DUAL ASPECT UNITS

A / 082 Housing development should maximise the provision of **dual aspect** dwellings and normally avoid the provision of single aspect dwellings. A single aspect dwelling should only be provided where it is considered a more appropriate design solution to optimising site capacity through the design-led approach than a dual aspect dwelling.

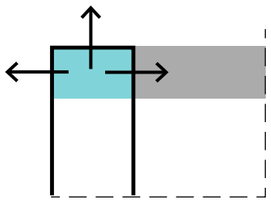
A / 083 Where single aspect units are provided, these should demonstrate that they will have appropriate levels of ventilation, daylight, privacy and thermal comfort and avoid overheating.

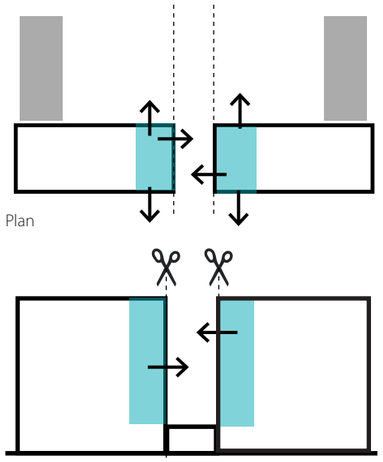
A / 084 Single aspect dwellings that are north facing, contain three or more bedrooms or are exposed to noise levels above which significant adverse effects on health and quality of life occur, should be avoided.

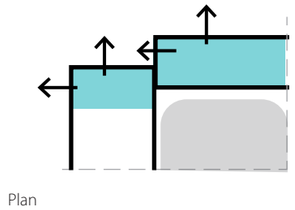
A / 085 Designs should avoid north facing single aspect.

A / 086 **Dual aspect** should be considered and optimised throughout the scheme, whilst balancing fabric efficiency and material use in line with wider sustainability principles and maintaining streetscape cohesion.

A / 087 Proposals should explore design solutions that optimise the provision of dual aspect dwellings. Dual aspect units could be achieved by (the options presented here are not exhaustive):





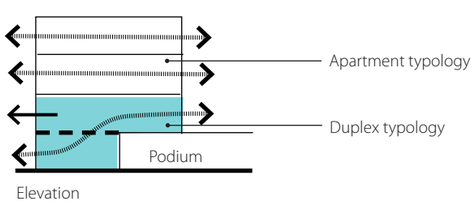


MAXIMISING CORNER ASPECTS

PROVIDING PROTRUDING AND/OR RECESSED ELEMENT

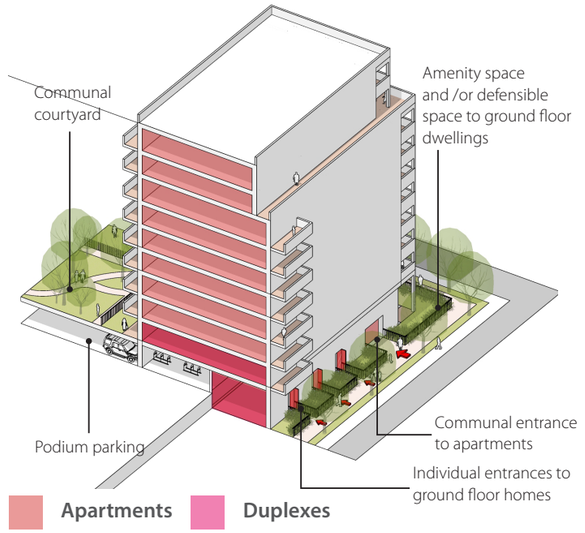
PROVIDING MASSING BREAKS/STEPS ALONG ELEVATIONS

A / 088 Perimeter blocks comprising of podium parking should explore design solutions to optimise **dual aspect** units, including to the lower floors. This may consider duplex typologies that can allow for dual aspects to the first floor, with apartments typologies above.



2.2.12 Housing typologies

A / 089 The apartment building with podium parking is the preferred typology for Avondale Drive Estate development. This typology consists of residential uses on the ground and upper floors, with podium parking and communal amenity situated above the podium. It offers the opportunity to create active frontages onto the street by providing individual street entrances for the ground floor dwellings. This approach allows for the activation of the main frontage along Avondale Drive and the creation of a relationship with the houses on the other side of the road, thus supporting the vision for this development



Precedent image of podium courtyard on first floor above car park

2.3 ACCESSIBILITY

M / 090 The principles of inclusive design must be integrated from the outset of the project to achieve an inclusive environment with ease of access maximised. Access and use of external spaces are to be equally accessible by everyone, taking into account differences in age, gender or disability. Reference must be made to the Equality Act 2010.

A / 091 Design proposal should achieve the highest standards of accessible and inclusive design having regard to the Inclusive Design Strategy within the DAS.

M / 092 Proposals must carefully consider the existing and proposed ground levels within and around the site to maximise accessibility. Routes around the site and entrances to all uses must be step-free, where this is not possible alternative accessible routes and entrances must be provided.

M / 093 All **ramps** must comply with the minimum requirements of Buildings Regulations Approved Document M and where feasible with best practice requirements to ensure ease of access (lots of shorter, steeper ramps can be tiring).

M / 094 All residential properties must be provided with level access through the main core in accordance with Part M4 (2) of the Buildings Regulations.

M / 095 There must be no loss of quality in design, materials or aesthetics when designing in the principles of good inclusive design and access to spaces and experiences.

A / 096 Where possible **ramps** will be designed with gradients of 1:21 (5%) or above. Where there are steps, step free alternatives should be included.

A / 097 There should be an adequate range of seating/resting furniture at regular points for all abilities. Planting should be raised in areas for the elderly and those in wheelchairs. There should be a range of play, recreation and fitness experiences to accommodate people with different abilities.

A / 098 Signage and wayfinding should be accessible and inclusive for all and should include solutions such as:

- Tactile communication: to include embossed and Braille signage (where appropriate); tactile paving; changes in level and kerb upstands; tapping rails (where appropriate);
- Sensory communication: sounds and scent, this may include fountains/water features when in operation; changes in walking surface; talking signs, etc. Similarly, some plants, and buildings such as bakeries, can provide scent clues; these can also change according to day, time, season, etc.
- Visual communication: to include visual clarity in terms of colour and contrast; good lighting that avoids excessive reflections, glare, and shadowing; clarity of text and symbols (where provided).

STEPS, RAMPS & RETAINING STRUCTURES

A / 099 **Ramps,** steps and retaining structures be compliant with Part M Buildings Regulations and they should consider:

- Gradients as shallow as possible;
- Designs that are robust and simple to reduce the risk of vandalism; and
- Not segregate the public realm and/or opens spaces.

A / 100 A street design strategy should be submitted with each RMA.

A / 101 The provision of handrails on **ramps** is strongly encouraged but should be sensitively designed and integrated within landscape design.

A / 102 Steps, **ramps** and retaining structures should offer opportunities for different functions such as seating elements or opportunities to provide play elements.

2.4 MOVEMENT & CONNECTIVITY

2.4.1 Parking

M / 103 Car parking provision for all uses must be in accordance with the car parking ratio approved by the Local Authority as part of the Outline Application or re-examined by the Local Authority as part of the Reserved Matters Application submission.

M / 104 Development proposals must provide accessible on or off street car parking bay designated for Blue Badge holders, even if no general parking is provided.

M / 105 Disabled persons parking provision and design must comply with the requirements set out in the London Plan.

M / 106 Development proposals must include design measures to prevent unauthorised car parking on the public realm.

PODIUM AND UNDERGROUND CAR PARKING

M / 107 Podium parking must be surrounded by other uses and/or activities within the public realm to ensure that streets are vibrant and **active frontages** are maintained.

A / 108 Where possible, podium parking should be serviced via passive ventilation, minimising the need for mechanical ventilation and reducing running costs. The design should ensure no impact on communal amenity space.

2.4.2 Access

M / 109 Car parking entrances must be designed as part of the building façade and integrated within the block design.

A / 110 Car parking entrance points should be secured and well overlooked.

2.4.3 Cycle Store

M / 111 The level long and short stay cycle parking (cycle storage and visitors cycle parking) for all uses must meet the minimum requirements set out in the London Plan 2021 and London Cycle Design Standards (LCDS).

M / 112 The location, design and provision of communal cycle storage for new residents must consider:

- The provision in secured communal or individual storage areas within the building, or externally within secured, sheltered and adequately lit enclosures located in communal courtyards;
- To be located in a convenient and easily accessible area for all users and should be usable for everyone and cater for adapted cycles; and
- To be located in close proximity to the cores. Access and corridors should be appropriately designed to facilitate easy transport and access from street to the communal.

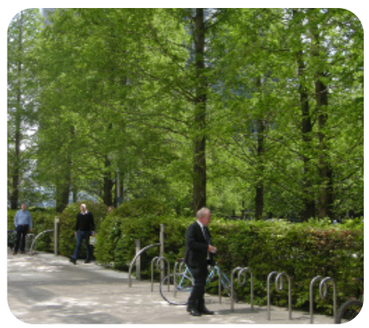
M / 113 New development must provide accessible cycle parking provision for visitors; secure hoops or stands that facilitate effective locking of bicycles, the most convenient for short and/or long stay use. These should be secure and adequately lit, with convenient access to the street.

A / 114 Cycle parking for visitors should seek to be located close to cycle routes. Their design and suggested positions should be checked with Secured By Design for suitability and accessibility.

M / 115 Development proposals must provide secure, integrated, convenient and accessible cycle parking facilities taking into account adapted cycles, family cycles, trikes etc. The types and location of cycle storage facilities will also take into account the abilities and needs of disabled people.

Podium parking integrated within the block design with active frontage along the street.

Car parking entrances designed as part of the building façade.



Cycle parking for visitors located in well-overlooked and accessible areas and /or open space for all users.

Convenient and easy accessible cycle storage.

2.4.4 Refuse

RESIDENTIAL DWELLINGS WITH INDEPENDENT ENTRANCES DIRECTLY ACCESSIBLE OFF STREET

M / 116 Communal or private bin stores must be provided for all dwellings. Bins located within the front gardens must be within integrated and well-designed in landscape or enclosures.

A / 117 Design arrangements for communal refuse stores for these types of individual dwellings may also be considered but must not be free-standing in any areas of the public realm.

RESIDENTIAL DWELLINGS ACCESSED BY COMMUNAL ENTRANCES OFF THE STREET

M / 118 Communal bin enclosures and refuse and recycling stores must be secured and easily accessible to all residents including younger users and wheelchair users, and located on a hard, level surface.

A / 119 **Blank frontage** associated with refuse stores should be minimised and must not exceed 10m in length along the street-scene.

A / 120 Communal refuse stores should be designed to minimise their visual impact along the street-scene and external refuse doors/access will not be located in recessed areas of the ground floor facade.

A / 121 All communal refuse stores should be designed as part of the building fabric with clear access from outside and /or from internal communal circulation of the block.

2.5 LANDSCAPE, AMENITY AND STREETSCAPE

2.5.1 Public realm & open spaces

M / 122 The public realm design must maximise opportunities for planting that will improve amenity value, air quality, enhance biodiversity and microclimate and strengthen the Sustainable Urban Drainage System (SUDs) Strategy.

M / 123 Development proposals for the public open spaces must provide opportunities for healthy and active lifestyle choices taking account of Sport England Active Design principles.

M / 124 Open spaces must provide a variety of activities, taking into account the needs of different users.

M / 125 Block orientation and massing must ensure the provision of acceptable levels of daylight and sunlight on the ground floor of public open spaces having regards to Building Research Establishment (BRE) guidance.

M / 126 Landscape design of open spaces and public realm must contribute to the legibility of building frontages and wayfinding and should follow the principles of the site wide signage and wayfinding strategy.

M / 127 Public open spaces must face **active frontages** and should be well-overlooked.

A / 128 Public amenity spaces should be designed with flexibility to adapt to different needs and to provide a range of functions for year-round enjoyment.

A / 129 A high quality landscape design should be provided.

2.5.2 Streetscape

M / 130 The proposed minimum street widths must be in accordance with the specific coding for each character area.

M / 131 The proposed ratio between the street width to building height must consider the provision of appropriate levels of daylight and prevent potential wind tunnelling.

M / 132 Streets must be oriented to allow views and vistas to **key marker** buildings and **key corners** in order to provide legibility and a sense of identity.

M / 133 Where **shared surface** are introduced for traffic calming purposes, these must incorporate principles of inclusive design (e.g. visually impaired, blind users) through surface finishes and colours, street furniture, and landscaping.

A / 134 Traffic calming measures including horizontal and vertical features, such as raised tables, rumble strips, chicanes within the road design, natural landscape features, trees, planting and signage should be used to slow the speed of vehicles down and promote a safe pedestrian priority environment.

M / 135 Surfaces for pedestrians and cyclists must be suitable for wheelchair users, for example incorporating dropped kerbs and crossing points with associated tactile paving.

A / 136 Crossing points should be clearly demarcated through changes in surface material and/or colour to denote pedestrian priority.

M / 137 Public footways must be a minimum width of 1.5m and be accessible and unobstructed.

A / 138 Where there are level changes needed to footways and access to buildings and spaces, **ramp** designs should consider gradients of 1:21 (5%) or above where possible.

M / 139 Footpaths within the public open spaces that are not part of the Primary pedestrian route must be of a minimum width of 1.2m with regular passing points of 1.5m and if possible 1.8m.

M / 140 Development proposals must ensure easy and convenient access to, from and within the site by foot or bicycle.

A / 141 Where there are shared cyclist and pedestrian routes with occasional vehicular traffic for emergencies and maintenance only (along the southern part of the connection between Avondale Drive and Hitherbroom park), these should be 3.5m wide.

Legible shared space/surface.

Incorporate principles of inclusive design through surface finishes.

Surfaces that connects people, spaces and wildlife.

2.5.3 Private amenity & defensible space

M / 142 **Private amenity** and **defensible spaces** can lie outside the area of the Maximum Development Plots as defined in the associated Developable Zones parameter plan.

A / 143 The building line and the depth of the **defensible spaces**, where applicable, should remain largely consistent along the street.

M / 144 All residential properties at ground floor must provide **private amenity** space with a minimum width of 1.2m from building facade to the boundary edge treatment. The transition from public to private space should be understandable and clearly defined.

M / 145 Railings, low brick walls or a combination of both can be used to the perimeter of the **private amenity** with a maximum height of 1.4m. Rendered walls should be avoided.

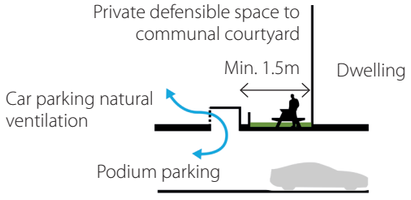
M / 146 **Private amenity** and **defensible space** designs must follow the coding principles presented for each character area in Section 3 of this document.

M / 147 All residential properties backing onto communal courtyards must provide **private defensible space** with a minimum of 1.2m from building façade to the boundary edge treatment.

A / 148 Where **defensible space** fronts communal courtyards, a gate should be provided to allow access to the communal amenity.

A / 149 Where possible, a buffer planting should be considered to the private amenity. A maximum height of 1.4m for buffer planting should be considered to allow for good visibility and encourage neighbourly interaction.

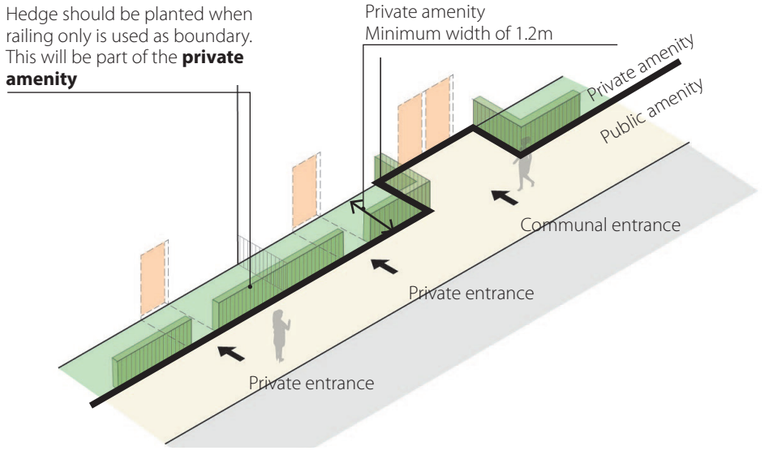
A / 150 Where natural ventilation should be provided to the podium parking, this should be carefully integrated into the landscape design of the podium and offer opportunities to improve privacy of private amenities to communal gardens.



TYPE I - DEFENSIBLE SPACE WITH HEDGES

M / 151 Type I must provide a private ground floor **defensible space** with a minimum width of 1.2m excluding hedge. In addition, a minimum 800mm wide hedge planting must be planted when it is only railing used as a boundary to provide privacy screening.

Defensible space with railing and hedge as part of the private amenity.



TYPE II - PRIVATE AMENITY SPACE WITH DEFENSIBLE BUFFER PLANTING

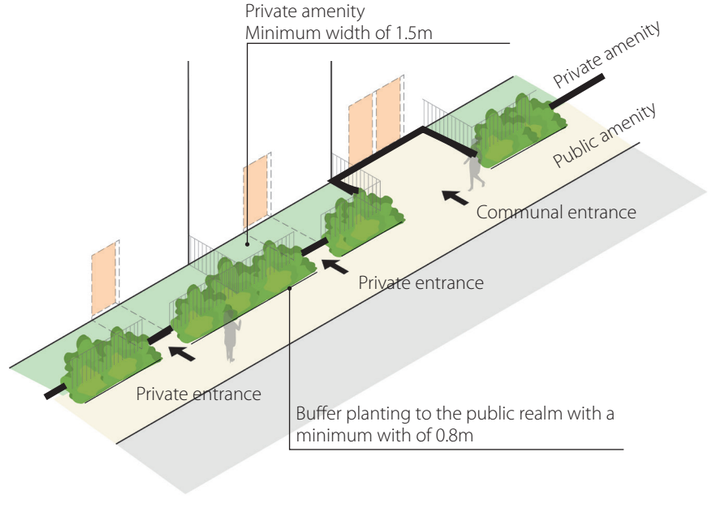
M / 152 Type II must provide a private ground floor amenity space with railing and/or wall with a minimum width of 1.5m. In addition, a buffer planting in the public realm must be provided where possible to the edge of the **private amenity** and in accordance to the requirements of each character area.

A / 153 Buffer planting to the public realm of a minimum width of 800m should be considered where possible.

A / 154 The provision of railing and/or a low wall should contribute to demarcation between private defensible space and buffer planting (part of the public realm).

A / 155 Where a hedge is provided as buffer planting, this is to be planted in a minimum zone of 0.8m wide. Outside facing edge and top should be maintained by site landscape contractors for consistency. Suggested height of hedge to be a minimum of 1m and not exceed 1.4m.

Buffer planting to the public realm is included in Type III buffer planting.



2.5.4 Communal courtyards

M / 156 Block orientation massing and appropriate distances from internal façade to internal façade must be considered in the design of internal courtyards in order to ensure appropriate levels of daylight and sunlight having regards to BRE guidance.

M / 157 Semi-private amenity must be provided within development plots in accordance with Open Space and Public Realm Parameter Plan.

M / 158 Defensible space must be provided to all residential properties fronting communal amenities in order to provide privacy and prevent overlooking to residential properties.

M / 159 The courtyard areas to the residential buildings must include elements of play, trees, biodiverse planting, social spaces where appropriate. The courtyards are to be equally accessible to all residents of the building.

M / 160 Level access to the communal courtyards must be provided from the communal cores or directly from the private amenities.

M / 161 Courtyards must be predominately softscape, maximising planting and limiting areas of hard landscape.

A / 162 The courtyard design should consider the sunniest areas and maximise their use as social spaces with seating and play for children.

A / 163 Communal courtyards should be attractive usable spaces for residents, which incorporate a range of activities including a playable landscape, meeting and sitting areas, garden spaces with hard and soft landscape and biodiverse planting.

A / 164 Where courtyards are provided above podiums care should be taken to consider the depth required for raised planters to allow planting and trees to grow and thrive.

A / 165 Building façade maintenance should be considered within the landscape design from the outset.

A / 166 The technical constraints of soil, drainage and planting, including trees, on a concrete podium should be considered so that the planting has every chance of success.

A / 167 A mixture of social and quieter spaces should be provided to cater for all residents. Covered or semi-covered areas may be incorporated for this function.

A / 168 The planting strategy for courtyards and communal gardens should provide a garden that is attractive all year-round.

A / 169 Green and blue roofs to the courtyard buildings could contribute to the overall SuDS strategy as well as enhancing local biodiversity and amenity value. Rainwater harvesting from the roofs could be used for irrigation and is a more sustainable approach.

A / 170 Legible routes should be designed through communal courtyard spaces. Their design should ensure that they are accessible to users with all levels of ability.

2.5.5 Play, fitness & recreation

M / 171 On-site play space will be targeted at 0-11 year old and comprise doorstep play within the resident's communal gardens and 'play on the way' space located along the Avondale Drive Frontage and within the pedestrianised link to Hitherbroom Park.

On-site play space should:

a) provide a stimulating environment

b) be accessible safely by children and young people

c) incorporates trees and/or other forms of greenery

d) be overlooked to enable passive surveillance

e) not be segregated by tenure

M / 172 Play space must follow the layout principles set out for each character area.

A / 173 Dedicated play areas should be strategically located within the masterplan to minimise noise impact on residential dwellings.

A / 174 Opportunities to improve and enhance health, including mental, physical and social well-being should be included within the landscape design.

A / 175 Seating should be provided for parents and guardians to overlook play spaces. A range of seating heights that consider inclusivity and spaces for wheelchair users, pushchairs and prams should also be incorporated.

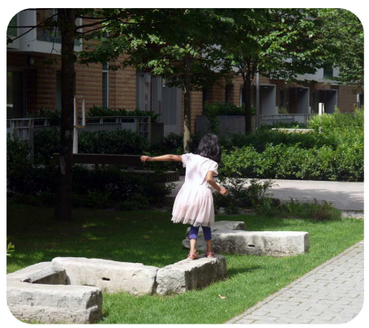
A / 176 Physical fitness, play and recreational activities should be concentrated within the connection between Avondale Drive and Hitherbroom Park and podium , although a range of play and fitness opportunities will be distributed throughout the whole site.

A / 177 Instead of fences and barriers to enclose a play space, design proposals should consider a softer approach such as the use of planting, furniture, topography and material changes to help define them. Where gates are needed, more than one exit should be provided in case of danger.

Communal courtyard landscape.

Play features within soft landscape on podium.

Informal footpaths amongst lush planting.



Doorstep play within soft landscape for younger children.

Imaginative play feature with heritage theme.

Active play for older children and adults.

2.5.6 Materials & street furniture

M / 178 All street furniture must be:

- » Robust and fit for purpose and sustainably sourced where possible. Timber to be FSC certified.
- » Resistant to vandalism, be functional and present long lasting designs.

M / 179 Seating / rest points must be located:

- » In overlooked areas, clearly visible along main circulation routes and nearby amenities where this is possible.
- » So as not to obstruct main pedestrian and cycle routes, especially along busy routes. They should be located in areas where they will not create an obstruction for people with a visual impairment.
- » On an accessible surface. Seats may be provided in areas of soft landscape as long as an accessible route is provided.
- » At regular intervals of no more than 50m to cater for inclusivity.
- » Away from the private gardens for privacy.

M / 180 Seating must consider the spaces around them so that wheelchair users, prams and pushchairs may also have equal access to the space.

A / 181 Setbacks and armrests should be considered within the seating design to cater for inclusivity.

A / 182 Seating should be located in response to sun orientation but also considering shelter from weather conditions.

A / 183 Should bollards be needed, consider replacing them with other barriers such as street furniture, bicycle stands, trees, planters and level changes which are less obtrusive.

A / 184 Street furniture, including benches and bins should respond in materiality to its context within the Site. For instance street furniture in highly used civic spaces should be very durable and easily cleaned. Benches in the park and garden spaces should be natural in material and finish, such as timber.

A / 185 Street furniture within the public realm should be drawn from an overall material palette for site cohesion. Where appropriate consideration of distinctive elements of furniture design should be given within the character areas to distinguish them.

A / 186 Paving should be robust and economic with key areas, such as thresholds and gateways, highlighted with a material change of a higher quality. The paving should respond to the context and hierarchy of spaces and function. Paving selection also should be considered so there is availability in the future to ensure continuity of finishes.

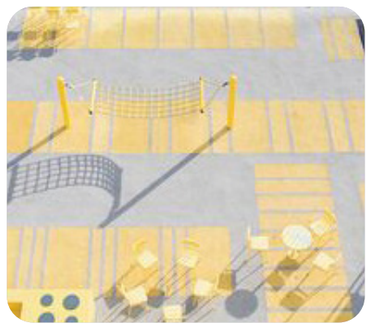
A / 187 Where the type of traffic and paving size permits, paving should on the whole be laid flexibly with a strong retaining edge. This is good practice and more sustainable as it avoids the use of excessive cement. Pavers, bricks and blocks are also more easily removed and replaced for repairs and accessing below ground services.

A / 188 A reduced palette of paving materials is preferable, but within that different sizes of units and surface finishes can be applied to create character and to highlight spaces.

A / 189 There should be a hierarchy of paving materials and sizes that identifies key areas as special places in the site. They should range from the very robust in highly trafficked areas, through to soft and permeable, such as self-binding gravel for informal natural paths


Material reference to industrial heritage.


Raised planter edges and seating.


Coloured asphalt to demarcate the play area and become a play feature.


Flexible seating.


Durable small unit pavers within communal courtyard.


Ornamental paving pattern for retail route.

2.5.7 Trees & planting

A / 190 For impact, instant sense of maturity and to reduce damage by vandalism or other events, street trees should be specified as large semi-mature stock. Trees to the street should be standard trees with minimum clear stem of 2.2m.

A / 191 Trees and planting should enhance amenity, increase the variety of habitats and deliver a net gain in biodiversity.

A / 192 Plant species should suit their locations and provide seasonal colour and composition. Planting should make a contribution to the sensory experience and offer interest for those with visual or hearing impairments. Planting should have the right specification to achieve an immediate impact and full appearance.

M / 193 Underground service routes must be carefully coordinated with tree pit positions to ensure there are no clashes. Tree pits are to be large enough to ensure the recommended volume of soil is achievable for the trees to reach full maturity. Root barriers are recommended where necessary when close to services.

M / 194 Development must safeguard sufficient space to allow proposed trees to reach their mature size. Detailed landscape proposals will be submitted as part of the RMA and will ensure that tree planting is appropriate for the context.

M / 195 The right soil depths and soil specification is imperative in achieving healthy and long lasting growth to trees and plants. Site remediated soil can not be assumed to be appropriate for plant growth and if used, the soil must be tested by a soil specialist for suitability. These are to be supplemented by a soil specialist to achieve the right soil detail and specification.

M / 196 Tree pits within the hard landscape must be no less than 2m x 2m and no less than 1.2m deep. The soil volume that should be achieved is dependent on the tree size and advise from a specialist should be sought.

A / 197 Tree pits should positively drain where possible to promote healthy root growth.

A / 198 It is more sustainable and cost effective to plant trees in soft areas and this should be the prevailing strategy unless there are specific character areas or spatial requirements.

A / 199 Tree planting on podiums should consider trees planted in soft raised areas to achieve the right soil depth and root growth, rather than planting trees into containers which require more watering and may stunt tree growth.

A / 200 Development proposals should include native trees where suitable including wildlife attracting and climate resilient species.

A / 201 Fruiting and flowering trees should be incorporated to provide nectar and food. These should only be planted within soft landscape.

A / 202 Trees in the landscape should seek to contribute to wayfinding and legibility.

A / 203 Where soil volumes are difficult to achieve, soil volumes for street trees should seek to follow a 'common sense' approach.

A / 204 Where hedges are provided, these are to be suitable for position and easily formed and maintained.

A / 205 Buffer planting to play areas should help enclose spaces and deter children from running onto roads and other hazardous areas. The planting should be robust and have all year round structure whilst also including flowering sensory planting. Non-toxic species should be considered and the heights of the planting should be kept to 1m for good visibility.

A / 206 Planting used in play trails and other playful areas should have a high proportion of sensory planting that engages children's curiosity and senses. Visual stimulation, touch, fragrance, sound and taste are all encouraged.

2.5.9 Biodiversity & ecology

2.5.8 Biodiversity & ecology

M / 207 Design proposals must achieve an increase in the urban green infrastructure of the borough, improve ecological connectivity and deliver a net gain in biodiversity.

M / 208 Landscape proposals must include a rich variety of ecological measures to create a green and biodiverse wildlife haven. Planting proposals should prioritise native or wildlife attracting species and include shrub herbaceous and hedgerow species that establish a variety of ecological habitats.

A / 209 Where appropriate, wildlife corridors should be designed to allow for a linear habitat of flora and fauna throughout the site. In particular a dedicated route between north and south linking Avondale Drive and Hitherbroom Park has been identified as having potential to introduce this.

A / 210 Flower rich grasslands and meadows containing a mix of native and ornamental plants should be considered across the Site and in particular to the open areas between phase 1B and 2 for people to engage with. Plant species that attract pollinators should be emphasised.

M / 211 Where appropriate, features such as birds and bat boxes must be incorporated within the design in appropriate locations (i.e noise and light/heat conditions will dictate where/which elevations are suitable,etc.) to provide nesting and roosting spaces for locally identified species.

A / 212 Opportunities for small-scale food growing may be accommodated within communal courtyards, roofs, under used spaces, etc.

A / 213 Rain gardens are suggested in association with the wider Sustainable Urban Drainage Strategy to encourage biodiversity with unique characteristics whilst providing positive surface water treatment.

2.5.10 Urban Greening Factor

M / 214 The green infrastructure strategy for development proposals must seek to maximise the extent of Urban Greening Factor (UGF) within the Site, to provide space for valuable habitat, improve microclimate and urban drainage and create a stepping stone for the wider network of green infrastructure in the area.


Swale planting.


Multi-stem trees planting.


Flower rich herbaceous planting amongst trees.


Meadow grassland.


Bug hotels.


Sustainable urban drainage features.

2.5.11 SuDS, water management & irrigation

A / 215 Consideration should be given to a more sustainable means to water plants. This includes, automatic irrigation for lawns and podiums and using rain water harvesting where possible. All of these should be coupled with the right planting strategy.

A / 216 Natural features such as swales should be considered which form part of the original concept of attenuating and expressing the story of water. Design should prioritise above ground SuDS features that enhance biodiversity and amenity value rather than below ground attenuation features.

A / 217 It is recommended that swales are to be vegetated to the sides with biodiverse planting and other appropriate planting and slope down to a filtration trench consisting of coarse permeable aggregate material such as gravel, pebbles and rocks that has the appearance of a dry river bed. A permeable pipe should be situated to the bottom of the trench. The slopes are to be no steeper than 1:3 for maintenance.

A / 218 Permeable paving should be considered where possible as part of the overall SuDS strategy.

2.5.12 Safe & secure environment

M / 219 In order to create a safe and secure environment that designs out and limits the potential of crime, the design should be assessed by Secured by Design (SBD) or equivalent criteria at the time of the Reserved Matters Application throughout the design process and their recommendations incorporated where feasible. The security of the design must also consider Hostile Vehicle Mitigation (HVM) to reduce the potential of vehicle borne threats.

M / 220 The development must provide well-defined and overlooked routes with spaces and entrances to promote convenient movement without compromising security. Secured By Design principles should be prioritised and implemented throughout the masterplan to increase natural surveillance and discourage anti-social behaviour.

M / 221 The proposed development must avoid the creation of dark, hidden and poorly overlooked corners, routes or spaces.

M / 222 Public spaces must be well lit in order to aid security and natural surveillance, whilst considering local ecology and the proximity of private habitable rooms.

A / 223 The lighting design shall fulfil the principles of Secured By Design or equivalent criteria at the time of the Reserved Matter Application by creating a well lit and safe environment.

A / 224 Spaces should allow for good natural surveillance by residents and visitors and recognise that the safest spaces are those that are well designed, popular and enjoyed positively. Trees should be specified with 2.2m clear stems and planting to be kept to around 1m in height to allow for good visibility.

A / 225 The use of obvious CCTV should be minimised and kept to key points, as overt use of CCTV and signage can also imply spaces are unsafe and discourage people from using them.

2.6 SUSTAINABILITY

2.6.1 Daylight, sunlight and overheating

M / 226 The new development must not cause excessive overshadowing to proposed communal or **private amenity** spaces or neighbouring properties or dwellings.

M / 227 The design of **tall buildings** must consider the potential environmental impacts on the surrounding open spaces and public realm in relation to wind, daylight, sunlight and temperature conditions.

M / 228 Development proposals must ensure the provision of acceptable levels of daylight and sunlight on the ground of public open spaces and communal courtyards, having regards to BRE, to provide high quality amenity spaces and planting that grows and thrive.

M / 229 Development proposals must reduce the potential for internal overheating. This could include:

- Minimising internal heat generation through energy efficient design , such as the incorporation of shading, high albedo materials, fenestration design, insulation and/or the provision of green infrastructure;
- Reducing the amount of heat entering a building in summer;
- Managing the heat within the building through exposed internal thermal mass and high ceilings; and
- Passive and mechanical ventilation.

A / 230 South facing blocks and fenestrations should consider internal thermal comfort. Mitigation measures such as the use of high albedo materials, shading and passive ventilation should be considered.

A / 231 Aspect and understanding the locations of sunnier and shadier areas will inform the design. For instance, people prefer to dwell in sunnier areas, so the majority of social spaces, play areas and seating should be located in these areas. Aspect is important for choosing the right themes of planting for the right areas.

2.6.2 Energy

M / 232 Passive measures to improve the energy efficiency and thermal performance of the building form must be considered, such as orientation, massing, layout, shading, higher level of insulation for roofs, external walls and floors, and high performance windows and doors.

A / 233 Other important measures such as lower air permeability and minimising thermal bridges through best practice detailing should be explored.

A / 234 A range of design measures will be deployed to avoid and mitigate negative environmental impacts such as noise, pollution and any potentially negative micro-climatic effects.

A / 235 Design development should take into consideration the location of future temporary or permanent energy centre and primary sub-station within the plot for employment uses and provide infrastructure to support effective safeguarding and the potential for energy infrastructure upgrades in the future.

A / 236 Development proposals should explore suitable low carbon and/or renewable heating technologies and consider how these could be maximised.

2.7 CHARACTER AREAS

2.7.1 Approach to character areas

APPROACH TO CREATE GREAT PLACES WITH DISTINCTIVE FEATURES

Avondale Drive site will provide a variety of high quality homes, landscape and green infrastructure, introducing a wide range of green spaces throughout the new neighbourhood. All character areas draw upon Avondale Drive site's vision to ensure future development will achieve the aspirations for the site as described in Section 1 of this document, these are:

» Create a vibrant neighbourhood that is well connected to the surroundings.

» Consider the phase 1A delivered phase.

» Create a neighbourhood where everyone is living by the green.

» Create a sustainable neighbourhood that prioritises walking and cycling.

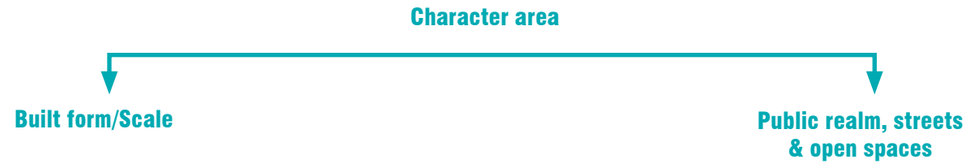
» Provide flexible high quality homes that will cater different family needs and requirements.

ELEMENTS THAT DEFINE A CHARACTER AREA

In line with the principles set out in the National Mode Design Code, in Avondale Drive site a character area is defined by an unique combination of immediate context, landscape and open spaces. Built form and scale creating distinctive environments. These unique combinations has resulted in five distinctive character areas that are presented in the following pages.

The coding elements and associated design guidelines for each character area within these sections have been developed to ensure that any future Reserved Matters Application will achieve the overall vision and aspirations for Avondale Drive site. The character areas also consider a holistic response that maintains urban continuity, integrity and contextual integration throughout the site.

Elements that define a character area



Built form/Scale refers to the function, shape, height and configuration of all the buildings as well as their relationship and approach to the public realm and streets for each character area. The built form should aim to reinforce the desired vision of Avondale Drive site and ensure that new buildings create a coherent, harmonious and appealing urban environment that helps to build the desired uniqueness for each character area together with the uses, public realm, streets and open spaces.

The built form will cover:

- **Built form and massing**
- **Buildings typologies**
- **Townscape approach**

Avondale Drive site will be home for generations to come - and the public realm, streets and open spaces are at the heart of the design.

With the existing park and a series of proposed new green spaces and landscaped streets, homes will be next to the green and have places to meet, live and enjoy all year around.

Different type of open spaces and public realm will be used in particular ways and they inform the aspect, sense and environment of each character area.

Public realm, streets and open spaces include considerations of:

- **Streetscape**
- **Private amenity**
- **Public open space**
- **Semi-private amenity**
- **Play Space**
- **Planting**

3. CHARACTER AREAS AND STREET TYPES

3.1 CHARACTER AND APPROACH

1. Avondale Drive
2. Abbotswood Way
3. Hitherbroom Link
4. Park Edge
5. Courtyard





3.2 AVONDALE DRIVE

Avondale Drive will retain its character as a suburban residential street whilst greatly improving on pedestrian experience. The existing pedestrian footpath will be maintained and will be lined with active frontages to new homes and planted public realm, retaining existing verges of trees where possible. This will create an enjoyable journey home for residents and a green outlook from facing windows. Duplex homes create a domestic scale to Avondale Drive which is consistent with the suburban residential street. On-street parking will be provided along one side of Avondale Drive.

Avondale Drive key character elements

Uses and activities	• Vehicular and cycle route towards and from estate parking/ cycle store • Pedestrian route to and from home • Duplex private amenity space • Public play area
Public realm and amenity	• Avondale Drive incorporated a footpath, tree planting, hedging and private amenity space. • Play on-the-way to Avondale Drive beneath existing trees
Built form and architecture	• Duplexes along Avondale Drive • Recessed six storey mid-rise building with podium

BUILT IN FORM AND USES

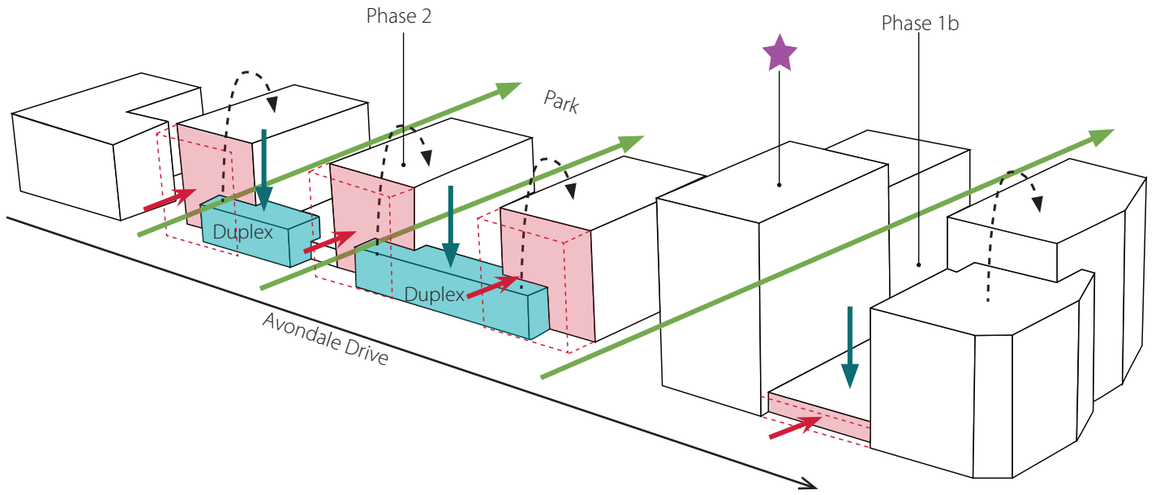
M / 237 **Recessed and stepped massing** to integrates with the street scale, featuring a lower block along Avondale Drive and taller blocks to the north, facing the park.

M / 238 **Recessed and stepped massing** to break the long frontages

M / 239 **Lower massing** to maximise the park view and to allow daylight/ sunlight into the podium gardens

M / 240 Maximise **active frontage** along the road to create a more secure and vital street environment.

M / 241 The tallest block of Phase 1b, located at the end of Avondale Drive, will function as a prominent **marker building**, creating a focal point for those approaching from the east



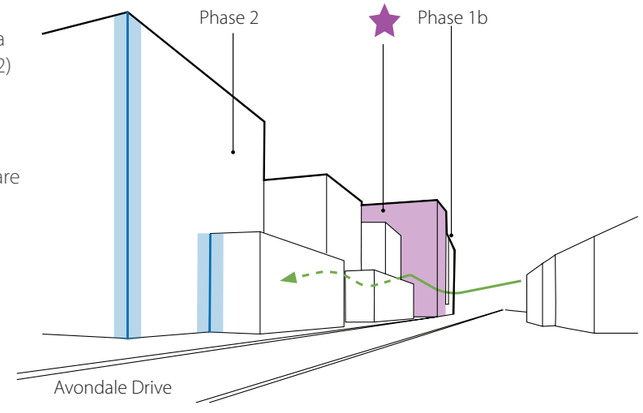
BUILDING TYPOLOGIES

M / 242 Two stories duplexes along Avondale Drive to seek a relationship with the surrounding buildings (Phase 2) and apartments with podium garden.

TOWNSCAPE APPROACH

M / 243 The South-East and South-West corners of Phase 2 are **key corners**. They are crucial in defining the plot's visual presence along Avondale Drive.

M / 244 The corners where the lower block along Avondale Drive meets the recessed taller block must be considered **key corners**.



BUILDING FRONTAGES AND ELEVATIONS

M / 245 The facade treatment must clearly articulate the individual character of each building, especially the **marker building**.

M / 246 The ground floor should articulate the distinct presence of the duplexes and building lobbies.

M / 247 The verticality of the tall building should be emphasized, alongside the articulation of key corners.

OPEN SPACE AND PUBLIC REALM

On the south side of the development, a continuous footpath runs from west to east along Avondale Drive. On the east side of the path, a row of existing trees separates it from the road, providing both protection and shade. On the west side, the private amenity spaces of the ground-floor homes are divided from the communal path by an evergreen hedge. Along the path, beneath the existing trees, there will be public accessible play on the way features.

OPEN SPACE AND PUBLIC REALM

M / 248 For ground-floor homes facing Avondale Drive, a minimum 1.2-m-deep **defensible space** must be provided.

M / 249 Private amenity must be separated from the public footpath with a **metal railing** and entrance gate.

M / 250 An additional minimum 0.50-meter area, offset from the edge, must be provided for planting or an **evergreen hedge**.

M / 251 2.8 m wide footpath with **tree planting** on the street side along Avondale Drive

M / 252 Existing trees should be retained if possible.

M / 253 Along Avondale Drive, **play space** must be integrated.