main landscape features of the proposals are:

- The creation of a rich variety of flexible public spaces at ground level framed by verdant and habitat rich planting that strengthens pedestrian connections between Victory Park and Stratford International Station.
- The creation of active frontages to the building that support inside/outside uses.
- Active spaces for play and socialising on the site of the existing NEAP area.
- Two communal gardens located at level 11.
- A biodiverse roof located on various levels.

7.2 Site Context

East Village

N18/19 is one of the last remaining plots in East Village and perhaps the most important because of its location next to the DLR and its strong relationship to Victory Park and Celebration Avenue.

The 0.7 hectares triangular plot has an approximate six-meter level change from the DLR to the park. It is bound by the DLR to the South and High Meads Loop enclosure on the northwest site boundary. The East edge faces Celebration Avenue, the only direct highway access available.

The development of N18/19 seeks to bring forward the final plot as the Gateway site enhances connectivity with nature, inclusivity and community. The development will create a place that exemplifies the Applicant priorities of flexibility, high quality living and sustainability. The public realm will deliver a green immersive experience, legible and exciting.

In terms of the surroundings, N18/19 is situated in a key enclave, as it is the closest plot of East Village to Stratford International. This makes the site a key part of the public realm infrastructure, comprising a mix of educational and cultural institutions, commercial areas, and a local and residential area. This is true of the site itself, where there is a sense the character is more local and community-oriented, a feeling enhanced by its proximity to the rest of the East Village pedestrian areas. In a sense, N18/19 is the gateway to a pedestrianised and welcoming urban space with an abundance of greenery, retailers, and uses.

Site Curtilage

The site sits at an interesting junction and it has a special significant due to being adjacent to Stratford International to the South while also being the gateway to Victory Park while also providing a connection towards Anthems Way. To the East it delimitates with Celebration Avenue, one of the arteries structuring East Village. All these factors provide a rich framework to which the design proposal must respond resolving and proposing imaginative, functional and cutting edge solutions.

At a site wide level a key observation is how the intrinsic nature and character of the sites edges or boundary changes; to the north west is a cherished public space; to the south the site is bounded by the DLR Station and Westfield beyond, to the east the site is dominated by the two hotels adjacent to Celebration Avenue, and moving towards Penny Brooks the area becomes predominantly residential with an intimate scale, further enhanced by the neighbouring Mirabelle Gardens further to the east.

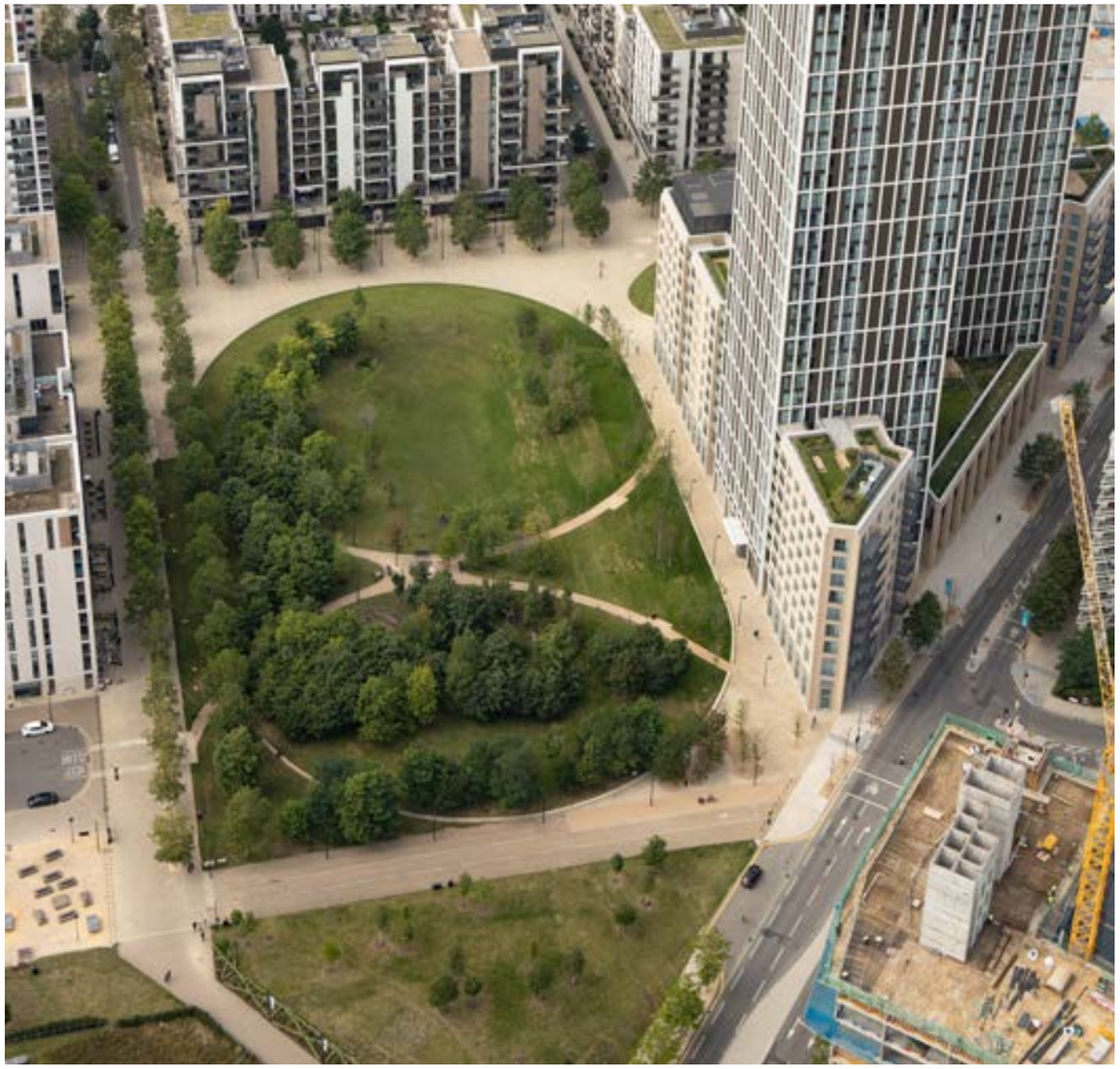


Fig.196 Aerial view of the site showing adjacent existing Victory Park

Fig.197 The site shown in its local context illustrating existing public and publicly accessible open spaces

7.2.1 LOCAL LANDSCAPE CONTEXT

Overview

After the 2012 Olympic and Paralympic Games, East Village was successfully converted from temporary dormitories into one of the biggest rental communities in London. However, the public realm remained the same. Whilst the 2012 landscape design was a successful response at the time, some elements may not still be as suitable for East Village today as it was then and requires a fresh perspective. The overarching characteristic of East Village is its proximity to a wide variety of green, biodiverse spaces which encourage walking, picnicking, cycling and learning. With the design of Plots N16 and N18/19 underway to complete the final puzzle pieces of East Village, the Applicant has identified an opportunity to develop a design strategy to create a green urban village. To do this, a clear and comprehensive approach is needed to establish robust new landscape which reflect the interests and needs of today's residents whilst allowing flexibility for the future.

History and Evolution

The original landscape was designed by Vogt Landscape Architects for the Athletes' Village in the 2012 Olympic and Paralympic Games. Whilst the character of the public realm was inspired by traditional Victorian London parks and gardens, the scale was intended to move large crowds quickly and safely through and between the various Olympic venues. The resulting design was a series of parks linked by wide avenues designed for high volumes of pedestrian traffic. The topography and landscaping of the parks were intended to be monumental.

Wider Connections

The original vision for East Village catered to cyclists and pedestrians, but also required significant highways engineering to accommodate the 2012 Olympic and Paralympic Games. Today, roads like Celebration Avenue are underused by vehicles and over-engineered for the needs of cyclists and pedestrians. Furthermore, pathways and routes are often discontinuous and lack legibility. Whilst solving these issues within the East Village ownership boundary are possible, improvements to wider connections requires the involvement and cooperation of neighbouring stakeholders.

Fig.198 Aerial view of the site showing winder connections

WaterWorks Nature Reserve
- Gardens & heritage
- Nature reserves
- Water pond and parks
- Walking, running & cycling
- Wildlife sightings

Millfields Park
- Sport pitch
- Community orchard
- Trim trail (wooden gym apparatus)

Hackney Marshes
- Sport facilities
- The marshes

Chandos Road Gardens
Lee Valley Hockey & Tennis Centre
Drapers Field Recreation Ground
Wick Woodland
- Trees, woods and wildlife

Lee Valley BMX Track

River Lawns
Tumbling Bay Playground
Mirabelle Gardens
East Village Park
- Art / Culture
- Contemporary / Fashion
- Interactive
- Exercise / Play
- Nature / Ecology

New Garden Quarter
Stratford wetlands
- Ecology
- Wetland garden
- Wetland conservation

Victoria Park
Pleasure Gardens Play Area
Great British Garden
- Seasonal gardens
- The garden show

London Aquatics Centre
- Recreation / sport

- Allotment gardens

Pudding Mill Allotments

Three Mills Green &
Three Mills Island
- Arts and Culture
- History
- Play
- Festival

Key

- Significant tree areas
- Perennials
- Gardens
- Community Gardens
- Bird watching
- Marshes
- Wildlife
- Water feature
- Water Ponds
- Sport Facilities
- Cycle Path
- Recreational areas
- Playground
- F&B
- Picnic
- Seating elements
- Performance
- Sport Pitches

Fig.199 Illustrating how proposed green infrastructure for the site will create new green links - stitching into the existing green infrastructure of the neighbouring streets and open spaces

7.2.2 LOCAL POLICY

Relevant Development Plan and Planning Guidance

– The London Plan (2021).

– London Legacy Development Corporation Local Plan 2020–2031.

London Plan Policy

The London Plan (2021) provides the spatial development strategy for Greater London up until 2041. The following London Plan policies are relevant to this proposal:

Policy G1 Green Infrastructure

This policy outlines the Mayors commitment to protect, promote, expand and manage London's Green Infrastructure.

Policy G5 Urban Greening

This policy notes that the Mayor will support proposals for urban greening, including new planting in the public realm.

Policy G6 Biodiversity and Access to Nature

This policy notes that the Mayor will support proposals for protecting and conserving existing habitats, opportunities for creating new habitats and with aim to secure net biodiversity gain.

Policy G7 Trees and Woodlands

This policy notes that the Mayor will support proposals for protecting existing trees and planting new trees.

Policy HC3 Strategic and Local Views

This policy notes how the Mayor will protect the composition and character of designated views.

Policy SI1 Improving Air Quality

This policy highlights that proposals should consider how local air quality can be improved.

Policy SI13 Sustainable Drainage

This policy notes that preference for green over grey sustainable drainage features in line with hierarchy – rainwater as resource, managed close to its source as possible and attenuation in green infrastructure features.

Policy T2 Healthy Streets

This policy notes proposals should promote and demonstrate the application of the Mayor's Healthy Streets approach.

Policy T5 Cycling

This policy notes proposals should help remove barriers to cycling and create a healthy environment in which people choose to cycle.

London Legacy Development Corporation Local Plan 2020 to 2036. The following policies are specially relevant for this proposal:

Strategic Policy SP.3: Integrating the natural, built and historic environment.

LLDC states that it will create a high quality built and natural environment ensuring: the creation of 'place', enhancing the landscape context, promoting local distinctiveness, protecting biodiversity and providing a strong infrastructure. It shall also support minimizing impact from noise.

Policy BN.1: Responding to place

The proposals will be considered acceptable where they respond to place in accordance to the following principles:

– Landscape and water: respect and enhance the local area's defining natural and man-made landscapes.

– Urban fabric: respect existing typologies, drawing design cues from the form of the area in terms of layout.

– Connectivity: routes should cater for the requirements of all users. Opportunities to connect areas to strategic road, rail, bus and cycle networks must be utilised.

– Infrastructure: make use of existing physical infrastructure to help overcome barriers to integration and to create new links and routes.

– Amenity and wellbeing: prevent overshadowing, mitigate noise and air pollution, provide acceptable levels of sunlight, daylight, etc.

Policy BN.3. Maximising biodiversity

The policy notes that the biodiversity shall be protected and enhanced and new habitats created within open space, parks and built up neighbourhoods.

Policy BN:4 Designing development

The policy states that all developments should achieve the highest possible standards and quality in both design, construction and use. This included contributing towards the creation of distinctive, integrated, legible, connected and suitable places. The design shall exhibit the principles of good design, minimise adverse impacts demonstrating that the scheme will receive acceptable levels of daylight and sunlight.

The policy also considers important to: respect the scale and grain of their context, relate well to the adjacent streets, generate active frontage, communal amenity space well designed and appropriately located, contribute to defining existing or new routes and promote legibility of the site.

Policy BN.6: Requiring inclusive design

Non-residential proposals will be considered acceptable where they respond to the needs of all users, and provide an accessible and inclusive environment by incorporating all applicable elements of the Legacy Corporation's Inclusive Design Standards.

Policy BN.8: Improving Local Open Space

The development proposals of affecting areas of Local Open Space, will be expected to help shape local identity by: protecting and/or enhancing its function, quality and character and protecting its openness and extent.

Policy BN.9: Maximising opportunities for play

The design proposals will be required to improve or provide new play, maximising opportunities for play and informal recreation. New play spaces should create a high quality, dynamic and stimulating play space.

Strategic Policy SP.5: A sustainable and healthy place to live and work

This Policy states that it will be important:

– To ensure that the development contributes to the health and wellbeing of those living and working in the area.

– To ensure that the development meets the needs of the present without compromising the ability of future generations to meet their own needs.

– To contribute to the Mayor's objective of London becoming a zero-carbon city by 2050.

– To reduce water use encouraging the utilisation of rainwater harvesting, grey water recycling and use of non - potable water sources.

– To minimise waste.

Policy S.1: Health and wellbeing

The development schemes will be required within their Design Access Statement to describe how the scheme will contribute to the health and wellbeing of those who will live and/or work within the development proposed and would not significantly adversely effect those who live and/or work within the vicinity of the proposed development.

Policy S.7: Planning for waste

Policy S.8: Waste reduction

This policy outlines the need for minimizing the amount of waste produced, maximising reusing and recycling.

Policy S.9: Overheating and urban greening.

The policy states that existing parks and open spaces should maximise the contribution that urban greening can make in creating a liveable environment, maximising local biodiversity and encouraging local food growing.

Policy S.10: Flood risk.

This advises how to take account of and address the risks associated with flooding and coastal change in the planning process.

Policy S.11: Sustainable drainage measures and flood protections.

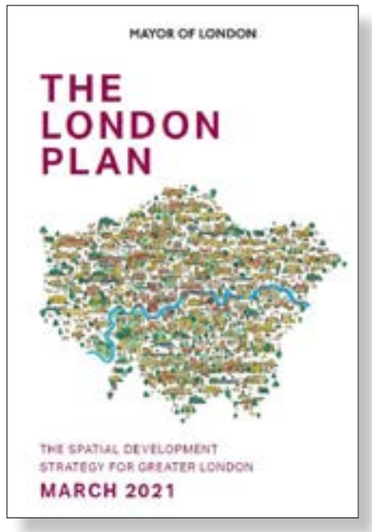


Fig.200 Relevant local policy - development plan and planning guidance

7.2.3 PLANNING AREA OF INFLUENCE

Comprises East Village ownership area. The masterplan has been developed or is under construction almost in its entirety with the exception of N18 and N19 and N16. The development of these two plots has site wide strategic consequences as it is linked to the uplifting of the Public Realm in Victory Park and Belvedere. This is an important factor as the landscape proposals defined in this document have a commonality and a cohesive narrative tying the different elements of the public realm while giving a distinctive identity to each of the areas. The strategic criteria focuses on two main aspects:

– To understand and relate to the emerging plots.

– To enable a public realm offering new opportunities integrating it into the wider context of East Village.

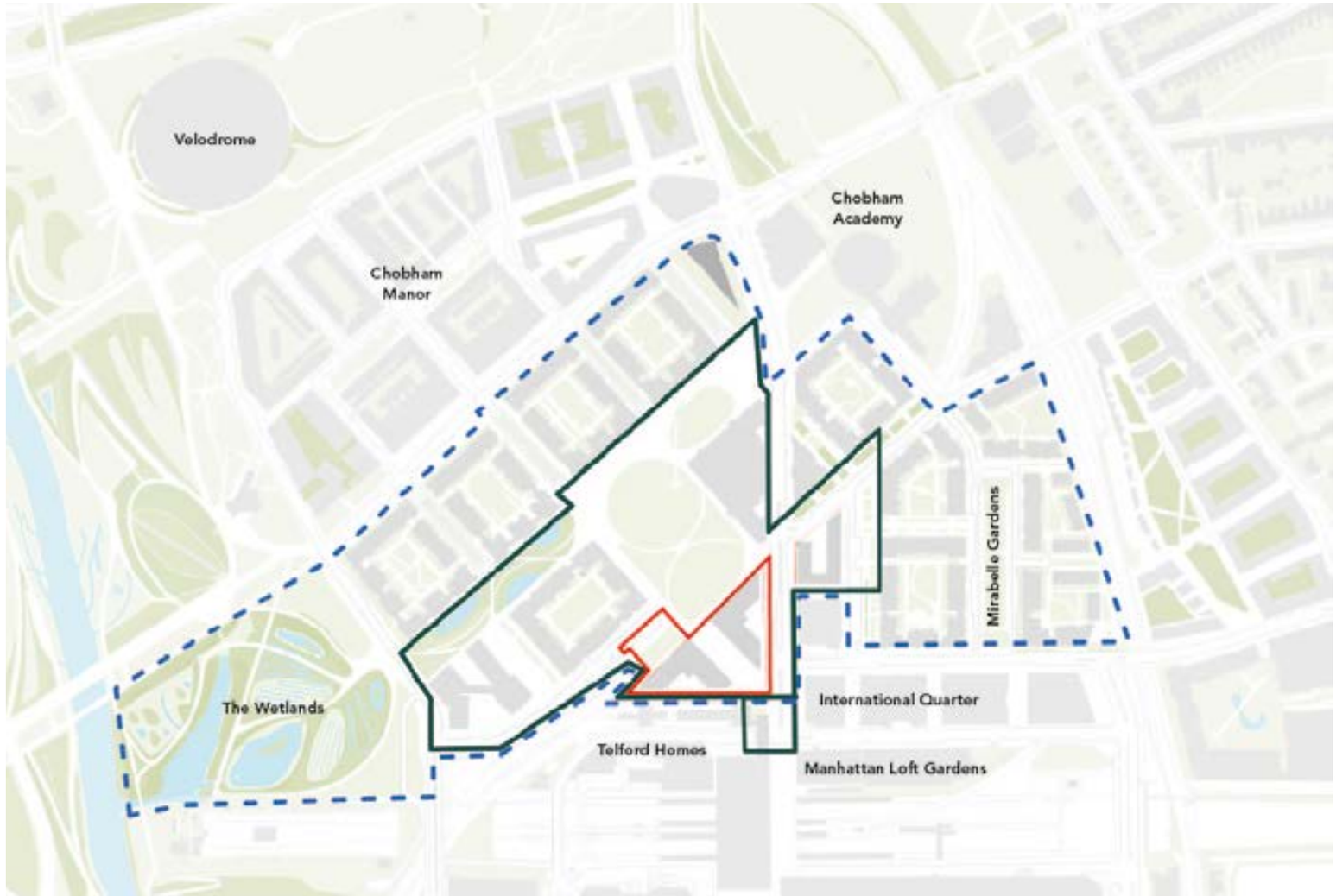


Fig.201 Area of Influence diagram

Key

Planning applications for Plot N18/19
Area of influence
East Village area

7.2.4 APPLICATION HISTORY

The site has been developed in collaboration with Glenn Howell Architects from the consented 2014 RMA scheme through to the current proposed scheme. Through the design development process, the total area of public realm has been increased from 2424m² to 3,329m². This is aligned with the SC OPP Public Open Space requirements and compliance set out in Appendix 01. This increase in publicly accessible open space has in turn allowed for an increase in the amount of urban greening to provide a scheme with increased benefits for both the public and wildlife.

Consented 2014 RMA Scheme

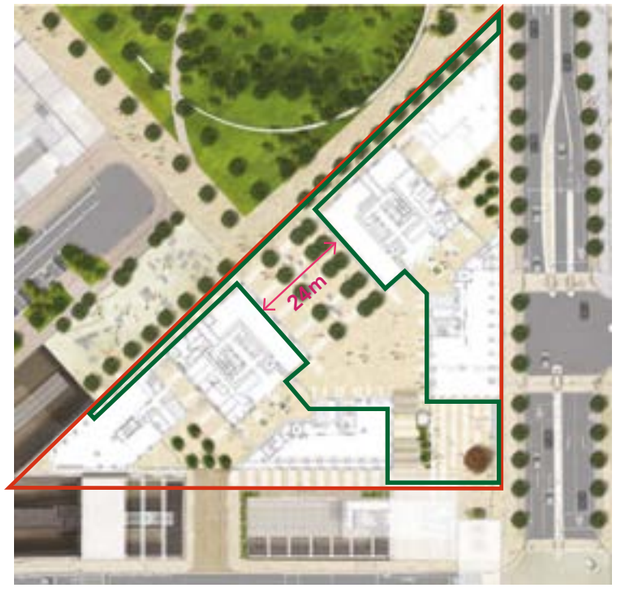
– Area of public space: 2,424 m²

Green space

360 m²

Hard space:

2064 m²



Stage 0 Scheme

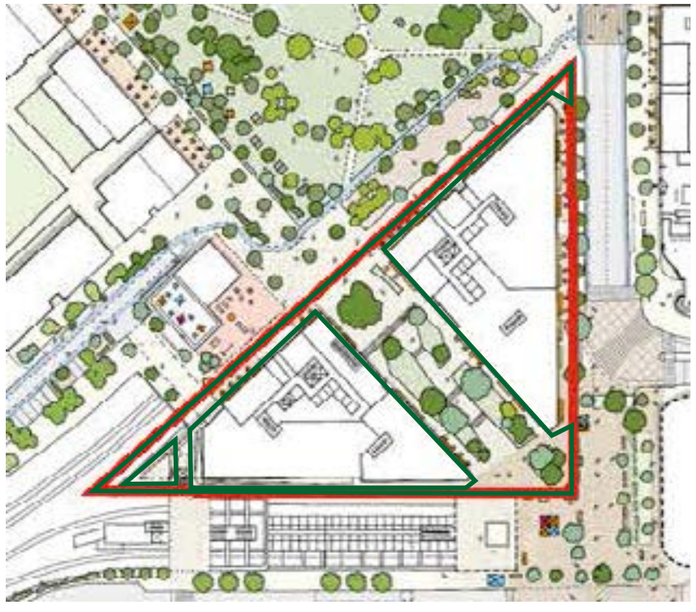
– Area of public space: 2,693 m²

Green space

712 m²

Hard space:

1981 m²



Proposed Scheme

– Area of public space: 5,758 m²
– Increased Green spaces
– Improved Accessibility

Green space

1424.5 m²

Hard space:

4333.5 m²

7.2.5 EXISTING PLAY PROVISION

The adjacent diagram show the existing play provision within the East Village masterplan. While the majority of the masterplans play provision has already been delivered, the uplifting of the public realm linked to this planning application proposes a series of enhancements of the current play areas. The NEAP currently located adjacent to N19 will be relocated in Victory Park delivering a better, more immersive and greener experience for the users while activating the park. It will also allow for the creation of a amenity space, play and softscape opportunities in the current location of the NEAP. The details of the change are outlined in this document and explained in detail in the planning application comprising Victory Park and Belvedere.

Fig.202 Plan showing existing play provision within the masterplan extracted from SC OPP

Key

1. Plot N05 NEAP
2. Belvedere LEAP
3. Long Park LAP
4. Victory Park NEAP
5. Stratford Green LEAP

Play Space

According to Section 8 of the Section 106 Agreement stipulates how much space should be provided per open space area, together with requiring provision of play spaces such as NEAPs, LEAPs, park furniture, pedestrian connections etc which are defined as follows:

- LAP means a local area for play of not less than 100m², being a small area of unsupervised open space specifically designed and designated for young children (aged 4 to 6 years old) for play activities close to where they live, designed and laid out meet the relevant safety standards for play facilities and safety surfacing and to include seating for supervising adults.

- LEAP means a local equipped area for play of not less than 400m². An unsupervised equipped area for play for children of early school age – 4 to 10 years old – designed to include at least 5 different types of play equipment, all designed and laid out to meet the relevant safety standards for play facilities and safety surfacing with the inclusion of seating for supervising adults.

- NEAP means a neighbourhood equipped area of play of not less than 1,000m². An unsupervised play area equipped for children aged 4 to 16 years, designed to include at least 8 different pieces of play equipment, opportunities for ball games or wheeled activities and seating for supervising adults. Designed and laid out to meet the relevant safety standards for play areas, equipment and safety surfacing.

The table adjacent shows the distribution of approved play spaces across East Village. Highlighted in red is the current NEAP located within the N18 and N19 boundary. This play provision is proposed to be relocated outside of this planning application boundary, a short distance to Victory Park, as part of a separate application. Additional play provision is proposed within the N18 and N19 boundary and is described in detail within this document. This play space is in excess of the required play provision proposed in the masterplan.

Figure 3 Map Reference	Type of Play Area	Ref Number	Date Approved	Notes	Quantum
N/A	N/A	09/90395/REMODA	09.03.2010	This was the main and original public realm RMA that established the distribution of play spaces within the public realm	N/A
Built					
3	LAP	12/00149/AOD	22.10.2012	Prize Walk	100 sqm
N/A		Various	Various	Located within the courtyards of the built Plots, namely Plots N01, N02, N03, N04, N07, N10, N13, N14, N15 and N26.	Estimated total of around 1,000 sqm
2	LEAP	~~12/00149/AOD~~	~~22.10.2012~~	~~Belvedere~~	~~320 sqm~~
2		18/00530/FUL	03.04.2019	New Belvedere (temporary only)*	320 sqm
5		12/00149/AOD	22.10.2012	Mirabelle Gardens	500sqm
4	NEAP	13/00352/AOD	23.08.2013	Parkour Area (Victory Park)	1,000 sqm
Sub-Total					**2,920 sqm**
Unbuilt					
N/A	LAP	17/00045/REM	07.06.2017	Ravens Walk (between Plot N06 and N07)	288 sqm
2	LEAP	18/00530/FUL	03.04.2019	New Belvedere	950 sqm
1	NEAP	14/00066/RMAEM	29.04.2014	N05 NEAP	1,269 sqm
Sub-Total					2,507 sqm
Total					**5,107 sqm**

Fig.203 Table showing the distribution of play spaces approved across East Village

7.2.6 CONNECTIONS

Understanding the context of the masterplan is an important element in giving cues to what could be the nature and character of the public realm. The ambition is for the landscape to filter through N18 and N19 establishing a green link announcing Victory Park. It is paramount that the new strategies provide a connected and legible public realm.

The green link aims to establish a garden passage through the buildings with a biophilic design informing not only the public realm but the ground floor of the building. A holistic approach with synergies between architecture and landscape is at the core of conceptual thoughts. The crystallization of these ideas is The Gateway.

The Gateway will the point of convergence of different routes connecting with Stratford International – a key hub serving the masterplan – with connections to Central London. The importance of the Gateway is defined by that nodal character but also by the need to provide a space with a moment of fascination, relaxation and a welcoming and engaging spatial configuration.

More local hubs within the masterplan provide places to pause and relax. Fashion square is a proposed new public space which is connected via urban links.

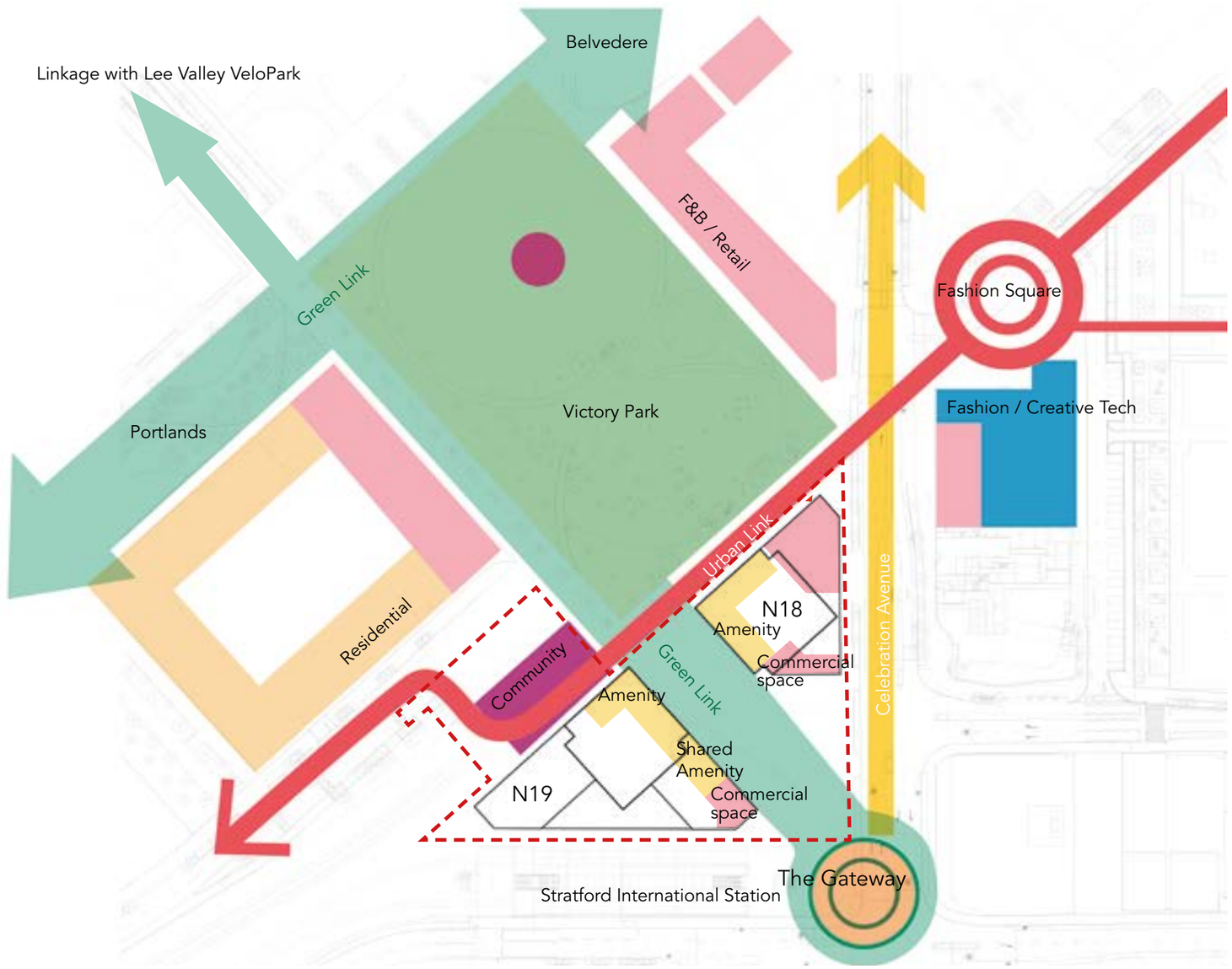


Fig.204 Illustrative plan showing key masterplan connections

7.2.7 ASSOCIATED APPLICATIONS

Adjacent to the N18/N19 site are a number of other developments sites which have been designed together to create an over arching cohesive landscape vision for the area. The intention is for these neighbouring development sites to be submitted concurrently with this application.

In 2020 the applicant undertook an analysis of the existing East Village masterplan to better understand how it could be improved. A Placemaking strategy and Briefing pack was produced to inform the design teams brief for all three applications.

The study identified a number of themes, spaces, experiences and new uses to be incorporated into the public realm which are outlined below.

1. Creating a unique identity: a diverse and inclusive neighbourhood where 'meaningful' experiences happens.
2. Supporting the Creative – Tech industries: a platform for innovation and enterprise delivering economic and social value.
3. Innovating Urban Green: a green haven with a rich biodiversity and a biophilic design.
4. Cultivating Health and Wellness: delivering a place to grow, refuel and correct.

The design of Victory Park and the Belvedere is part of a separate public realm application to be submitted alongside this application. The redesigned Victory Park includes a number of additions including landforms, perennial gardens, swales, seating areas, community gardens and a canopy. The new park design and N18/N19 ground floor landscaping have been designed to work together by extending the organic forms of the park out towards the station to better connect the park with transport links.

N16 is a development site proposed under a separate detailed planning application for student accommodation serving the local fashion college. The application includes a new public square, meeting space, seating and planting. The site links to Victory Park via Celebration Avenue.

Key

- N18/N19 Application Boundary
- Victory Park and Belvedere Public Realm Application Boundary
- N16 Application Boundary

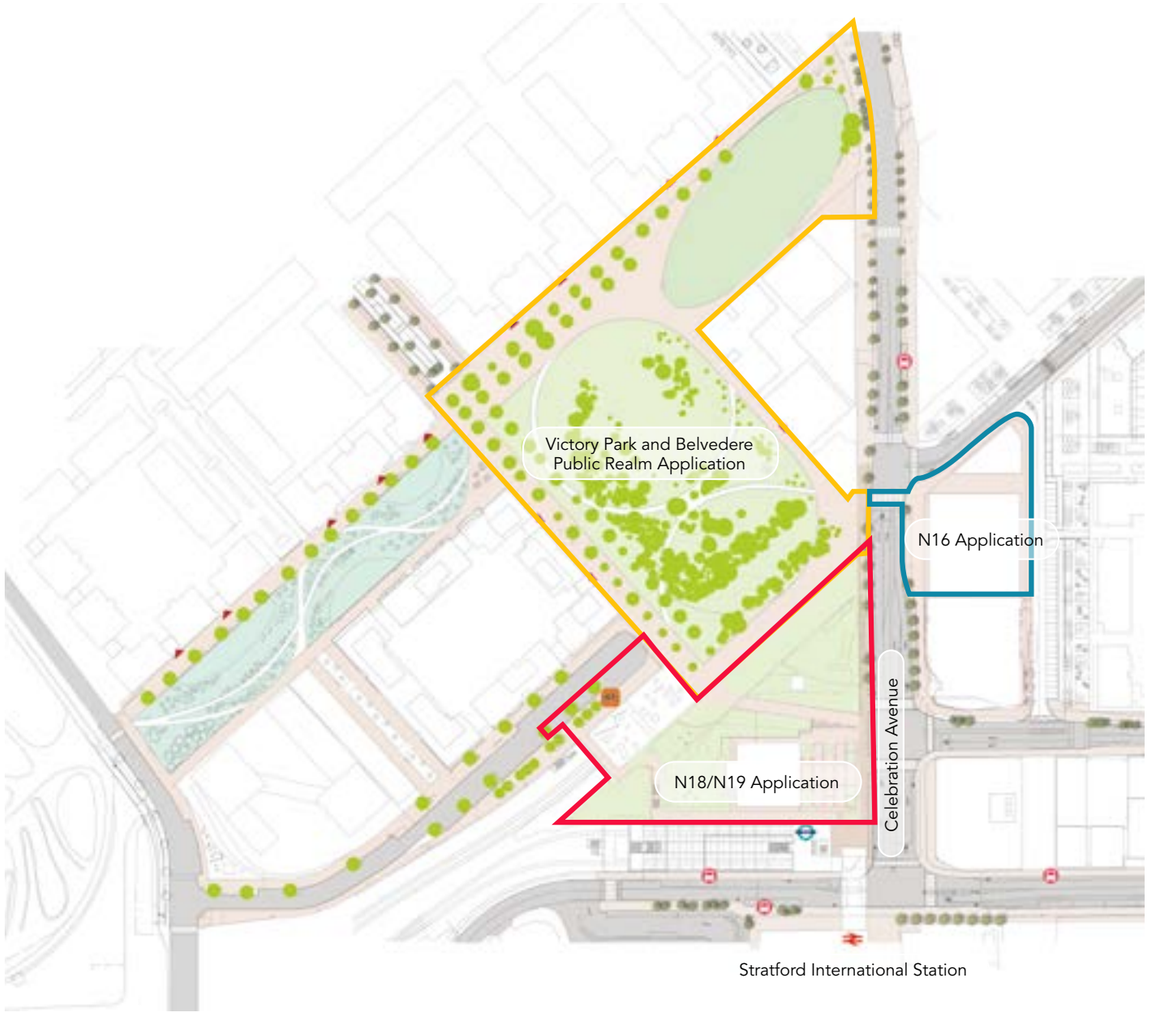


Fig.205 Illustrative plan showing location of associated planning application boundaries

7.3 Site Analysis

7.3.1 EXISTING CHARACTERISTICS

The development of N18/19 and N16 is the catalyst for re-imagining the East Village Public Realm Strategy. Therefore, the proposed landscape for N18/19 is better understood in conjunction with the landscape strategies in N16 planning application and in Victory Park & Belvedere Planning Application.

The public realm of N18/19 aims to deliver a strategy tailored to the influx of new residents as well as acknowledging the importance of the Gateway as an important connection for those already residing in East Village. Additionally, it aspires to forge an identity, attracting visitors for the unique qualities of its public spaces itself.

The development proposal comprises: Plots 18 & N19. As well as providing planted areas (with trees, street furniture etc), key elements of the public realm will comprise:

Station Square: adjacent to Stratford international it will be one of the points of entry to The Gateway. The user's will be greeted by a paving strategy serving as a wayfinding element and at the back the cascading landscape leading to the park and to the residential hall.

Pocket Spaces: a series of pockets spaces are situated in strategic zones of the landscape. They will allow for a pause to observe the greenery. The urban furniture will be strategically located enabling areas for gathering, reading or perhaps even working outside.

Park Plaza: this space will lead to the key junction connecting N18/19 with Victory Park. The holistic approach between architecture and landscape will be specially sensed here with different skylights seating in the landscape.

The Garden Lounge and Play area: this will occupy what is currently the NEAP. By relocating it in Victory Park we can establish a use much more related to the building lobby making the garden lounge an extension of the hall, an area to interact enjoying the view towards central London.

Fig.206 Current plan of the existing public realm

7.3.2 EXISTING SITE FEATURES

The site is located adjacent to the entrance of Stratford International Station and Victory Park and provides a key pedestrian connection between the two. The station entrance leads to DLR platforms where connections can be made to central London and the National Rail station is a short walk away towards Westfield Shopping Centre. The site is bound by Celebration Avenue to the east and Anthems Way to the north west. The site has a number of different boundary conditions. To the south are the fenced boundaries of the railway owned land. A 5m exclusion zone must be considered along this boundary. Railway lines pass beneath the site in part through a underground tunnel.

Office and cafe buildings are currently existing on site to be removed as part of the proposal. The site is largely comprise of sloped grass banks with some ornamental planting adjacent to pedestrian pathways.

Level Change

A defining feature of the existing site is an approximately 5m level change across the site. Currently the level change is negotiated via a path and feathered steps from Celebration Avenue linking to Victory Park. The path is lit with lighting columns and lined with ornamental planting.

NEAP

The site contains an area designated as a NEAP (Neighbourhood Equipped Area for Play). The existing NEAP comprises two distinct parcels. The northern area provides a dwell space with seating and benches. The south-western portion of the site accommodates a range of equipment including vault boxes, vault rails, beams and bars, climbing frames and cubes. The equipment is formed of metal rods connected with spherical joints in black and yellow. The height of the various pieces of equipment varies. A brick zig-zag 'traversing wall' is also provided in the northern part of the site. The wall is around 2.75m high with climbing holds at hand and foot level on both sides. Adjacent to the NEAP are a number of Sheffield cycle parking stands.

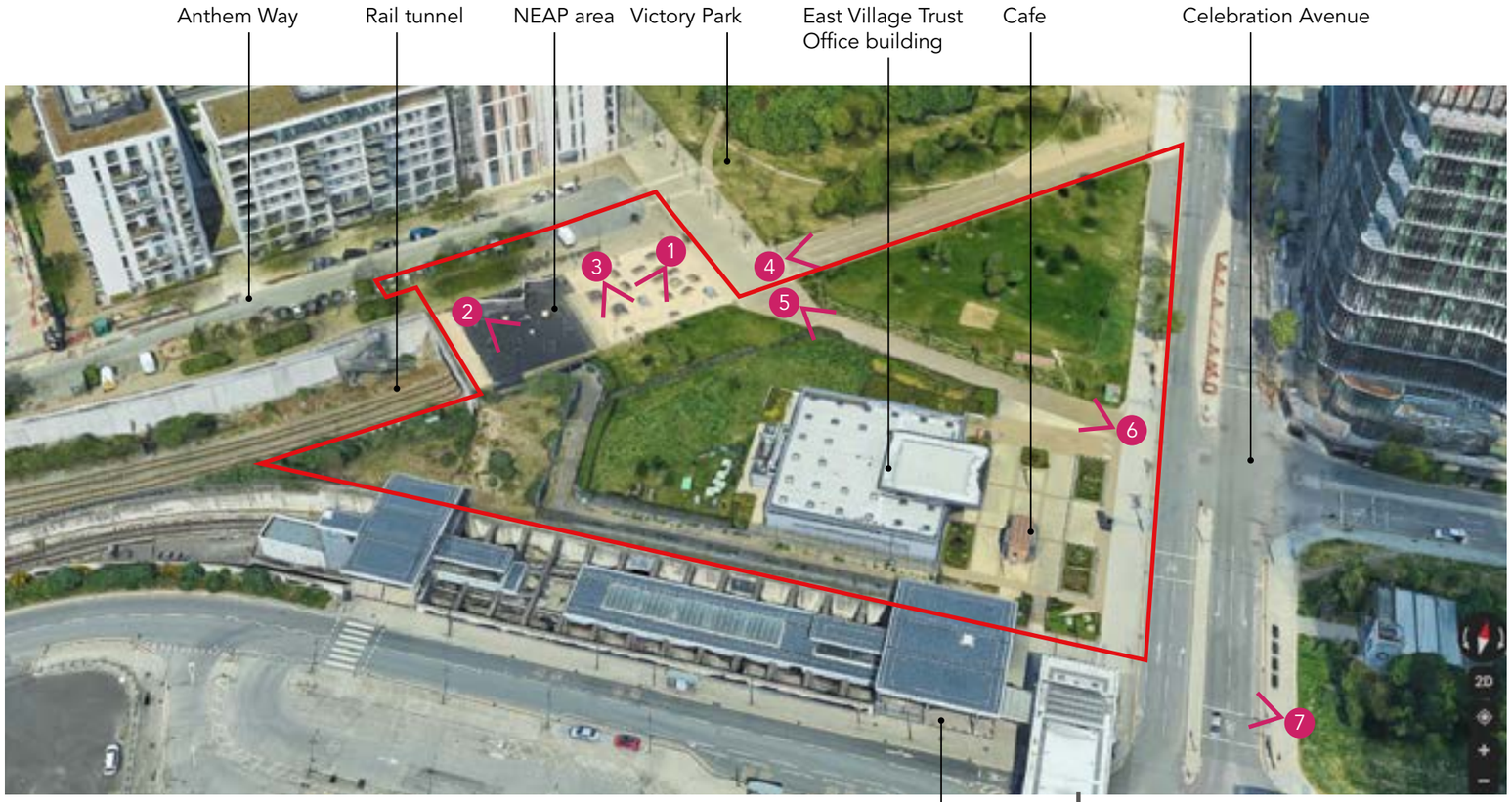


Fig.207 Aerial photograph of existing site

1

2

3

4

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6

7

7.3.3 CONTEXT AND WIDER CONNECTION

The wider network of pedestrian and cycling infrastructure is an important element for the design proposal. There are series of established routes crossing the village, most notably the cycling route connecting Liberty Bridge Road and Anthems Way. Although the route is important in the context of our design exercise, it is not part of the strategic LBN routes. Its importance is more local and the nature of the connection will need to be carefully considered given the fact that East Village will increase its number of residents considerably. The increase in the number of inhabitants will not be commensurate with the number of cyclists according to our transport consultant. This will inform the solutions proposed later in this document.

Key

- Existing & future routes
- LBN Strategic cycle route network
- Pedestrian connections
- TFL Cycle network
- Other strategic routes within LLDC
- Public open space
- Cycle hire docking station
- A — Stratford International
- B — UAL London College of Fashion
- C — Birbeck, University of East London
- D — School of Business and Technology
- E — London Stadium
- F — Stratford Train Station

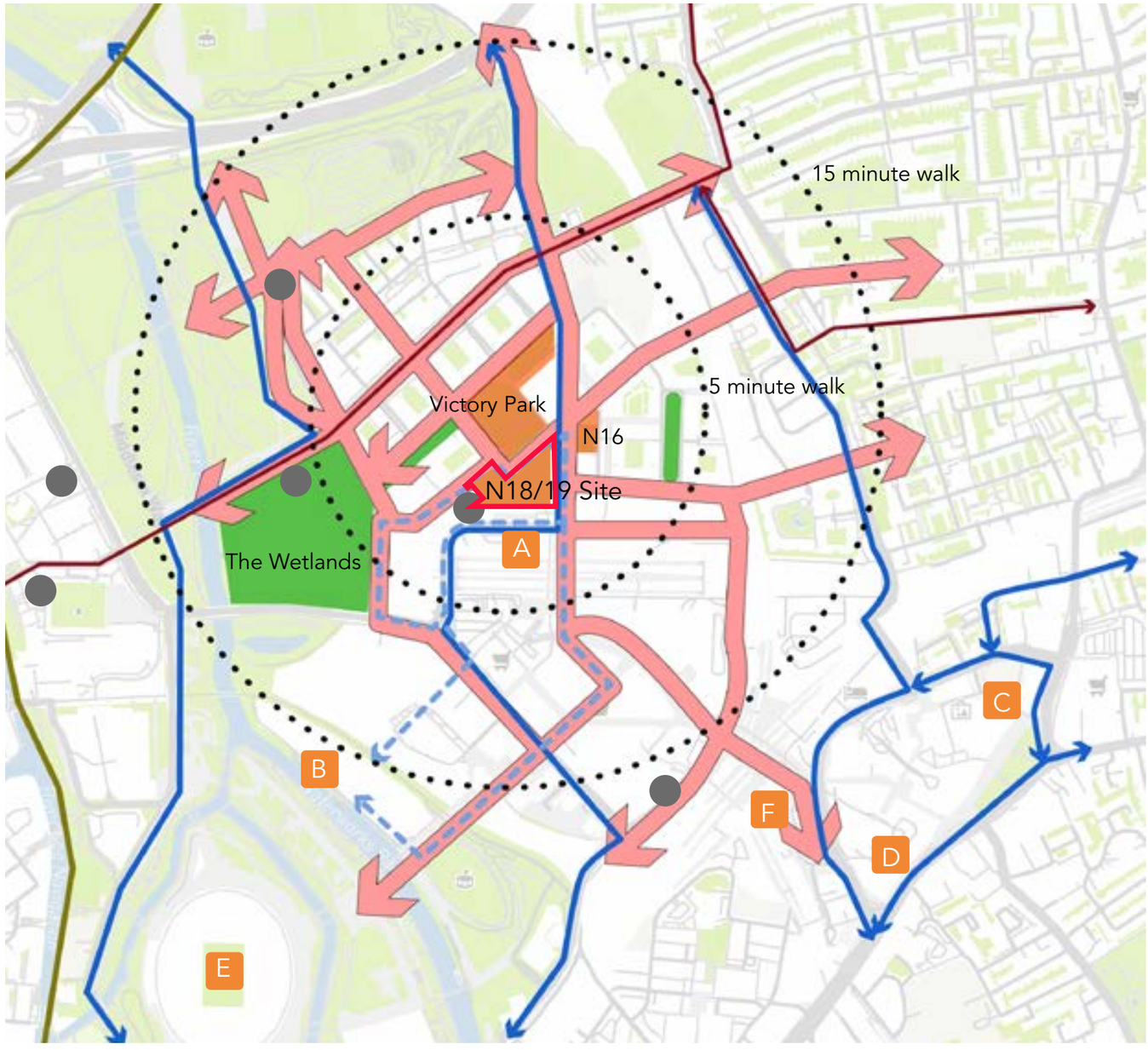


Fig.208 The site shown in its local context

7.3.4 EXISTING CYCLING STRATEGY

The original cycling strategy proposed for the Olympic Games in 2012 has been implemented. There are a series of elements to extract from the original strategy, most notably the proposal of cycling around Victory Park which is defined as a 'cyclist in a shared pedestrian environment'. The route between the future N18 and N19 buildings is not a part of the existing cycle route strategy. Our transport consultant assessed that the original strategy was planned to absorb the subsequent development of the master plan. However, we have identified a series of junctions, such as the new junction between N18 and N19 and Victory Park that would need an uplifting and the resolution of possible conflicts between the different means of transport.

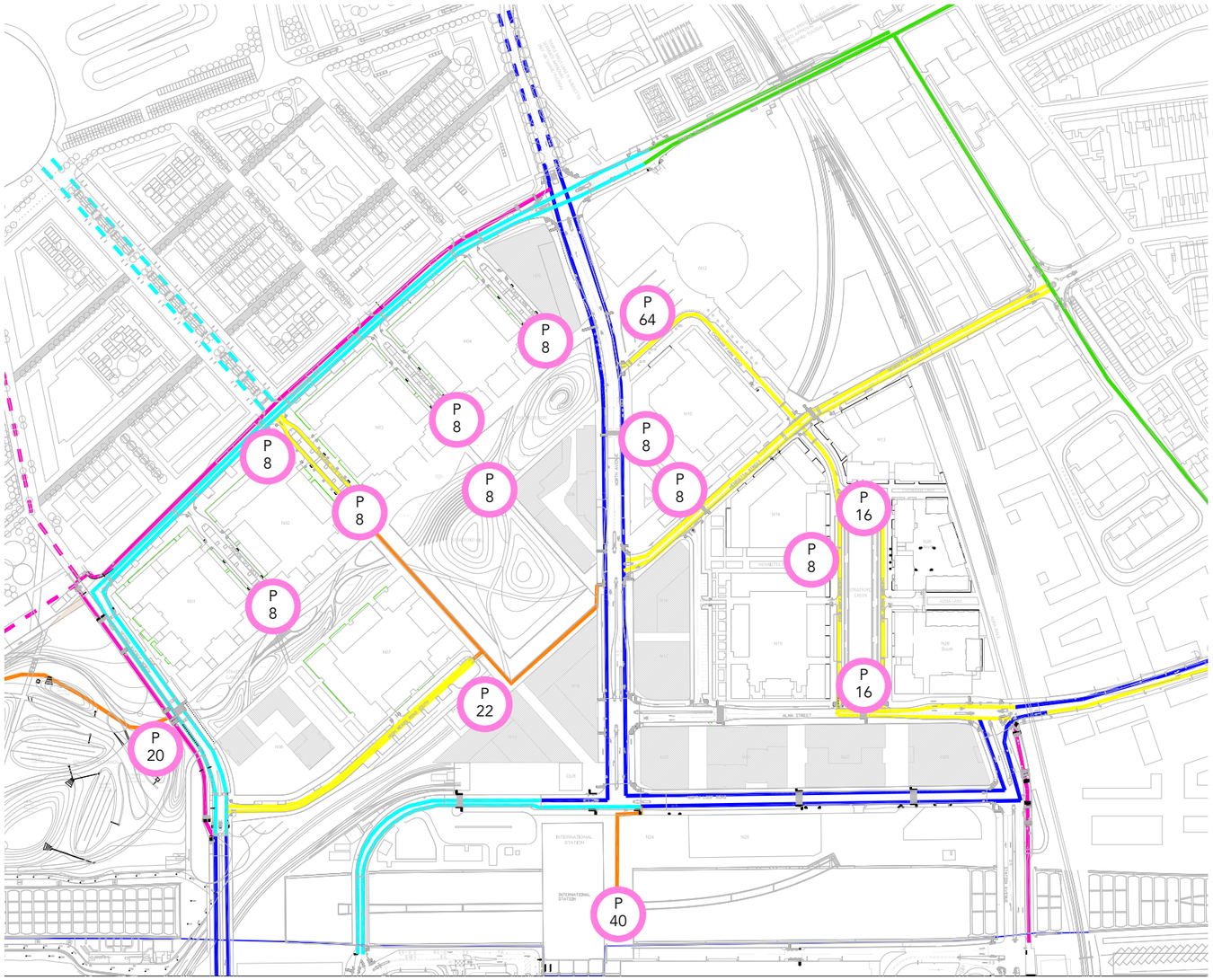


Fig.209 The diagram showing existing cycle routes

Key

- Cyclist in shared pedestrian environment
- Advisory cycle lane
- Advisory cycle route
- Off carriageway segregated cycle track
- Existing cycle network
- Advisory on demarcated cycle route
- P 08 Cycle parking provision total 260

7.3.5 EXISTING PEDESTRIAN ROUTES

The current pedestrian network has as two main accesses to the park: the route through Celebration Avenue and DLR Station exit, crossing with Penny Brookes Street and terminating at the existing NEAP and the crossing point between N16 – Celebration Avenue – Victory Park. There is a lack of inclusive connectivity from Celebration Avenue and DLR Station exit. The proposal must address issues such as the universal accessibility of the entire public realm, wayfinding and the resolution of conflict between means of transport and pedestrians.

*Data by East Village Research

Key

Pedestrian Flow

Entrances & Orientation Spaces

Fig.210 Diagram illustrating existing pedestrians routes

7.3.6 EXISTING CYCLING ROUTES

The cycling network currently in place corresponds largely with the original strategy for the Athletes village. The strategy proposed cycle lanes in Celebration Avenue, demarcated cycle lanes in Liberty Bridge Road and Anthems Way while it favoured cycle in a shared pedestrian environment through N18 & N19 site and Victory Park. In the last decade cycling has taken a much more prominent role as a means of transport.

The original transport strategy included cycling provision for the full implementation of the masterplan. Therefore, the current cycling network shall be able to withstand the development of N18/19 and N16. Nonetheless there are a series of design interventions that we will propose in order to respond to pedestrians and cycling conflict as well as to respond to a more inclusive design in the public realm.

*Data by East Village Research

Fig.211 Diagram illustrating existing cycling routes

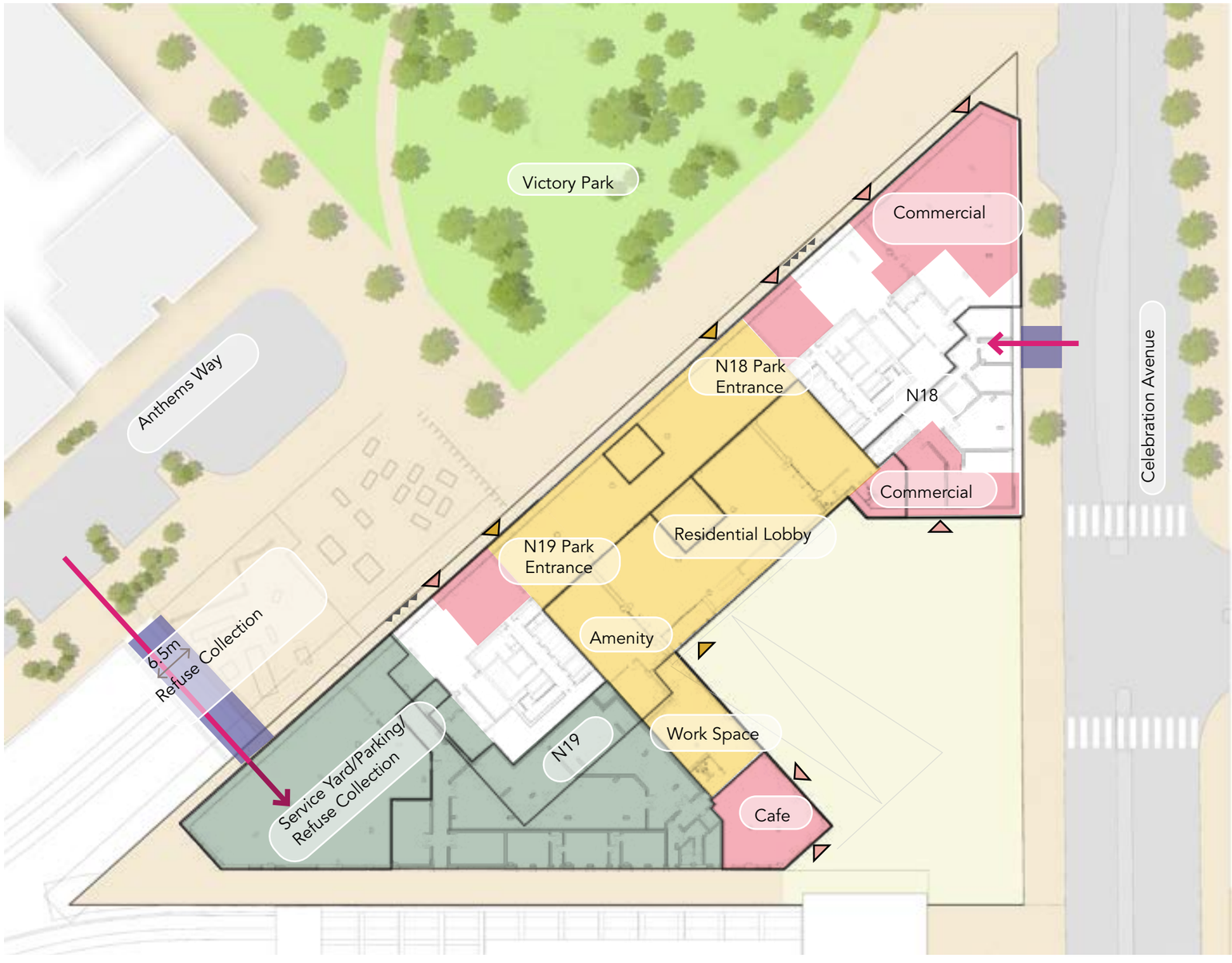
7.3.7 BUILDING CONTEXT

The landscape proposals have a strong relationship with the ground floor uses of the N19 and N18 buildings. Key building uses and entrances are located on the plan adjacent.

Residential lobby entrances are located on multiple levels which lead to a subterranean lobby space. A podium landscape with tree and low level planting flows over the lobby. Skylights in the podium naturally light the space and provide a visual connection between the two. Cyclists enter the building's lobby spaces which lead to internal cycle stores.

Commercial units activate the more public facing corners of the buildings. Space is provided within the public realm for spill out space adjacent to these retail units.

The buildings are serviced via vehicle access points on Anthems Way and Celebration Avenue.



Key

- Residential amenities
- Commercial space
- Vehicle access
- Service yard/parking/refuse
- Residential entrance
- Commercial entrance

Fig.212 Proposed ground floor building uses and access

7.3.8 SITE CONSTRAINTS

The site includes a number of design parameters that offer constraints as well as opportunities for the landscape and public realm proposals. These relate to the existing context as well what is presented by the proposals themselves.

The main design parameters that have been considered as part of the proposals include the following;

- Rail tunnel exclusion zone.
- Fire access zone.
- 5m exclusion zone.
- UKPN substation access.
- Site topography with a 5m height difference. The following 3 routes demonstrate the length of slope required from 3 different locations.

1. Total Length of path: 29m
1.7m height difference requires a 35m slope

2. Total Length of path: 39m
2.8m height difference requires a 59m slope

3. Total Length of path: 83m
5m height difference requires a 108m slope

Key

- UKPN substation access
- Fire access zone
- Vehicle access
- 5m exclusion zone
- Running rail
- Building entrances
- Service road
- +13.04 Spot height

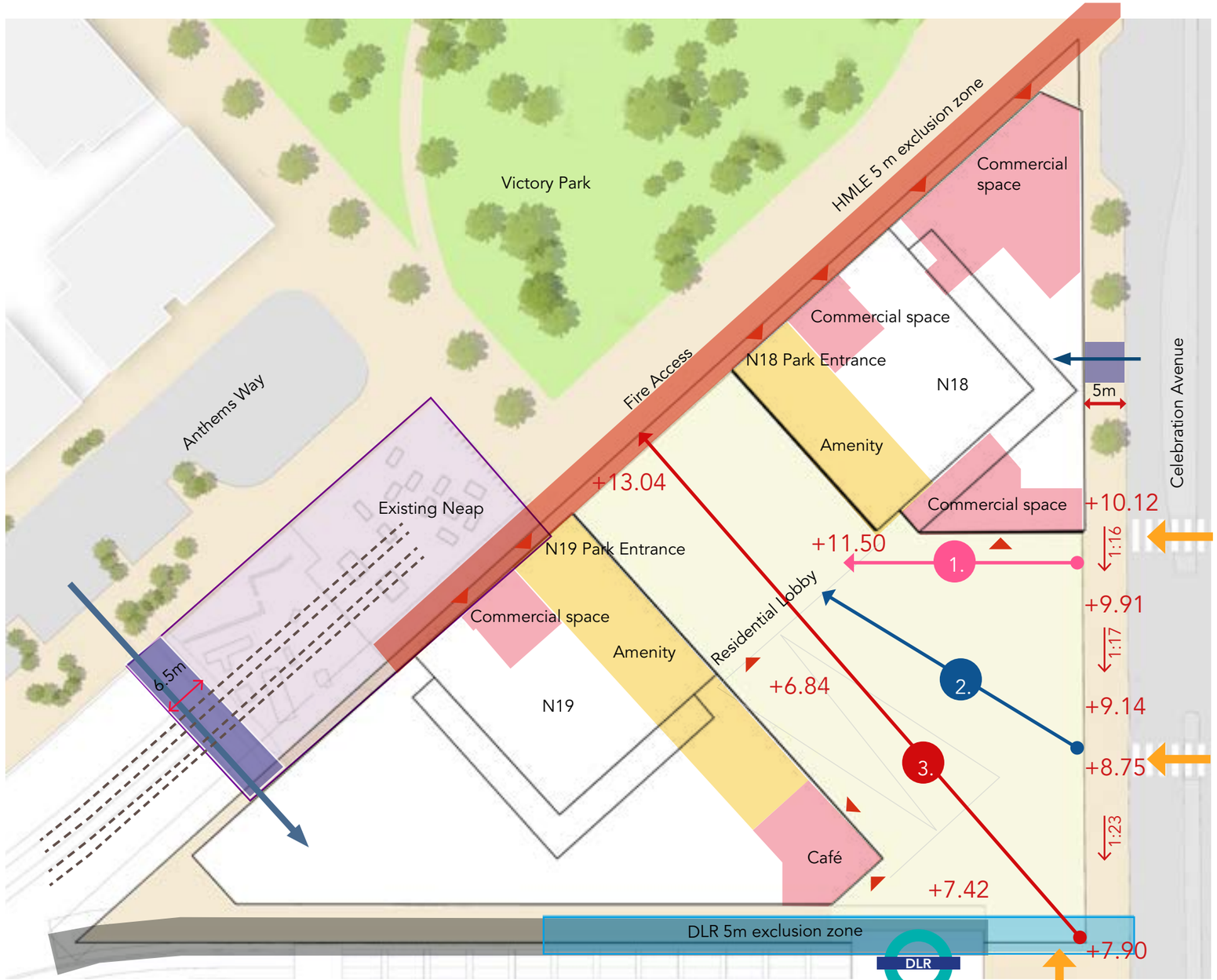


Fig.213 Diagram showing location of site constraints

7.3.9 LEVELS DESIGN DEVELOPMENTS

The central space traverses a 5m level change from station level up to Victory Park. Through the design development of the landscape proposals various options have been explored to ensure an accessible and inclusive design for all.

The two options below demonstrate how the preferred option seeks to provide a step free 1:21 accessible path in an optimal location to minimise its length whilst maintaining clear sight lines to building entrances.

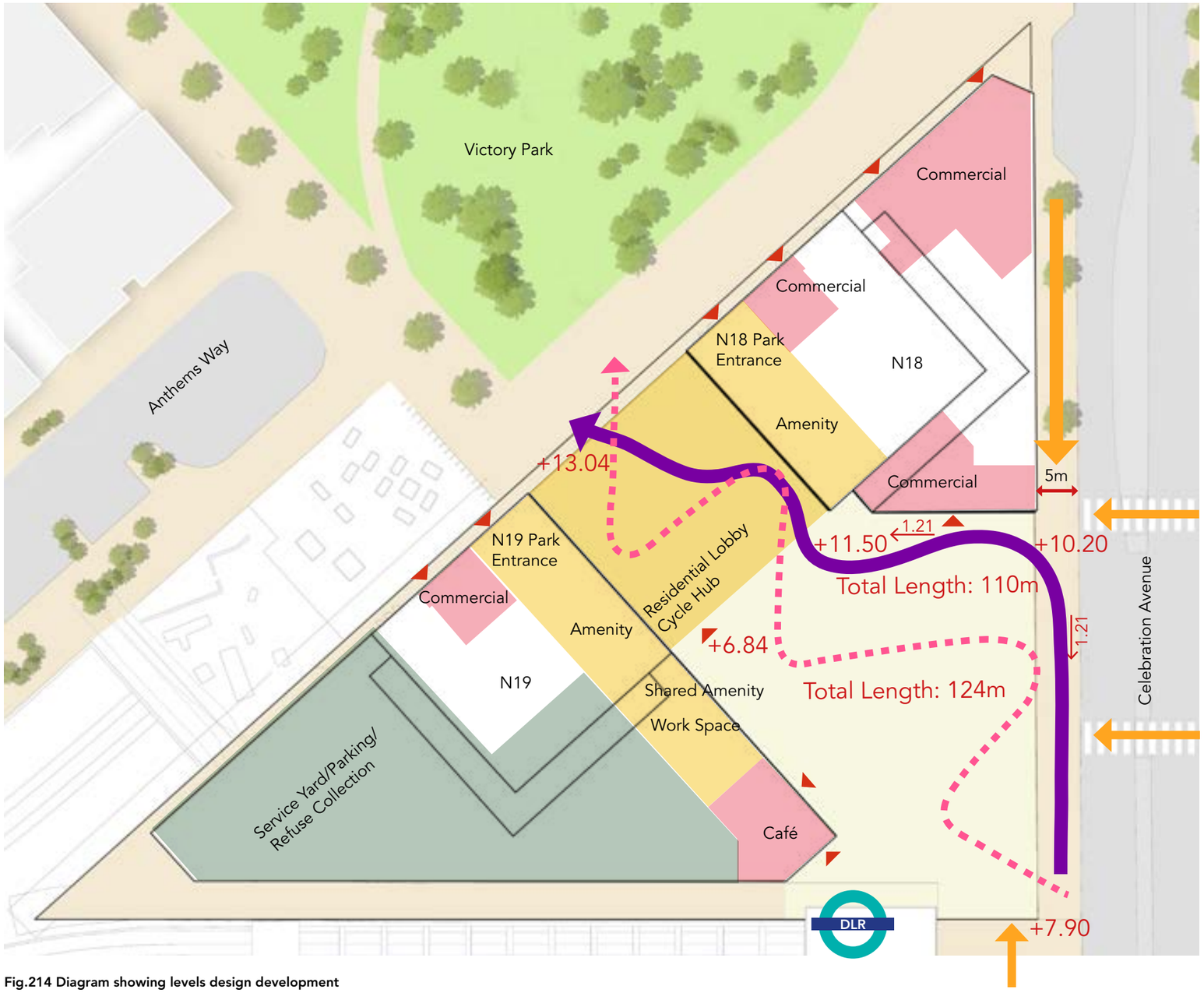


Fig.214 Diagram showing levels design development

Key

Purple route: Preferred option

- 1:21 route on a slope with a length of 110m
- Better engagement with the adjacencies.
- A flexible spatial configuration
- Improve sight lines

Pink route: Discounted option

- 1:21 route on a slope with a length of 124m
- The slope comprises 5 turnings which may not be the most efficient route for accessibility
- Fragmentation reducing the spatial quality

7.3.10 WIND MICROCLIMATE

The wind microclimate around the proposed buildings has been analysed to ensure unsuitable wind conditions are not created.

The wind analysis has helped to inform the landscape design by identifying optimal areas for seating and dwell spaces to be located.

The adjacent diagrams show how comfort levels are maintained throughout the seasons and improve the performance of the current scheme.

Fig.215 The Existing Baseline _ Summer Comfort

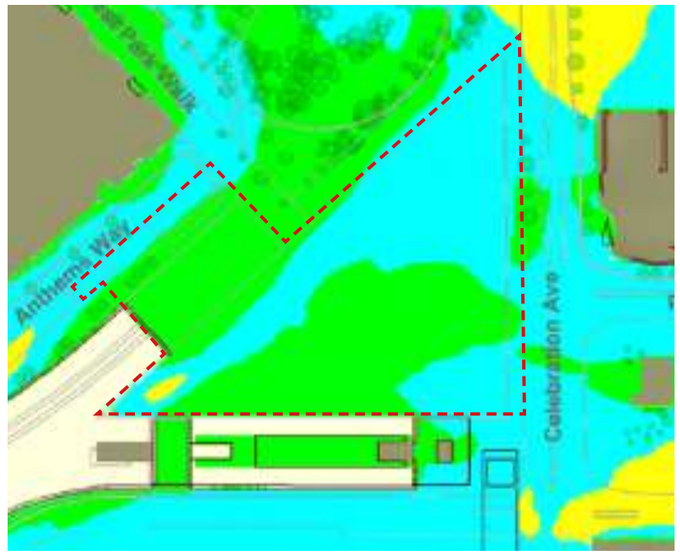


Fig.216 The Existing Baseline _ Worst Seasonal Comfort

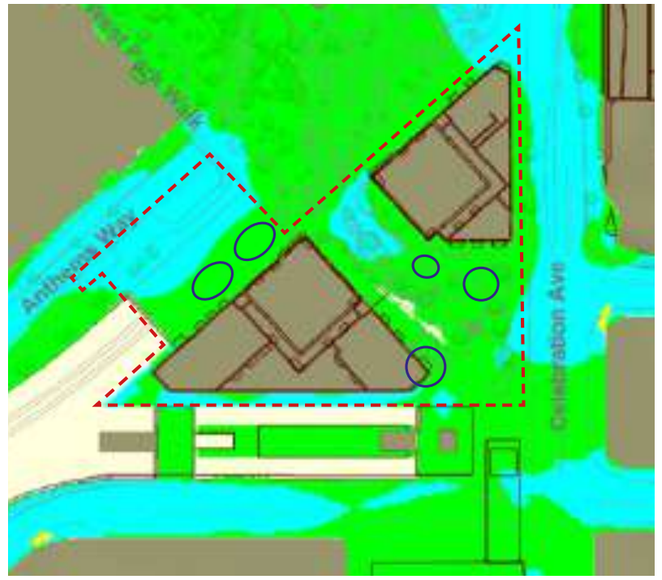


Fig.217 The Proposed Future Baseline _ Summer Comfort

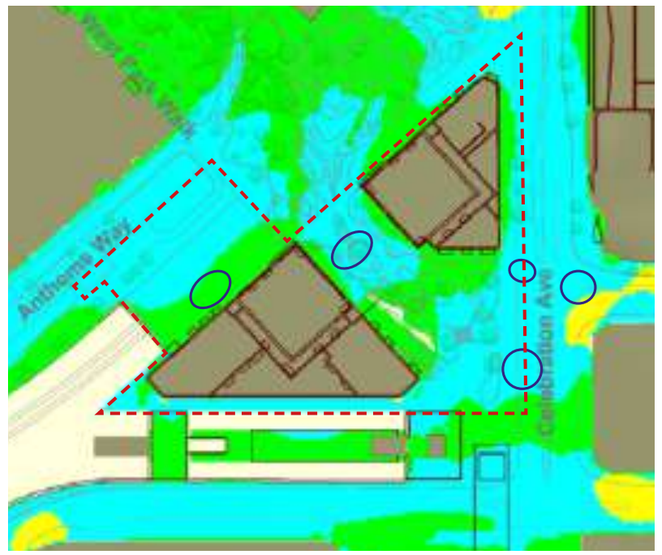


Fig.218 The Proposed Future Baseline _ Worst Seasonal Comfort

Key

- Potential location for programmable space with favourable wind conditions
- Wind conditions suitable for pedestrian transit/ thoroughfare (A–B), 8–10 m/s
- Wind conditions suitable for leisure thoroughfare/ strolling, 6–8 m/s
- Wind conditions suitable for short term standing/ sitting, 4–6 m/s
- Wind conditions suitable for long term standing/ sitting, 0–4 m/s

7.3.11 SUNLIGHT ANALYSIS

By overlaying the sun studies from December, March and June it is easier to identify the areas that are shaded or in the sun throughout the year.

The North-eastern edge of N18 and the South-western edge of N19 are in shade the majority of the time. These areas are best suited for a low light tolerant planting palette with a forest under-story aesthetic.

The centre of the public realm area adjacent to Celebration Avenue gets excellent morning and early afternoon sunlight.

Fig.219 Diagram showing sunlight analysis

Key

- Areas with good sunlight throughout the day. Suitable areas for day long activities; the use of shading structure shall be considered during the summer months.
- Areas capturing morning light and in shade through the afternoon.
- Areas capturing light during the afternoon hours and in shade during the evening.
- Area suitable for shade tolerant plants.
- Area suitable for sun loving plants.
- Key Zone exposed to sunlight for the majority of the day. It has the potential to be the main seating area for gathering and enjoying the immersive garden experience.

7.3.12 NEAP RELOCATION

The location of the existing NEAP playspace adjacent to N19 has been reviewed to better integrate it within the emerging proposals for the masterplan. The current location is no longer considered optimal and so could benefit with being relocated more centrally within the masterplan to benefit more residents and visitors.

It is proposed to relocate the existing NEAP provision and incorporate it within the latest proposals for Victory Park (to be submitted alongside this application). Redistribution of the NEAP within Victory Park would result in a number of benefits which include:

- Introducing more activity into Victory Park.
- Creating a better relationship between play areas.
- Allowing existing play areas to be refreshed which would respond to visitor and resident needs.
- Potentially increasing play space provision overall by freeing up existing NEAP area for more play space.

Additional doorstep play space of 563m² is proposed in the located of the existing NEAP adjacent to N19. Proposals for this are described in detail within this document.

Fig.220 Diagram showing relocation of NEAP

Key

NEAP
Future relocated areas in total: 1000 m²

Potential green buffer

Potential programme space
Reflect the use of amenities at GF

Area for the Service Access

Service road

7.4 Design Concept

The site sits at a strategic location within the overall East Village Masterplan. It has the potential of unlocking an area enhancing the connectivity while providing a new character to the public realm.

The connectivity of the site serving as a main access point from Stratford International to the village is key for the structure of the public space. It will be equally important for those doing the journey from the north of East Village to the station. The public realm needs to be responsive to these important pedestrian routes but it shall go beyond a utilitarian approach, delivering a fascinating design, aspirational and with a sense of beauty ingrained in nature.

The users will be greeted by a lush and cascading landscape in what should be perceived as a continuation of some of the main components of the park. The nature of the space is different to Victory Park and the design components will morph if compared to the park but the underlying themes will be consistent.

The design is informed by Biophilic design principles increasing people's connection with nature in the city. Curvaceous forms contrast from the rigidity of the architecture breaking down the space while maximizing an immersive feeling. Ultimately, the concept seeks to draw through the site the greenery of the park to the station to deliver a clear message, the impression of being 'Greeted by Green'.

The proposal will also boost the biodiversity by maximising the softscape areas. The planting strategy proposes a rich and varied planting palette attracting wildlife. It will also have a sensorial effect in humans making visible the seasonal changes, reflecting time in a natural way and setting changing ambiences.

A sinuous, cascading, functional, and marvellous landscape using the level change as an asset will give the illusion of accessing a passage covered by trees, with lush planting at the sides against the luminous and elegant facade of the building. The landscape aims to have a clear identity by dialoguing with the rest of the public realm in the East Village but also by creating synergies and complementing the architectural design.

Fig.221 Concept sketch showing 'Greeted by Green' concept

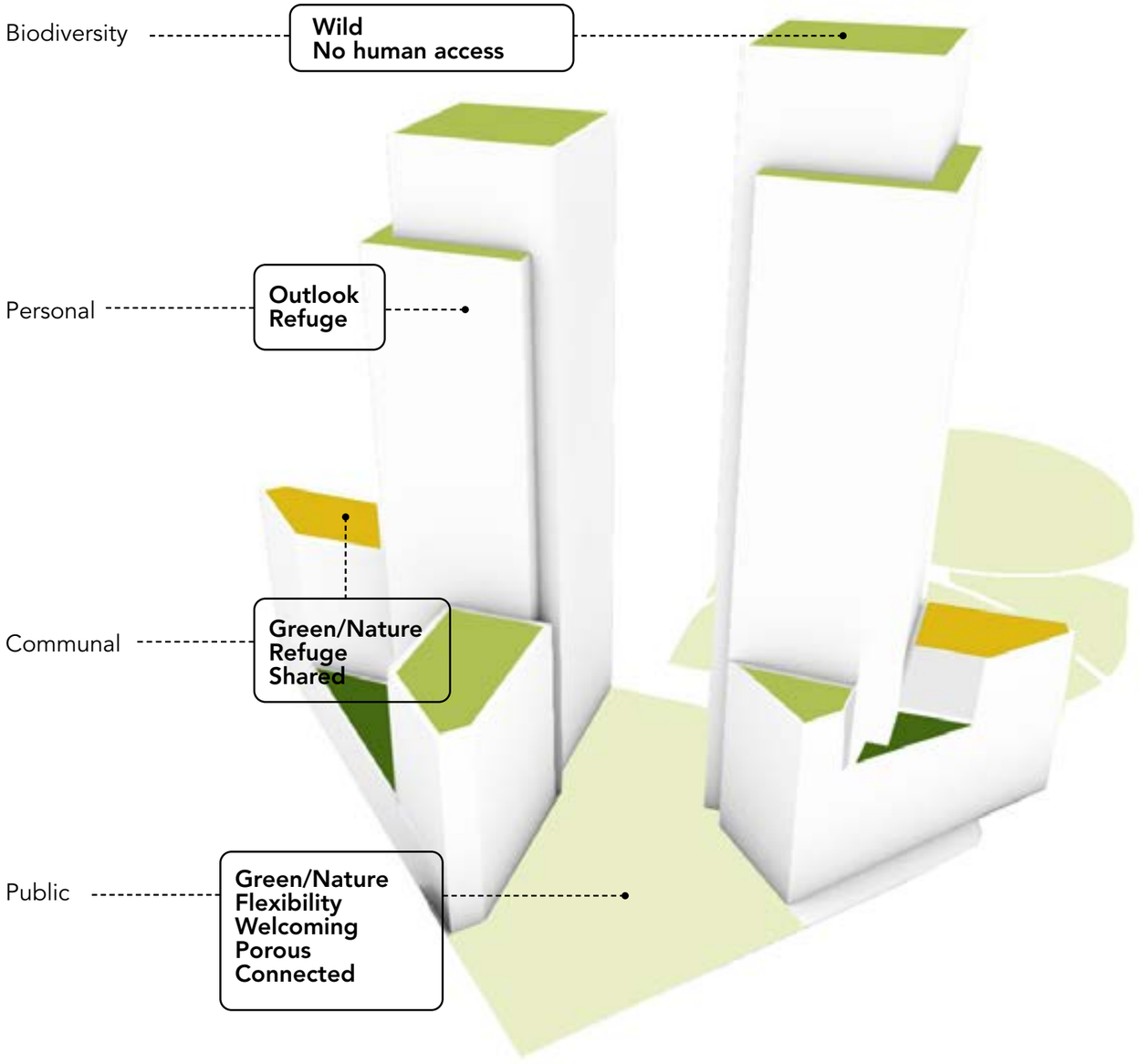


Fig.222 Diagram illustrating hierarchy of external landscape spaces from ground to roof level

Fig.223 The precedent of biodiversity green roof

Fig.224 The precedent of communal roof terrace

Fig.225 The precedent of the public realm

7.5 Landscape Design Proposals

The landscape proposals create a green link which traverses the level change between station level and park level. A variety of accessible routes are created to provide a choice of walkways between the two spaces.

Planted terraces with curved retaining walls create gardens on multiple levels which cascade down the level change affording a dramatic view as people arrive from the station. The undulating landscape has a series of linked plateaus along the route where pocket spaces provide a place to rest and relax.

The landscape proposals have been developed alongside the building design to create an inviting green setting for residents as well as a welcoming approach to their front doors. The buildings also help to activate the public realm and provide natural surveillance. The buildings are accessed at entrances on multiple levels via a subterranean lobby.

Green space has been maximised to create an inviting green setting. Planting extends to meet the building edges and seating areas are carved out of the planting beds to create immersive pocket spaces.

Relocating the existing NEAP space to a more central location within Victory Park allows the space to be developed into a more local amenity for play and socialising serving the adjacent residential properties.

Key (Figure On The Next Page)

1. Arrival square adjacent to the entrance of Stratford International DLR Station.
2. Proposed cafe spill-out space on the corner with raised planting buffer
3. Pedestrian and cycle entrance to the N19 residential lobby at lower level
4. Proposed seating area amongst planting with table for outdoor dining.
5. Proposed pathways through planting sloping up from Celebration Avenue
6. Raised curved planting with pathway and pocket spaces connecting to Victory Park. Lightwells provide visual connection to residential lobby space below.
7. Garden lounge space with informal seating areas for socialising.
8. Inclusive play and informal seating areas for socialising.
9. Service access to N19
10. Parking entrance to N18

Fig.226 Illustrative Landscape Masterplan

7.5.1 CHARACTER AREAS

The proposal has been divided into its character areas each of which are explained in turn through the next section of the report. The character areas are:

– **The Arrival Gateway**

Create a welcoming sense of arrival as people emerge from Stratford International Station.

– **The Arrival Lounge**

Reflect uses of shared amenity spaces at the ground floor level and creates a place for 'being' rather than just 'moving through'.

– **Pocket Space**

Create a series of intimate spaces for people to sit, relax, and enjoy being surrounded by gardens.

– **Park Level Plaza**

The entry plaza with its curvaceous language creates continuity with the landscape design of Victory Park. The planters also offer seating opportunities framed with the architecture and the greenery.

– **Garden Lounge**

This new social space acts as an extension of the amenity areas within the building. It provides a loose seating arrangement for gathering, meeting etc. This is complemented with a new play area very near to many residences (so-called 'doorstep play').

– **Celebration Avenue**

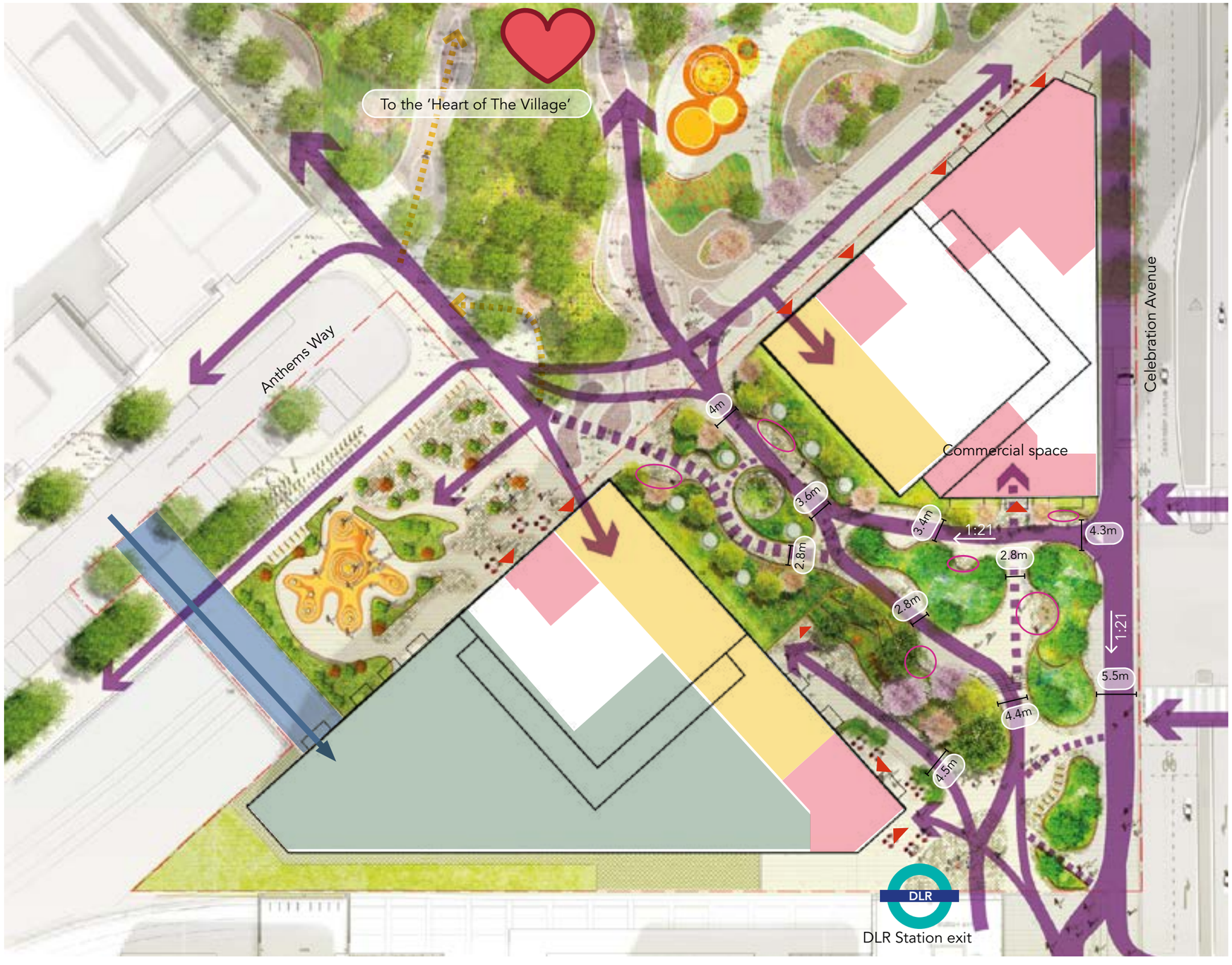
Improvements to the existing streetscape including planting and improved pedestrian experience.

Fig.227 Diagram showing location of landscape character areas

7.5.2 PEDESTRIAN CONNECTIONS

Pedestrian links through the site have been developed to create an accessible and inclusive design for all. Key desire lines for the masterplan which link Victory Park to Stratford International station are central to the design. The proposals create a direct and legible route which allows for intuitive wayfinding and orientation once visitors emerge from the station exit. Stepped and level access routes are incorporated into the design.

A clear hierarchy of routes has been established. Local secondary routes allow for easy access to residential entrances. Sightlines through planted areas are maintained through the planting design and specification of clear-stemmed trees.



Key

- Primary Pedestrian Flow
- Secondary Pedestrian Flow
- Potential seating areas
- Area for the Service Access
- Service road
- Residential amenities
- Commercial spaces
- Service yard/parking/refuse

Fig.228 Diagram showing key pedestrian connections

7.5.3 STATION SQUARE

A new public square is proposed to create a welcoming sense of arrival as people emerge from Stratford International Station. There is a sense of openness around the station entrance which accommodates large pedestrian flows as people converge on the station entrance/exit as well as people traversing the space to cross International Way and access Stratford International Station (National Rail) and Westfield Stratford via Celebration Avenue.

The outlook from the station is to the undulating green terraced landscape which invites you to walk through a series of green spaces. The square is activated by a corner retail unit with the potential to accommodate cafe spill out seating within the public realm. The loose furniture area is demarcated and protected from pedestrian flows by a planted edge.

Contrasting paving colours and unit sizes create a unique paving pattern which helps to draw people through the space and demarcates the DLR station entrance.

Short-stay visitor cycle parking stands have been located at station level to serve the retail units and residential visitors.

The square has been sized to accommodate small pop-up events such as outdoor performances and street markets. These can be arranged so as not to disrupt key pedestrian desire lines to the station.

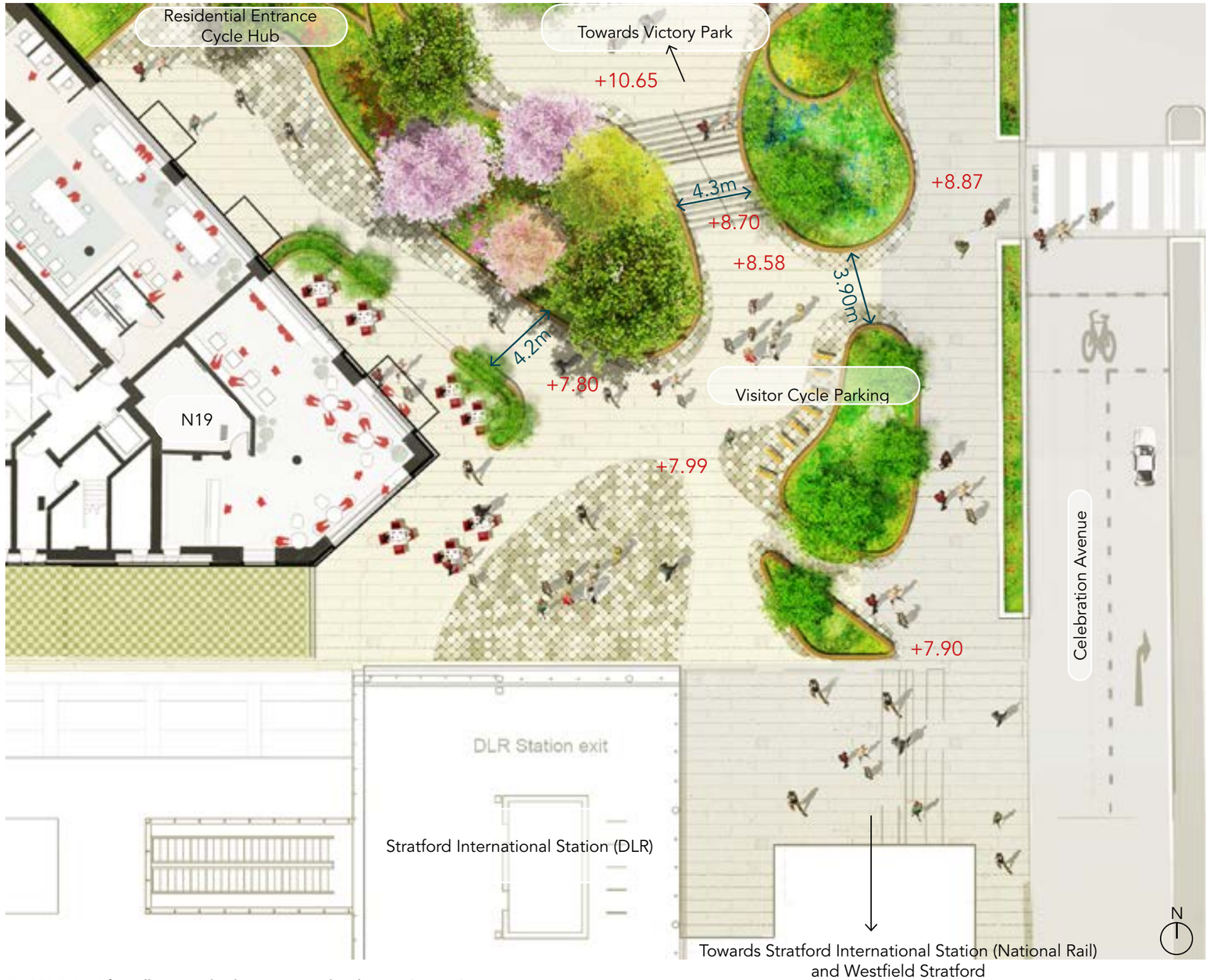


Fig.229 Extract from illustrative landscape masterplan showing Station Square

Fig.230 Illustrative section of Station Square

N18 and N19 Station Square
Total area: 540 m²

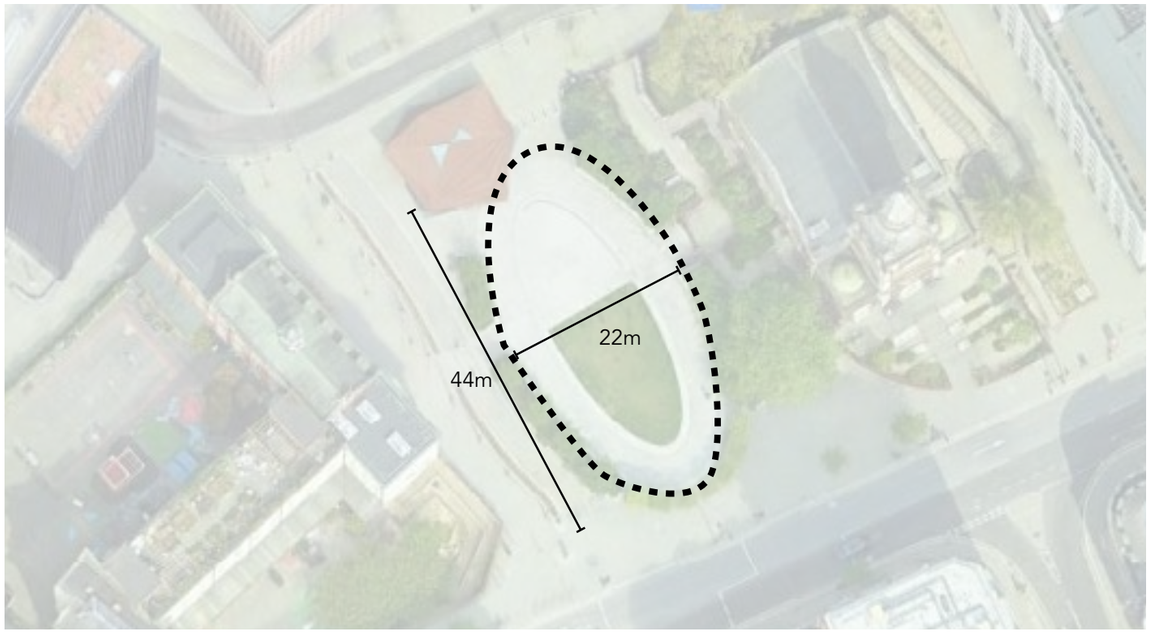
Brindley Place
Total area: 910 m²

Brindley Place, Birmingham

Popular open space, well-used throughout the year:

- Graded level change with planting islands creating a framework of spaces.
- Stairs, the edge of planters, and the water feature extend the number and variety of seating areas.

N18 and N19 Station Square
Total area: 540 m²



Aldgate, London
Total area: 968m²

Aldgate, London

- Popular open space, well-used throughout the year.
- Framed by planting providing a buffer to buildings behind.

7.5.4 CELEBRATION AVENUE

Celebration Avenue is an existing street which forms the eastern boundary to the site. Changes are proposed to the street to improve pedestrian access and to create a new layby for servicing and a vehicular access to parking within N18.

Two existing London Plane trees are proposed to be removed to allow for vehicle and service access. Two new London Plane trees are proposed to replace the removed trees.

The proposals also improve site accessibility by re-profiling the pavement along Celebration Avenue.

Fig.231 Proposed Celebration Avenue treatment

Key

- Existing trees retained (London Plane)
- Proposed trees (London Plane)
- Relocated existing benches

Existing levels along Celebration Avenue do not provide the recommended 1:21 gradient to be considered accessible.

The proposal re-profiles the existing levels to provide a 1:21 accessible route along Celebration Avenue. A linear rain garden along the road edge at this location will help to mitigate the level change between the existing road levels and the proposed pavement levels and also notably improve the aesthetic experience of this route.

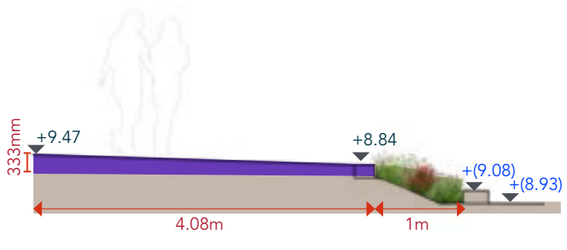


Fig.232 Proposed Celebration Avenue section

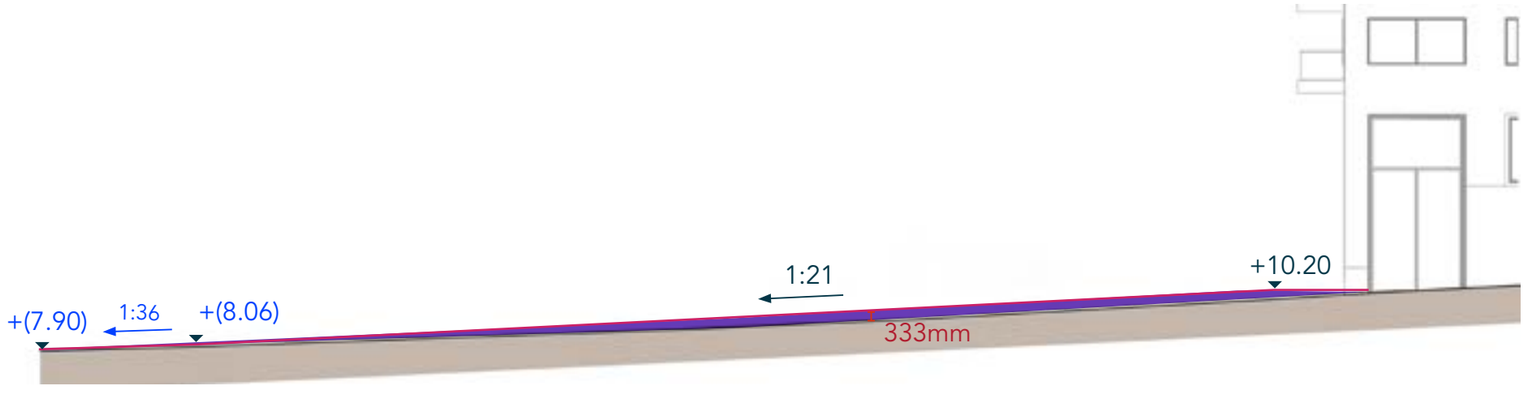


Fig.233 Proposed Celebration Avenue elevation

Key

+(8.00) Existing site levels

+8.00 Future finished ground levels

7.5.5 ARRIVAL LOUNGE

The main residential lobby for building N19 is accessed via an entrance at station level. The approach to the residential lobby has been designed to create a legible and inviting entrance. A route is carved into the planted podium landscape to the subterranean lobby. The route is separated from the more public routes by terraced green planting. The terraces are planted with ornamental and flowering trees and an understorey of shade-tolerant species.

The route is activated and overlooked by retail units and home working space at the ground floor of N19 providing natural surveillance of the space.

The curved edges of the terraced planting provides seating adjacent to the entrance to create informal places to meet and wait within the public realm.

The landscape seeks to blend harmoniously with the architecture. The façade of the building has a counterpoint in the sinuous shapes and the lush planting, marrying the two realities and making the design a space visually exciting and appealing for the residents; both when entering or leaving their premises and also while using the amenity spaces.

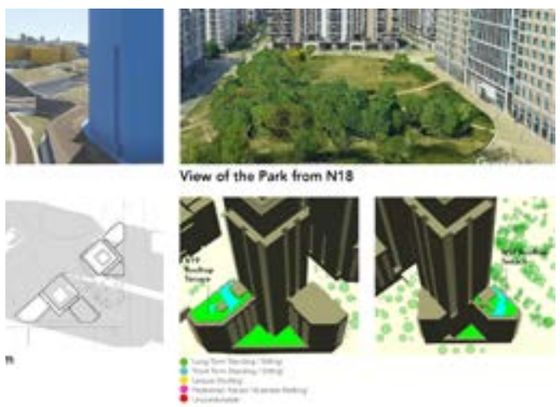


Fig.234 Extract from illustrative landscape masterplan showing approach to the residential lobby

Fig.235 Illustrative section showing an approach to the residential lobby

7.5.6 POCKET SPACE

An undulating terraced green landscape links the station level with the park level 5m above. There are a number of routes through the green space which connect a series of pocket spaces that provide places to rest and relax within the public realm.

The first plateau in the terraced landscape creates a place in which to pause and spend time amongst the verdant garden planting. The paving changes to a smaller unit size adjacent to the planters to create edges which can be occupied by people away from the main pedestrian flows. Here people can sit, relax and enjoy the planting. Concave curved planters allow for larger pocket spaces to be set back from the main thoroughfare and placed amongst the planter to allow people to become immersed by the tactile planting. A stone table creates a focal point for groups to socialise and spend time. The table also has the potential to allow for outdoor eating and working.

The curvaceous planters are edged by stone walls at sitting height to allow further pockets spaces in which people can sit and relax along the main walkways.

A canopy of trees and an understorey of low-level planting will give the space all year round interest, provide shade and promote use of the site by native wildlife. Low level planting is located adjacent to the façades of the buildings to allow for BMU maintenance access.

Fig.236 Extract from illustrative landscape masterplan showing pocket spaces amongst the terraced landscape

Illustrative Views Of Pocket Space Level

Fig.237 Illustrative view of outdoor working/seating area

This section looking towards Celebration Avenue shows the stepped route between Station Square and N18 illustrating the proposed tables and seating within the green pocket space. Low-level planting is to be installed and managed beneath the canopy of clear stemmed trees to allow for intuitive wayfinding by maintaining clear sight lines to the ground floor frontage.

Fig.238 Illustrative section through level change from station square to commercial space inside N18

7.5.7 PARK LEVEL PLAZA

There are a number of routes which can be taken between the station and park level to create a choice and interest each time the space is visited. The curved planters are continued here to provide further places in which people can sit amongst the planting.

The walkways converge and meet around a sunken garden, visible from the podium level with views down into the residential lobby below. A glass balustrade and planting protects the edge of the sunken garden whilst allowing for a visual connection between the two spaces. A specimen tree is planted within the sunken garden. Its canopy can be seen and experienced from a unique perspective at podium level.

Planting is located adjacent to the buildings to allow people to move through the centre of the space. Planting will be designed to benefit pollinators and provide year-round interest for people. Skylights are concealed amongst inaccessible areas of planting to naturally illuminate the lobby space beneath.

Skylights amongst planting

Fig.239 Extract from illustrative landscape masterplan park level plaza

Fig.240 Illustrative view of park level plaza

Illustrative Section Through Sunken Garden And Podium Landscape

This section is looking north west towards Victory Park illustrating the visual connection between the subterranean residential lobby spaces and the podium landscape. Skylights are concealed within inaccessible planted areas to bring light to the lobby. A sunken garden provides a visual connection with the lobby spaces below. A specimen tree is located within the sunken garden.

Fig.241 Illustrative section through sunken garden

7.5.8 GARDEN LOUNGE

The Garden Lounge is divided into two distinct areas for play and socialising. The curved forms of Victory Park and green link are extended here to create a playful patterned surface in which to rest, socialise and play.

At the northern side of the Garden Lounge an informal seating area is proposed as a place to gather, meet and socialise. Modular seating with integrated planting provides a multi-level series of platforms arranged to create a variety of different sized spaces to accommodate different group. The platforms also provide seating for parents/carers oversees children in the play area. Cycle parking is located at the northern end of the Garden Lounge.

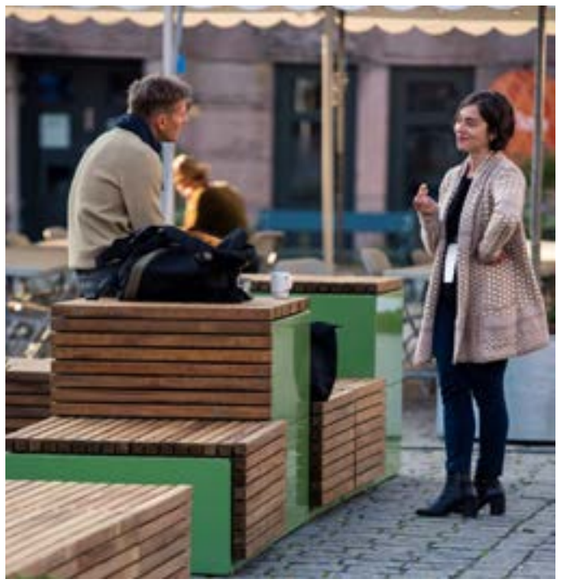
The southern part of the Garden Lounge is devoted to doorstep play. The play equipment is appropriate for those with disabilities and deliver an inclusive play experience. Undulating landforms create a playful landscape to be explored, climbed and jumped on. The undulating landforms are made from a rubber crumb play surface using a mix of playful colours. In keeping with the sustainability principles of the evolving East Village masterplan, the new surfacing has been proposed to be sourced from recycled rubber materials.

The proposed doorstep play (563m^2) will replace the NEAP currently located in the area. However, the proposed play area is in excess of the required play provision. By doing this the design responds to the commitment to provide an accessible and vibrant public realm catering to all users including new families establishing in N18 and N19 desiring a doorstep play area.

A planted buffer screens a service yard access area at the southern end of the Garden Lounge. The stone planter is planted with an understory of groundcovers and low level planting as well as multi stemmed shrubs.

Fig.242 Extract from illustrative landscape masterplan focusing on the Garden Lounge

Fig.243 Illustrative semi-aerial view focusing on the Garden Lounge



Modular furnitures

Fig.244 Illustrative section through garden lounge

+8.65

Modular furnitures

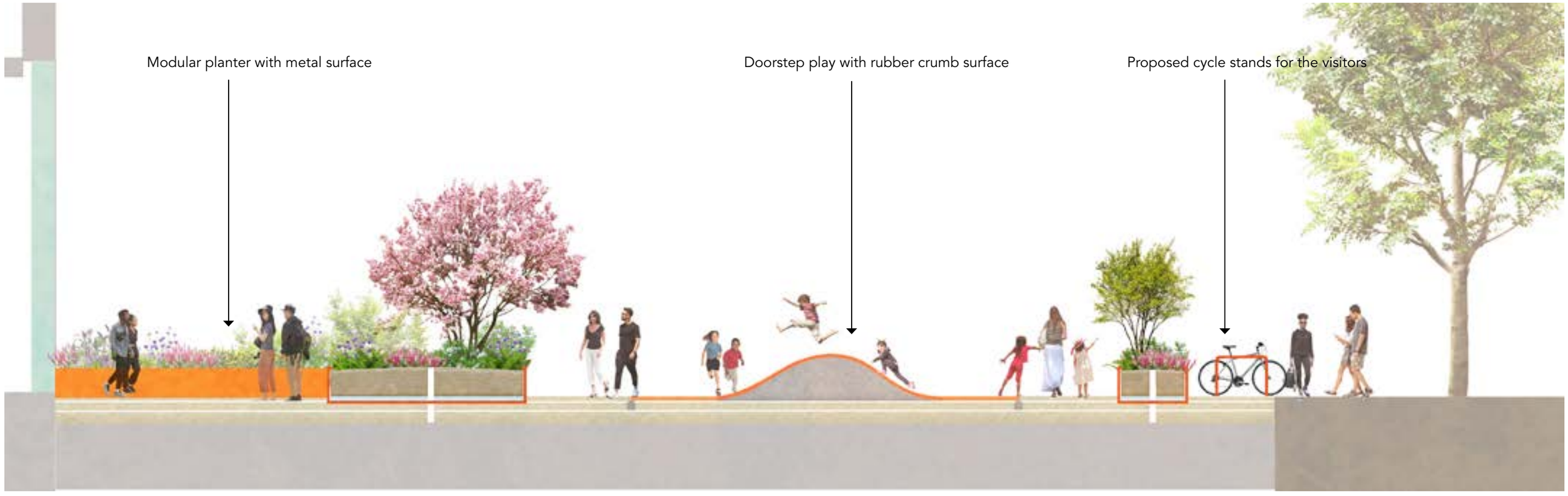


Fig.245 Illustrative section through doorstep play space

7.5.9 ROOF TERRACES OVERVIEW

The roofscape of the buildings has been designed to maximise urban greening as well as provide accessible external roof top amenity spaces for residents.

A combination of extensive and semi-intensive green roofs are proposed; the aim is to provide high quality habitat for native flora and fauna as well as a variety of ecosystem services including rainwater management, air quality & noise amelioration, local cooling and visual appeal. The vegetated roof spaces will also help integrate the development into the surrounding environment and wider green infrastructure. They will also contribute to the scores obtained in terms of Urban Greening Factor and Biodiversity Net Gain.

Accessible terraces are located at Level 11 on both N18 and N19. The terraces benefit from rooftop views to Victory Park and City of London skyline.

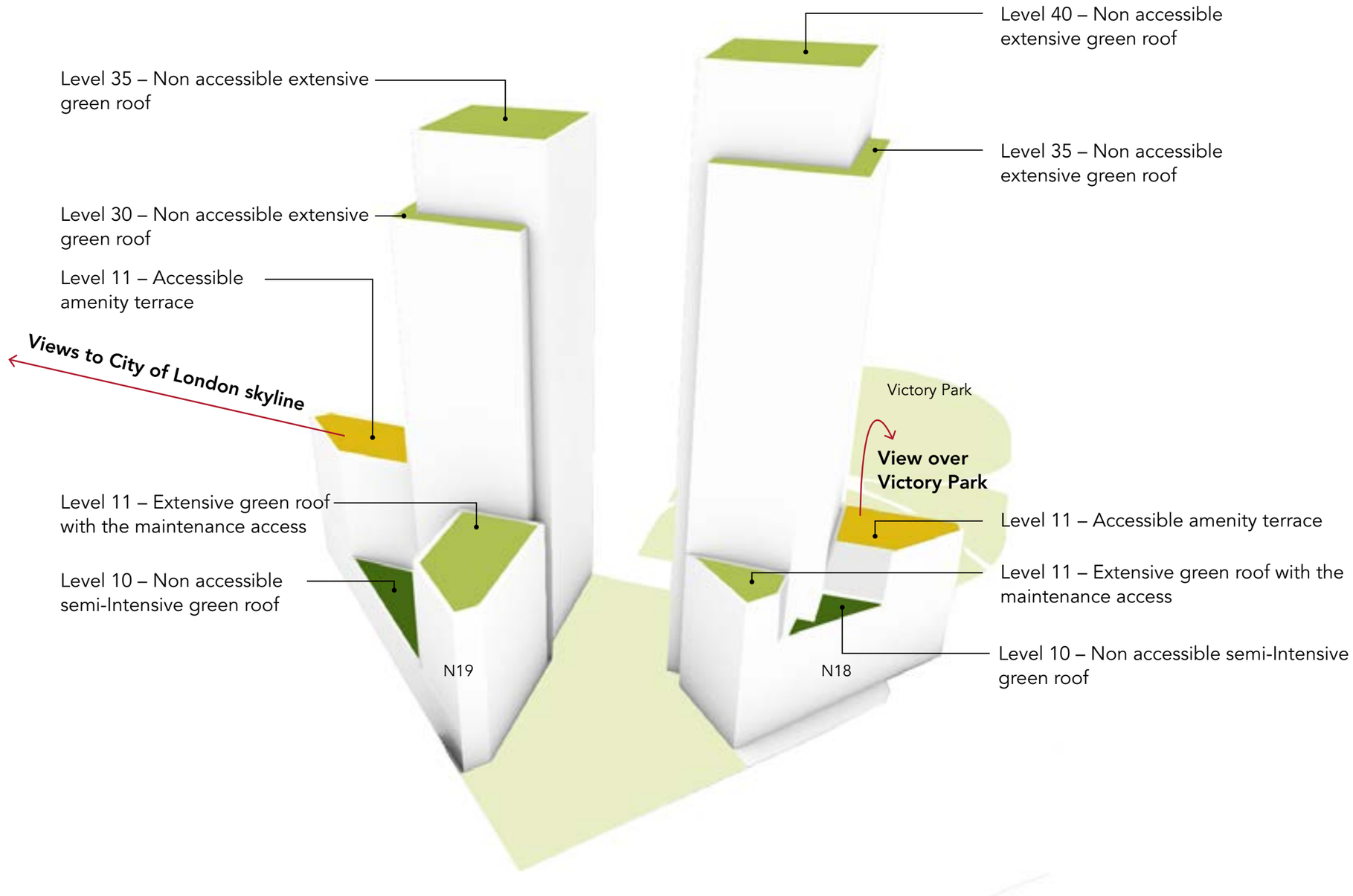
Extensive green roof with less than 200 mm of soil or substrate.

Semi-intensive green roof with a somewhat deeper substrate, creating the opportunity for growth of some shrubs (but bringing with it a greater maintenance requirement)

Key

1. Accessible amenity roof terrace
2. Extensive green roof
3. Semi-intensive green roof

Fig.246 Diagram illustrating proposed locations of roof terraces



Key

- Accessible amenity terrace
- Non accessible extensive green roof
- Non accessible semi-intensive green roof

Fig.247 Diagram illustrating proposed locations of roof terraces

The accessible terraces at level 11 have been designed to take advantage of views across the city and the particular sunlight aspect. The diagram and figures illustrate the views towards Victory Park and the City of London skyline. Both terraces also benefit from a north west facing view towards the mid summer sunset. Seating and pocket spaces have been positioned to make use of these views.

Fig.248 View of Victory Park (existing) from N18 Level 11 roof terrace

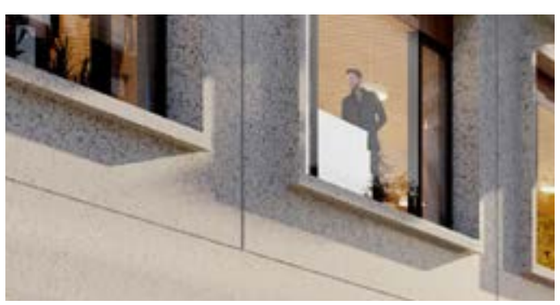


Fig.249 View of the City of London from N19 Level 11 roof terrace

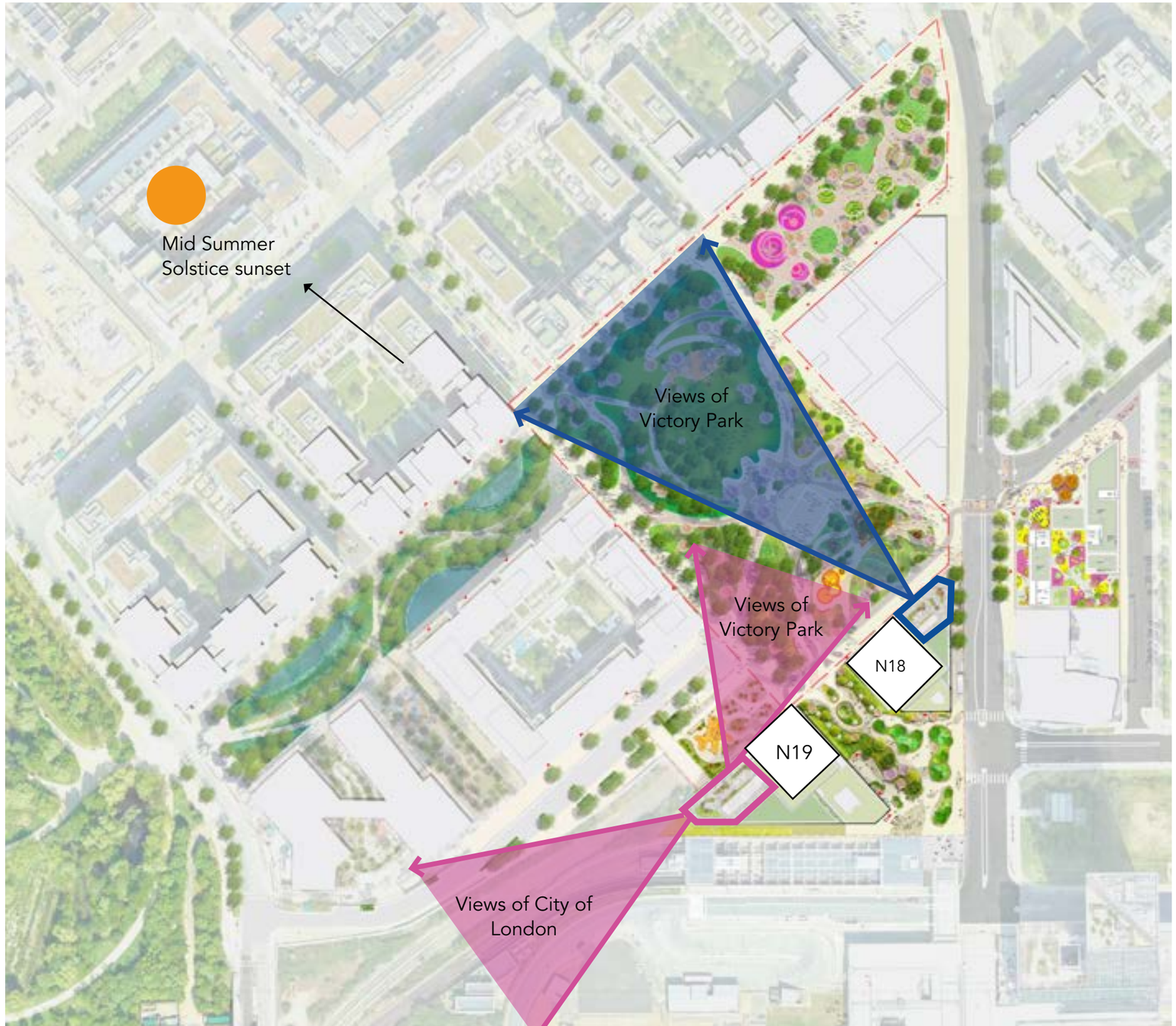


Fig.250 Diagram illustrating proposed locations of accessible amenity terraces

7.5.10 N18 ROOF TERRACE (LEVEL 11)

At level 11 of building N18, a roof terrace accessible to residents is proposed.The terrace is accessed via an internal residents lounge with kitchen space for preparing food. The terrace has been zones as per the diagram to provide space for outdoor dining, community gardens and pocket space to take advantage of the rooftop views. The terrace benefits from good morning and evening sunlight and views over Victory Park to the north west. Bench seating areas are set amongst raised planters to create more intimate spaces to sit and relax. Movable furniture can be removed so that more open flexible space can be used for exercise/ outdoor events e.g. yoga.

The planting palette includes a mix of evergreen planting for year-round structure and herbaceous perennial and grass species for seasonal interest and wildlife value. A raised planter creates a space for resident to garden and grow food as part of a residents gardening club. This space will initially planted with edible herbs.

A 2.2m clear zone around the perimeter of the terrace is provided for maintenance access. No fixed element will be placed within the clear zone.

Key

1. Flexible space for outdoor dining, exercise and outdoor events
2. Lookout point offers the best view over Victory Park
3. Seating area
4. Community Garden
5. Lounger seating
6. Emergency/maintenance access only

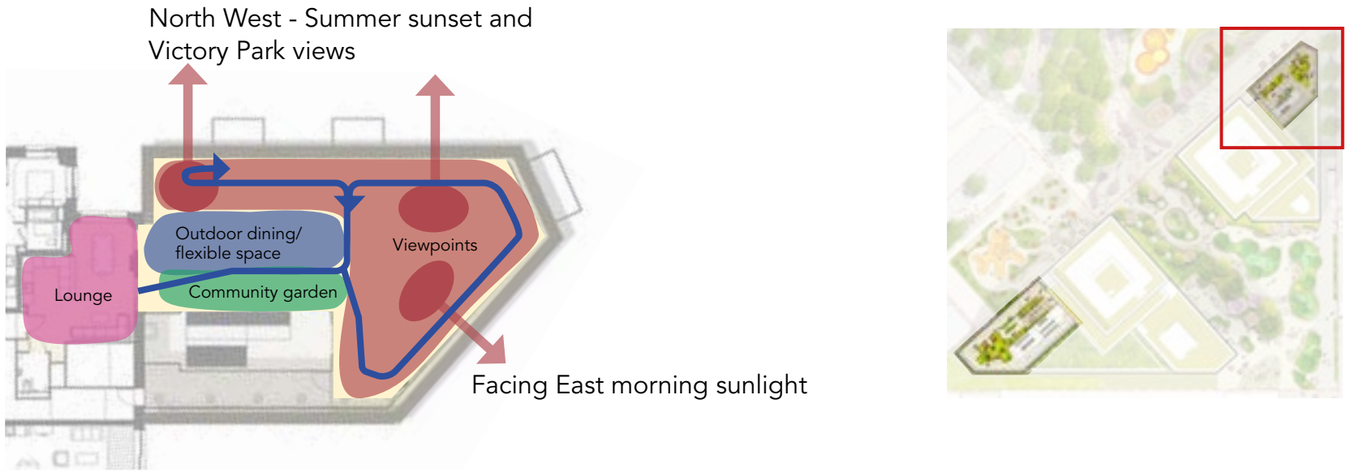
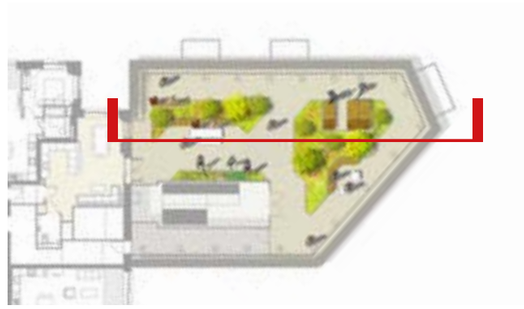


Fig.251 Illustrative plan of proposed N18 roof terrace

The potential program space on the roof terrace



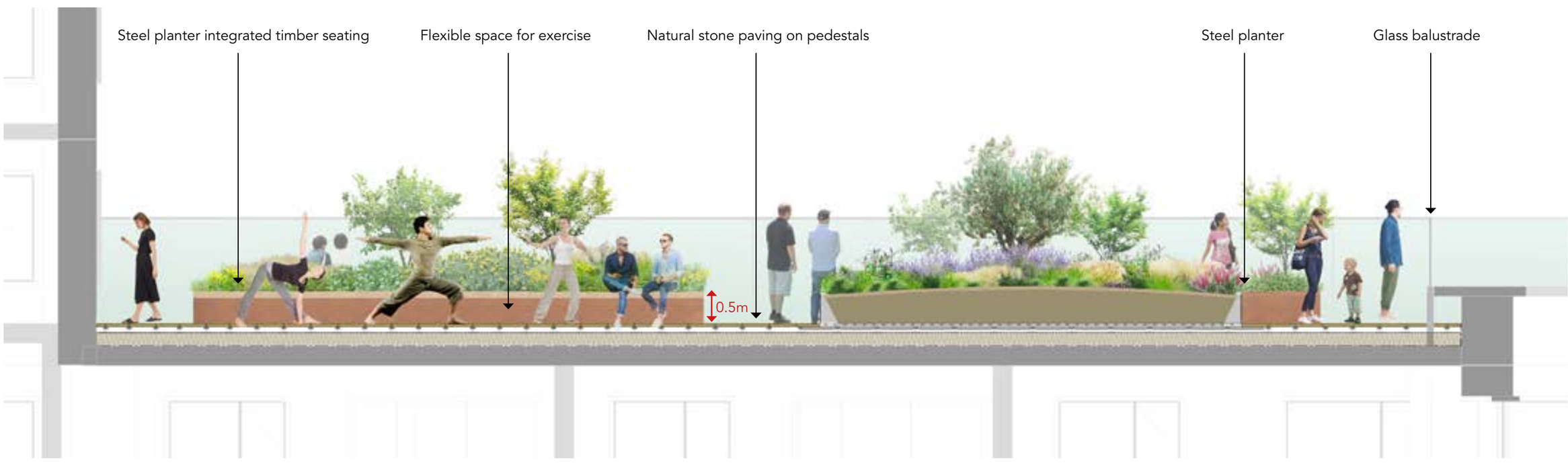


Fig.252 Illustrative section through N18 roof terrace

7.5.11 N19 ROOF TERRACES (LEVEL 11)

An accessible amenity terrace is provided to the residents at the roof level of N19. Raised planters are proposed to frame enclosed seating areas set amongst the planting. A variety of furniture provides seating opportunities in communal areas around picnic benches, integrated seating within planters, and loose bistro-style seating. A pergola structure provides shade and protection from wind to make the space more accessible throughout the year.

The terrace receives good sunlight from late morning through to evening and enjoys city views back towards the City of London skyline. Circulation space allows for access to the parapet edge to enjoy the views.

A series of raised planters provide a mix of evergreen planting for year-round structure and herbaceous perennial and grass species for residents to explore and enjoy an immersive garden experience. Raised planters provide a space to be gardened by residents.

A clear zone around the perimeter of the terrace is provided for maintenance access. No fixed element will be placed within the clear zone.

Key

1. Pergola extent
2. Movable seating
3. Picnic table seating
4. Community garden
5. Seating area
6. Lounger seating
7. Emergency/maintenance access only

Primary circulation route

Key views

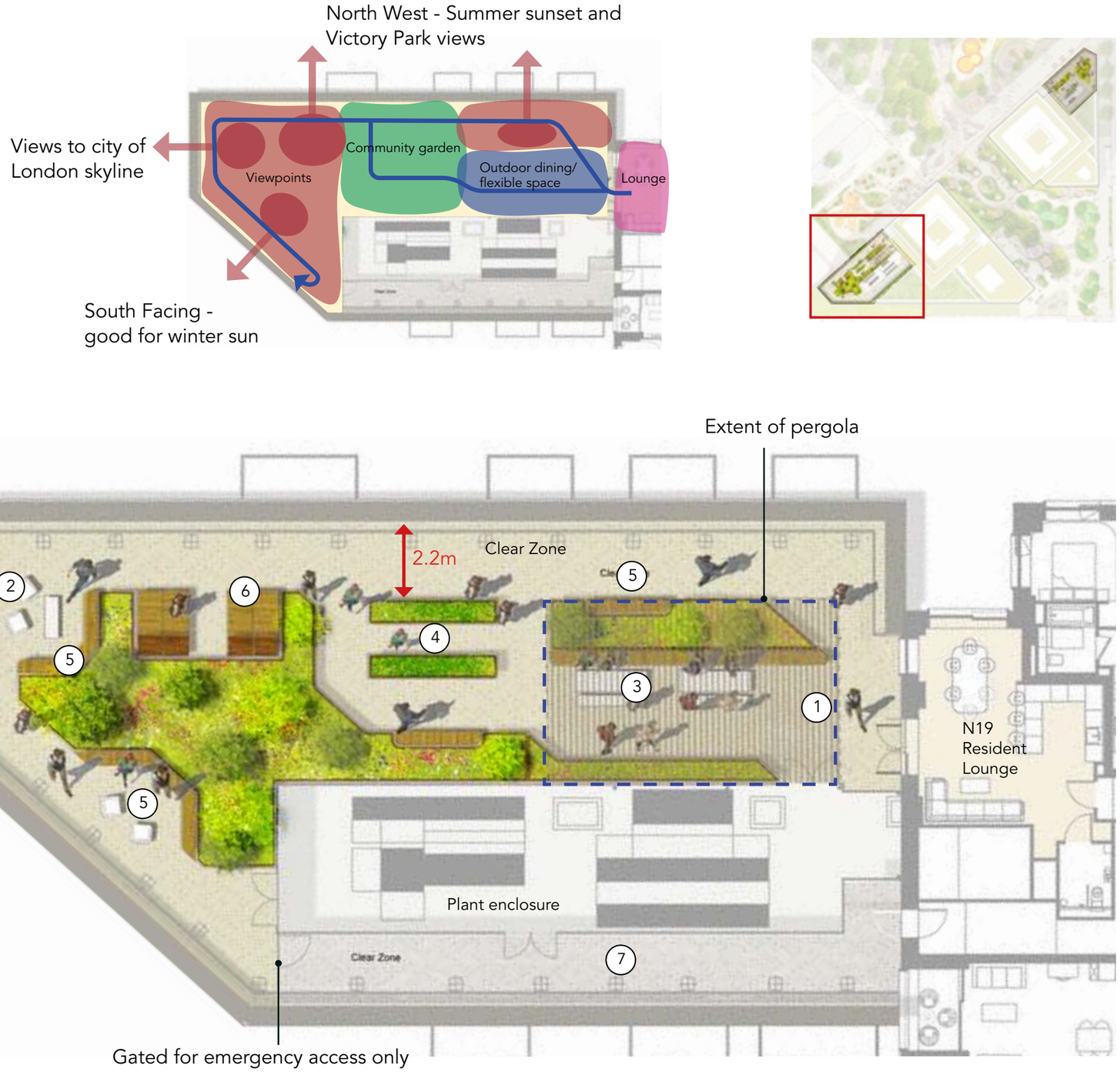
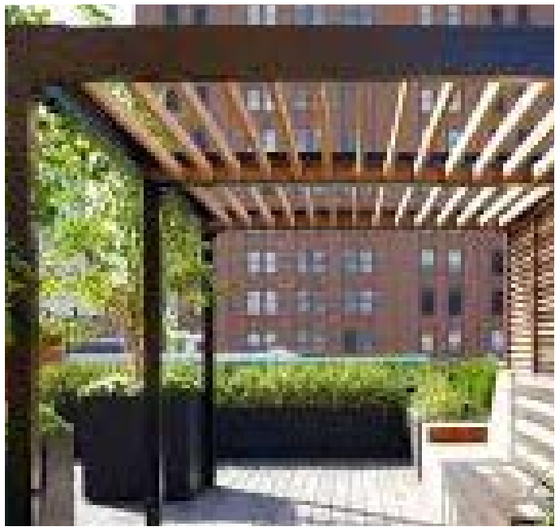
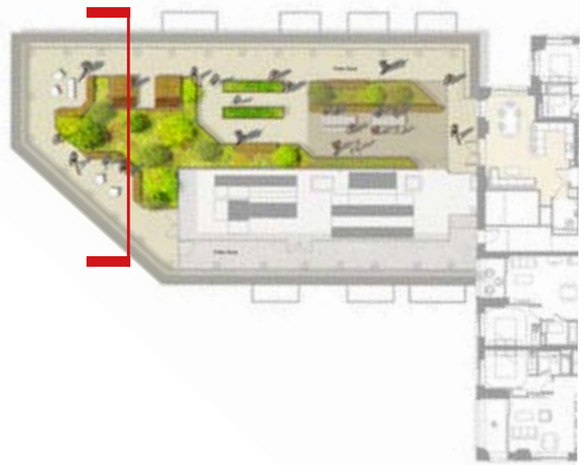


Fig.253 Illustrative view of proposed N19 roof terrace



The potential program space on the roof terrace

Fig.254 Illustrative section through N19 roof terrace showing the community garden and flexible dining space



The viewpoint and seating area on the roof terrace

Fig.255 Illustrative section through N19 roof terrace showing the lounger seating and the planter with seating edge

7.6 Landscape Strategies

7.6.1 GROUND FLOOR LEVELS STRATEGY

The site levels have been designed to ensure an accessible and inclusive design for all. Designs have been developed in collaboration with Jayne Earnscliffe -accessibility consultant- and responsive to the assessment of the Built Environment Accessibility Panel (BEAP) to ensure an inclusive design.

The design aspires to turn the 5m level difference into an asset rather than a challenge. While the different constraints affecting the site have been explained at length in this document, the ultimate strategy is to deliver the same level of experience to all users. With this in mind two main routes have been created to ensure an accessible and inclusive design catering to the different users.

A universally accessible route with gradient no greater than 1:21 navigates through the landscape with several moments in which the landscape decompresses creating small plateaus; these are distributed across the route with one of them accessing the central gathering space where the immersive landscape can be experienced at its best. The other route comprises steps and crosses the landscape through the middle. Both routes have been carefully crafted to provide the same level of sensorial experience.

Fig.256 Illustrative landscape masterplan highlighting proposed locations of change of level

Key

Stepped route

Universal access route

Fig.257 Illustrative view of accessible routes

7.6.2 HARD LANDSCAPE STRATEGY

The aim is to create a sense of unity through a common palette of high-quality durable materials and street furniture. The careful selection and use of all materials is essential to the success of the scheme and to reinforce a sense of place. A limited palette of paving and edge/seating materials is proposed to define a legible public realm to help stitch individual spaces and routes together.

The paving will be a simple paving fabric providing warm and tactile colours and tones. The intention is to use a natural stone (granite or similar) for the paving and seating/edging. Material selection is also based on its durability, associated maintenance and visual appearance (particularly so in respect of its reflective qualities), and the integration with surface water drainage strategy and proposed vehicular access (emergency/maintenance). The materials shall stand up to heavy daily use and be able to withstand the test of time and age gracefully. This will provide a hard landscape of quality, longevity, with a manageable cleaning and replacement regime.

The landscape materials will provide richness in texture and patterns, and will be designed to provide a pedestrian friendly environment. Subtle variations in the paving mix including, colour/texture/size will help differentiate spatial hierarchy. The proposal for a potential mix of sizes to reflect the intended use and character around the site. Generally, smaller setts adjacent to planters demarcate areas to dwell away from busy thoroughfares as well as help to define pedestrian movement and flow.

All surfacing will be designed for ease of access and the detailing will respond to guidance and requirements set out within Building Regulations and the Disability and Equality Act 2010 as appropriate. Kerbs, edging, steps and hazard warning tactile paving will be specified to match the paving materials they sit adjacent to generally. Where appropriate material/colour may be selected where contrast is required/desired (e.g. steps – change of level etc.). Sustainable sources will be a key factor in material specification and will include certification of source e.g. timber, natural stone, etc.

Play surfacing is proposed to areas which have been designed to be explored creatively. Rubber crumb surfacing forms playful mounds to be traversed by people of all ages. Colour is also used to celebrate the play space and create an inviting setting to be enjoyed.

Existing paving and edging in the interface of Victory Park and the N18/N19 area

Rubber crumb play surfacing

Proposed paving palette for illustrative purposes

Key

- Natural stone setts paving
- Natural stone larger unit paving
- Coloured mounded rubber play surface
- Existing resin surfacing to be retained
- Permeable Grasscrete paving
- Proposed Asphalt for service route
- Existing Asphalt to be retained
- Concrete paving to match LB Newham specification. Existing paving to be reused where possible.

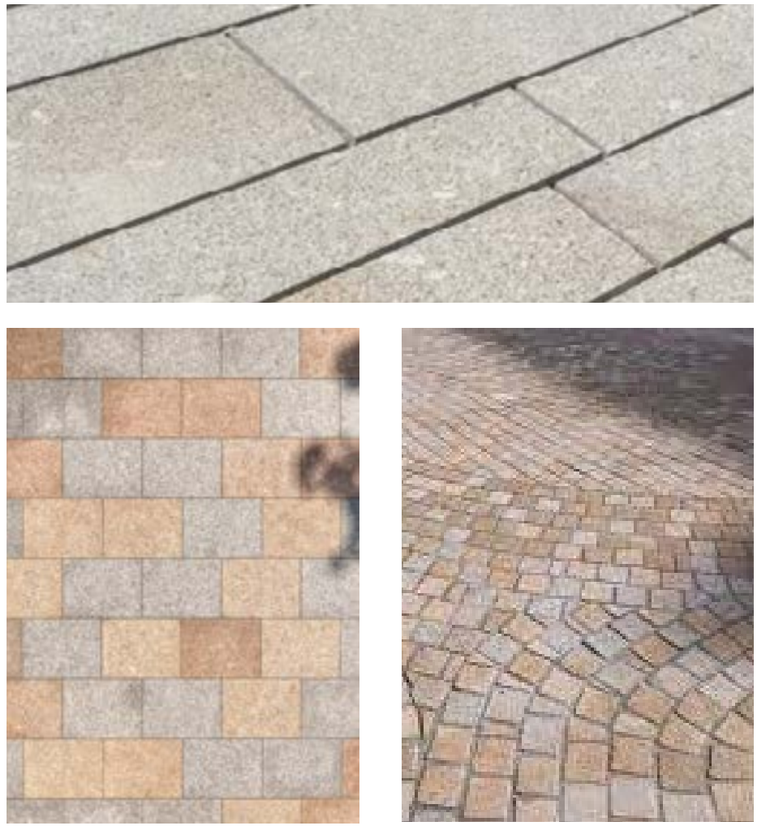


Fig.258 Proposed paving palette for illustrative purposes

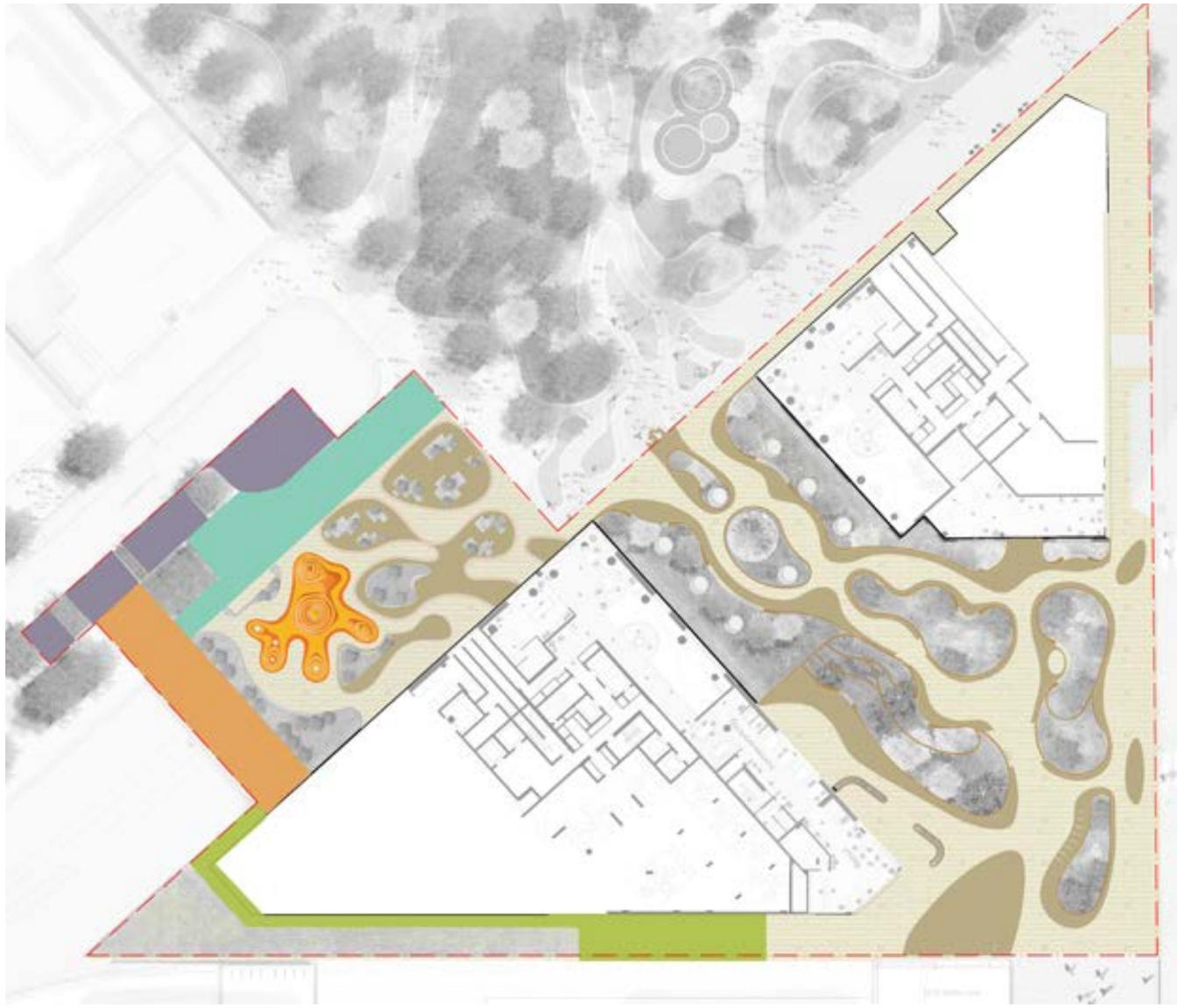


Fig.259 Diagram illustrating proposed paving palette at ground level

7.6.3 FURNITURE STRATEGY

Street furniture plays a very important role in defining public space character and will be fully integrated into the public realm proposals. To help reinforce the identity and distinctiveness of the development, a family of high-quality street furniture is proposed. The intention is that all the street furniture specified will be solid, simple, robust and beautifully crafted using the most appropriate materials. The selection and location of street furniture will need to take into account the need to be robust enough to stand up to potential anti-social behaviour and/or rough sleeping and also to discourage such behaviour.. Design and materials will be appropriate to the function and context. Sustainability will be an underlining principle in all material selection and/or street furniture selection with an aim to maximise the recycled content of each item.

Emphasis will be placed on off-site manufacturing to ensure precision, efficiency, quality assurance and safety. All elements of street furniture specified shall be manufactured to the relevant current standards. This will include (but not limited to) accessibility (e.g. contrast, slip resistance, choice of materials), critical heights, etc. A limited colour scheme and robust paint finishing system will be used for all items throughout the Development (signage, lighting and furniture) to enhance the ease of maintenance and distinctive character for look and feel.

The provision of CCTV cameras within the public realm will be considered as part of the family of street furniture in respect to fitting in with the overall appearance and range of furniture. Layouts of camera positions will be co-ordinated with the building to minimise any additional furniture in the public realm.

The proposals include timber seating at various locations around the site that is integrated as part of a planter edge. Other seating opportunities are proposed along the northern elevation, cantilevered off the existing wall. Seating will include suitable back and arm rests. Other street furniture will be limited to cycle stands which will be of a simple 'Sheffield' style or similar.

Stone planter edges at sitting height

Table for dining/work

Informal social seating

Examples of cycle stand for illustrative purposes

The building façade can be used as one of the references for the landscape walls in terms of materiality, texture, treatment, and colour. The material proposed for the planter is natural stone. It is the most appropriate material for a public realm in this location as well for its contextual situation. By selecting granite as the material for the planter front edge, we create a solid, robust, beautifully crafted, and durable piece of landscape.

Planter edge/ wall (natural stone cladding)

Key

- Stone Planter edges
- Timber seating top
- Modular box multi level seating
- Table
- Cycle Stands
- Metal raised planter

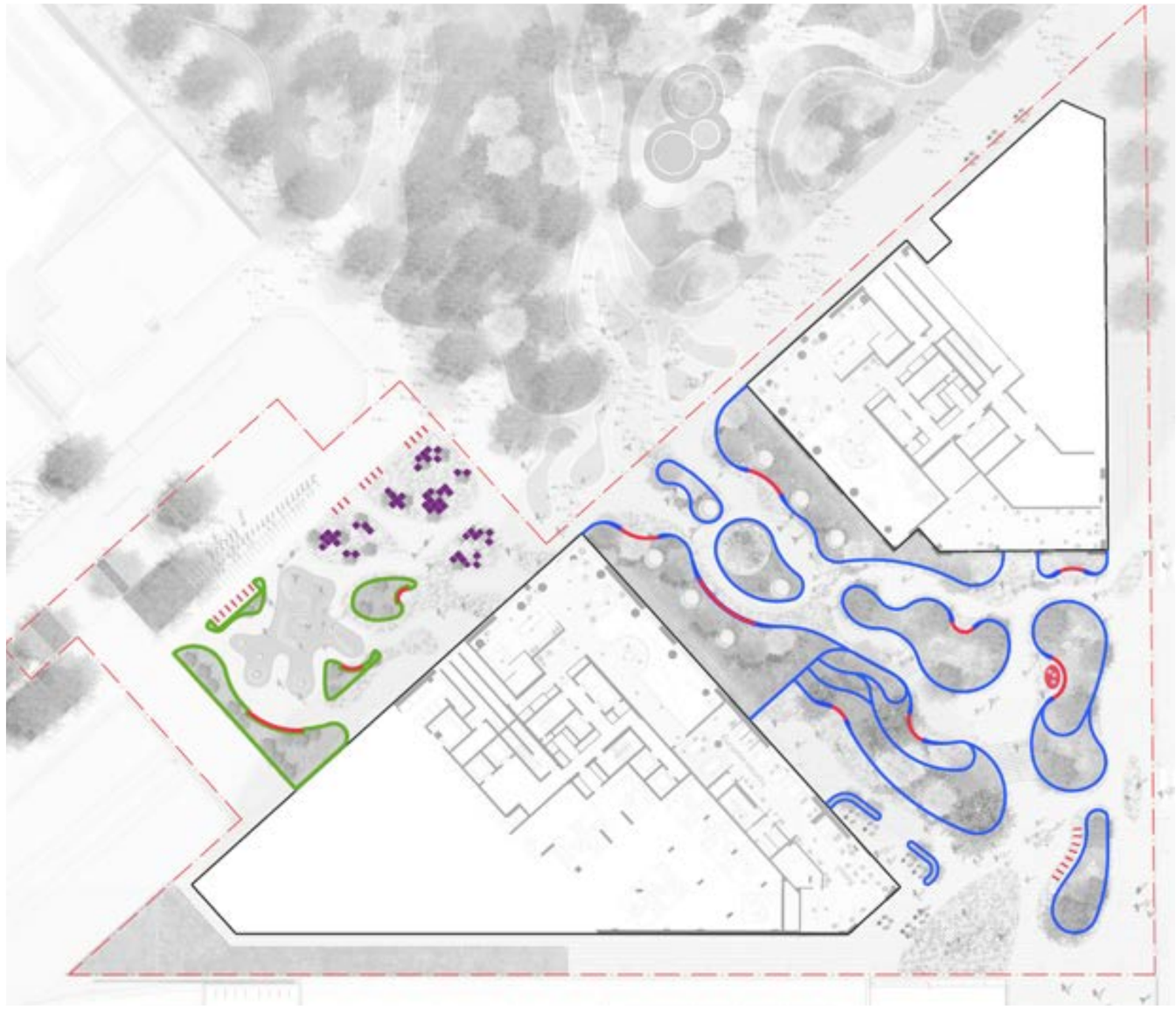
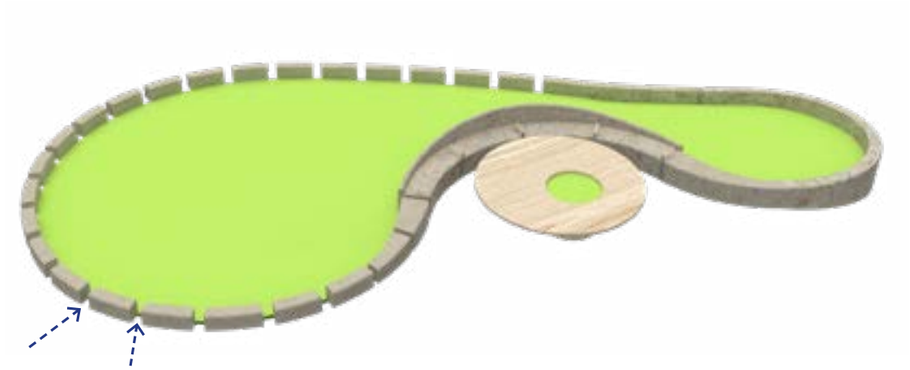


Fig.260 Diagram illustrating proposed furniture strategy at ground level

N

The addition of outdoor furniture, for example the table in the main gathering space will create a focal point and establish an area where the users could work or dine immersed in the landscape. The curvaceous arrangement will encourage social interaction and help foster a sense of community.

There is an opportunity in the proposal for castellated rain garden edges. This could strengthen the ecological and sustainable narrative as it allows for the water to enter the gardens. An alternative possibility would be to create a series of gaps between the edging to allow the water in the planted zone.



Option one: castellated stone planter edge

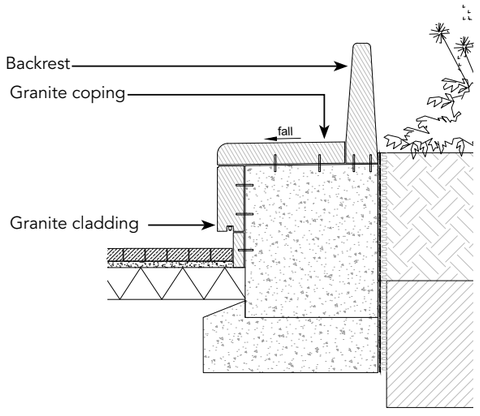
Option two: gaps in between stone planter edge

Fig.261 Diagram illustrating rain garden edge treatments

Precedent image of rain garden edge treatments

The materials strategy for the landscape will focus on options that are both robust and of high quality, complimenting the architectural nature of the scheme. The proposed planters and benches will preferably use natural stone. The most appropriate solution could be to utilise a concrete core (likely to be built in situ) and clad the outer face and top with natural stone i.e., granite. 50% of the seating will have a backrest and armrest complying with the requirements of an inclusive design.

Natural stone cladding



Seating with backrest

Fig.262 Diagram illustrating the planter walls and bench

The 'Garden Lounge' – A New Community Activation Space

The modularity of the design will allow the furniture to be used in diverse ways. The images show a mix of different arrangements, each with its distinct character and functionality that allows multiple user groups to enjoy it at the same time. It has been designed to be manageable, easy to build, and flexible. This is achieved by using proprietary modular furniture, which is predominantly comprised of three main module types.

– Module type A is an 800mm x 850mm modular seating with a total height of 465mm. The combinations of type A will create the various seating areas.

– Module type B is an 800mm x 850mm planter with a total height of 826mm for large shrubs.

– Module type C is an 800mm x 850mm planter with a total height of 430mm.

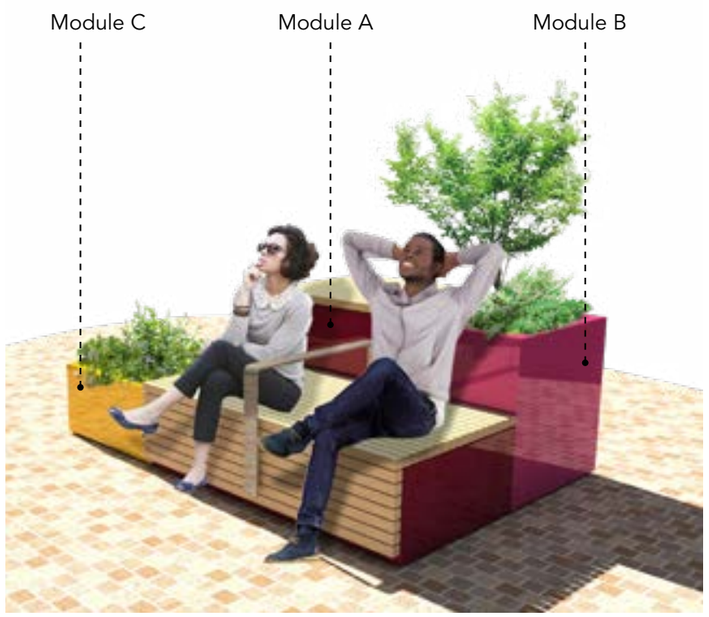


Fig.263 Diagram illustrating the typology of modular furniture

Fig.264 Diagram illustrating the modular furniture creates a new community activation space

7.6.4 PLANTING STRATEGY

Green Infrastructure

New trees and associated planting will add to the overall green infrastructure for the site, the surrounding streets and public realm.

The general objectives in the design of the green infrastructure for the project are as follows:

- To create a locally distinctive designed landscape, complementing the architecture and emphasising routes and focal points, providing visual amenity and supporting human health and well-being. This will be particularly important in the landscape filtering through N18 and N19.
- To create a landscape that is both verdant and habitat-rich including, green routes and spaces, green roofs and communal gardens. This will be applicable to all areas of the design but specially significant in The Gateway and across the biodiverse extensive and intensive green roofs.
- To provide an environment with a significant number of new trees that will provide multiple benefits. We will aim for the introduction of ornamental and distinctive trees specially signalling the route through The Gateway.
- To ensure that the overall resultant landscape works hard to deliver a wide variety of ecosystem services. These services will include: the attenuation and treatment of rainwater runoff, local cooling (helping to reduce the wider urban heat island effect), shading, cleansing of the air and the provision of a powerful series of biophilic experiences, alongside provisions of valuable habitat for native flora and fauna.

Ground Floor Planting Character

The concept for the ground level is to create a distinct planting scheme with year-round interest that is suited to the varying microclimates around the site. The proposal is to create a lush woodland style planting palette with a framework of shrubs and ornamental highlights of shade tolerant herbaceous flowering species, bulbs, grasses and ferns that are suitable for dry shade. This would be the primary planting zone and include the eastern and western boundaries.

In areas of greater sun such as to the south and pockets to the west and east, the proposal is to create beds of sun-loving pollinator species – herbaceous and grasses with an evergreen groundcover.

The species overleaf provide a menu of the type of plants proposed for use at the ground level.

Fig.265 Diagram illustrating the seasonal changes of the proposed ground level planting palette

Key

- Rain Gardens – Wet/Dry planting mix
- Rain Gardens – Marginal planting mix
- Shade tolerant planting
- Woodland understory mix
- Shade-tolerant ornamental grasses
- Grasses and flowering perennials
- Ornamental grasses and perennials on podium
- Perennials on podium
- Native shrubs

Fig.266 Diagram illustrating the proposed planting proposals at ground level (no trees shown)

Ground Floor – Woodland Style/Shade Tolerant Planting + Ornamental Highlights

Proposed Planting List

Note: The list below is intended as an appropriate indicative range of plants for this location. The species richness will not be less than indicated here, but some species may be substituted for others equally appropriate to setting and with the same level of aesthetic quality and value to native fauna.

Structure
Ilex crenata
Euonymus japonicus 'Jean Hugues'
Saracocca ruscifolia
Saracocca humulis
Ceanothus sp.
Viburnum tinus var.
Skimmea 'Robert Fortune'

Ground Cover
Vinca minor
Ajuga reptans 'Atropurperea'
Anemone nemorosa
Pachysandra terminalis 'Green Carpet'
Asarum europaeum
Polygonum amplexicaule 'Firetail'

Bulbs
Hyacinthoides non-scripta
Narcisus 'Thalia'

Ferns
Dyopteris affinis
Asplenium scolopendium
Dyopteris felix mas
Polystichum setiferum 'Dahlem'
Osmunda regalis
Polypodium vulgare
Blechum spicant

Grasses
Carex 'ice dance'
Uncinia rubra
Hakonechloa macra
Luzula sylvatica Marginata

Structure

Japanese Holly
Ilex crenata

Japanese Spindle
Euonymus japonica 'Jean Hugues'

Fragrant Sweet Box
Saracocca ruscifolia

Sweet Box
Saracocca humulis

California Lilac
Ceanothus sp.

Laurustinus
Viburnum tinus var.

Japanese Skimmia
Skimmea 'Robert Fortune'

Ferns

Scaly Male Fern
Dyopteris affinis

Hart's Tongue Fern
Asplenium scolopendium

Male fern
Dyopteris felix-mas

Soft Shield Fern
Polystichum setiferum 'Dahlem'

Shade Tolerant Ornamental Grasses

Japanese sedge
Carex 'ice dance'

Red hook sedge
Uncinia rubra

Hakone grass
Hakonechloa macra

Groundcover

Periwinkle
Vinca minor

Ajuga
Ajuga reptans 'Atropurperea'

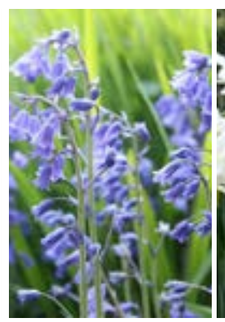
Wood Anemone
Anemone nermorosa

Japanese Spurge
Pachysandra terminalis 'Green Carpet'

Foalfoot
Asarum europaeum

Bulbs

Persicaria
Bistorta amplexicaulis



Bluebells
Hyacinthoides non-scripta

Daffodils
Narcisus 'Thaila'

Ground Floor

Pollinator & Herbaceous Planting

Planting list – generally southern beds & pockets & garden lounge

Note: The list below is intended as an appropriate indicative range of plants for this location. The species richness will not be less than indicated here, but some species may be substituted for others equally appropriate to setting and with the same level of aesthetic quality and value to native fauna.

Herbaceous
Achillea millefolium
Alchemilla mollis
Anemone x hybrida 'Honorine Jobert'
Anemone canadensis
Anemone hupehensis var. japonica 'Tiki Sensation'
Astilbe chinensis 'Vision in White'
Salvia x sylvestris 'Schneehugel'
Aquilegia vulgaris 'Munstead White'
Astrantia major
Campanula latifolia
Clematis recta
Nepeta siberica
Salvia nemerosa 'Caradonna'
Salvia officinalis
Stachys officinalis
Verbena bonariensis
Geranium macrorrhizum
Geranium pheum
Tellima grandiflora

Herbaceous

Common Yarrow
Achillea millefolium

Garden Lady's Mantle
Alchemilla mollis

Japanese Anemone
Anemone x hybrida 'Honorine Jobert'

Meadow Anemone
Anemone canadensis

Japanese Anemone
Anemone hupehensis var. japonica 'Tiki Sensation'

False Goat's Beard
Astilbe chinensis

Wood Sage
Salvia x sylvestris 'Schneehugel'

Granny's Bonnet
Aquilegia vulgaris 'Munstead White'

Greater Masterwort
Astrantia major

Broad-leaved Bellflower
Campanula latifolia

Ground Clematis
Clematis recta

Siberian Catmint
Nepeta siberica

Balkan Clary
Salvia nemerosa 'Caradonna'

Common Sage
Salvia officinalis

Betony
Stachys officinalis

Purpletop Vervain
Verbena bonariensis

Big-root Cranes-bill
Geranium macrorrhizum

Dusky Cranesbill
Geranium pheum

Fringecup
Tellima grandiflora

Ground Floor

Pollinator & Herbaceous Planting

Planting list – generally southern beds & pockets & garden lounge

Note: The list below is intended as an appropriate indicative range of plants for this location. The species richness will not be less than indicated here, but some species may be substituted for others equally appropriate to setting and with the same level of aesthetic quality and value to native fauna.

Grasses, Sedges & Rushes
Calamagrostis x acutiflora 'Karl Foerster
Calamagrostis brachytricha
Deschampsia cespitosa
Molinea caerulea
Carex elata 'Aurea'
Carex pendula
Luzula sylvatica
Luzula nivalis
Aurinia saxafilis
Helictotrichon sempervirens

Grasses

Feather Reed Grass
Calamagrostis x acutiflora 'Karl Foerster'

Korean Feather Reed Grass
Calamagrostis brachytricha

Tufted Hair Grass
Deschampia cespitosa

Bowle's Golden Sedge
Carex elata 'Aurea'

Blue oat grass
Helictotrichon sempervirens

Pendulous Sedge
Carex pendula

Great Wood-rush
Luzula sylvatica

Snow white Wood-rush
Luzula nivea

Yellow Alyssum
Aurinia saxafilis

Ground Floor

Rain Garden

Planting List

Note: The list below is intended as an appropriate indicative range of plants for this location. The species richness will not be less than indicated here, but some species may be substituted for others equally appropriate to setting and with the same level of aesthetic quality and value to native fauna.

Wet/dry mix

Herbaceous perennials
Geranium 'Rozanne'
Alchemilla mollis
Persicaria bistorta
Iris sibirica sp.
Bergenia sp
Verbena bonariensis

Grasses
Carex pendula
Panicum virgatum
Dryopteris dilatata

Shrubs
Cornus sanguinea 'Midwinter Fire'
Hydrangea paniculata

Rain Garden Planting Marginal planting mix

Perennial shrub
Viburnum opulus
Vinca minor

Herbaceous perennial
Helleborus foetidus
Crocosmia spp.
Aquilegia spp

Grasses / fern
Dryopteris felix-mas
Miscanthis sinensis

Wet/Dry Mix

Grasses

Pendulous Sedge
Carex pendula

Crispa Whiteside
Dryopteris dilatata

Switch Grass
Panicum virgatum

Shrubs

Dogwood 'Midwinter Fire'
Cornus sanguinea 'Midwinter Fire'

Paniculate Hydrangea
Hydrangea paniculata

Herbaceous perennials

Geranium 'Rozanne'

Garden Lady's Mantle
Alchemilla mollis

Common Bistort
Bistorta officinalis

Siberian Iris
Iris sibirica

Bergenia sp

Purpletop Vervain
Verbena bonariensis

Marginal Planting Mix

Perennial shrub

Wayfaring Tree
Viburnum opulus

Lesser Periwinkle
Vinca minor

Grasses / fern

Male-fern
Dryopteris felix-mas

Chinese Silvergrass
Miscanthis sinensis

Herbaceous perennial

Green Hellebore
Helleborus foetidus

Montbretia 'Lucifer'
Crocosmia spp.

Aquilegia spp

7.6.5 COMMUNAL TERRACE (LEVEL 11)

Dry Prairie/Steppe Planting – This will be generally located in full sun at the terrace level 11 on N19 building. This planting typology comprises mixtures of grasses and flowering perennials adapted to dry and exposed conditions. The planting composition is designed to create a relaxed, naturalistic feel. Although the plantings are very diverse, at any one time only two or three plant species create the main flowering display but repeated over the whole area. This creates a varying but always striking aesthetic impact.

Dry Shrub/Prairie - This planting typology comprises mixtures of grasses and flowering perennials continuing the dry prairie with a mix of suitable shrubs. This creates a multi-layered structure with year-round visual interest. It also adds autumn leaf colour and additional flowering but also increases the wildlife value of the planting (bird habitat).

Pollinator and Edible Planting – In the individual planters, there is an opportunity to use colourful herbaceous pollinator species and edible plants that create a distinctive character to each space varying throughout the year. The species opposite provide a menu of the type of plants proposed for use at the terrace level (11).

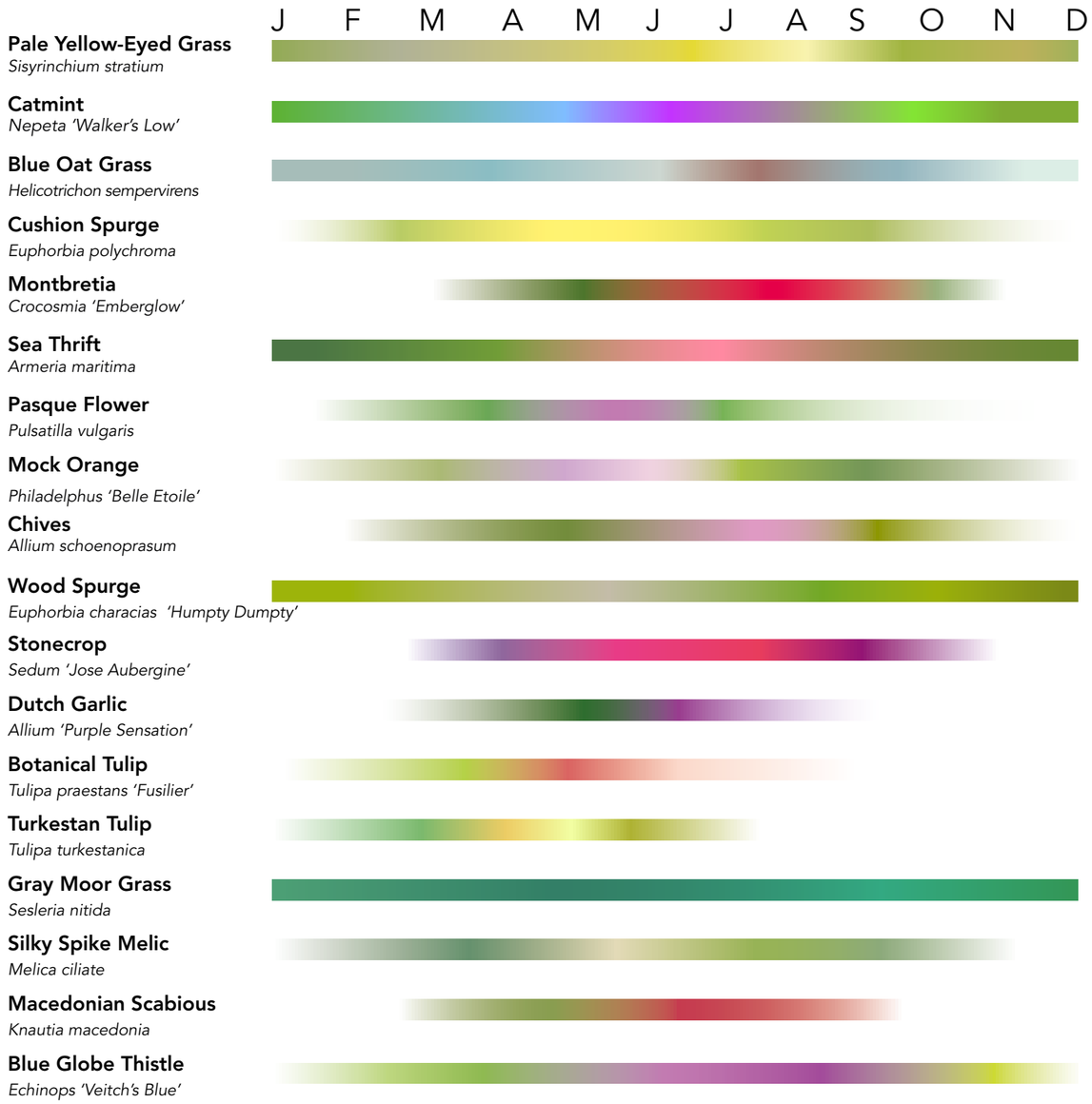


Fig.267 Diagram illustrating the seasonal changes of the proposed level 11 terrace garden planting palette

Herbaceous and grass mix planting in raised planter

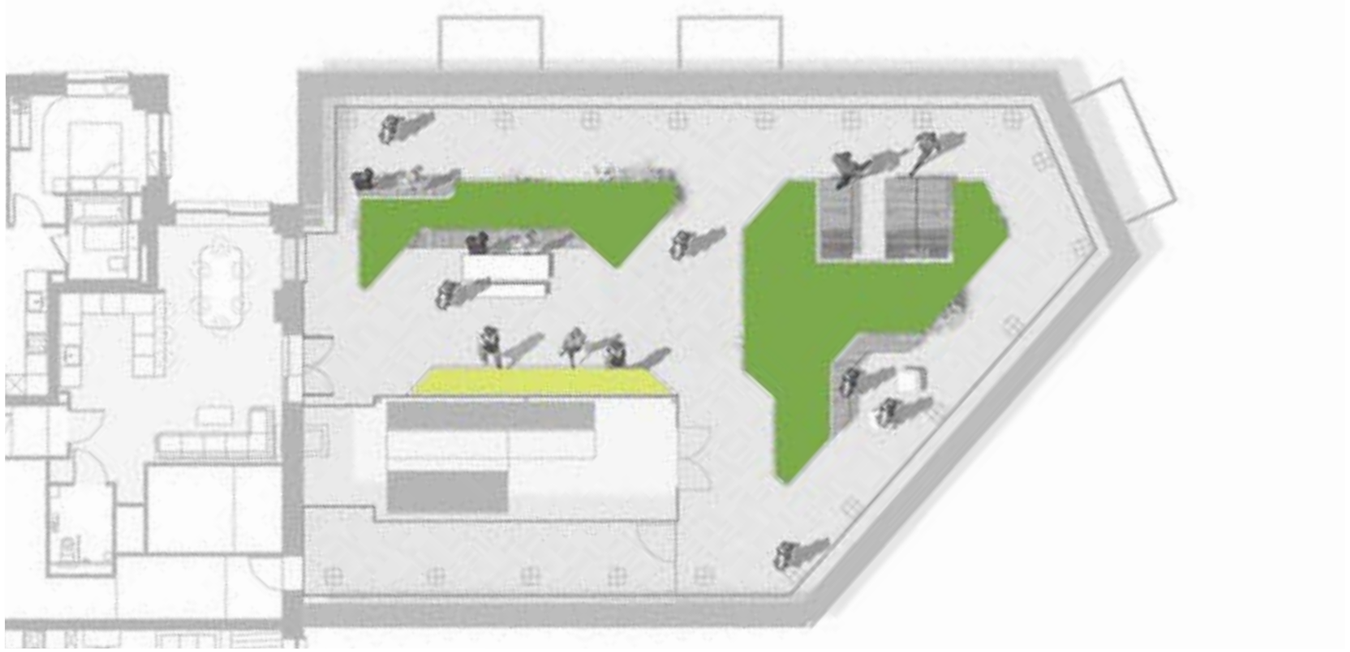


Fig.268 Diagram illustrating proposed planting strategy at N18 Roof Terrace

Community herb garden in raised planter

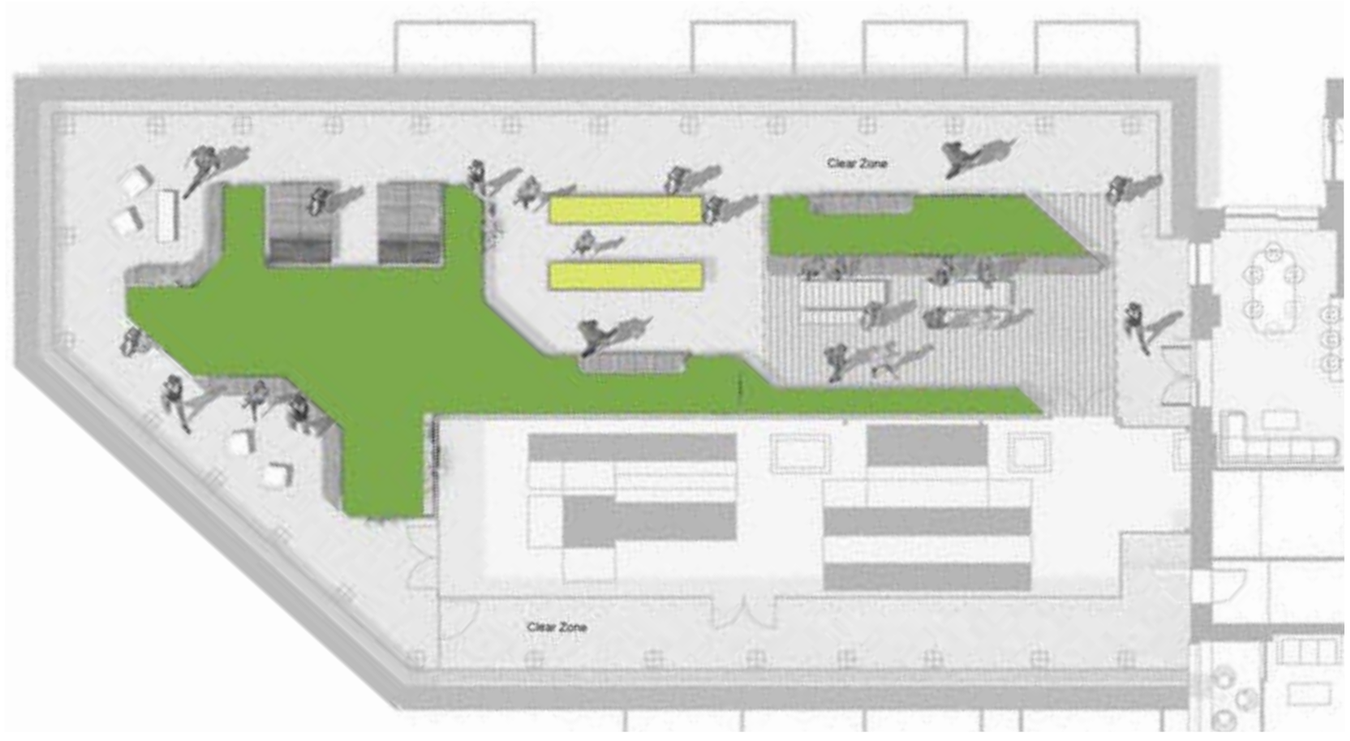


Fig.269 Diagram illustrating proposed planting strategy at N19 Roof Terrace

Proposed Planting List

Note: The list below is intended as an appropriate indicative range of plants for this location. The species richness will not be less than indicated here, but some species may be substituted for others equally appropriate to setting and with the same level of aesthetic quality and value to native fauna.

Grasses
Sesleria nitida
Helicotrichon sempervirens
Melica ciliata

Herbaceous
Euphorbia polychroma
Euphorbia characias 'Humpty Dumpty'
Primula veris
Pulsatilla vulgaris
Lychnis coronaria 'Alba'
Achillea 'Terracotta'
Salvia nemorosa 'Caradonna'
Kniphofia 'Tawny King'
Echinops 'Veitch's Blue'
Verbena bonariensis
Knautia macedonica
Scabiosa columbaria
Philadelphus 'Belle Etoile
Crocosmia 'Emberglow'
Anemone x hybrida 'Honorine Jobert'
Nepeta 'Walker's Low'
Allium schoenoprasum
Armeria maritima
Sisyrinchium striatum
Malva moschata 'Alba'

Grasses

Gray Moor-Grass
Sesleria nitida

Blue Oat-Grass
Helicotrichon sempervirens

Silky Spike Melic
Melica ciliata

Herbaceous

Cushion Spurge
Euphorbia polychroma

Wood Spurge
Euphorbia characias 'Humpty Dumpty'

Cowslip
Carex elata 'Aurea'

Pasque Flower
Pulsatilla vulgaris

White Rose Campion
Lychnis coronaria 'Alba'

Yarrow
Achillea 'Terracotta'

Balkan Clary
Salvia nemerosa 'Caradonna'

Red Hot Poker
Kniphofia 'Tawny King'

Blue Globe Thistle
Echinops 'Veitch's Blue'

Purpletop Vervain
Verbena bonariensis

Macedonian Scabious
Knautia macedonia

Small Scabious
Scabiosa columbaria

Mock Orange
Philadelphus 'Belle Etoile'

Montbretia
Crocosmia 'Emberglow'

Japanese Anemone
Anemone x hybrida 'Honorine Jobert'

Catmint
Nepeta 'Walker's Low'

Chives
Allium schoenoprasum

Sea Thrift
Armeria maritima

Pale Yellow-Eyed Grass
Sisyrinchium stratium

White Musk Mallow
Malva moschata 'Alba'

Proposed Planting List

Note: The list below is intended as an appropriate menu from which individual species will be selected.

Bulbs
Allium ‘Purple Sensation’
Allium ‘Globe Master’
Tulipa praestans ‘Fusilier’
Tulipa turkestanica
Allium schoenoprasum
Sedum ‘Snowburst’
Gaura lindheimeri ‘Whirling Butterflies’
Sedum ‘Starburst’
Sedum ‘Jose Aubergine’

Bulbs

Dutch Garlic
Allium ‘Purple Sensation’

Ornamental Onion
Allium ‘Globemaster’

Botanical Tulip
Tulipa praestans ‘Fusilier’

Turkestan Tulip
Tulipa turkestanica

Stonecrop
Sedum ‘Jose Aubergine’

Chives
Allium schoenoprasum

Stonecrop
Sedum ‘Snowburst’

Wood Spurge
Gaura lindheimeri ‘Whirling Butterflies’

7.6.6 GREEN ROOF (LEVEL 10,11,30,35,40)

Biodiverse extensive and semi-intensive green roofs are proposed at levels 10, 11, 30, 35 and 40. These will provide significant habitat for important native biodiversity as well as delivering various ecosystem services including rainwater management, local cooling, air purification and noise reduction. These habitats will help to mitigate for loss of existing ground level grassland and ruderal swards and also integrate with the wider green infrastructure across the village where there are green roofs on most buildings.

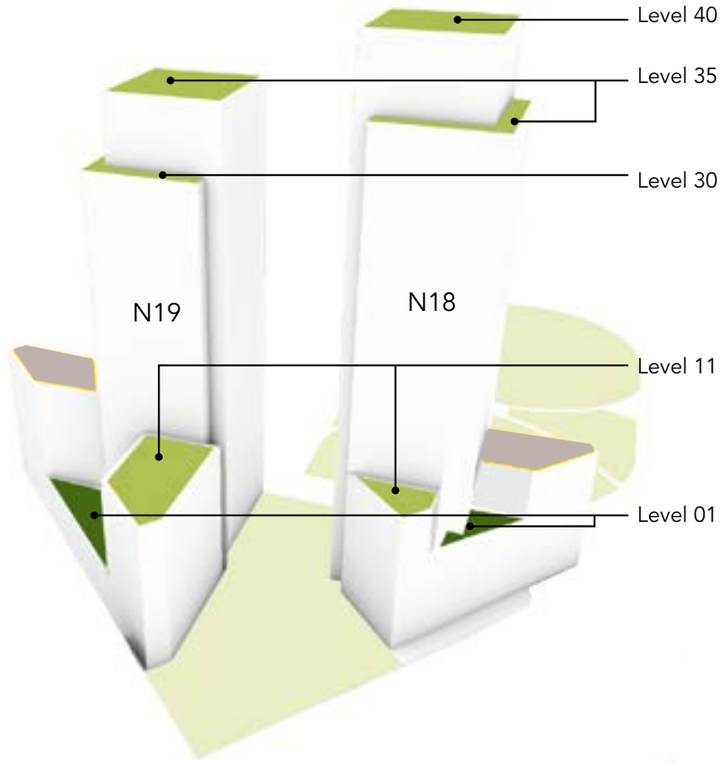
The extent and locations of the biodiverse roofs in the scheme are indicated on the plan extract on the next page. The roofs will be sown with native species know already to survive on green roofs across East Village. These species are relatively drought tolerant and all thrive in conditions of relatively low fertility.

The roof substrate will be a high quality living roof substrate with good water retention properties. The intention is to vary the substrate depth to create different habitats in order to extend the range of species available in the planting areas.

There will be numerous specially designed 'aculeate mounds' piles of sand and gravel in full sun, suitable for the formation of burrows by solitary bees and wasps.

There will also be bark-on deadwood partly embedded into the substrate as windbreaks to protect both substrate and fauna and to increase ecological nice diversity.

Fig.270 Precedents illustrating the proposed biodiverse extensive green roof



Key

Extensive Green Roof

Semi-intensive Green Roof

Fig.271 Diagram illustrating the proposed green roof

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7.6.7 SUDS AND DRAINAGE STRATEGY

The SUD's (Sustainable Urban Drainage) and drainage strategy has been developed to help reduce the risk and damage caused by surface water run-off and flooding and to provide significant visual amenities and habitat of value to native fauna.

Swales and the associated rain garden habitat are proposed along a narrow corridor forming the western edge of the new soft landscape through N18/19. This habitat will contribute relatively strongly to the Urban Greening Factor score of the development.

As discussed in the Biodiversity Statement accompanying the present submission, rain garden features such as this provide a value to native wildlife notably higher than their plan area would suggest.

The proposed development drainage strategy achieves the principles of sustainable drainage design set out in the NPPF regarding surface water discharge strategy and sustainable drainage principles.

The proposed surface water strategy is based on the following principles:

- SuDS features and soft landscaping included reducing runoff from the site.
- Surface Water generated on the site to be discharged to the Local Public Surface Water Sewer.
- Run-off from rainfall events up to and including the 1% AEP to be collected and discharged without flooding the site.
- Exceedance flows considered (including upper-end climate change estimates) to ensure there is no undue risk to people or property.

  The further information on drainage strategy, refer to the drainage impact assessment issued by Walsh.

Fig.272 Illustrative section showing proposed rain gardens

Key

- Planted areas
- Swale with rain garden planting
- Potential rainwater pipe discharge directly into soft landscaping
- Filter drain serving terraced planter
- Central swale system serving as primary means of conveyance for podium and associated hard landscaping
- Hard landscaping draining towards planted areas

Fig.273 Diagram showing location of SUDS and drainage strategy

N

7.6.8 TREE STRATEGY

New trees will be selected and located in accordance with the principles of 'right place, right tree' and based on appropriate size, form, diversity and character to ensure that a strong contribution is made to the quality of the local environment. The proposals will ensure that the new trees are selected to support wildlife in the area.

New tree planting will aim to extend the tree canopy across the The Gateway complementing the proposed and existing tree strategy in Victory Park and Belvedere. There will be a range of different species of different forms and sizes, including groups and individual specimen trees (at focal points) all together providing significant seasonal interest.

The new trees will be used to create a robust landscape structure and link up existing boundary trees to create new 'green chains'. They will be used to create a sense of identity and distinctiveness, provide a sense of way finding and legibility, and enhance the proposed green infrastructure on site and the immediate surrounding area. The tree selection will also be guided by the following principles to ensure a robust and positive contribution to the landscape. They will:

- Support climate change mitigation.
- Have good drought and disease tolerance.
- Have the appropriate tree pit size for extended growth and appropriate growing mediums in the soil specifications, depths and structural capacity with associated surface loadings.
- Have the appropriate aeration, effective drainage and root protection measures.
- Have light foliage where light may be a concern.
- Possess aesthetic and sensory qualities (form/ structure, leaf, flowers, fruits, deciduous/evergreen).
- Be selected to create a varied mix of species (diversity to improve local biodiversity, protect against disease, visual interest, wildlife and productive value and habitat creation).
- Be positioned to ensure that appropriate growth conditions are maximised and appropriate and safe management and maintenance conditions can be facilitated.

The landscape strategy will be based on the principles above establishing clear hierarchies. The Gateway will be emphasized by flowering trees with some complementary trees, while smaller trees will be located in the square adjacent to Victory Park and The Garden Lounge.

Key

- Specimen Trees
- Ornamental Trees
- Structure Trees
- Trees suitable for rain gardens
- Special Feature Tree
- Existing trees retained

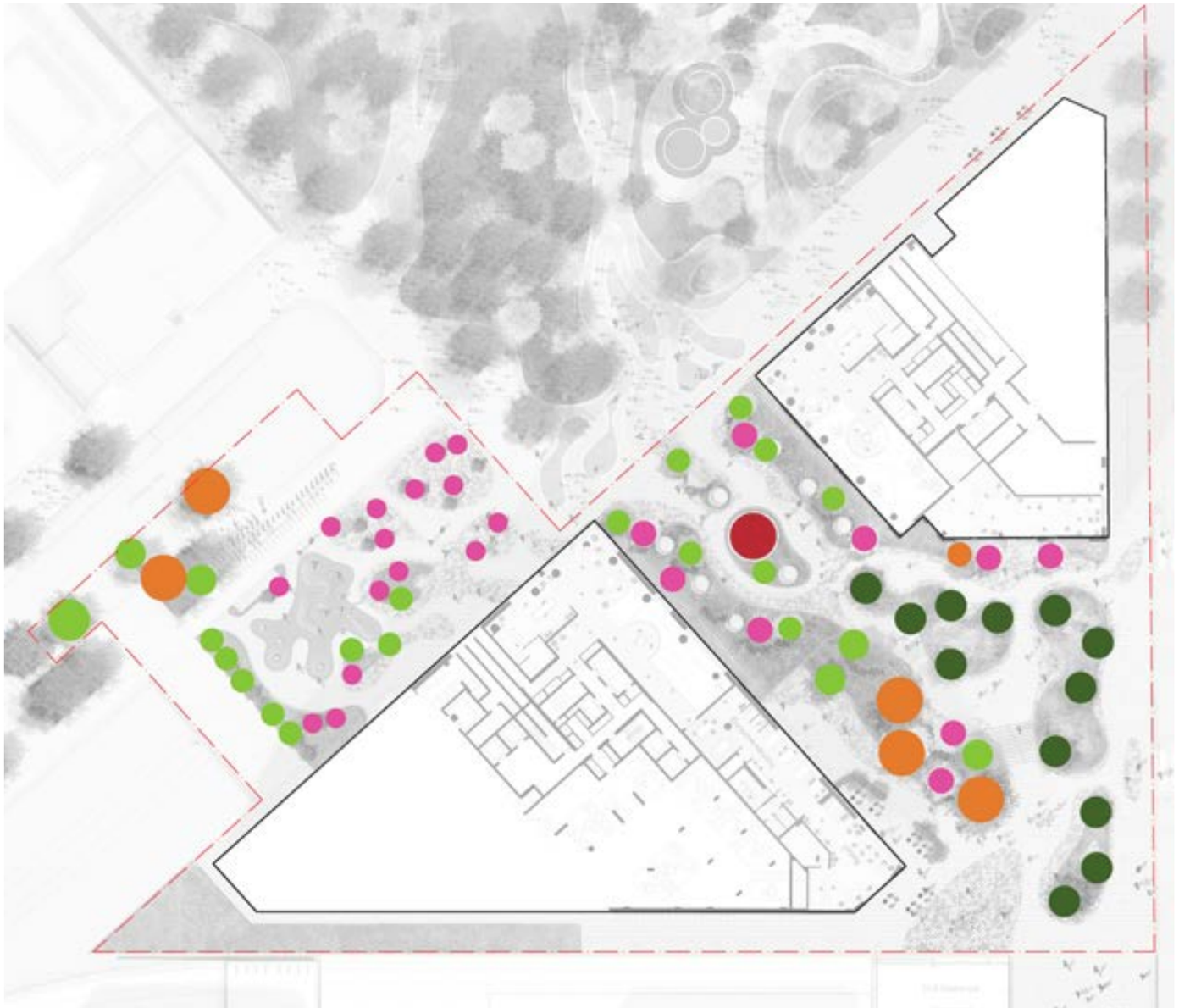


Fig.274 Diagram illustrating Proposed Tree Strategy

Specimen/Street Trees

To provide distinctive autumn colour and a form and height that will be compatible with the adjacent buildings. To provide 'a foil' to buildings and to provide shade as well as promoting habitat diversity and reinforce the green links.

Structure Trees

To help create green structure and rhythm in the linear spaces as well as good form that complements the scale of the spaces. They will provide light canopy cover and good wildlife value. Mostly located in the upper square adjacent to Victory Park.

Ornamental Trees

To provide good spring blossom and a known good performance within an urban environment. To create a framework of flowering trees providing a distinctive and unique character through variety of form and seasonal colour. Inserted within the landscape experience.

Trees suitable for rain gardens

Rain gardens are a good place to plant street trees as they provide a good growing environment with more irrigation and un-compacted soil. It is important to choose a very resilient tree that can be tolerant of exposed urban conditions. The selected species are tolerant of the alternating wet and dry conditions within a rain garden.

Specimen Trees

Tulip tree
Liriodendron tulipifera

Spring interest

Autumn interest

Specimen Trees

Scarlet Oak
Quercus coccinea

Summer interest

Autumn interest

Specimen Trees

Sweet Gum
Liquidambar styraciflua

Seeds interest

Autumn interest

Specimen Trees

Field Maple
Acer campestre

Summer interest

Autumn interest

Specimen Trees

Honey Locust
Gleditsia triacanthos

Summer interest

Autumn interest

Specimen Trees

Red Maple
Acer rubrum

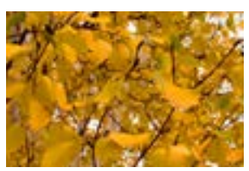
Seeds interest

Autumn interest

Structure Trees

Himalayan Birch
Betula utilis

Bark interest



Autumn interest

Structure Trees

Grey Alder
Alnus incana

Seeds interest

Autumn interest

Structure Trees

Chinese Red Birch
Betula albosinensis

Bark interest

Autumn interest

Ornamental

Serviceberry
Amelanchier

Spring interest

Summer interest

Autumn interest

Ornamental

Chinese Dogwood
Cornus kousa

Spring interest

Autumn interest

Ornamental

Juneberry
Amelanchier lamarckii

Spring interest

Autumn interest

Ornamental

Snowy Mespilus
Amelanchier ovalis

Spring interest

Summer interest

Ornamental

Judas Tree
Cercis siliquastrum

Spring interest

Autumn interest

Trees Suitable For Rain Gardens

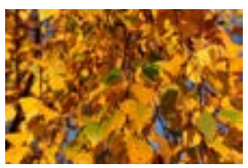
Common Alder
Alnus glutinosa

Summer interest

Autumn interest

Downy Birch
Betula pubescens

Summer interest



Autumn interest

Special Feature Tree

Scots Pine
Pinus sylvestris

Summer interest

Autumn interest

Dawn Redwood
Metasequoia glyptostroboides

Summer interest

Autumn interest

Honey Locust
Gleditsia triacanthos

Summer interest

Autumn interest

7.6.9 BIODIVERSITY AND HABITAT STRATEGY

This section outlines the proposals for ecological design made by Biodiversity By Design.

The landscape proposals for the N18/19 seek to create a variety of different habitats types that will be accessible at ground level for the public. The new habitats will provide a home and feeding ground for invertebrates and insects such as bees, butterflies and moths which in turn will pollinate flowers. The proposals will also help to provide, 'social, cultural, educational, health and recreational benefits through increased and improved biodiversity', and contribute to making people's experience of the local area a more enjoyable and rewarding one.

Woodland Shade Planting

The series of cascading gardens through The Gateway create a fly through canyon which could be foraged by bats. Night-flowering species have been included in the planting palette to attract insects on which bats may forage.

Rain Garden/Swales

The ecological value and treatment functions of the swales will be enhanced through the local incorporation of the following:

- Check weirs/ small dams.
- Local in-channel boulders and cobbles.
- Local in-channel installed deadwood (horizontal logs with bark).

Bird Refuges

Common songbird will be installed within this space either installed on trees, free-standing poles such as pergola supports or affixed to walls (not in full sun).

Roof Terraces

Invertebrate hotels

The height and aspect of the roof terraces make them ideal locations for installation of invertebrate hotels as here they will be an additional educational feature for the residents. They will be incorporated next to planters with abundant flower forage resources and they will face south into full sun.

Parapets

Research has shown best habitat growth on existing living roofs in East Village with the highest parapets Accordingly, the parapets to the proposed green roofs will nowhere be lower than 1.35m.

Windbreak and habitat logs

On all of the biodiverse extensive green roofs bark-on native hardwood logs will be installed to provide local shelter. The logs will be placed in groups of 3 creating crescents with the outer bend facing the prevailing south-westerly wind.

Sand and gravel mounds for burrowing invertebrates

Within certain areas of the roof terraces in N18 and N19 it will be recommended the integration of areas with sand, gravel in the form of a barchan dune with the highest level facing the southwest. Burrowing invertebrates could populate them enriching the ecological value.

Black Redstart Refuges

Black Redstart Cave nest box are to be installed on extensive green roofs. Ideally rested on rooftop plant above the green roof level (see image adjacent). This is a proprietary insulated and grill-protected (to deter use by pigeons and gulls) design that integrates within it a 1HE Schwegler Brick Box. These are to be installed on extensive biodiverse roofs raised up on slab or rooftop plant, with the exits of the boxes facing north and with unobstructed views over the wildflower sward.

Swift Refuges to Parapet

Nesting refuges for Swifts 16S Schwegler incorporating Starling baffle or functional equivalent are to be installed under parapet level of north-facing aspect on both towers at the level of the intensive roof gardens and at the highest level.

Swifts typically feed between 50 and 100 m above ground level and placing nesting refuges at the heights proposed 'brackets' this feeding zone.

Common songbird refuge with 32 mm entrance aperture

Invertebrate hotels

Habitat logs at roof level

Black Redstart Refuge

Fig.275 Illustrative examples of habitat proposals

Habitat Types

- Native shrubs at ground level
- Herbaceous planting at ground level or apparent ground level (deep podium deck)
- Native shrubs on deep podium deck
- Proposed Tree Canopy
- Retained Tree Canopy
- Intensive green roof
- Extensive green roof
- Herbaceous planting at roof level

Wildlife Refuges

- Common Songbird Refuges
- Invertebrate Hotels
- Windbreaks and habitat logs
- Sand and gravel mounds for burrowing invertebrates
- Black Redstart Refuges
- Swift Refuges to north facing parapet
- The extent of the deep podium deck

Fig.276 Diagram illustrating proposed locations of ecological design interventions

7.6.10 URBAN GREENING FACTOR

Introduction

London Plan Policy G5 requires all major developments to include urban greening as a fundamental element of site and building design. The policy introduces the use of an Urban Greening Factor (UGF) to evaluate the quantity and quality of urban greening provided by a development proposal. It is intended to provide an easily accessible means by which local authorities can score the merits of various green infrastructure and SUDS interventions across the urban environment. Covering a wide range of options including, but not limited to, street trees, green roofs, green walls, and rain gardens.

For the purpose of the exercise reference has been made to the Mayor of London's London Plan Guidance, ' UGF Pre-consultation Draft March 2021'. The development proposals UGF allocates a factor to various types of surface cover included in planning proposals. The factors are a simplified measure of the various benefits (ecosystem services) provided by soils, vegetation and water. The water-holding capacity of surface cover and associated soil is a good proxy for their 'naturalness' and their ability to provide the range of benefits associated with more natural systems including benefits in relation to health, climate change adaptation, air quality improvement and biodiversity conservation.

- Factors between 0 and 1 (in increments of 0.1) are allocated to each surface cover type. In calculating the UGF the overall area of the development site is measured and then the area of various surface cover types, proposed as part of the new development, are mapped and measured (see example opposite from the London Plan).

- A factor (a weighting for the naturalness and functionality) is then assigned to each surface cover type.

- To calculate the overall UGF score factor for each surface cover within a site is multiplied by its area. This generates a series of figures which are then added together. This new total is then divided by the site overall site area to give a UGF score (see example opposite from the London Plan). This score can then be compared with a target set by the planning authority.

The planting types, factor scores and calculation formula that we have used to calculate the UGF for the development proposals is summarised opposite. These have been extracted from the Mayor of London's London Plan Guidance, ' UGF Pre-consultation Draft March 2021'.

It is recognised that the UGF is a tool to help translate urban greening policy objectives into practice. They should be used in combination with the full suite of policies that relate to amenity, green infrastructure and biodiversity and are usually applied in concert with combinations of green infrastructure and biodiversity strategies, district plans, neighbourhood plans, landscape plans, masterplans and design codes.

The UGF boundary totals an area of 8923m^2. The UGF boundary is different from the application boundary. It has been agreed to discount areas on Anthems Way from the UGF calculation as these are largely existing hardscape areas where only minor alterations are proposed to the existing arrangement.

Calculating the UGF

The following steps should be followed to calculate the overall UGF score for a proposal:

- Assign each surface cover type in the development the corresponding UGF factor in line with the factor scores in Fig.83.
- Measure the area of each surface cover type in m^2.
- Multiply the factor score by the area of the corresponding surface cover type.
- Add the scores together for each surface type.
- Divide the combined score by the total site area in m^2 to determine the scheme's UGF score.

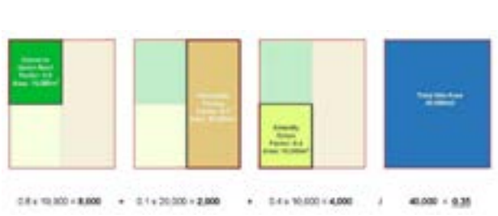


Fig.277 Diagram illustrating how UGF is calculated

Surface cover type	Factor
Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1
Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	1
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm.	0.8
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.	0.8
Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014.	0.7
Flower-rich perennial planting.	0.7
Rain gardens and other vegetated sustainable drainage elements.	0.7
Hedges (line of mature shrubs one or two shrubs wide)	0.6
Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.6
Green wall –modular system or climbers rooted in soil.	0.6
Groundcover planting.	0.5
Amenity grassland (species-poor, regularly mown lawn).	0.4
Extensive green roof of sedum mat or other lightweight systems that do not meet GRO Code 2014.I	0.3
Water features (chlorinated) or unplanted detention basins.	0.2
Permeable paving.	0.1
Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone)	0

Fig.278 Surface cover types and factor scores (UGF Guidelines)

7.6.11 URBAN GREENING FACTOR PROPOSALS & SUMMARY

The landscape proposals include a variety of different habitats which make up over 3,431m² across the development. These have been translated into 'surface types' as set out in the London Plan Guidance for calculating UGF (March 2021) – summarised on previous page.

The UGF target is 0.4 This is based on a predominantly residential development. The proposals UGF breakdown is summarised opposite in the colour coded table. This confirms the proposals achieve a UGF of 0.34.

This falls short of the target UGF for the development. The UGF has been under constant review from the initial stages of the design to improve its rating. Through the design development of the scheme the UGF has been raised from 0.26 to the current 0.34. A number of site constraints have limited the proposals ability to reach the target score. These include the need for the site to provide appropriate areas of hardstanding to provide safe and accessible circulation, playspace provision and usable space within the public realm to sit and relax.

The site in its existing condition records a score of 0.29. The development proposals improve this score to 0.34 by increasing the quantity and quality of urban greening surface types.

We have used the UGF to develop a proposal that carefully considers the most appropriate type of planting and level of 'greening' across the development. This has been based on and influenced by a number of contributing factors as set out below.

Shape and size of the site

The site needs to respond to its strategic location as a gateway to East Village, adjacent to the DLR station and with a wide network of connections. Hardscape areas have been designed appropriately to accommodate the expected foot traffic as people converge on the station. Additionally, a level difference of 5m between Victory Park Level and Station Square.

Overall the proposals achieve the highest UGF on site that would appear reasonably feasible and desirable by providing extensive areas of planting including lower-level perennial planting, trees, and rain gardens. The hard landscape has been reviewed to identify areas appropriate for permeable paving. Green roofs have been proposed to provide a biodiverse planting complementing the proposed at ground level.

Urban Greening Factor Calculator				
Key	**Surface Cover Types**	**Factor**	**Area (m²)**	**Contribution**
	Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	**1**	**264**	**264**
	Wetland or open water (semi-natural; not chlorinated) maintained or established on site	**1**	**0**	**0**
	Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm.	**0.8**	**414.8**	**331.84**
	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.	**0.8**	**485**	**388**
	Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014.	**0.7**	**1235**	**864.5**
	Flower-rich perennial planting.	**0.7**	**868**	**607.6**
	Rain gardens and other vegetated sustainable drainage elements	**0.7**	**368**	**257.6**
	Hedges (line of mature shrubs one or two shrubs wide)	**0.6**	**88**	**52.8**
	Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree	**0.6**	**273**	**163.8**
	Green wall –modular system or climbers rooted in soil.	**0.6**	**0**	**0**
	Groundcover planting.	**0.5**	**199**	**99.5**
	Amenity grassland (species-poor, regularly mown lawn).	**0.4**	**0**	**0**
	Extensive green roof of sedum mat or other lightweight systems that do not meet GRO Code 2014.I	**0.3**	**0**	**0**
	Water features (chlorinated) or unplanted detention basins.	**0.3**	**0**	**0**
	Permeable paving.	**0.1**	**272**	**27.2**
	Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone)	**0**	**0**	**0**
			Total Contribution	**3056.84**
			Total site area (m²)	**8923**
			Urban Greening factor	**0.34**

N18/19 is a plot within a wider masterplan, which has mostly been completed. The areas of public realm which have already been delivered in advance of this site have provided extensive urban greening. The proposals also facilitate the enhanced UGF of Victory Park and Belvedere, these green areas will be enhanced as part of a separate application targeting a higher UGF than the existing one. The proposals described here should not be considered in isolation but in the overall context of the increased urban greening the East Village masterplan has already provided.

The redline boundary of UGF calculation is based on the area of the main interventions and excludes the retained existing hardscape adjacent to Anthems Way, which is different from the N18/N19 application boundary.

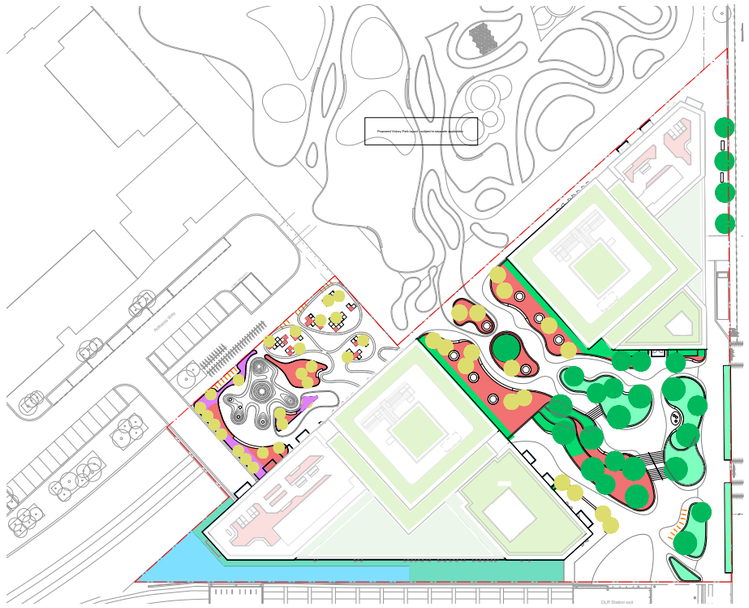
Key

- N18/N19 application boundary
- UGF boundary
- Semi-natural vegetation
- Intensive green roof
- Standard trees in soil cells 25m3 (hardscape)
- Extensive green roof
- Perennial Planting
- Hedges
- Standard trees
- Groundcover Planting
- Rain gardens
- Permeable paving

Fig.279 Diagram showing location of proposed surface cover types

7.6.12 UGF BREAKDOWN

The Urban greening Factor score has been broken down to demonstrate how each level of the public realm and building have been reviewed to maximise greening.



Ground Floor UGF – 0.2079

Semi Natural Vegetation – Factor 1
264m²x1=264

Standard Trees in connected pits – Factor 0.8
483m² x 0.8 = 386.4

Flower Rich perennial – Factor 0.7
721m² x 0.7 = 504.7

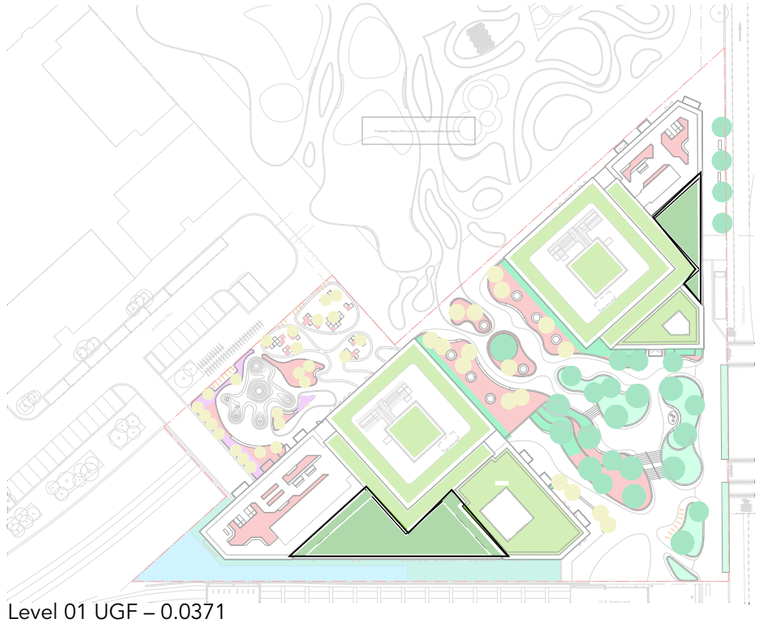
Rain Garden – Factor 0.7
361.6 x 0.7 = 362.3

Hedges – Factor 0.6
88m² x 0.6 = 52.8

Standard Trees – Factor 0.6
314 x 0.6 = 188.4

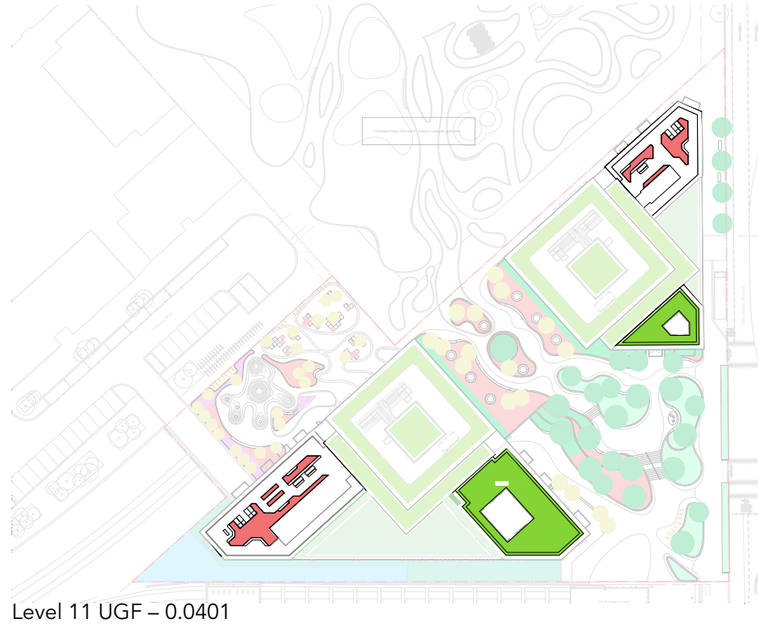
Ground Cover – Factor 0.5
140.1x 0.5 = 70.05

Permeable Paving – Factor 0.1
272 x 0.1 = 27.2
1,855.85/ 8923 = 0.2079



Level 01 UGF – 0.0371

Intensive green roof – Factor 0.8
414.8m² x 0.8 = 331.84
331.84/8923=0.0371



Level 11 UGF – 0.0401

Extensive green roof - Factor 0.7
382m² x 0.7 = 267.4

Flower Rich perennial - Factor 0.7
130m² x 0.7 =91

358.4 / 8923= 0.0401

Level 30 UGF – 0.0095

Extensive green roof – Factor 0.7
131m² x 0.7= 91.7

91.7/9628 = 0.0095

Level 35 UGF – 0.031

Extensive green roof – Factor 0.7
428m² x 0.7 = 299.6

299.6/9628 = 0.031

Level 40 UGF – 0.0215

Extensive green roof – Factor 0.7
296m² x 0.7 = 207.2

207.2/9628 = 0.0215

7.6.13 LIGHTING STRATEGY

The lighting strategy is an important contribution to the scheme in terms of the quality of its appearance during both daylight hours and night time. Lighting is probably one of the best tools in aiding the creation of landscape ambiences throughout the public realm. A carefully detailed lighting plan will accentuate the pedestrian routes while highlighting areas of the softscape while crafting spaces with subtle illumination, giving the impression of a more sedate and tranquil experience. Regardless of the strategies applied and the subtleties in the different ways of lighting up a space, providing a sense of welcome, discouraging crime and vandalism, and making residents and street users feel secure will be a common thread across the public realm.

Therefore, the strategy responds to two different parameters that complement each other. The lighting must have an aesthetic component as well as a relationship with the landscape; for example, the lighting should highlight the cascading landscape that runs between N18 and 19. Meanwhile, mood and ambience are needed to create an evocative landscape during the night while also responding to the detailed technical assessment provided by the lighting specialist.

The external lighting strategy has an aspirational and evocative rationale and aims to design an engaging and inspiring public space during the night, delivering a luminous yet subtle effect while ensuring it is secure, accessible, and responsive to environmental and ecological requirements. The strategy is to accentuate the pedestrian routes while highlighting areas of the softscape and crafting spaces with subtle illumination, giving the impression of a more sedate and tranquil experience.

The key principles for the lighting strategy in this area for the ground floor include a few points:

- Accessibility
  One of the main lighting strategies is to ensure the safety of accessible routes through the public realm between buildings. It should make residents and other street users feel secure and discourage crime and vandalism. The pole-top luminaire is placed along the access routes from the station square to the residential lobby and to Victory Park to provide a sense of safety.

- Identity
  The lighting feature is a key element in enhancing the quality of its appearance in the public realm during both daylight hours and nighttime. It can provide a sense of welcome and arrival to give a strong identity to the space. The entrance of the building is demarcated as a destination by the use of a recessed luminaire in the canopy of the lobby entrance as well as by the in-ground linear LED profile, which in conjunction with the paving pattern defines a directionality, delivering an aesthetically pleasing effect as well as aiding the navigation across the public realm.

- Wayfinding
  The lighting feature is an essential part of the wayfinding strategy and plays an important role, especially at night. The linear LED strip under the seating and planters will lead the visitors across the landscape's immersive pedestrian routes, while the floating lanterns will indicate focal points and seating areas.

As part of the sustainability strategy, the creation of new habitats and the desire for a luminous yet subtle landscape, light pollution will be avoided by using fittings that enable the horizontal light distribution to be cut off, preventing upward sky pollution.

The spectrum and colour of the lamps and quality of the light will vary but will favour warm tones, making the landscape inviting, subtle and elegant. In a way, the lighting will give the effect of an ethereal scheme in which the lighting works by emphasizing the softscape and the routes avoiding hard lighting. The system will also be compliant with more pragmatic elements, such as having a lighting control system providing readily adjustable means of altering times and intensity. The lighting will also be developed to prevent wasted lamp operating hours and energy.

Finally, while the lighting strategy is built on a solid practical ground, it aims to achieve emotional, evocative, and sensorial lighting, transforming the cascading green into a luminous landscape.

Fig.280 Precedents illustrating the intended external lighting mood and character envisaged

Key

X1: Pole top luminaire
6m height
3000K CCT, 110W

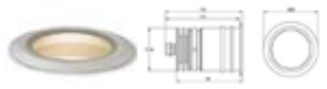
X4: Spiked uplights to trees
3000K CCT, 11W
Exact number of fittings and location TBC with tree information during next stage

X3: Flexible linear LED strip under seating & under planting
3000K CCT, 10W/m
Mounting detail TBC during Stage 4

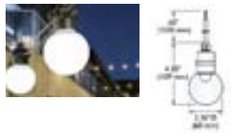
X2: Inground linear LED profile for making entrance
1200mm length
5.2W
3000K CCT

X7: Canopy slot recessed linear LED grazer washing wall
3000K CCT, 24W/m

X8: Canopy recessed luminaire - 1250mm diameter
3000K CCT, 107W, 10300lm



X9: Ground recessed uplights
3000K CCT, 6.2W, 10300lm



X5: Festoon lighitng with G19 globe
2500K CCT, 0.2W/globe, 4m suspension height from X1 luminaire

Fig.282 Examples of column lighting

Fig.281 Diagram illustrating proposed external lighting strategy (ground level)

Public Realm Between N18 and N19 Buildings

Lighting calculation result: Average lux level on show vehicular & pedestrian routes: 42.1lx. Uniformity:0.29

LTG Calculation notes: only functional lighting is included in the calculation: Concealed liner LED, inground uplights to canopy & spiked uplights to trees are not included.

GARDEN LOUNGE AREA

Lighting calculation result:

Average lux level: 37.1lx

Uniformity: 0.50

LTG Calculation notes: only functional lighting is included in the calculation.

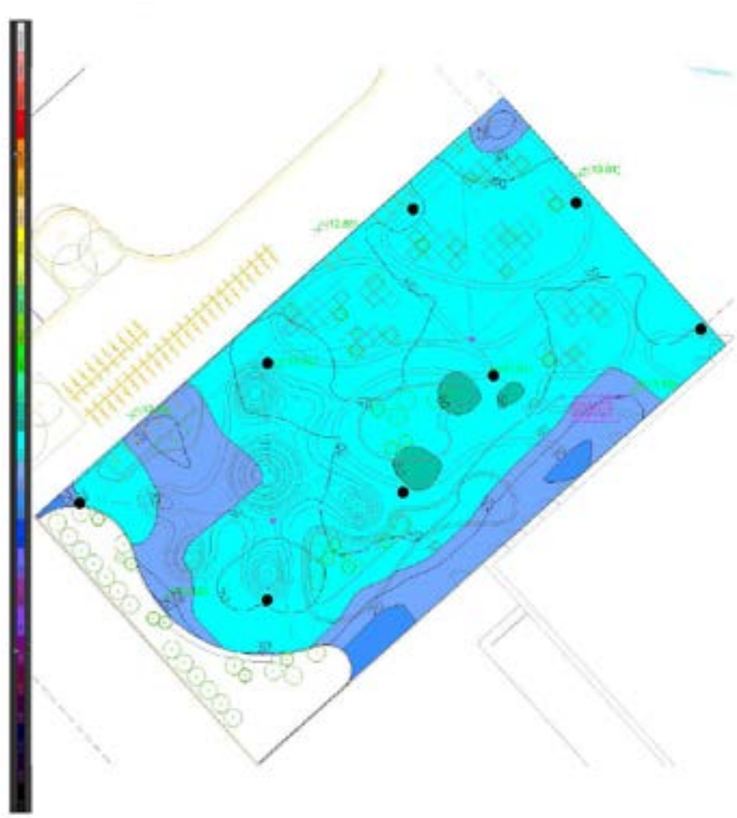


Fig.283 Illustration of lighting calculation result in the garden lounge area

Fig.284 Illustration of lighting calculation result in the public realm between N18/N19 buildings

7.6.14 ROOF TERRACE LIGHTING PROPOSALS

Proposals to light the roof top amenity space have been developed to extend the use of the space into the evening and darker months. Lighting fixtures are concealed within planters or integrated into the surface or furniture to reduce visual clutter of the fixtures themselves.

Strip lighting around the perimeter of the planters and integrated into the planter metal edge and benching provides key lighting to the primary circulation spaces around the terrace.

Feature lighting highlights key areas of planting and specimen shrubs. Uplighting defines the structure of multistem trees to create visual interest. To give a sense of arrival to the roof terrace by using the surface-mounted spotlight on the pergola, and the additional surface-mounted wall light.

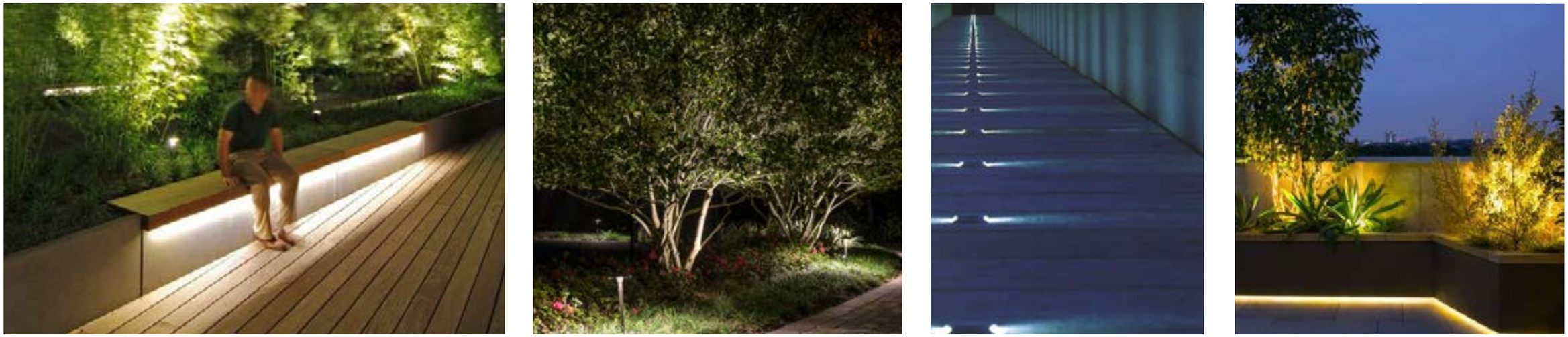
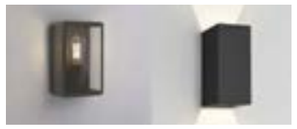


Fig.285 Precedents illustrating the intended external lighting mood and character envisaged

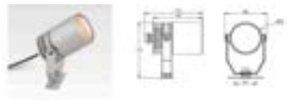
Key

X3: Flexible linear LED strip under seating & under planting
3000K CCT, 10W/m
Mounting detail TBC during Stage 4

X4: Spiked uplights to trees
3000K CCT, 11W
Exact number of fittings and location TBC with tree information during next stage



X6: Surface mounted wall light
3000k CCT, Wattage TBC



X7: Surface mounted spotlight to pergola
3000K CCT, 14W

L11 Roof Terrace

The L11 roof terraces create an engaging journey for residents. The low level lighting, such as spike lights at planters and low level furniture lighting would enhance this journey and provide functional light levels for safety measure.

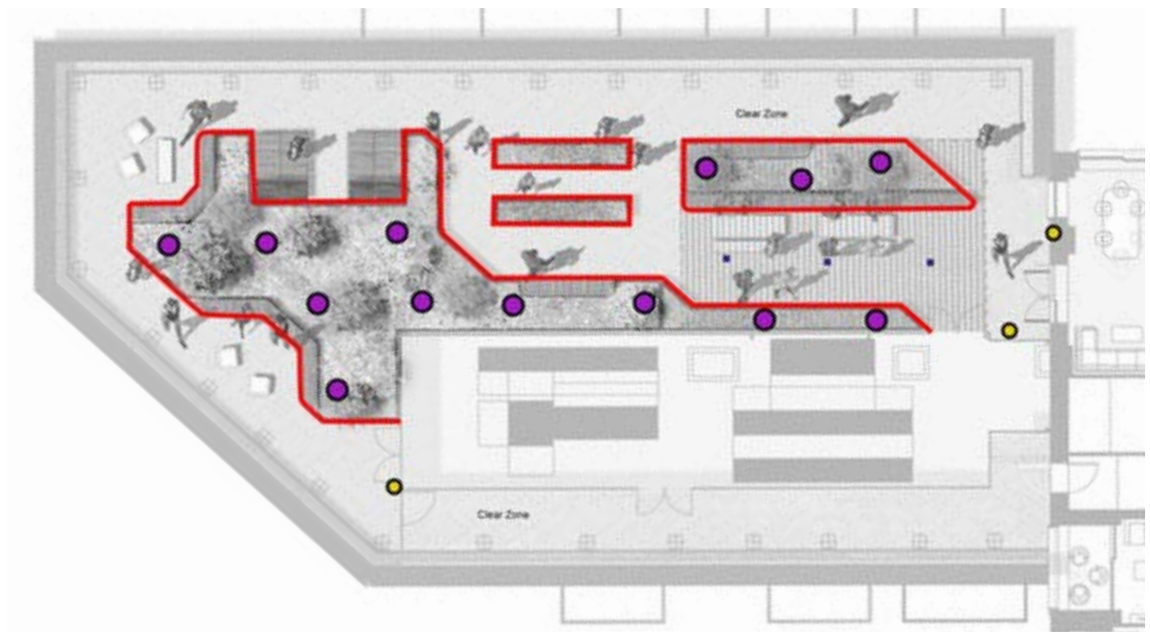


Fig.286 Diagram illustrating proposed external lighting strategy at N19 Roof Terrace

Fig.287 Diagram illustrating proposed external lighting strategy at N18 Roof Terrace

L11 Roof Terrace

N18 – L11 Terrace: Average lux level 67.1lx; minimum uniformity not required for this area as it is not a public realm space.

LTG Calculation notes: Only functional lighting such as integrated linear LED to planting is included in the calculation; spiked uplights to trees and wall lights are not included.

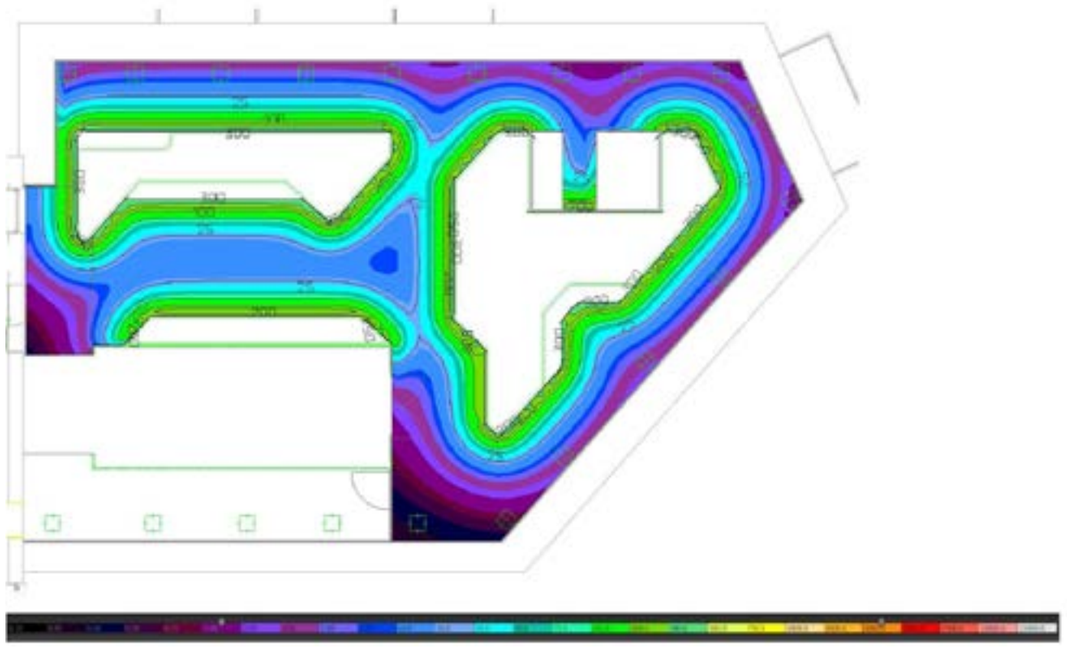


Fig.288 Illustration of lighting calculation results in the N18 roof terrace.

N19 – L11 Terrace: Average lux level 64.5lx; minimum uniformity not required for this area as it is not a public realm space.

LTG Calculation notes: Only functional lighting such as integrated linear LED to planting & surface mounted spotlights are included in the calculation; spiked uplights to trees and wall lights are not included.

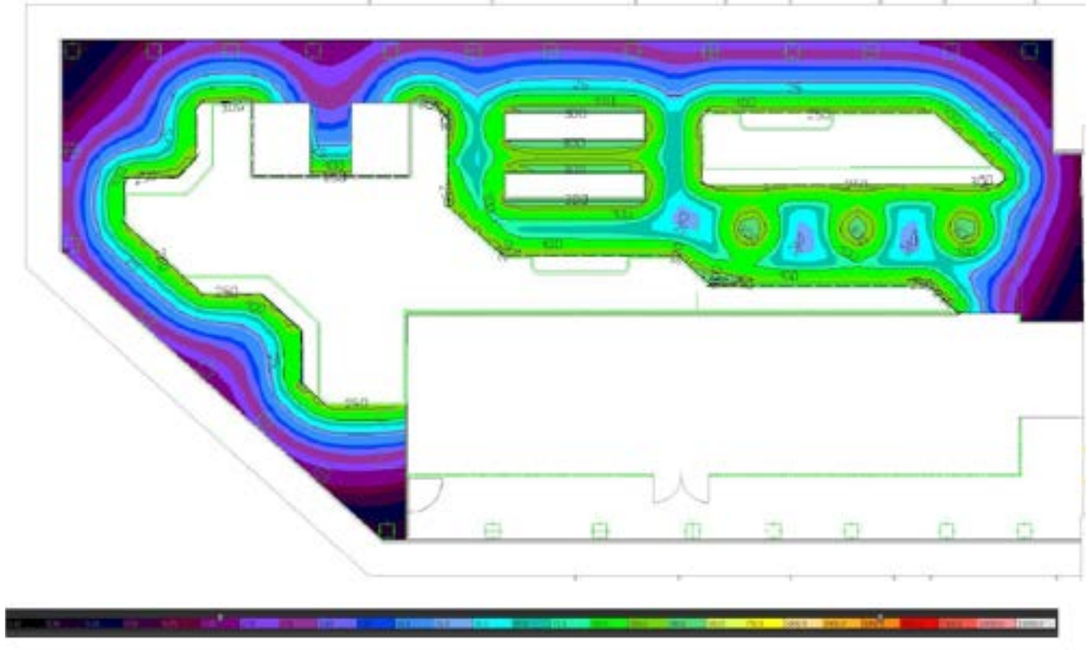


Fig.289 Illustration of lighting calculation results in the N19 roof terrace.

7.6.15 DELIVERY OF THE PUBLIC REALM: ZONES

This Section sets out the phasing strategy associated with the delivery of public realm.

During the pre-application process, and as the proposals evolved, the LLDC PPDT stressed the importance that the proposals for N18/N19 and N16 as a whole look beyond the redline boundaries for the immediate Plots and make other contributions to the public benefit (this, notwithstanding, that substantial and significant benefits had already been delivered pursuant to the SC OPP (inc principal areas of public realm and streetscape which include all roads, pedestrian and cycle routes). Early on in the process, a significant opportunity was identified (in consultation with and the support of the LLDC PPDT) to make substantial refinements and improvements to the existing public realm areas at East Village.

As explained during the design process, the significant and comprehensive design of the public realm improvements overlap significantly with the proposals for N16 and N18/19 (both in design terms and delivery). The public realm proposals include public realm components which preserve and improve existing open space infrastructure and comprise a central part of the broader consideration around the massing and density of the development to come forward on Plots N18/N19 and N16 (albeit the density for Plots N18/N19 and Zone 3 in its entirety has already been established under the SC OPP). The delivery of the public realm improvements is therefore intrinsically linked and can only be realised by bringing forward the proposals for the development plots in full.

In order for those full benefits to be realised, the way in which specific areas of open space enhancements are delivered is yet to be determined in detail but is predicated on the delivery of Plots N18/N19 and N16. They are also informed by several factors, including, but not limited to:

- The need to ensure that the sequencing of works does not render the entire public realm/open space areas unusable by the general public;
- The need for some existing play/open space infrastructure to be delivered with respective Plots e.g. the reprovision of the NEAP with Plots N18/N19;
- That once both Plots N18/N19 and N16 are delivered, the full benefits of the public realm improvements can be realised.

Accordingly, the diagram overleaf indicatively shows how the public realm works could be zoned. This indicatively shows that:

- The delivery of the "Belvedere" Zone will be linked to the delivery & occupation of Plot N16. This includes the LEAP;
- The delivery of "Victory Park South" Zone will be linked to the delivery and occupation of Plots N18/N19. This includes the relocation of the existing NEAP and relocation of the existing area of wilderness and mirror maze;
- The delivery of "Victory Park North" Zone will be linked to the delivery & occupation of both Plots N18/19 and Plot N16. This includes the remainder of the public realm proposals including the canopy structure and pavilion.

It is expected that the finer details associated with the precise nature of triggers/linkages between the delivery of discrete public realm areas and Plots will be the subject of on-going discussions with the LLDC PPDT.

Key

- Plots N18 & N19 boundary line
- Plot N16 boundary line
- Victory Park & Belvedere boundary line
- Belvedere
- Victory Park South
- Victory Park North

8.0
Lighting Proposal

8.1 Exterior Lighting Design Strategy

Exterior Lighting design principles

Illuminance level design criteria (guidance)

Lighting requirements recommendation for security lighting of public realm areas

Occupancy	Maintained illuminance level (lux)	Maximum value of glare rating (GR)	Minimum colour rendering (Ra)	Uniformity of illuminance (u)
Building Façade	5	-	-	0.10
Entrances / Gatehouses	100	-	-	-
Outdoor staircase	5	-	-	0.10
Parking Areas: external terraced & cycle parks	15	-	-	0.30
Traffic areas for slowly vehicles (bicycles)	10	50	20	0.40
Walkways exclusively for pedestrians	5	50	20	0.25

Society of Light and Lighting SLL Code for Lighting (2012), London CIBSE

Guidance regulations used on this document (UK guidance)

- CIBSE SLL Code for Lighting (2012).
- CIBSE LG6 Outdoor Lighting (2016).

ILP Guidance Notes for the Reduction of Obstruction Light

GN01 define environmental zones appropriate to the location of the proposed development.

Table 2: Environmental zones appropriate to the location of proposed development

Zone	Description
E0	UNESCO Starlight Reserves, IDA Dark Sky Parks
E1	Intrinsically dark areas – national parks and areas of outstanding natural beauty
E2	**Low district brightness areas – rural or small village locations**
E3	Medium district brightness areas – small town centres or urban location
E4	High district brightness areas – town or city centres

Therefore, in addition to the criteria provided in the ILP Guidance Notes, the impact magnitude and significance and duration of the impacts will be evaluated using the assessment scaled outlined below.

The environmental zone appropriate for the proposed development is considered to be Zone E3. The obtrusive light limits defined in IPL GN01 are summarised below.

Table 3: Obtrusive light limits

Zone	Sky glow UWLR[1] (Max %)	Light into Windows Ev[2] (lux) Pre/Post Curfew	Source Intensity I[3] (kcd) Pre/Post Curfew	Average Building Luminance L[4] (cd/m²) Pre-curfew
E0	0	0	0	0
E1	0.0	2.0/1.0	2.5/0.0	0.0
E2	**2.5**	**5.0/1.0**	**7.5/0.5**	**5.0**
E3	5.0	10.0/2.0	10.0/1.0	10.0
E4	15.0	25.0/5.0	25.0/2.5	15.0

8.2 Exterior Lighting Design Principles – Executive Summary

Criteria analysed on this report to comply with the SBD (Secure by design) Guidance

- Appropriate amount of light
  - Good lighting in dark areas can enhance one's feeling of safety and deter the criminal from committing offences.
- Uniformity (Uo)
  - Even distribution on light across the area being illuminated.
  - High level of uniformity where there are CCTV cameras allocated.
  - The overall uniformity of the light for is expected to achieve a rating of Uo 0.4, and should not fall below Uo 0.25.
- Colour Rendering
  - The ability of lighting to show the colours of objects as close to their true tint, hue and tone as possible.
  - The colour rendering qualities of lamps used should achieve a minimum of Ra 60.
- Light Pollution
  - Where the lighting installation causes "nuisance" to others not directly involved.
- Energy Efficiency
  - The lighting equipment specified making efficient use of the electrical energy used.
  - Considerations needs to be given to the sustainability of the system and the usage of LEDs should be considerate. Out of hours the turning off of lighting may be deemed appropriate, but the usage of CCTV support may be activated by passive infra-red (PIR) detectors, proposed by the MEP team.

Public Spaces

The lighting of public places and amenity areas will be the responsibility of the Local Authorities or private landlords, but the lighting principles remain the same.

Good Lighting

- Adequate illuminance levels.
- Good Uniformity / High levels for CCTV.
- Low light pollution.
- Good Aesthetic appearance.
- Regular maintenance.
- Vandal resistant equipment & materials.

Bad Lighting

- Inadequate illuminance levels.
- Low level of Uniformity / High levels for CCTV.
- Light pollution / trespass.
- Unprotected column positions.
- Poor maintenance.

Security Lighting

- The functionality of the security lighting is to help to protect people and property from criminal acts. Other forms of lighting, such as outdoor display lighting, decorative lighting, floodlights, shop window and park lighting can contribute to it.
- Good lighting is designed to help everyone see clearly all around. People approaching can be easily identified and other people's activities can be seen from a distance.
- Lighting is one part of the security system. The complete system includes a physical element and CCTV cameras for remote surveillance of large areas. There is a minimum illuminance level required to have the CCTV cameras and a high level of uniformity for the image to be clear.
- The recommendations for security lighting involves maintained illuminance levels, uniformity and glare control, also important are the colour rendering properties.

8.3 Exterior Lighting Design Principles – Safety for Women and Girls

Extracts from Safety for Women & Girls consultation report by ARUP

April 2022

Arup have been commissioned by the London Legacy Development Corporation to produce a Consultation Report, detailing the findings of a public consultation into the safety of women and girls in public spaces and across the Legacy Corporation area.

The consultation forms part of a wider review encompassing a number of ongoing initiatives, including the London Women's Safety Night Charter, ongoing consultation with Legacy Youth groups, and lighting audits across the park.

Key points related to lighting concerns:

- A lack of sufficient, consistent and quality lighting at a human scale.
- And along key pedestrian and active travel routes.
- Safety at night relates to lighting, but not only: spaces are used differently at night, for different purposes, and people may have specific associations with night and evening that lead them to feel more unsafe than they otherwise would.

Key actions related to lighting concerns from above:

- Design guidance or interventions to increase visibility and choice, to encourage positive usage and to provide human-scale lighting.
- Lighting audits and records of lux levels across the estate.
- Review of CCTV coverage and signage.
- The key takeaway for this project is that lighting conditions – central to women's perception of safety, according to the consultation feedback – must be considered and balanced against the ecological needs of the site.

Key findings & actions for East Village area:

Theme	Issue	Recommendation
Lighting	42% reported the area as too dark, particularly Mirabelle Gardens (5 responses) and the entrance to Victory Park (3 responses). Low light levels in parks and residential areas can provide spaces for people (e.g. groups of young people) to congregate and create quieter streets. This can be beneficial; however, it is recommended to always provide a choice of routes.	Provide a choice of routes including some well-lit routes that are positioned away from areas where large groups congregate. This could be on a small scale – e.g. positioning some street furniture set back from pedestrian walkways. Low light levels in parks and residential areas can provide spaces for people (e.g. groups of young people) to congregate and create quieter streets. This can be beneficial; however it is recommended to always provide a choice of routes. Providing information at the outset can help to discourage pedestrian through-traffic from passing through quiet residential streets if this may lead people to feel unsafe.

Safety of Women & Girls – how to avoid inadequate lighting

The Free to Be campaign found that lighting was the most important built environment design factor in influencing people' perceptions of safety in public places. This finding is mirrored in the outcomes of the Legacy Corporation consultation.

People's perception and feelings of safety in a night-time environment often differ substantially from actual risks. Generally speaking, lit places are safer than dark areas.

In fact, overly lit nightscapes can reduce the eyes' ability to adapt to darkness and spot danger, especially in areas with varying light levels across adjacent spaces and could subjectively be associated to unsafe places. When considering Jane Jacobs' urban theory on the importance of 'eyes on the street, the ability of more lighting to make spaces safer can be further questioned: rather than seeing lighting as a direct enabler for safety, enhanced illumination should be seen as a means to attract more people to a space, thus creating safety through presence and activity. This highlights that effective lighting for safety requires more than a simple illumination of space.

The quality of the light output is more important than pure lux levels when illumination is low. The ability to distinguish a bush from a person, or the colours someone is wearing, is as important to feeling safe as the ability to see the face of an approaching person.

8.4 Exterior Lighting Design Brief

N18 & N19/ East Village Guidelines and Lighting Principles

Extract from the GHA Architects Stage 2 document

- The Gateway – A unique opportunity to enliven the arrival to East Village, bringing together the resident community with the wider public.
- An immersive landscape journey combined with active public uses that will support a thriving community.
- External space to be an extension of the internal space.
- Fully retractable façade to connect inside & outside.
- Extensive, open garden areas with protection from wind.
- External area to open up onto premium site views.
- Potential for private hire of internal/external space.
- Healthy Living, Access to Nature, Working from Home.

How can lighting design respond to these aims and goals?

1. The landscape lighting design responds to the surrounding areas as much as fulfilling the needs of the occupants.

2. When the design responds to a particular group of society, the key is to make sure the lighting is tailored to meet their needs without excluding others.

3. Lighting has a key role in wayfinding and creating visual hierarchy for better orientation.

4. Lighting compliments the space, creating beautiful surroundings and allowing for relaxing and therapeutic activities after dark.

5. Multiple layers of light and control support a variety of exciting activities and events.

6. Prevent light pollution and considerate lighting for plants and animals.

7. A good lighting design takes into account energy efficiency and maintenance for the people who run the facilities.

8.5 Lighting Design Principles – Park Level

Prevent light pollution and considerate lighting for plants and animals

*Lighting control to take into consideration dark periods

**Further lighting study to be carried out to minimise the negative impact of artificial lighting on the plants and animals that live in the area at RIBA stage 3.

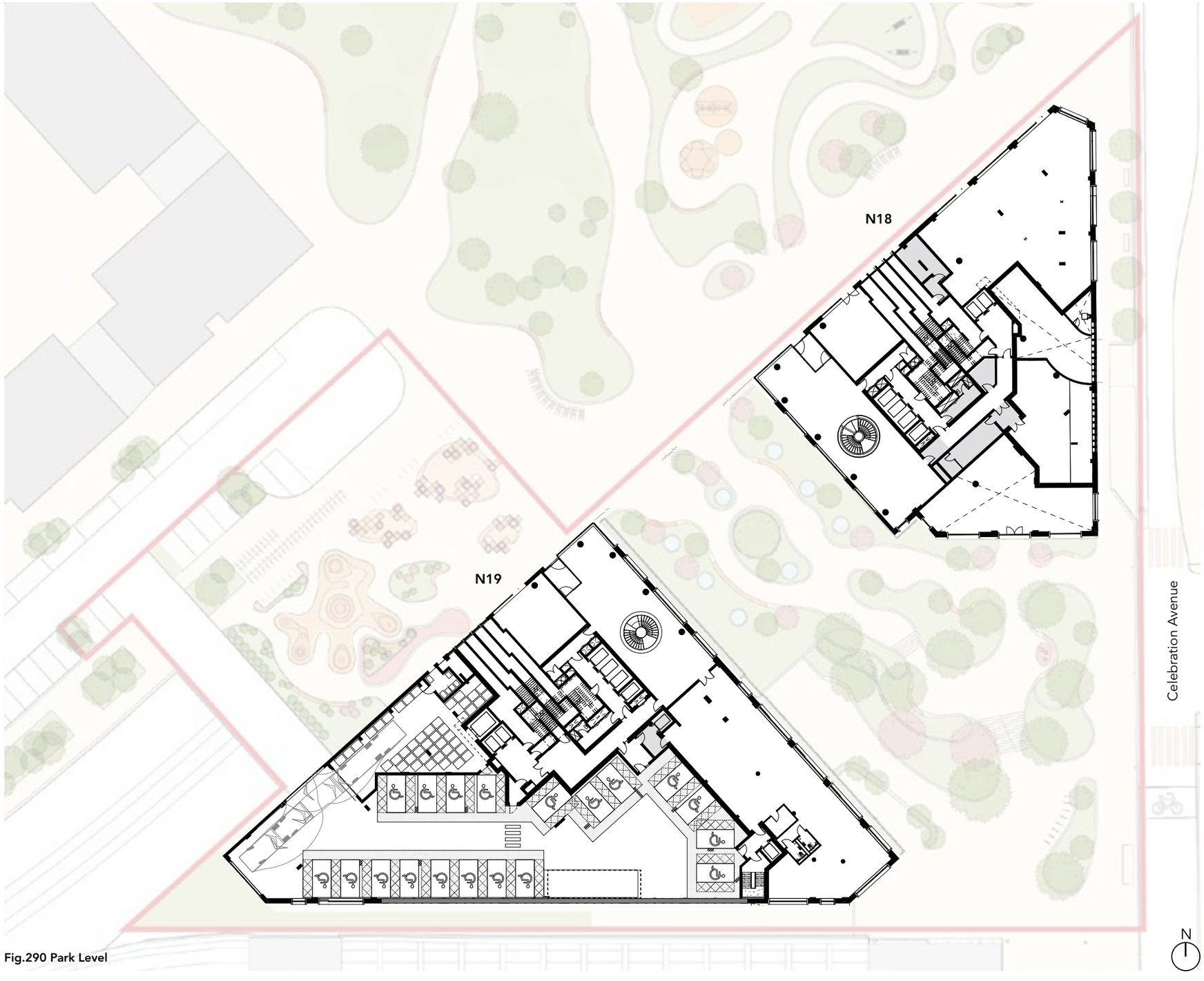


Fig.290 Park Level

8.6 Lighting Design Principles

Energy efficiency, lighting control and maintenance

Dimming, switching and changing

Central management systems are useful and innovative tools for controlling and monitoring lighting. The same system can be used for interior and exterior control. Central management systems can reduce energy use by allowing complex variable lighting levels to ensure that the public remains safe and areas are well lit without compromising the design integrity.

The astronomical clock and sensors take into account the changing daylight period and time due to seasonal variations, along with daily changing light conditions.

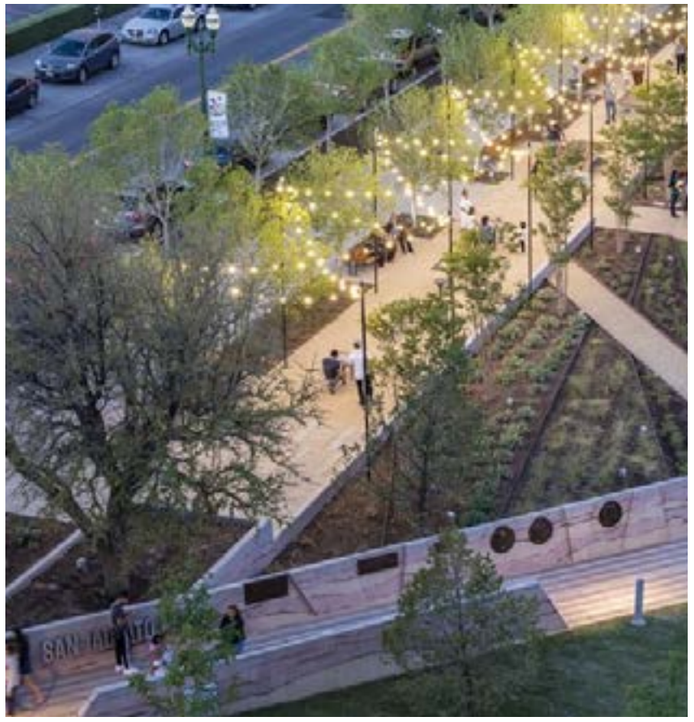
Pre-programmed movement in the lighting scenes can create excitement and engagement with the environment.

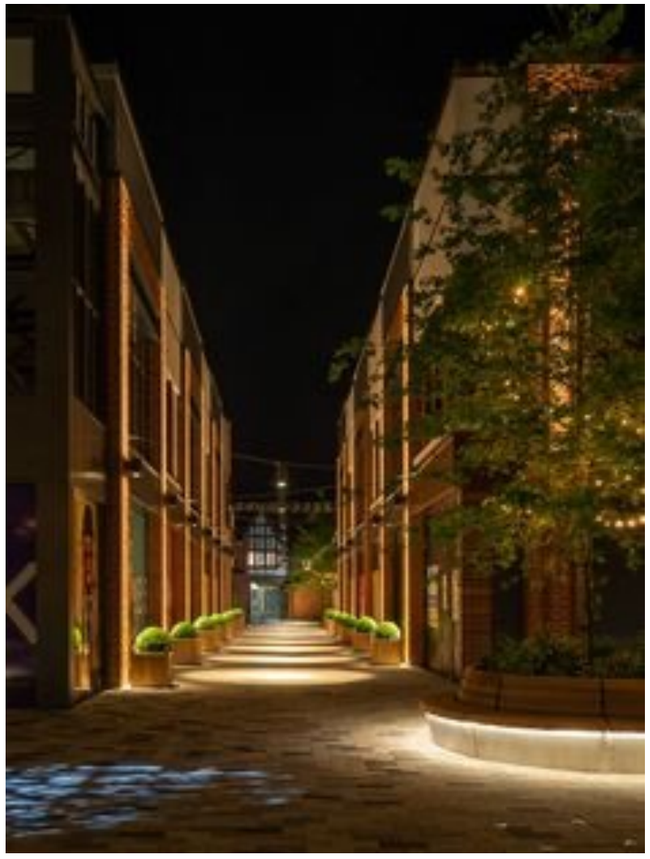
Giving control to the residents would empower them to use the space when they need it, allowing for dark periods over night.

LEDs are ideal for operation under cold and low outdoor temperatures. They also have an outstanding operational life time expectancy up to 50.000 hours. However to fully enjoy the energy-saving and flexibility benefits of LEDs, we need to pay close attention to the maintenance factor as well.

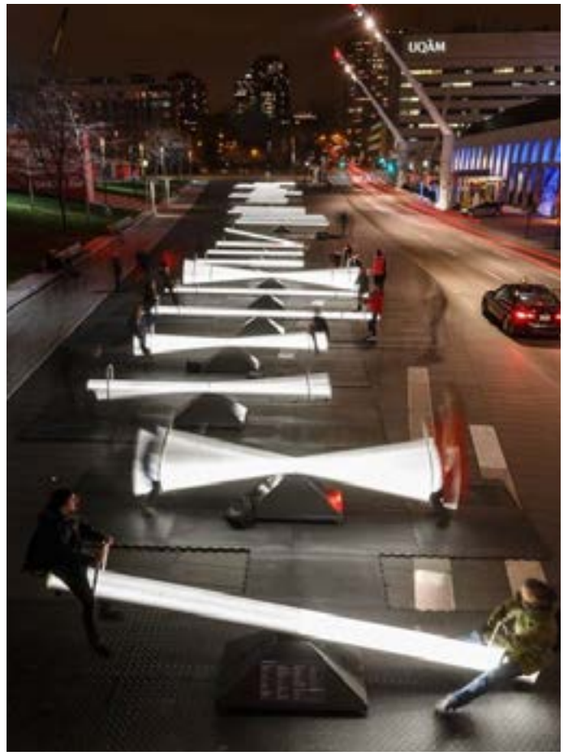
8.7 Lamp Post and Bollard Examples

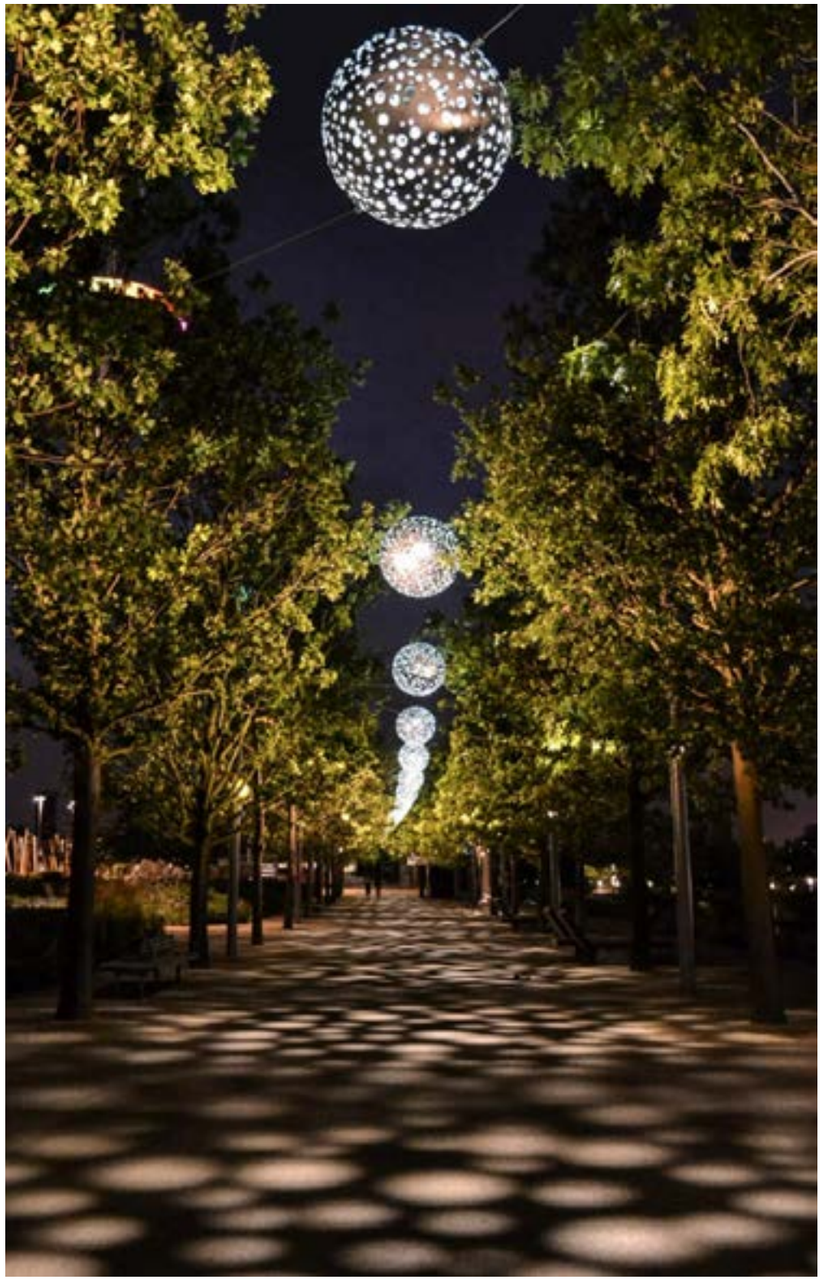
8.8 The Gateway Lighting – Mood Images and Examples



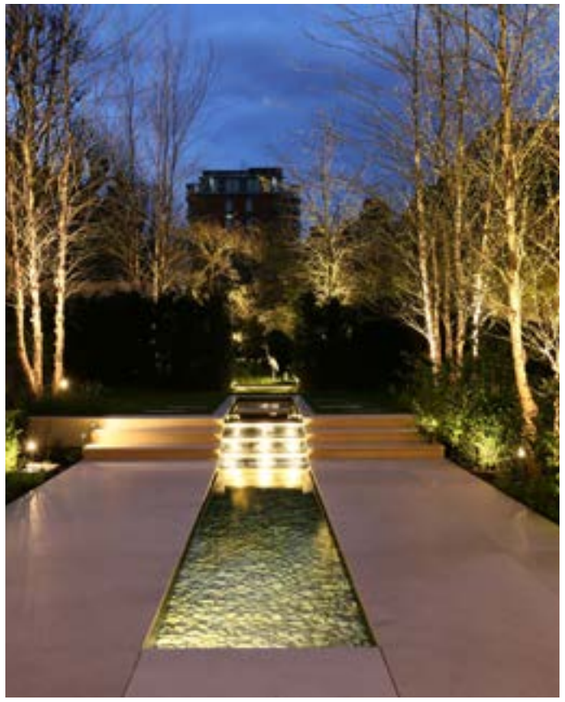


8.9 The Gateway – Inground and Hanging Lights Proposals





8.10 Integrated Linear Lighting – Mood Images and Examples



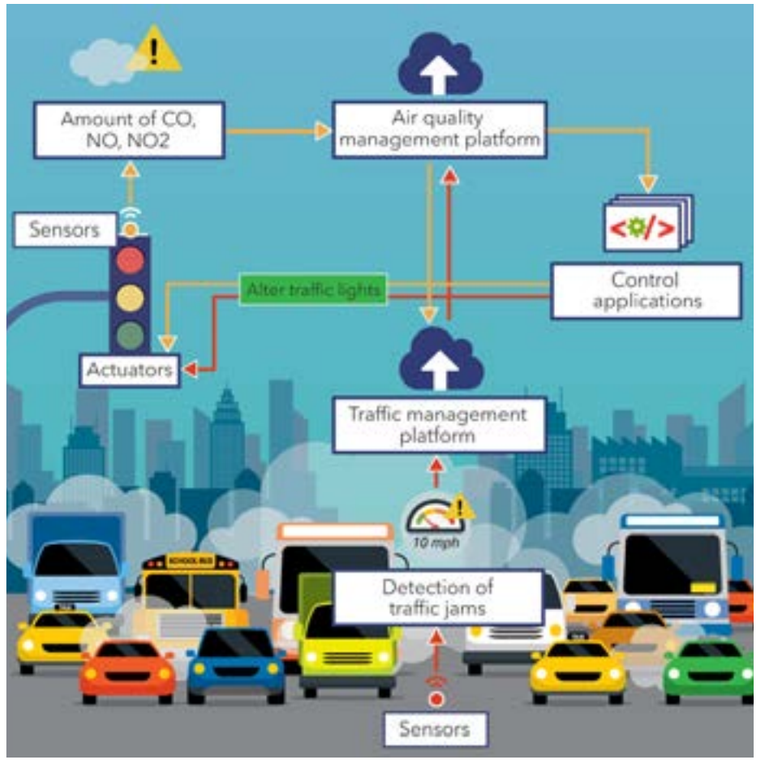
8.11 Smart Modular Systems

Flexibility for light columns

Considering functional and smart modules early in the design process can allow for a harmonious blend into the lighting system and enhance the experience of the space.

Smart functions combined with the lighting function enable the light column to become a key element in consistently designed, networked smart cities. Examples of modules that can be integrated into the light columns are: camera, sensors, control equipment, wi-fi, speaker, power supply, charging station and water supply.

The infrastructure would allow for future development and integration.

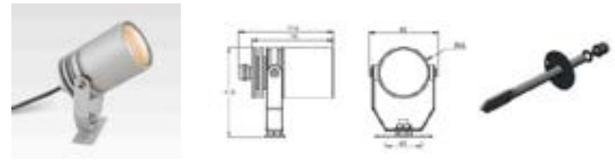


8.12 N18 and N19 – The Gateway (page 1 of 2) – Landscape Lighting

The external lighting strategy has an aspirational and evocative rationale and aims to design an engaging and inspiring public space during the night, delivering a luminous yet subtle effect while ensuring it is secure, accessible, and responsive to environmental and ecological requirements. The strategy is to accentuate the pedestrian routes while highlighting areas of the softscape and crafting spaces with subtle illumination, giving the impression of a more sedate and tranquil experience.

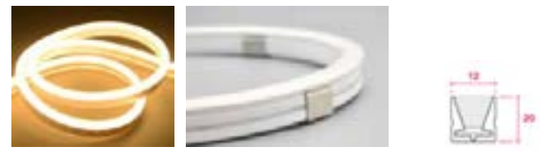
Accessibility

The pole-top luminaire is placed along the access routes from the station square to the residential lobby and to Victory Park to provide a sense of safety. It will make residents and other street users feel secure and discourage crime and vandalism.



Mood

Feature lighting that will be used strategically to pick out features within the landscape.



Wayfinding

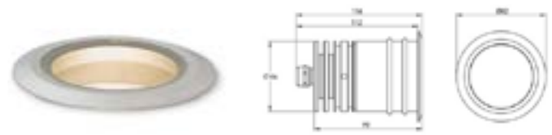
The linear LED strips will lead the visitors across the landscape's immersive pedestrian routes.

Ambience

In-ground lighting enhances the sense of arrival and creates a relaxed public realm for informal use by the local community.

8.13 N18 and N19 – The Gateway (page 2 of 2) – Entrance Canopies Lighting

X9: Ground recessed uplights
6m height
3000K CCT
6.2W
Lighting to the park level entrance canopy to be coordinated during next stage to avoid glare issues



Identity

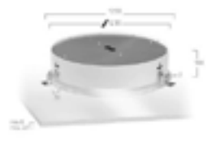
Ground recessed uplights will create a distinctive identity on the park entrances aiding the navigation across the public realm.

X7: Canopy slot recessed linear LED grazer washing wall
3000K CCT
24W/m
Mounting detail TBC with architect during Stage 4

Feature

The walls by the entrance will be washed by the lighting feature, enhancing the quality of the entrance.

X8: Canopy Recessed luminaire - 1250mm diameter
3000K CCT
107W
10300lm



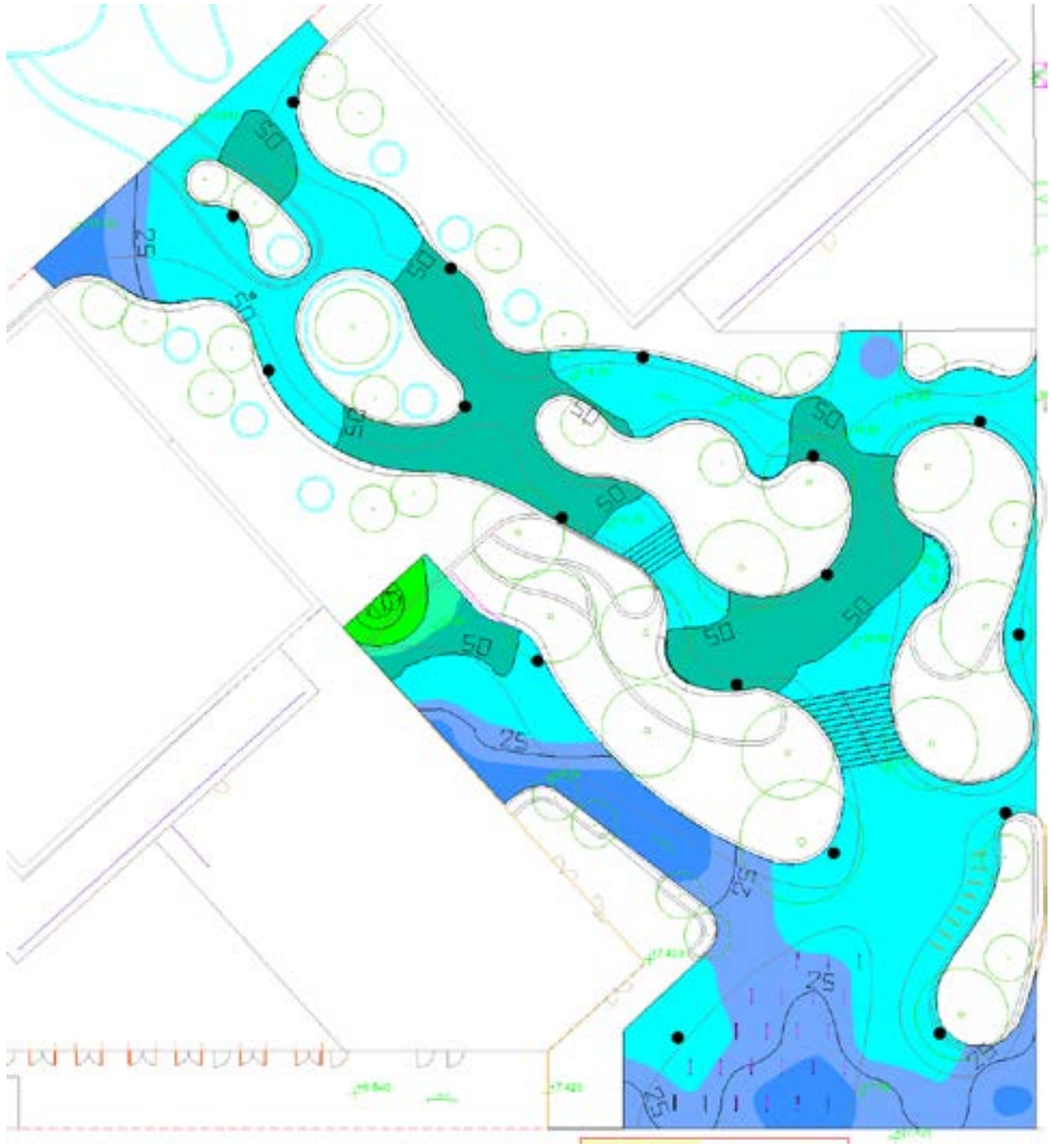
Identity

The lighting feature provides a sense of welcome and arrival to give a strong identity to the space. The entrance of the building is demarcated as a destination by the use of a recessed luminaire in the canopy of the lobby entrance.

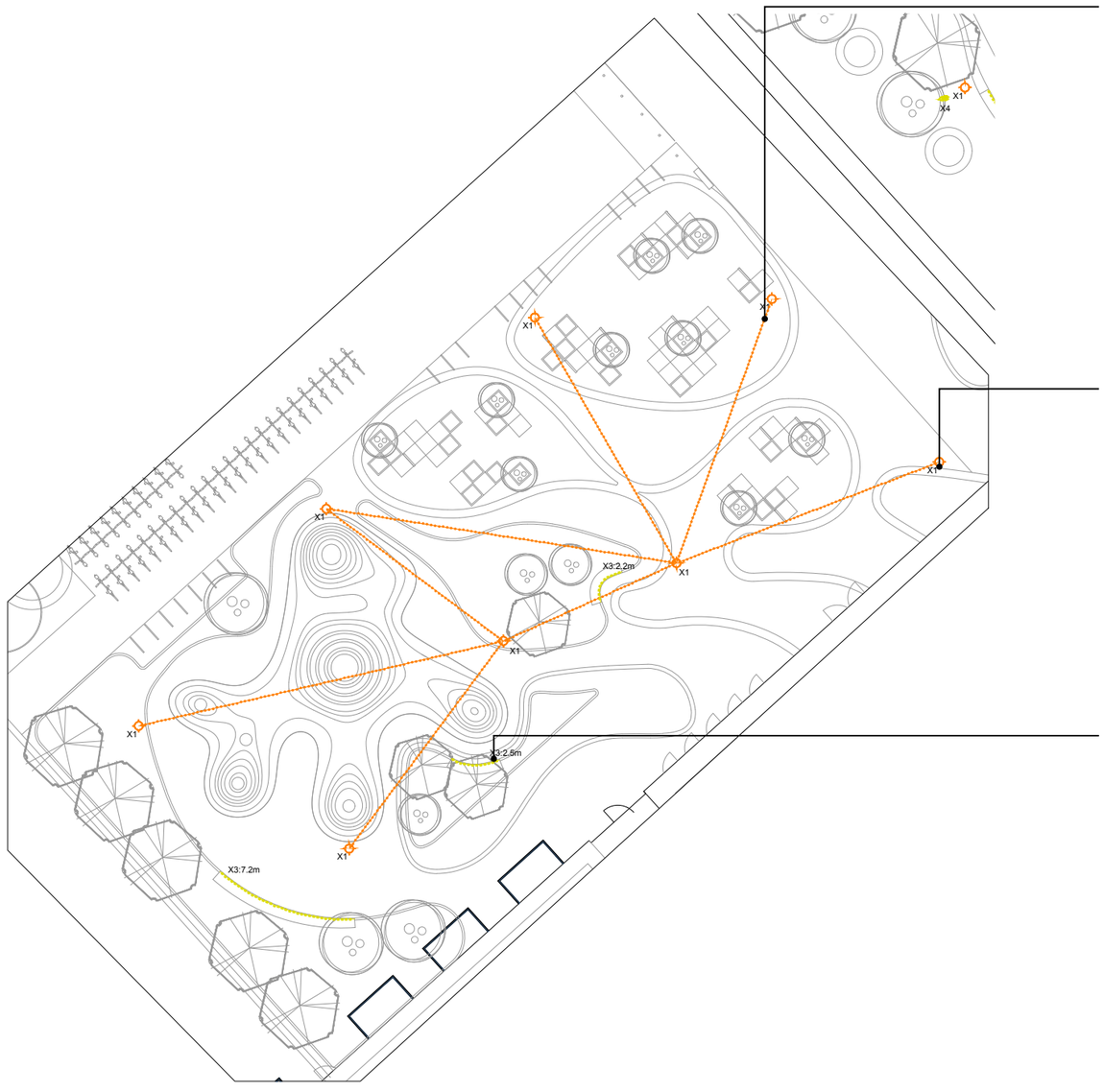
8.14 The Gateway

Lighting calculation result: Average lux level on slow vehicular & pedestrian routes: 42.1lx. Uniformity: 0.29

Lighting calculation notes: Only functional lighting is included in the calculation below; Concealed linear LED, inground uplights to canopy & spiked uplights to trees are not included.



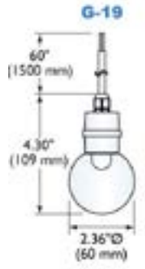
8.15 N18 and N19 – Garden Lounge



X5: Festoon Lighting with G19 globe
2500K CCT
0.2W/globe
4m suspension height from X1 luminaire

X1: Pole top luminaire
6m height
3000K CCT
110W

X3: Flexible linear LED strip under seating & under planting
3000K CCT
10W/m
Mounting detail TBC with landscape architect during Stage 4



Mood and ambience

The globe lighting will create a relaxed and immersive atmosphere to enhance the social intent of the space.

Accessibility

The pole-top luminaire is placed along the access routes from the station square to the residential lobby and to Victory Park to provide a sense of safety. It will make residents and other street users feel secure and discourage crime and vandalism.

Wayfinding

The linear LED strips will lead the visitors across the landscape's immersive pedestrian routes.

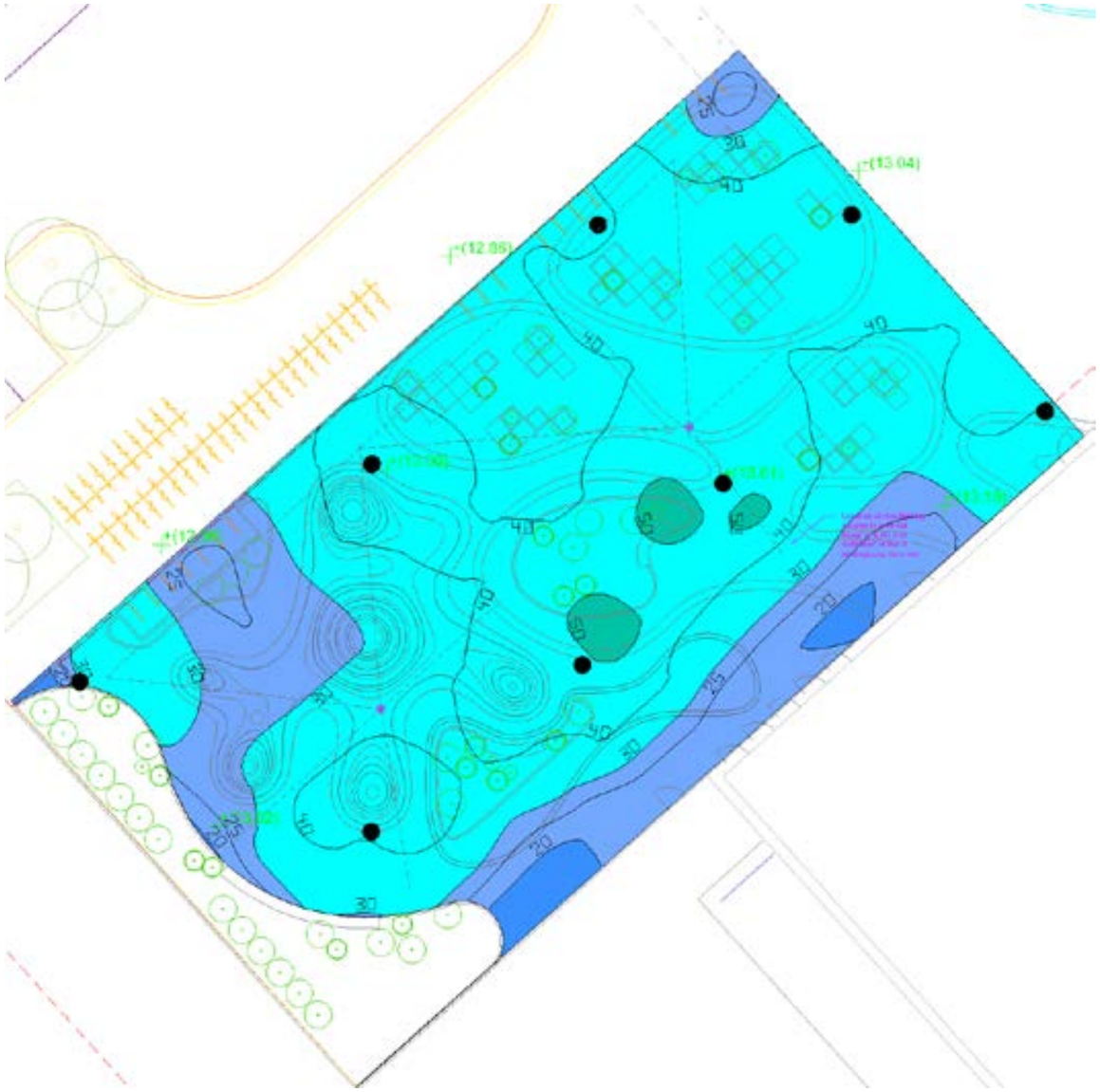
8.16 Garden Lounge

Lighting calculation result:

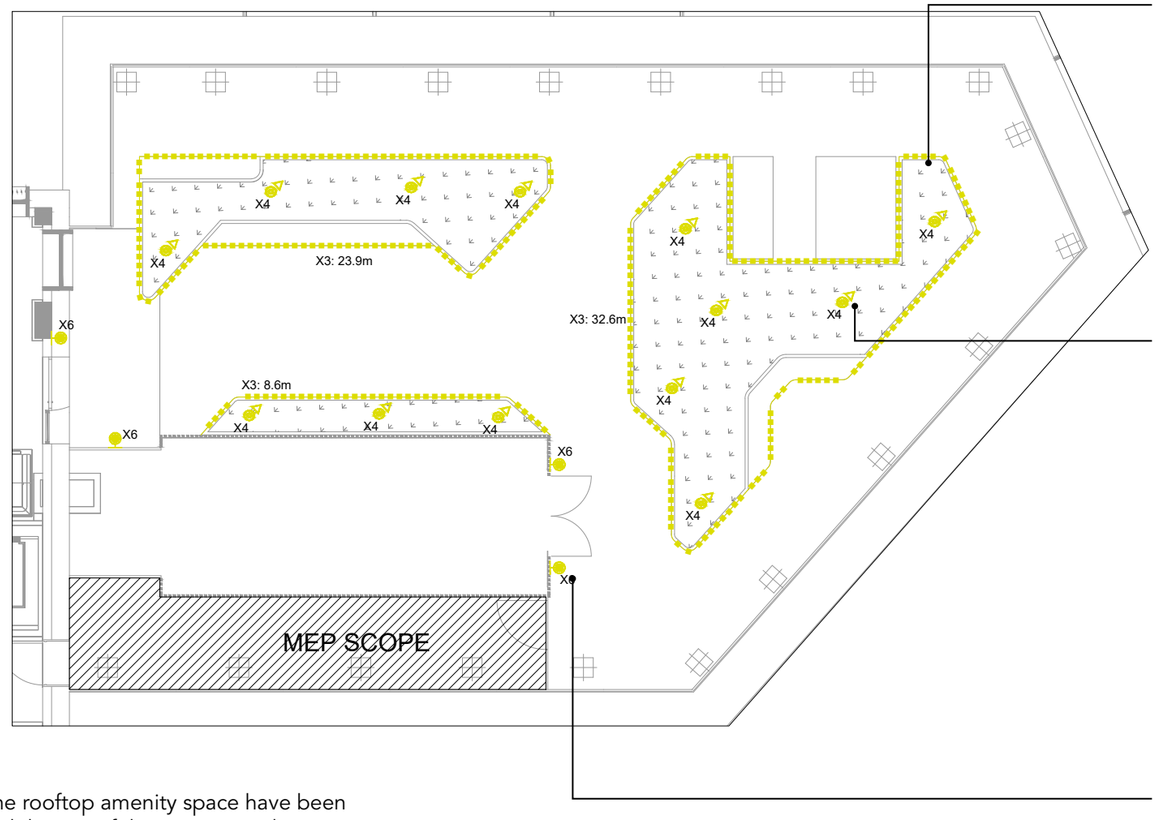
Average lux level: 37.1lx;

Uniformity: 0.50;

Lighting calculation notes: Only functional lighting is included in the calculation below; festoon lighting & concealed linear LED are not included.



8.17 N18 – L11 Terrace



X3: Flexible linear LED strip under seating & under planting
3000K CCT
10W/m
Mounting detail TBC with landscape architect during Stage 4

X4: Spiked uplights to trees.
3000K CCT
11W
Exact number of fittings and location TBC with tree information during next stage.

X6: Surface mounted wall light
To be coordinated with architect during next stage
3000K CCT
Wattage TBC

Wayfinding

Strip lighting around the perimeter of the planters, integrated into the planter metal edge and benching, provides key lighting to the primary circulation spaces around the terrace.

Mood

Feature lighting that will be used strategically to pick out features within the landscape.

Ambience

Wall mounted fittings complement the low level lighting to enhance functional light levels and provide a relaxed atmosphere.

Proposals to light the rooftop amenity space have been developed to extend the use of the space into the evening and darker months. Lighting fixtures are concealed within planters or integrated into the surface or furniture to reduce the visual clutter of the fixtures themselves.

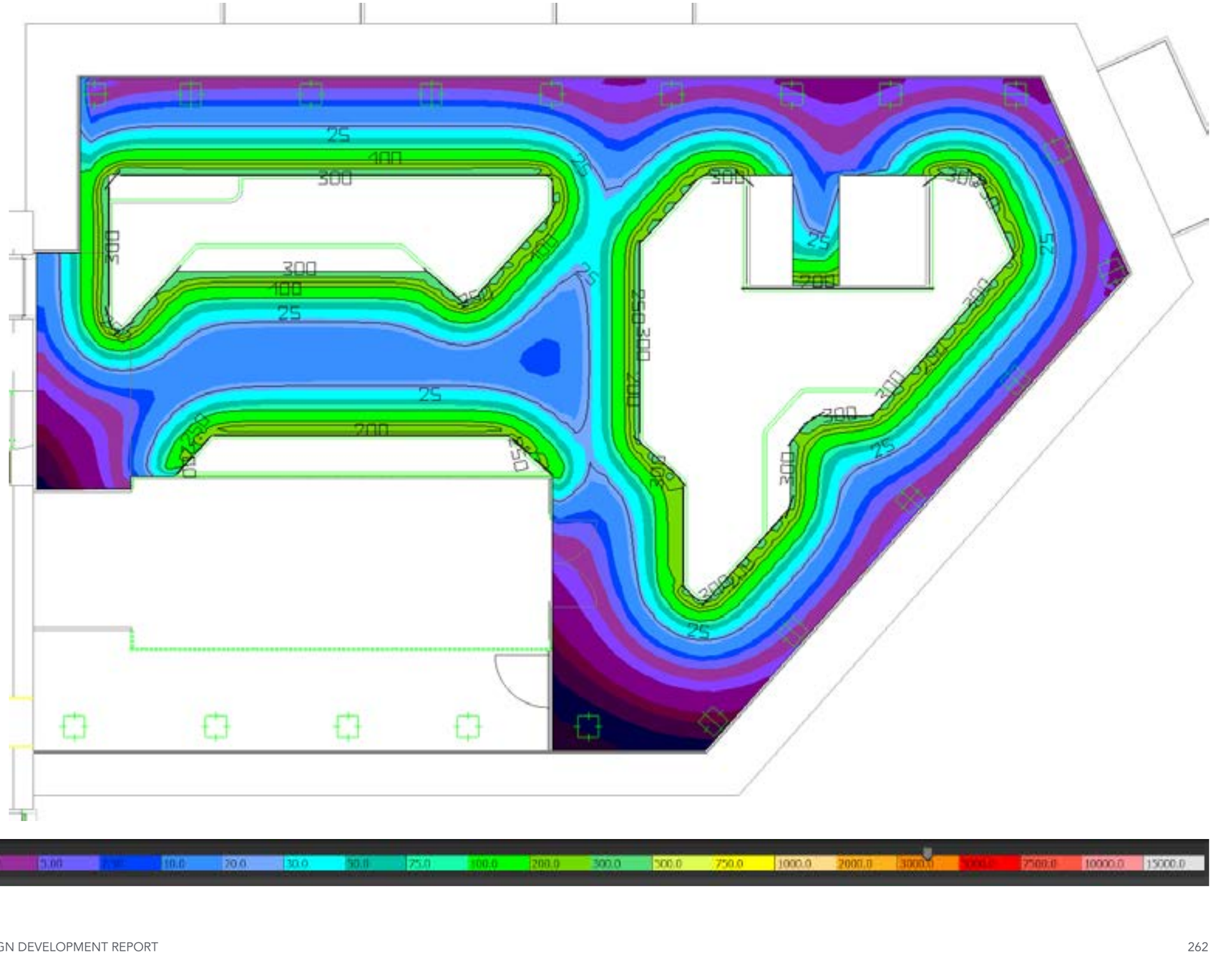
Strip lighting around the perimeter of the planters and integrated into the planter metal edge and benching provides key lighting to the primary circulation spaces around the terrace.

Feature lighting highlights key areas of planting and specimen shrubs. Uplighting defines the structure of multistem trees to create visual interest. To give a sense of arrival to the roof terrace by using the surface-mounted spotlight to the pergola, and the additional surface mounted wall light.

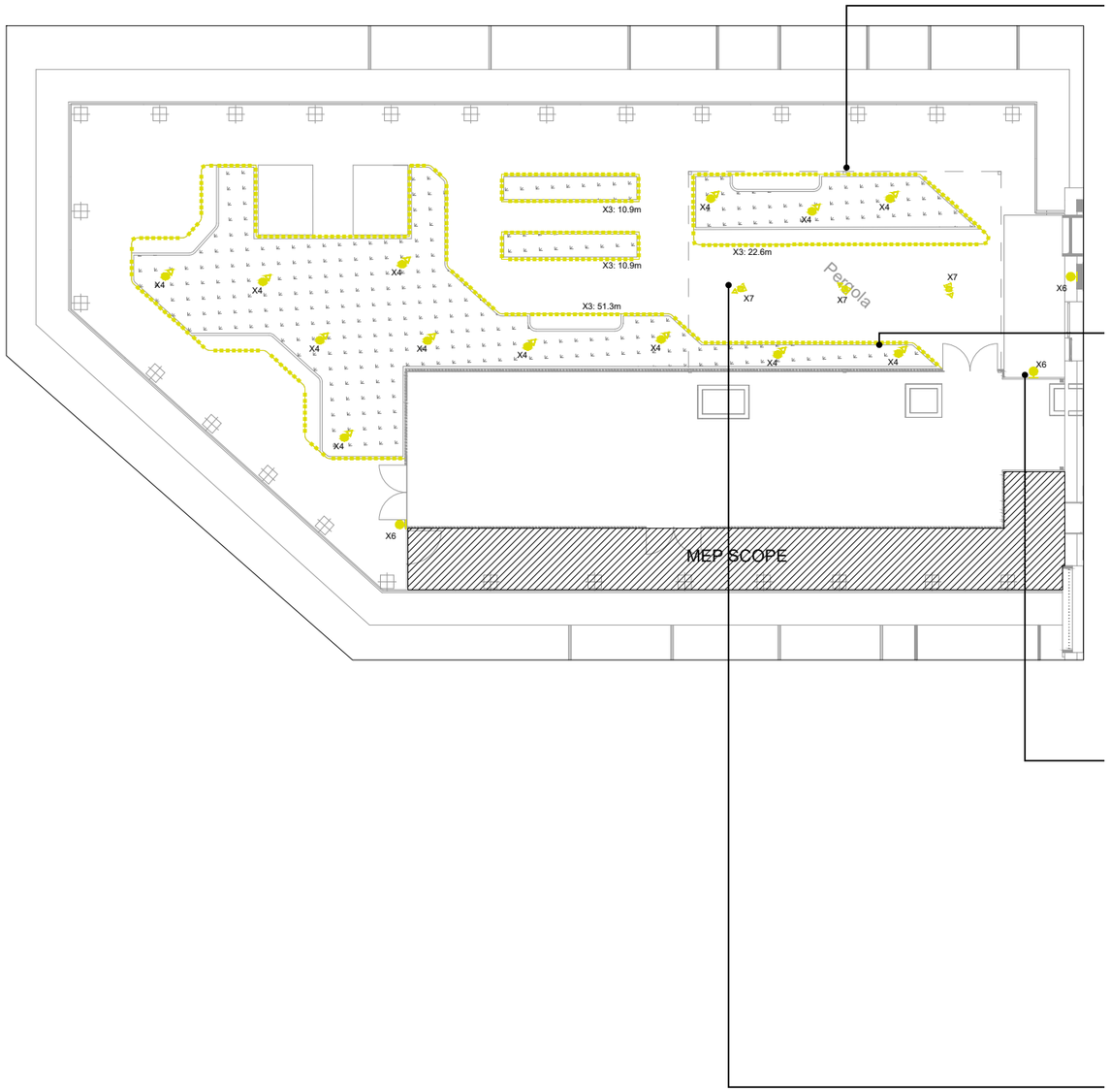
8.18 N18 – L11 Terrace

Lighting calculation result: Average lux level: 67.1lx; minimum uniformity not required for this area as it is not a public realm space.

Lighting calculation notes: Only functional lighting such as integrated linear LED to planting is included in the calculation below; spiked uplights to trees and wall lights are not included.



8.19 N19 – L11 Terrace

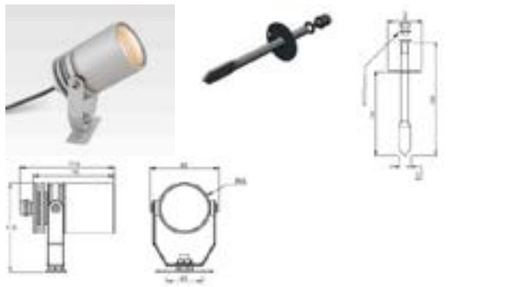


X3: Flexible linear LED strip under seating & under planting
3000K CCT
10W/m
Mounting detail TBC with landscape architect during Stage 4

Wayfinding

Strip lighting around the perimeter of the planters, integrated into the planter metal edge and benching, provides key lighting to the primary circulation spaces around the terrace.

X4: Spiked uplights to trees.
3000K CCT
11W
Exact number of fittings and location TBC with tree information during next stage.



Mood

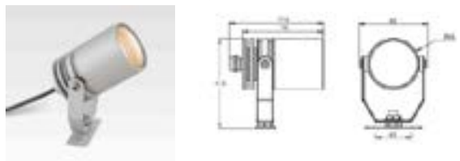
Feature lighting highlights key areas of planting and specimen shrubs. Uplighting defines the structure of multi-stemmed trees to create visual interest.

X6: Surface mounted wall light
To be coordinated with architect during next stage
3000K CCT
Wattage TBC

Ambience

Wall mounted fittings complement the low level lighting to enhance functional light levels and provide a relaxed atmosphere.

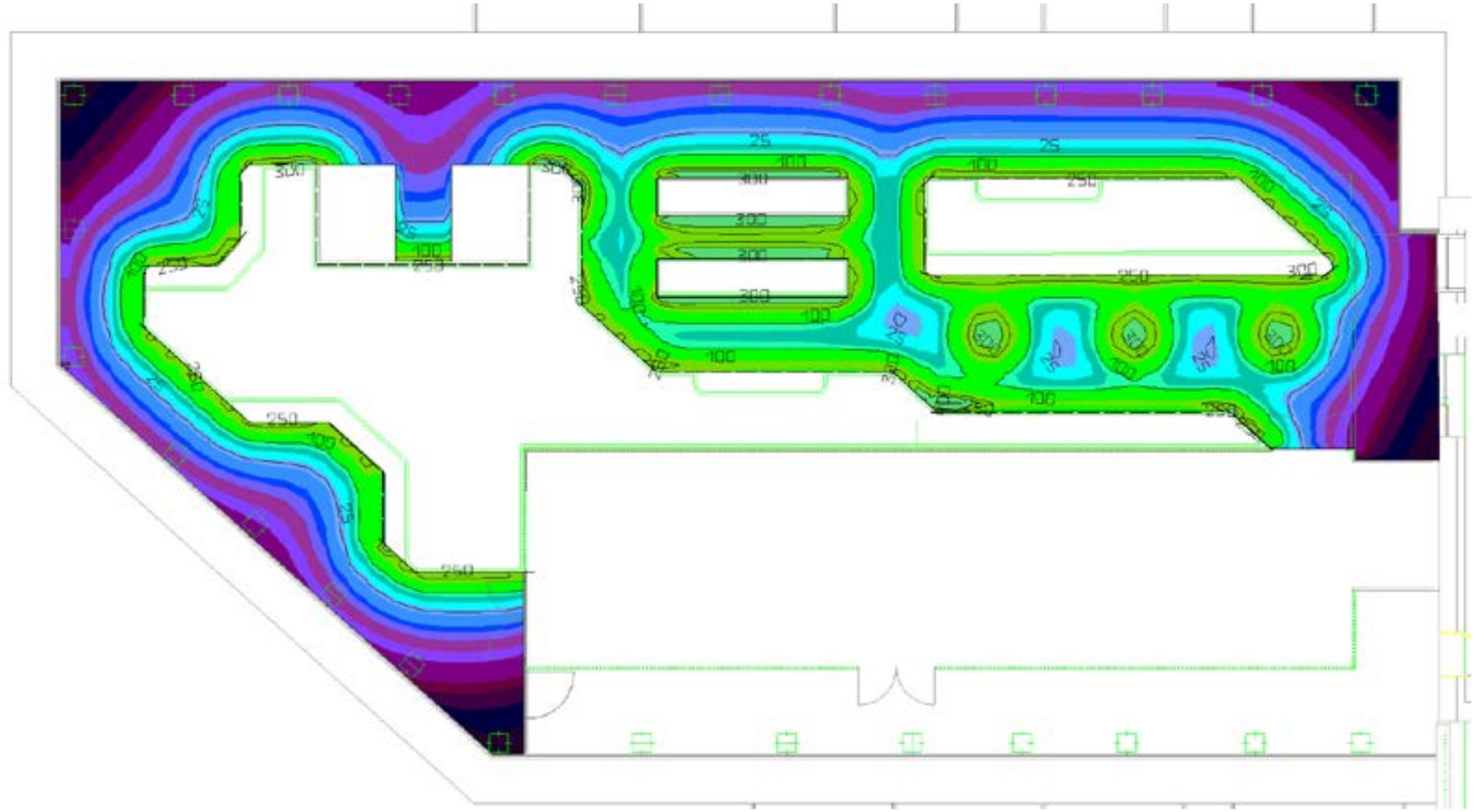
X7: Surface mounted spotlight to pergola
3000K CCT
14W
Exact location to de coordinated with pergola design development



8.20 N19 – L11 Terrace

Lighting calculation result: Average lux level: 64.5lx. minimum uniformity not required for this area as it is not a public realm space

Lighting calculation notes: Only functional lighting such as integrated linear LED to planting & surface mounted spotlights are included in the calculation below; spiked uplights to trees and wall lights are not included.



8.21 Summary – Lighting Strategy

Lighting design proposal

Lighting primary pedestrian and vehicular routes will follow the guidelines provided by CIBSE. Multi purpose lamp posts and bollards would provide functional lighting for vehicular access and parking, while linear LED lighting would enhance the landscape throughout this journey.

The heart of the East Village development is the Park Level area, a destination for both residents and local community. Lighting layers would invite people to use and enjoy this space. Functional lighting will also be provided for both types of users. The L11 terraces create an engaging journey for residents. The low level lighting, such as bollards, sculpture lighting, spike lights at planters and low level furniture lighting, would enhance this journey and provide functional light levels for safety measures.

Lighting Control Proposal

Vehicular and pedestrian routes at Park Level:

– Astronomical clock and light sensor to switch on the scene when it is getting dark.

– Dimming all lighting to minimum after 11pm in order to minimise light spills in interior spaces.

L11 terraces:

– Timer – Astronomical clock – lighting design and scenes to be developed.

– Occupancy – The more people use the space the brighter it gets – very subtle, but it can encourage more people to use the courtyard.

9.0
Appendix 01 – Density and Open Space

9.1 Density

Introduction

Condition U1 of the SC OPP set the density levels permissible in Zones 3 as 866 units per hectare (u/ha) or 2,684 habitable rooms per hectare (hr/ha), whichever is the lesser. Condition U2 confirms that the adjusted net densities set out in Condition U1 is based on the Stratford City Housing Density Update Zones 3-5 (December 2010 Rev 01). This sets a net site area for Zone 3 of 1.629ha.

The RMA proposes 848 residential units and 2,002 habitable rooms. Using the net adjusted site area of 1.629ha for Zone 3, this equates to 520 u/ha and 1,228 hr/ha. This confirms the proposed density ranges are compliant within Condition U1.

However, Stratford City Housing Density Update Zones 3-5 (December 2010 Rev 01) illustrates that the adjusted net density calculation is based on a net site area for the Zone which includes both the site areas associated with Plots N18/N19 and Plot N16. As explained elsewhere within this report, a new standalone and detailed planning application is being submitted concurrently with this RMA for PBSA on Plot N16. In order for those proposals to be realised, Plot N16 is proposed to be removed ('slotted out') from the SC OPP (because no provision is made for PBSA in the SC OPP).

The effect of 'slotting out' Plot N16 from the SC OPP therefore reduces the net site area that underpins the density calculation. By removing the area for Plot N16, the net site area is reduced to 1.3ha. This equates to an adjusted net density for Plots N18/N19 of 652 u/ha or 1,540 hr/ha. This reduced net site area is still compliant within the density ranges contained within Condition U1.

However, in order to better understand the density of the proposals, a calculation has also been undertaken in accordance with the method set out in the Mayor's Housing SPG (May 2016). Paragraph 1.3.67 states that density is defined in terms of net residential area which:

"...relates to the 'red line' planning application site boundary and excludes adjoining footways, carriageways, paths, rivers, canals, railway corridors and other existing open spaces. It includes the proposed homes, non-residential uses in mixed use buildings, ancillary uses, car and cycle parking areas and proposed internal access roads. It generally includes proposed on-site open spaces (including publicly accessible spaces), gardens and children's play areas."

Using the above definition generates a site area of 0.928ha for Plots N18/19. This results in 913 u/ha and 2,157 hr/ha. The design team has also undertaken further density testing to understand the cumulative density of the new RMA at Plots N18/N19 for 848 residential units and 500 student rooms at Plot N16 using the Mayor's Housing SPG definition. This results in an equivalent density of 878 u/ha. Whilst it is not the role of this RMA to assess the impacts associated with the proposals at Plot N16, this shows that the cumulative density for both proposals at Plots N18/N19 is only slightly above the requirements set out in Condition U1. By way of comparison, paragraph 10.3.3 of the LLDC's officer report to planning committee in assessing the extant RMA for Plots N18/N19 confirms that the density of the approved proposals comprises 1,014 u/ha and 2,840 hr/ha which is greater than the current proposals.

The figure 294 Table 7 summarises the above methods of calculating density for the proposals. The different site areas used for calculating density are also illustrated in Figure 293.

The justification for the proposed density can be found on the following page.

Unit Type	Habitable rooms	Unit size (m^2)
1 Bed flat	2	50
2 Bed flat	3–4	70
3 Bed flat	5	90
4 Bed flat	6	100

Fig.291 Extract of table 3 from Stratford City Housing Density Zones 3–5, 2010

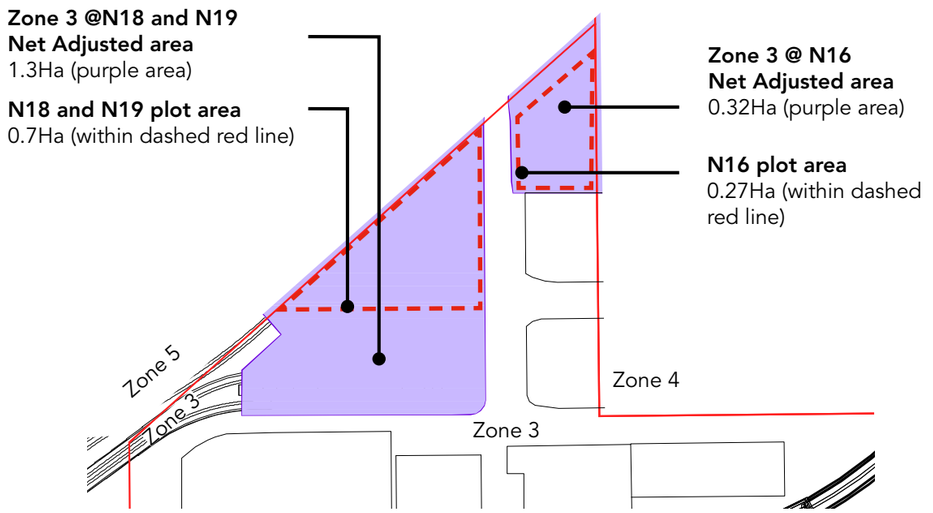


Fig.292 Net site areas: Areas used for calculation of net site density and net adjusted density Housing Density Update (Zone 3-5), 2010

Area		Unit/ha	Hab Room /ha
Zone 3 (total) (net adjusted site area consistent with definition set out in Stratford City Housing Density Study Update 2010 Rev 01)	1.629 ha	520 (848)	1,228
Zone 3 (N18/N19 but excluding N16 land) (Stratford City Housing Density Study Update 2010 Rev 01)	1.3 ha	652	1,540
Plot N18/19 *	0.928 ha	913	2,157
Plot N16 & N18/N19 cumulatively*	1.193 ha**	878 ***	n/a

Fig.293 Table 7: Methods of calculating density

*Mayor's Housing SPG (2016) methodology.
** The area for Plot N16 based on the Mayor's Housing SPG (2016) methodology is 0.265 ha.
*** For the purposes of student accommodation, the Mayor's Annual Monitoring Report (AMR) calculates delivery of student accommodation at the equivalence of 2.5 student bedrooms to 1 conventional housing unit (see paragraph 2.20 of the London Plan AMR 16 dated March 2021). Utilising this method, would generate an equivalent unit number of 200 conventional homes for density calculation purposes.

Design Led Approach Per London Plan Policy D3

Although the density for Plots N18/N19 appears high in isolation, it is important to review this in light of the wider Stratford City development that sits under the SC OPP. Density should also be viewed in relation to a site's context and quality of proposed development.

The DDR submitted in support of this RMA demonstrates that the RMA proposals reflects the latest planning policy approach to optimise site capacity through a design-led approach as set out in London Plan Policy D.3. This is set out in detail in Appendix 01 of the DDR, and in summary explains that:

- The site is optimised in response to its high PTAL rating of 6b (the highest possible), and located immediately adjacent to the Stratford Metropolitan Centre and East Village Local Centre;
- Its form and layout have been developed to respond to the urban context and local distinctiveness as well as detailed microclimate testing;
- The quality of the proposed residential accommodation is excellent, with all units complying with up to date planning policy standards;
- 90% of rooms achieve the daylight compliance rate (by rooms). This is an improvement on the extant RMA where 80% of rooms achieved the daylight compliance rate;
- The second stairs have been introduced on tower cores to enhance the building safety and reflect the changes on the draft of BS9991;
- 56% of units are dual aspect – whilst the extant RMA proposed 57% of units as dual aspect, the current proposals result in a better heat loss form factor with 0.60 which indicates efficient form, reduced energy loss and improved façade performance;
- The design seeks to arrange active ground floor uses to face onto the most active areas of public realm. Back of house or servicing accommodation is focussed away from key public routes, improving the quality of the street environment and the public realm;
- The public realm through the site is based on inclusive, safe design paired with an ambitious, high quality natural environment that will enhance the lives of the residents of N18/19 and the wider public;
- Active frontages are well coordinated with the public realm and are made visible with legible sightlines through the site. The environment will be away from traffic, mitigating issues of noise or pollution, and space for play and socialisation is provided throughout;
- Proposals involve and increase in play space and open space over and above the previous RMAs for Plot N18/19 and Plot N16;
- The proposal responds to the existing character of East Village by drawing the lush green environment of Victory Park into the gateway;
- The building integrates sustainable design as the core of its architectural approach and facade design, resulting in a significant reduction in embodied/ operational carbon as compared to current regulations; and
- Building rooftops take advantage of opportunities for urban greening. The roofs at the eleventh level include terraces with a mixture of greenery, furniture and paving for resident enjoyment. This maximises the opportunity for urban greening.

Whilst not forming part of this RMA, the Applicant has also submitted a separate albeit related detailed planning application for substantial improvements and enhancements to the public realm areas of Victory Park and Belvedere (resulting in (amongst other things) improved play space offer; a more responsive public realm that can cater for residents' and visitors' needs accordingly and supporting the existing East Village Local Centre. This reflects a much broader strategy adopted by the Applicant to ensure that what is likely to be some of the last remaining development Plots at East Village integrate seamlessly into the existing estate, but also ensuring that there are wider benefits associated with the suite of applications submitted concurrently.

Accordingly, there is no adverse impact on the quality of accommodation a result of the density of this development and represents a significant improvement on the extant RMA.

9.2 Open Space

Introduction

The key requirements of open space are principally set out in:

- Conditions E1 and E2 of the SC OPP.
- Parameter Plan 5.
- The Open Space Strategy Update for Zones 3–6 (dated December 2010).
- The S106 Agreement for the SV Land (dated 30 March 2012) and Deed of Variation (dated 25 March 2014).
- Zonal Masterplan Design Statement Addendum (2010).

The diagrams below show:

1. The requirements of the Open Space Strategy.

2. The consented RMA proposals for Plots N18 and N19 and N16.

3. Indicative analysis of the potential open space proposals for the emerging proposals.

4. The Open Space Area table also provides a comparison in tabulated form for ease of reference.

Methodology

This open space comparison is based around the total quantum of open space proposed for cumulative delivery for Plots 16 and 18/19 as compared to that which is required by the SC OPP. This includes calculations of streetscape areas and public open areas. This strategy is preferred because the design-led development of Plots N16 and N18 and N19 during this stage are highly influenced by placemaking principles and designed to align with the proposed public realm improvements throughout the Village.

Conclusion

The cumulative total of the open space proposed to be provided at Plots N16 and N18 and N19 exceeds that of the SC OPP by **712 m²**. This excess is mostly contributed to the introduction of Fashion Square as part of Zone 3 open space.

Open Space Area	Open Space requirement per SC OPP	Proposed Massing (2021)			Shortfall / Overprovision of Proposed Scheme compared to SC OPP
		Streetscape	Public Open Space	TOTAL(sqm)	
N18/19					
3-POS 1	1,880	0	3,368	3,368	1,488
3-POS 2	435	174	261	435	0
3-POS 5	1,697	243	0	243	-1,454
Total (sqm)	4,012	417	3,629	4,046	34
N16					
3-POS 7	356	258	776	1,034	678
Total (sqm)	356	258	776	1,034	678
Grand Total (sqm)	4,368	675	4,405	5,080	712

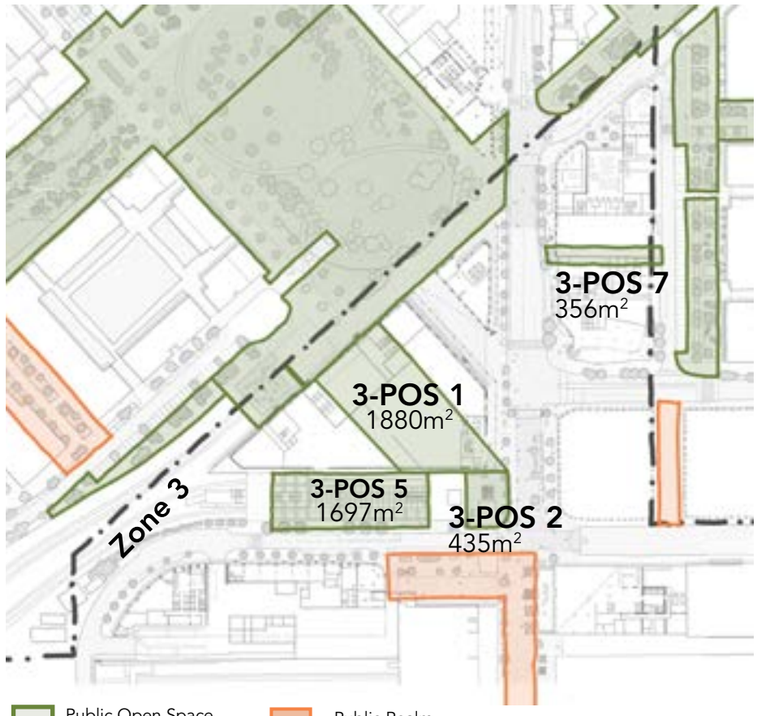


Fig.294 SC OPP (2010)

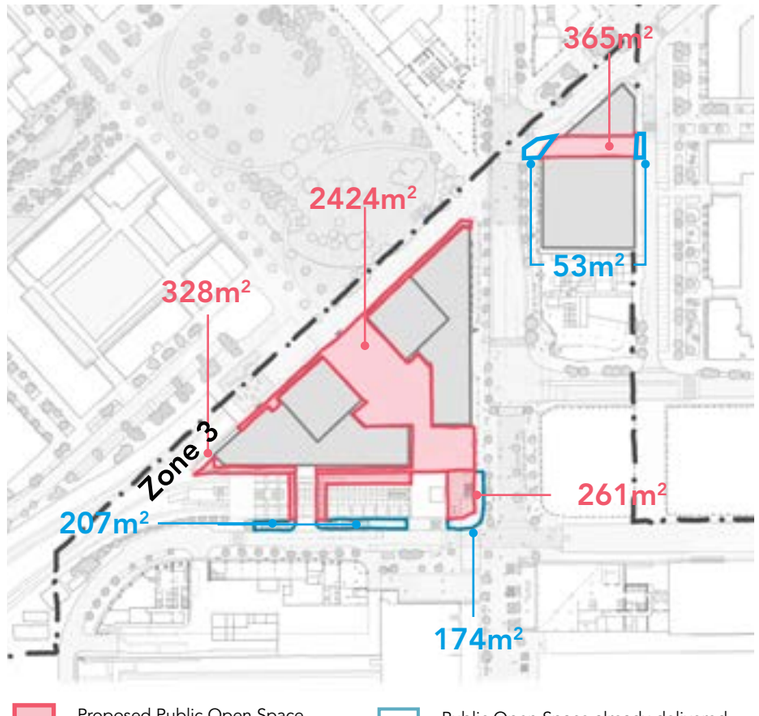
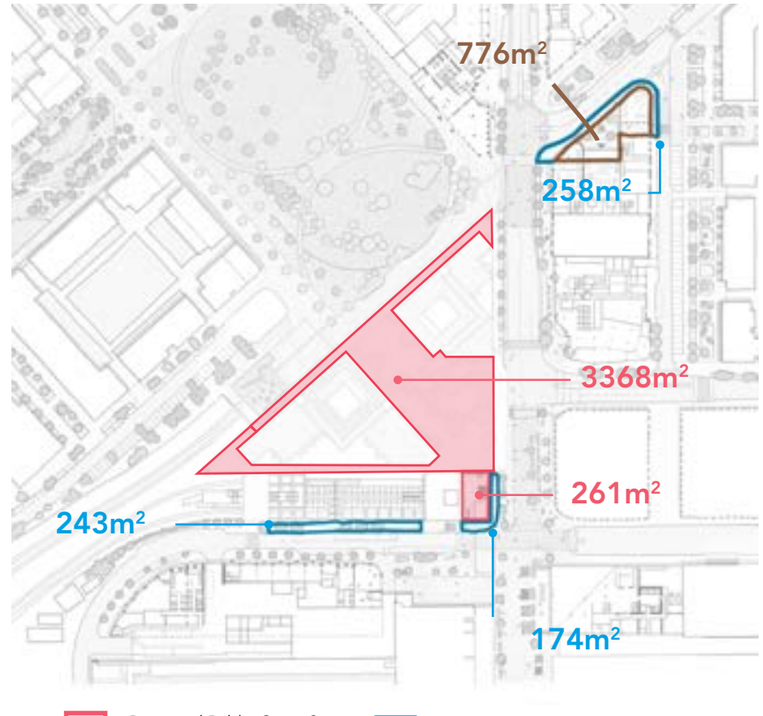


Fig.295 RMA Consented (2014)



10.0
Appendix 02 – Schedules

10.1 Overview of Methodology

Overview

Area calculations provided align with methodologies as applicable including:

- RICS sixth edition.
- Condition D2 of the SC OPP (to be noted that it has been agreed with LLDC that both internalised and shared private amenity are not to be included as allowable Residential GEA).
- London Plan Policy D6.

Policy Overview

The design proposal is 100% compliant with the London Plan 2021 Policy D6 which sets the minimum statutory benchmark for space standards. The design has also considered space standards per the LLDC Design Quality Standards. Both are included for comparison in the space standards audit within this chapter.

Best efforts have also been made to consider integrating the space standards from the draft supplementary planning guidance to the London Plan, currently in consultation, called 'Housing Design Standards' February 2022. This document was made public whilst the project was well into Stage 2 design and coordination.

Private Amenity

Private amenity has been provided to 100% of apartments in the form of balconies (projecting and inset) and solariums (internalised shared amenity.

As private amenity does not contribute to the residential GEA as defined by Condition D2 of the SC OPP, it has been removed from the calculation. For clarity, the diagrams to the right indicate how the RGEA is measured in the case of a projecting balcony, inset balcony and solarium.

The overall area diagrams are included on the following pages as reference.

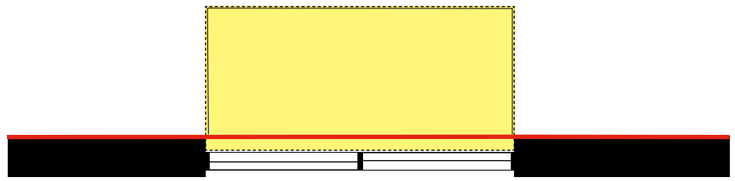


Fig.296 Projecting Balcony

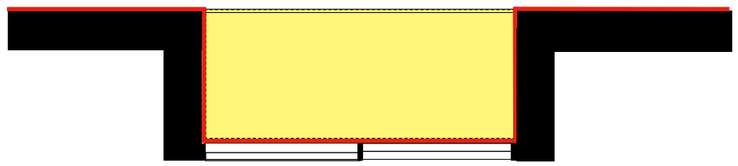


Fig.297 Inset Balcony

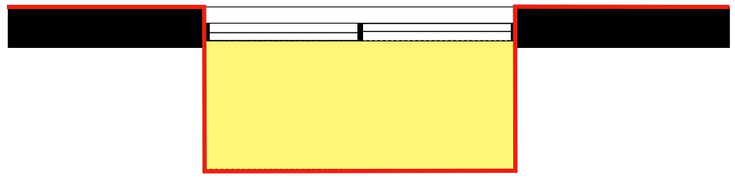


Fig.298 Solarium (Internalised Private Amenity)

Key

- Exterior Thermal Envelope
- Private Amenity – Minimum area required per London Plan Policy D6
- Residential GEA measurement

10.2 Planning GEA Area Diagrams

Overview

The following diagrams are provided as a reference to the planning areas provided in this section. They are intended as a reference only.

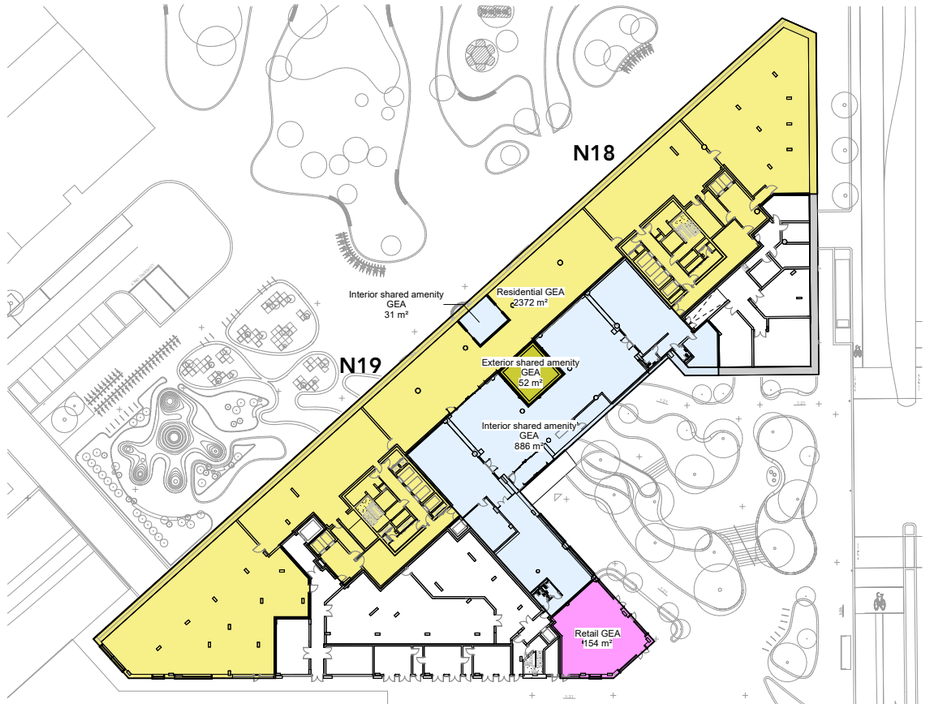


Fig.299 Station Level

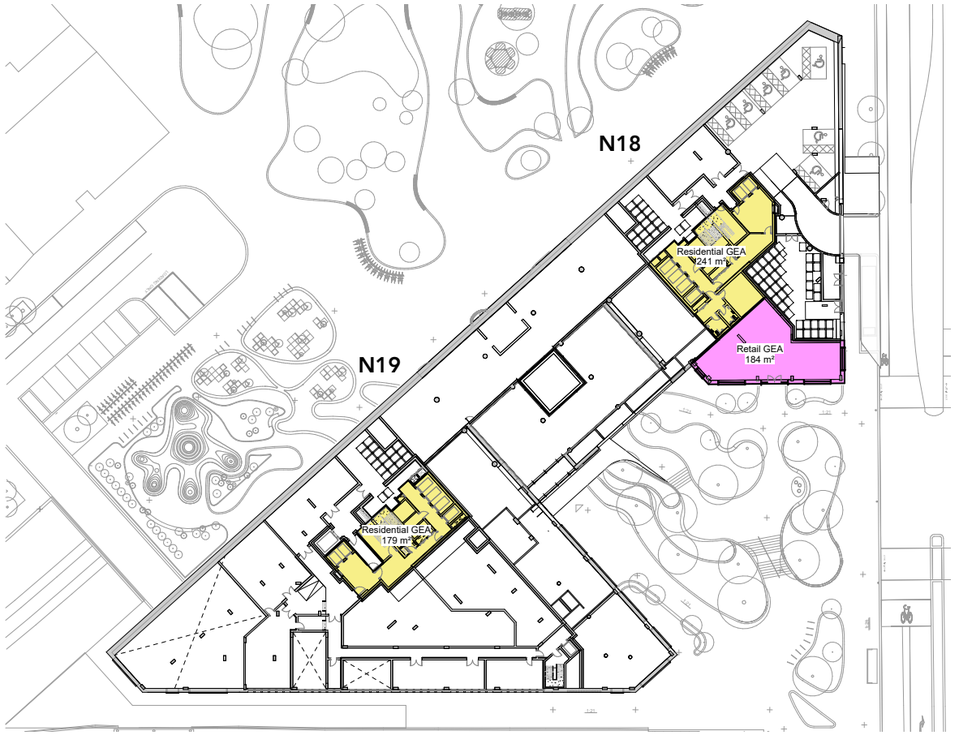


Fig.300 Mezzanine Level

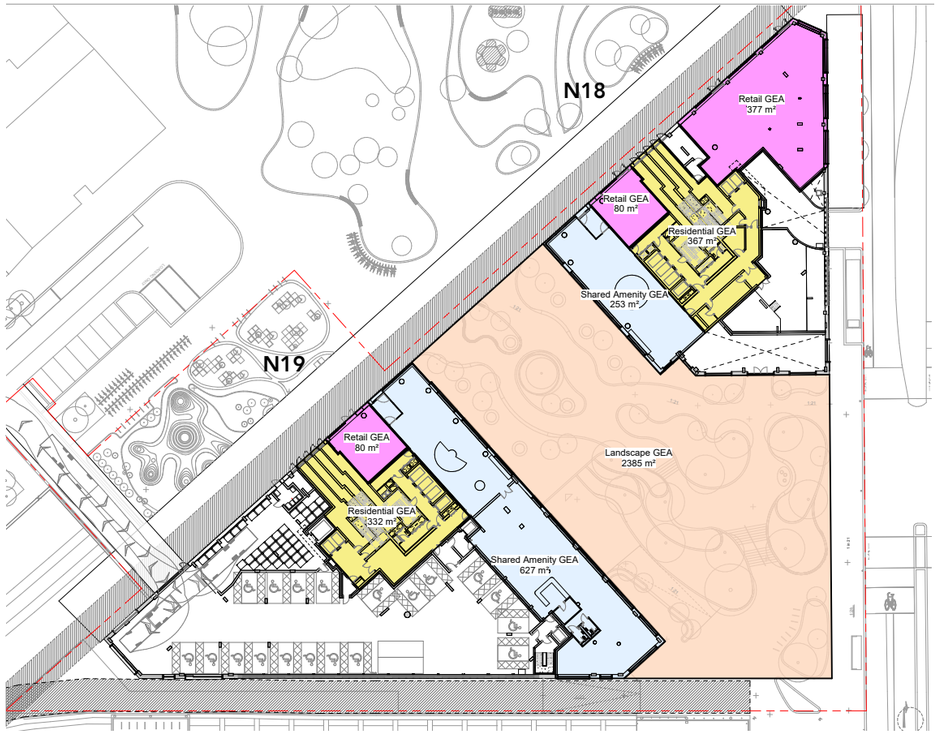


Fig.301 Park Level

Key

- Retail GEA
- Residential GEA
- Interior Shared Amenity
- Exterior Shared Amenity
- S Solarium
- B Balcony

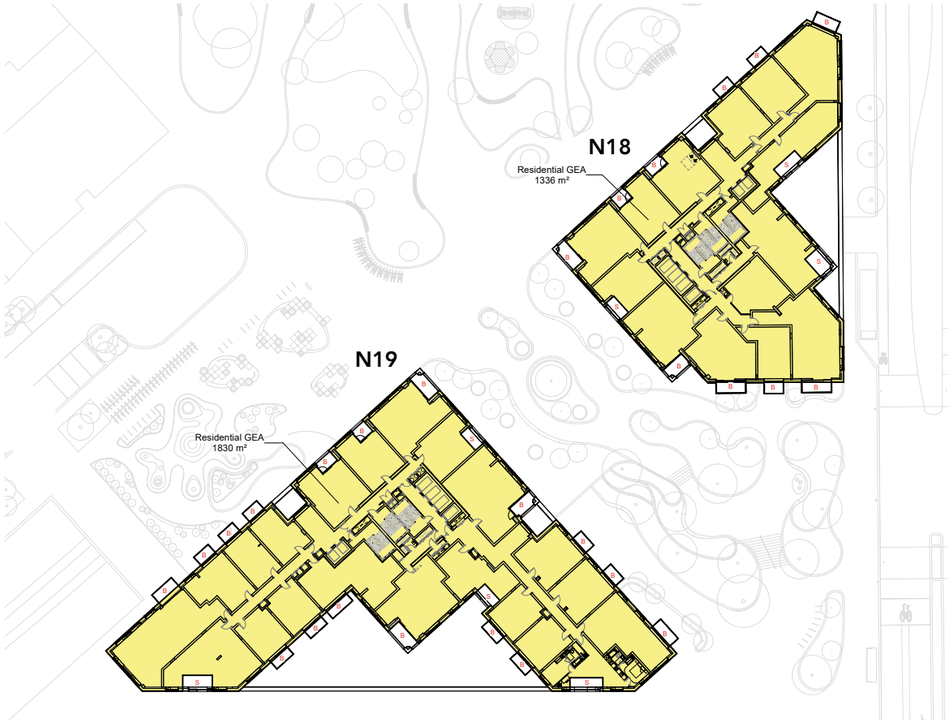
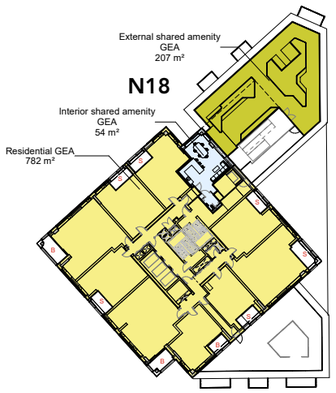


Fig.302 Level 1– Level 10



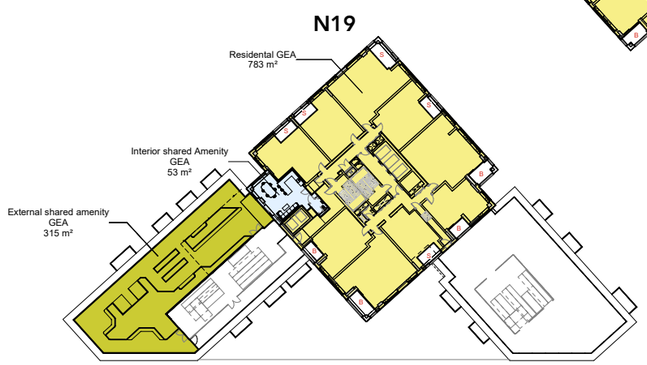


Fig.303 Level 11

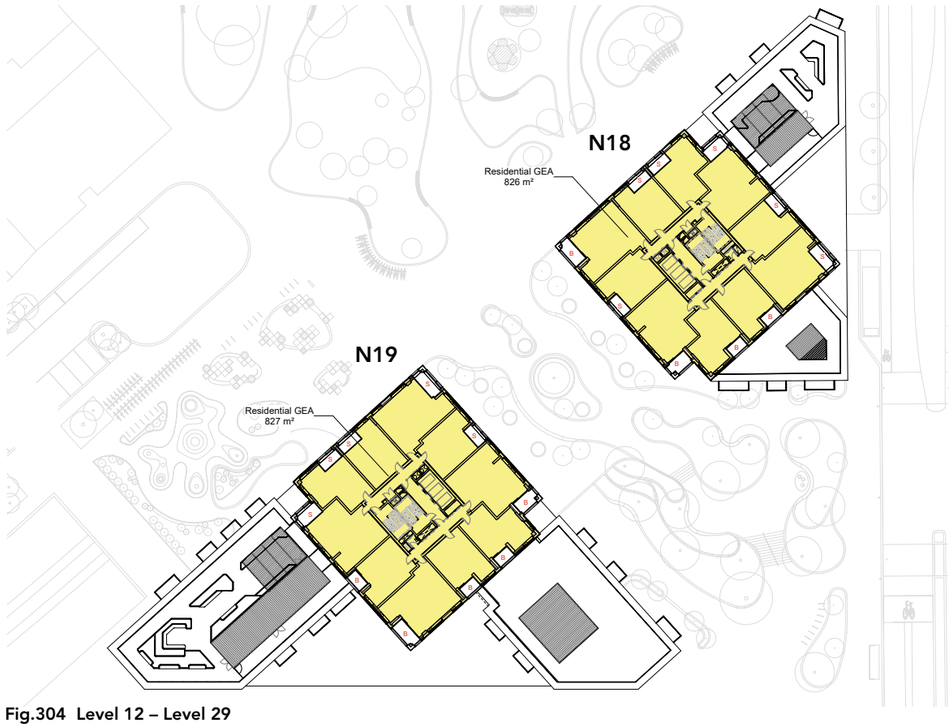


Fig.304 Level 12 – Level 29

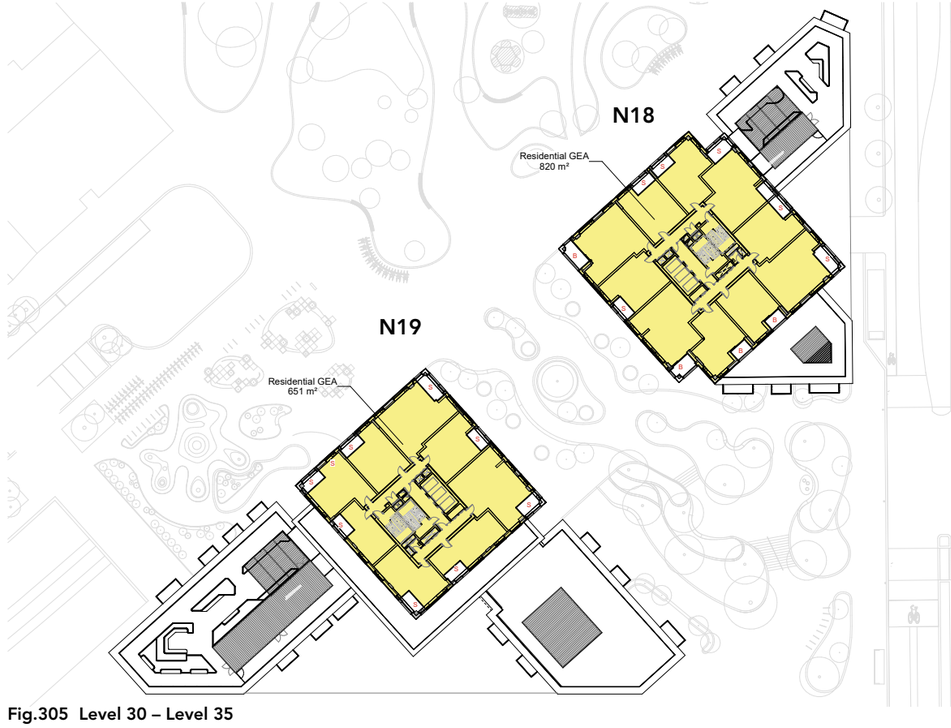


Fig.305 Level 30 – Level 35

Key

- Residential GEA
- Exterior Shared Amenity
- S Solarium
- B Balcony

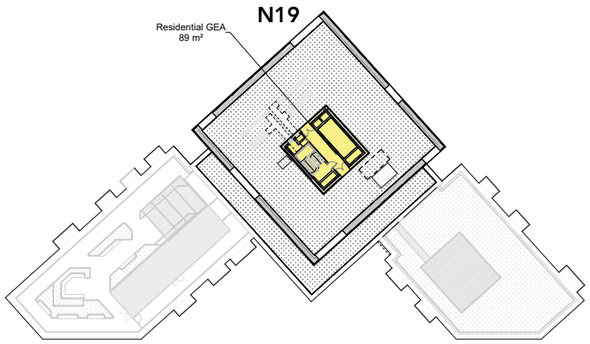


Fig.306 N19 Level 36 (Roof Access Plan)

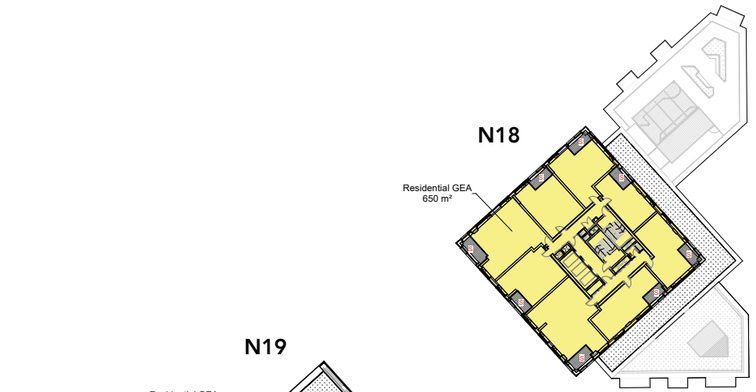


Fig.307 N19 Level 37 (N19 overrun); N18 Level 36–39

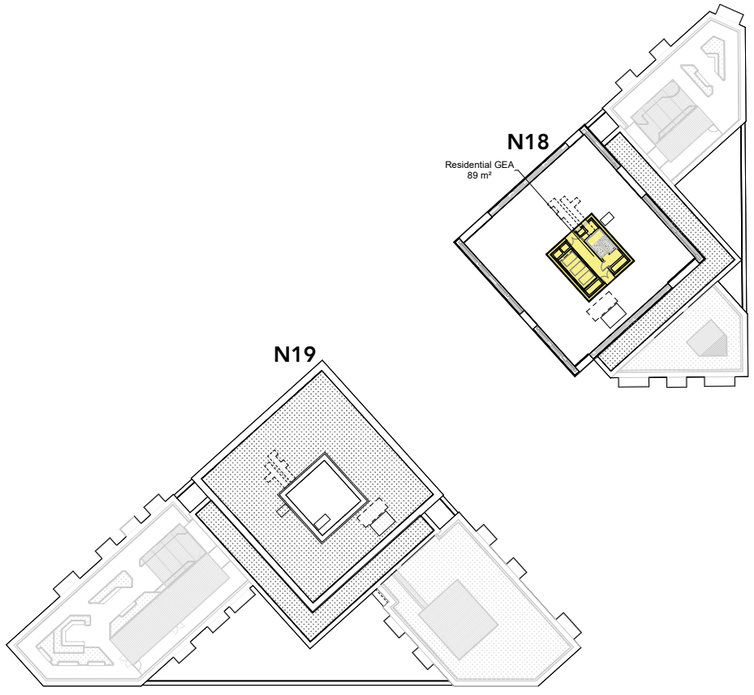


Fig.308 Level 40 (N18 Roof Plan)

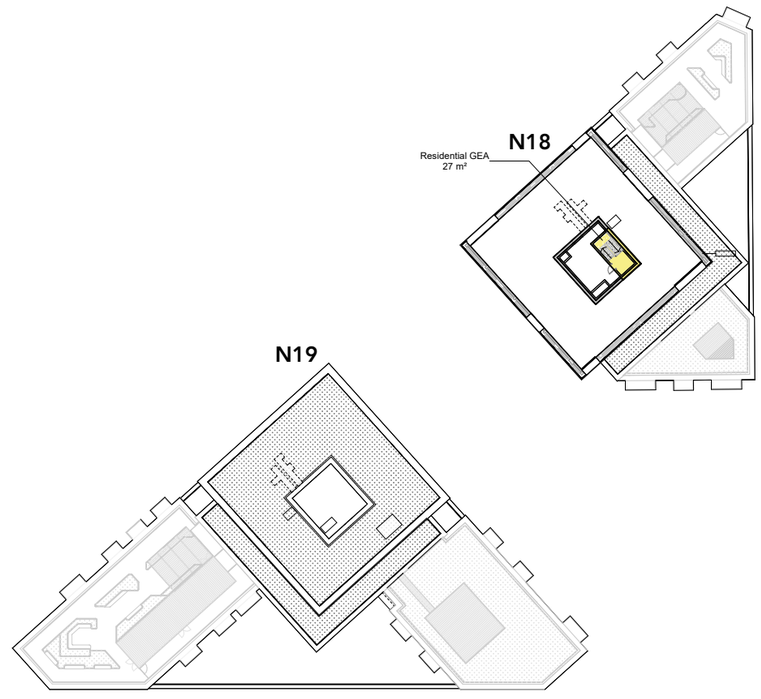


Fig.309 Level 41 (N18 overrun)

Key

- Residential GEA
- Exterior Shared Amenity
- S Solarium
- B Balcony

10.3 Area and Accommodation Schedule Summary

Unit Type	Occurrence			Percentage	Total DDA
	N18	N19	Total		
0B1P	17	67	**84**	9.9%	-
1B2P	217	207	**424**	50.0%	40
2B3P	10	25	**35**	4.1%	35
2B4P	145	120	**265**	31.3%	10
3B5P	20	10	**30**	3.5%	-
4B6P	-	10	**10**	1.2%	-
Total	409	439	848	100%	85

Plot	Residential GEA		GEA		GIA		NIA	
	sqm	sqft	sqm	sqft	sqm	sqft	sqm	sqft
N18	39,491	425,077	45,716	492,082	41,918	451,201	25,190	271,143
N19	37,856	407,478	42,281	455,108	38,958	419,340	26,306	283,155
Total	77,347	832,555	87,997	947,191	80,876	870,541	51,496	554,298

10.4 N18 Unit Type Schedule

N18 - Residential Units									Areas*		Private Amenity Space**		Aspect		Room Area											
									NIA		EA	IA			Living Area		Double Bedroom 1		Double Bedroom 2		Double Bedroom 3		Single Bedroom 1		Single Bedroom 2	
Levels	Apartment Type	Unit Type	Occurrence	No. of Bath	No. of Bed	No. of Persons	Hab Rooms	Adaptable Unit	Sqm	Sqft	Sqm	Sqm	Single	Dual	Sqm	Width	Sqm	Width	Sqm	Width	Sqm	Width	Sqm	Width	Sqm	Width
1st - 5th	0.4	0B1P	5	1	-	1	1	-	42	452	5	-	Single	-	24.00	2.92	-	-	-	-	-	-	-	-	-	-
1st - 5th	1.1S/ 1.1S H	1B2P	5	1	1	2	2	-	51	549	-	5	Single	-	28.17	3.50	11.54	2.80	-	-	-	-	-	-	-	-
1st - 5th	1.2B WCH	1B2P	5	1	1	2	2	Yes	55	592	5	-	Single	-	25.66	3.40	15.32	3.00	-	-	-	-	-	-	-	-
1st - 5th	1.3	1B2P	5	1	1	2	2	-	50	538	5	-	Single	-	27.66	3.55	11.50	2.85	-	-	-	-	-	-	-	-
1st - 5th	1.6 WCH/ 1.6H WCH	1B2P	5	1	1	2	2	Yes	61	657	5	-	-	Dual	33.62	3.62	14.70	3.50	-	-	-	-	-	-	-	-
1st - 5th	1.7/ 1.7 H	1B2P	5	1	1	2	2	-	51	549	5	-	Single	-	23.97	3.55	12.00	2.90	-	-	-	-	-	-	-	-
1st - 5th	2.1/2.1 H	2B4P	5	2	2	4	3	-	71	764	8	-	-	Dual	27.55	3.77	12.61	2.80	11.53	3.10	-	-	-	-	-	-
1st - 5th	2.7	2B4P	5	2	2	4	3	-	80	861	7	-	-	Dual	28.85	4.34	11.50	3.25	11.74	2.90	-	-	-	-	-	-
1st - 5th	2.8 WCH	2B3P	5	2	2	3	3	Yes	76	818	-	6	-	Dual	27.00	4.70	15.46	3.30	-	-	-	-	14.57	2.95	-	-
1st - 5th	2.9	2B4P	5	2	2	4	3	-	72	775	8	-	-	Dual	29.82	3.62	11.50	3.10	13.23	2.93	-	-	-	-	-	-
1st - 5th	2.10	2B4P	5	2	2	4	3	-	79	850	7	-	-	Dual	31.36	3.50	16.80	2.75	12.25	2.75	-	-	-	-	-	-
1st - 5th	3.2	3B5P	5	2	3	5	4	-	90	969	-	8	-	Dual	29.00	4.34	15.55	2.85	12.21	2.95	-	-	9.60	2.76	-	-
1st - 5th	3.3	3B5P	5	2	3	5	4	-	98	1,055	8	-	-	Dual	30.74	4.07	13.57	3.05	12.44	2.60	-	-	12.41	2.95	-	-
	Total (1st-5th)	Unit Count	65	100	105	200	170	15	4,380	47,146	315	95														
6th - 10th	0.4	0B1P	5	1	-	1	1	-	42	452	5	-	Single	-	24.00	2.92	-	-	-	-	-	-	-	-	-	-
6th - 10th	1.1S/ 1.1S H	1B2P	5	1	1	2	2	-	51	549	-	5	Single	-	28.17	3.50	11.54	2.80	-	-	-	-	-	-	-	-
6th - 10th	1.2B WCH	1B2P	5	1	1	2	2	Yes	55	592	5	-	Single	-	25.66	3.40	15.32	3.00	-	-	-	-	-	-	-	-
6th - 10th	1.3	1B2P	5	1	1	2	2	-	50	538	5	-	Single	-	27.66	3.55	11.50	2.85	-	-	-	-	-	-	-	-
6th - 10th	1.6 WCH/ 1.6H WCH	1B2P	5	1	1	2	2	Yes	61	657	5	-	-	Dual	33.62	3.62	14.70	3.50	-	-	-	-	-	-	-	-
6th - 10th	1.7/ 1.7 H	1B2P	5	1	1	2	2	-	51	549	5	-	Single	-	23.97	3.55	12.00	2.90	-	-	-	-	-	-	-	-
6th - 10th	2.1/2.1 H	2B4P	5	2	2	4	3	-	71	764	8	-	-	Dual	27.55	3.77	12.61	2.80	11.53	3.10	-	-	-	-	-	-
6th - 10th	2.7	2B4P	5	2	2	4	3	-	80	861	7	-	-	Dual	28.85	4.34	11.50	3.25	11.74	2.90	-	-	-	-	-	-
6th - 10th	2.8	2B4P	5	2	2	4	3	-	75	807	-	7	-	Dual	27.00	4.70	14.56	2.95	15.34	3.30	-	-	-	-	-	-
6th - 10th	2.9	2B4P	5	2	2	4	3	-	72	775	8	-	-	Dual	29.82	3.62	11.50	3.10	13.23	2.93	-	-	-	-	-	-
6th - 10th	2.10	2B4P	5	2	2	4	3	-	79	850	7	-	-	Dual	31.36	3.50	16.80	2.75	12.25	2.75	-	-	-	-	-	-
6th - 10th	3.2	3B5P	5	2	3	5	4	-	90	969	-	8	-	Dual	29.00	4.34	15.55	2.85	12.21	2.95	-	-	9.60	2.76	-	-
6th - 10th	3.3	3B5P	5	2	3	5	4	-	98	1,055	8	-	-	Dual	30.74	4.07	13.57	3.05	12.44	2.60	-	-	12.41	2.95	-	-
	Total (6th-10th)	Unit Count	65	100	105	205	170	10	4,375	47,092	315	100														
11th	0.5/ 0.5H	0B1P	1	1	-	1	1	-	43	463	5	-	-	Dual	22.07	3.27	-	-	-	-	-	-	-	-	-	-
11th	0.6/ 0.6H	0B1P	1	1	-	1	1	-	40	431	-	5	Single	-	28.60	2.68	-	-	-	-	-	-	-	-	-	-
11th	1.1S/ 1.1S H	1B2P	2	1	1	2	2	-	51	549	-	5	Single	-	28.17	3.50	11.54	2.80	-	-	-	-	-	-	-	-
11th	1.8S/ 1.8S H	1B2P	1	1	1	2	2	-	51	549	-	5	-	Dual	28.50	3.59	12.21	2.80	-	-	-	-	-	-	-	-
11th	1.9/ 1.9 H	1B2P	1	1	1	2	2	-	51	549	-	5	Single	-	25.69	3.55	14.06	2.75	-	-	-	-	-	-	-	-
11th	2.1/2.1 H	2B4P	1	2	2	4	3	-	71	764	8	-	-	Dual	27.55	3.77	12.61	2.80	11.53	3.10	-	-	-	-	-	-
11th	2.1S/ 2.1S H	2B4P	1	2	2	4	3	-	72	775	-	7	-	Dual	28.13	3.76	12.78	2.80	11.51	3.10	-	-	-	-	-	-
11th	2.12/ 2.12 H	2B4P	1	2	2	4	3	-	77	829	7	-	-	Dual	30.20	3.37	15.64	2.75	12.65	2.72	-	-	-	-	-	-
	Total (11th)	Unit Count	9	12	10	22	19	-	507	5,457	20	32														
12th - 34th	1.1S/ 1.1S H	1B2P	46	1	1	2	2	-	51	549	-	5	Single	-	28.17	3.50	11.54	2.80	-	-	-	-	-	-	-	-
12th - 34th	1.1B/ 1.1B H	1B2P	23	1	1	2	2	-	51	549	5	-	Single	-	27.09	3.50	11.58	2.85	-	-	-	-	-	-	-	-
12th - 34th	1.8/ 1.8 H	1B2P	23	1	1	2	2	-	50	538	5	-	-	Dual	27.65	3.60	12.12	2.80	-	-	-	-	-	-	-	-
12th - 34th	1.8S/ 1.8S H	1B2P	23	1	1	2	2	-	51	549	-	5	-	Dual	28.50	3.59	12.21	2.80	-	-	-	-	-	-	-	-
12th - 34th	1.9/ 1.9 H	1B2P	23	1	1	2	2	-	51	549	-	5	Single	-	25.69	3.55	14.06	2.75	-	-	-	-	-	-	-	-
12th - 34th	2.1/2.1 H	2B4P	23	2	2	4	3	-	71	764	8	-	-	Dual	27.55	3.77	12.61	2.80	11.53	3.10	-	-	-	-	-	-
12th - 34th	2.1S/ 2.1S H	2B4P	23	2	2	4	3	-	72	775	-	7	-	Dual	28.13	3.76	12.78	2.80	11.51	3.10	-	-	-	-	-	-
12th - 34th	2.11/ 2.11 H	2B4P	23	2	2	4	3	-	74	797	7	-	-	Dual	27.50	3.37	15.64	2.75	11.54	2.75	-	-	-	-	-	-
12th - 34th	2.11S/ 2.11S H	2B4P	23	2	2	4	3	-	74	797	-	7	-	Dual	27.53	3.34	15.64	2.75	11.54	2.75	-	-	-	-	-	-
	Total (12th-34th)	Unit Count	230	322	322	644	552	-	13,708	147,552	575	782														
35th - 39th	0.7/ 0.7H	0B1P	5	1	-	1	1	-	38	409	-	5	Single	-	21.00	2.94	-	-	-	-	-	-	-	-	-	-
35th - 39th	1.1S/ 1.1S H	1B2P	5	1	1	2	2	-	51	549	-	5	Single	-	28.17	3.50	11.54	2.80	-	-	-	-	-	-	-	-
35th - 39th	1.9/ 1.9 H	1B2P	5	1	1	2	2	-	51	549	-	5	Single	-	25.69	3.55	14.06	2.75	-	-	-	-	-	-	-	-
35th - 39th	1.10/ 1.10 H	1B2P	5	1	1	2	2	-	50	538	-	5	Single	-	25.60	3.37	11.76	2.75	-	-	-	-	-	-	-	-
35th - 39th	1.11/ 1.11 H	1B2P	5	1	1	2	2	-	50	538	-	5	-	Dual	24.69	3.98	13.34	2.75	-	-	-	-	-	-	-	-
35th - 39th	1.12/ 1.12 H	1B2P	5	1	1	2	2	-	51	549	-	5	-	Dual	27.16	4.45	11.87	2.95	-	-	-	-	-	-	-	-
35th - 39th	2.1S/ 2.1S H	2B4P	5	2	2	4	3	-	72	775	-	7	-	Dual	28.13	3.76	12.78	2.80	11.51	3.10	-	-	-	-	-	-
35th - 39th	2.13 WCH/ 2.13H WCH	2B3P	5	2	2	3	3	Yes	81	872	-	6	-	Dual	31.81	3.36	17.75	3.00	-	-	-	-	10.63	2.85	-	-
	Total (35th-39th)	Unit Count	40	50	45	90	85	5	2,220	23,896	-	215														
	N18 Total		409	584	587	1,161	996	30	25,190	271,143	1,225	1,224														

- The NIA has been measured in accordance with the RICS Code of Measuring Practice (Sixth Edition).
- No guarantee is given to the accuracy or correctness of areas which are subject to site verification and an allowance of approximately +/-5% should be allowed on all figures due to survey irregularities & design development.
- Sqm to Sqft calculated using a factor of 10.7639
- All areas are rounded to the nearest 1 sqm
- Stacks and MEP cupboards have been included in the unit areas

Note:
* NIA of residential unit excludes private amenity space, whether it is internal or external.
Private amenity is excluded from the internal area as per Condition D2.
** Private amenity space can be externals amenity (i.e. balcony) or internal amenity (i.e. solarium)

10.5 N19 Unit Type Schedule

N19 - Residential Units									Areas*		Private Amenity Space**		Aspect		Room Area											
									NIA		EA	IA			Living Area		Double Bedroom 1		Double Bedroom 2		Double Bedroom 3		Single Bedroom 1		Single Bedroom 2	
Levels	Apartment Type	Unit Type	Occurrence	No. of Bath	No. of Bed	No. of Persons	Hab Rooms	Adaptable Unit	Sqm	Sqft	Sqm	Sqm	Single	Dual	Sqm	Width	Sqm	Width	Sqm	Width	Sqm	Width	Sqm	Width	Sqm	Width
1st - 10th	0.1/ 0.1H	0B1P	40	1	-	1	1	-	38	409	5	-	Single	-	22.08	2.77	-	-	-	-	-	-	-	-	-	-
1st - 10th	0.2	0B1P	10	1	-	1	1	-	39	420	5	-	Single	-	21.00	2.87	-	-	-	-	-	-	-	-	-	-
1st - 10th	0.3	0B1P	10	1	-	1	1	-	40	431	5	-	Single	-	22.19	2.88	-	-	-	-	-	-	-	-	-	-
1st - 10th	1.1S/ 1.1S H	1B2P	10	1	1	2	2	-	51	549	-	5	Single	-	28.17	3.50	11.54	2.80	-	-	-	-	-	-	-	-
1st - 10th	1.2A WCH	1B2P	10	1	1	2	2	Yes	54	581	5	-	Single	-	25.62	3.40	15.16	3.00	-	-	-	-	-	-	-	-
1st - 10th	1.3	1B2P	10	1	1	2	2	-	50	538	5	-	Single	-	27.66	3.55	11.50	2.85	-	-	-	-	-	-	-	-
1st - 10th	1.4	1B2P	10	1	1	2	2	-	56	603	-	5	-	Dual	31.60	3.73	12.04	2.75	-	-	-	-	-	-	-	-
1st - 10th	1.5	1B2P	10	1	1	2	2	-	51	549	5	-	Single	-	26.70	4.30	13.09	2.80	-	-	-	-	-	-	-	-
1st - 10th	1.6 WCH/ 1.6H WCH	1B2P	10	1	1	2	2	Yes	61	657	5	-	-	Dual	33.62	3.62	14.70	3.50	-	-	-	-	-	-	-	-
1st - 10th	1.7/ 1.7 H	1B2P	10	1	1	2	2	-	51	549	5	-	Single	-	23.97	3.55	12.00	2.90	-	-	-	-	-	-	-	-
1st - 10th	2.1/2.1 H	2B4P	10	2	2	4	3	-	71	764	8	-	-	Dual	27.55	3.77	12.61	2.80	11.53	3.10	-	-	-	-	-	-
1st - 10th	2.2 WCH	2B4P	10	2	2	4	3	Yes	96	1,033	7	-	-	Dual	39.10	4.20	18.20	3.10	14.90	3.00	-	-	-	-	-	-
1st - 10th	2.3	2B4P	10	2	2	4	3	-	76	818	7	-	-	Dual	27.97	4.11	12.03	2.75	11.58	3.00	-	-	-	-	-	-
1st - 10th	2.4	2B4P	10	2	2	4	3	-	71	764	-	7	-	Dual	28.57	4.37	11.53	2.85	12.13	2.80	-	-	-	-	-	-
1st - 10th	2.5 WCH	2B3P	10	2	2	3	3	Yes	81	872	8	-	-	Dual	31.93	3.67	16.83	3.00	-	-	-	-	11.72	2.80	-	-
1st - 10th	2.6 WCH	2B3P	10	2	2	3	3	Yes	88	947	6	-	-	Dual	30.34	5.00	16.60	3.10	-	-	-	-	12.78	2.75	-	-
1st - 10th	3.1	3B5P	10	2	3	5	4	-	86	926	-	8	-	Dual	29.00	4.44	12.38	3.20	13.70	2.60	-	-	10.00	2.85	-	-
1st - 10th	4.1	4B6P	10	3	4	6	5	-	113	1,216	9	-	-	Dual	38.85	4.25	12.67	2.90	14.21	2.75	-	-	10.29	2.65	9.21	2.80
	Total (1st-10th)	Unit Count	210	300	260	530	470	50	12,870	138,531	1,002	250														
11th	0.5/ 0.5H	0B1P	1	1	-	1	1	-	43	463	5	-	-	Dual	22.07	3.27	-	-	-	-	-	-	-	-	-	-
11th	0.6/ 0.6H	0B1P	1	1	-	1	1	-	40	431	-	5	Single	-	28.60	2.68	-	-	-	-	-	-	-	-	-	-
11th	1.1S/ 1.1S H	1B2P	1	1	1	2	2	-	51	549	-	5	Single	-	28.17	3.50	11.54	2.80	-	-	-	-	-	-	-	-
11th	1.1/ 1.1H	1B2P	1	1	1	2	2	-	50	538	5	-	Single	-	27.57	3.50	11.53	2.80	-	-	-	-	-	-	-	-
11th	1.8S/ 1.8S H	1B2P	1	1	1	2	2	-	51	549	-	5	-	Dual	28.50	3.59	12.21	2.80	-	-	-	-	-	-	-	-
11th	1.9/ 1.9 H	1B2P	1	1	1	2	2	-	51	549	-	5	Single	-	25.69	3.55	14.06	2.75	-	-	-	-	-	-	-	-
11th	2.1/2.1 H	2B4P	1	2	2	4	3	-	71	764	8	-	-	Dual	27.55	3.77	12.61	2.80	11.53	3.10	-	-	-	-	-	-
11th	2.1S/ 2.1S H	2B4P	1	2	2	4	3	-	72	775	-	7	-	Dual	28.13	3.76	12.78	2.80	11.51	3.10	-	-	-	-	-	-
11th	2.12/ 2.12 H	2B4P	1	2	2	4	3	-	77	829	7	-	-	Dual	30.20	3.37	15.64	2.75	12.65	2.72	-	-	-	-	-	-
	Total (11th)	Unit Count	9	12	10	22	19	-	506	5,447	25	27														
12th - 29th	1.1S/ 1.1S H	1B2P	18	1	1	2	2	-	51	549	-	5	Single	-	28.17	3.50	11.54	2.80	-	-	-	-	-	-	-	-
12th - 29th	1.1/ 1.1H	1B2P	18	1	1	2	2	-	50	538	5	-	Single	-	27.57	3.50	11.53	2.80	-	-	-	-	-	-	-	-
12th - 29th	1.1B/ 1.1B H	1B2P	18	1	1	2	2	-	51	549	5	-	Single	-	27.09	3.50	11.58	2.85	-	-	-	-	-	-	-	-
12th - 29th	1.8/ 1.8 H	1B2P	18	1	1	2	2	-	50	538	5	-	-	Dual	27.65	3.60	12.12	2.80	-	-	-	-	-	-	-	-
12th - 29th	1.8S/ 1.8S H	1B2P	18	1	1	2	2	-	51	549	-	5	-	Dual	28.50	3.59	12.21	2.80	-	-	-	-	-	-	-	-
12th - 29th	1.9/ 1.9 H	1B2P	18	1	1	2	2	-	51	549	-	5	Single	-	25.69	3.55	14.06	2.75	-	-	-	-	-	-	-	-
12th - 29th	2.1/2.1 H	2B4P	18	2	2	4	3	-	71	764	8	-	-	Dual	27.55	3.77	12.61	2.80	11.53	3.10	-	-	-	-	-	-
12th - 29th	2.1S/ 2.1S H	2B4P	18	2	2	4	3	-	72	775	-	7	-	Dual	28.13	3.76	12.78	2.80	11.51	3.10	-	-	-	-	-	-
12th - 29th	2.11/ 2.11 H	2B4P	18	2	2	4	3	-	74	797	7	-	-	Dual	27.50	3.37	15.64	2.75	11.54	2.75	-	-	-	-	-	-
12th - 29th	2.11S/ 2.11S H	2B4P	18	2	2	4	3	-	74	797	-	7	-	Dual	27.53	3.34	15.64	2.75	11.54	2.75	-	-	-	-	-	-
	Total (12th-29th)	Unit Count	180	252	252	504	432	-	10,710	115,281	540	522														
30th - 34th	0.7/ 0.7H	0B1P	5	1	-	1	1	-	38	409	-	5	Single	-	21.00	2.94	-	-	-	-	-	-	-	-	-	-
30th - 34th	1.1S/ 1.1S H	1B2P	5	1	1	2	2	-	51	549	-	5	Single	-	28.17	3.50	11.54	2.80	-	-	-	-	-	-	-	-
30th - 34th	1.9/ 1.9 H	1B2P	5	1	1	2	2	-	51	549	-	5	Single	-	25.69	3.55	14.06	2.75	-	-	-	-	-	-	-	-
30th - 34th	1.10/ 1.10 H	1B2P	5	1	1	2	2	-	50	538	-	5	Single	-	25.60	3.37	11.76	2.75	-	-	-	-	-	-	-	-
30th - 34th	1.11/ 1.11 H	1B2P	5	1	1	2	2	-	50	538	-	5	-	Dual	24.69	3.98	13.34	2.75	-	-	-	-	-	-	-	-
30th - 34th	1.12/ 1.12 H	1B2P	5	1	1	2	2	-	51	549	-	5	-	Dual	27.16	4.45	11.87	2.95	-	-	-	-	-	-	-	-
30th - 34th	2.1S/ 2.1S H	2B4P	5	2	2	4	3	-	72	775	-	7	-	Dual	28.13	3.76	12.78	2.80	11.51	3.10	-	-	-	-	-	-
30th - 34th	2.13 WCH/ 2.13H WCH	2B3P	5	2	2	3	3	Yes	81	872	-	6	-	Dual	31.81	3.36	17.75	3.00	-	-	-	-	10.63	2.85	-	-
	Total (30th-34th)	Unit Count	40	50	45	90	85	5	2,220	23,896	-	215														
		N19 Total	439	614	567	1,146	1,006	55	26,306	283,155	1,567	1,014														

- The NIA has been measured in accordance with the RICS Code of Measuring Practice (Sixth Edition).
- No guarantee is given to the accuracy or correctness of areas which are subject to site verification and an allowance of approximately +/-5% should be allowed on all figures due to survey irregularities & design development.
- Sqm to Sqft calculated using a factor of 10.7639
- All areas are rounded to the nearest 1 sqm
- Stacks and MEP cupboards have been included in the unit areas

Note:
* NIA of residential unit excludes private amenity space, whether it is internal or external.
Private amenity is excluded from the internal area as per Condition D2.
** Private amenity space can be externals amenity (i.e. balcony) or internal amenity (i.e. solarium)

10.6 N18 and N19 Accommodation Schedule

	Residential Units									Areas*		Private Amenity Space**		Aspect		Room Area											
	Apartment Type	Unit Type	Occurrence	No. of Bathroom	Total No. of bathroom Unit	No. of Bed	No. of Persons	Hab Rooms	Total No. of Hab Rooms	Adaptable Unit	NIA		EA	IA	Single	Dual	Living Area		Double Bedroom 1		Double Bedroom 2		Double Bedroom 3		Single Bedroom 1		Single Bedroom 2	
											Sqm	Sqft	Sqm	Sqm			Sqm	Width	Sqm	Width	Sqm	Width	Sqm	Width	Sqm	Width	Sqm	Width
Studio	0.1/ 0.1H	0B1P	40	1	40	-	1	1	40	-	38	409	5	-	Single	-	22.08	2.77	-	-	-	-	-	-	-	-	-	-
	0.2	0B1P	10	1	10	-	1	1	10	-	39	420	5	-	Single	-	21.00	2.87	-	-	-	-	-	-	-	-	-	-
	0.3	0B1P	10	1	10	-	1	1	10	-	40	431	5	-	Single	-	22.19	2.88	-	-	-	-	-	-	-	-	-	-
	0.4	0B1P	10	1	10	-	1	1	10	-	42	452	5	-	Single	-	24.00	2.92	-	-	-	-	-	-	-	-	-	-
	0.5/ 0.5H	0B1P	2	1	2	-	1	1	2	-	43	463	5	-	-	Dual	22.07	3.27	-	-	-	-	-	-	-	-	-	-
	0.6/ 0.6H	0B1P	2	1	2	-	1	1	2	-	40	431	-	5	Single	-	28.60	2.68	-	-	-	-	-	-	-	-	-	-
	0.7/ 0.7H	0B1P	10	1	10	-	1	1	10	-	38	409	-	5	Single	-	21.00	2.94	-	-	-	-	-	-	-	-	-	-
		Total	84		84				84																			
1 Bed	1.1S/ 1.1S H	1B2P	97	1	97	1	2	2	194	-	51	549	-	5	Single	-	28.17	3.50	11.54	2.80	-	-	-	-	-	-	-	-
	1.1/ 1.1H	1B2P	19	1	19	1	2	2	38	-	50	538	5	-	Single	-	27.57	3.50	11.53	2.80	-	-	-	-	-	-	-	-
	1.1B/ 1.1B H	1B2P	41	1	41	1	2	2	82	-	51	549	5	-	Single	-	27.09	3.50	11.58	2.85	-	-	-	-	-	-	-	-
	1.2A WCH	1B2P	10	1	10	1	2	2	20	Yes	54	581	5	-	Single	-	25.62	3.40	15.16	3.00	-	-	-	-	-	-	-	-
	1.2B WCH	1B2P	10	1	10	1	2	2	20	Yes	55	592	5	-	Single	-	25.66	3.40	15.32	3.00	-	-	-	-	-	-	-	-
	1.3	1B2P	20	1	20	1	2	2	40	-	50	538	5	-	Single	-	27.66	3.55	11.50	2.85	-	-	-	-	-	-	-	-
	1.4	1B2P	10	1	10	1	2	2	20	-	56	603	-	5	-	Dual	31.60	3.73	12.04	2.75	-	-	-	-	-	-	-	-
	1.5	1B2P	10	1	10	1	2	2	20	-	51	549	5	-	Single	-	26.70	4.30	13.09	2.80	-	-	-	-	-	-	-	-
	1.6 WCH/ 1.6H WCH	1B2P	20	1	20	1	2	2	40	Yes	61	657	5	-	-	Dual	33.62	3.62	14.70	3.50	-	-	-	-	-	-	-	-
	1.7/ 1.7 H	1B2P	20	1	20	1	2	2	40	-	51	549	5	-	Single	-	23.97	3.55	12.00	2.90	-	-	-	-	-	-	-	-
	1.8/ 1.8 H	1B2P	41	1	41	1	2	2	82	-	50	538	5	-	-	Dual	27.65	3.60	12.12	2.80	-	-	-	-	-	-	-	-
	1.8S/ 1.8S H	1B2P	43	1	43	1	2	2	86	-	51	549	-	5	-	Dual	28.50	3.59	12.21	2.80	-	-	-	-	-	-	-	-
	1.9/ 1.9 H	1B2P	53	1	53	1	2	2	106	-	51	549	-	5	Single	-	25.69	3.55	14.06	2.75	-	-	-	-	-	-	-	-
	1.10/ 1.10 H	1B2P	10	1	10	1	2	2	20	-	50	538	-	5	Single	-	25.60	3.37	11.76	2.75	-	-	-	-	-	-	-	-
	1.11/ 1.11 H	1B2P	10	1	10	1	2	2	20	-	50	538	-	5	-	Dual	24.69	3.98	13.34	2.75	-	-	-	-	-	-	-	-
	1.12/ 1.12 H	1B2P	10	1	10	1	2	2	20	-	51	549	-	5	-	Dual	27.16	4.45	11.87	2.95	-	-	-	-	-	-	-	-
		Total	424		424				848																			
2 Bed	2.1/2.1 H	2B4P	63	2	126	2	4	3	189	-	71	764	8	-	-	Dual	27.55	3.77	12.61	2.80	11.53	3.10	-	-	-	-	-	-
	2.1S/ 2.1S H	2B4P	53	2	106	2	4	3	159	-	72	775	-	7	-	Dual	28.13	3.76	12.78	2.80	11.51	3.10	-	-	-	-	-	-
	2.2 WCH	2B4P	10	2	20	2	4	3	30	Yes	96	1,033	7	-	-	Dual	39.10	4.20	18.20	3.10	14.90	3.00	-	-	-	-	-	-
	2.3	2B4P	10	2	20	2	4	3	30	-	76	818	7	-	-	Dual	27.97	4.11	12.03	2.75	11.58	3.00	-	-	-	-	-	-
	2.4	2B4P	10	2	20	2	4	3	30	-	71	764	-	7	-	Dual	28.57	4.37	11.53	2.85	12.13	2.80	-	-	-	-	-	-
	2.5 WCH	2B3P	10	2	20	2	3	3	30	Yes	81	872	8	-	-	Dual	31.93	3.67	16.83	3.00	-	-	-	-	11.72	2.80	-	-
	2.6 WCH	2B3P	10	2	20	2	3	3	30	Yes	88	947	6	-	-	Dual	30.34	5.00	16.60	3.10	-	-	-	-	12.78	2.75	-	-
	2.7	2B4P	10	2	20	2	4	3	30	-	80	861	7	-	-	Dual	28.85	4.34	11.50	3.25	11.74	2.90	-	-	-	-	-	-
	2.8 WCH	2B3P	5	2	10	2	3	3	15	Yes	76	818	-	6	-	Dual	27.00	4.70	15.46	3.30	-	-	-	-	14.57	2.95	-	-
	2.8	2B4P	5	2	10	2	4	3	15	-	75	807	-	7	-	Dual	27.00	4.70	14.56	2.95	15.34	3.30	-	-	-	-	-	-
	2.9	2B4P	10	2	20	2	4	3	30	-	72	775	8	-	-	Dual	29.82	3.62	11.50	3.10	13.23	2.93	-	-	-	-	-	-
	2.10	2B4P	10	2	20	2	4	3	30	-	79	850	7	-	-	Dual	31.36	3.50	16.80	2.75	12.25	2.75	-	-	-	-	-	-
	2.11/ 2.11 H	2B4P	41	2	82	2	4	3	123	-	74	797	7	-	-	Dual	27.50	3.37	15.64	2.75	11.54	2.75	-	-	-	-	-	-
	2.11S/ 2.11S H	2B4P	41	2	82	2	4	3	123	-	74	797	-	7	-	Dual	27.53	3.34	15.64	2.75	11.54	2.75	-	-	-	-	-	-
	2.12/ 2.12 H	2B4P	2	2	4	2	4	3	6	-	77	829	7	-	-	Dual	30.20	3.37	15.64	2.75	12.65	2.72	-	-	-	-	-	-
	2.13 WCH/ 2.13H WCH	2B3P	10	2	20	2	3	3	30	Yes	81	872	-	6	-	Dual	31.81	3.36	17.75	3.00	-	-	-	-	10.63	2.85	-	-
		Total	300		600				900																			
3 Bed	3.1	3B5P	10	2	20	3	5	4	40	-	86	926	-	8	-	Dual	29.00	4.44	12.38	3.20	13.70	2.60	-	-	10.00	2.85	-	-
	3.2	3B5P	10	2	20	3	5	4	40	-	90	969	-	8	-	Dual	29.00	4.34	15.55	2.85	12.21	2.95	-	-	9.60	2.76	-	-
	3.3	3B5P	10	2	20	3	5	4	40	-	98	1,055	8	-	-	Dual	30.74	4.07	13.57	3.05	12.44	2.60	-	-	12.41	2.95	-	-
		Total	30		60				120																			
4 Bed	4.1	4B6P	10	3	30	4	6	5	50	-	113	1,216	9	-	-	Dual	38.85	4.25	12.67	2.90	14.21	2.75	-	-	10.29	2.65	9.21	2.80
		Total	10		30				50																			
		Total Unit	848	Total Bathroom	1,198			Total Hab Room	2,002																			

- The NIA has been measured in accordance with the RICS Code of Measuring Practice (Sixth Edition).
- No guarantee is given to the accuracy or correctness of areas which are subject to site verification and an allowance of approximately +/-5% should be allowed on all figures due to survey irregularities & design development.
- Sqm to Sqft calculated using a factor of 10.7639
- All areas are rounded to the nearest 1 sqm
- Stacks and MEP cupboards have been included in the unit areas

Note:
* NIA of residential unit excludes private amenity space, whether it is internal or external.
Private amenity is excluded from the internal area as per Condition D2.
** Private amenity space can be externals amenity (i.e. balcony) or internal amenity (i.e. solarium)

10.7 GEA Planning Areas

N18

Floor	Condition D2						RICS Code of Measurement			
	Residential GEA		Retail GEA		Interior Shared Amenity GEA		GEA		Exterior Shared Amenity GEA	
	Sqm	Sqft	Sqm	Sqft	Sqm	Sqft	Sqm	Sqft	Sqm	Sqft
41st (Roof)	27	291	-	-	-	-	89	958	-	-
40th (Roof)	89	958	-	-	-	-	89	958	-	-
39th	650	6,997	-	-	-	-	717	7,718	-	-
38th	650	6,997	-	-	-	-	717	7,718	-	-
37th	650	6,997	-	-	-	-	717	7,718	-	-
36th	650	6,997	-	-	-	-	717	7,718	-	-
35th	650	6,997	-	-	-	-	717	7,718	-	-
34th	826	8,891	-	-	-	-	877	9,440	-	-
33rd	826	8,891	-	-	-	-	877	9,440	-	-
32nd	826	8,891	-	-	-	-	877	9,440	-	-
31st	826	8,891	-	-	-	-	877	9,440	-	-
30th	826	8,891	-	-	-	-	877	9,440	-	-
29th	826	8,891	-	-	-	-	877	9,440	-	-
28th	826	8,891	-	-	-	-	877	9,440	-	-
27th	826	8,891	-	-	-	-	877	9,440	-	-
26th	826	8,891	-	-	-	-	877	9,440	-	-
25th	826	8,891	-	-	-	-	877	9,440	-	-
24th	826	8,891	-	-	-	-	877	9,440	-	-
23rd	826	8,891	-	-	-	-	877	9,440	-	-
22nd	826	8,891	-	-	-	-	877	9,440	-	-
21st	826	8,891	-	-	-	-	877	9,440	-	-
20th	826	8,891	-	-	-	-	877	9,440	-	-
19th	826	8,891	-	-	-	-	877	9,440	-	-
18th	826	8,891	-	-	-	-	877	9,440	-	-
17th	826	8,891	-	-	-	-	877	9,440	-	-
16th	826	8,891	-	-	-	-	877	9,440	-	-
15th	826	8,891	-	-	-	-	877	9,440	-	-
14th	826	8,891	-	-	-	-	877	9,440	-	-
13th	826	8,891	-	-	-	-	877	9,440	-	-
12th	826	8,891	-	-	-	-	877	9,440	-	-
11th	787	8,471	-	-	54	581	882	9,494	207	2,228
10th	1,336	14,381	-	-	-	-	1,367	14,714	-	-
9th	1,336	14,381	-	-	-	-	1,367	14,714	-	-
8th	1,336	14,381	-	-	-	-	1,367	14,714	-	-
7th	1,336	14,381	-	-	-	-	1,367	14,714	-	-
6th	1,336	14,381	-	-	-	-	1,367	14,714	-	-
5th	1,336	14,381	-	-	-	-	1,367	14,714	-	-
4th	1,336	14,381	-	-	-	-	1,367	14,714	-	-
3rd	1,336	14,381	-	-	-	-	1,367	14,714	-	-
2nd	1,336	14,381	-	-	-	-	1,367	14,714	-	-
1st	1,336	14,381	-	-	-	-	1,367	14,714	-	-
L00 Park Level	367	3,950	457	4,919	253	2,723	1,353	14,564	-	-
L00 Mezzanine	241	2,594	184	1,981	-	-	1,300	13,993	-	-
L00 Station Level	2,372	25,532	154	1,658	917	9,870	4,577	49,266	52	560
Total	39,491	425,077	795	8,557	1,224	13,175	45,716	492,082	259	2,788

N19

Condition D2						RICS Code of Measurement				Floor
Residential GEA		Retail GEA		Interior Shared Amenity GEA		GEA		Exterior Shared Amenity GEA		
Sqm	Sqft	Sqm	Sqft	Sqm	Sqft	Sqm	Sqft	Sqm	Sqft	
27	291	-	-	-	-	89	958	-	-	36th (Roof)
89	958	-	-	-	-	89	958	-	-	35th (Roof)
651	7,007	-	-	-	-	717	7,718	-	-	34th
651	7,007	-	-	-	-	717	7,718	-	-	33rd
651	7,007	-	-	-	-	717	7,718	-	-	32nd
651	7,007	-	-	-	-	717	7,718	-	-	31st
651	7,007	-	-	-	-	717	7,718	-	-	30th
827	8,902	-	-	-	-	870	9,365	-	-	29th
827	8,902	-	-	-	-	870	9,365	-	-	28th
827	8,902	-	-	-	-	870	9,365	-	-	27th
827	8,902	-	-	-	-	870	9,365	-	-	26th
827	8,902	-	-	-	-	870	9,365	-	-	25th
827	8,902	-	-	-	-	870	9,365	-	-	24th
827	8,902	-	-	-	-	870	9,365	-	-	23rd
827	8,902	-	-	-	-	870	9,365	-	-	22nd
827	8,902	-	-	-	-	870	9,365	-	-	21st
827	8,902	-	-	-	-	870	9,365	-	-	20th
827	8,902	-	-	-	-	870	9,365	-	-	19th
827	8,902	-	-	-	-	870	9,365	-	-	18th
827	8,902	-	-	-	-	870	9,365	-	-	17th
827	8,902	-	-	-	-	870	9,365	-	-	16th
827	8,902	-	-	-	-	870	9,365	-	-	15th
827	8,902	-	-	-	-	870	9,365	-	-	14th
827	8,902	-	-	-	-	870	9,365	-	-	13th
827	8,902	-	-	-	-	870	9,365	-	-	12th
788	8,482	-	-	53	570	876	9,429	315	3,391	11th
1,830	19,698	-	-	-	-	1,866	20,085	-	-	10th
1,830	19,698	-	-	-	-	1,866	20,085	-	-	9th
1,830	19,698	-	-	-	-	1,866	20,085	-	-	8th
1,830	19,698	-	-	-	-	1,866	20,085	-	-	7th
1,830	19,698	-	-	-	-	1,866	20,085	-	-	6th
1,830	19,698	-	-	-	-	1,866	20,085	-	-	5th
1,830	19,698	-	-	-	-	1,866	20,085	-	-	4th
1,830	19,698	-	-	-	-	1,866	20,085	-	-	3rd
1,830	19,698	-	-	-	-	1,866	20,085	-	-	2nd
1,830	19,698	-	-	-	-	1,866	20,085	-	-	1st
332	3,574	80	861	627	6,749	2,338	25,166	-	-	L00 Park Level
179	1,927	-	-	-	-	984	10,592	-	-	L00 Mezzanine
-	-	-	-	-	-	-	-	-	-	L00 Station Level
37,856	407,478	80	861	680	7,319	42,281	455,108	315	3,391	Total

N18/ 19 Summary

Plot	Condition D2						RICS Code of Measurement			
	Residential GEA		Retail GEA		Interior Shared Amenity GEA		GEA		Exterior Shared Amenity GEA	
	Sqm	Sqft	Sqm	Sqft	Sqm	Sqft	Sqm	Sqft	Sqm	Sqft
N18	39,491	425,077	795	8,557	1,224	13,175	45,716	492,082	259	2,788
N19	37,856	407,478	80	861	680	7,319	42,281	455,108	315	3,391
Total	77,347	832,555	875	9,418	1,904	20,494	87,997	947,191	574	6,178

- The GEA has been measured in accordance with the RICS Code of Measuring Practice (Sixth Edition).
- GEA has been measured to the thermal line of the building - i.e. to the outside face of the vertical projection and then back to the thermal line
- As per the per the RICS Code of Measuring Practice, this GEA measure includes the following exclusions:
  a) External open-sided balconies including open sided inset and projecting balconies.
  b) Canopies - GRFC horizontal projections act as a brise soleil to support Part L solar shading requirement.
  c) Open vehicle parking areas, roof terraces, and the like
- No guarantee is given to the accuracy or correctness of areas which are subject to site verification and an allowance of approximately +/-5% should be allowed on all figures due to survey irregularities & design development.
- Sqm to Sqft calculated using a factor of 10.7639
- All areas are rounded to the nearest 1 sqm

10.8 Area Drawdown from SC OPP

Permissible unimplemented area (based on SC OPP ref:10/90651/VARODA / 10/90641/EXTODA illustrative mix)

Zones	Community Facilities (a)		Retail (b)		Leisure (c)		Residential (d)		Total (a+b+c+d) *when negative number equals 0		Unit No.	Car Park
	Sqm	Sqft	Sqm	Sqft	Sqm	Sqft	Sqm	Sqft	Sqm	Sqft		sqm
Zone 3 (N16 and N18/19)	-	-	4,136	44,519	1,924	20,710	106,018	1,141,167	112,078	1,206,396	1,178	22,950
Zone 4	- 385	- 4,144	-	-	-	-	3,199	34,434	3,199	34,434	-	-
Zone 5 (N05, N06, and N08)	1,111	11,959	- 1,476	- 15,888	1,200	12,917	- 17,365	- 186,915	2,311	24,875	900	-
Total	726	7,815	2,660	28,632	3,124	33,626	91,852	988,686	117,588	1,265,705	2,078	22,950

Proposed Unimplemented Area Draw Down

Area	Community Facilities (a)		Retail (b)		Leisure (C)		Residential GEA exclu. Internal and Shared Amenity Area (d)		TOTAL (a+b+c+d)		Internal Residential Shared Amenity Area		Internal residential private amenity area		No of units with internalised balconies	Unit No.	Car Park	
	Sqm	Sqft	Sqm	Sqft	Sqm	Sqft	Sqm	Sqft	Sqm	Sqft	Sqm	Sqft	Sqm	Sqft			Regular	Blue badge
N16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N18/19	-	-	875	9,418	-	-	77,347	832,555	78,222	841,974	1,904	20,494	2,238	24,090	389	848	-	26
Subtotal for Zone 3	-	-	875	9,418	-	-	77,347	832,555	78,222	841,974	1,904	20,494	2,238	24,090	389	848	-	26
Difference in comparison to unimplemented area	-	-	- 3,261	- 35,101	- 1,924	- 20,710	- 28,671	- 308,612	- 33,856	- 364,423						- 330		
N05	324	3,488	137	1,475	-	-	5,884	63,335	6,345	68,297	-	-	-	-	-	48	-	7
N06	-	-	1,603	17,255	-	-	47,804	514,557	49,407	531,812	1,551	16,695	2,572	27,685	273	524	-	16
N08	-	-	1,455	15,661	1,485	15,984	50,657	545,267	53,597	576,913	-	-	1,988	21,399	344	482	7	52
Subtotal for Zone 5	324	3,488	3,195	34,391	1,485	15,984	104,345	1,123,159	109,349	1,177,022	1,551	16,695	4,560	49,083	617	1006 *	7	75
Difference in comparison to unimplemented area	- 787	- 8,471	4,671	50,278	285	3,068	121,710	1,310,074	107,038	1,152,146						106 *		
Total	324	3,488	4,070	43,809	1,485	15,984	181,692	1,955,715	187,571	2,018,995	3,455	37,189	6,798	73,173	1,006	1854 *	7	101
Difference in comparison to unimplemented area	- 402	- 4,327	1,410	15,177	- 1,639	- 17,642	89,840	967,029	69,983	753,290						-224 *		

- The RGEA has been apportioned in accordance with the SC OPP Condition D2 with the following agreed exclusions;
  a) Internalised Amenity (IA) within the residential units
  b) All basement uses, apart from basement lift cores.
  c) Shared central amenity areas which includes the T1+T2 ground floor lobbies, 10th floor shared amenity & associated tail lift core
- No guarantee is given to the accuracy or correctness of areas which are subject to site verification and an allowance of approximately +/-5% should be allowed on all figures due to survey irregularities & design development.
- Sqm to Sqft calculated using a factor of 10.7639
- All areas are rounded to the nearest 1 sqm
- Based on the January 2014 Site Wide Housing Strategy (SWHS)
-Plot N16 has been removed from the SC OPP
-Zone 4 and Zone 5 information are based on Plot N06 DDR in February 2017

* The draw down is based on market units only and therefore the Plot N05 affordable units figure is excluded.

10.9 Space Standard Audit – Studios

Audit Standard			D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC
Internal Floor Area (m2)		0.1/ 0.1H			0.2			0.3			0.4			0.5/ 0.5H			0.6/ 0.6H			0.7/ 0.7H		
Number of units of particular unit type		40			10			10			10			2			2			10		
Flat or house?		Flat			Flat			Flat			Flat			Flat			Flat			Flat		
Number of bedrooms in unit type		-			-			-			-			-			-			-		
Number of bedspaces in unit type		1			1			1			1			1			1			1		
Number of bathrooms in unit type		1			1			1			1			1			1			1		
Number of storeys within the dwelling		1			1			1			1			1			1			1		
Number of Double Bedrooms		-			-			-			-			-			-			-		
Number of Single Bedrooms		-			-			-			-			-			-			-		
Gross committed or designed floor area of unit type*		38	37	39	39	37	39	40	37	39	42	37	39	43	37	39	40	37	39	38	37	39
Does Unit Type meet minimum area requirement?			Yes	No		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	No

Studio		
Total Units	D6	LLDC
	Quantum Compliant %	
84		
	100%	71%

Unit Type Internal Measurements		0.1/ 0.1H Room Sizes			0.2 Room Sizes			0.3 Room Sizes			0.4 Room Sizes			0.5/ 0.5H Room Sizes			0.6/ 0.6H Room Sizes			0.7/ 0.7H Room Sizes		
Combined area for living + dining + kitchen*		22.1	21		21	21		22.2	21		24	21		22.1	21		28.6	21		21	21	
Double Bedroom 1 - Room Size		-	N/A		-	N/A		-	N/A		-	N/A		-	N/A		-	N/A		-	N/A	
Double Bedroom 1 - Minimum Width		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Double Bedroom 2 - Room Size		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Double Bedroom 2 - Minimum Width		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Double Bedroom 3 - Room Size		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Double Bedroom 3 - Minimum Width		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 1 - Room Size		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 1 - Minimum Width		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 2 - Room Size		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 2 - Minimum Width		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ceiling Height		2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6
Is this Unit Dual Aspect?		-			-			-			-			Dual			-			-		
Do Room Dimensions meet minimum requirements?			Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No
Additional Unit Requirements?																						
Total gross internal floor area of built-in storage (min nt 2M)		1.25	1		1.45	1		1.15	1		1.15	1		1.1	1		1.5	1		1.1	1	
Does Unit Type meet storage requirements?			Yes			Yes			Yes			Yes			Yes			Yes			Yes	
Unit private open space (balconies, terraces, solariums) (m2)		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Does Unit Type meet private space requirements?			Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes
Minimum depth of balconies/ terraces (m) (put "- " if none)		1.5	1.5		1.75	1.5		1.75	1.5		1.75	1.5		1.75	1.5		N/A	1.5		N/A	1.5	
Is combined unit area and private space sufficient?			Yes			Yes			Yes			Yes			Yes			N/A			N/A	

Quantum Compliant %	
100%	
N/A	
100%	0%
Quantum Compliant %	
100%	
100%	100%
100%	

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Note:
* excludes private amenity space, whether it is internal or external.

10.10 Space Standard Audit – One Bedroom Units

Audit Standard		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC
Internal Floor Area (m2)	1.1S/ 1.1S H			1.1/ 1.1H			1.1B/ 1.1B H			1.2A WCH			1.2B WCH			1.3			1.4			1.5			1.6 WCH/ 1.6H WCH			1.7/ 1.7 H			1.8/ 1.8 H			1.8S/ 1.8S H			1.9/ 1.9 H			1.10/ 1.10 H			1.11/ 1.11 H			1.12/ 1.12 H		
Number of units of particular unit type	97			19			41			10			10			20			10			10			20			20			41			43			53			10			10			10		
Flat or house?	Flat			Flat			Flat			Flat			Flat			Flat			Flat			Flat			Flat			Flat			Flat			Flat			Flat			Flat			Flat			Flat		
Number of bedrooms in unit type	1			1			1			1			1			1			1			1			1			1			1			1			1			1			1			1		
Number of bedspaces in unit type	2			2			2			2			2			2			2			2			2			2			2			2			2			2			2			2		
Number of bathrooms in unit type	1			1			1			1			1			1			1			1			1			1			1			1			1			1			1			1		
Number of storeys within the dwelling	1			1			1			1			1			1			1			1			1			1			1			1			1			1			1			1		
Number of Double Bedrooms	1			1			1			1			1			1			1			1			1			1			1			1			1			1			1			1		
Number of Single Bedrooms	-			-			-			-			-			-			-			-			-			-			-			-			-			-			-			-		
Gross committed or designed floor area of unit type*	51	50	52.5	50	50	52.5	51	50	52.5	54	50	52.5	55	50	52.5	50	50	52.5	56	50	52.5	51	50	52.5	61	50	52.5	51	50	52.5	50	50	52.5	51	50	52.5	51	50	52.5	50	50	52.5	50	50	52.5	51	50	52.5
Does Unit Type meet minimum area requirement?		Yes	No		Yes	No		Yes	No		Yes	Yes		Yes	Yes		Yes	No		Yes	Yes		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No

1 Bed		
Total Units	D6	LLDC
	Quantum Compliant %	
427		

Unit Type Internal Measurements	1.1S/ 1.1S H Room Sizes			1.1/ 1.1H Room Sizes			1.1B/ 1.1B H Room Sizes			1.2A WCH Room Sizes			1.2B WCH Room Sizes			1.3 Room Sizes			1.4 Room Sizes			1.5 Room Sizes			1.6 WCH/ 1.6H WCH Room Sizes			1.7/ 1.7 H Room Sizes			1.8/ 1.8 H Room Sizes			1.8S/ 1.8S H Room Sizes			1.9/ 1.9 H Room Sizes			1.10/ 1.10 H Room Sizes			1.11/ 1.11 H Room Sizes			1.12/ 1.12 H Room Sizes		
Combined area for living + dining + kitchen*	28.2	23		27.6	23		27.1	23		25.6	25		25.7	25		27.7	23		31.6	23		26.7	23		33.6	25		24	23		27.7	23		28.5	23		25.7	23		25.6	23		24.7	23		27.2	23	
Double Bedroom 1 - Room Size	11.5	11.5		11.5	11.5		11.6	11.5		15.2	13.5		15.3	13.5		11.5	11.5		12	11.5		13.1	11.5		14.7	13.5		12	11.5		12.1	11.5		12.2	11.5		14.1	11.5		11.8	11.5		13.3	11.5		11.9	11.5	
Double Bedroom 1 - Minimum Width	2.8	2.75		2.8	2.75		2.85	2.75		3	3		3	3		2.85	2.75		2.75	2.75		2.8	2.75		3.5	3		2.9	2.75		2.8	2.75		2.8	2.75		2.75	2.75		2.75	2.75		2.75	2.75		2.95	2.75	
Double Bedroom 2 - Room Size	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Double Bedroom 2 - Minimum Width	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Double Bedroom 3 - Room Size	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Double Bedroom 3 - Minimum Width	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 1 - Room Size	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 1 - Minimum Width	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 2 - Room Size	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 2 - Minimum Width	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ceiling Height	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6
Is this Unit Dual Aspect?	-			-			-			-			-			-			Dual			-			Dual			-			Dual			Dual			-			-			Dual			Dual		
Do Room Dimensions meet minimum requirements?		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No		Yes	No

Quantum Compliant %	
100%	
100%	
100%	
100%	0%

Additional Unit Requirements?																																															
Total gross internal floor area of built-in storage (min nt 2M)	1.5	1.5		1.5	1.5		1.5	1.5		1.7	1.5		1.85	1.5		1.5	1.5		1.6	1.5		2.05	1.5		1.55	1.5		1.6	1.5		1.8	1.5		1.8	1.5		1.55	1.5		1.5	1.5		1.85	1.5		1.5	1.5	
Does Unit Type meet storage requirements?		Yes			Yes			Yes			Yes			Yes			Yes			Yes			Yes			Yes			Yes			Yes			Yes			Yes			Yes			Yes			Yes	
Unit private open space (balconies, terraces, solariums) (m2)	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Does Unit Type meet private space requirements?		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes
Minimum depth of balconies/ terraces (m) (put "- " if none)	N/A	1.5		1.75	1.5		1.75	1.5		1.75	1.5		1.75	1.5		1.75	1.5		N/A	1.5		1.75	1.5		1.75	1.5		2	1.5		1.75	1.5		N/A	1.5		N/A	1.5		N/A	1.5		N/A	1.5		N/A	1.5	
Is combined unit area and private space sufficient?		N/A			Yes			Yes			Yes			Yes			Yes			N/A			Yes			Yes			Yes			Yes			N/A			N/A			N/A			N/A			N/A	

Quantum Compliant %	
100%	
100%	100%
100%	

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LLDC Guidance

Note:
* excludes private amenity space, whether it is internal or external.

10.11 Space Standard Audit – Two Bedroom Units

Audit Standard		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC
Internal Floor Area (m2)	2.1/2.1 H			2.1S/ 2.1S H			2.2 WCH			2.3		
Number of units of particular unit type	63			53			10			10		
Flat or house?	Flat			Flat			Flat			Flat		
Number of bedrooms in unit type	2			2			2			2		
Number of bedspaces in unit type	4			4			4			4		
Number of bathrooms in unit type	2			2			2			2		
Number of storeys within the dwelling	1			1			1			1		
Number of Double Bedrooms	2			2			2			2		
Number of Single Bedrooms	-			-			-			-		
Gross committed or designed floor area of unit type*	71	70	73.5	72	70	73.5	96	70	73.5	76	70	73.5
Does Unit Type meet minimum area requirement?		Yes	No		Yes	No		Yes	Yes		Yes	Yes
Unit Type Internal Measurements	2.1/2.1 H Room Sizes			2.1S/ 2.1S H Room Sizes			2.2 WCH Room Sizes			2.3 Room Sizes		
Combined area for living + dining + kitchen*	27.6	27		28.1	27		39.1	29		28	27	
Double Bedroom 1 - Room Size	12.6	11.5		12.8	11.5		18.2	13.5		12	11.5	
Double Bedroom 1 - Minimum Width	2.8	2.75		2.8	2.75		3.1	3		2.75	2.75	
Double Bedroom 2 - Room Size	11.5	11.5		11.5	11.5		14.9	12.5		11.6	11.5	
Double Bedroom 2 - Minimum Width	3.1	2.55		3.1	2.55		3	3		3	2.55	
Double Bedroom 3 - Room Size	-	-	-	-	-	-	-	-	-	-	-	-
Double Bedroom 3 - Minimum Width	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 1 - Room Size	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 1 - Minimum Width	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 2 - Room Size	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 2 - Minimum Width	-	-	-	-	-	-	-	-	-	-	-	-
Ceiling Height	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6
Is this Unit Dual Aspect?	Dual			Dual			Dual			Dual		
Do Room Dimensions meet minimum requirements?		Yes	No		Yes	No		Yes	No		Yes	No
Additional Unit Requirements?												
Total gross internal floor area of built-in storage (min nt 2M)	2.25	2		2.25	2		2	2		2	2	
Does Unit Type meet storage requirements?		Yes			Yes			Yes			Yes	
Unit private open space (balconies, terraces, solariums) (m2)	8	7	8	7	7	8	7.2	7	8	7	7	8
Does Unit Type meet private space requirements?		Yes	Yes		Yes	No		Yes	No		Yes	No
Minimum depth of balconies/ terraces (m) (put "- " if none)	2	1.5		N/A	1.5		2.1	1.5		1.8	1.5	
Is combined unit area and private space sufficient?		Yes			N/A			Yes			Yes	

Audit Standard		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC
Internal Floor Area (m2)	2.4			2.5 WCH			2.6 WCH			2.7		
Number of units of particular unit type	10			10			10			10		
Flat or house?	Flat			Flat			Flat			Flat		
Number of bedrooms in unit type	2			2			2			2		
Number of bedspaces in unit type	4			3			3			4		
Number of bathrooms in unit type	2			2			2			2		
Number of storeys within the dwelling	1			1			1			1		
Number of Double Bedrooms	2			1			1			2		
Number of Single Bedrooms	-			1			1			-		
Gross committed or designed floor area of unit type*	71	70	73.5	81	61	64	88	61	64	80	70	73.5
Does Unit Type meet minimum area requirement?		Yes	No		Yes	Yes		Yes	Yes		Yes	Yes
Unit Type Internal Measurements	2.4 Room Sizes			2.5 WCH Room Sizes			2.6 WCH Room Sizes			2.7 Room Sizes		
Combined area for living + dining + kitchen*	28.6	27		31.9	27		30.3	27		28.9	27	
Double Bedroom 1 - Room Size	11.5	11.5		16.8	13.5		16.6	13.5		11.5	11.5	
Double Bedroom 1 - Minimum Width	2.85	2.75		3	3		3.1	3		3.25	2.75	
Double Bedroom 2 - Room Size	12.1	11.5		-	-	-	-	-	-	11.7	11.5	
Double Bedroom 2 - Minimum Width	2.8	2.55		-	-	-	-	-	-	2.9	2.55	
Double Bedroom 3 - Room Size	-	-	-	-	-	-	-	-	-	-	-	-
Double Bedroom 3 - Minimum Width	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 1 - Room Size	-	-	-	11.7	8.5		12.8	8.5		-	-	-
Single Bedroom 1 - Minimum Width	-	-	-	2.8	2.4		2.75	2.4		-	-	-
Single Bedroom 2 - Room Size	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 2 - Minimum Width	-	-	-	-	-	-	-	-	-	-	-	-
Ceiling Height	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6
Is this Unit Dual Aspect?	Dual			Dual			Dual			Dual		
Do Room Dimensions meet minimum requirements?		Yes	No		Yes	No		Yes	No		Yes	No
Additional Unit Requirements?												
Total gross internal floor area of built-in storage (min nt 2M)	2.2	2		2.55	2		2.5	2		2.15	2	
Does Unit Type meet storage requirements?		Yes			Yes			Yes			Yes	
Unit private open space (balconies, terraces, solariums) (m2)	7	7	8	8	6	6	6	6	6	7	7	8
Does Unit Type meet private space requirements?		Yes	No		Yes	Yes		Yes	Yes		Yes	No
Minimum depth of balconies/ terraces (m) (put "- " if none)	N/A	1.5		2	1.5		1.5	1.5		1.8	1.5	
Is combined unit area and private space sufficient?		N/A			Yes			Yes			Yes	

Audit Standard		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC
Internal Floor Area (m2)	2.8 WCH			2.8			2.9			2.10		
Number of units of particular unit type	5			5			10			10		
Flat or house?	Flat			Flat			Flat			Flat		
Number of bedrooms in unit type	2			2			2			2		
Number of bedspaces in unit type	3			4			4			4		
Number of bathrooms in unit type	2			2			2			2		
Number of storeys within the dwelling	1			1			1			1		
Number of Double Bedrooms	1			2			2			2		
Number of Single Bedrooms	1			-			-			-		
Gross committed or designed floor area of unit type*	76	61	64	75	70	73.5	72	70	73.5	79	70	73.5
Does Unit Type meet minimum area requirement?		Yes	Yes		Yes	Yes		Yes	No		Yes	Yes
Unit Type Internal Measurements	2.8 WCH Room Sizes			2.8 Room Sizes			2.9 Room Sizes			2.10 Room Sizes		
Combined area for living + dining + kitchen*	27	27		27	27		29.8	27		31.4	27	
Double Bedroom 1 - Room Size	15.5	13.5		14.6	11.5		11.5	11.5		16.8	11.5	
Double Bedroom 1 - Minimum Width	3.3	3		2.95	2.75		3.1	2.75		2.75	2.75	
Double Bedroom 2 - Room Size	-	-	-	15.3	11.5		13.2	11.5		12.3	11.5	
Double Bedroom 2 - Minimum Width	-	-	-	3.3	2.55		2.93	2.55		2.75	2.55	
Double Bedroom 3 - Room Size	-	-	-	-	-	-	-	-	-	-	-	-
Double Bedroom 3 - Minimum Width	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 1 - Room Size	14.6	8.5		-	-	-	-	-	-	-	-	-
Single Bedroom 1 - Minimum Width	2.95	2.4		-	-	-	-	-	-	-	-	-
Single Bedroom 2 - Room Size	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 2 - Minimum Width	-	-	-	-	-	-	-	-	-	-	-	-
Ceiling Height	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6
Is this Unit Dual Aspect?	Dual			Dual			Dual			Dual		
Do Room Dimensions meet minimum requirements?		Yes	No		Yes	No		Yes	No		Yes	No
Additional Unit Requirements?												
Total gross internal floor area of built-in storage (min nt 2M)	2	2		2.1	2		2	2		2.2	2	
Does Unit Type meet storage requirements?		Yes			Yes			Yes			Yes	
Unit private open space (balconies, terraces, solariums) (m2)	6	6	6	7	7	8	8	7	8	7	7	8
Does Unit Type meet private space requirements?		Yes	Yes		Yes	No		Yes	Yes		Yes	No
Minimum depth of balconies/ terraces (m) (put "- " if none)	N/A	1.5		N/A	1.5		1.8	1.5		2	1.5	
Is combined unit area and private space sufficient?		N/A			N/A			Yes			Yes	

Audit Standard		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC
Internal Floor Area (m2)	2.11/ 2.11 H			2.11S/ 2.11S H			2.12/ 2.12 H			2.13 WCH/ 2.13H WCH		
Number of units of particular unit type	41			41			2			10		
Flat or house?	Flat			Flat			Flat			Flat		
Number of bedrooms in unit type	2			2			2			2		
Number of bedspaces in unit type	4			4			4			3		
Number of bathrooms in unit type	2			2			2			2		
Number of storeys within the dwelling	1			1			1			1		
Number of Double Bedrooms	2			2			2			1		
Number of Single Bedrooms	-			-			-			1		
Gross committed or designed floor area of unit type*	74	70	73.5	74	70	73.5	77	70	73.5	81	61	64
Does Unit Type meet minimum area requirement?		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes
Unit Type Internal Measurements	2.11/ 2.11 H Room Sizes			2.11S/ 2.11S H Room Sizes			2.12/ 2.12 H Room Sizes			2.13 WCH/ 2.13H WCH Room Sizes		
Combined area for living + dining + kitchen*	27.5	27		27.5	27		30.2	27		31.81	27	
Double Bedroom 1 - Room Size	15.6	11.5		15.6	11.5		15.6	11.5		17.8	13.5	
Double Bedroom 1 - Minimum Width	2.75	2.75		2.75	2.75		2.75	2.75		3	3	
Double Bedroom 2 - Room Size	11.5	11.5		11.5	11.5		12.7	11.5		-	-	-
Double Bedroom 2 - Minimum Width	2.75	2.55		2.75	2.55		2.72	2.55		-	-	-
Double Bedroom 3 - Room Size	-	-	-	-	-	-	-	-	-	-	-	-
Double Bedroom 3 - Minimum Width	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 1 - Room Size	-	-	-	-	-	-	-	-	-	10.6	8.5	
Single Bedroom 1 - Minimum Width	-	-	-	-	-	-	-	-	-	2.85	2.4	
Single Bedroom 2 - Room Size	-	-	-	-	-	-	-	-	-	-	-	-
Single Bedroom 2 - Minimum Width	-	-	-	-	-	-	-	-	-	-	-	-
Ceiling Height	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6
Is this Unit Dual Aspect?	Dual			Dual			Dual			Dual		
Do Room Dimensions meet minimum requirements?		Yes	No		Yes	No		Yes	No		Yes	No
Additional Unit Requirements?												
Total gross internal floor area of built-in storage (min nt 2M)	2	2		2	2		2.15	2		2.6	2	
Does Unit Type meet storage requirements?		Yes			Yes			Yes			Yes	
Unit private open space (balconies, terraces, solariums) (m2)	7	7	8	7	7	8	7	7	8	6	6	6
Does Unit Type meet private space requirements?		Yes	No		Yes	No		Yes	No		Yes	Yes
Minimum depth of balconies/ terraces (m) (put "- " if none)	2.15	1.5		N/A	1.5		2.15	1.5		N/A	1.5	
Is combined unit area and private space sufficient?		Yes			N/A			Yes			N/A	

2 Bed	Total Units	Quantum Compliant % D6	Quantum Compliant % LLDC
Number of units of particular unit type	300		
Gross committed or designed floor area of unit type*		100%	75%
Combined area for living + dining + kitchen*		100%	
Double Bedroom 1 - Room Size		100%	
Double Bedroom 1 - Minimum Width		100%	
Double Bedroom 2 - Room Size		100%	
Double Bedroom 2 - Minimum Width		100%	
Single Bedroom 1 - Room Size		100%	
Single Bedroom 1 - Minimum Width		100%	
Ceiling Height		100%	0%
Total gross internal floor area of built-in storage (min nt 2M)		100%	
Unit private open space (balconies, terraces, solariums) (m2)		100%	38%
Minimum depth of balconies/ terraces (m) (put "- " if none)		100%	

The London Plan 2021 - Policy D6
LLDC Guidance

Note:
* excludes private amenity space, whether it is internal or external.

10.12 Space Standard Audit – Three Bedroom Units

Audit Standard			D6	LLDC		D6	LLDC		D6	LLDC	3 Bed	D6	LLDC
Internal Floor Area (m2)		3.1			3.2			3.3			Total Units	Quantum Compliant %	
Number of units of particular unit type		10			10			10			30		
Flat or house?		Flat			Flat			Flat					
Number of bedrooms in unit type		3			3			3					
Number of bedspaces in unit type		5			5			5					
Number of bathrooms in unit type		2			2			2					
Number of storeys within the dwelling		1			1			1					
Number of Double Bedrooms		2			2			2					
Number of Single Bedrooms		1			1			1					
Gross committed or designed floor area of unit type*		86	86	90.5	90	86	90.5	98	86	90.5		100%	33%
Does Unit Type meet minimum area requirement?			Yes	No		Yes	No		Yes	Yes			

Unit Type Internal Measurements		3.1 Room Sizes			3.2 Room Sizes			3.3 Room Sizes			Quantum Compliant %	
Combined area for living + dining + kitchen*		29	29		29	29		30.7	29		100%	
Double Bedroom 1 - Room Size		12.4	11.5		15.6	11.5		13.6	11.5		100%	
Double Bedroom 1 - Minimum Width		3.2	2.75		2.85	2.75		3.05	2.75		100%	
Double Bedroom 2 - Room Size		13.7	11.5		12.2	11.5		12.4	11.5		100%	
Double Bedroom 2 - Minimum Width		2.6	2.55		2.95	2.55		2.6	2.55		100%	
Double Bedroom 3 - Room Size		-	-	-	-	-	-	-	-	-		
Double Bedroom 3 - Minimum Width		-	-	-	-	-	-	-	-	-		
Single Bedroom 1 - Room Size		10	7.5		9.6	7.5		12.4	7.5		100%	
Single Bedroom 1 - Minimum Width		2.85	2.15		2.76	2.15		2.95	2.15		100%	
Single Bedroom 2 - Room Size		-	-	-	-	-	-	-	-	-		
Single Bedroom 2 - Minimum Width		-	-	-	-	-	-	-	-	-		
Ceiling Height		2.55	2.5	2.6	2.55	2.5	2.6	2.55	2.5	2.6	100%	0%
Is this Unit Dual Aspect?		Dual			Dual			Dual				
Do Room Dimensions meet minimum requirements?			Yes	No		Yes	No		Yes	No		

Additional Unit Requirements?											Quantum Compliant %	
Total gross internal floor area of built-in storage (min nt 2M)		2.8	2.5		2.55	2.5		3.35	2.5		100%	
Does Unit Type meet storage requirements?			Yes			Yes			Yes			
Unit private open space (balconies, terraces, solariums) (m2)		8	8	9	8	8	9	8	8	9	100%	0%
Does Unit Type meet private space requirements?			Yes	No		Yes	No		Yes	No		
Minimum depth of balconies/ terraces (m) (put "- " if none)		N/A	1.5		N/A	1.5		1.8	1.5		100%	
Is combined unit area and private space sufficient?			N/A			N/A			Yes			

The London Plan 2021 - Policy D6
LLDC Guidance

Note:
* excludes private amenity space, whether it is internal or external.

10.13 Space Standard Audit – Four Bedroom Units

Audit Standard			D6	LLDC
Internal Floor Area (m2)		4.1		
Number of units of particular unit type		10		
Flat or house?		Flat		
Number of bedrooms in unit type		4		
Number of bedspaces in unit type		6		
Number of bathrooms in unit type		3		
Number of storeys within the dwelling		1		
Number of Double Bedrooms		2		
Number of Single Bedrooms		2		
Gross committed or designed floor area of unit type*		113	99	105
Does Unit Type meet minimum area requirement?			Yes	Yes

4 Bed		
	D6	LLDC
Total Units	Quantum Compliant %	
10		
	100%	100%

Unit Type Internal Measurements		4.1 Room Sizes		
Combined area for living + dining + kitchen*		38.9	31	
Double Bedroom 1 - Room Size		12.7	11.5	
Double Bedroom 1 - Minimum Width		2.9	2.75	
Double Bedroom 2 - Room Size		14.2	11.5	
Double Bedroom 2 - Minimum Width		2.75	2.55	
Double Bedroom 3 - Room Size		-	-	-
Double Bedroom 3 - Minimum Width		-	-	-
Single Bedroom 1 - Room Size		10.3	7.5	
Single Bedroom 1 - Minimum Width		2.65	2.15	
Single Bedroom 2 - Room Size		9.2	7.5	
Single Bedroom 2 - Minimum Width		2.8	2.15	
Ceiling Height		2.55	2.5	2.6
Is this Unit Dual Aspect?		Dual		
Do Room Dimensions meet minimum requirements?			Yes	No

Quantum Compliant %	
100%	
100%	
100%	
100%	
100%	
100%	
100%	
100%	
100%	
100%	0%

Additional Unit Requirements?				
Total gross internal floor area of built-in storage (min nt 2M)		3	3	
Does Unit Type meet storage requirements?			Yes	
Unit private open space (balconies, terraces, solariums) (m2)		9	9	10
Does Unit Type meet private space requirements?			Yes	No
Minimum depth of balconies/ terraces (m) (put "- " if none)		2.2	1.5	
Is combined unit area and private space sufficient?			Yes	

Quantum Compliant %	
100%	
100%	0%
100%	

The London Plan 2021 - Policy D6
LLDC Guidance

Note:
* excludes private amenity space, whether it is internal or external.

10.14 Overall Accommodation Schedule

Summary																					
Studio			1 Bed			2 Bed			3 Bed			4 Bed			Total					
	D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC		D6	LLDC
Total Units	Quantum Compliant %		Total Units	Quantum Compliant %		Total Units	Quantum Compliant %		Total Units	Quantum Compliant %		Total Units	Quantum Compliant %		Total Units	Quantum Compliant %		Total Units	Quantum Compliant %	
84			424			300			30			10			848					
	100%	71%		100%	25%		100%	75%		100%	33%		100%	100%		100%	53%			

Quantum Compliant %		Quantum Compliant %		Quantum Compliant %		Quantum Compliant %		Quantum Compliant %		Quantum Compliant %	
100%		100%		100%		100%		100%		100%	
N/A		100%		100%		100%		100%		100%	
		100%		100%		100%		100%		100%	
				100%		100%		100%		100%	
				100%		100%		100%		100%	
				100%		100%		100%		100%	
				100%		100%		100%		100%	
100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%

Quantum Compliant %		Quantum Compliant %		Quantum Compliant %		Quantum Compliant %		Quantum Compliant %		Quantum Compliant %	
100%		100%		100%		100%		100%		100%	
100%	100%	100%	100%	100%	38%	100%	0%	100%	0%	100%	67%
100%		100%		100%		100%		100%		100%	

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11.0
Appendix 03 – Matters for Agreement

11.1 Matters for Approval

The application is made pursuant to Conditions B1, B8, B9, B10, Q1 and Q4 of the Stratford City Outline Planning Permission. Columns in the table below confirm the details as follows:

i. The relevant Condition (B8, B9, B10 and Q4) of the Stratford City Outline Planning Permission.

ii. The requirement of that relevant Condition.

iii. The details which are submitted for approval as part of this RMA in response to the relevant Condition.

iv. The reference to the relevant supporting Application Report (not for approval) that provides a description of the proposals.

The Drawing Schedule that accompanies the Application confirms those Application Plans which are submitted for approval versus those submitted for Information only. The Key on the Plans also defines clearly any caveats to that position so that the interpretation of the details shown on the Plans is self-evident to the reader.

There are also a number of plans and appendices contained within the Application Reports which are not submitted for approval.

Relevant Condition (i)	**Matters for Approval (iii)**	**Application Reports (not for approval) or subject to Separate RMA submissions (iv)**
B8		
	N/A	ZMP Conformity Statement
	Site Location Plan	N/A
	Site Context Plan	N/A
	Location and quantum of open space and linkages shown on Application Plans.	ZMP Conformity Statement Design Development Report
	The number and location of car, motorcycle and cycle parking within the application proposals are shown on the Application Plans.	ZMP Conformity Statement Design Development Report Access Statement
	N/A	No public transport facilities are included as part of this application
	Widths, alignments, levels and sighting of footpaths shown on application plans	Design Development Report Access Statement No dedicated cycle routes through site

Relevant Condition (i)	Matters for Approval (iii)	Application Reports (not for approval) or subject to Separate RMA submissions (iv)
	N/A	The application does not relate to proposed roads and junctions
	Drainage details shown on application plans	Design Development Report
	Finished levels shown on application plans	Design Development Report
	Loading bays shown on application plans	Details of fire, maintenance, refuse and servicing routes including loading and unloading of vehicles are shown within Design Development Report Access Statement
	Location of lighting shown on applications plans	Lighting Strategy within Design Development Report with lighting details for future approval
	Location of lighting shown on applications plans	Lighting Strategy within Design Development Report with lighting details for future approval
	N/A	No bus stops or shelters included within this RMA
	N/A	No bus lanes or dedicated cycle lanes included within this RMA
	N/A	No taxi ranks are included in this application.
	N/A	The application does not connect to CCHP

Relevant Condition (i)	Matters for Approval (iii)	Application Reports (not for approval) or subject to Separate RMA submissions (iv)
	Statement of floorspace in relation to Condition D2 included within ZMP Conformity Statement	ZMP Conformity Statement
B9	Existing and proposed levels are shown on application plans	ZMP Conformity Statement Design Development Report
B10	Partial details of materials are sought, as demonstrated on application plans and materials schedule	ZMP Conformity Statement Design Development Report Samples to be included of all external surfaces to be submitted under separate application.
Q4		
	Full details of hard and soft landscape works are shown on the Application Plans	Design Development Report
	N/A	Planting strategy included within Design Development Report, full details of plants subject to future approval

Relevant Condition (i)	Matters for Approval (iii)	Application Reports (not for approval) or subject to Separate RMA submissions (iv)
	Materials shown on landscape drawings	Samples of hard landscaping materials to be subject to future approval.
	N/A	Full details of lighting, street furniture and signage to be subject to future approval. Landscaping strategy included within Design Development Report.
	N/A	No artwork included within application.
	Locations of private and semi-public areas of open space shown on Application Plans.	Design Development Report
	Application plans shown extent of proposals	Design Development Report
	Irrigation areas and drainage shown on application plans	Design Development Report
	N/A	Site not location within vicinity of river corridor
	N/A	Not applicable for Zone 5
	N/A	An implementation programme does not form part of the proposals

12.0
Appendix 04 – Deliverables Register

12.1 Drawing List – Architecture

Series	Drawings No. (Planning)	Document Title	Scale	Planning
SITE INFORMATION	(05 Planning Series)			
	2292-GHA-ZZ-ZZ-DR-A-050001	Site Location Plan	1:1250/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050002	Site Context Plan	1:1250/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050003	Proposed Site Plan	1:500/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050004	Key Dimensions Plan	1:500/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050010	Site Section	1:500/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050020	Site Elevation - East	1:500/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050022	Site Elevation - North-west	1:500/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050060	Existing Site Sections	1:500/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050070	Existing Site Elevation 1	1:500/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050071	Existing Site Elevation 2	1:500/A1	x
GENERAL ARRANGEMENT	(05 Planning Series)			
	2292-GHA-ZZ-00-DR-A-050100	Station Level Floor Plan	1:200/A1	x
	2292-GHA-ZZ-M1-DR-A-050101	Mezzanine Floor Plan	1:200/A1	x
	2292-GHA-ZZ-00-DR-A-050102	Park Level Floor Plan	1:200/A1	x
	2292-GHA-ZZ-01-DR-A-050103	L01 Floor Plan	1:200/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050104	L02-05 Floor Plan	1:200/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050108	L06-10 Floor Plan	1:200/A1	x
	2292-GHA-ZZ-11-DR-A-050113	L11 Floor Plan	1:200/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050114	L12-17 Floor Plan	1:200/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050120	L18-20 Floor Plan	1:200/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050123	L21-24 Floor Plan	1:200/A1	x
	2292-GHA-ZZ-25-DR-A-050127	L25 Floor Plan	1:200/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050128	L26-28 Floor Plan	1:200/A1	x
	2292-GHA-ZZ-29-DR-A-050131	L29 Floor Plan	1:200/A1	x
	2292-GHA-ZZ-30-DR-A-050132	L30 Floor Plan	1:200/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050133	L31-34 Floor Plan	1:200/A1	x
	2292-GHA-ZZ-35-DR-A-050137	L35 Floor Plan	1:200/A1	x
	2292-GHA-ZZ-36-DR-A-050138	L36 Floor Plan (Inl. Motor Room in N19)	1:200/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050139	L37-39 Floor Plan	1:200/A1	x
	2292-GHA-ZZ-RL-DR-A-050142	Roof Plan (L40)	1:200/A1	x
	2292-GHA-ZZ-RL-DR-A-050143	Roof Plan (L41 Motor Room Plan in N18)	1:200/A1	x
	(05 Planning Series)			
	2292-GHA-18-ZZ-DR-A-050200	North-West Tower Elevation N18	1:200/A1	x
	2292-GHA-18-ZZ-DR-A-050201	North-East Tower Elevation N18	1:200/A1	x
	2292-GHA-18-ZZ-DR-A-050202	South-East Tower Elevation N18	1:200/A1	x
	2292-GHA-18-ZZ-DR-A-050203	South-West Tower Elevation N18	1:200/A1	x
	2292-GHA-18-ZZ-DR-A-050204	Shoulder Block Elevations N18	1:200/A1	x
	2292-GHA-19-ZZ-DR-A-050210	North-West Tower Elevation N19	1:200/A1	x
	2292-GHA-19-ZZ-DR-A-050211	North-East Tower Elevation N19	1:200/A1	x
	2292-GHA-19-ZZ-DR-A-050212	South-East Tower Elevation N19	1:200/A1	x
	2292-GHA-19-ZZ-DR-A-050213	South-West Tower Elevation N19	1:200/A1	x
	2292-GHA-19-ZZ-DR-A-050214	Shoulder Block Elevation N19 1	1:200/A1	x
	2292-GHA-19-ZZ-DR-A-050215	Shoulder Block Elevation N19 2	1:200/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050220	Podium Elevation	1:200/A1	x
	(05 Planning Series)			
	2292-GHA-ZZ-ZZ-DR-A-050300	Section A-A	1:200/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050301	Section B-B	1:200/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050302	Section Podium Levels	1:200/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050303	Section D-D	1:200/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050304	Section C-C	1:200/A1	x

BAY STUDIES AND DETAILS - EXTERNAL WALLS	(05 Planning Series)			
	2292-GHA-ZZ-ZZ-DR-A-050400	Bay Study 1 - Tower Top	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050401	Bay Study 2 - Typical Shoulder Level	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050402	Bay Study 3 - Station Level Residential Entrance	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050403	Bay Study 4 - Typical Retail Shoulder Level	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050404	Bay Study 5 - Celebration Avenue BOH Entrance	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050405	Bay Study 6 - Station Level Residential Amenity	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050406	Bay Study 7 - N19 South BOH Elevation	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050407	Bay Study 8 - Park Level Residential Entrance	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050420	Detail Bay Study 1	1:25/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050421	Detail bay Study 2	1:25/A1	x
APARTMENT LAYOUTS	(05 Planning Series)			
	2292-GHA-ZZ-ZZ-DR-A-050500	Adaptable Unit Types 1 of 2	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050501	Adaptable Unit Types 2 of 2	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050510	Studio Apartment Types 1 of 2	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050511	Studio Apartment Types 2 of 2	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050520	1 Bed Typical Apartment Types 1 of 4	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050521	1 Bed Typical Apartment Types 2 of 4	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050522	1 Bed Typical Apartment Types 3 of 4	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050523	1 Bed Typical Apartment Types 4 of 4	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050530	2 Bed Typical Apartment Types 1 of 3	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050532	2 Bed Typical Apartment Types 2 of 3	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050533	2 Bed Typical Apartment Types 3 of 3	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050540	3 Bed Typical Apartment Type	1:50/A1	x
	2292-GHA-ZZ-ZZ-DR-A-050550	4 Bed Typical Apartment Type	1:50/A1	x

12.2 Drawing List – Landscape

DWG NO./REPORT	DESCRIPTION	SCALE	SIZE
EXISTING DRAWINGS			
EAV627-GRA-00-DR-L-0001-P	Existing General Arrangement Plan	1:250	A1
EAV627-GRA-00-DR-L-0002-P	Existing site levels plan/topography plan	1:250	A1
PROPOSED DRAWINGS			
PLANS			
EAV627-GRA-00-DR-L-1001-P	General Arrangement Key Plan	1:250	A1
EAV627-GRA-00-DR-L-1002-P	Annotation Sheet	N/A	A1
EAV627-GRA-00-DR-L-1003-P	Proposed Illustrative Masterplan	1:250	A1
EAV627-GRA-00-DR-L-1100-P	General Arrangement Plan	1:250	A1
EAV627-GRA-00-DR-L-2101-P	Proposed Levels Plan	1:250	A1
EAV627-GRA-00-DR-L-2102-P	Proposed Drainage Plan	1:300	A1
EAV627-GRA-00-DR-L-6101-P	Propsoed Lighting Plan	1:250	A1
EAV627-GRA-00-DR-L-6102-P	Propsoed Lighting Plan L11	1:250	A1
HARDWORK PLANS			
EAV627-GRA-00-DR-L-3101-P	Proposed Hardworks Plan Ground Level L00	1:250	A1
EAV627-GRA-00-DR-L-3102-P	Proposed Hardworks Zoom-in Plan Ground Level L00 (Pocket Space)	1:50	A1
EAV627-GRA-00-DR-L-3103-P	Proposed Hardworks Zoom-in Plan Ground Level L00 (Park Level Plaza)	1:50	A1
EAV627-GRA-00-DR-L-3104-P	Proposed Hardworks Zoom-in Plan Ground Level L00 (Garden lounge)	1:50	A1
EAV627-GRA-00-DR-L-3105-P	Proposed Hardworks Plan L01	1:250	A1
EAV627-GRA-00-DR-L-3106-P	Proposed Hardworks Plan L11	1:250	A1
EAV627-GRA-00-DR-L-3107-P	Proposed Hardworks Plan L30	1:250	A1
EAV627-GRA-00-DR-L-3108-P	Proposed Hardworks Plan L35	1:250	A1
EAV627-GRA-00-DR-L-3109-P	Proposed Hardworks Plan L40	1:250	A1
SOFTWORK PLANS			
EAV627-GRA-00-DR-L-5100-P	Proposed Trees Ground Level	1:250	A1
EAV627-GRA-00-DR-L-5101-P	Proposed Softworks Plan Ground Level L00	1:250	A1
EAV627-GRA-00-DR-L-5102-P	Proposed Softworks Zoom-in Plan Ground Level L00 (Pocket Sapce)	1:50	A1
EAV627-GRA-00-DR-L-5103-P	Proposed Softworks Zoom-in Plan Ground Level L00 (Park Level Plaza)	1:50	A1
EAV627-GRA-00-DR-L-5104-P	Proposed Softworks Zoom-in Plan Ground Level L00 (Garden lounge)	1:50	A1
EAV627-GRA-00-DR-L-5105-P	Proposed Softworks Plan L01	1:250	A1
EAV627-GRA-00-DR-L-5106-P	Proposed Softworks Plan L11	1:250	A1
EAV627-GRA-00-DR-L-5107-P	Proposed Softworks Plan L30	1:250	A1
EAV627-GRA-00-DR-L-5108-P	Proposed Softworks Plan L35	1:250	A1
EAV627-GRA-00-DR-L-5109-P	Proposed Softworks Plan L40	1:250	A1
SECTIONS-GROUND LEVEL			
EAV627-GRA-00-DR-L-1301-P	Section A-A	1:50	A1
EAV627-GRA-00-DR-L-1302-P	Section B-B	1:50	A1
EAV627-GRA-00-DR-L-1303-P	Section C-C	1:30	A1
EAV627-GRA-00-DR-L-1304-P	Section D-D	1:30	A1
EAV627-GRA-00-DR-L-1305-P	Section E-E	1:75	A1
EAV627-GRA-00-DR-L-1306-P	Section F-F	1:50	A1
EAV627-GRA-00-DR-L-1307-P	Section G-G	1:50	A1
EAV627-GRA-00-DR-L-1308-P	Section H-H	1:70	A1
SECTIONS-UPPER LEVELS			
EAV627-GRA-00-DR-L-1321-P	Section I-I (L01)	1:20	A1
EAV627-GRA-00-DR-L-1322-P	Section J-J (L11)	1:30	A1
EAV627-GRA-00-DR-L-1323-P	Section K-K (L11)	1:25	A1
EAV627-GRA-00-DR-L-1324-P	Section L-L (L11)	1:25	A1
EAV627-GRA-00-DR-L-1325-P	Section M-M (L11)	1:20	A1
EAV627-GRA-00-DR-L-1326-P	Section N-N (L11)	1:25	A1
EAV627-GRA-00-DR-L-1327-P	Section O-O (L35)	1:10	A1
EAV627-GRA-00-DR-L-1328-P	Section P-P (L35)	1:25	A1
DETAILS			
EAV627-GRA-00-DR-L-1501-P	Proposed Benches	1:10	A1
EAV627-GRA-00-DR-L-1502-P	Proposed Planters	1:25	A1
EAV627-GRA-00-DR-L-1503-P	Proposed Play equipment	1:30	A1
REPORT			
EAV627-GRA-00-RP-L-9001	Design Development Report	n/a	A3
Issued By			
Dwg Issue Type	P = Paper; E = E-mail; CD = Compact Disc		
BIW/Filezilla/Scandoc			
Format	PDF		
	DWG		

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13.0

Appendix 05 – BEAP Appraisal of Accessibility and Inclusive Design

13.1 BEAP Appraisal of Accessibility and Inclusive Design

Accessibility Remark/Question for Clarification	Architect/Design Team Response
Observation: The Panel thanked the team for a detailed presentation. BEAP would like to see design that reflect inclusion, diversity and wellbeing. Commitment to ensure the needs of all users and potential users are included within the development is applauded. The Panel has concerns on the lack of social housing which could result in the exclusion of people in the area. Clarity on how the unit mix reflects the local community and absence of larger accessible units. Careful consideration on culture, diversity and faith issues and thought on family housing classification, tenure split, location and management are encouraged. Reference: LLDC Local Plan, Inclusive Design Standards and LLDC Culture Sensitivity document. The panel expressed concerns on the accessibility of the route and shared surfaces between cyclist and pedestrian. BEAP advocates a legible, accessible and safe public realm that can be used by all. Communal spaces and event/activity area is welcome, further information on the type of activity is required. Suggestion to have family facilities and building space designed in such a way to be used as a crèche when adult-only events are on. Provision of Changing Places toilet or hygiene room in the community building.	Plots N18/N19 represent one of the final developments Plots at East Village. It comprises a reserved matters application (RMA) pursuant to the overarching Stratford City Outline Planning Permission (SC OPP). The vast majority of affordable housing units have already been delivered and occupied (back in 2013 after being converted following the use of East Village as the Athletes' Village for the 2012 Olympic and Paralympic Games). A further 48 social rented units are under construction at Plot N05 (which also include a new area of open space and Neighbourhood Equipped Area of Play (NEAP). This means that affordable housing was "front loaded" into the development meaning that only market units are left to be delivered on the remaining development Plots. This principle is well known and established within the SC OPP and accompanying approved Site Wide Housing Strategy (SWHS). The unit mix has been informed by the Applicant's experience of managing East Village for almost 10 years. The housing mix has evolved through the pre-application process in response to comments from the LLDC and other consultees. It is also important not to analyse the housing mix in isolation - it forms part of the wider SC OPP and approved SWHS. The result is a proposal that ensure an appropriate balance of housing across East Village as a whole, informed by, amongst other things, the LLDC's adopted planning policies that requires an appropriate balance of 1, 2 3 and bed units. The proposed scheme also provides a varied range of units with careful consideration for cultural, diversity and faith issues and evidenced throughout the scheme as included below but not limited to: - Deep window sills and height of sill to allow the sills throughout the building to provide a potential location for a shrine or altar; - Flexible space to allow different configurations of furniture arrangement in the living spaces; - The indoor and outdoor community spaces are provided within the buildings to encourage residents to meet and socialise regardless of their religion, types of family and culture. The open-planned ground-level community space provides co-working, games, and lounge spaces that accommodate all residents, including families with children. N19 Level 01 resident community space is dedicated for co-working, which can be differentiated from the ground level family-welcomed area to more oriented to adult users. Furthermore, children's outdoor activities can be accommodated in the outdoor play area by the park level lobby N19 lobby. Refer to section 5.8 for further details on shared communal space uses and layout in this document. There are also outdoor terraces at L11 on N18 and N19, which encourages various activities for the residents, including areas of seating, dining and community gardens. Further details on the resident communal space can be found in sections 5.8 to 5.11 of the design development report. All areas of the buildings are secured, and further management plans can be developed for a temporary creche area whilst an event is on when required. The public realm includes the segregation of pedestrians and cyclists along the route comprising Anthems Way-Edge of Victory Park-N18/19-Celebration Avenue-N16. The significance of the crossings, as well as the key features of the interfaces between Victory Park, Celebration Avenue, and N16, as well as the point between N18/19 and Victory Park, are acknowledged. To avoid conflicts between the movement of pedestrians and cyclists, the design will have a demarcated cycling lane which will differentiate and segregate the different means of transport in all the mentioned junctions. However, the public realm between N18/19 and the Gateway is understood as a pedestrian environment and not as a cycling route. Cyclists are encouraged to dismount with different landscape elements such as planters placed strategically to avoid direct connections and mitigate conflicts. For further details, refer to sections 7.3.5 and 7.3.6 for the existing cycling and pedestrian route and section 7.5.2 for the proposed pedestrian connections.

Accessibility Remark/Question for Clarification	Architect/Design Team Response
Ramp and Graded Routes: Slope experience in the public realm between N18 and N19 should be as shallow as possible. Provision of seating/rest areas at regular intervals along the route is recommended. Where possible level drop-off at the front of the buildings should have a kerb to allow taxi to deploy their ramp.	The ramp connecting Station Square with the park level at Victory Park has been carefully considered, optimising the site conditions and the level change of approximately 5m, delivering a slope with a gentle grading varying between 1:21 and 1:28. The result is an inclusive and universally accessible route. A special emphasis has been put on making sure that the users' experience is equal for all. To achieve this, the ramp has different landings to rest on throughout the route: one adjacent to Celebration Avenue and a key landing adjacent to N18, which allows the users to enter the pocket space situated in the middle of the public realm, consisting of an immersive garden experience and ample seating with a configuration catering to all users. Ultimately, the design has a real commitment to delivering a unique landscape for all with gentle slopes and an experience equal for all users. The kerb at the drop off areas at the front of the buildings will be considered where possible. Refer to setion 7.5.2, 7.5.6, 7.5.7 and 7.5.12 for further details of gateway route.
Cycle and Mobility scooter parking/Bin location: Clarity on the breakdown of residential and commercial cycle provisions including 5% accessible cycle storage as per London Cycling Design Standards. Consider storage of mobility scooter i.e. level of separation in storage in terms of fire. Consideration for bin location in relation to wheelchair dwellings. Ensuring they are accessible and easier to use. Range of different types of bins could be incorporated e.g. lower loading bins.	Please refer to the breakdown of commercial and residential cycle storage provision in section 5.5 (Station Level - Cycle Store). There is a provision for 1,406 cycles spaces, including a 5% provision (70 spaces) for Sheffield stands, adapted and larger cycles and mobility scooters. The mobility scooter parking is located at the centre of station level and can be level accessed from the street, and is contained within an area that is separated from adjacent spaces with fire rated walls. Refer to section 6.5 for further details on refuse chutes location and accessibility.
Parking Strategy/drop off areas and Access Control: Understanding of where the accessible unit are in relation to the blue badge parking and travel distance to N18 and N19 resident entrance. Clarification on parking for commercial units and allocation of drop off areas/ service bays for the different blocks i.e. where food and grocery deliveries will park. Details on location of 7% blue badge bays and future proofing of the accessible spaces. Recommendation to ensure car park access control is accessible for people with restricted mobility and people do not have to get out of their car or reach too far for the car park access.	The location of accessible units and the distance to the blue badge car parking spaces are shown in the BEAP review. Please refer to section 6.4 for detailed information. The drop-off will be located at Anthems Way serving both N18 and N19 including residential and commercial use, the distance and details have also been shared in the presentation and can be also found in 5.13 in this document. Please refer to section 5.14 of DDR on detailed strategy of remaining 7% blue badge parking spaces.
Street furniture and seating in the public realm: Seating in the public realm should have a variation in height, as well as arm rest and back rest. Furthermore, landscape planters, cycle stand, bollards, seating etc. should be located away from pedestrian route. Accessible furniture should be provided within the public realm in line with the LLDC Inclusive Design Standards.	The urban furniture in the public realm is inclusive and fulfils the guidelines set up by LLDC: 50% of the seats should have varying heights, with at least one at 380, 480, and 580 mm high, and 50% of the seats should have armrests and backrests. The seating areas cater for all users with differences in height, spaces for wheelchair use, armrests and backrests. All the pedestrian routes have clear sight lines and are unobstructed. Refer to section 7.6.2. Furniture stategy for further detail.
Dog spending areas: Design team to clarify if the dog wash area will double up as dog spending areas. More information on spending area for guide and assistance dog should be incorporated into the development.	The dog spending area is to be developed and incorporated where appropriate in the next stage of design.

Accessibility Remark/Question for Clarification	Architect/Design Team Response
Circulation: It is important that people are able to move independently between levels of the building. Further clarification required on the ramped access to the mezzanine level. Consider the quality and accessibility of the space. The use of spiral staircase on station level in N18 and N19 is not totally welcoming. Straight flights rather than spiral design are the preferred option as spiral stairs can be difficult to use for people with visual impairment and ambulatory disability. Spiral stairs should be designed to maximise the thread depth and meet LLDC Inclusive Design Standard which requires uniform thread and riser.	The stair to mezzanine level is not for resident access to any front-of-house areas. The mezzanine area will generally only be accessible for BoH management purposes and for residential access to the car park in N18. For the spiral stairs, the configuration has been reviewed by the access consultant. The configuration detail and justification have been provided in the section 6.4 DDR.
Circulation/Communal lifts: Consider Part M and Part B compliance in relation to lifts and general access stairs. Ensure adequate manoeuvring and queuing space at the front of the entrance to the lift to accommodate people flow in a normal day-to-day and escape situation. There should also be consideration of usability rather than just compliance. Design team to ensure the capacity of the lifts and the number of lifts accommodate the expected people flow and anticipated use of the building. Inclusion of firefighting and evacuation lifts for emergency egress. Fire evacuation strategies in residential and non-residential blocks and how this information is spread to occupants and visitors?	The tower cores will have two evacuation stairs and three lifts to fire evacuation standard with an adjacent fire fighting lift whilst the Podium cores will have a fire evacuation lift and fire fighting lift. Between levels 10 and 11, the number of lifts reduces from 4 to 3 in the tower. Additionally there will be areas of safe refuges in the main circulation stair cores of each block. Personal Emergency Evacuation Plans (PEEPs) will be developed by Get Living to ensure the safe emergency egress of disabled residents. Refer to 4.9 Enhaned fire strategy for further detail of core configuration. Refer to section 6.4 - Access: Car Parking and Cycles - vertical circulation for configuration of general access stairs and lift and Part M compliancy. The fire strategy for the building has also been prepared using guidance in Approved Document B 2019 (incorporating the 2020 updates) to reflect recent changes to Building Regulations guidance in relation to external walls and sprinklers to residential areas. Please refer to the fire statement from the fire engineer for further details, which forms part of the planning application.
Wheelchair Accessible Dwellings: The panel request details on the typologies of all wheelchair dwellings across both N18 and N19. Concerns on the lack of larger accessible unit i.e. 3 bedroom wheelchair accessible or adaptable dwelling. The scheme should maximise choice for potential residence and ensure even distribution of wheelchair dwelling throughout the development. Consider the wheelchair dwelling marketing processes to ensure accessible units are effectively advertised and promoted.	To be further reviewed in the next stage of design.
Mix of Tenures and Typologies: The panel queried the lack of affordable housing across the development and the impart on the local community. Lack of social housing can exclude some people in the area. Consider how Stratford locals would have access to the development. Clarification required on how the unit mix reflects the local community and why there are fewer larger family units.	Refer to the answer for Observation.
Family dwellings: Careful consideration on culture, diversity and faith issues when designing family dwelling. The Panel emphasises the importance of family living and request details of how families are represented within the scheme. Dwellings should have flexible configuration to meet the faith and culture needs of the household. The Inclusive Design Standards and guidance regarding housing quality on faith and age should be taken into consideration.	Refer to the answer for Observation.

Accessibility Remark/Question for Clarification	Architect/Design Team Response
Family Dwelling Design/Amenity: Careful though on floor to ceiling windows/balcony doors as parents with small children will want to be able to open a living space window, without opening a full balcony door, so as to get fresh air whilst preventing children from going onto the balcony, for safety reasons. Where possible, design team should consider designs that maximise the floorspace use (including balcony space), perhaps providing some kind of sunroom arrangement/flexible design, that can provide safe and pleasant use of as much floorspace as possible, for families with younger children.	The windows are designed to be openable with fixed metal bars in the front to ensure safety of pets and small childeren. Refer to 5.36 Typical Residential Facade bay in this document for further detail. Approximately 43% of residential units have private amenities in the form of the solarium, which maximises floorplate and creates a flexible layout which can be a choice for people who prefers larger indoor space than balconies.
Commercial Uses and Co Working spaces: Management Strategy should be instigated to ensure fit-out by client and workplace provider contain accessible facilities including wheelchair accessible WC, accessible meeting rooms and induction loops. Further thought on range of bathroom facilities i.e. gender neutral WC and the provision of changing places facility in the communal space. Careful thought on the balance between co-working spaces and family use of the cafe area. For example, whether spaces are alcohol-free or not, can affect how people feel about, and want to use communal spaces.	At the outset of concept design, we introduced accessible WC to be within 50 m of horizontal travel distance for communal areas. Refer to 6.4 Access: Car Parking and Cycles - Amenity Space for travelling distance to wheelchair accessible WC Part M compliancy. The comments are noted and we will be developing the strategy and details of accessible WC in accordance to the comments.
Communal Activity: The panel question if there will be areas/spaces for children to move around and types of activity for children, families, and teenagers (including groups of teenagers) to do in the communal spaces. Provision of games room that can offer the opportunity for socialising and for people to play games that are culturally relevant for them - potentially creating inclusive spaces and facilities. Consideration for communal storage space for shared, communal play and leisure equipment for families, such as larger toys/outdoor play equipment etc. Consider the provision of family facility.	At Level 11, both building offers roof terrace with verdant greenery which offers flexible uses from dinning to communal gardening. Refer to 7.5.8 for details of Garden Lounge. At ground level, there will be also the doorstep play area by N19 at the park level designed for children which is welcomed for EV residents and beyond. The communal games area will be also provided at the station level adjacent to residential lounge area.Further details on the resident communal space including information on the L11 terraces can be found in sections 5.8 to 5.11 in this report.
Microclimate: Concerns on wind tunnel effect between the two large towers and the effect on wheelchair users and other disabled people. Ensure wind mitigation study does not only focus on higher level but equally pick up wind across different levels of the site. Consider how you break up the wind and that there is some protection from the wind when going in and out of buildings. Wind mitigation assessed against play space, entrances etc.	The landscape design and the strategies to mitigate a possible wind tunnel effect have been coordinated with the wind analysis consultant. Therefore, the landscape design features the mitigations required to make the public realm an enjoyable and usable space. In terms of the results of the wind analysis, the public realm performs well in both the worst and best case scenario. Refer to section 7.3.10 wind microclimate analysis around the proposed building. Further details can be also found the wind consultant's report in the environmental impact assessment.
Security/Signage/Lighting: Clarification on wayfinding and signage strategy to help people find their way around the two towers. How the design proposal is dealing with lighting in the public realm and issues around safety and personal security. Also considering the safety of women and girls.	The signage strategy will be designed in accordance to relevant guidance and regulatory compliance in the next stage of design.

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