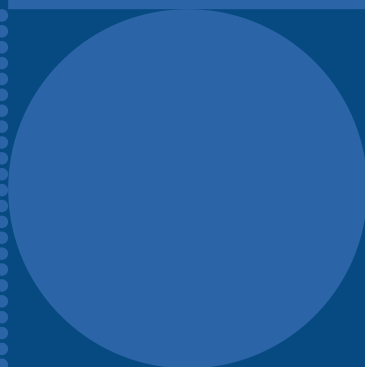
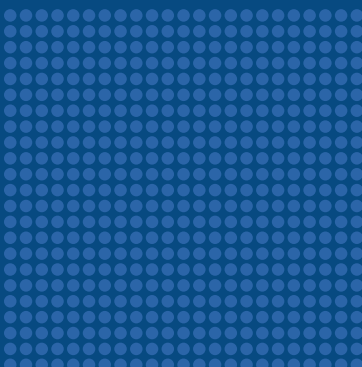
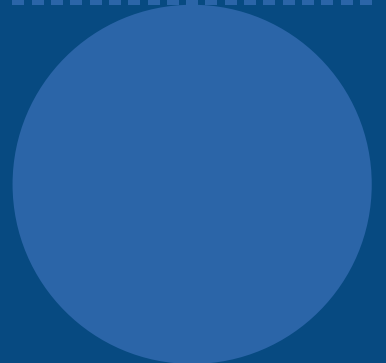
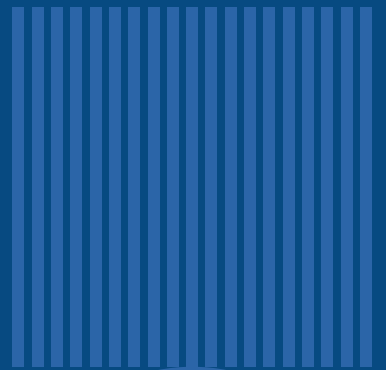
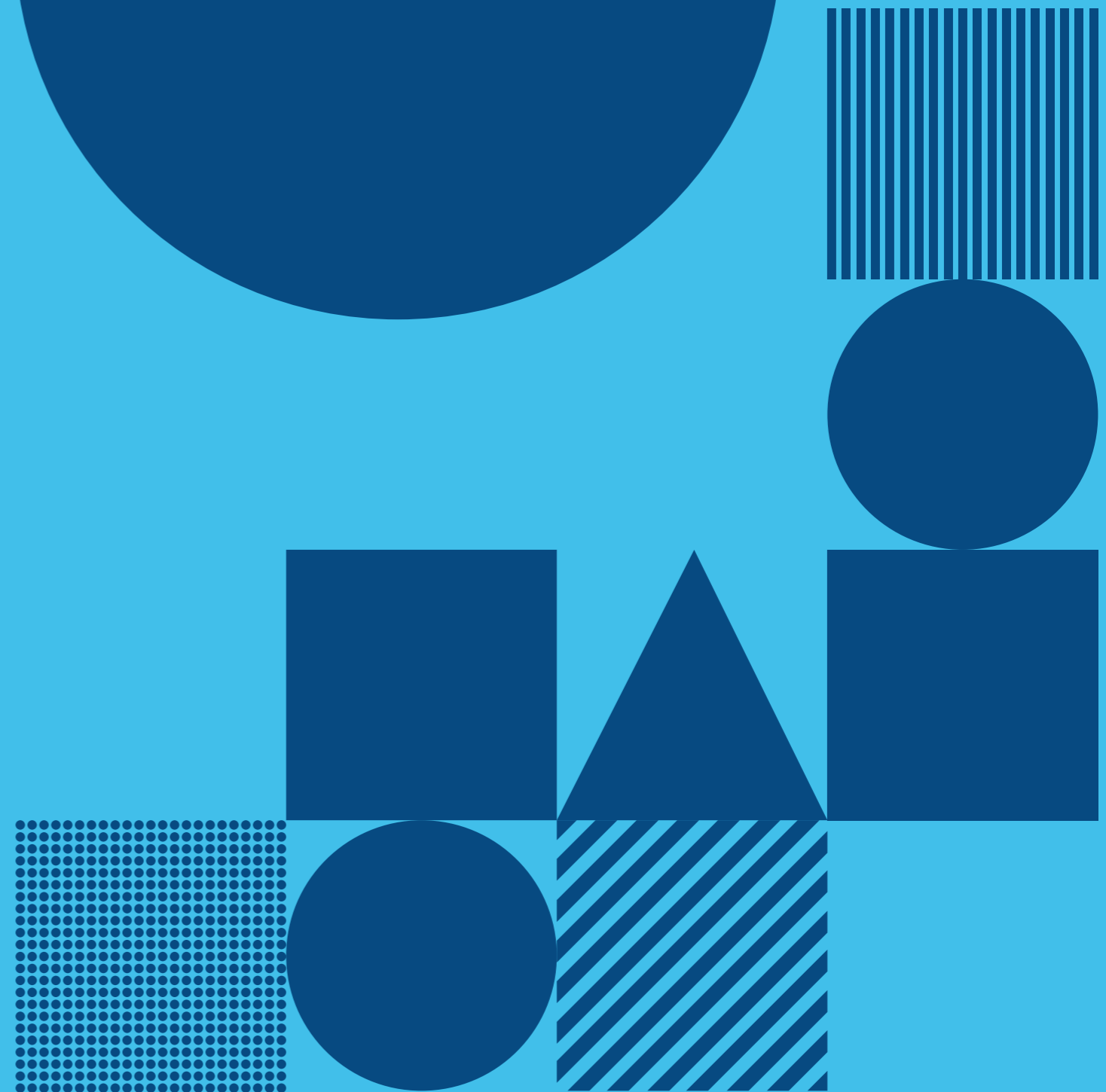


# Low Rise Typology Booklet



# Low Rise Typology Booklet



Revision	Date	Description	Prepared by	Reviewed by
00	25.06.26	First Issue	HM/TS	BM

# Introduction

---

0.1	Purpose of Guide	1
0.2	Structure of Guide	3
0.3	Hierarchy of LDA Documents	4
0.4	The LDA Approach	5
0.5	Policy Requirements & Compliance	5

# Section One Dwelling Design

---

1.1	Design Principles	9
1.2	Minimum Requirements	13
1.3	Typical Layouts	25

# Section Two Site Design

---

2.1	Placemaking	39
2.2	Public Realm	41
2.3	Building Typologies	43
2.4	Site Strategies	47
2.5	Landscape Threshold	55

# Section Three Technical Considerations

---

3.1	Architecture	61
3.2	Structure	68
3.3	M&E	69

# Section Four Outline Specification

---

4.1	Dwellings	73
4.2	External Works	81

# Section Five Appendix

---

5.1	Universal Design Layouts	85
5.2	Alternate Layouts	91

# Purpose of Guide

**The Land Development Agency's purpose is to maximise the supply of affordable and social homes on public and other land in a financially sustainable manner, supporting the creation of thriving communities and delivering ongoing positive social impact. We aim to design a new generation of homes with a pragmatism and intelligence that ensures that these quality new homes can be delivered to would-be homeowners through the Affordable Purchase Scheme.**



Golding Green, Dublin

The purpose of this guide is to facilitate the efficient delivery of Affordable Purchase own door homes. The LDA support sustainable residential development and compact growth in line with the 'Compact Settlement Guidelines' and the objectives of the 'LDA Sustainability Development Strategy' to achieve quality design, through the use of low-rise own door homes in appropriate locations. With an emphasis on well-designed homes, considered open spaces and cost-effective materials, our aim is to create safe, sustainable communities.

The LDA have undertaken extensive market research, engagement and analysis to understand the key aspects and consideration in the design and the delivery of quality affordable homes assessed with reference to the **Low Rise Typology Core Criteria:**

- **Functionality and quality**
- **Affordable Purchase home market**
- **Optimising and efficient design**
- **Standardising design and components**
- **Maximising site potential**

The essence of a home is a place of shelter, comfort, bright and warm with quality living and sleeping accommodation. Our homes have been designed and considered to cater for all aspects and lifestyles of modern living supported by the creation of new neighbourhoods and communities.

The LDA aims to intelligently utilise standardisation in design and construction to improve quality, reduce cost, increase certainty, and deliver consistency across all LDA Affordable Purchase homes. Site design should be informed by site context, placemaking objectives and best-practice urban design principles to create well-designed homes, a quality public realm, and sustainable communities that support compact growth. The site layout should be public realm-led, creating quality streets, open spaces, and play areas that foster sustainable communities. This means that homeowners of an LDA Affordable Purchase home can expect the same level of quality across all LDA developments.

These guidelines provide design teams with the typology layouts and design principles to develop the design for LDA developments in an efficient and consistent manner. The importance of well-designed and considered layouts and spaces, that priorities the needs of the homeowners cannot be underestimated.

Compliance with the various housing standards, daylight requirements, building regulation and efficiency requirements whilst important should not inhibit the design of quality, functional and usable homes.

The LDA support and encourage the use of Modern Methods of Construction in the delivery of affordable housing and consider standardisation key to facilitating the increased use of Modern Methods of Construction at delivery stage.

All guidance, layouts and specifications provided have gone through a rigorous internal review process including functionality, quality of layout and space, technical and cost assessment, in addition to external peer review. These guidelines are not intended to curtail creativity of the design team or prescribe any particular architectural response. They are intended to provide the design team with a clear brief and design principles to assist our design teams to develop a site-specific response for the delivery of LDA 'Affordable for Sale' homes.

## **The Hallmarks of a LDA development:**

- **Homes** - Provision of well designed, efficient and affordable homes.
- **Place and Heritage** - Character and Distinctiveness.
- **Connected** - Homes are connected to wider catchments by sustainable and active travel modes.
- **Inclusive** - Communities are inclusive, accessible and safe places.
- **Sustainability** - Climate resilient scheme, enhance biodiversity and support low carbon living.
- **Vibrant Communities** - Connected public realm and ground floor uses.

## Structure of Guide

1

### Dwelling Design

This section provides specific guidance on layouts of houses, duplexes and town houses. It includes spatial design principles, minimum requirements, and typical layouts arranged by dwelling size and type. This section should be considered a baseline requirement for all design teams to ensure dwelling layouts are well designed to provide consistency, quality and certainty across all LDA projects.

2

### Site Design

This section provides general guidance to be considered by the design team at the scale of the site. It includes guidance, placemaking, public realm, building typologies, site strategies and landscape threshold. These items should be carefully considered from concept design to ensure the typical dwellings are arranged in a way to support efficient land use and sustainable homes and communities.

3

### Technical Considerations

This section sets out areas of technical design for consideration by the design team developing the design prior to submitting planning. The items in this section should be given consideration to ensure the spatial planning takes advantage of any potential opportunities in construction and does not contain any hidden issues or unnecessary inefficiencies that may arise at detailed design.

4

### Outline Specification

This section sets out the outline specification for dwellings and external areas. The specification for the dwellings is organised by room while the specification for the external works is organised by space.

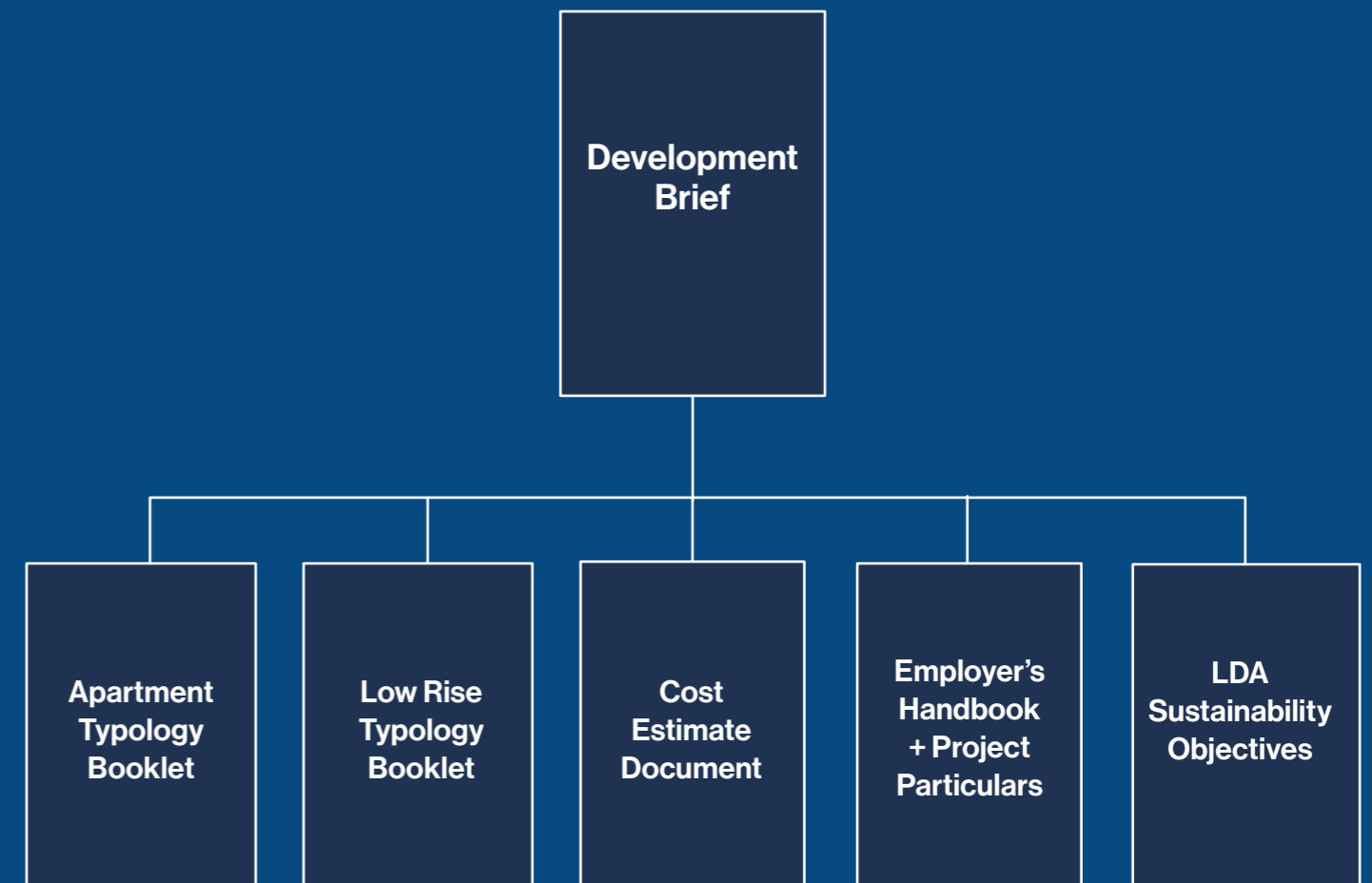
## Hierarchy of LDA Documents

This guide sits with a suite of LDA briefing documents which apply to all LDA developments. The design team will be provided with a project specific Development Brief outlining the specific project requirements in addition to the relevant LDA standard briefing documents.

These guidelines are intended to improve efficiency in housing and housing cell design to ensure the limited resources available are spent on areas of the building that will have the greatest impact on enhancing the quality of the living experience for our homeowners.

This guide should be read in conjunction with these documents as outlined below.

- Development Brief
- Apartment Typology Booklet
- Low Rise Typology Booklet
- Cost Estimate Document
- Employer's Handbook + Project Particulars
- LDA Sustainability Objectives



## The LDA Approach

### Delivering Homes and Communities in a Sustainable Way

Sustainability is placed at the core of our design process, informing the priorities we set, the ways we work, and the outcomes we deliver. Our focus is centred around two main strategic objectives:

- Mitigating our carbon impacts (operational and embodied).
- Enhancing biodiversity across the LDA's portfolio of developments.

We look to mitigate negative environmental impacts, while optimising the conditions that support enhanced biodiversity and the creation of social value. Refer to the sustainable requirements set out in the Development Brief, however for low-rise typologies and for the development of the design for low-medium neighbourhoods:

- Efficient typologies with standardised components, reducing embodied and operational carbon usage, optimisation for site layout and density.
- Adopting SuDS, nature-based solutions, conserving and reducing water usage.
- Promoting sustainable modes of transport with mobility hierarchy, walking cycling and use of public transport.
- Promote strategies to enhance the Biodiversity Net Gain.
- Creation of new communities and strengthening existing communities.

## Policy Requirements & Compliance

The design of all dwellings must meet the Building Regulations and relevant policy, including but not limited to:

- Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities, 2024.
- Planning Design Standards for Apartments, Guidelines for Planning Authorities, 2025 for all duplexes and apartments, 2025.
- Quality Housing for Sustainable Communities 2007.
- Design Manual for Urban Roads, DMURS, 2019.

The information in this document is provided for guidance only and should be verified by the design team on a project-by-project basis and any requirements as set out in the project Development Brief. If the LDA requirements set out in this document cannot be achieved, or the Design Team wish to deviate from these requirements, the Design Team must provide an evidence-based justification for doing so and seek approval from the LDA.



Hampton Demesne, Dublin

# Section One Dwelling Design



1.1

# Design Principles

Dwelling typologies were rigorously developed, reviewed and refined to ensure the best possible layout is achieved responding to the requirements of residents while delivering affordable homes.

The layouts have been developed to prioritise practicality, providing adequate and usable storage space, ensuring that rooms are designed with the end user's needs at the forefront, making them functional, flexible and suited to modern living.

All homes accommodate space to cook, eat and socialise with family and friends as well as more private spaces for work, study and sleep. The following principles have informed the design of the dwelling types;

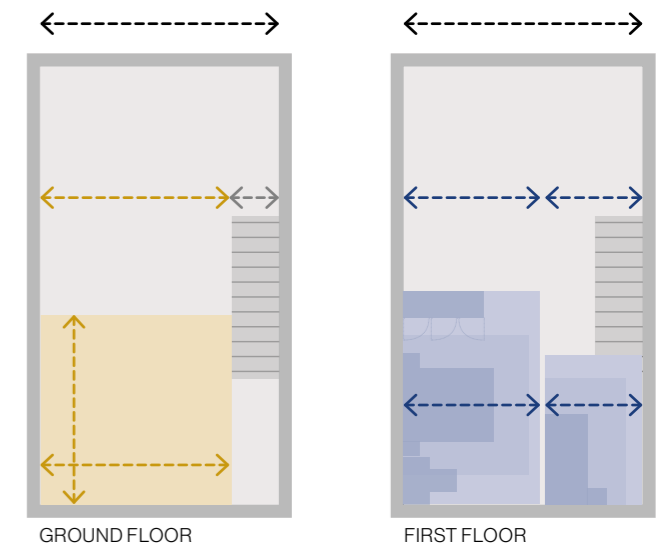
## 1. Optimum use of Land

The plot gauge has been determined by the garden size, parking requirement and curtilage design to ensure optimum use of land to achieve the required density to support compact growth and sustainability of structures.



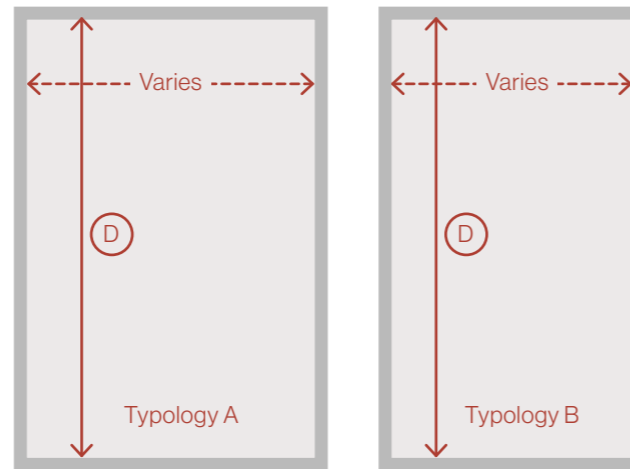
## 2. Optimum Building Gauge

The building gauge has been informed by the critical room dimensions to ensure rooms are functional and can accommodate the required furniture, while maximising efficiency.



### 3. Interchangeable Typologies

Building depths have been standardised across each building type to aid interchangeability. This will provide flexibility to mix and match typologies to achieve the required mix and density.



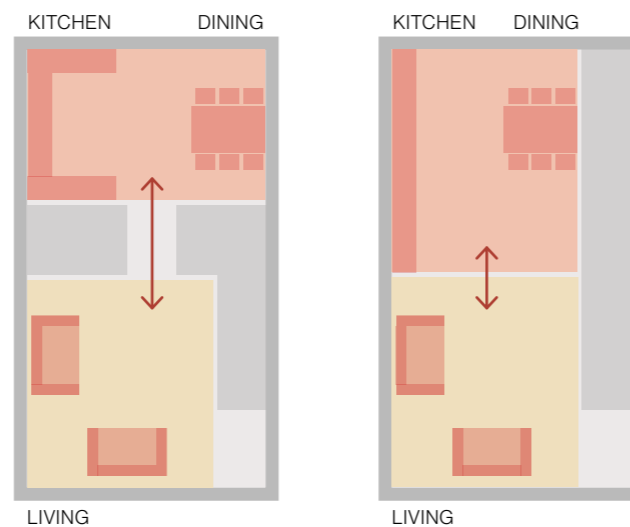
### 4. Simple Form

All dwelling types have been designed with simple, orthogonal forms, avoiding unnecessary setbacks, projections, or complex geometries to ensure a low form factor. This compact and efficient design reduces heat loss, improves energy performance, and enhances overall buildability. Consideration should be given to understanding the thermal line of the building fabric as this will enhance thermal efficiency and airtightness of the home.



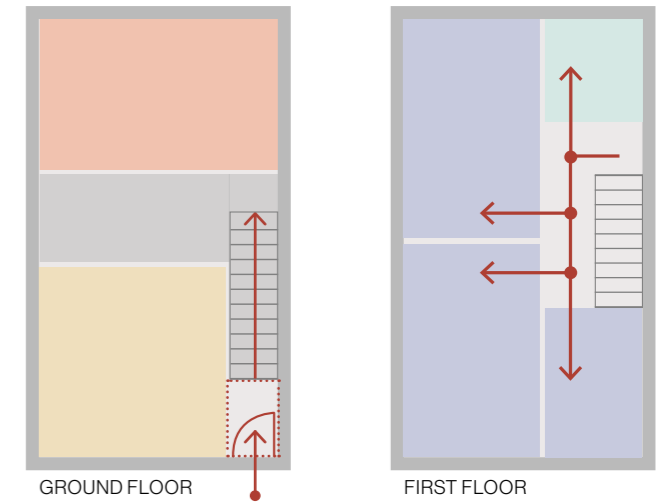
### 5. Separation of Activities

Activities within a home have been zoned to provide distinct spaces for different functions. The kitchen has been located at the rear of the home to maximise privacy. Storage has been placed in areas with the least daylight and consolidated wherever possible to create meaningful storage rooms. Open plan and split living arrangements have been designed to cater to alternative family types and lifestyles.



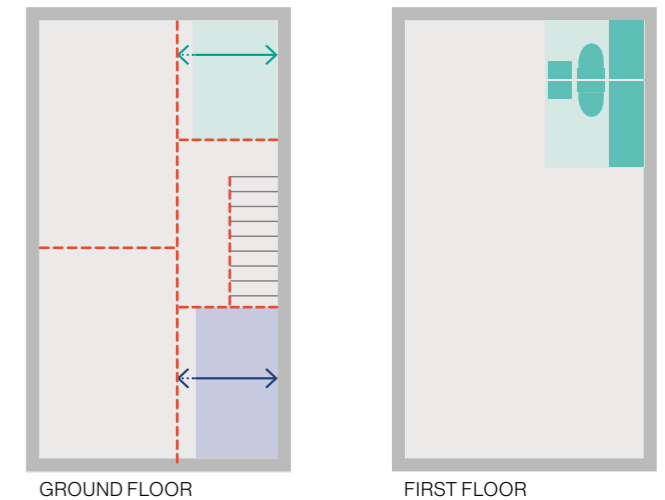
### 6. Circulation within the Home

All bedrooms and bathrooms are accessed from a corridor rather than directly from the main living space. Corridor lengths have been minimised to maximise usable area within the home. Staircases have been located to reduce circulation through living spaces and to create a defined entry space at the entrance. Door locations have been carefully considered to enhance room functionality, support smooth circulation and ensure privacy for each occupant.



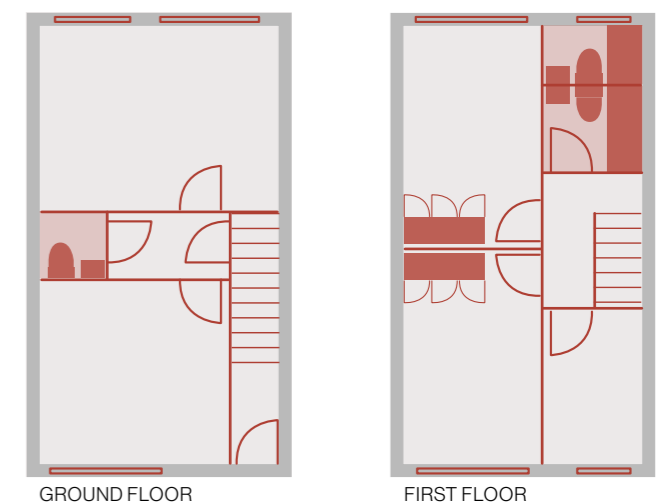
### 7. Construction Efficiency

Internal walls have been aligned where possible, and stairs planned to maximise construction efficiency while maintaining a balance between floor area and simplified construction. Serviced areas such as bathrooms, ensuites, WCs, and kitchens have been grouped and stacked where possible to minimise complex service runs and improve construction efficiency.



### 8. Standardised Components

All dwellings utilise repeatable, standardised components including doors, windows, bathrooms, wardrobes, stairs, and wall types. All components have been based on industry standards to maximise manufacturing efficiency.



1.2

# Minimum Requirements

The following section sets out the LDA's minimum requirements arranged by room. These standards are intended to ensure usability, consistency, and quality across all LDA homes. For detailed information on materials, fixtures, and specification, please refer to Outline Specification in Section 4 of this booklet. These requirements should also be read alongside the relevant regulatory documents, including the Quality Housing for Sustainable Communities. Furniture sizes referred to in this section are based on industry standards.

## 1.2.1 Living Room

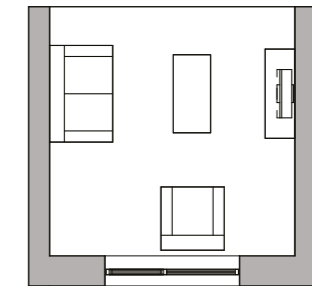
All living rooms should provide adequate space for all occupants to sit together, socialise and relax. They must be designed to accommodate the typical furniture based on the number of bed spaces provided, in addition to complying with the minimum room areas and widths. As a minimum requirement living rooms must accommodate the following furniture:

- Layout to accommodate placement of sofas against walls to maximise sense of space.
- Careful consideration to be given to placement of television.
- Where a living room is joined to kitchen/dining area with double doors, the doors should be fitted with parliament hinges to allow flexibility and separation of living spaces.

### 1B2P Living Room

- A sofa or seating arrangement for three persons
- A coffee table (500mm X 1050mm)
- A flat screen TV

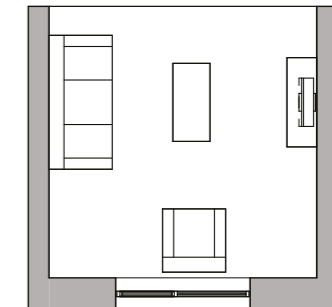
\*See table for sofa and armchair sizes.



### 2B4P Living Room

- A sofa or seating arrangement for four persons
- A coffee table (500mm X 1050mm)
- A flat screen TV

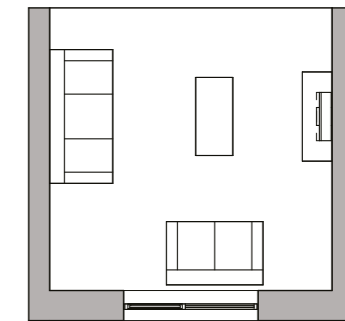
\*See table for sofa and armchair sizes.



### 3B5P Living Room

- A sofa or seating arrangement for five persons
- A coffee table (500mm X 1050mm)
- A flat screen TV

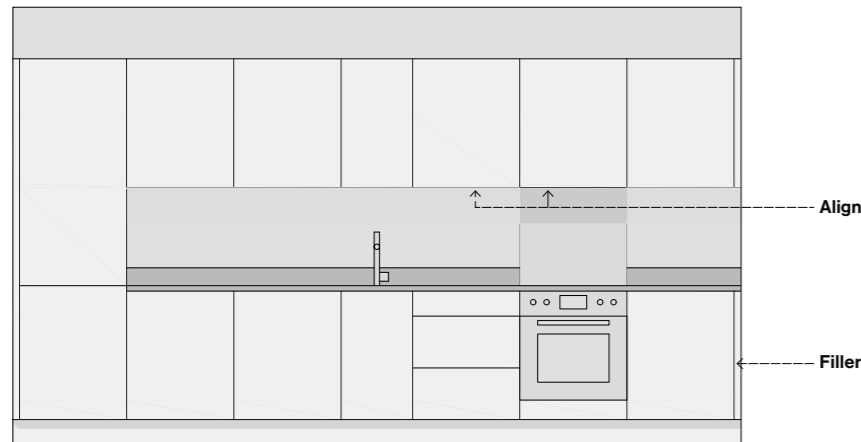
\*See table for sofa and armchair sizes.



Item	Size
<b>Armchair</b>	850mm X 850mm
<b>2 Seat Sofa</b>	850mm X 1300mm
<b>3 Seat Sofa</b>	850mm X 1800mm

## 1.2.2 Kitchens

Kitchens should be provided with adequate storage space for food, cutlery, crockery, small appliances, and adequate worktop space for food preparation. Kitchens should be designed to have simple and contemporary appearance.



Indicative kitchen elevation

- Kitchens should be designed to have clean and simple lines.
- Kitchens should be standardised, and the number of kitchen types should be minimised.
- Kitchens should be designed based on a standard kitchen unit module of 600mm with an allowance for filler pieces at wall abutments to accommodate construction tolerances.
- Where a base unit is located in a corner, a minimum of 300mm additional length should be provided in one direction to allow for a door and access into the base unit.
- Allow a minimum distance of 1200mm between facing base units to allow for circulation and opening of doors.
- Consideration should be made to allowing excess room behind all base units where a sink or dishwasher is located for waste and water pipe installation, in dwellings with kitchens on upper floor.
- Bins to be provided under the sink.
- Allow for a minimum of 300mm clear worktop area each side of the hob and sink.
- Socket locations should be considered as part of the kitchen design.
- The fridge/freezer should be positioned at the end of a run of units.
- Washing machines should not be located in open plan kitchens.
- A dishwasher should be located under the draining board adjacent to the sink.
- Where a kitchen is located on external wall a window should be provided above the sink.
- Kitchens should not be located at the front of a dwelling.
- Allow a minimum distance of 600mm between a cooker and fridge freezer.
- Where a fridge freezer sits beside a wall, a 50mm minimum filler will be provided.
- Refer to Outline Specification in Section 4 for the list of appliances required.
- The following kitchen furniture schedule should be shown on all dwelling plans to demonstrate compliance with LDA requirements.

The following kitchen furniture schedule should be shown on all dwelling plans to demonstrate compliance with LDA requirements.

	<p><b>1B2P</b> Min. 1.45m<sup>3</sup></p>
	<p><b>2B4P</b> Min. 1.83m<sup>3</sup></p>
	<p><b>3B5P</b> Min. 2.08m<sup>3</sup></p>

**BU: Base unit. FF: Fridge freezer.**

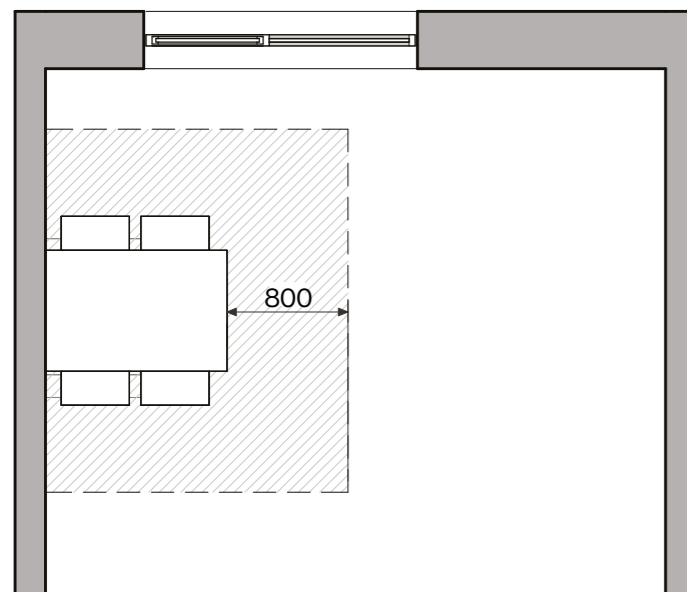
Note: The minimum volumes above are based on achieving a minimum of 85% of the target volumes set out in the Quality Housing For Sustainable Communities by way of under counter, full height and over counter cupboards and drawers.

## 1.2.3 Dining Area

All dining areas should provide adequate space for all the occupants of the home to sit and eat together.

- Dining tables should be located adjacent to the kitchen area.
- Adequate circulation space should be provided for all dining tables.
- Dining tables should be accessible on a minimum of three sides, the fourth side can be placed against a wall.
- As a minimum requirement the dining tables in the table below should be provided.

Dwelling Size (1 Dining chair required per bedspace)	Dining Table Size
1 Bedroom	800mm x 1200mm
2 Bedroom	800mm x 1200mm
3 Bedroom	800mm x 1500mm

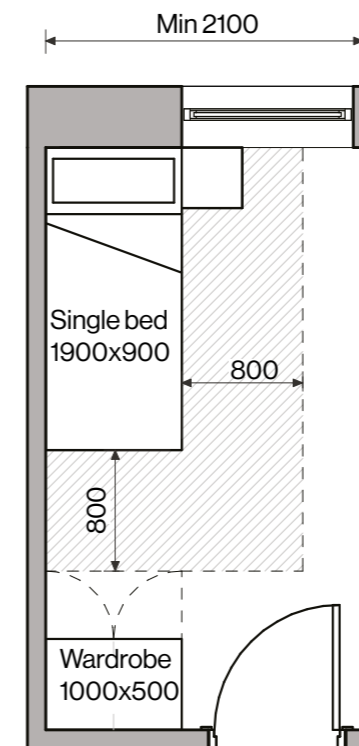


## 1.2.4 Bedrooms

All bedrooms must be designed to accommodate the typical furniture based on the number of bed spaces provided, in addition to complying with the minimum room areas and widths. For details on wardrobe provision refer to Outline Specification in Section 4 of this booklet. As a minimum requirement bedrooms must accommodate the following furniture:

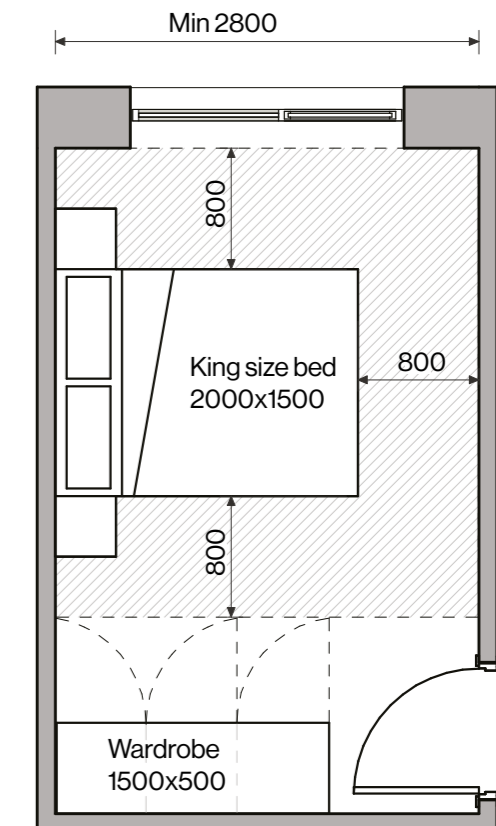
### Single Bedroom

- Layout to accommodate a standard size single bed (1900mm X 900mm) with a 800mm clear zone to one side and foot of the bed.
- Layout to allow for one bedside lockers with minimum dimensions of 400mm x 400mm.
- Layout to accommodate indicative location for a wardrobe with minimum dimensions of 1000mm x 500mm with an allowance for doors to open without obstruction.
- Consider alternative uses of single bedroom such as home office.
- Consider how the window location and configuration can allow for various layouts.



### Double Bedroom

- Layout to accommodate a standard king size bed (2000mm X 1500mm) with a 800mm clear zone around the sides and foot of the bed.
- Layout to allow for two bedside lockers with minimum dimensions of 400mm x 400mm.
- Layout to accommodate a wardrobe with minimum dimensions of 1500mm x 500mm with an allowance for doors to open without obstruction. Where storage is provided in a bedroom the wardrobe can be reduced to 1000mm x 500mm.



## 1.2.5 Bathrooms

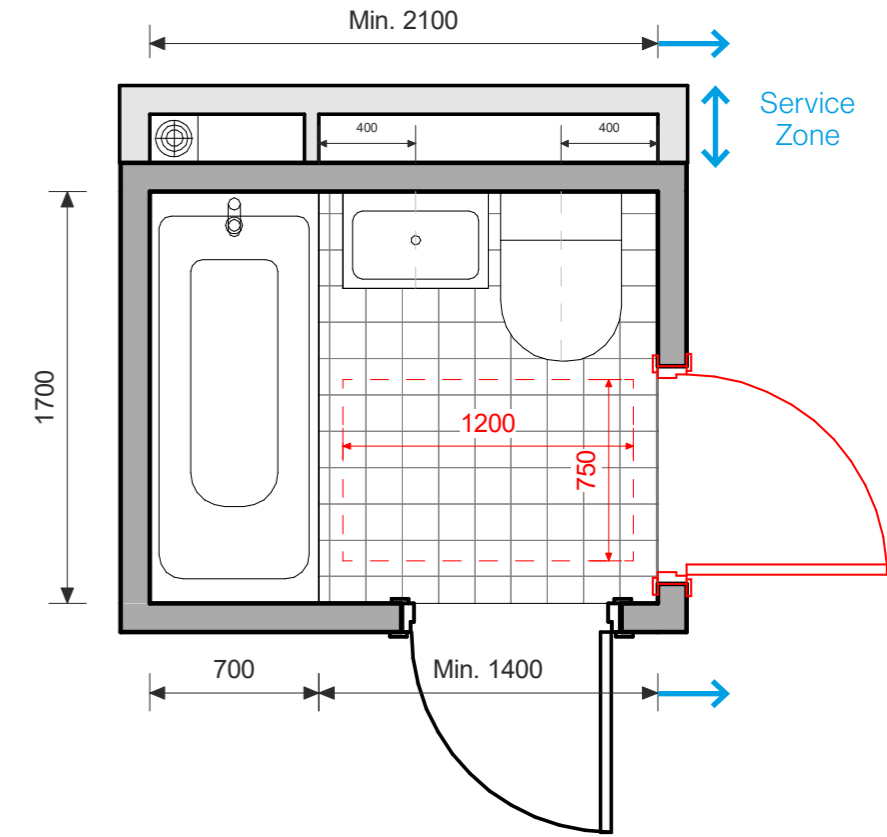
Bathrooms should be designed to ensure they are highly functional, robust, easy to clean and family friendly. Bathrooms should be designed to have simple lines and contemporary appearance. General guidance for space planning of bathrooms within LDA homes:

- Bathrooms should be standardised across all dwellings and variations minimised.
- All bathrooms to be grouped or stacked where possible.
- Bathroom doors should be outward opening where possible to maximise manoeuvrability within the bathroom.
- Toilet, sink and bath/shower to be arranged on one wall to facilitate efficient drainage.
- Drainage stack to be included on all layouts and sufficient boxing out provided.
- Shower door/bath screen opening should be carefully coordinated to avoid any clash with the toilet or wash hand basin.
- Where a bathroom or ensuite is located on an external wall, an opaque/ frosted window should be provided.
- Refer to the Outline Specification in Section 4 for details on bathroom finishes.
- The typical bathroom and en-suite drawings that follow set out the LDA minimum requirements.

Dwelling Type	Requirement
1B2P Apartment	Bathroom
2B4P Apartment	Bathroom and En-suite
3B5P Duplex	Bathroom, En-suite and WC
2B4P House	Bathroom, En-suite and WC
3B5P House	Bathroom, En-suite and WC

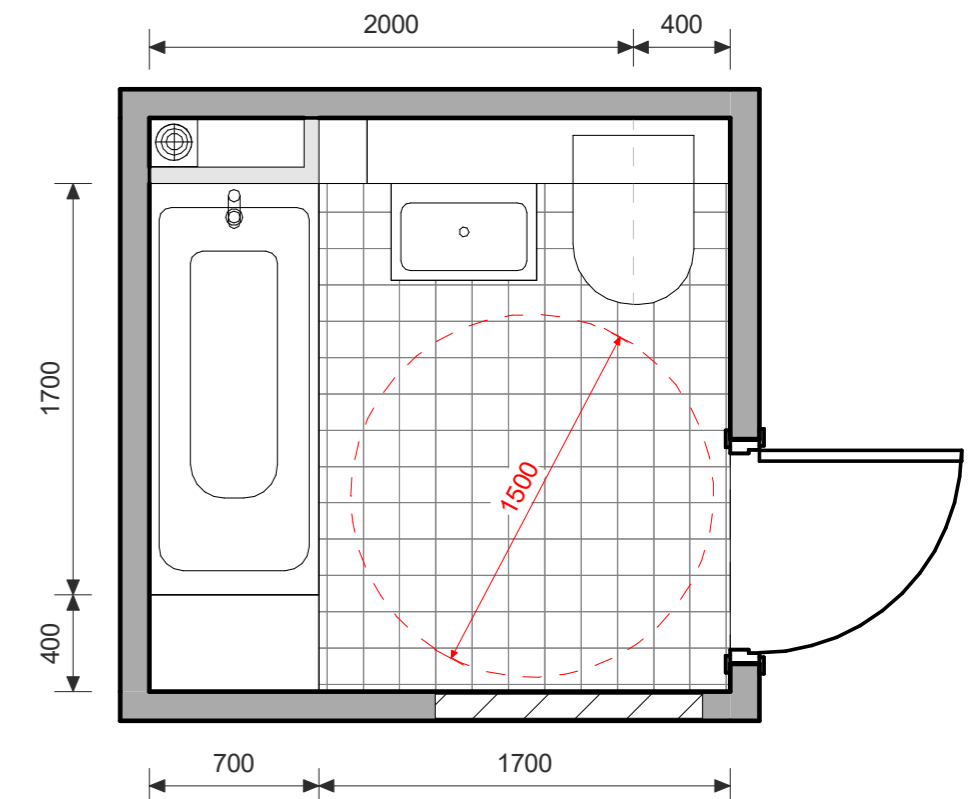
### Typical Bathroom

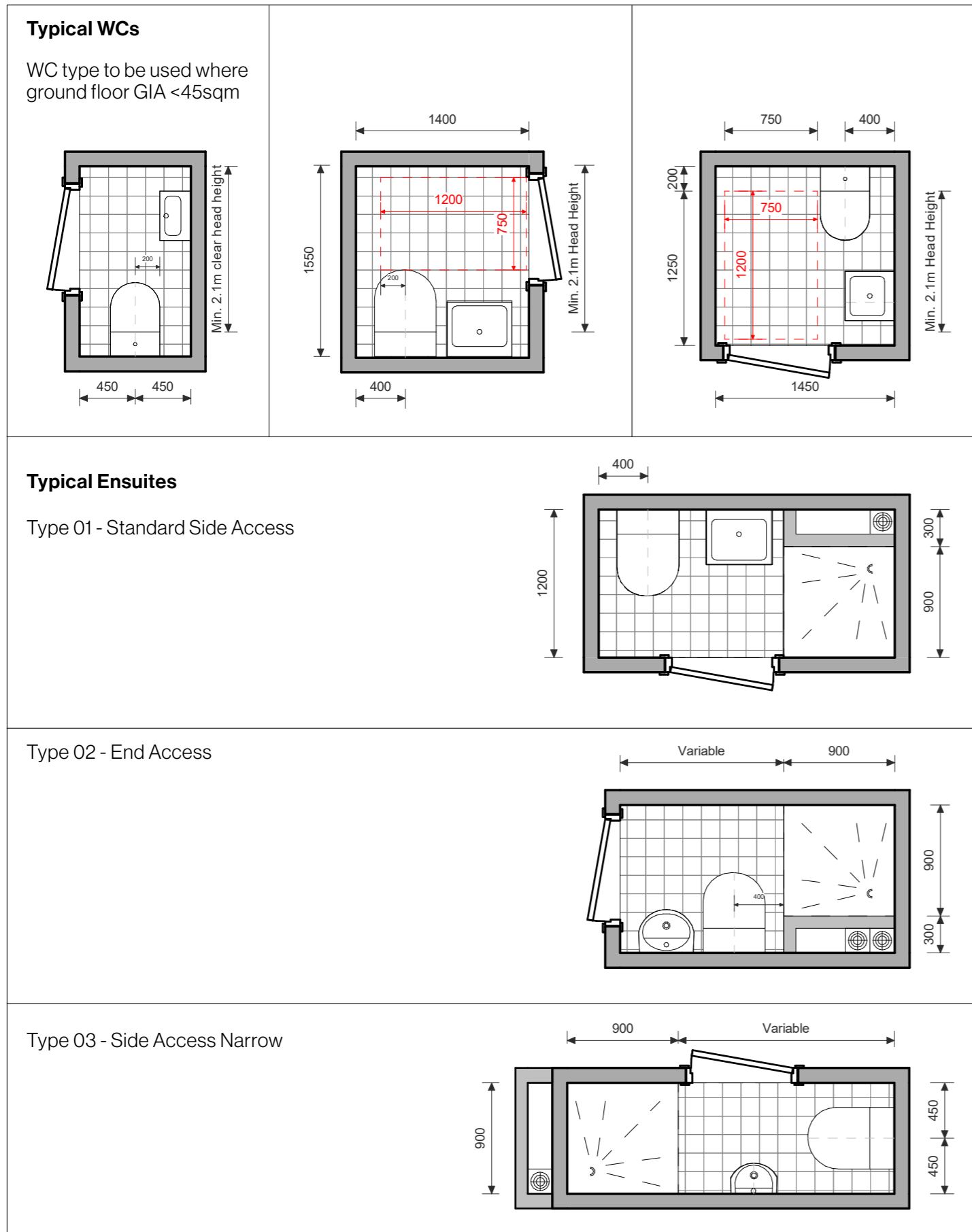
- Dimensions include variable elements as indicated in blue.
- Scope for stacks to sit within the enclosure of the bathroom or in the adjacent room boxed out within a store or wardrobe unit.
- Where the bathroom acts as the accessible WC within a dwelling the bathroom must comply with TGD Part M, such as the door highlighted in red. Door locations in all other scenarios can be located in alternative configurations.



### Typical Universal Design Bathroom

- Hatched zone allocated for the future provisions of a secondary connecting door to the master bedroom.





## 1.2.6 Storage

Storage should be designed to be practical and usable. General guidance for storage within LDA homes:

- Storage must be designed to comply with the minimum storage requirements.
- Provide storage rooms in lieu of cabinetry.
- Avoid including wardrobe space towards the storage requirement.
- Provide storage room in the form of a utility room to accommodate a washing machine, dryer and area to dry clothes. Utility room to include air extraction. Dryer may be stacked above the washing machine if required.
- Connection to a drainage stack to be considered in rooms containing washing machine.
- In dwellings with an attic, an access ladder should be provided and an area of approximately 10sqm should be floored to provide storage. This area should not be counted towards the storage requirement.
- Consider practical accessible space. Avoid long narrow storage rooms.

## 1.2.7 Stair and Landing

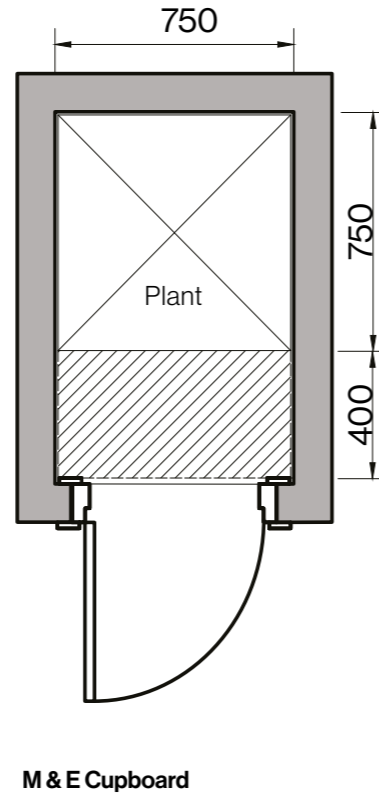
Stairs should be designed for ease of use and facilitate simple and efficient construction. General guidance for stairs within LDA homes:

- Stairs should be designed as a straight flight where possible.
- Winders should be avoided where possible.
- Angled bulkheads above stairs should be avoided where possible. Where they cannot be avoided the design team should seek approval from the LDA.
- Where an upper floor landing is located, an external wall and window should be provided.
- Where a stairs is located in an open plan living room the stairs should land in close proximity to the entrance door.

### 1.2.8 M&E

Placement of M&E systems should be carefully considered to avoid encroaching on usable space. General guidance for M&E within LDA homes:

- All indoor and outdoor M&E units should be identified on floor plans.
- M&E equipment may sit within a storage room however the area dedicated to services should not be counted towards the storage requirement.
- M&E cupboards should be not be located directly below stairs.
- Dimensions of M&E cupboard to be confirmed by design team however until confirmed allow a minimum of 750mm x 750mm with minimum of 400mm clear access zone to the front.
- Outdoor units should be located in private outdoor space to the rear of a dwelling.
- Connection to a drainage stack to be considered for M&E cupboards if required.
- This section should be read in conjunction with the M&E requirements set out in the Technical Considerations in Section 3 of this booklet.
- Guidance on the outdoor M&E is provided in Landscaped Thresholds in the Site Design section of this booklet.

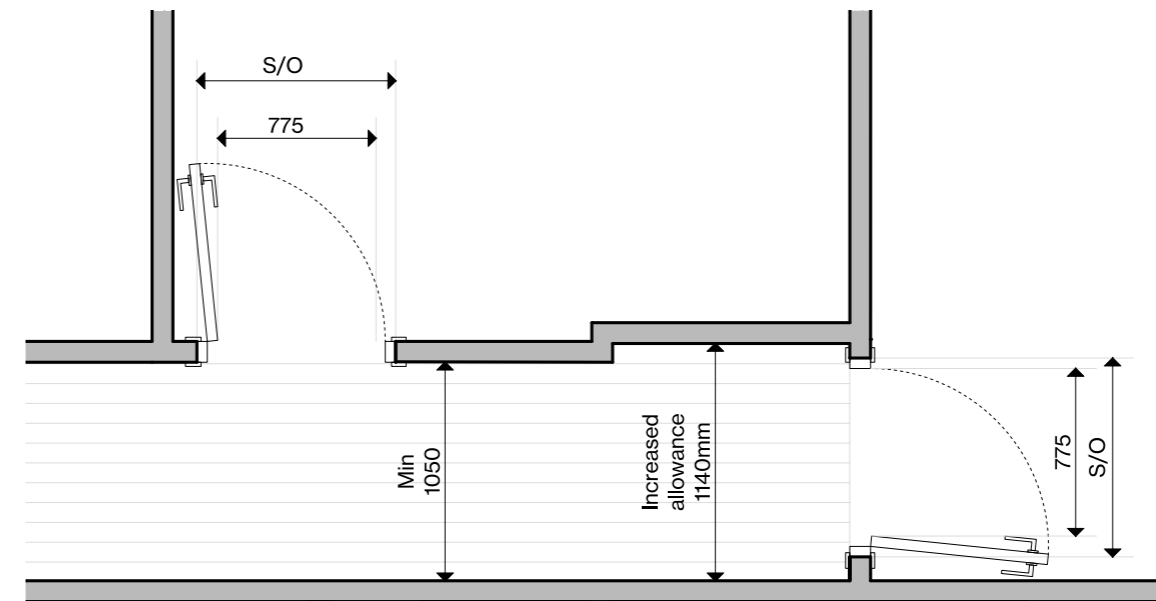


### 1.2.9 Internal Doors & Corridors

All doors and corridors to be designed to achieve the effective clear widths set out in Part M TGD. General guidance for internal doors and corridors within LDA homes:

- Door sizes should be standardised and variations should be minimised.
- Structural openings should be adequate to allow required effective clear widths to be achieved using a standard timber door set construction.
- Door nibs require careful consideration to ensure adequate room is provided for architraves and ironmongery.
- Internal corridors should be minimum of 1050mm wide, with increased allowance provided when a door is located at the end of the corridor.
- Entrance halls should be a minimum of 1200mm wide.
- Below is a worked example for a 775mm clear width door provided for illustrative purposes only. All information should be verified by the design team.

Worked Example				
Effective Clear Width	Door Leaf	Structural Opening	Required to open beyond 90	Corridor Width Required
775mm	864mm	955mm	Yes	1140mm



Internal doors and corridors. Refer to TGD Part M

1.3

# Typical Layouts

The following section includes the LDA's typical layouts for Affordable Purchase houses, Duplexes and Town Houses.

This section presents own-door homes for low-rise, compact-growth schemes. For apartment guidance, see the LDA Apartment Typology Booklet.

House types include front-entry, side-entry and wide-fronted variants. Houses should be prioritised, with town houses, duplexes or apartments used only where needed to meet density targets.

All terrace house types share a uniform depth to allow continuous terraces. Typology type, selection number and mix to be agreed on a project by project basis. The LDA standard house types have separate living

and kitchen spaces. An open-plan version of the three-bed front-entry house is included; its use should be agreed with the LDA based on location and market demand.

Dwelling types reference number of bedrooms, with prefixes indicating house, town houses or duplex and suffixes indicating variations (e.g. 3H-B for the second variation on the 3B5P house).

Additional atypical and Universal Design layouts are included in the appendix.

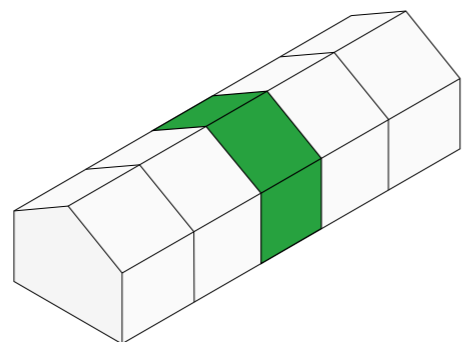
Dwelling Type	House			Duplex		Town house		Reference
	Front Entry	Side Entry	Wide Fronted	Ground Floor	Upper Floor	Courtyard	Rectangular	
1B2P								1D-A
2B4P								2H-A
2B4P								2D-A
2B4P								2TH-A
3B5P								3H-A
3B5P								3H-B
3B5P								3H-C
3B5P								3H-D
3B5P								3D-A
3B5P								3TH-A

House	Duplex	Town House
2B4P Front Entry 	1B2P Ground Floor Apartment 	2B4P Courtyard 
3B5P Front Entry 	2B4P Ground Floor Apartment 	3B5P Courtyard 
3B5P Front Entry (Open Plan) 	3B5P Upper Floor Duplex 	
3B5P Side Entry 		
3B5P Wide Fronted 		

### 1.3.1 Two Bedroom Four Person (Front Entry)

House Type 2H-A

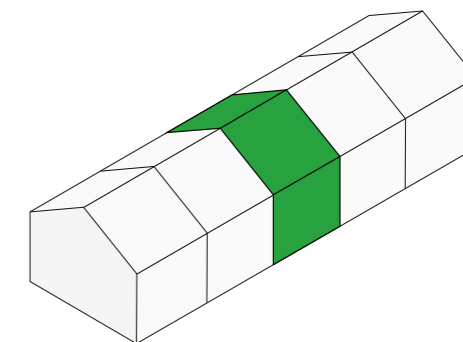
	2B4P	
	Provided	Minimum
Living, Kitchen, Dining	34.3m <sup>2</sup>	30m <sup>2</sup>
Double Bedroom 1	13.2m <sup>2</sup>	13m <sup>2</sup>
Double Bedroom 2	14.8m <sup>2</sup>	11.4m <sup>2</sup>
Storage	5.1m <sup>2</sup>	4m <sup>2</sup>
Dwelling Area	<b>85.2m<sup>2</sup></b>	<b>80m<sup>2</sup></b>



### 1.3.2 Three Bedroom Five Person (Front Entry)

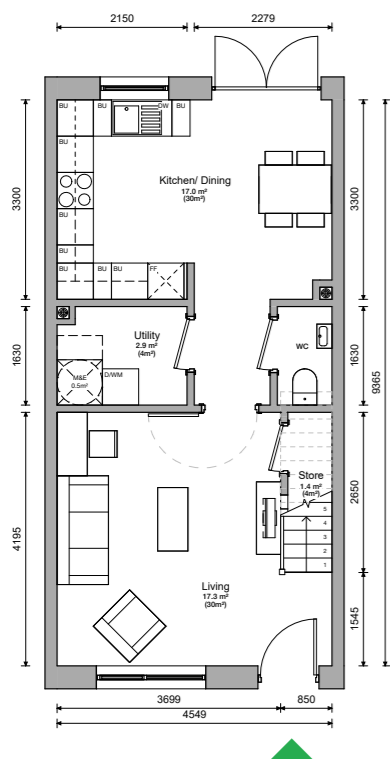
House Type 3H-A

	3B5P	
	Provided	Minimum
Living, Kitchen, Dining	34m <sup>2</sup>	34m <sup>2</sup>
Double Bedroom 1	13.5m <sup>2</sup>	13m <sup>2</sup>
Double Bedroom 2	13.1m <sup>2</sup>	11.4m <sup>2</sup>
Single Bedroom	7.1m <sup>2</sup>	7.1m <sup>2</sup>
Storage	5.5m <sup>2</sup>	5m <sup>2</sup>
Dwelling Area	<b>97.8m<sup>2</sup></b>	<b>92m<sup>2</sup></b>

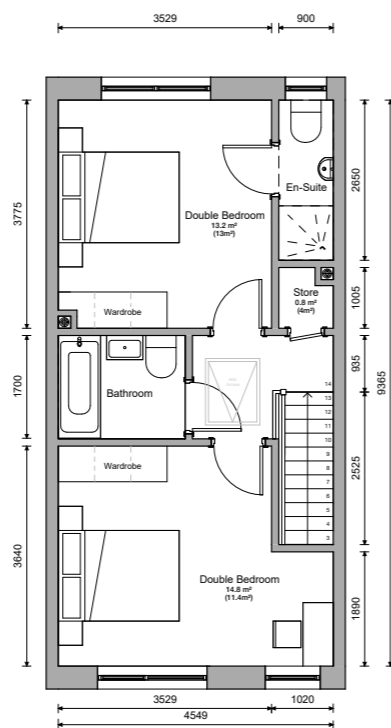


Note: This type can be used as mid terrace or end of terrace.

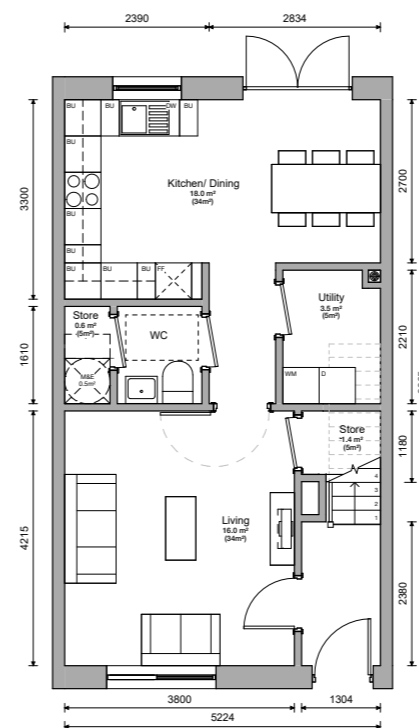
Where it is used as an end of terrace secondary windows should be provided on the gable end.



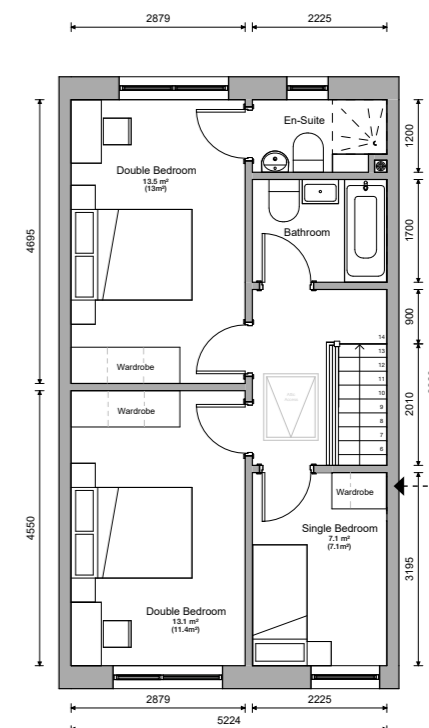
Ground Floor



First Floor



Ground Floor



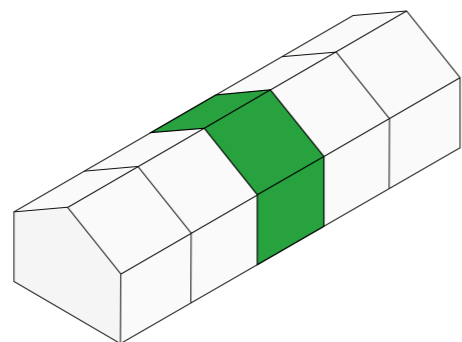
First Floor

Rising stair boxed out to accommodate wardrobe location

### 1.3.3 Three Bedroom Five Person (Front Entry & Open plan)

House Type 3H-B

	3B5P	
	Provided	Minimum
Living, Kitchen, Dining	34.5m <sup>2</sup>	34m <sup>2</sup>
Double Bedroom 1	13.5m <sup>2</sup>	13m <sup>2</sup>
Double Bedroom 2	13.1m <sup>2</sup>	11.4m <sup>2</sup>
Single Bedroom	7.1m <sup>2</sup>	7.1m <sup>2</sup>
Storage	5.9 m <sup>2</sup>	5m <sup>2</sup>
<b>Dwelling Area</b>	<b>97.8m<sup>2</sup></b>	<b>92m<sup>2</sup></b>



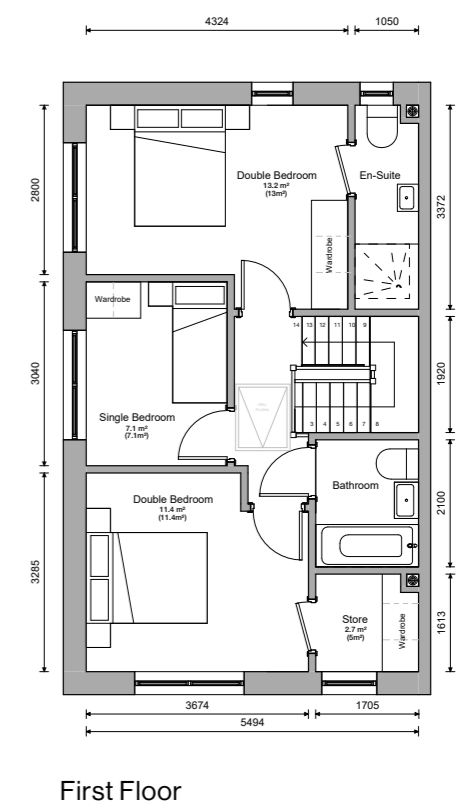
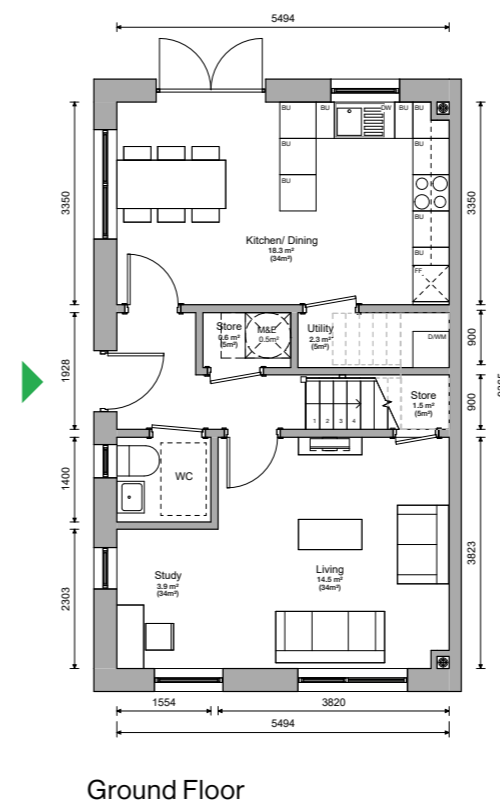
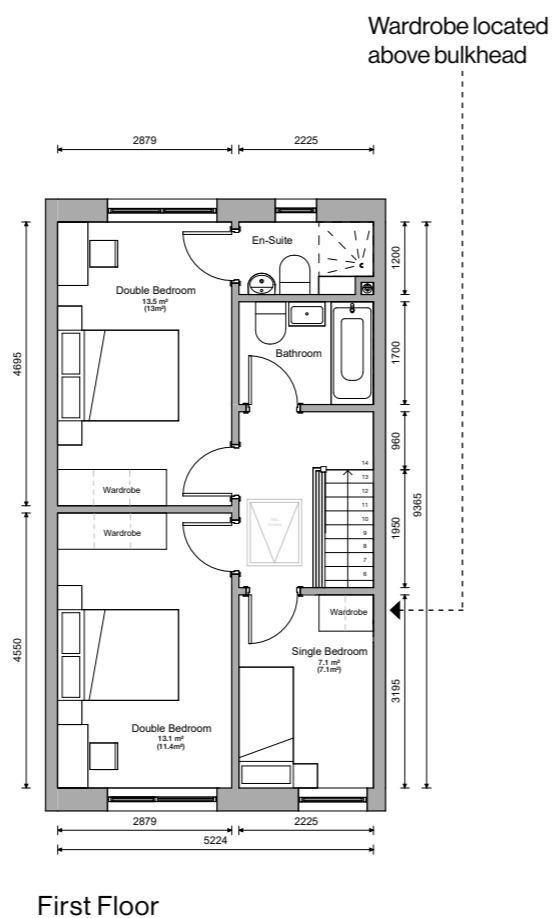
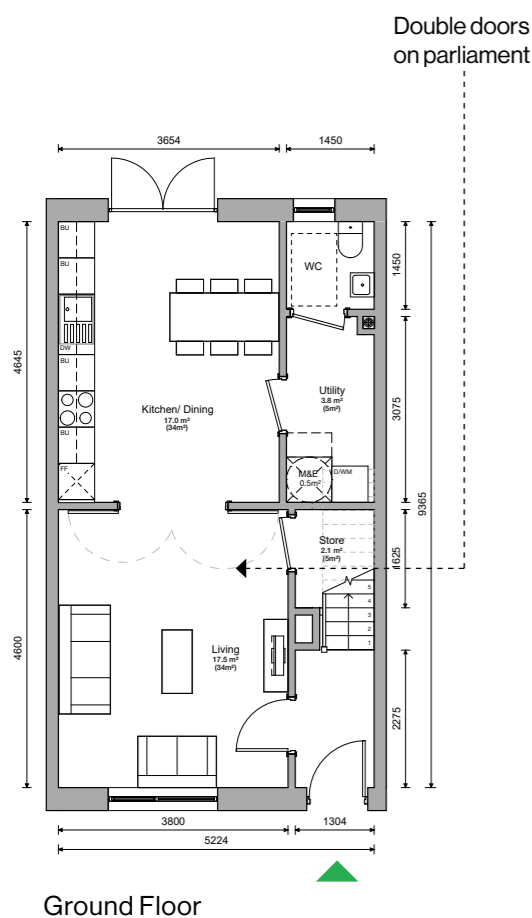
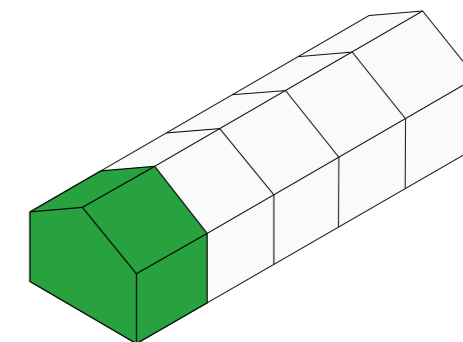
Note: This type can be used as mid terrace or end of terrace.

Where it is used as an end of terrace secondary windows should be provided on the gable end.

### 1.3.4 Three Bedroom Five Person (Side Entry)

House Type 3H-C

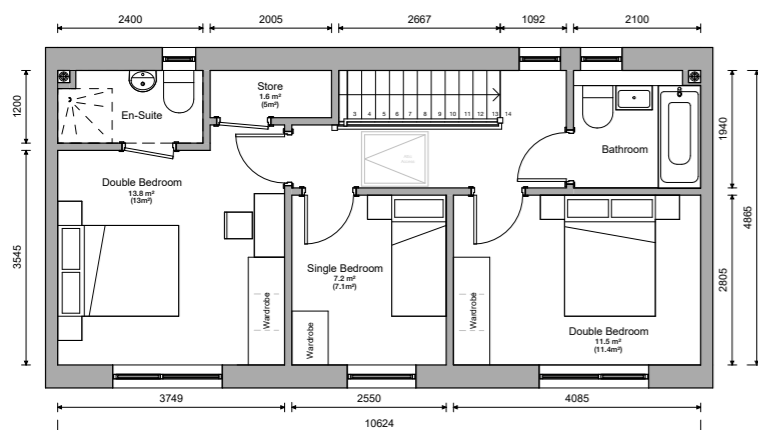
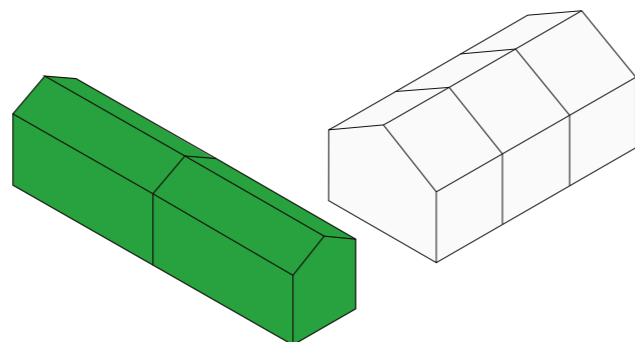
	3B5P	
	Provided	Minimum
Living, Kitchen, Dining	36.8m <sup>2</sup>	34m <sup>2</sup>
Double Bedroom 1	13.2m <sup>2</sup>	13m <sup>2</sup>
Double Bedroom 2	11.4m <sup>2</sup>	11.4m <sup>2</sup>
Single Bedroom	7.1m <sup>2</sup>	7.1m <sup>2</sup>
Storage	7.1m <sup>2</sup>	5m <sup>2</sup>
<b>Dwelling Area</b>	<b>102.9m<sup>2</sup></b>	<b>92m<sup>2</sup></b>



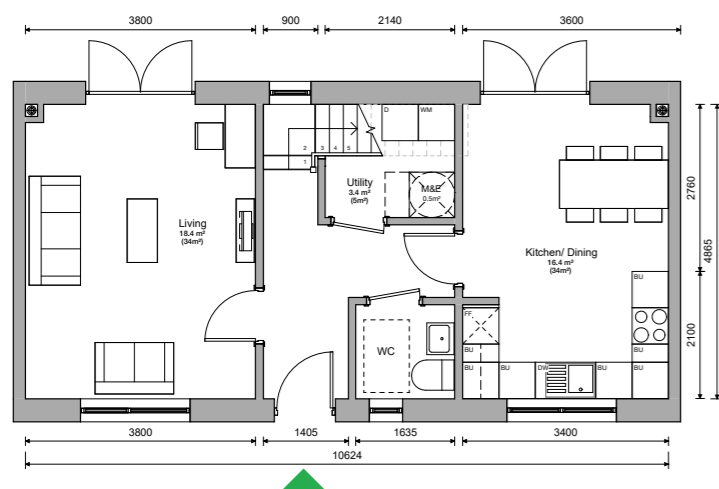
### 1.3.5 Three Bedroom Five Person (Wide Fronted)

House Type 3H-D

	3B5P	
	Provided	Minimum
Living, Kitchen, Dining	34.8m <sup>2</sup>	34m <sup>2</sup>
Double Bedroom 1	13.8m <sup>2</sup>	13m <sup>2</sup>
Double Bedroom 2	11.5m <sup>2</sup>	11.4m <sup>2</sup>
Single Bedroom	7.2m <sup>2</sup>	7.1m <sup>2</sup>
Storage	5m <sup>2</sup>	5m <sup>2</sup>
<b>Dwelling Area</b>	<b>103.4m<sup>2</sup></b>	<b>92m<sup>2</sup></b>



First Floor

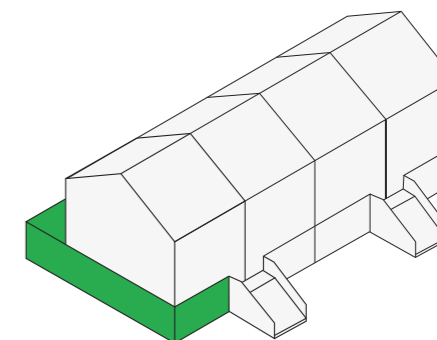


Ground Floor

### 1.3.6 One Bedroom Two Person (Ground Floor Apartment)

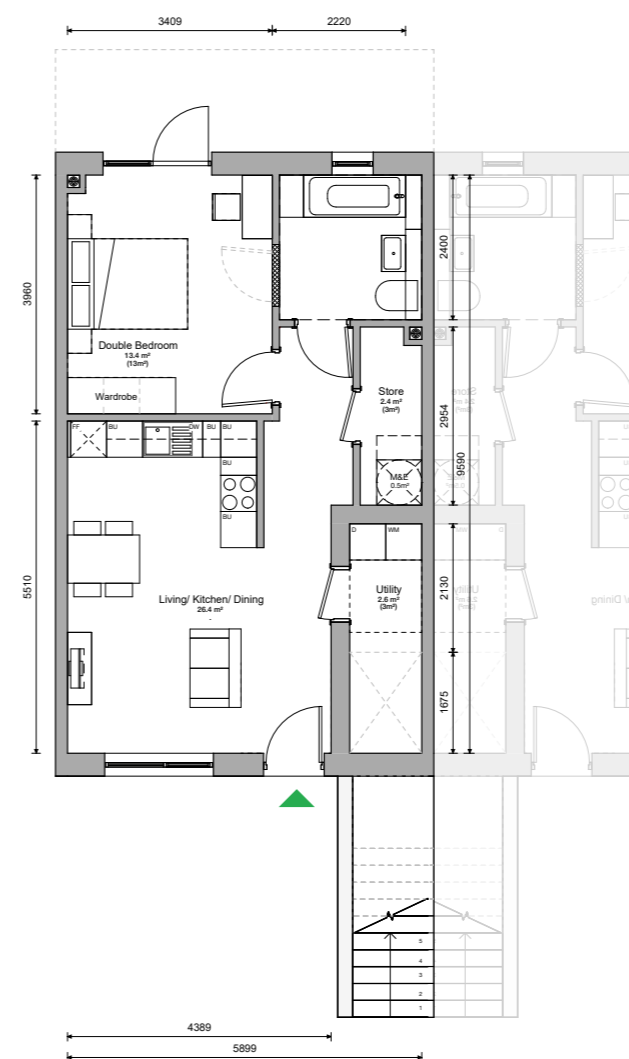
Duplex Type 1D-A

	1B2P	
	Provided	Minimum
Living, Kitchen, Dining	26.4m <sup>2</sup>	n/a
Double Bedroom 1	13.4m <sup>2</sup>	13m <sup>2</sup>
Storage	5m <sup>2</sup>	3m <sup>2</sup>
<b>Dwelling Area</b>	<b>56.6m<sup>2</sup></b>	<b>45m<sup>2</sup></b>



Note: This type can be used as mid terrace or end of terrace.

Where it is used as an end of terrace secondary windows should be provided on the gable end.

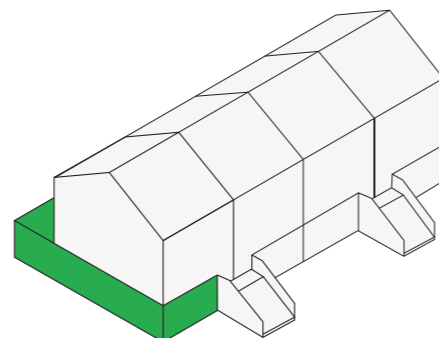


Ground Floor

### 1.3.7 Two Bedroom Four Person (Ground Floor Apartment)

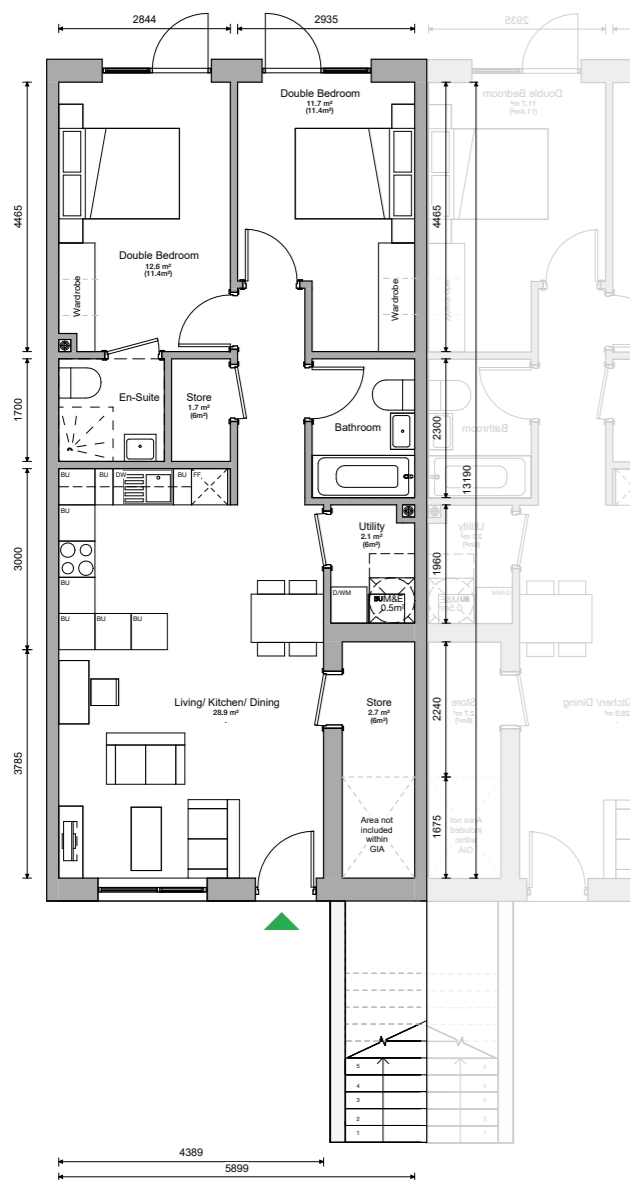
Duplex Type 2D-A

	2B4P	
	Provided	Minimum
Living, Kitchen, Dining	28.9m <sup>2</sup>	n/a
Double Bedroom 1	12.6m <sup>2</sup>	11.4m <sup>2</sup>
Double Bedroom 2	11.7m <sup>2</sup>	11.4m <sup>2</sup>
Storage	6.5m <sup>2</sup>	6m <sup>2</sup>
<b>Dwelling Area</b>	<b>77.8m<sup>2</sup></b>	<b>73m<sup>2</sup></b>



Note: This type can be used as mid terrace or end of terrace.

Where it is used as an end of terrace secondary windows should be provided on the gable end.

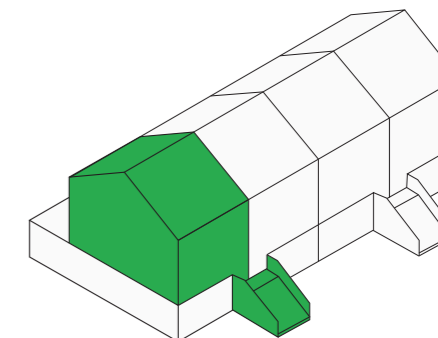


Ground Floor

### 1.3.8 Three Bedroom Five Person (Upper Floor Duplex)

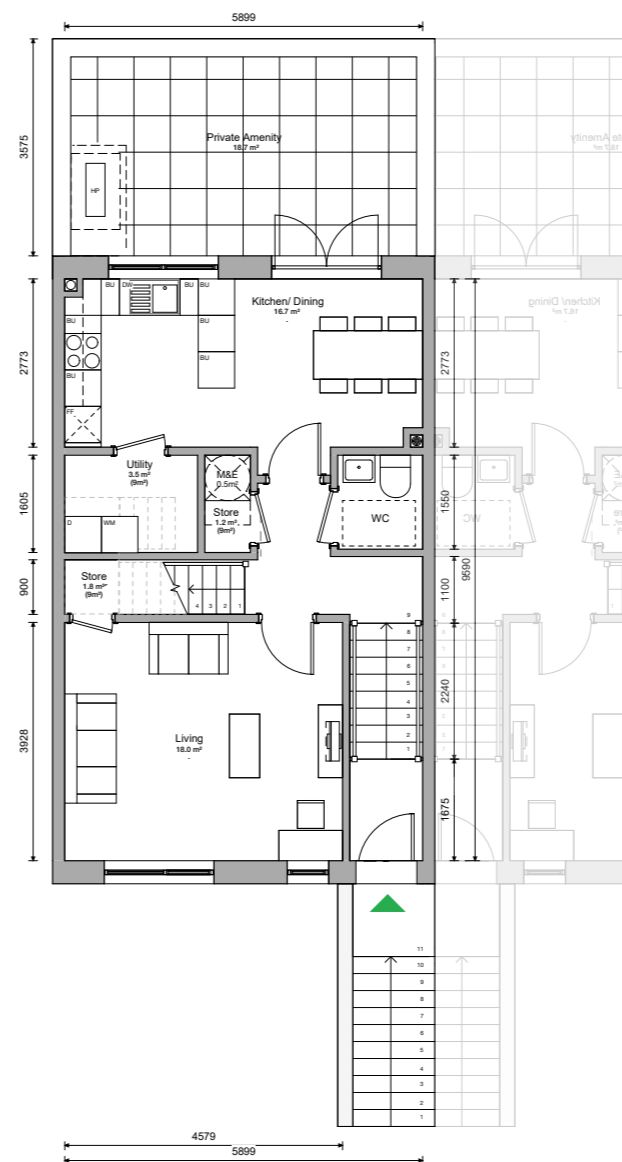
Duplex Type 3D-A

	3B5P	
	Provided	Minimum
Living, Kitchen, Dining	34.7m <sup>2</sup>	n/a
Double Bedroom 1	14.2m <sup>2</sup>	11.4m <sup>2</sup>
Double Bedroom 2	11.4m <sup>2</sup>	11.4m <sup>2</sup>
Single Bedroom	7.1m <sup>2</sup>	7.1m <sup>2</sup>
Storage	10.3m <sup>2</sup>	9m <sup>2</sup>
<b>Dwelling Area</b>	<b>113.1m<sup>2</sup></b>	<b>90m<sup>2</sup></b>

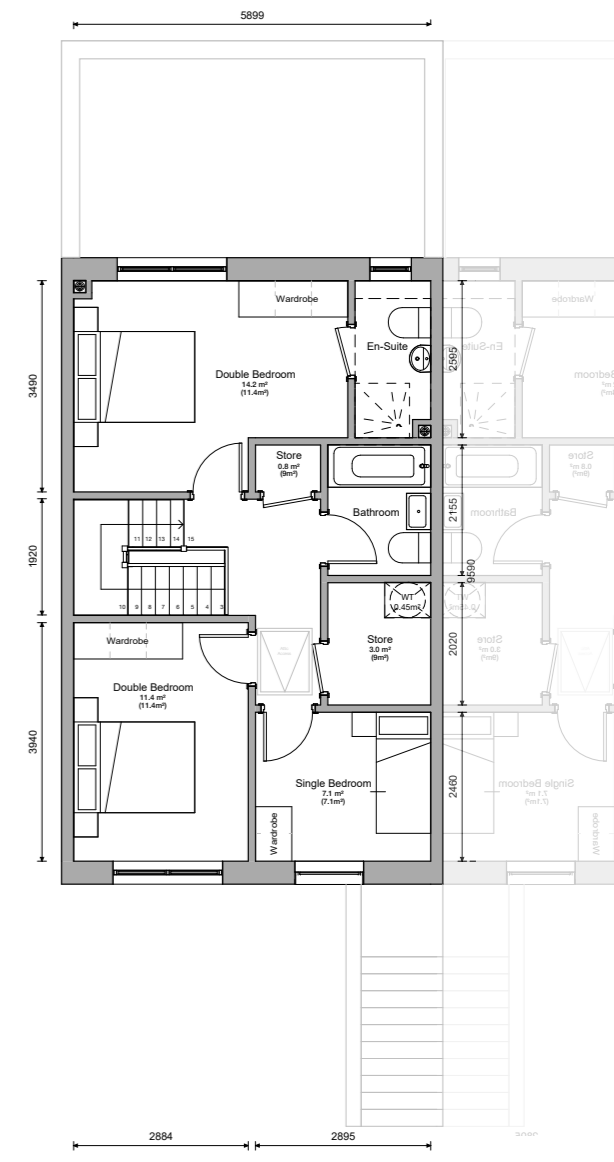


Note: This type can be used as mid terrace or end of terrace.

Where it is used as an end of terrace secondary windows should be provided on the gable end.



First Floor

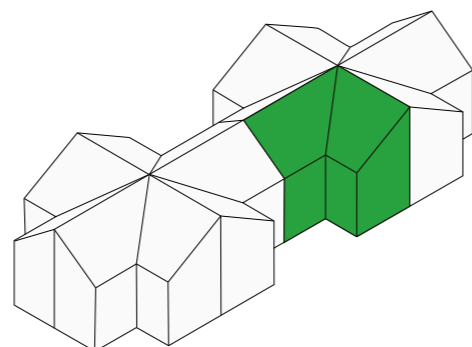


Second Floor

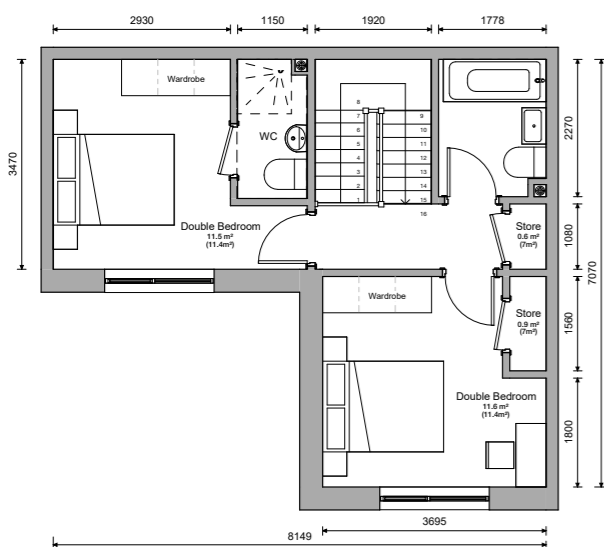
### 1.3.9 Two Bedroom Four Person (Courtyard)

Town House Type 2TH-A

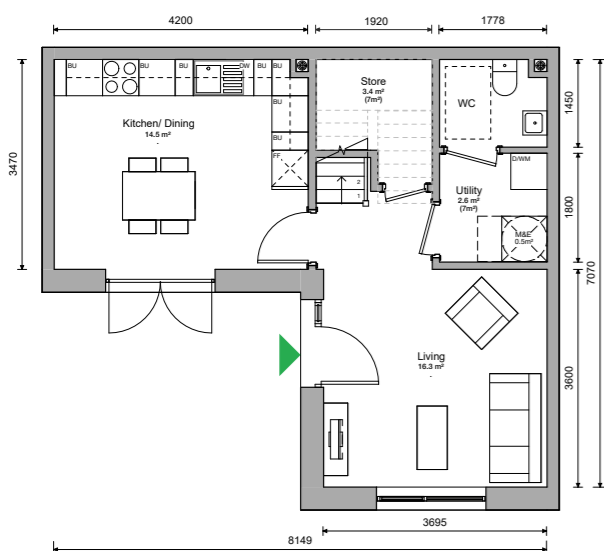
	2B4P	
	Provided	Minimum
Living, Kitchen, Dining	30.8m <sup>2</sup>	n/a
Double Bedroom 1	11.5m <sup>2</sup>	11.4m <sup>2</sup>
Double Bedroom 2	11.6m <sup>2</sup>	11.4m <sup>2</sup>
Storage	7.5m <sup>2</sup>	6m <sup>2</sup>
Dwelling Area	<b>83.1m<sup>2</sup></b>	<b>73m<sup>2</sup></b>



Note: This type can be used as mid terrace or end of terrace.



First Floor

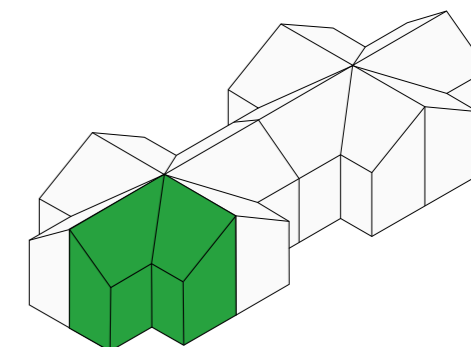


Ground Floor

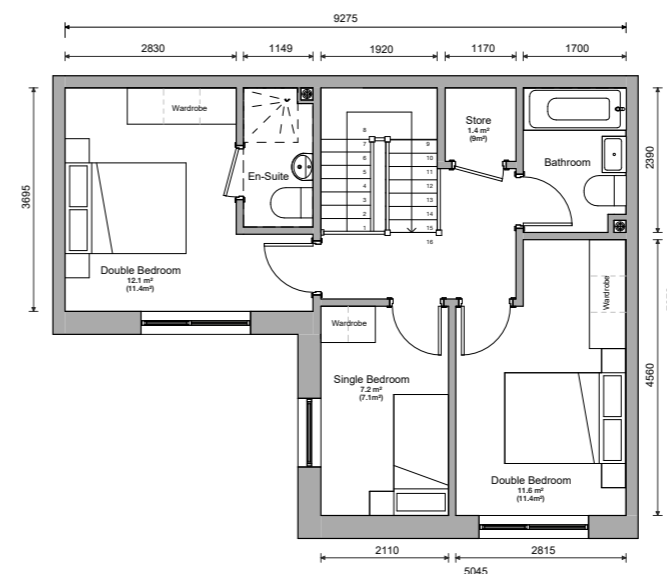
### 1.3.10 Three Bedroom Five Person (Courtyard)

Town House Type 3TH-A

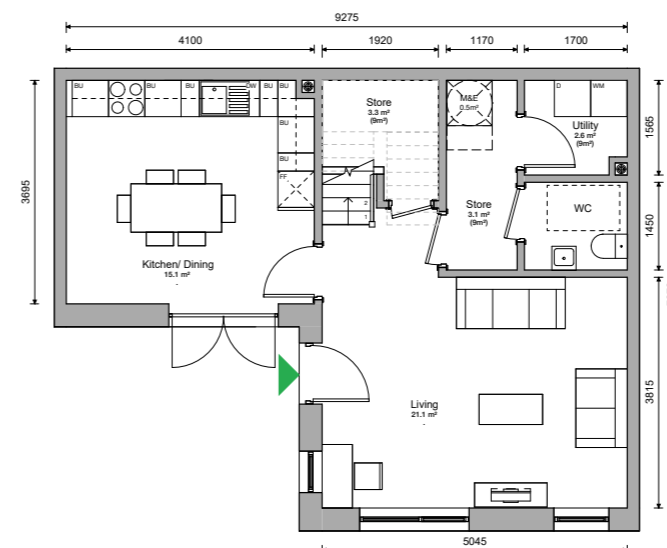
	3B5P	
	Provided	Minimum
Living, Kitchen, Dining	35.3m <sup>2</sup>	n/a
Double Bedroom 1	12.1m <sup>2</sup>	11.4m <sup>2</sup>
Double Bedroom 2	11.6m <sup>2</sup>	11.4m <sup>2</sup>
Single Bedroom	7.2m <sup>2</sup>	7.1m <sup>2</sup>
Storage	10.3m <sup>2</sup>	9m <sup>2</sup>
Dwelling Area	<b>102.6m<sup>2</sup></b>	<b>90m<sup>2</sup></b>



Note: This type can be used as mid terrace or end of terrace.

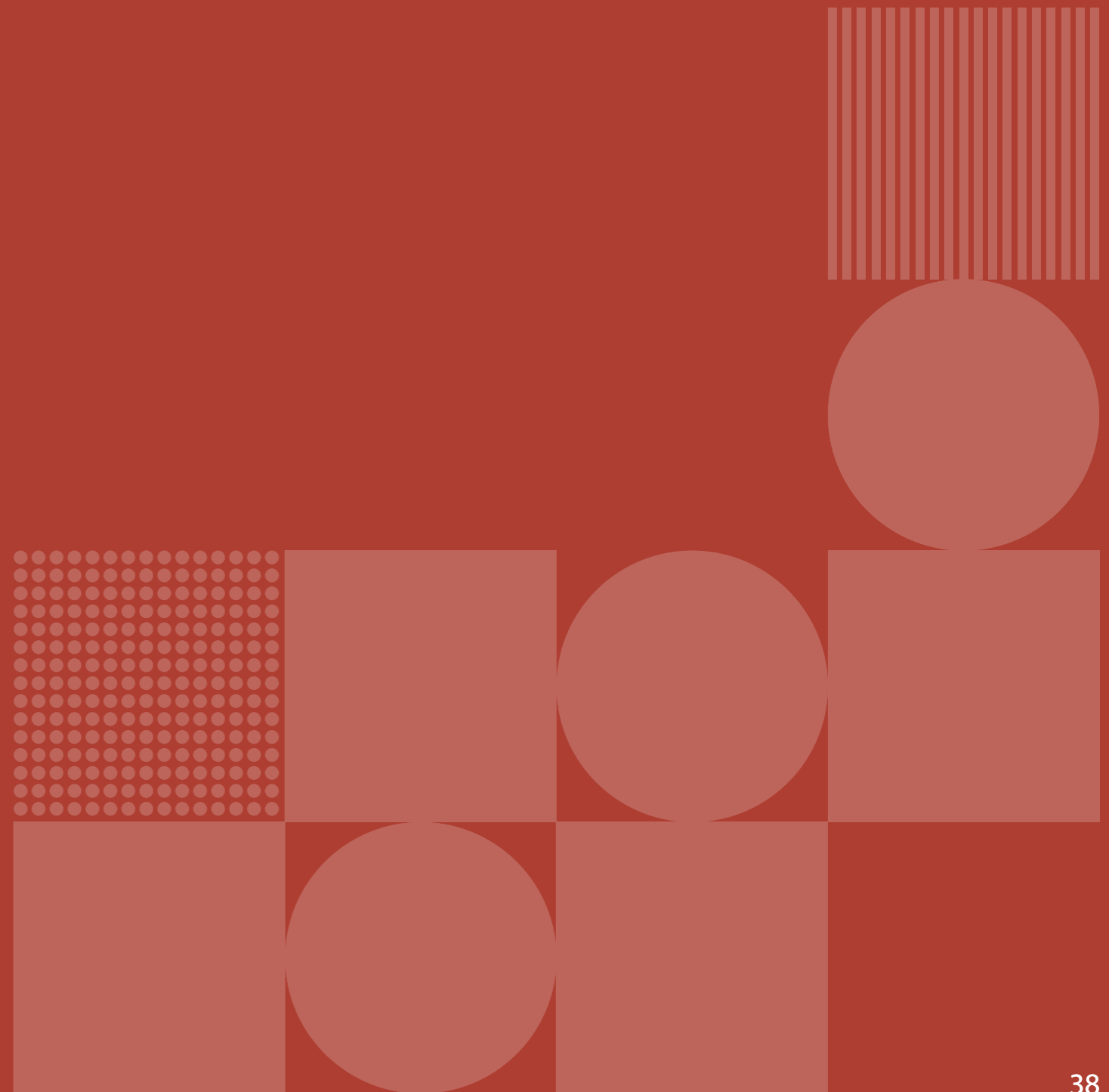


First Floor



Ground Floor

# Section Two Site Design



2.1

# Placemaking

The purpose of this section of the guide is not to provide prescriptive guidance on site layout, urban design, or landscape design, but rather to highlight a few key site factors and strategies that should be considered at the outset of site design.

The layout of the site should be determined on a project-by-project basis, bringing together the guidance in this section with the dwelling types set out in Section One.

Site design should be informed by site context, placemaking objectives and best-practice urban design principles to create well-designed homes, a quality public realm, and sustainable communities that support compact growth.

The following guidance is not intended to be exhaustive and should be read in conjunction with national and local design policy, including the *Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities* and the *Design Manual for Urban Streets, and the Urban Design Manual: Best Practice Guide*.

Considerations should be given to the four key indicators of Quality Design and Placemaking in the *Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities*.



 **Sustainable and Efficient Movement**

Ensuring places are well connected and accessible by sustainable modes. Also acknowledging that quality of journey is equally important and that places are perceived as safe and are not dominated cars.




 **Mix and Distribution of Uses**


Promoting the integration of land uses and transportation and a diverse and innovative mix of housing that can facilitate compact housing and provide greater housing choice.



 **Green and Blue Infrastructure**

Placing and emphasis on the protection of natural assets and biodiversity, whilst also taking a more strategic view as to how open space networks are formed to balance the needs of communities.



 **Responsive Built Form**

Placing an emphasis on the creation of a coherent urban structure and design approach that responds to local character and is attractive.

**Key Indicators of Quality Design and Placemaking**  
*Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities*

2.2

# Public Realm

The site layout should be public realm-led, creating quality streets, open spaces, and play areas that foster sustainable communities. Public realm design should enhance the distinct character of the project, with close collaboration between architects and landscape architects to ensure a coordinated approach. A well-designed public realm should complement the development and create sustainable neighbourhoods that encourage social interaction and support community health. The following guidance should be considered:

- Complement and respect the surrounding context by way of physical and visual connections including integration of existing natural landscape such as planting and water.
- Maximise biodiversity with planting & landscaping.
- Promote social interaction for various user groups to enhance community and incorporate a mix of congregation, play and relaxation spaces for varying ages of residents.
- Create a coherent movement strategy with a clear pedestrian and cyclist friendly network linking various elements of the scheme.
- Consider accessibility principles and the requirements of those with special needs to promote inclusivity.
- Provide a sense of comfort and security for residents and the surrounding community maximising passive surveillance and discouraging anti-social behaviour.
- Be compliant with the relevant local authority Taking in Charge standards.
- Use hard wearing materials in tandem with a rational approach to maintenance and upkeep.



Indicative public realm strategy

## Planting and Play

- 1** Imaginative and nature orientated play should be integrated within open space. As far as is feasible, play elements should be integrated within the landscape of the open space utilising organic elements such as land form, timber and boulders.
- 2** The design of open space where feasible should conserve existing natural habitats and incorporate new habitat creation and plantings of biodiversity value such as woodland, tree groups and meadow grassland.
- 3** Tall vegetation in the urban environment provides micro climate benefits. Providing shade during hot weather and percolating high winds. Consideration should be given in the design of public realm and open space to the arrangement of woodlands, tree lines, hedgerows style planting and trees to provide partial enclosure and enhanced micro climate for people dwelling outdoors.

## Public Green Spaces

- 4** Public open space should integrate movement desire lines and include way-finding devices.
- 5** Congregation points such as seating should be located with clear views across public open spaces to create passive surveillance.
- 6** Communal storage for ancillary items such as bins and bikes, or other elements of infrastructure should be in a considered location, as to not be visually intrusive to key public spaces whilst also being located in an area with adequate passive surveillance.
- 7** Environmental factors such as sunlight hours and wind should be considered to maximise quality of public spaces.

## 2.3

# Building Typologies

The following section demonstrates how the LDA low rise dwellings types and LDA site design guidance can be applied. The examples show how different mix and density can be achieved utilising the LDA dwelling types. The following section includes a small number of worked examples of an urban block, street design and private curtilage design. These examples are not exhaustive and are provided to demonstrate the application of the guidance only. Other designs can be considered.

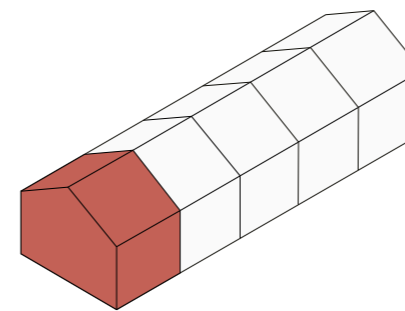
Consideration should be given at an early stage in the project on how best to achieve the required mix and density.

The dwelling mix will be determined on a project-by-project basis. The project Development Brief will set out the required mix. The density will be determined by the relevant planning policy. The mix of building typologies will be subject to efficiency analysis, market demand and viability.

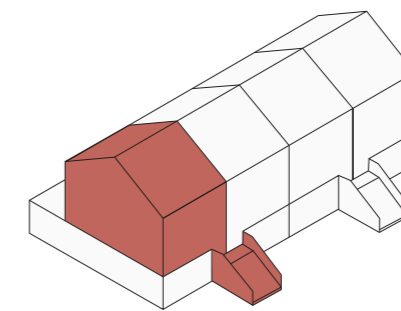
The approach to mix and density should consider the most appropriate mix of dwelling types. For instance, the percentage of duplexes required in addition to terrace houses to achieve the required density.

Density studies should be carried out at the outset of a project to determine the preferred mix of typologies based on the target density. Unless stated otherwise in the Development Brief the following assumptions should be taken for these studies.

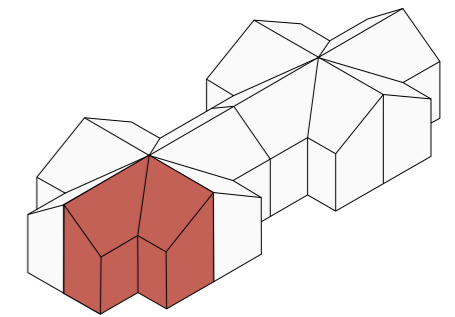
- Assumed 1 car parking space per dwelling (Combination of on plot and on street parking).
- Integrate 15% Public open space allowance into the density calculation.
- Maximise number of terrace houses.
- North facing gardens/terraces should be avoided where possible.



**% Houses**



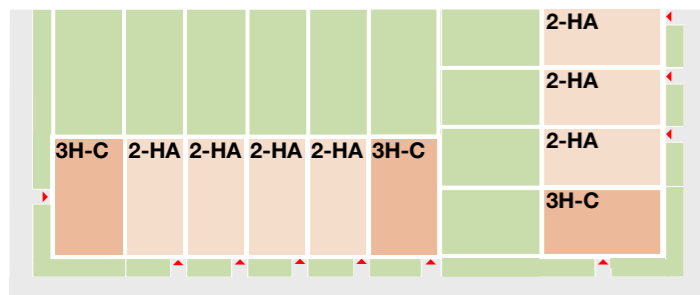
**% Duplexes**



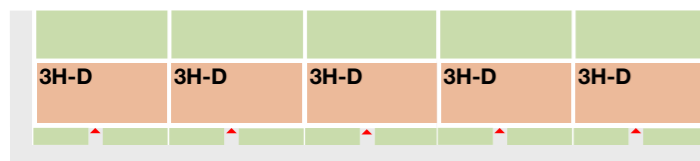
**% Town houses**

### 2.3.1 Houses

- Three bed house types can be mid terrace or end of terrace. Where a three bed house type is end of terrace, a side entry or front entry may be used depending on proximity to adjacent properties or site conditions.
- Two bed house types should be mid-terrace only.
- Rectangular houses should be used along boundary conditions where typical terrace houses are not possible.
- Rectangular houses should not be configured in a terrace where non-rectangle house types are also suitable.
- Houses should not be terraced with duplex or town house types.
- Houses should be arranged in blocks of 4-6.



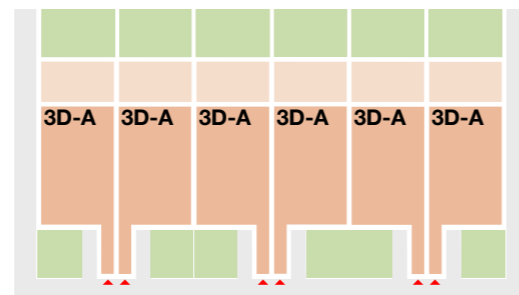
Indicative Arrangement- Terrace House



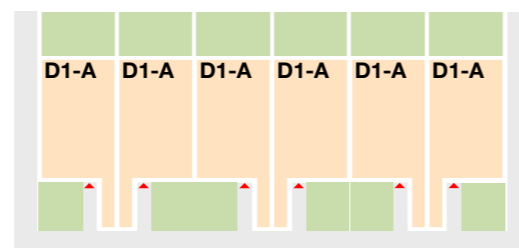
Indicative Arrangement- Wide Fronted House

### 2.3.2 Duplexes

- Duplexes should be terraced with the same duplex type through out a block, e.g. 3D-A can only be terraced with 3D-A.
- Duplexes should not be terraced with house or town house types.
- Duplexes should be paired and handed with the access stair placed adjacently to each other.
- Duplexes should be arranged in blocks of six. Where required due to site conditions, duplexes may be arranged in blocks of four, subject to agreement with the LDA.
- Duplexes should ideally be located along edge conditions.
- Duplexes should be arranged with the entrance overlooking the street.



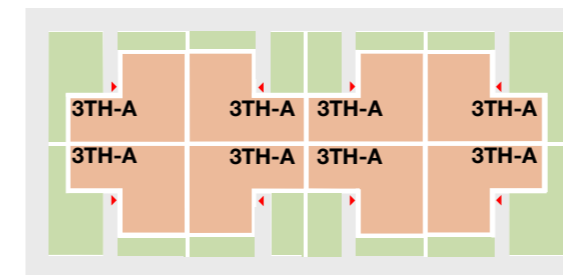
Indicative Arrangement- Duplex 01



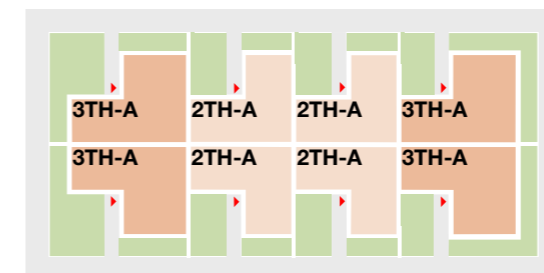
Indicative Arrangement- Duplex 02

### 2.3.3 Town House Courtyard

- Three bed town houses can be mid terrace or end of terrace.
- Courtyard town houses should be terraced with compatible town house types.
- Two bed town house types should be mid-terrace only.
- Courtyard town house types should be arranged in pairs in groups of a minimum of 8.
- Courtyard town house types should be arranged in east west orientation to avoid north facing town house types.



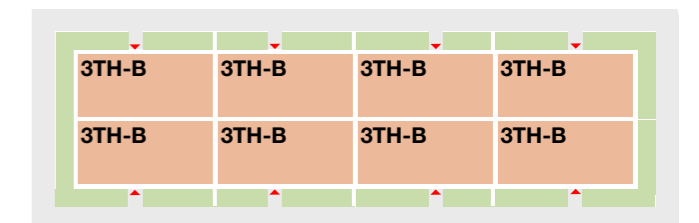
Indicative Arrangement- Town House Courtyard 01



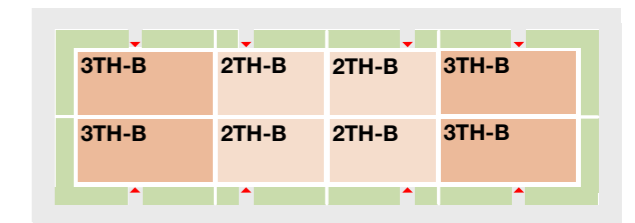
Indicative Arrangement- Town House Courtyard 01

### 2.3.4 Town House Rectangular

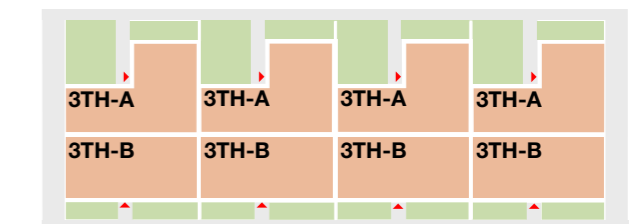
- Three bed town houses can be mid terrace or end of terrace.
- Rectangular town houses should be terraced with compatible town house types.
- Two bed town house types should be mid-terrace only.
- Rectangular town house types should be arranged in pairs in groups of a minimum of 8.
- Rectangular town house types should be arranged in east west orientation to avoid north facing town house types.



Indicative Arrangement- Town House Rectangular 01



Indicative Arrangement- Town house Rectangular 02



Indicative Arrangement- Town house Mixed

## 2.4

# Site Strategies

Effective site strategies guide how a project site is organised, managed, and operated to improve efficiency, maintain safety, reduce costs, and ensure the project is completed on time and to maintain quality standards.

## 2.4.1 Bike Storage

The design of bikes stores should encourage cycling as a sustainable mode of transport by offering a secure and easy to use bike storage. The following guidance should be considered when developing the bike storage strategy:

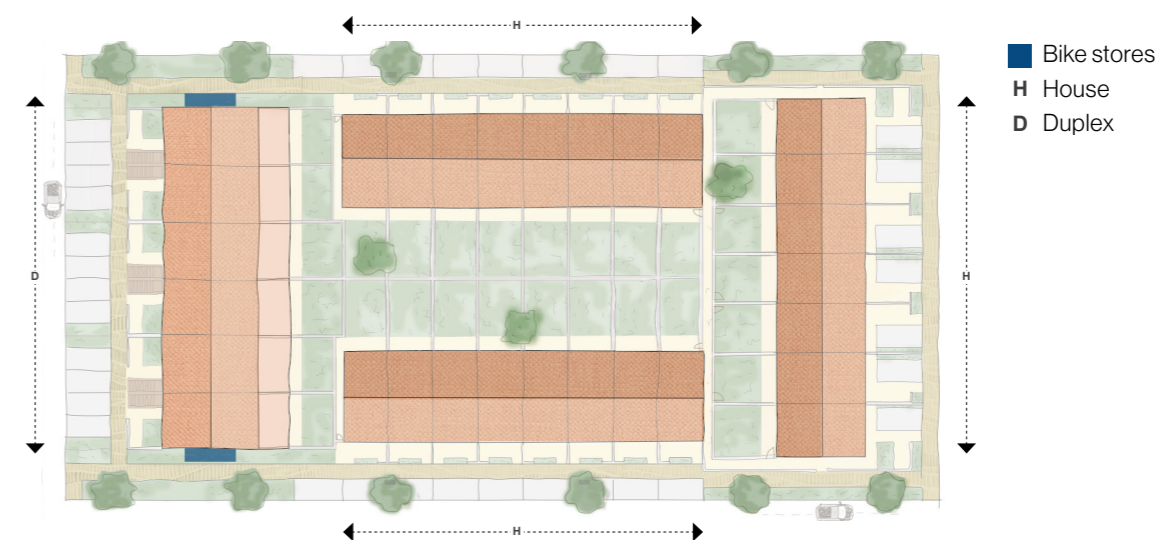
- Visitor bike storage (short stay) to be located in public realm, utilising simple Sheffield style stands.
- All communal or visitor bike storage should be located to be overlooked.

### Houses

- Bicycle storage should be allowed for in rear garden of all houses.
- Where planning policy requires bicycle storage with direct access, the preference is to provide a dedicated bicycle store at the front of each dwelling, within a secure enclosure. The provision of communal access to rear gardens should be avoided.
- Bicycle stores should be integrated into landscape design when located within the front of a dwelling.

### Duplexes and Town Houses

- Communal bike storage (long stay) to be provided within secure and unheated structures either as a standalone building or adjoining a terrace.
- Communal bike storage rooms should ideally contain no more than 75 bikes spaces.
- Communal bike storage to use double stackers to minimise area required. Stands to allow a bike frame and wheel to be securely locked. Spacing of stackers to be as per manufacturer's recommendations. Portion of Sheffield style stands to be provided for non-standard and cargo bikes.
- Bike stores should all be provided with a gully and bib tap for washing down.



Indicative bike store strategy

## 2.4.2 Bin Storage

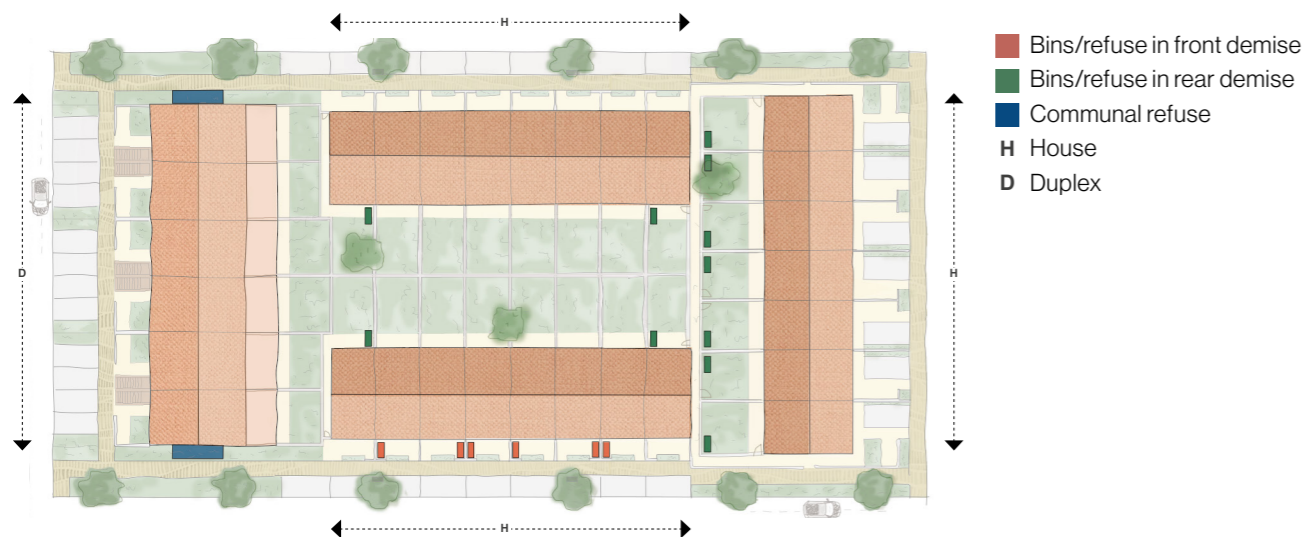
Provision of an appropriately sized storage area to satisfy the three-bin system for the separate collection of mixed dry, organic waste and general waste is required. The following guidance should be considered when developing the bin storage strategy:

### Houses

- Where separate access to rear garden is not provided, dedicated bin store to be provided at the front of each dwelling, within secure enclosure to fully conceal bins from view.
- Bin stores should include an operable lid.
- Bin stores should be integrated into landscape design.

### Duplexes and Town Houses

- Communal bin storage to be provided within secure, naturally ventilated and unheated structure/s either as a standalone building or adjoining a terrace of duplexes. All bin stores should include a roof.
- Access to bins should be restricted to residents, building management and waste collection operatives.
- Communal bin stores should be located to be easily accessible to residents.
- Communal bin stores should be located to avoid the need for building management to move bins from bin stores to a temporary holding area for collection. If this cannot be avoided and the waste management strategy relies on building management in this way, the design team should seek approval from the LDA.
- Communal bin stores should all be provided with a gully and bib tap for washing down.



Indicative bin store strategies

## 2.4.3 Car Storage

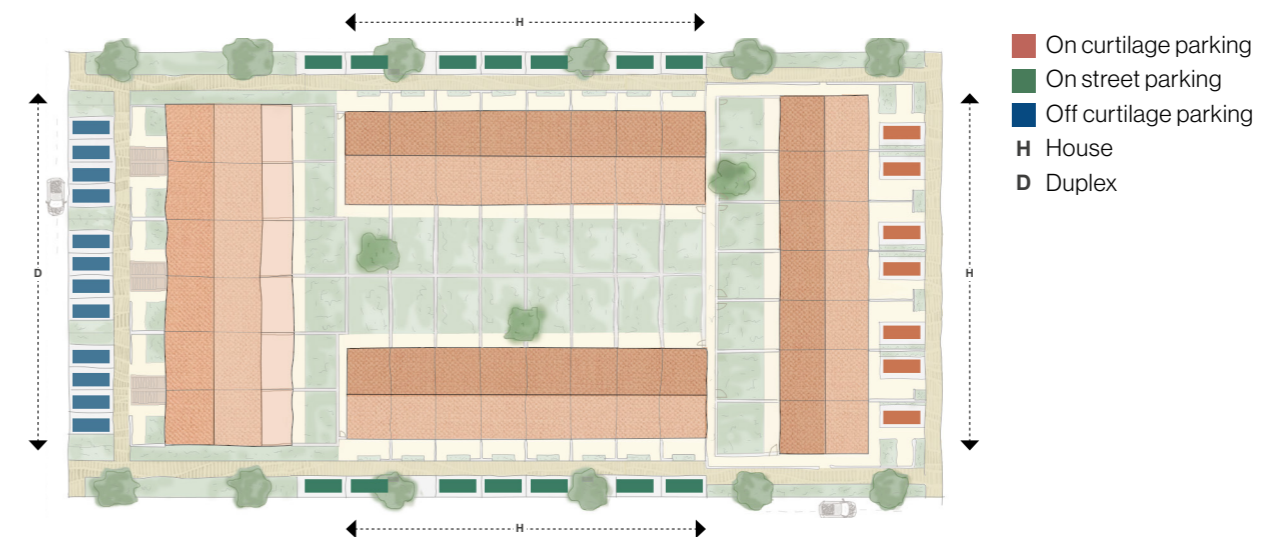
The design and configuration of the site layout with public open spaces and public realm should prioritise pedestrian and cycle mobility throughout the site with desire lines and connection to wider infrastructure including public transport outside the site.

Reduced need for private car ownership should be reflected in reduced car storage provision. It is recognised that locations appropriate for low rise typologies often have higher levels of car dependency as a result of public transport availability.

- Enhancing walking, cycle routes and desire lines with permeability and connection to public transport routes, to promote active travel and reduce car dependency.
- Extent of car storage should be minimised, the desire is to have 1 no. car parking space per house, specific requirements will be analysed on a site-by-site basis and set out in the Development Brief.
- Where off-curtilage car storage is provided it should be sensitively integrated into the public realm and be considered as part of the landscaping strategy.
- The location and distribution of off-curtilage car storage must consider the proximity to associated homes, to ensure ease of access and overlooking from a security perspective.
- All off-curtilage car storage should be assigned to the associated home except for visitor car storage.

The impact of car parking storage on density is also recognised. Careful consideration is required to ensure an appropriate level and approach to car storage strategy is provided. The following guidance should be considered when developing the site layout design and car parking strategy:

- At the earliest stage in the design optioneering consideration should be given to the Taking in Charge strategy and or if an OMC, Owners Management Company is required.
- Consideration should be given to the provision and appropriate location of accessible car storage.
- Subject to the design and configuration of the site layout on-curtilage car storage is preferred for potential homeowners and should be prioritised for end of terrace houses where housing cell configuration allows.
- On-street car storage and grouped parking strategies are also acceptable where appropriate, having consideration of proximity, ease of access to homes and Taking in Charge strategy allowing car parking spaces to be assigned to individual homes.

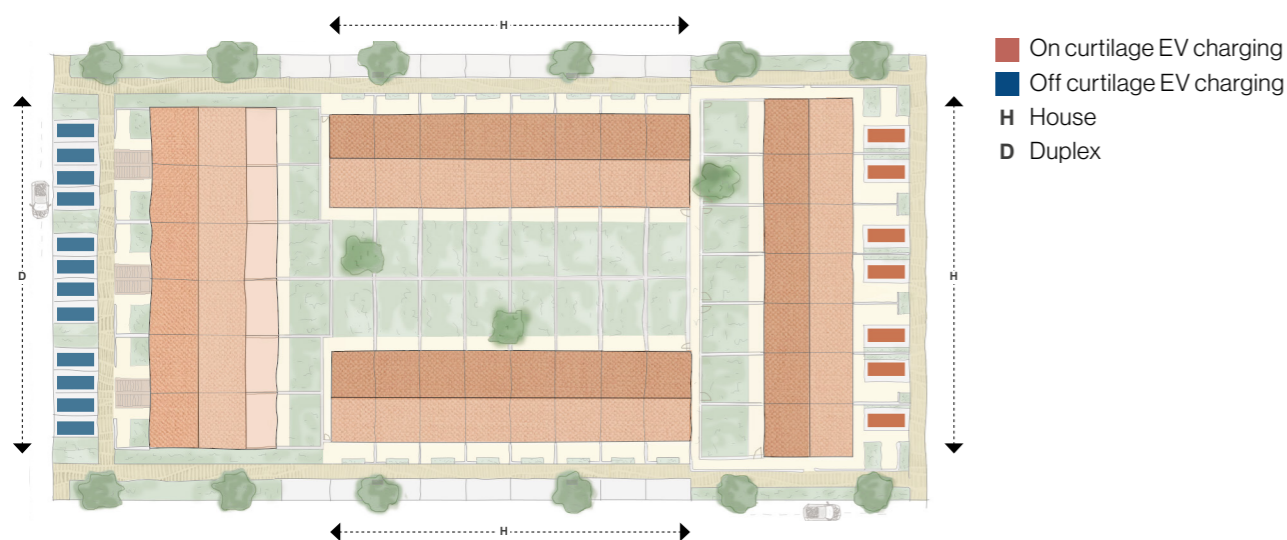


Indicative urban block parking strategies

## 2.4.4 EV charging

The following guidance must be considered when formulating the site layout and design strategy for the site and be incorporated into the car parking allocation strategy drawing/diagram for discussion and agreement with the LDA, and LA where appropriate. Extent of EV charging to have consideration to the Development Brief and Development Plan requirements. In order of preference:

- EV charging should be prioritised on curtilage car parking with an externally mounted isolator. [Refer to Outline Specification in Section 4 for further detail].
- Where EV parking spaces are required off curtilage they should be banked together to group the EV ducting infrastructure together. It is anticipated that these spaces will need to sit within an OMC and not assigned to an individual homeowner, managed by a third-party EV charging service provider.
- Where banked car parking is to be TIC which contains a provision of EV charging infrastructure, strategy to be agreed with LDA and LA and in accordance with ESB and TIC requirements.
- Consideration must be given for future provision and the placement and configuration of the parking spaces must be considered and incorporated within the car parking strategy.

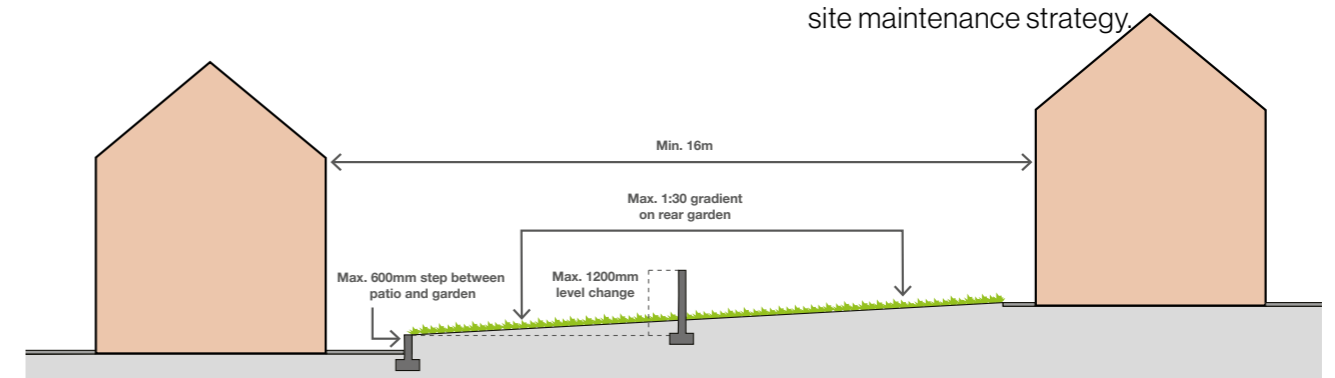


Indicative EV strategies

## 2.4.5 Levels

The site layout should be designed to work with the site levels to minimise the impact of level changes on the building form. The following guidance should be considered when developing the site layout and approach to levels:

- Streets should be laid out with longer terraces running parallel to the site contours and shorter terraces located perpendicular to the site contours to optimise the site and have an efficient use of land.
- As a principle proposed site levels should be set marginally higher than existing site levels to minimise soil disposed off site. This can generally be achieved by setting finished floor level (FFLs) at approximately 400mm above existing site levels, road levels should be generally set at 150- 200mm above existing ground levels.
- Steps in FFLs between adjoining dwellings should be set out to brick dimensions and should ideally be no more than 450mm.
- The step between the rear of two dwellings with rear gardens should be no more than 1200mm (Based on 16m rear to rear distance) to allow for the change in level to be integrated within the rear garden and boundary wall design.
- Access roads should have a maximum gradient of 1:21 with 1:12 gradient used only on roads not required to access dwellings.



Indicative levels strategy

## 2.4.6 SuDS

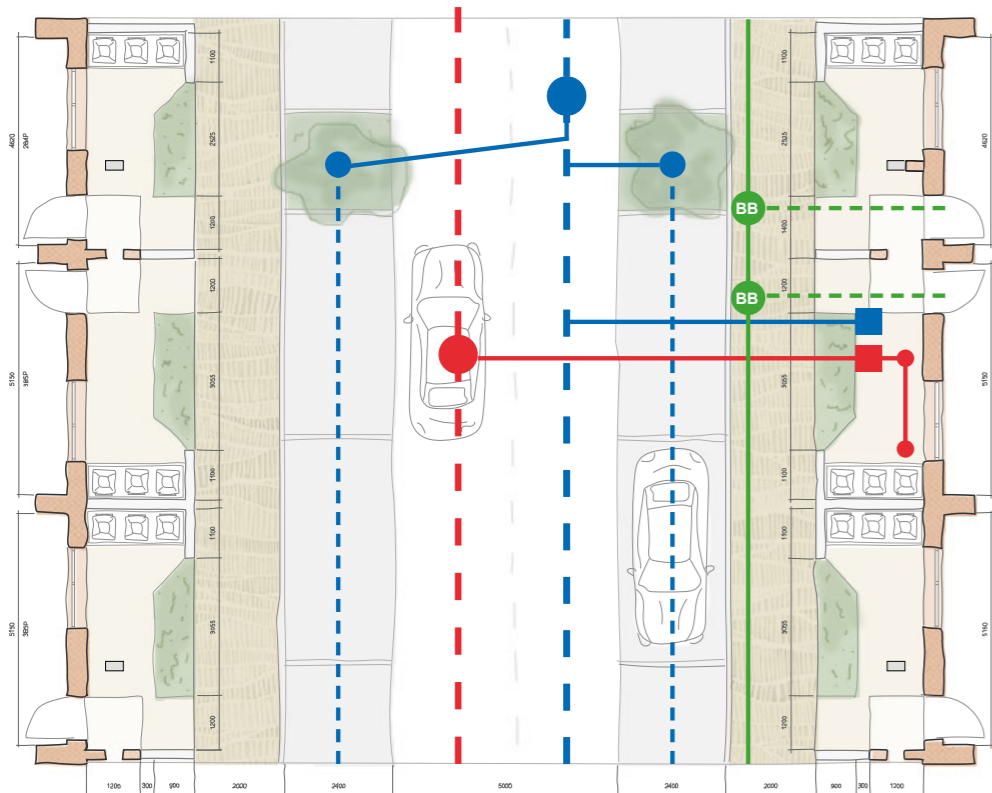
Nature based solutions should be prioritised and considered at the outset when mapping out the open spaces. The following guidance should be considered when developing the SuDS strategy:

- SuDS strategies should enhance and strengthen the existing landscape characteristics, features and the biodiversity of the site.
- Open space design should follow site topography so drainage can be located at low points and cut-and-fill is minimised.
- Permeable, public open spaces should generally be set lower than surrounding roads and buildings
- The proposed drainage layout should consider the level and location of connection to the existing network.
- Nature based solutions integrated into the public realm should be used to avoid the use of attenuation tanks where possible.
- Source control such as permeable paving and infiltration planters should be used where possible.
- Attenuation should be located adjacent to outflow to watercourse or public network.
- Attenuation should be located at the lowest point within each sub-catchment area and ultimately at the lowest point on the site.
- SuDS strategy should be coordinated with landscape design and Taking in Charge strategy and site maintenance strategy.

## 2.4.7 Site Services

Site services should be carefully considered and coordinated to ensure they are well integrated into the public realm design. The following guidance should be considered when developing the design of the site services:

- ESB and broadband cabinets (allow for multiple providers), should be located on a gossip wall for houses and on the side of the external stair for duplexes (refer to diagrams in Section 2.5 Landscape Thresholds). Cabinets should not be located on front wall of a house or duplex.
- Outdoor units for heat pumps should be located at the rear of a house or duplex.
- Consider the location of internal wastewater pop-ups and inspection chamber to avoid chambers outside the front door of homes.
- Consider the foot path and carriage way width required to accommodate the below ground services.



Indicative utilities

## 2.4.8 Site Management

An effective site management strategy is essential to minimise the ongoing cost to residents of LDA schemes.

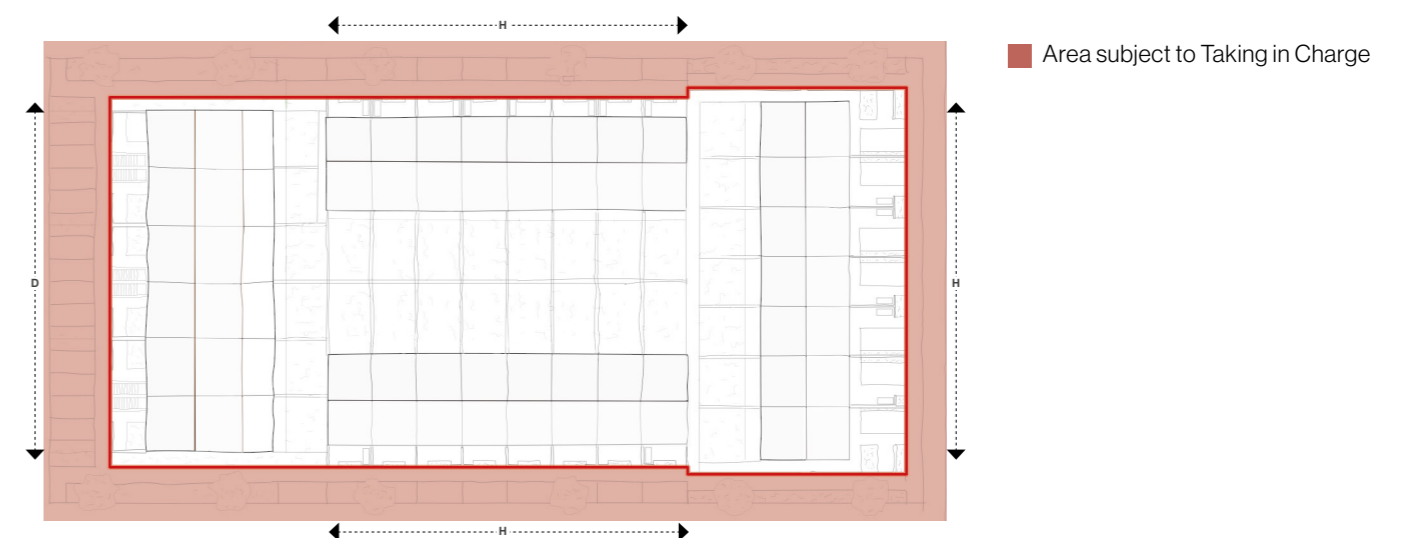
- The area of the site subject to Taking in Charge should be maximised.
- Consideration should be given to areas of the site suitable for Taking in Charge. Design teams should provide the LDA with a plan identifying areas proposed for Taking in Charge.

Items to be to a detail and material acceptable for Taking in Charge by the Local Authority.

- Streetscape: Hard surface details and material selection for streets and public realm must take cognisance of the demands of heavy vehicles.
- Public squares and plazas.
- Footpaths to streets.
- Vehicular Carriageway.
- On street parking: To be porous in the interest of source control for Sustainable Drainage (SuDS); e.g. permeable block paving and or reinforced grass (grasscrete).

Items to be acceptable for Taking in Charge by the Local Authority.

- Home Zone Carriageway: To be surfaced in a material and/or colour that's sets it apart from standard road carriageways e.g. HRA with coloured stone chip or coloured SMA.
- Raised Tables: To be surfaced in a material and/or colour that's sets it apart from standard road carriageways e.g. HRA with coloured stone chip.
- Cycle Tracks & Greenways: To be detailed in accordance with the Cycling Design Manual (pedestrian and cycle).



Indicative site management strategy

2.5

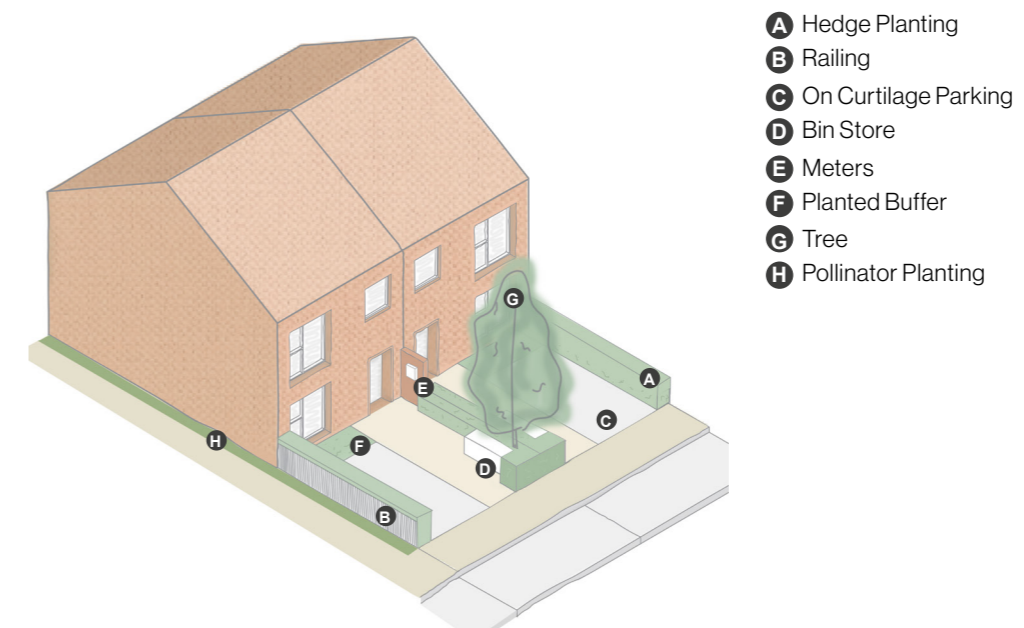
# Landscape Threshold

Front garden design should be carefully considered to ensure an appropriate level of privacy and private amenity is provided. The design of the front garden should minimise street clutter and contribute to the greening of the street. The following guidance should be considered when designing front gardens.

## 2.5.1 Landscape Threshold

### Houses

- Boundary conditions should be delineated with hedge planting and visually permeable railings where required. Railings should be provided on corner units.
- Meter boxes should be located in a gossip wall.
- Bin or bike enclosures should be integrated into the garden design where required on curtilage.
- Where on curtilage car parking is provided a clear walkway of 1200mm to the front door and a planted buffer of 1200mm should be provided.
- Opportunities for the inclusions tree planting on curtilage should be considered to contribute to quality of the street scene.
- The diagram below sets out indicative landscape threshold treatment.

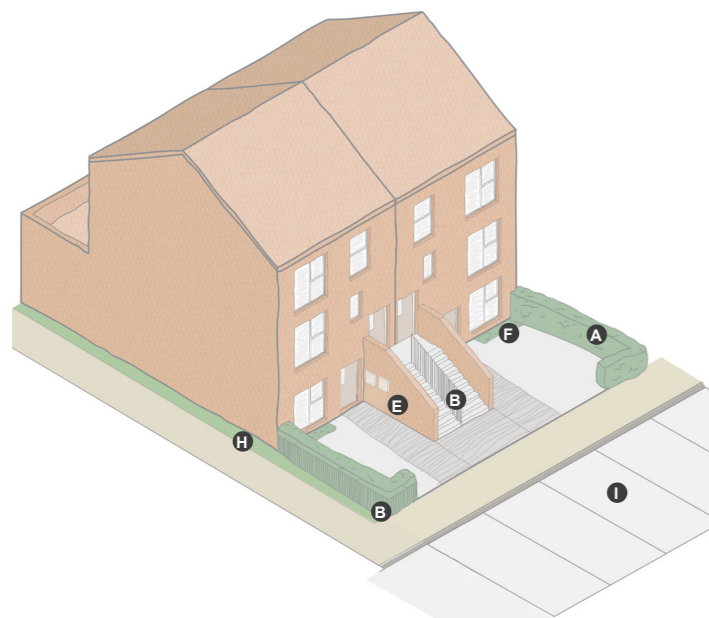


- A** Hedge Planting
- B** Railing
- C** On Curtilage Parking
- D** Bin Store
- E** Meters
- F** Planted Buffer
- G** Tree
- H** Pollinator Planting

## 2.5.2 Landscape Threshold

### Duplexes

- Boundary conditions should be delineated with hedge planting and visually permeable railings where required. Railings should be provided on corner units.
- Integration of ASHP external unit should be carefully considered.
- Privacy screening between facing courtyards should be provided.
- Bin or bike enclosures should be integrated into the garden design where required on curtilage.
- Car storage should not be provided on curtilage.
- A privacy buffer of a minimum of 1200mm should be provided.
- The diagram below sets out indicative front garden layout and size.

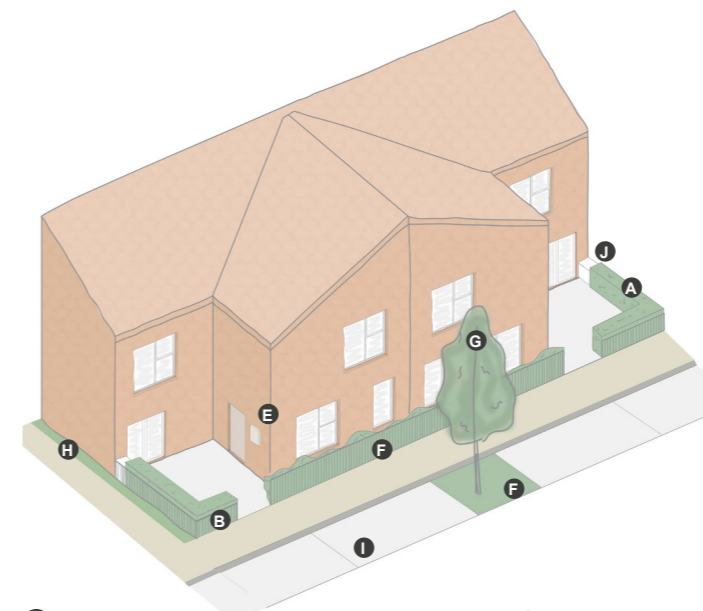


- A** Hedge Planting
- B** Railing
- E** Meters
- F** Planted Buffer
- H** Pollinator Planting
- I** Street Parking

## 2.5.3 Landscape Threshold

### Town Houses - Courtyard

- Boundary conditions should be delineated with hedge planting and visually permeable railings where required. Railings should be provided on corner units.
- Integration of ASHP external unit should be carefully considered.
- Privacy screening between facing courtyards should be provided.
- Bin or bike enclosures should be integrated into the garden design where required on curtilage.
- Car storage should not be provided on curtilage.
- A privacy buffer of a minimum of 1200mm should be provided.
- The diagram below sets out indicative front garden layout and size.



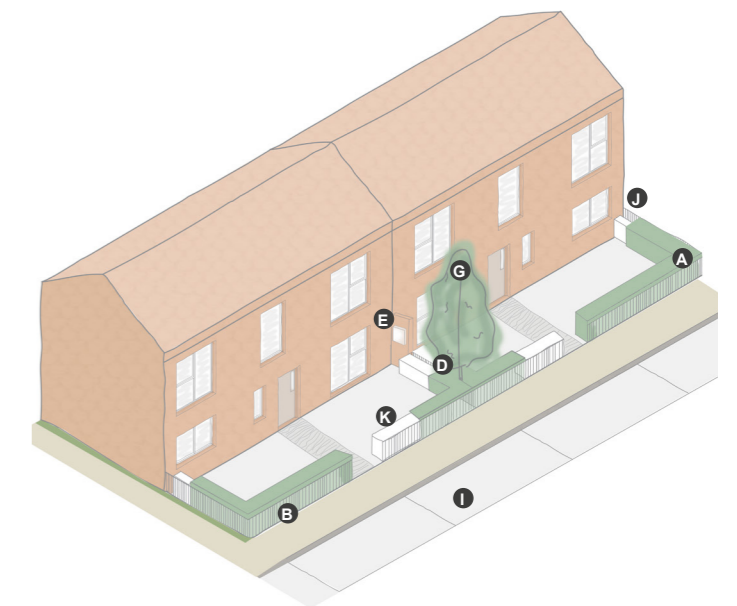
- A** Hedge Planting
- B** Railing
- E** Meters
- F** Planted Buffer
- G** Tree
- H** Pollinator Planting
- I** Street Parking

- J** Heat Pump
- K** Bike Store

## 2.5.4 Landscape Threshold

### Town Houses - Rectangle

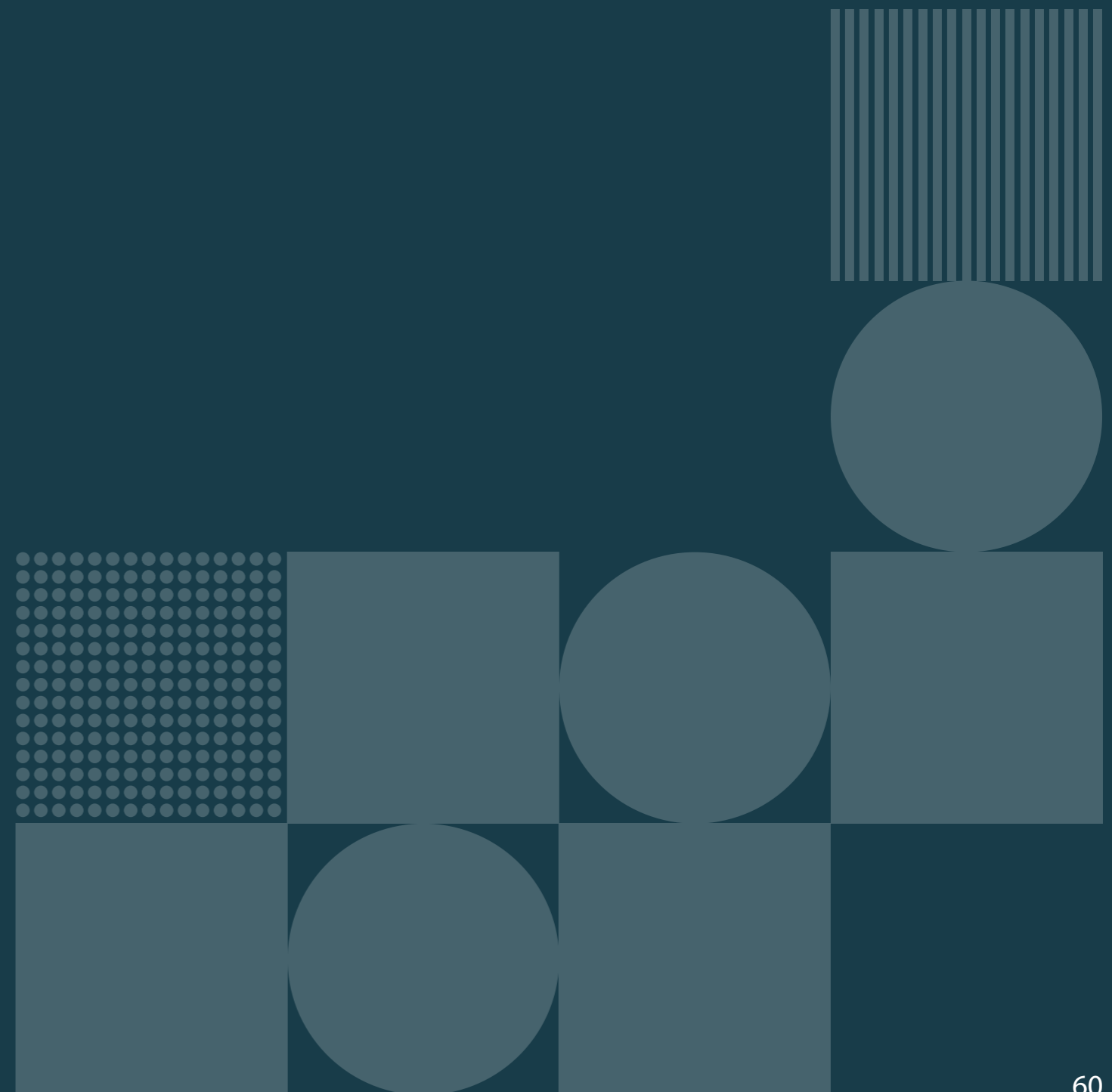
- Boundary conditions should be delineated with hedge planting and visually permeable railings.
- Integration of ASHP external unit should be carefully considered.
- Screening of private amenity space to provide privacy for the residents should be carefully considered.
- Bin or bike enclosures should be integrated into the garden design where required on curtilage.
- Car storage should not be provided on curtilage.
- The diagram below sets out indicative front garden layout and size.



- A** Hedge Planting
- B** Railing
- E** Meters
- F** Planted Buffer
- G** Tree
- H** Pollinator Planting
- I** Street Parking

- J** Heat Pump
- K** Bike Store

# Section Three Technical Considerations



3.1

# Architecture

## 3.1.1 Street Façade Design

Good façade design interacts with its surroundings, reinforces place-making and supports sustainable, long-term building performance. These guidelines do not prescribe the appearance of a development. Façades can and should be designed to respond to the project context.

Guidance is provided on the dwelling types and functionality of the homes, the site layout, technical considerations and outline specification, however this does not mean that the external appearance of the homes cannot be varied. The fenestration design, material selection, facade composition and roof line can be varied on a project by project basis. The arrangement of dwelling types can be varied to achieve different appearances, by combining different dwelling types together the street scape can vary across a project. The appearance of the homes should respond to the project context to provide a distinct identity for each development. The design of the public realm and configuration of dwelling types should be carefully considered to create a distinct street scape to nurture a sense of community and identity within the development.

The following listed items should be considered as part of the design strategy and agreed with the LDA.

- Material selection and composition.
- Entrance canopies can be added. The design of canopies provides an opportunity to create a distinct identity for a home.
- Fenestration design, composition and finish.
- Entrance door design and finish.
- Detailing such as brick detailing or window surrounds.
- Roof-line such as the introduction of a gable.
- Entrance door canopies to be considered to provide shelter and to provide distinctiveness and character to the streetscape.

The following items be considered in relation to creating variation;

- Consideration should be given to the cost of any proposed variation.
- Consideration should be given to the impact of any proposed variation on the build ability such as the impact on wall build ups of certain brick detailing.
- All proposals should be agreed with the LDA.
- Any variations to the appearance to the building should not create a variation to the dwelling layout. Where a variation in the layout is created, this variation should be agreed with the LDA.



Indicative façade variations

### 3.1.2 Façade Detailing

Façade detailing should be simple, robust and stand the test of time. Consideration should be given to affordability, buildability, on-going maintenance and endurance of the façade. The following guidance should be considered when detailing façades;

- Brick detailing should be simple, cost effective and buildable. Hand laid brick, utilising stretcher brick bond with standard mortar to be used throughout.
- All brick façades to be designed to brick dimensions.
- The Design Team should consider various external wall build ups to determine the most appropriate method of construction on a project-by-project basis.
- Consider the integration of intake, extract vents and weep holes into the façade.
- Robust and easily maintained materials should be used in high traffic areas.
- All renders should be through colour render, preferably with masonry substrate.
- External wall insulation systems should be avoided.
- Facade to be carefully detailed to shed water, avoid staining and reduce ongoing maintenance.
- Rainwater drainage should be considered and coordinated on the facade design and shown on all elevations, with a bund provided.
- Consideration should be given to integration of house number, external light and letterbox into the facade design.
- Where appropriate an entrance canopy should be considered. If a canopy is provided the design of the canopy should take into consideration the means of escape from any overhead bedroom windows.
- Access and maintenance strategy of all gutters and valleys to be careful considered.

### 3.1.2 Façade Hierarchy

The façade design should focus on the primary street facing façades. Façade design should provide carefully considered fenestration pattern based on the dwelling layout that responds to the project context. The placement of windows on the façade should consider the provision of good daylight levels within homes, views out, privacy and the functionality of the dwelling layout. The following guidance should be considered when designing façades;

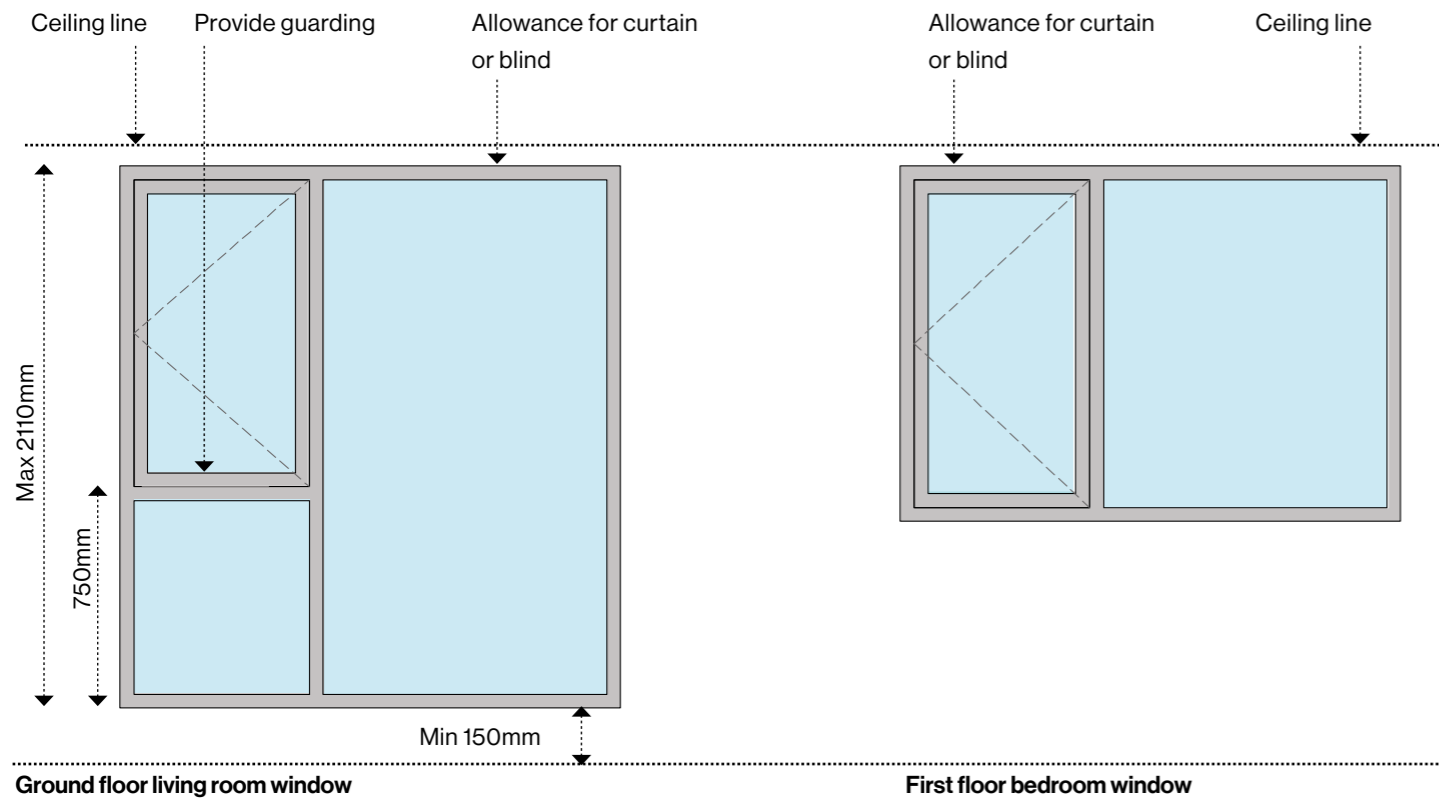
- Façade design should not compromise dwelling layouts or add to the number of dwelling types on a project. Corner homes need particular consideration to ensure secondary windows do not compromise the use of rooms.
- Façade design should consider the privacy of the residents of a dwelling.
- Large projecting architectural features such as popouts and bay windows should be avoided.
- Corner windows should be avoided.
- Refer to the Outline Specification in Section 4 for further details.
- Primary Façade**
  - Brick should be the primary façade material in combination with more affordable materials.
  - Number of materials used on a façade should be no more than two.
  - Opaque glass should be avoided on primary façades.
  - A standardised approach to window types should be developed on all projects.
- Secondary Façade**
  - Render should be the primary facade material.
  - LDA standard window types should be utilised.

### 3.1.3 Window Types

To improve design efficiency, delivery certainty, cost control, and quality, a coordinated strategy for the use of standard window types should be embedded across all LDA projects. This strategy must balance standardisation with the need for a distinct project identity and strong architectural responses to site conditions. The following guidance should be considered when developing and implementing this approach

- Windows/doors sizes should be standardised across an entire scheme and number of variations should be minimised.
- Windows/doors should be designed to align with industry standards and avoid non-standard sizes that limit availability in the market.
- The windows and doors types in table to the right should be considered at the outset of the facade design. Variations of these windows types should be agreed with the LDA.
- Consideration must be given to the placement of windows on the façade to ensure balanced proportions, appropriate wall-to-glass ratios, thoughtful selection of façade materials, and a cohesive contribution to the overall streetscape composition.

Window Types	Door Types
<p>W01</p>	<p>D01</p>
<p>W02</p>	<p>D02</p>
<p>W03</p>	
<p>W04</p>	
<p>W05</p>	
<p>W06</p>	
<p>W07</p>	



### 3.1.4 Window Detailing

Window design needs to be carefully considered to ensure an appropriate balance is achieved between the various requirements such as daylighting, overheating and privacy. The following guidance should be considered when designing windows/doors;

- Consideration should be given to how curtains and/or blinds could be fitted to all openings.
- Safety restrictors should be provided on all windows.
- A cleaning and maintenance strategy should be developed prior to the submission of planning.
- Windows to be fitted with stiffeners where required.
- Consideration should be given to room furnishing when designing windows.
- Ensure window design considers all requirements such as TGD B requirements for escape and TGD K requirements for guarding.
- All ground floor windows to have cill level a minimum of 150mm above FFL.
- All window cills to include a minimum 50mm projection.
- Door thresholds to be designed and coordinated with slab design to ensure level access can be achieved where required.

### 3.1.5 Typical Build-ups

Typical build-ups should be established early in the project to guide the setting out of buildings and keep construction methods reasonably limited. The following guidance should be considered when designing windows/doors;

- All build ups to allow for flexibility in construction method. The structural options set out in the following section of this document should be allowed for in the build ups.
- All build ups to comply with Building Regulations.
- Typical floor build ups should be considered for all building types.
- Compartment floors to be carefully considered to ensure TGD B and TGD E can be complied with.
- All roof build ups should be considered including any roof terraces.
- All external wall build ups should be considered.
- Where sockets and switches are likely to be located on party walls additional lining should be included to create a service zone.
- Interfaces with roof terraces should be carefully considered.
- The impact of brick detailing such as recesses on the facade on the external wall build ups should be carefully considered.
- The design of external wall build ups should consider required u-value, insulation type and length of brick angle bracket.

### 3.1.6 External Details

External works should be coordinated with the building design. The following guidance should be considered when setting out typical build up;

- Gutters and rainwater downpipes should be carefully designed to ensure effective rainwater management, prevent façade staining, and integrate seamlessly with the elevation treatment.
- Standard roof eaves details should be used with a soffit overhang, or where agreed, a neat traditional flush eaves detail. The chosen approach should take account of the associated gable design.
- Downpipe locations to be carefully coordinated to avoid boundary wall/fence.
- Where canopies are provided ensure planning drawings include adequate allowances for construction such as the required up-stands.
- Ensure all external levels are coordinated with the internal floor levels.
- External paved areas should fall away from the building.

### 3.1.7 Floor to Floor

The floor to floor height should be established at the outset of the project. The following guidance should be considered when establishing the typical upper floor to floor height;

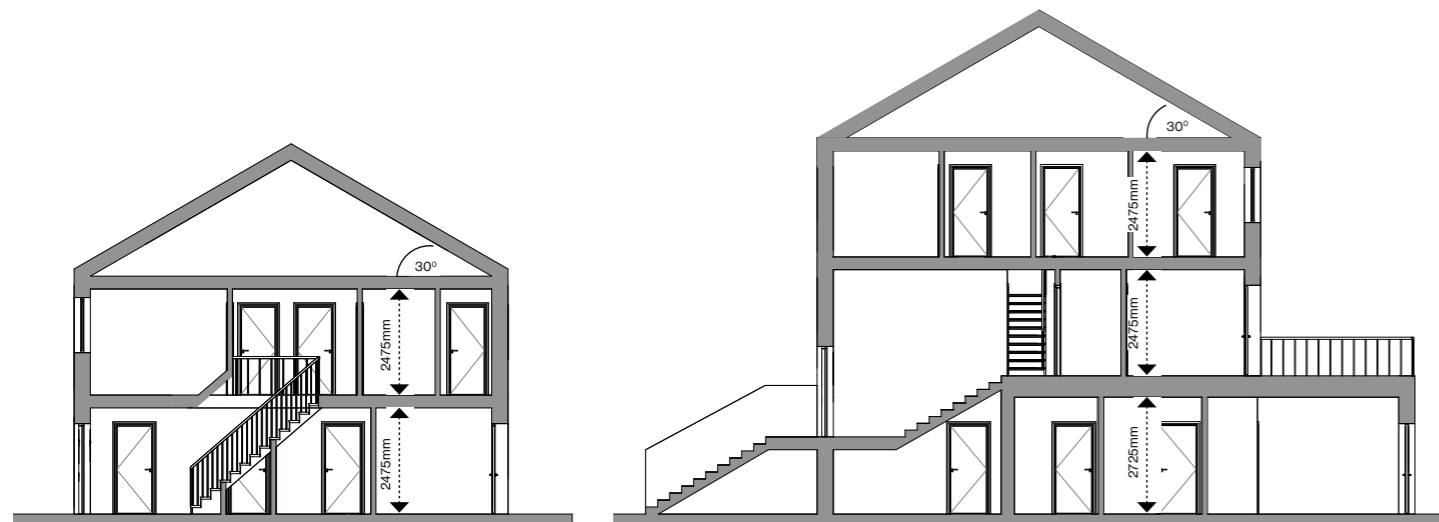
- The floor to floor height should be coordinated with all key disciplines in the design team.
- The floor to floor height should be based on brick dimensions.
- Consideration should be given to how level access showers will be provided in Universal Design homes.
- Consideration should be given to construction tolerances.
- Bulkheads should be avoided. Where bulkheads cannot be avoided, their alignment should be careful considered.
- The floor to floor height should be minimised.
- The floor to ceiling height should be as per below;

#### Houses

- Ground Floor: 2475mm

#### Duplexes

- Ground Floor: 2700mm
- Upper Floor: 2475mm



Indicative floor to floor strategy

3.2

## Structure

Design Teams should determine the most appropriate structural solution on a project-by-project basis in terms of cost, programme and supply chain. The analysis of these options should be carried out prior to planning submission. The following guidance should be considered when designing the structure:

- All structural systems should be designed to maximise flexibility at planning stage. This includes considering multiple structural systems and multiple suppliers of the selected system.
- All structural systems considered must comply with Building Regulations and any other relevant requirements.
- All internal load bearing walls to be minimised but where necessary, clearly identified on drawings.
- For timber frame systems, consider all racking requirements, including minimum wall lengths required for racking.
- Avoid penetrations through structural elements.
- The use of structural steel elements should be minimised, but when necessary, clearly identified on drawings.

The guidance opposite sets out the structural options that should be considered as a minimum by building typology.

#### Houses and Town Houses

- Design teams should consider structural systems such as, masonry, cavity wall construction, timber frame construction and light gauge steel construction.
- The base case should be timber frame construction, utilising concrete floor slab, closed panel timber frame walls, open web floor joists and timber roof trusses.

#### Duplexes

- Design teams should consider structural systems such as, masonry, cavity wall construction, timber frame construction, light gauge steel construction, and a combination of the above.
- Fire separation needs careful consideration.
- The base case should be traditional masonry ground floor construction, with a two storey timber frame structure above. This would generally consist of concrete ground floor slab, masonry ground floor walls, pre-cast concrete floor slab and screed to level 1, closed panel timber frame walls for level 1 and 2, open web floor joists to level 2 and timber roof trusses.

## 3.3

## M&amp;E

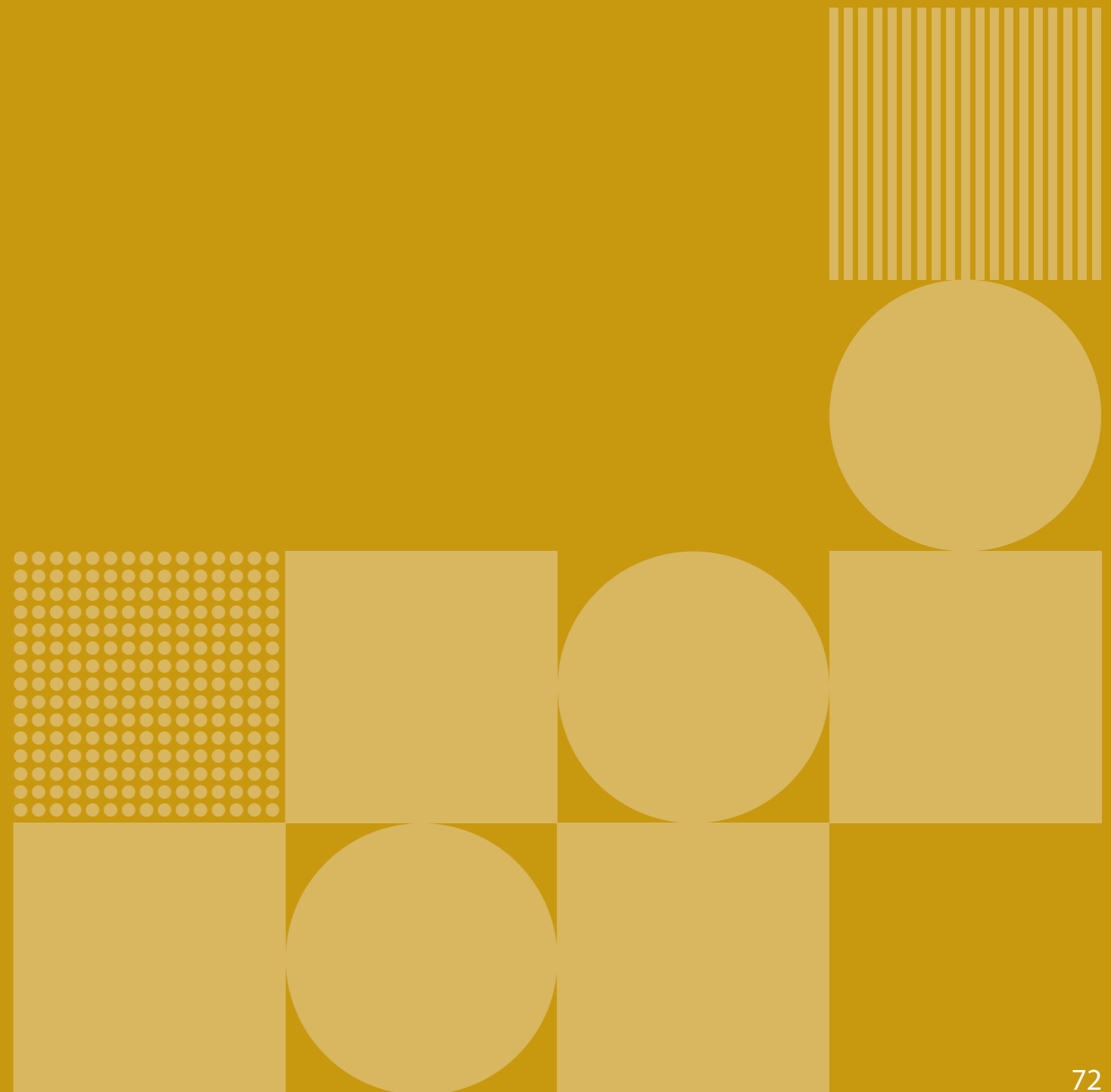
The design team should determine the most suitable heating, hot water, and ventilation systems at the start of the project, assessing options for energy efficiency, capital and operational costs, and maintenance needs. The following guidance should inform the heating system design:

- All options must comply with Building Regulations, including any other relevant requirements. All projects must achieve IGBC HPI certification and the LDA sustainable objectives with any project specific requirements set out in the project Development Brief.
- The plant and ducting requirements have been spatially co-ordinated on all typologies, where plant is contained in the utility room.
- Placement of radiators should be considered so they do not impede into clear widths of corridors or the clear area in the visitable bathroom, as set out in Part M.
- Where outdoor units are included a protective cage should be provided and consideration should be given to avoid the unit creating climbing hazard, i.e. 3B5P duplex balcony.

Type		Cold Water
<b>House and Town House</b>	System Selection	Storage Volume in Accordance with Irish Water COP. Tank in attic in single & 2 storey dwellings. Tank no higher than 2nd floor in 3 / 4 storey dwellings. Tank to have an integrated booster pump.
	Location	
<b>Duplex Ground Floor Apartment</b>	System Selection	Storage Volume in Accordance with Irish Water COP. Tank in attic in single & 2 storey dwellings. Tank no higher than 2nd floor in 3 / 4 storey dwellings. Tank to have an integrated booster pump.
	Location	
<b>Duplex Upper Floor Home</b>	System Selection	Storage Volume in Accordance with Irish Water COP. Tank in attic in single & 2 storey dwellings. Tank no higher than 2nd floor in 3 / 4 storey dwellings. Tank to have an integrated booster pump.
	Location	

Heating	Hot Water	Ventilation
Air Source Heat Pump Mono-bloc Vs Split R290 Refrigerant.  R290 Safety Zones to be in accordance with manufacturers requirements and to be assessed early in design process to ensure compliance can be achieved.  Minimum Efficiency of 420% with overall Part L compliance to be achieved with model selected.	Provided by air source heat pump. 200 litre cylinder. Maximum standing losses of 1.8kWHrs/Day  Minimum Efficiency of 250% with overall Part L compliance to be achieved with model selected.	Centralised Mechanical Extract Ventilation
Outdoor Unit in back garden. Indoor Cylinder typically in "hot press" .	N/A	Fan located in attic
Air Source Heat Pump Mono-bloc Vs Split R290 Refrigerant.  Exhaust Air Heat Pump can be considered if space is not available for outdoor unit however SR50-4 Compliance will be required.  R290 Safety Zones to be in accordance with manufacturers requirements and to be assessed early in design process to ensure compliance can be achieved.  Minimum Efficiency of 420% with overall Part L compliance to be achieved with model selected.	Provided by air source heat pump. 200 litre cylinder. Maximum standing losses of 1.8kWHrs/Day  Minimum Efficiency of 250% with overall Part L compliance to be achieved with model selected.	Centralised Mechanical Extract Ventilation (provided by EAHP where applicable)
Outdoor Unit on Terrace Indoor Cylinder typically in "hot press" / store.	N/A	Fan located at high level in store room
Air Source Heat Pump Mono-bloc Vs Split R290 Refrigerant.  Exhaust Air Heat Pump can be considered if space is not available for outdoor unit however SR50-4 Compliance will be required.  R290 Safety Zones to be in accordance with manufacturers requirements and to be assessed early in design process to ensure compliance can be achieved.  Minimum Efficiency of 420% with overall Part L compliance to be achieved with model selected.	Provided by air source heat pump. 200 litre cylinder. Maximum standing losses of 1.8kWHrs/Day  Minimum Efficiency of 250% with overall Part L compliance to be achieved with model selected	Centralised Mechanical Extract Ventilation (provided by EAHP where applicable)
Outdoor Unit on Terrace subject to all safety zones being complied with and climbing risk being assessed. Indoor Cylinder typically in "hot press" / store.	N/A	Fan located at high level in store room

# Section Four Outline Specification



4.1

# Dwellings

The internal specification for all LDA homes needs to be good quality, robust and easily maintained with replacements readily available in Ireland. The following specification has been informed by functionality, comfort and detailed upfront and life cycle cost analysis.

The interior design of all LDA homes should be developed on a project-by-project basis, based on specification below. All finishes and colours should be selected to create a contemporary, timeless, and neutral palette, that residents can personalise and embellish with furniture and belongings.

The following specification applies to all LDA standard Low-Rise Affordable Purchase homes and will ensure a consistent level of quality across all LDA projects. The specification of homes designed to meet Universal Design for Homes requirements may differ.

## External Finishes

<b>Roof</b>	Concrete roof tiles.
<b>Windows</b>	uPVC double glazed windows, to standard colour range.
<b>External Doors</b>	Standard timber external door with glazed panel and multi locking system provided [Assumed that the front door is provided by the window supplier] where entrance canopy is being proposed pressed metal clip on canopy.
<b>Window Cills</b>	Standard pre-cast concrete window cills.
<b>External Render</b>	Self-colour render finish, preference is two coat finish .
<b>External Brickwork</b>	Mid-range brick with stretcher bond brick finish.
<b>Gutter and Down Pipes</b>	uPVC gutters and downpipes.

## Internal Finishes

<b>Partition Walls</b>	Partitions should be designed and constructed to achieve the required fire and acoustic rating. Where not needed to meet such performance requirements, internal partition walls are to be uninsulated timber or metal stud system partitions, generally with 12.5mm plasterboard each side or equivalent. Moisture resistant plasterboard to be provided in all bathrooms and ensuites. All internal wall to be painted and skimmed throughout.
<b>Party Walls</b>	Party walls should be designed and constructed to achieve the required fire and acoustic rating. The typologies have been designed to have consideration for all methods of construction however where party walls to be timber or metal stud system partitions, generally with 12.5mm plasterboard each side or equivalent with service zone to manufactures requirements.
<b>Ceilings</b>	Ceilings should be plasterboard finish to achieve the required performance. Moisture resistant plasterboard to be provided in all bathrooms and ensuites. All internal ceilings to be painted and skimmed throughout.
<b>Flooring</b>	Underlay only provided on compartmental floors between ground and first floor separate dwellings i.e. Duplex Typology acoustic underlay is required to comply with TGD Part E. Slip resistant ceramic floor tile to be provided in bathroom, ensuite downstairs WC and utility.

## Joinery

<b>Internal Doors</b>	MDF face contemporary doors , paint grade with factory primer.
<b>Skirting Boards</b>	100mm x 19mm Painted moisture resistant MDF square profile skirting. Note: Mastic joint between skirting and floor in all wet areas such as bathroom, utility and kitchen.
<b>Architrave</b>	75mm x 25mm Painted moisture resistant MDF square profile architrave.
<b>Window Boards</b>	25mm moisture resistant MDF bullnose profile window boards.

## Ironmongery

<b>Door Handles</b>	Brushed stainless steel lever handle.
<b>Door Locks</b>	Brushed stainless steel thumb turn to bathroom/shower room.
<b>Door Stops</b>	All doors to be fitted with wall mounted door stops.
<b>Door Closers</b>	All door closers should be surface mounted brushed stainless steel.
<b>Entrance Doors</b>	Entrance door to include brushed stainless steel mortice lock with x3 sets of Keys.

## Painting

<b>Walls &amp; Ceilings</b>	Two coats of vinyl matt emulsion in addition to a primer coat where required. Colour: White
<b>Joinery</b>	Two coats of satinwood in addition to a primer coat. Colour: White

## Kitchen

<b>General</b>	Shaker style modern kitchen with clean lines to natural colour.
<b>Worktop</b>	Laminated worktop required to comprise 28mm particle board with square edge and abs lipping or quality laminate equivalent e.g. 20mm solid surface, to be discussed on a project by project basis.
<b>Upstand</b>	100mm high upstand to match worktop.
<b>Doors</b>	Handle-less laminate door with ABS lipping. Selected neutral colour.
<b>Carcass</b>	MFC core board with white melamine finish, ABS lipping and intermediate adjustable shelf. Drawers and hinges – soft close, (or equivalent).
<b>Sink</b>	Good quality stainless steel single sink and draining board. Avoid narrow gauge sinks that allows flexing of tap.
<b>Tap</b>	100mm height spout, chrome single lever mono mixer tap; securely mounted to sink. Avoid high spout swan neck tap.
<b>Level of Appliance Integration</b>	All appliances fully integrated except for microwave.
<b>Kitchen Fire Blanket</b>	Wall mounted light-duty fire blanket, complying with IS 415:1988. Fire blanket should be 1200mm x 1800mm in size. Mounted on wall.
<b>Appliances</b>	Kitchen layouts have been considered to have the option of integrated appliances, which is to be assessed and discussed on a project by project basis.

## Bathroom

<b>Flooring</b>	Selected slip resistant ceramic tile to full extent of floor. Approximate size 600mm x 300mm.
<b>Wall Tiling</b>	<p>Selected ceramic tile. Approximate size 600mm x 300mm:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Tiling on all walls around the bath/shower area, full height for the perimeter of the area concerned.</li> <li><input type="checkbox"/> Tiled splash backs above WHB should cover the width of the basin at a minimum height of 300mm, including tile trim and silicone seal.</li> </ul>
<b>Mirror</b>	Not provided, electrical connection point at a high level for fitting/shaver.
<b>Shower/Bath Screen</b>	Chrome plated hinged 6mm glass screen with safety glass in accordance with BS6262.
<b>Bath</b>	Acrylic moulded bath with slip resistant coating and acrylic bath panel.
<b>Shower</b>	Acrylic moulded slim-line raised shower tray with slip resistant coating.
<b>Toilet</b>	Floor mounted concealed cistern WC with soft close seat, cover and dual flush plate with chrome finish.
<b>Washbasin</b>	Wall hung semi-pedestal washbasin. Approximate size 450mm x 550mm.
<b>Brassware</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Chrome plated thermostatic bath/shower mixer with full height adjustable wall mounted shower head.</li> <li><input type="checkbox"/> Chrome plated thermostatic washbasin mixer.</li> <li><input type="checkbox"/> Chrome plated bath waste with removable plug stopper and over flow kit.</li> </ul>
<b>Towel Rail</b>	Chrome plated heated towel radiator. Approximate size 400mm x 800mm.
<b>Toilet roll holder</b>	Chrome plated toilet roll holder.
<b>Shelf</b>	Reconstituted stone shelf over concealed cistern.
<b>Tanking</b>	Full height around bath/shower area and full extent of floor with 150mm upstand to all walls.

## Wardrobes

<b>Wardrobe</b>	<p>Shaker Style modern plan/ clean lines fitted to Master bedroom and double bedroom only.</p> <p>Master bedroom 1500mm wardrobe: 3 no. 500mm doors, one module containing 4 no. shelves.</p> <p>Double Bedroom 1000mm wardrobe: 2 no. 500mm doors, one module containing 4 no. shelves.</p>
<b>Carcass</b>	MFC core board with white melamine finish with ABS lipping.
<b>Interior</b>	Each wardrobe should contain a 500mm width of 4 adjustable shelves and 2 proprietary chromed steel hanging rails and brackets.
<b>Doors</b>	Laminate door with ABS lipping and brushed stainless steel d-handle. Selected neutral colour.

## Utility Room

<b>Worktop</b>	Laminated worktop required to comprise 28mm particle board with square edge and ABS lipping.
<b>Washing Machine</b>	Space provision only [electric points, water and waste] provided in the utility room for washing machine and dryer.
<b>Dryer</b>	Space provision only [electric points] provided in the utility room for dryer.
<b>M&amp;E Cupboard</b>	If M&E systems are located within a storage or utility room they should be neat and tidy and ensure that storage space is maximised.

## Electrical

<b>Power &amp; Data</b>	Moulded white plastic sockets and switches to relevant standards fitted throughout. Isolation switches to include engraving identify relevant appliance. All dwellings to be wired for TV/broadband/telephone with open network infrastructure suitable for wholesale providers; i.e. Eir or Siro - Virgin Media accepted but not to be exclusive to developments.
<b>Smoke &amp; Heat Detectors</b>	Interlinked smoke and heat detectors to be provided in accordance with relevant standards.
<b>Lighting</b>	Energy efficient pendant light fittings.

## Mechanical

Refer to the Mechanical Selection Matrix in M+E, found in Section 3 of this booklet.

## Miscellaneous

<b>Attic Hatch</b>	600mm x 600mm insulated airtight attic hatch with ladder and have consideration of U- value requirement.
<b>EV Charging</b>	Provision for an EV charging point isolator where parking on curtilage for future EV provision.

## Power & Data

Room	Sockets	Lighting
<b>Hall</b>	1 double socket	Pendant light
<b>Bedrooms</b>	3 double sockets	Pendant light
<b>Living Room</b>	4 double sockets, 1 telephone connection, 1 cable TV connection and 1 fibre optic broadband connection.	Pendant light
<b>Bathroom</b>	n/a	Pendant light
<b>Kitchen</b>	3 double sockets and isolation switches as required	Pendant light
<b>Utility Room</b>	1 double socket	Surface mounted with appropriate IP rating
<b>Balcony</b>	n/a	Surface mounted with appropriate IP rating

## 4.2

# External Works

The design and quality of external works associated with low rise typologies are critical to positive placemaking and the character of new urban neighbourhoods.

The detail and material selection for external works should support the sustainability goals and objectives for the development such as Sustainable Urban Drainage (SuDS) measures and Biodiversity measures.

Materials and details for external works should be robust and fit for purpose and materials easily sourced within Ireland.

## On Curtilage

### Boundaries

- Between private rear gardens; 1800mm high timber panel fence with concrete post and concrete plinth.
- Between private gardens and public realm; 2000mm solid masonry wall. Boundaries to front garden; hedging; native and/or pollinator friendly species.
- Exposed corner gardens; consider steel estate railings or timber knee rails to discourage trespass.

### Bin Store

Proprietary store in timber or composite board or metal panel on a metal frame. Capacity; 3 wheelie bins.

### Bike Store

Proprietary store in timber or composite board or metal panel on a metal frame. Capacity; min. of 2 bicycles.

### Surfacing

- Hard surfaces to on curtilage parking and footpaths to be predominantly porous to facilitate source control (SuDS); permeable block paving or similar.
- Paving to side access passage can be concrete draining to a gravel strip along the boundary division.
- Rear garden patios can be flag paving or concrete draining towards a lawn area and/or gravel strip.

### Planting

- Tree, shrubs, hedging and ground cover planting selected to be predominantly native and/or pollinator friendly as set out in the All-Ireland Pollinator Plan, Pollinator Friendly Planting Code.
- Planting beds should incorporate a proportion of evergreen species for Winter interest. Front garden hedging should be predominantly evergreen species.

### Gravel Trim

- A gravel strip min. 200mm wide x 300mm deep; shall be included between planting beds and the façade of all buildings.
- In the interest of allowing the trickle vents on the building to function and preventing persistently damp conditions against the façade.

### Rainwater Plants

Planting beds can be configured as interception planters for rainwater as part of the SuDS proposals for a development. In particular for dwellings that do not have on curtilage parking spaces and therefore limited opportunities for interception within the sub-base of permeable paving.

# Section Five Appendix



5.1

# Universal Design Layouts

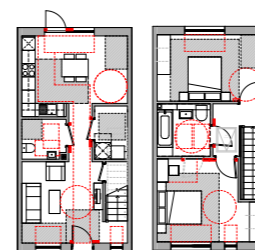
The following section includes a selection of Universal Design Home and Universal Design Home + dwelling layouts that have been developed with the input of Centre for Excellence in Universal Design, at the National Disability Authority.

The following Universal Design layouts have been designed to work with the LDA typical layouts. For instance the 1B2P UD (Type 1D-A) is interchangeable with 2B4P (Type 2D-A).

Dwelling Type	House			Duplex		Town house		Reference
	Front Entry	Side Entry	Wide Fronted	Ground Floor	Upper Floor	Courtyard	Rectangular	
1B2P								1D-A
2B3P								2D-B
2B4P								2H-B
3B5P								3H-E
1B2P								1D-B

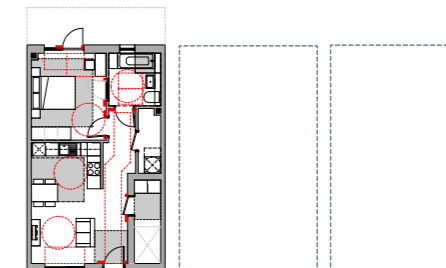
## UD House

2B4P  
Front Entry

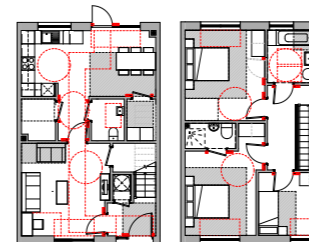


## UD Duplex

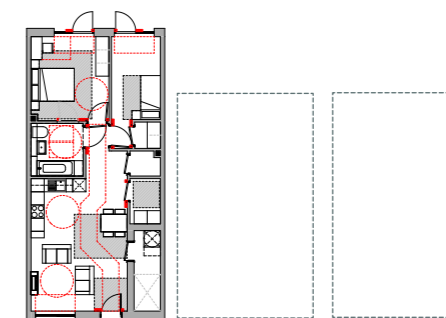
1B2P  
Ground Floor Apartment



3B5P  
Front Entry

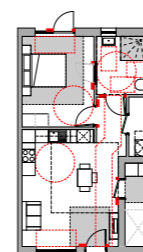


2B3P  
Ground Floor Apartment



## UD+ Duplex

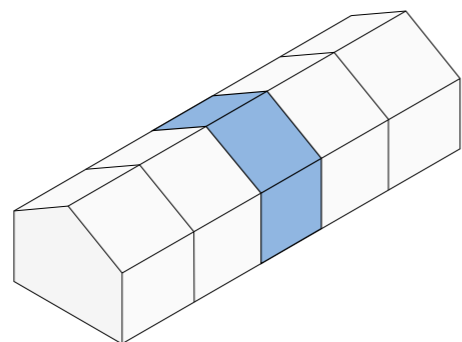
1B2P  
Ground Floor Apartment



### 5.1.1 Two Bedroom Four Person (Front Entry)

Universal Design House Type 2H-B

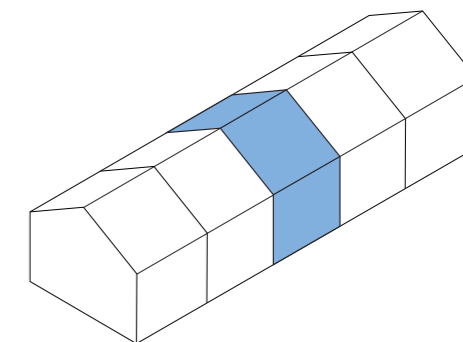
	2B4P	
	Provided	Minimum
Living, Kitchen, Dining	30.3m <sup>2</sup>	30m <sup>2</sup>
Double Bedroom 1	14.3m <sup>2</sup>	13m <sup>2</sup>
Double Bedroom 2	15.7m <sup>2</sup>	13m <sup>2</sup>
Storage	4.8m <sup>2</sup>	4m <sup>2</sup>
<b>Dwelling Area</b>	<b>89.4m<sup>2</sup></b>	<b>80m<sup>2</sup></b>



### 5.1.2 Three Bedroom Five Person (Front Entry)

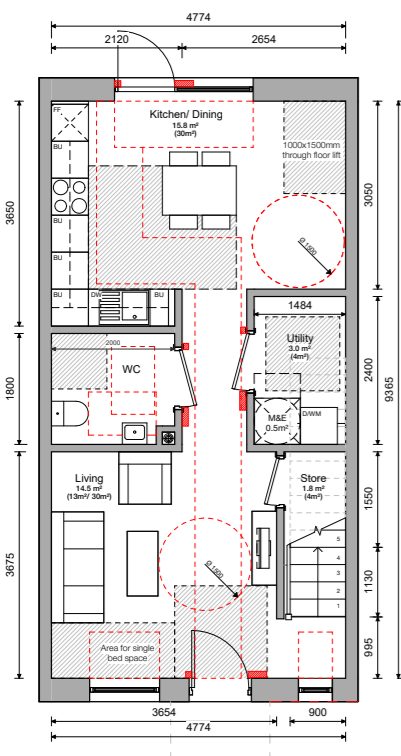
Universal Design House Type 3H-E

	3B5P	
	Provided	Minimum
Living, Kitchen, Dining	35.3m <sup>2</sup>	34m <sup>2</sup>
Double Bedroom 1	15m <sup>2</sup>	13m <sup>2</sup>
Double Bedroom 2	14.3m <sup>2</sup>	13m <sup>2</sup>
Single Bedroom	8m <sup>2</sup>	8m <sup>2</sup>
Storage	8m <sup>2</sup>	5m <sup>2</sup>
<b>Dwelling Area</b>	<b>114.7m<sup>2</sup></b>	<b>92m<sup>2</sup></b>

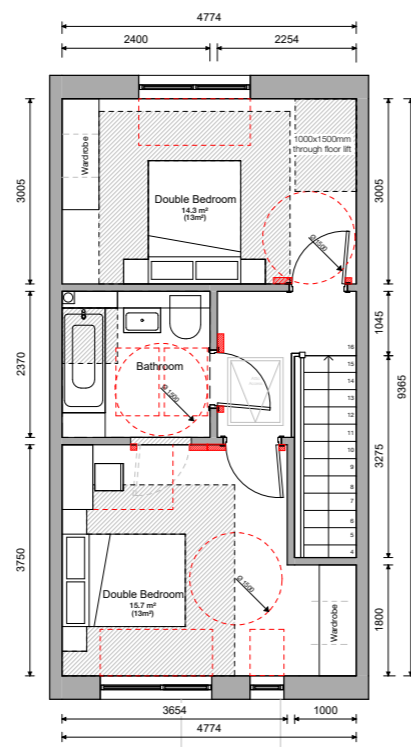


Note: This type can be used as mid terrace or end of terrace.

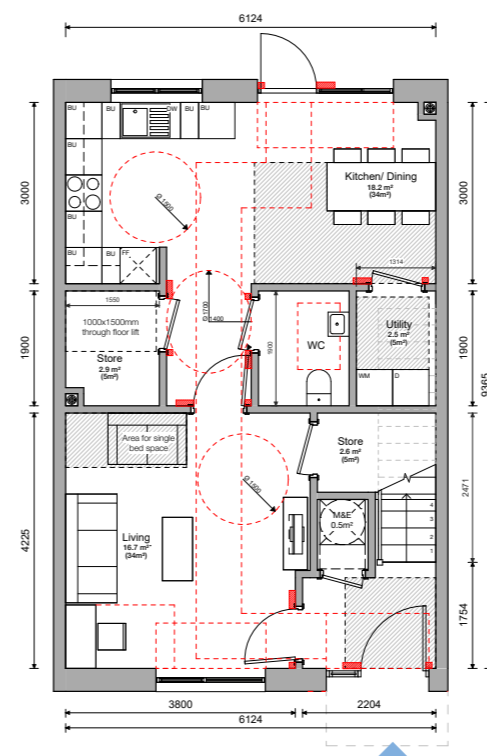
Where it is used as an end of terrace secondary windows should be provided on the gable end and the entrance door may be moved to the gable end where suitable.



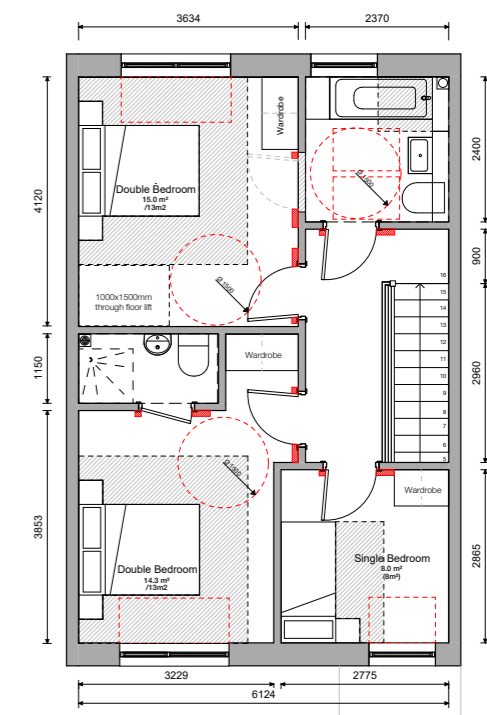
Ground Floor



First Floor



Ground Floor

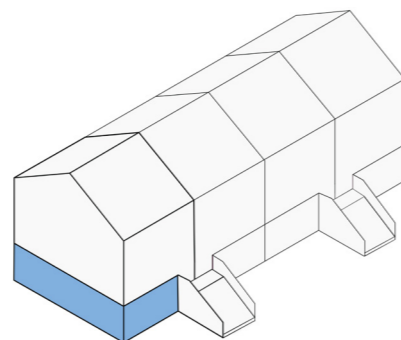


First Floor

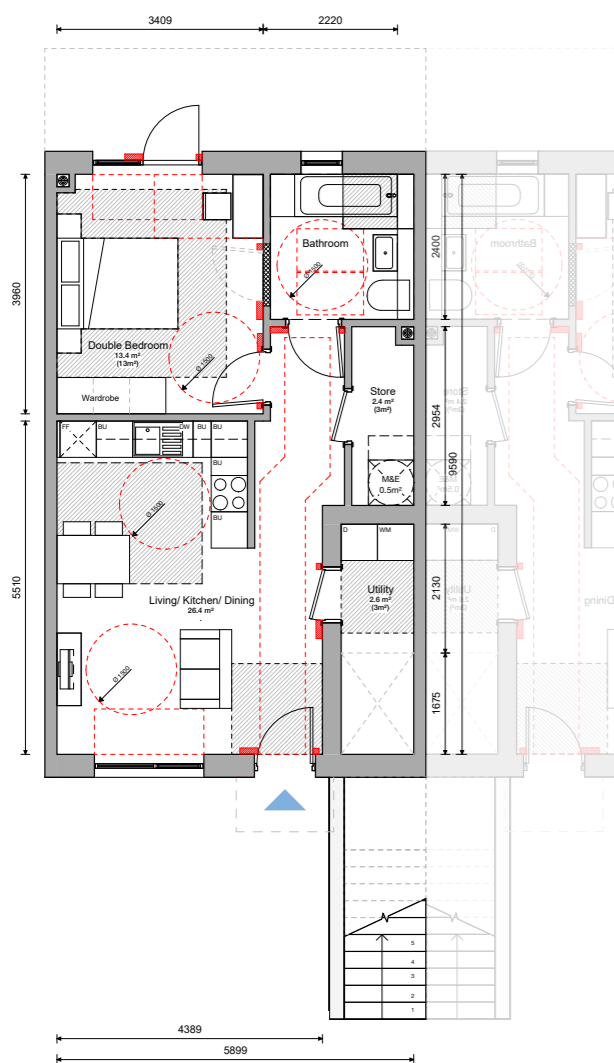
### 5.1.3 One Bedroom Two Person (Ground Floor Apartment)

Universal Design Duplex Type 1D-A

	1B2P	
	Provided	Minimum
Living, Kitchen, Dining	26.4m <sup>2</sup>	n/a
Double Bedroom 1	13.4m <sup>2</sup>	13m <sup>2</sup>
Storage	5m <sup>2</sup>	3m <sup>2</sup>
<b>Dwelling Area</b>	<b>56.6m<sup>2</sup></b>	<b>45m<sup>2</sup></b>



Note: This type can be used as mid terrace or end of terrace.  
Where it is used as an end of terrace secondary windows should be provided on the gable end.

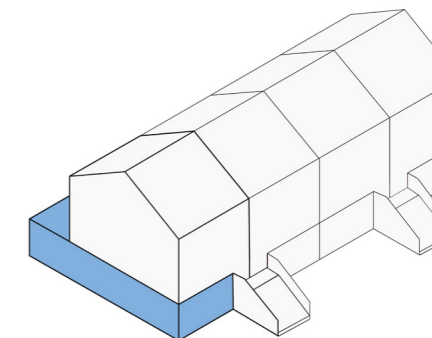


Ground Floor

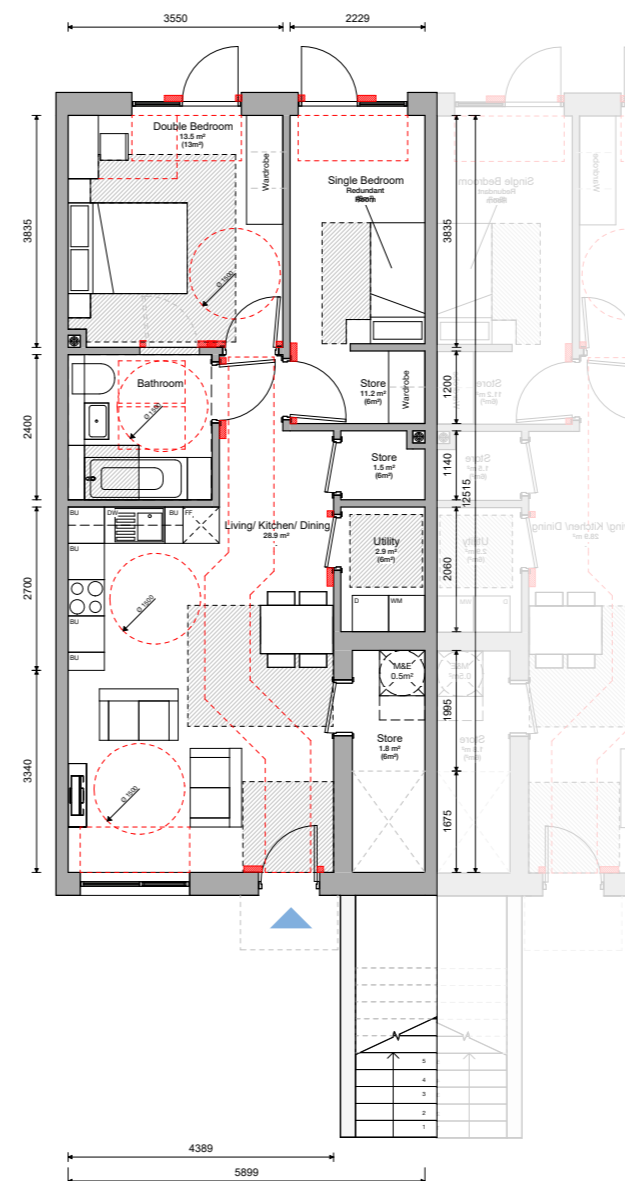
### 5.1.4 Two Bedroom Three Person (Ground Floor Apartment)

Universal Design Duplex Type 2D-B

	2B3P	
	Provided	Minimum
Living, Kitchen, Dining	28.9m <sup>2</sup>	n/a
Double Bedroom 1	13.5m <sup>2</sup>	13m <sup>2</sup>
Single Bedroom	9.6m <sup>2</sup>	8m <sup>2</sup>
Storage	7.6m <sup>2</sup>	5m <sup>2</sup>
<b>Dwelling Area</b>	<b>73.8m<sup>2</sup></b>	<b>63m<sup>2</sup></b>



Note: This house type can be used as mid terrace or end of terrace.  
Where it is used as an end of terrace secondary windows should be provided on the gable end.

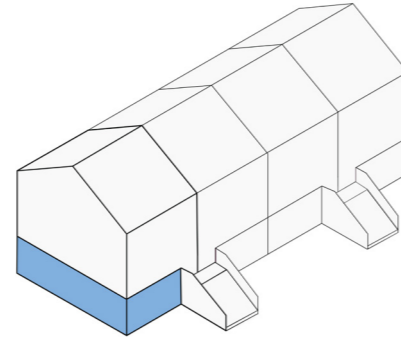


Ground Floor

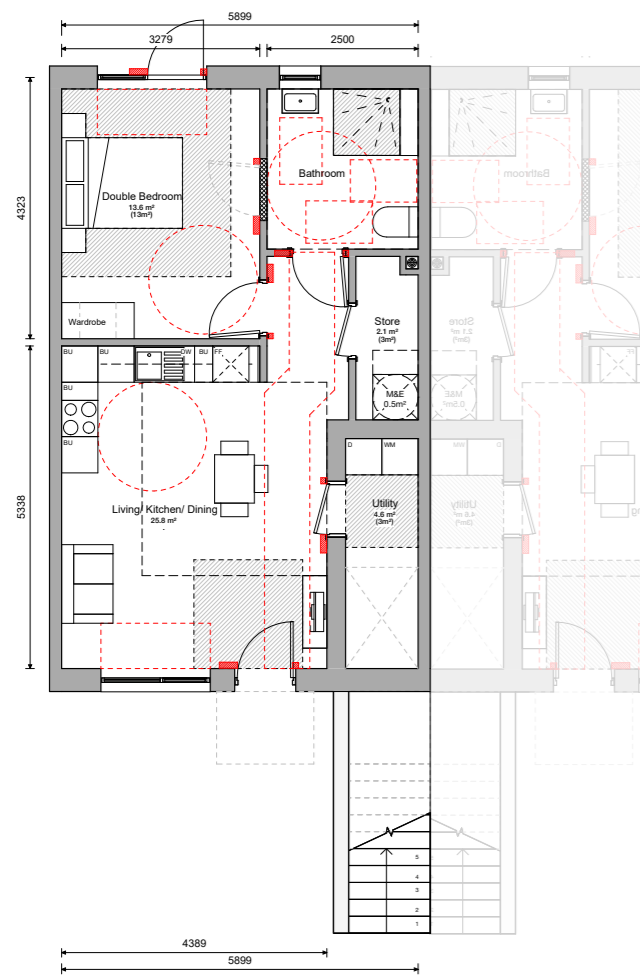
### 5.1.5 One Bedroom Two Person (Ground Floor Apartment)

Universal Design + Duplex Type 1D-B

	1B2P	
	Provided	Minimum
Living, Kitchen, Dining	25.8m <sup>2</sup>	n/a
Double Bedroom 1	13.6m <sup>2</sup>	13m <sup>2</sup>
Storage	6.7m <sup>2</sup>	3m <sup>2</sup>
<b>Dwelling Area</b>	<b>56.6m<sup>2</sup></b>	<b>45m<sup>2</sup></b>



Note: This type can be used as mid terrace or end of terrace.  
Where it is used as an end of terrace secondary windows should be provided on the gable end.



Ground Floor

This page has been intentionally left blank

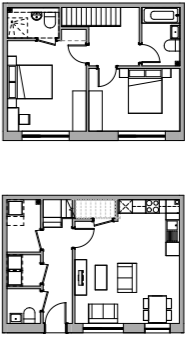

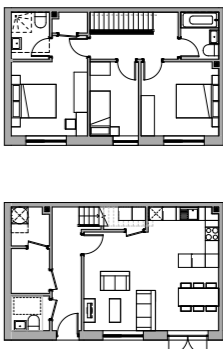

5.2

# Alternate Layouts

The following section includes a selection of dwelling layouts that meet the LDA minimum requirements and design principles set out within Section 1 of this booklet. These can be used on LDA projects subject to agreement with the LDA.

This section includes a side entry 3B5P house, a 4B7P side entry house and two alternative town house types.

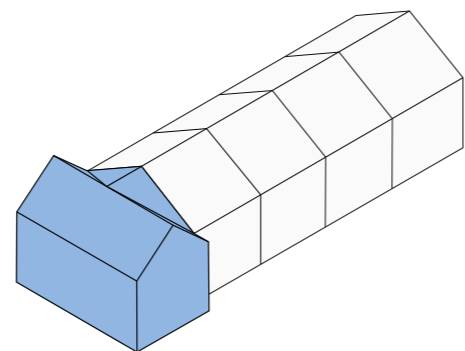
Dwelling Type	House			Duplex		Town house		Reference
	Front Entry	Side Entry	Wide Fronted	Ground Floor	Upper Floor	Courtyard	Rectangular	
2B4P								2TH-B
3B5P								3H-E
3B5P								3TH-B
4B7P								4H-A

House	Town House
	2B4P Rectangular 
3B5P Side Entry 	3B5P Rectangular Entrance 
4B7P Side Entry 	

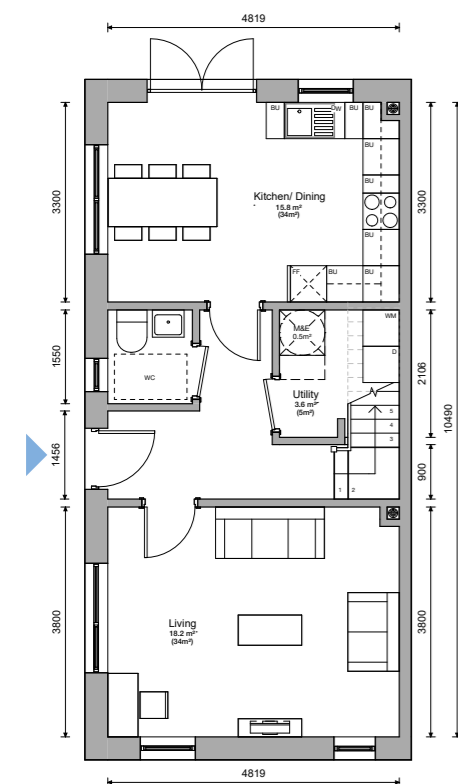
### 5.2.2 Three Bedroom Five Person (Side Entry)

House Type 3H-E

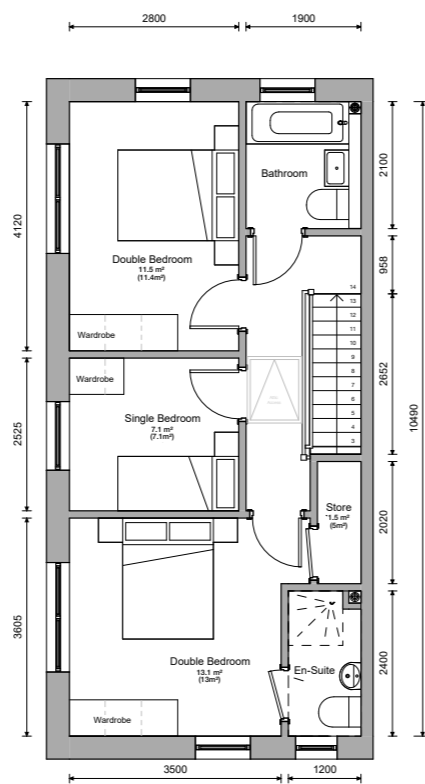
	3B5P	
	Provided	Minimum
Living, Kitchen, Dining	34m <sup>2</sup>	34m <sup>2</sup>
Double Bedroom 1	13.1m <sup>2</sup>	13m <sup>2</sup>
Double Bedroom 2	11.5m <sup>2</sup>	11.4m <sup>2</sup>
Single Bedroom	7.1m <sup>2</sup>	7.1m <sup>2</sup>
Storage	5.1m <sup>2</sup>	5m <sup>2</sup>
<b>Dwelling Area</b>	<b>101.1m<sup>2</sup></b>	<b>92m<sup>2</sup></b>



Note: The depth of this type does not align with the standard LDA house type. It is greater by 1 metre. This type is to be agreed with the LDA for use as End of Terrace.



Ground Floor

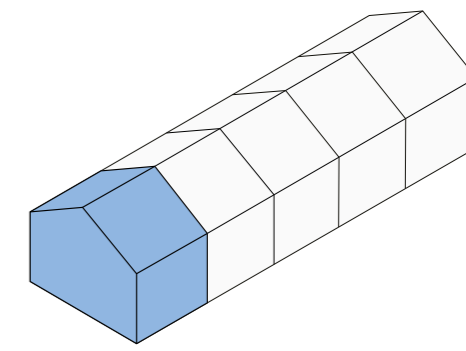


First Floor

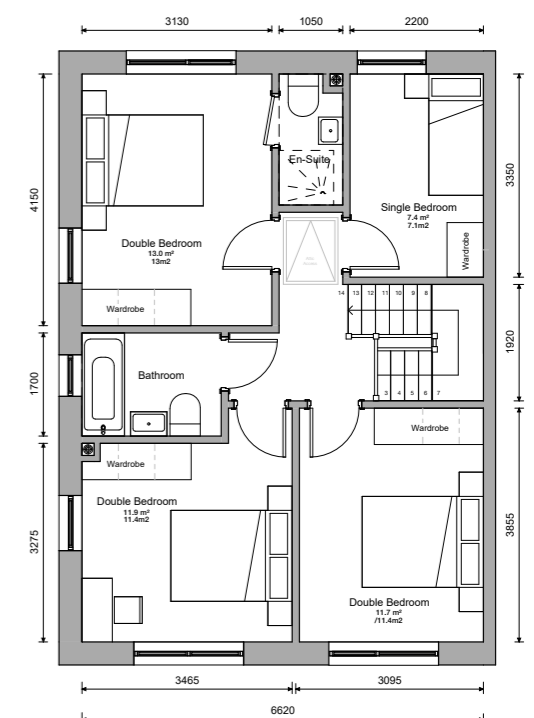
### 5.2.3 Four Bedroom Seven Person (Side Entry)

House Type 4H-A

	4B7P	
	Provided	Minimum
Living, Kitchen, Dining	43.5m <sup>2</sup>	40m <sup>2</sup>
Double Bedroom 1	13m <sup>2</sup>	13m <sup>2</sup>
Double Bedroom 2	12m <sup>2</sup>	11.4m <sup>2</sup>
Double Bedroom 3	11.7m <sup>2</sup>	11.4m <sup>2</sup>
Single Bedroom	8.2m <sup>2</sup>	7.1m <sup>2</sup>
Storage	6.9m <sup>2</sup>	6m <sup>2</sup>
<b>Dwelling Area</b>	<b>123.9m<sup>2</sup></b>	<b>110m<sup>2</sup></b>



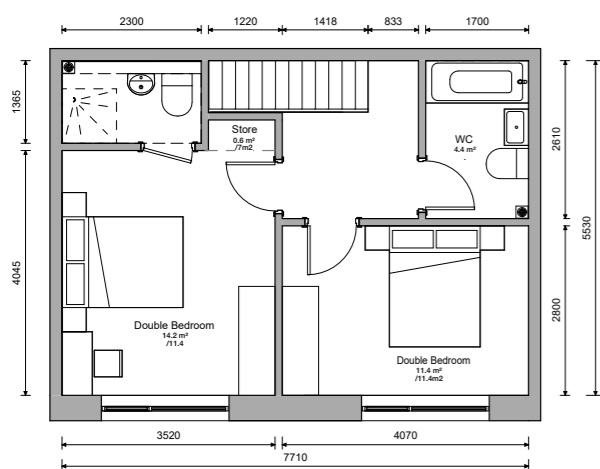
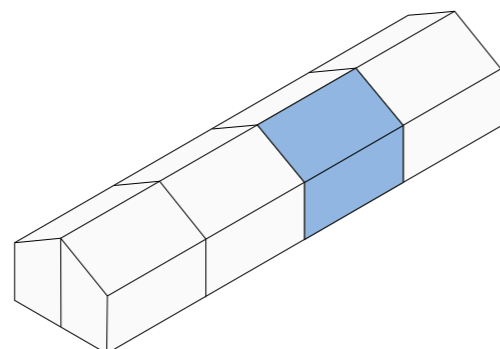
Ground Floor



First Floor

### 5.2.4 Two Bedroom Four Person Town House Type 2TH-B

	2B4P	
	Provided	Minimum
Living, Kitchen, Dining	24m <sup>2</sup>	n/a
Double Bedroom 1	14.2m <sup>2</sup>	11.4m <sup>2</sup>
Double Bedroom 2	11.4m <sup>2</sup>	11.4m <sup>2</sup>
Storage	7.1m <sup>2</sup>	6m <sup>2</sup>
Dwelling Area	<b>85.2m<sup>2</sup></b>	<b>73m<sup>2</sup></b>



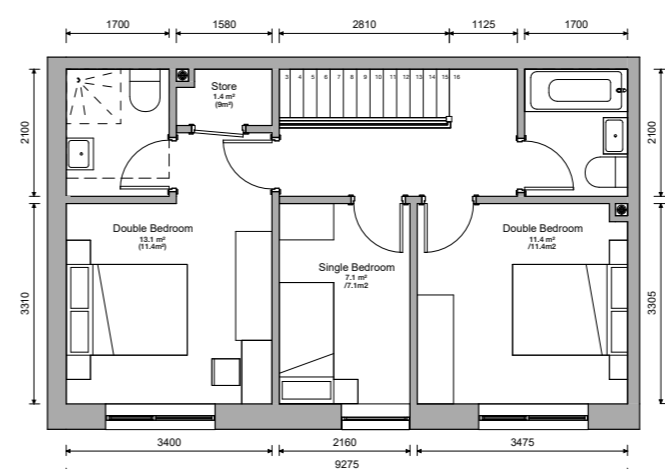
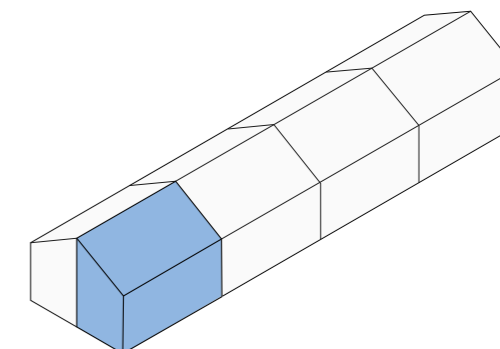
First Floor



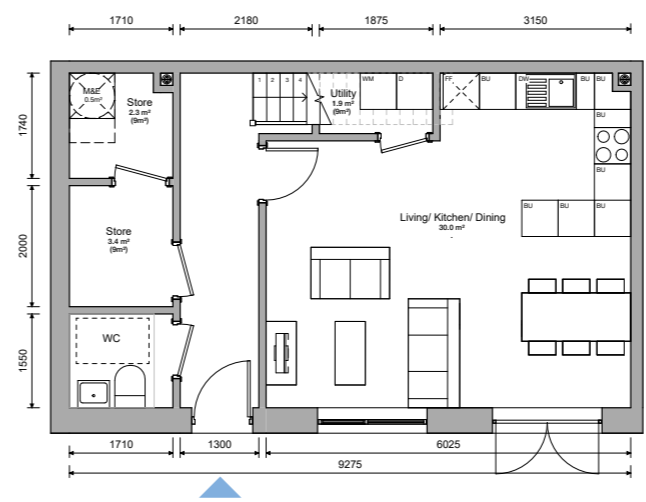
Ground Floor

### 5.2.5 Three Bedroom Five Person Town House Type 3TH-B

	3B5P	
	Provided	Minimum
Living, Kitchen, Dining	30m <sup>2</sup>	n/a
Double Bedroom 1	13.1m <sup>2</sup>	11.4m <sup>2</sup>
Double Bedroom 2	11.4m <sup>2</sup>	11.4m <sup>2</sup>
Single Bedroom	7.1m <sup>2</sup>	7.1m <sup>2</sup>
Storage	9m <sup>2</sup>	9m <sup>2</sup>
Dwelling Area	<b>102.6m<sup>2</sup></b>	<b>90m<sup>2</sup></b>



First Floor



Ground Floor

Note: This type can be used in combination with the courtyard town houses where appropriate.



