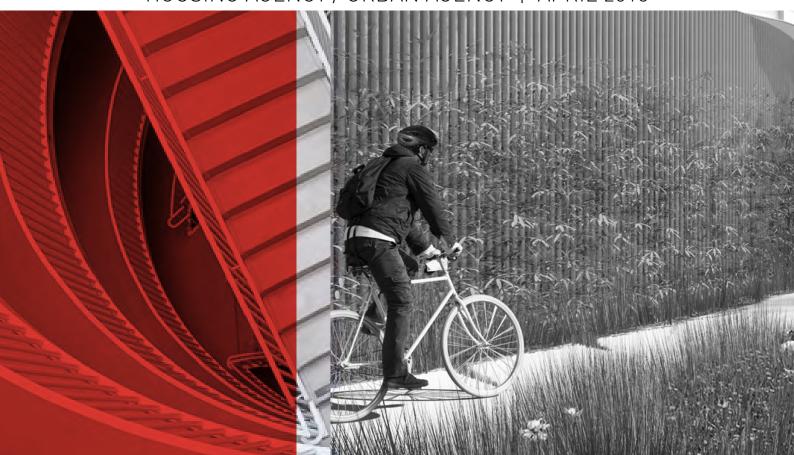
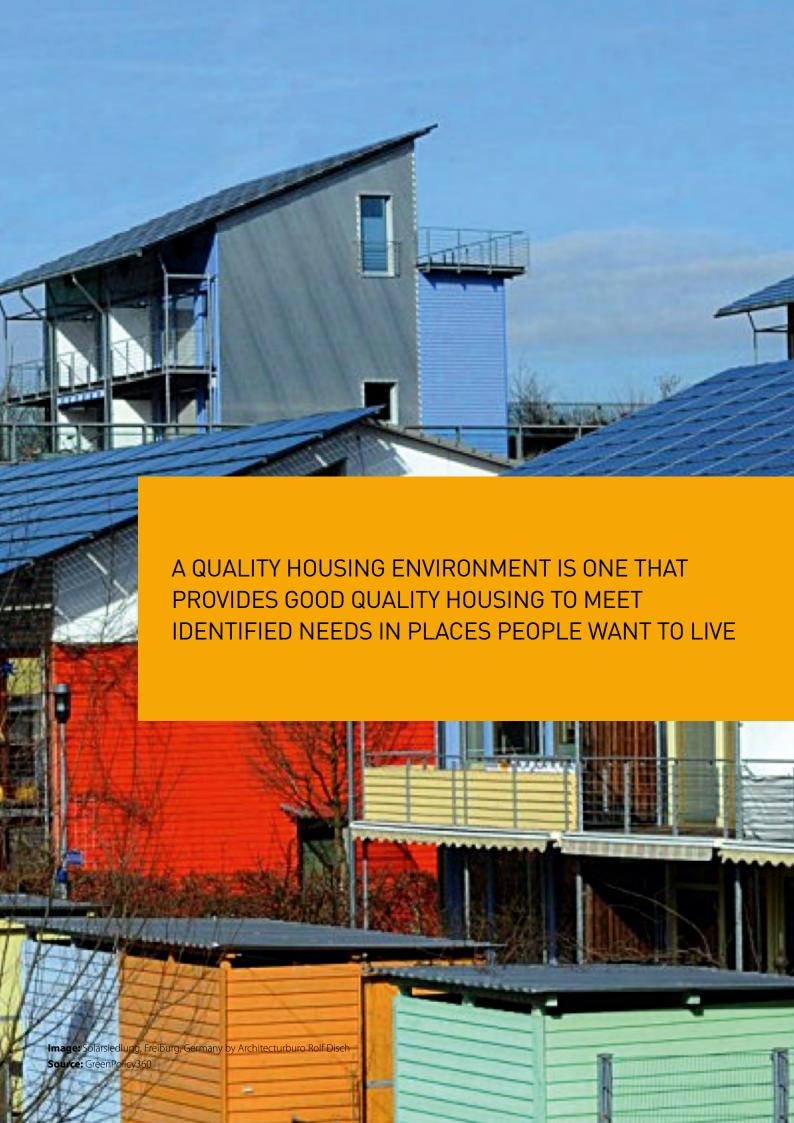


HOUSING AGENCY / URBAN AGENCY | APRIL 2018



APARTMENTS & URBAN HOUSING AGENCY / URBAN AGENCY / URBAN AGENCY

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05 PLACE MAKING & STREETSCAPES	P129



THIS HANDBOOK PROVIDES ARCHITECTS, PLANNERS, DEVELOPERS AND OTHER HOUSING PROFESSIONALS IN THE PRIVATE AND PUBLIC SECTOR WITH AN INTRODUCTION TO THE ELEMENTS THAT CONTRIBUTE TO THE DESIGN OF GOOD QUALITY APARTMENTS AND URBAN HOUSING



INTRODUCTION

The purpose of this design guide is to provide architects, planners, developers and other housing professionals in the private and public sector with an overview of the elements that contribute to the design of good quality apartments and urban housing. By considering a range of layouts and typologies and by drawing on examples from around Europe the guide aims to demonstrate the potential of good design to make apartments the dwellings of choice.

Whereas, in Ireland, apartment living has traditionally been seen as a temporary solution to housing need, in many parts of Europe long term apartment living is the norm, and it is likely that this will increasingly be the case in this country. An ever-expanding suburbia is neither sustainable nor, given our changing demographics, necessarily desirable, for many. This guide looks at the ways in which the amenities that people might traditionally expect from sub-urban housing can be provided within apartment developments.

High quality, carefully considered design is essential if apartments are to provide people with the same quality of life that they would expect to obtain from traditional housing and the guide includes numerous examples of best practice design from Ireland and abroad.

Whereas the guidelines generally seek to demonstrate what is achievable within the context of the DHPLG Design Standards for New Apartments (March 2018), not all of the examples included in this document comply with current Irish regulatory standards.

These guidelines do not purport to provide guidance on compliance with statutory planning requirements or construction standards (such as Building Regulations and including fire safety and access requirements and other requirements).

Designers are advised that the context within which a specific development takes place may give rise to specific planning, regulatory (including fire) and other safety requirements during construction and when the building is substantially complete.

All design solutions need to consider the user groups for which the building is intended. Some of the proposals included in this guide may give rise to maintenance and other issues that make them unsuitable in certian situations.

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No liability whatsoever is accepted to any person or body arising out of any reliance on the contents of this document.

Acknowledgement

The Housing Agency and Urban Agency would like to thank the Department on Housing Community and Local Government and the many architects who provided advice and material - without their generous contributions it would not have been possible to produce this document. Thanks also to One House Communications for their very valuable work in designing and producing the final document.

QUALITY APARTMENTS & URBAN HOUSING

STRUCTURE AND CONTENT

This guide is divided into five sections:

- 01 BLOCK DESIGN
- 02 TYPOLOGIES
- **03** AMENITY SPACES
- **04** SHARED SPACES
- **05** PLACE MAKING AND STREETSCAPES

Chapter 1, block design, considers a non-exhaustive, range of block configurations that have been used around Europe and that could be used in this country. Illustrated examples with key data such as density, site coverage and numbers of units are provided for each block type. Block layouts, core design, access to dwellings and the design of entrance areas are also considered.

Chapter 2 of the guide provides examples of apartment and duplexes that comply with the DHPLG Design Standards for New Apartments (March 2018). Examples of both standard and of alternative design solutions, that allow for the omission of internal fire protected lobbies, are included.

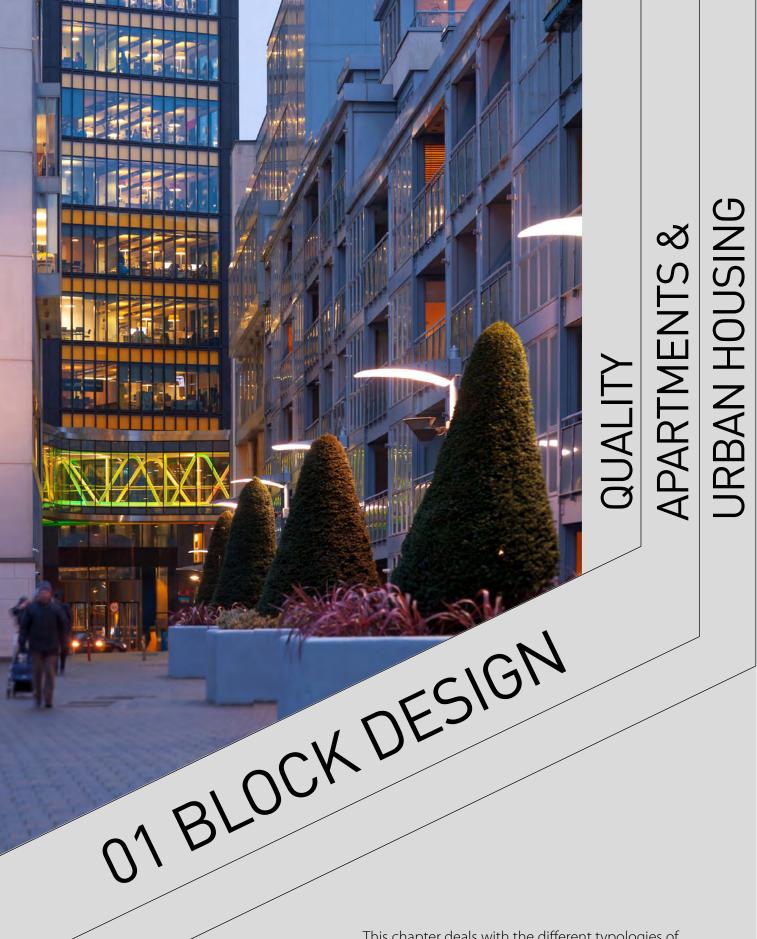
Well-designed private amenity spaces can significantly enhance the experience of apartment living. Chapter 3 lists the elements that should be considered when designing balconies and winter gardens.

Auxiliary and community spaces, such as concierges, common rooms and shared areas help to create a sense of belonging and foster community. Chapter 4 provides examples of entrances, parking areas and open spaces that include successful shared amenity spaces.

A good quality public realm with attractive well designed spaces that can be enjoyed by all is an essential component of all good housing. Chapter 5 provides examples of successful place making that incorporates well designed hard and soft landscaping.

Every building design is unique and the examples provided will be applied in different ways by individual designers working to individual project briefs tailored to particular circumstances. It is hoped that this handbook will encourage all those who have an input into the design of apartments to ensure that the apartments of the future become great places to live.





This chapter deals with the different typologies of urban blocks. It considers different types of urban blocks in a catalogue that we see present around Europe and that could be used in Ireland.



1.1 DENSITY

LOW DENSITY

A | TERRACED HOUSES



C | INFILL DEVELOPMENT



B | TERRACED COURTYARD HOUSES



D | BLOCK TURNING A CORNER



MEDIUM DENSITY

E | STACKED HOUSE



F | BIG HOUSE





HIGH DENSITY

G | SMALL BLOCK



H | RESIDENTIAL BLOCK



I | RESIDENTIAL RING



J | MIXED USE



K | RESIDENTIAL TOWER

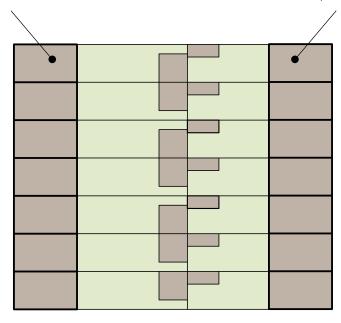


1.1 DENSITY | LOW DENSITY

A | TERRACED HOUSES

Front door access terraced housing - can be 2 - 4 storey

On street parking for mews to rear



This type of low density housing, modelled on the type of housing found in the inner suburbs of Dublin and other cities, uses deep on street plots.

+ **Density:** 25 dwellings per hectare

+ Covered area: 44%

+ Plot ratio: 0,72 (2-3 storeys)

+ Gross area per unit: 115-160m²

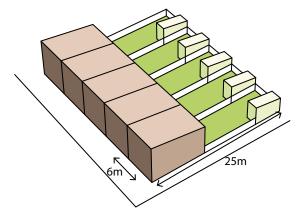




Image: Adamstown. Source: OMP Architects

Breaking up the scale of row housing and making it more aesthetically interesting with different facade materials expressing the residences behind.

1.1 DENSITY | LOW DENSITY

A | TERRACED HOUSES

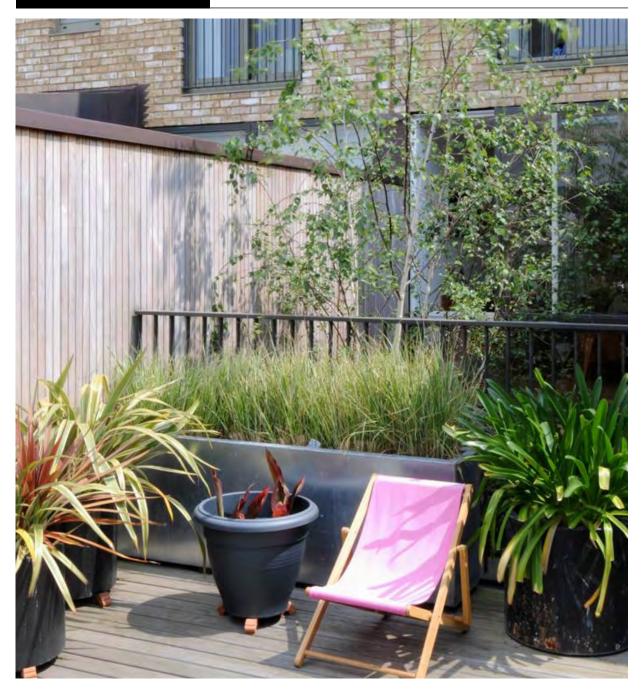
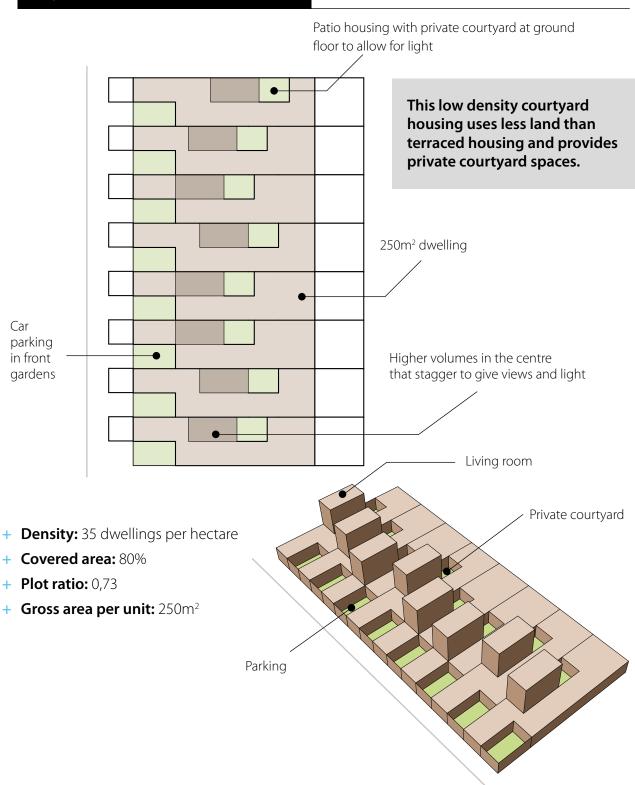


Image: Accordia by Maccreanor Lavington Architects in Cambridge, UK. **Source:** maccreanorlavington.com

Row housing in Accordia, Cambridge, the terrace is at first floor level and the tree in the background is located in the lower level external space.

B | TERRACED COURTYARD HOUSES



1.1 DENSITY | LOW DENSITY

B | TERRACED COURTYARD HOUSES





8 Villas, Amsterdam, Netherlands by Bosh Architects.

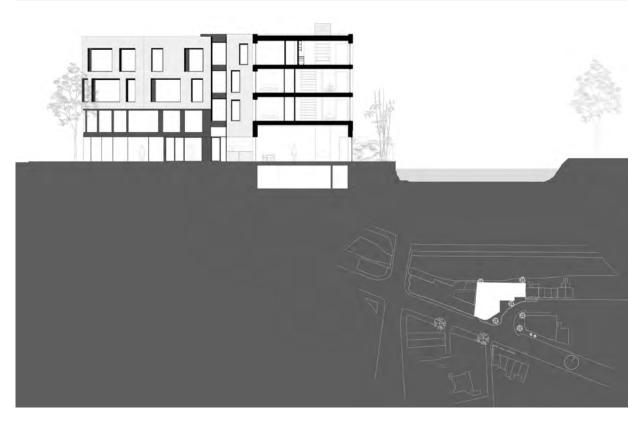
Terraced housing in patio formats with higher living room areas looking over a green roof above.

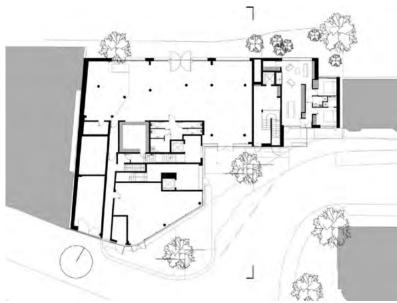
Source: archello.com



1.1 DENSITY | LOW DENSITY

C | INFILL DEVELOPMENT





Images: Percy Place, Dublin Ireland, ODOS Architects

Source: ODOS Architects







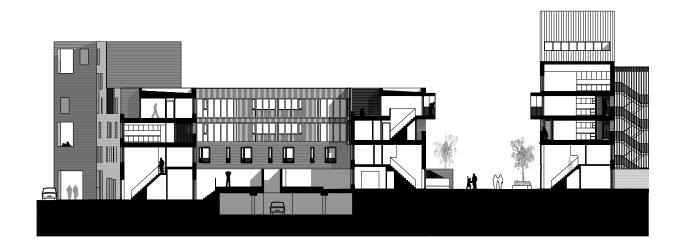


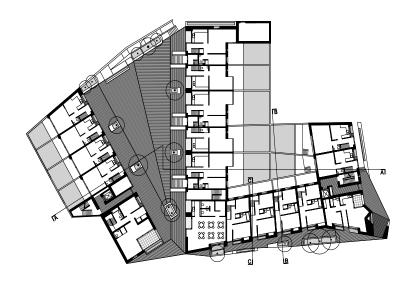
Images: Percy Place, Dublin Ireland, ODOS Architects

Source: ODOS Architects

1.1 DENSITY | LOW DENSITY

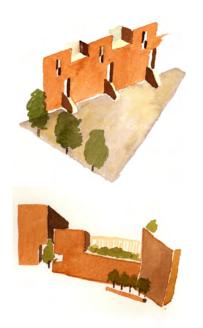
D | BLOCK TURNING A CORNER







Source: O'Donnell and Tuomey Architects









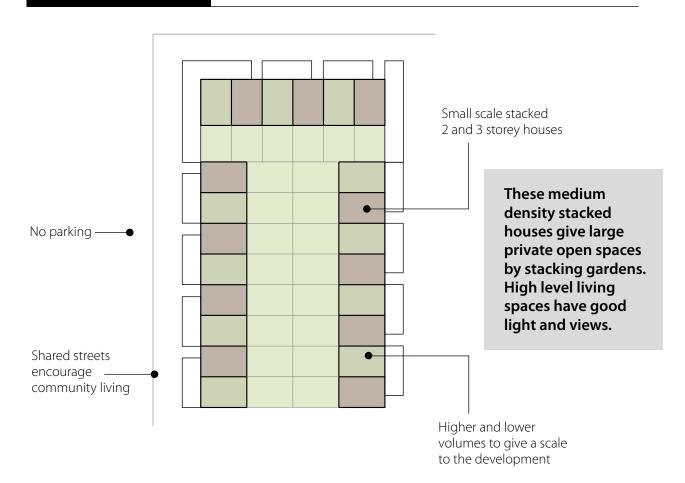


Images: Timberyard, Dublin Ireland, O Donnell and Tuomey Architects

Source: O Donnell and Tuomey Architects

1.1 DENSITY | MEDIUM DENSITY

E | STACKED HOUSES

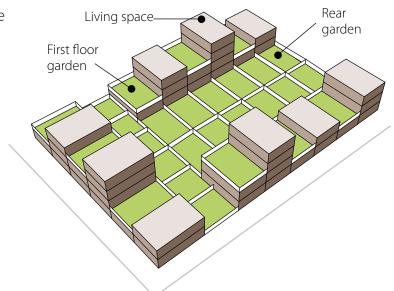


+ Density: 45 dwellings per hectare

+ Covered area: 50%

+ Plot ratio: 1,4 (2-4 storeys)

+ Gross area per unit: 60-140m²







Source: paulderuiter.nl

Garden Village, Amsterdam, Netherlands, by Paul de Ruiter Architects. Good quality public shared pedestrian space as the main entrances to the houses. These spaces become spaces to interact and for children and adults to meet, play, and talk.

1.1 DENSITY | MEDIUM DENSITY

E | STACKED HOUSES



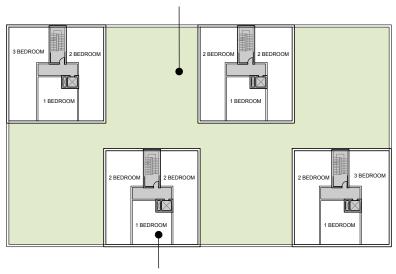


Source: maccreanorlavington.com

Accordia, Cambridge UK, by Maccreanor Lavington Architects. With good pedestrian friendly buffer gardens to the front and private gardens and patios to the rear.

F | BIG HOUSE

retail/commercial/patio housing base



mini towers which get views all around and create an interesting urban language The big house laid out in checkerboard floors allows every apartment to have direct views to garden or neighbourhood space.

+ **Density:** 85 dwellings per hectare

+ Covered area: 100%

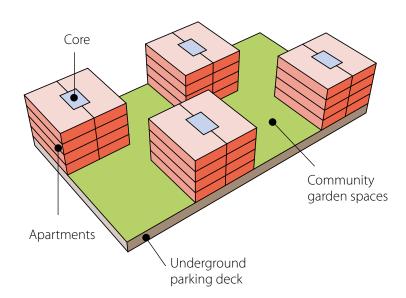
+ Plot ratio: 2.1 (5 storeys)

+ 1 Core per mini tower

+ 3 Apartments per floor

+ Gross area ground floor: 2650m²

+ Garden Area P.F.: 280m² x 4



1.1 DENSITY | MEDIUM DENSITY

F | BIG HOUSE



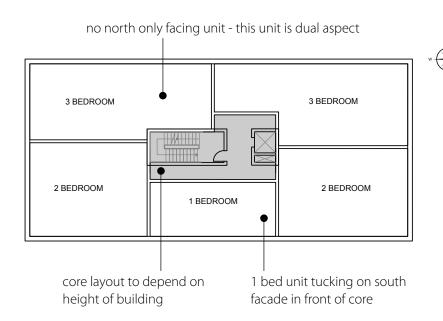


Images: Dunluce Apartments by DTA Architects, Anglesea Road, Dublin 4, Ireland

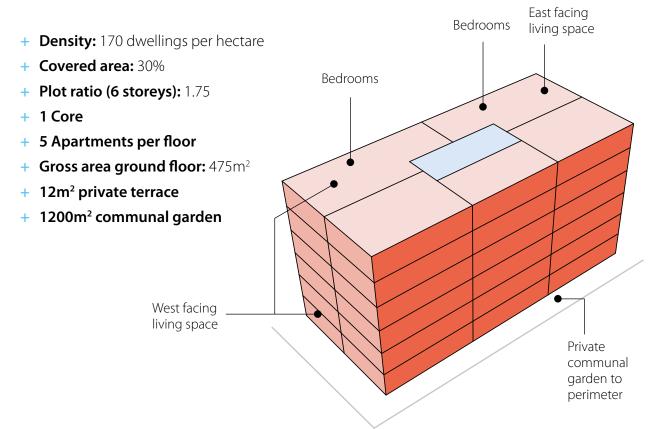
Source: DTA Architects

1.1 DENSITY | HIGH DENSITY

G | SMALL BLOCK



This high density block with 5 units off a core has no north facing units with all living areas facing east, west or south.



1.1 DENSITY | HIGH DENSITY

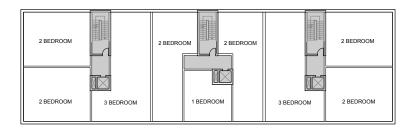
G | SMALL BLOCK





Images: Residential Building Achslengut by Baumschlager Eberle in St. Gallen - CH. Source: baumschlager-eberle.com

H | RESIDENTIAL BLOCK



Typical inner city block with strong street elevation. **Ground floor can** be commercial or residential but the success relies on well designed buffer gardens.

+ **Density:** 260 dwellings per hectare

Covered area: 46%

Plot ratio (6 storeys): 2.1

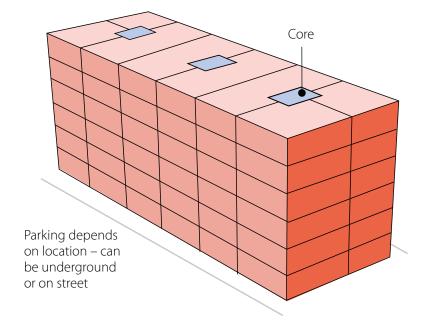
3 Core

9 Apartments per floor

+ Gross area per floor: 900m²

12m² private terrace

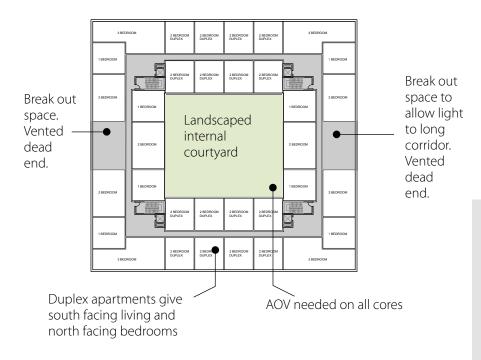
+ 1650m² communal garden



Private front garden acts as a buffer space to path

1.1 DENSITY | HIGH DENSITY

I | RESIDENTIAL RING



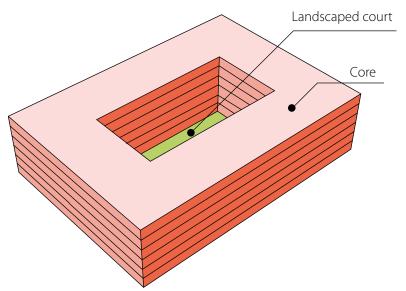
In this high density courtyard block north/south apartments are a split duplex apartment with south facing living spaces (see Type 2.5).

+ **Density:** 250 dwellings per hectare

+ Covered area: 70%

+ Plot ratio (6 storeys): 3.9

- + 4 Cores
- + 50 Apartments/Duplexes per two floors.
- + Gross area per floor: 2635m²
- + 12m² private terrace
- + 585m² communal garden



Ability to provide variety in the urban

J | MIXED USE BLOCKS

Efficient planning with 5/8 units off a core



On street garden

+ **Density:** 260 dwellings per hectare

+ Covered area: 46%

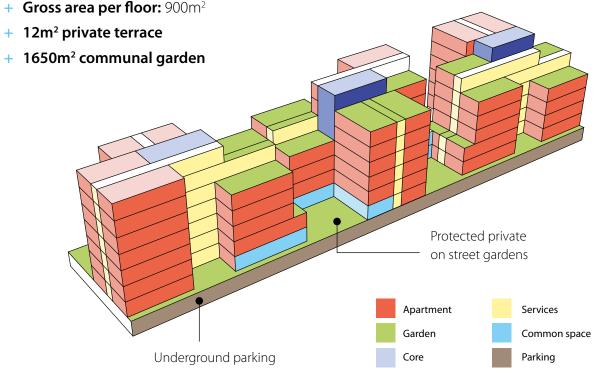
+ Plot ratio (6 storeys): 2.1

+ 3 Core

+ 15 Apartments per floor

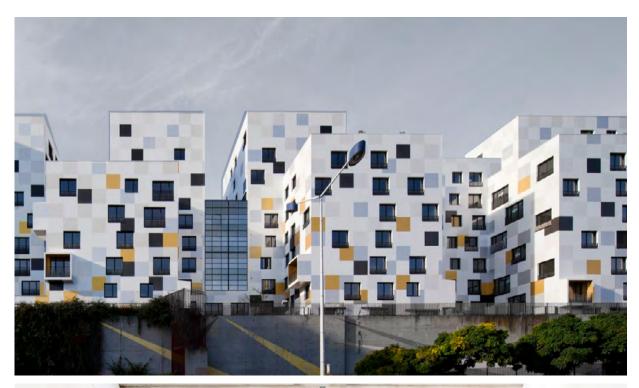
+ Gross area per floor: 900m²

streetscape and create intimate on street gardens leading to a successful public realm.



1.1 DENSITY | HIGH DENSITY

J | MIXED USE BLOCKS





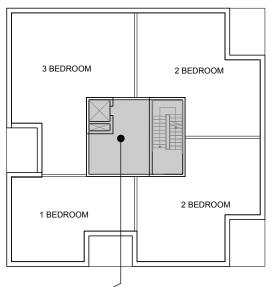
 $\textbf{Images:} \ \textbf{Apartment Block by X-TU in Nanterre, France. Photographs: Luc Boegly \textbf{Source:} archdaily.com$

Image: Apartment Block by X-TU in Nanterre, France. Photographs: Luc Boegly Source: archdaily.com

This scheme uses a checkerboard layout to create internal atrium gardens - this is suitable for inner city sites and creates usable friendly areas for children to play safely particularly in winter.

1.1 DENSITY | HIGH DENSITY

K | RESIDENTIAL TOWER



This is for dense city centre locations and creates all apartments which are dual aspect.

Height in a city can act as a point of refernce in the urban landscape.

Topmost floor greater or equal to 20m then core must be treated as a fire fighting shaft

+ **Density:** 330 dwellings per hectare

Covered area: 25%

+ Plot ratio (5-9 storeys): 3.3

+ 1 Core

+ 4 apartments per floor

+ Gross area per floor: 400m²

+ 10m² private terrace

+ 970m² communal garden

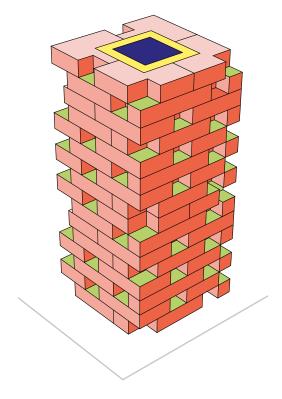




Image: Alto Vetro Tower by Shay Cleary Architects in Dublin, Ireland. Developed by Treasury Holdings.

Source: riai.ie



Image: Alto Vetro Tower by Shay Cleary Architects in Dublin, Ireland. Developed by Treasury Holdings.

Source: burlrealestate.com

1.1 DENSITY | HIGH DENSITY

K | RESIDENTIAL TOWER





Images: Nuovo Portello in Milan, Italy, by Cino Zucchi Architetti.

Source: divisare.com





1.2 APPROACH AND CORE DESIGN

OWN DOOR ACCESS

A | DIRECT FROM STREET



B | HALF LEVEL



C | MULTIPLE LEVELS





D | DIRECT FROM COURTYARD E | DIRECT FROM WINTERGARDEN





COMMON ACCESS + INTERNAL DISTRIBUTION



H | GALLERY ACCESS



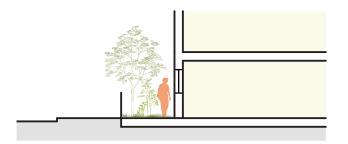
G | EXTERNAL STAIRCASE



I | ATRIUM ACCESS



A | DIRECT FROM STREET



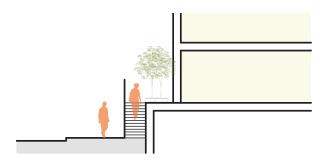
Own door access apartments are highly sought after if designed correctly particularly for families and the elderly. Passive high quality buffer gardens to shield living spaces from overlooking is critical in the design.



Image: Accordia by Maccreanor Lavington Architects in Cambridge, UK. **Source:** maccreanorlavington.com

Accordia, Cambridge, UK by Maccreanor Lavington Architects. Passive buffer gardens and balconies are combined with high quality planting to make a friendly edge and block passersby from viewing in. Landscaping has matured since this photo taken at handover.

B | HALF LEVEL

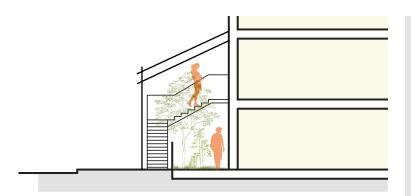


Half level apartments can form a dual function, it allows one to give more privacy to the ground floor units but if done cleverly can act as a fresh air strategy for carparks or basement areas screened with planting. However, access for people with disabilities should be considered.



Source: www.rkvisual.ca

C | MULTIPLE LEVELS



The 8 house by BIG Architects below is a very unique design in Copenhagen, Denmark where there is a ramped access to units in a promenade as high as the 12th floor. It shows the possibility to have own door access over multiple levels in an innovative way using a mix of typologies.



8 House by BIG Architects in Copenhagen, Denmark

Source: flickr.com



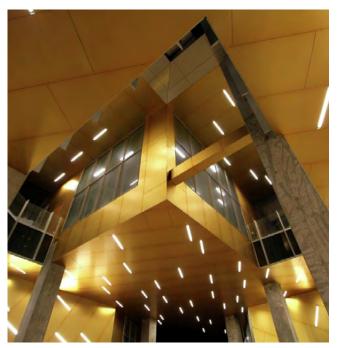
Image: 8 House by BIG Architects in Copenhagen, Denmark

Source: zblog.com

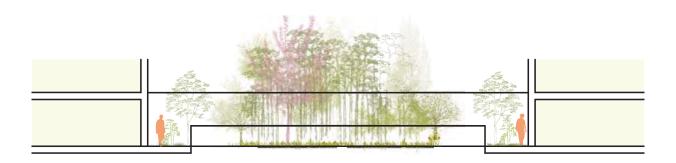




Source: designboom.com



D | DIRECT FROM COURTYARD



Courtyard access in inner city developments or off busy trafficked roads, tends to lower the noise and make a nicer atmosphere for the development. The below project by Renzo Piano Architects in Paris uses Birch trees to create a dappled light and stop overlooking from apartment to apartment. All units are entered from the courtyard off dedicated cores and ground floor apartments are protected by buffer planting. As the image below demonstrates, use of dense planting in urban locations can be very effective.



Rue de Meaux by Renzo Piano in Paris, France

Source: greatbuildings.com



Gated Courtyard in Billancourt, Paris, France

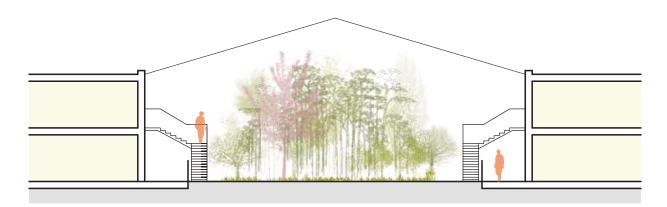
Source: google street view



Peabody, St. John's Hill by Hawkins Brown in London, UK

Source: hawkinsbrown.com

E | DIRECT FROM WINTERGARDEN



This configuration shown in the diagram above departs from standard code performance and requires a customised fire safety design.

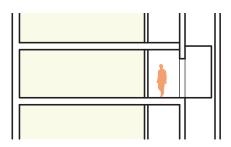


Howth Road by OMP Architects which is a built example of wintergarden design in Ireland

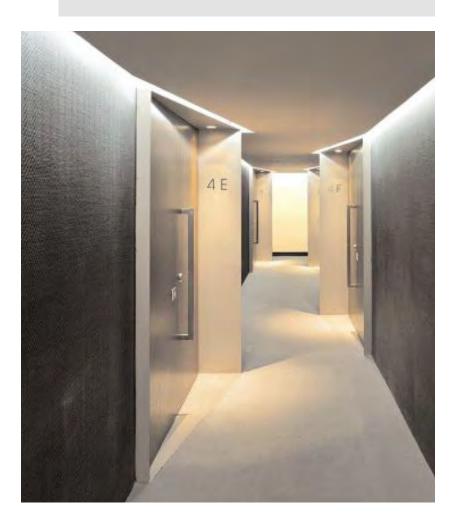
Source: OMP Architects



F | STANDARD CORE



Most schemes in large developments are corridor access. Wherever possible natural light will make the experience more interesting. The design of the corridor using high quality lighting and picking out entrances in an interesting way as show below is important.



Apartments in Barcelona, Spain by Carlos Ferrater.

Source: abduzeedo.com

This project by Plot Architects in Copenhagen uses natural light and colour to make the corridors an interesting experience.



VM House in Copenhagen, Denmark, by PLOT (JDS + BIG)

Source: Pinterest

Interior cores on the facade can bring a great quality to the experience of the user.

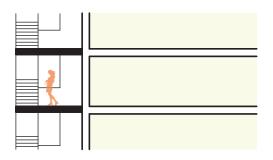


Internal Cores can be designed well if the corridors are designed properly and natural light where possible is integrated.



Source: houzz.com

G | EXTERNAL STAIRCASE



This scheme in Paris uses an external staircase which is covered and makes the space into a larger space for children. This is an innovate use of space and works well in tough inner city sites like this one in Paris.





Logements de la Poste by Philippe Gazeau in Paris, France – External staircase acts as a shared space **Source:** cgsociety.com / tankonyvtar.com



Image: Logements de la Poste by Philippe Gazeau in Paris, France **Source:** housinginparis-philippegazeau.blogspot.com

> External cores can be a very good design feature.

View of terraced gardens off staircase.

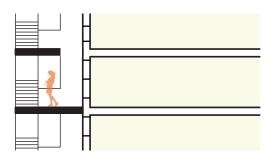
Fire Safety consideration in Ireland may impose limitation on building height.



Image: Cigar Box by Denis Byrne Architects in Dublin, Ireland.

Source: builtireland.com

H | GALLERY ACCESS



Gallery Access is a very cost efficient way to design apartments. If designed properly it can be a very attractive form of development and can encourage community activity.



80 Dwellings by Toni Girones in Salou, Spain. Photograph: José Hevia

Source: archdaily.com

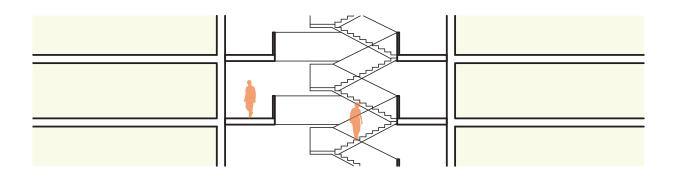


The key is to have offset gallery access from the units as shown in the project with mini bridges reaching over to the doorways of each unit. Typically kitchens and bedrooms are located on the gallery facade.

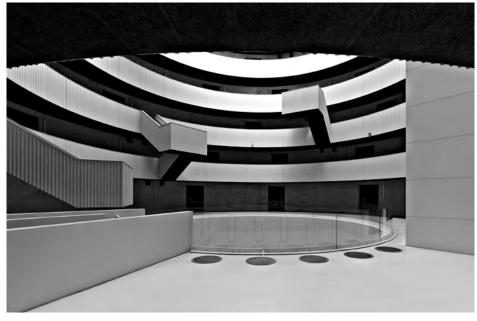
Shielding and screening of fire escape routes needs consideration.

80 Dwellings by Toni Girones in Salou, Spain. Photograph: José Hevia Source: archdaily.com

I | ATRIUM ACCESS



Atrium Access housing can be a very clever way of creating all weather internal social spaces as well as forming a space for people to meet which is exciting spatially. The development below in Copenhagen is the renovation of a former Silo building by MVRDV Architects with an internal atrium as the main circulation and only one lift core.



Atrium access with top lit natural light can make an innovative mixing space.

FRØSILO in Copenhagen, Denmark by MVRDV

Source: mvrdv.nl



The development is for an apartment building in Sweden by **Tham Videgard Architects with** five units and one stairs and one lift. This acts as the fire stairs for the building over 6 storeys.

Västra Kajen Housing by Tham & Videgård Arkitekter in Jönköping, Sweden

Source: archdaily.com

LOBBY DESIGN



Image: VM Housing by PLOT (JDS + BIG) Architects in Copenhagen, Denmark

Source: archinet.com

Good lobby design is critical in any scheme. The approach to this apartment block above in Copenhagen is well designed which uses good quality lighting and a bright art piece to create a safe and protected entrance.

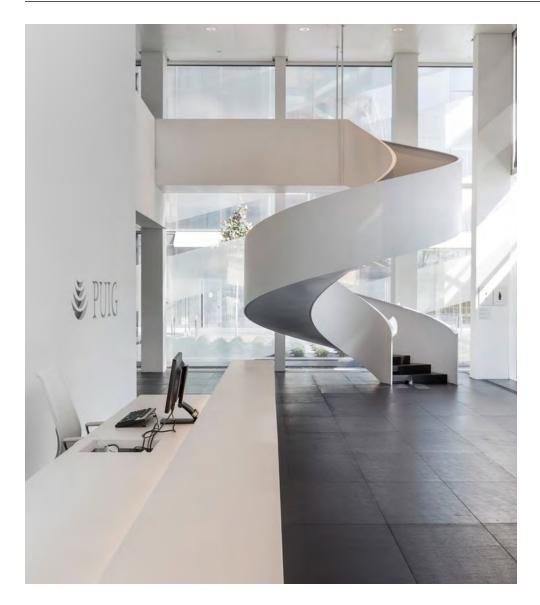


Image: Puig Tower by Rafael Moneo + Antonio Puig, Josep Riu GCA Architects + Lucho Marcial in Barcelona, Spain. Photograph: Rafael Vargas

Source: archdaily.com

Concierge and lobby spaces are becoming more and more important in apartment buildings. The concierge can act as building manager and providing passive security and as well as helping tenants with day to day issues like post and deliveries and creates a social space for people to meet.

POST BOX PLACEMENT

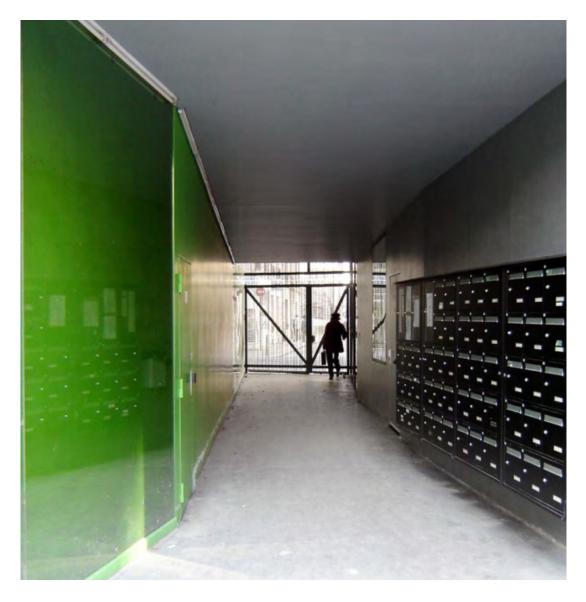


Image: Rue de Suisses by Herzog & de Meuron in Paris, France. Photograph: Bruno Oliveira

Source: swissmade-architecture.com

This block of apartments in Rue De Suisse in Paris by Herzog and De Meuron uses a covered space which is exterior to create a welcome zone and post box area. The projects to the right show how innovative lobby and post box design can bring a value to a development.



Image: Day-Care and Young Workers Hostel by Avenier Cornejo Architectes, Chartier Dalix Architectes in Paris, France.

Photograph: Samuel Lehuéde **Source:** archdaily.com



Image: Apartments Renovation in Porto, Portugal, by ODDA

Source: dezeen.com



Entrance areas.

Image: Interior of Switch building, New York, USA by nArchitects

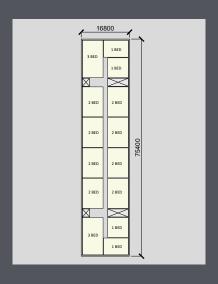
Source: archdaily.com

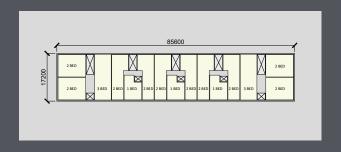


1.3 BLOCK LAYOUT | INDEX

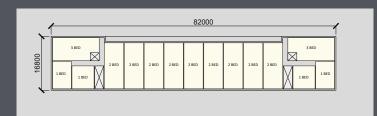
LINEAR BLOCK

A | CORRIDOR ACCESS EAST-WEST C | CORE ACCESS

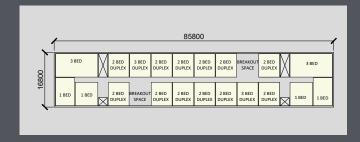




D | GALLERY ACCESS



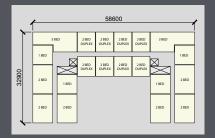
B | DUPLEXES



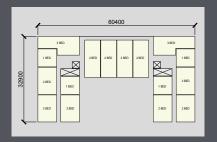


U BLOCK

E | CORRIDOR + DUPLEXES



G | CORRIDOR + GALLERY ACCESS

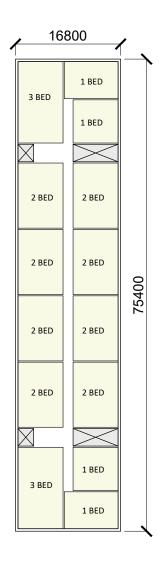


F | CORRIDOR + CORE ACCESS



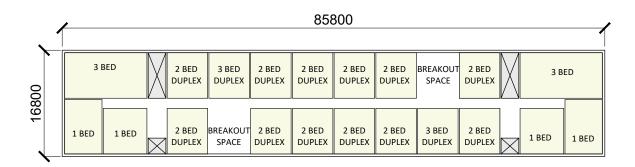
1.3 BLOCK LAYOUT

A | CORRIDOR ACCESS EAST / WEST



- + 7 units per core per floor
- + 28.5% dual aspect to be combined with other blocks in bigger developments to achieve dual aspect minimum
- + 47.9% wall to floor ratio
- + 86.9% efficiency
- + east west orientated blocks only

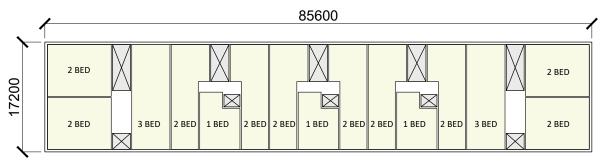
B | DUPLEXES NORTH / SOUTH



- + 6.5 units per core per floor
- + 84.6 dual aspect
- + 46.8% wall to floor ratio
- + 86.6% efficiency

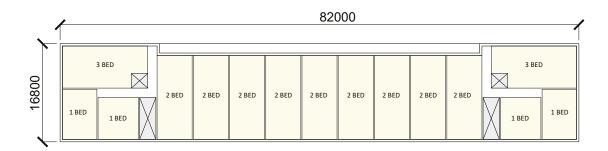
1.3 BLOCK LAYOUT

C | CORE ACCESS NORTH /SOUTH OR EAST/ WEST



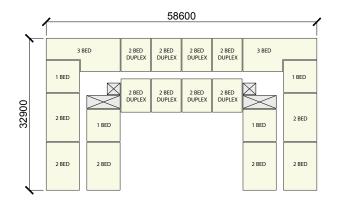
- + 3 units per core per floor
- + 80% dual aspect
- + 46% wall to floor ratio
- + 88% efficiency

D | GALLERY ACCESS NORTH /SOUTH



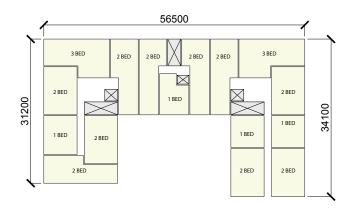
- + 7.5 units per core
- + 86.6 dual aspect
- + 49.9% wall to floor ratio
- + 93% efficiency

E | CORRIDOR AND DUPLEXES



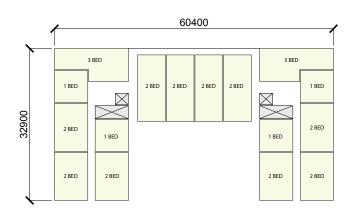
- + 8 units per core per floor
- + 62.5% dual aspect
- + 46.1% wall to floor ratio
- + 88.3% efficiency

F | CORRIDOR AND CORE ACCESS



- + 5.33 units per core per floor
- + 56.2% dual aspect
- 45.8% wall to floor ratio
- + 86.4% efficiency

G | CORRIDOR AND GALLERY ACCESS



- + 8 units per core per floor
- + 62.5% dual aspect
- + 48.1% wall to floor ratio
- + 85% efficiency

1.3 BLOCK LAYOUT

HYBRID ACCESS



Image: Gennevilliers by MFR Architects in Paris France

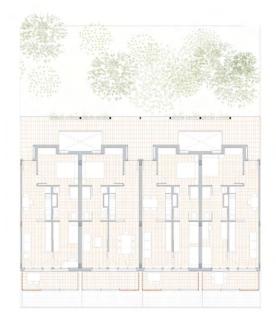
Source: fz.pinterest.com

This project in Gennevilliers in France by MFR Architects which is under construction has a very interesting plan where the Architects use both gallery and corridor access design. This is a cost effective model that provides residents with a variety of different views and experiences. The block above is 105 units with a commercial ground floor use.

GALLERY ACCESS







Source: archdaily.com

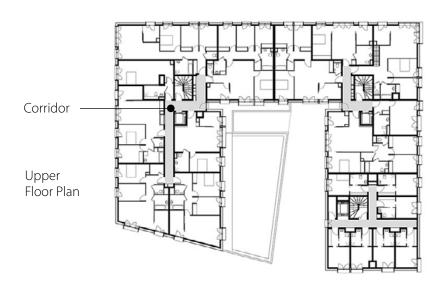
This development of 80 dwellings in Salou, Spain by Toni Girones Architects uses gallery access in a very cleverly designed way. The entrance space is partially exterior, partially interior. There have also been clever examples of this in London and Vienna which have similar climates to Ireland.

1.3 BLOCK LAYOUT

CORRIDOR ACCESS







ZAC Boucicaut by Michel Guthmann in Paris, France Photographs: Michel Denancé

Source: archdaily.com

Image: Morris Architects in London, UK

Source: ahmm.co.uk

This project by AHMM in Adelade Wharf in London by Alford Hall Monaghan Morris Architects, uses a very efficient plan, meaning that money is available to spend on the facade and public spaces. It is a social housing scheme. Long corridors are used with only 2 main cores. Glazing at the end of each corridor provide natural light and views. In places the length of the corridors may be excessive however the principles can be translated to smaller sites.

INFILL BLOCK





Source: levittbernstein.co.uk

13 dwellings in a mixture of duplex houses on the ground and first floors and two bedroom apartments above. Vaudeville Court in Islington, UK, by Levitt Bernstein.

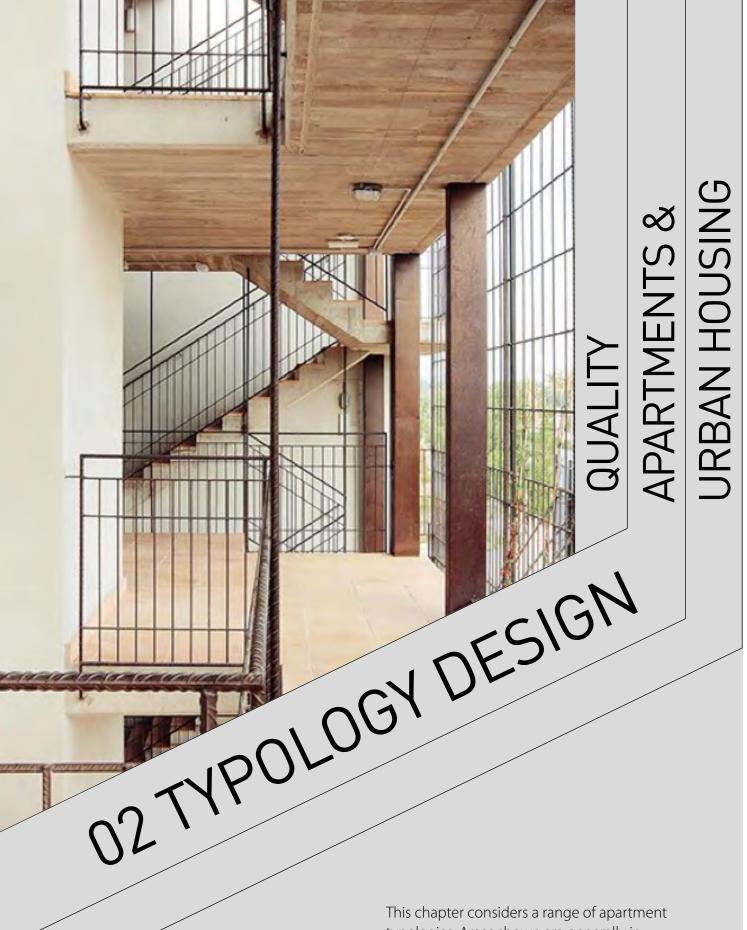


Image: Vaudeville Court by Levitt Bernstein in Islington, UK

Source: levittbernstein.co.uk

Vaudeville Court, Islington, UK, by Levitt Bernstein in London has an innovative hybrid mix of own door access and gallery rear access on an infill site.





This chapter considers a range of apartment typologies. Areas shown are generally in compliance with the DHPLG Design Standards for New Apartments (March 2018).

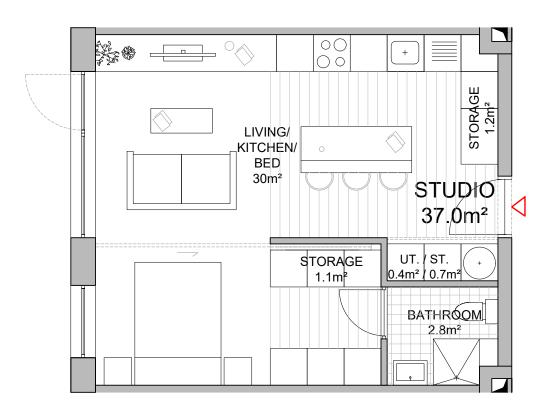


APARTMENT TYPES

TYPE A1	2.1	PAGE 76
STANDARD STUDIO WITH INT	ERNAL LOBBY	
TYPE B1	2.2	PAGE 80
1 BED WITHOUT INTERNAL LO	OBBY	
TYPE B2	2.2	PAGE 80
1 BED WITH INTERNAL LOBB	Υ	
TYPE C1	2.3	PAGE 82
2 BED WITHOUT INTERNAL LO	ОВВУ	
TYPE C2	2.3	PAGE 83
2 BED WITH INTERNAL LOBB		
TYPE D1	24	PAGE 84
2+/3 BED WITHOUT INTERNAL		1710201



TYPE D2	2.4	PAGE 85
2+/3 BED WITH INTERNAL LO	BBY	
TYPE E1	2.5	PAGE 88
1 BED OFF CORE WITH INTER	NAL LOBBY	
TYPE E2	2.5	PAGE 89
2 BED + OR 3 BED OFF CORE	WITH INTERNAL LOBBY	
TYPE E3	2.5	PAGE 90
2+/3 BED OFF CORE WITH INT	FERNAL LOBBY	
TYPE F1	2.6	PAGE 92
2 BED DUPLEX OPTION 1		
TYPE F2	2.6	PAGE 93
2 BED DUPLEX OPTION 2		
TYPE G1	2.6	PAGE 96
2 BED PENTHOUSE		



TYPE: A1 STUDIO WITHOUT INTERNAL LOBBY 37.0m²

1. Internal Area:	Prov.	Req.
Kitchen/Living/Dinning/Bed:	30.0m ²	(30.0m ²)
Bathroom:	2.8m ²	
Storage:	3.0m ²	(3.0m ²)
Total	37.0m ²	37.0m ²

The above design is for a studio apartment without an internal lobby. The design would require a fire design solution other than standard Building Regulation compliance unless at ground or first floor. In addition, omitting lobbies may not be appropriate in all instances – maintenance and other issues require careful consideration.





Image: Apartment by Rosu Ciocodeica in Bucharest, Romania. Photograph: Andrei Mărgulescu

Source: archdaily.com

Image showing open plan apartment with glazed screen separating living area from the bedroom. The layout of the studio allows for screening between the bedroom and the living area, providing privacy and flexibility.



Source: designboom.com

Image showing another example of screening in a studio apartment.



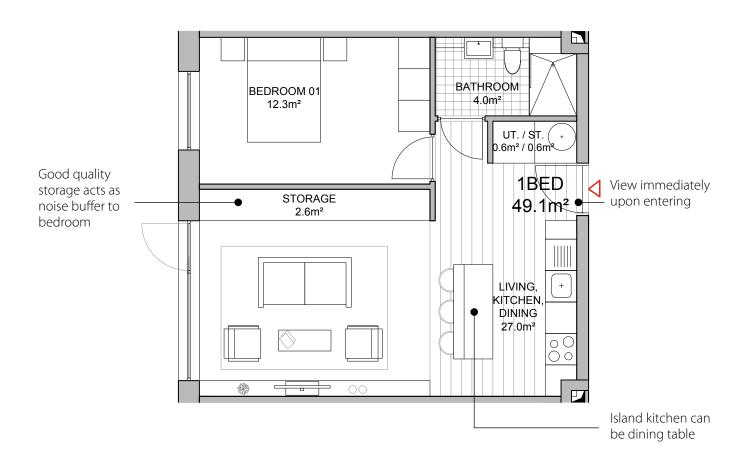
Image showing screen between bedroom and living areas in a studio apartment.

Source: houzz.com



Image: Embassy Gardens, London

2.2 STANDARD 1 BED

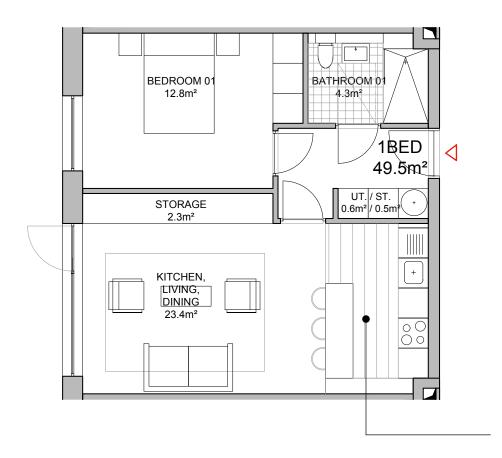


TYPE: B1 1 BED WITHOUT INTERNAL LOBBY 49.1m²

1. Internal Area:	Prov.	Req.
Kitchen/Living/Dining:	27.0m ²	(23.0m ²)
Bedroom:	12.3m ²	(11.4m²)
Bathroom:	4.0m ²	
Storage:	3.2m ²	(3.0m²)
Total	49.1m ^{2*}	(45.0m²) Minimum

The above design is for a two bed apartment without an internal lobby. The design would require a fire design solution other than standard **Building Regulation compliance** unless at ground or first floor. In addition, omitting lobbies may not be appropriate in all instances - maintenance and other issues require careful consideration.

^{*}Areas shown are generally in compliance with the Depth of Housing guidelines taking into account the fact that the majority of all apartments in a proposed scheme of 100 or more apartments must exceed the minimum floor area standard for any combination of the relevant 1, 2 or 3 bedroom unit type, by a minimum of 10%.



Open plan kitchen to make overall living space feel larger and more generous

TYPE: B2 1 BED WITH INTERNAL LOBBY 49.5m²

1. Internal Area:	Prov.	Req.
Kitchen/Living/Dining:	23.4m ²	(23.0m ²)
Bedroom:	12.8m ²	(11.4m²)
Bathroom:	4.3m ²	
Storage:	3.0m ²	(3.0m ²)
Total	49.5m ^{2*}	(45.0m²) Minimum

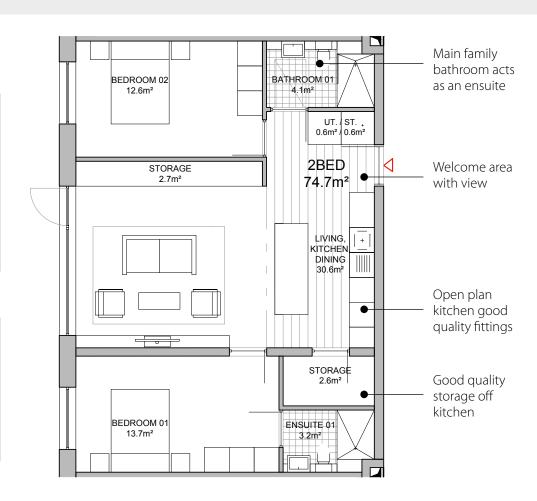
The above design is for a standard non fire engineered one bed apartment with internal lobby. The design would require a fire design solution other than standard Building Regulation compliance unless at ground or first floor. In addition, omitting lobbies may not be appropriate in all instances - maintenance and other issues require careful consideration.

^{*}Areas shown are generally in compliance with the Depth of Housing guidelines taking into account the fact that the majority of all apartments in a proposed scheme of 100 or more apartments must exceed the minimum floor area standard for any combination of the relevant 1, 2 or 3 bedroom unit type, by a minimum of 10%.

2.3 STANDARD 2 BED

Layout with bedroms separated from each other by living space for noise to suit friends sharing.

The design is for a two bed apartment without an internal lobby.



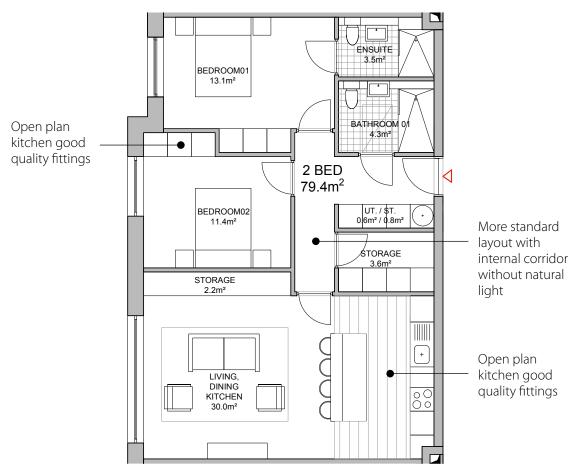
TYPE: C1 2 BED WITHOUT INTERNAL LOBBY 74.7m²

1. Internal Area:	Prov.	Req.
Kitchen/Living/Dining:	30.6m ²	(30.0m ²)
Bedroom 01:	13.7m ²	(13.0m ²)
Bedroom 02:	12.6m ²	(11.4m²)
Bathroom 01:	4.1 m ²	(4.0m ²)
Ensuite 01:	3.3m ²	
Storage:	6.0m ²	(6.0m ²)
Total	74.7m ^{2*}	(73.0m²)

The design would require a fire design solution other than standard Building Regulation compliance unless at ground or first floor level.

In addition, omitting lobbies may not be appropriate in all instances - maintenance and other issues require careful consideration.

^{*}Areas shown are generally in compliance with the DHPLG Design Standards for New Apartments (March 2018), taking into account the fact that: "The majority of all apartments in any proposed scheme of 10 or more apartments shall exceed the minimum floor area standard for any of 10% (any studio apartments must be included in the total, but are not calculable as units that exceed the minimum by at least 10%).



TYPE: C2 2 BED WITH INTERNAL LOBBY 79.4m²

1. Internal Area:	Prov.	Req.
Kitchen/Living/Dining:	30.0m ²	(30.0m ²)
Bedroom 01:	13.1m ²	(13.0m ²)
Bedroom 02:	11.4m	(11.4m²)
Bathroom 01:	4.3m ²	(4.0m ²)
Ensuite 01:	3.5m ²	
Storage:	6.4m ²	(6.0m ²)
Total	79.4m ^{2*}	(73.0m²)

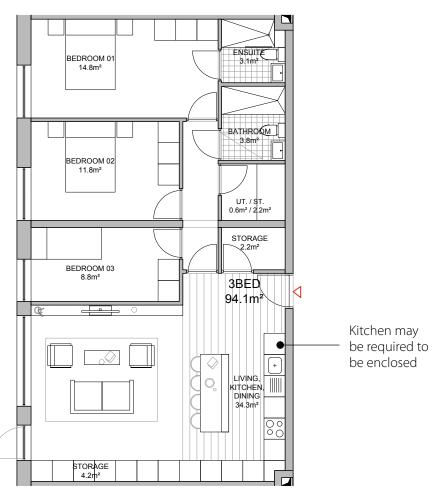
The above design is for a standard non fire engineered two bed apartment with internal lobby.

^{*}Areas shown are generally in compliance with the DHPLG Design Standards for New Apartments (March 2018), taking into account the fact that: "The majority of all apartments in any proposed scheme of 10 or more apartments shall exceed the minimum floor area standard for any of 10% (any studio apartments must be included in the total, but are not calculable as units that exceed the minimum by at least 10%).

2.3 STANDARD 2 + OR 3 BED

Typically this is rented by the couples where the 3rd bedroom often becomes an office or second living space eg. gym or tv room.

The design is for a three bed apartment without an internal lobby.



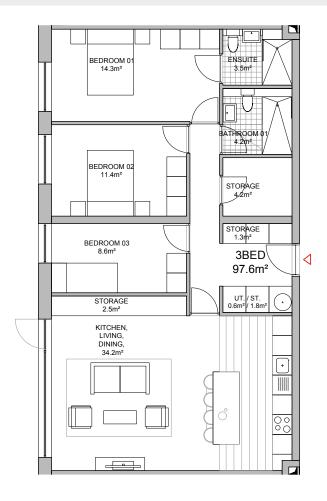
TYPE: D1 2 or 3 BED WITHOUT INTERNAL LOBBY 94.1m²

1. Internal Area:	Prov.	Req.
Kitchen/Living/Dining:	34.3m ²	(34.0m ²)
Bedroom 01:	14.8m ²	(13.0m ²)
Bedroom 02:	11.8m ²	(11.4m²)
Bedroom 03:	8.8m ²	(7.1m²)
Bathroom 01:	3.8m ²	(4.0m ²)
Ensuite 01:	3.2m ²	
Storage:	9.0m ²	(9.0m ²)
Total	94.1m ^{2*}	(90.0m²) Minimum

The design would require a fire design solution other than standard Building Regulation compliance unless at ground or first floor level.

In addition, omitting lobbies may not be appropriate in all instances - maintenance and other issues require careful consideration.

^{*}Areas shown are generally in compliance with the DHPLG Design Standards for New Apartments (March 2018), taking into account the fact that: "The majority of all apartments in any proposed scheme of 10 or more apartments shall exceed the minimum floor area standard for any combination of the relevant 1, 2 or 3 bedroom unit types, by a minimum of 10% (any studio apartments must be included in the total, but are not calculable as units that exceed the minimum by at least 10%).



TYPE: D2 2or 3 BED WITH INTERNAL LOBBY 97.6m²

1. Internal Area:	Prov.	Req.
Kitchen/Living/Dining:	34.2m ²	(34.0m ²)
Bedroom 01:	14.3m ²	(13.0m ²)
Bedroom 02:	11.4m ²	(11.4m²)
Bedroom 03:	8.6m ²	(7.1m²)
Bathroom 01:	4.2m ²	(4.0m ²)
Ensuite 01:	3.5m ²	
Storage:	9.8m ²	(9.0m²)
Total	97.6m ^{2*}	(90.0m²) Minimum

The above design is for a standard non fire engineered two+ or 3 bed apartment with internal lobby.

^{*}Areas shown are generally in compliance with the Depth of Housing guidelines taking into account the fact that the majority of all apartments in a proposed scheme of 100 or more apartments must exceed the minimum floor area standard for any combination of the relevant 1, 2 or 3 bedroom unit type, by a minimum of 10%.

OPEN PLAN LAYOUT



Image: Forte Apartment by Merooficina in Vila do Conde, Portugal. Photograph: José Campos

Source: archdaily.com

Image showing open plan kitchen.



Image: Forte Apartment by Merooficina in Vila do Conde, Portugal. Photograph: José Campos

Source: archdaily.com

Image showing sequence of spaces in open plan living room. Combined kitchen-living-dining spaces creates a more spacious feeling in apartments.



Image: Apartment by Rosu Ciocodeica in Bucharest, Romania. Photograph: Andrei Mărgulescu

Source: archdaily.com

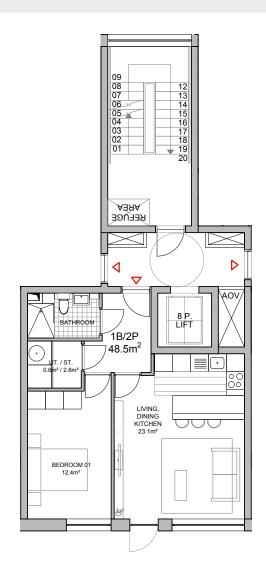
Image showing another example of an open plan living room.



Image: Thin Flats in Philadelphia, US, by Onion Flats. Photograph: Mariko Reed

Source: archdaily.com

Image showing floor to ceiling windows in a living room. They provide better lighting conditions and allows for deeper spaces.

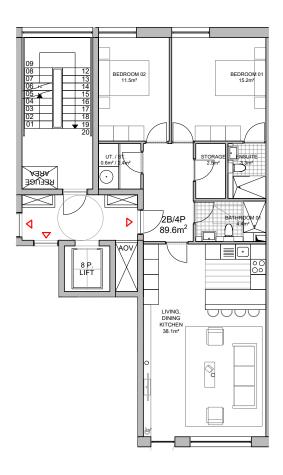


TYPE: E1 1 BED OFF CORE WITH INTERNAL LOBBY 48.5m²

1. Internal Area:	Prov.	Req.
Kitchen/Living/Dining:	23.1m ²	(23.0m ²)
Bedroom 01:	12.4m ²	(11.4m ²)
Storage:	3.2m ²	(3.0m ²)
Total	48.5m ^{2*}	(45.0m²) Minimum

^{&#}x27;Areas shown are generally in compliance with the Depth of Housing guidelines taking into account the fact that the majority of all apartments in a proposed scheme of 100 or more apartments must exceed the minimum floor area standard for any combination of the relevant 1, 2 or 3 bedroom unit type, by a minimum of 10%.

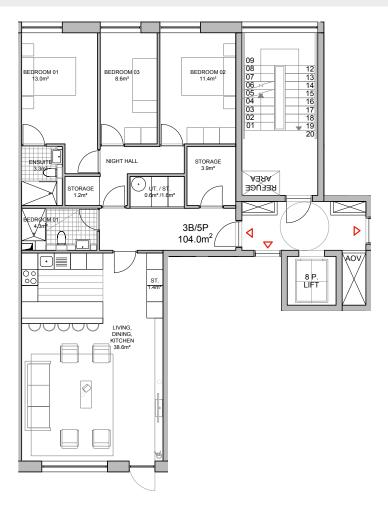
2.5 N-S UNITS OFF CORE | 2 BED



TYPE: E2 2 BED OFF CORE WITH INTERNAL LOBBY 89.6m²

1. Internal Area:	Prov.	Req.
Kitchen/Living/Dining:	38.1m ²	(30.0m ²)
Bedroom 01:	15.2m ²	(13.0m ²)
Bedroom 02:	11.5m ²	(11.4m²)
Bathroom 01:	4.4m ²	(4.0m²)
Ensuite 01:	3.3m ²	
Storage:	6.0m ²	(6.0m²)
Total	89.6m ^{2*}	(73.0m²)

^{*} Areas shown are generally in compliance with the DHPLG Design Standards for New Apartments (March 2018), taking into account the fact that: "The majority of all apartments in any proposed scheme of 10 or more apartments shall exceed the minimum floor area standard for any combination of the relevant 1, 2 or 3 bedroom unit types, by a minimum of 10% (any studio apartments must be included in the total, but are not calculable as units that exceed the minimum by at least 10%).



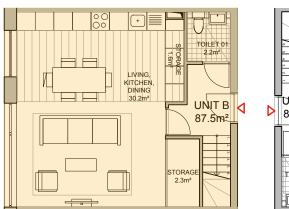
TYPE: E3 2+/3 BED OFF CORE WITH INTERNAL LOBBY 104.0m²

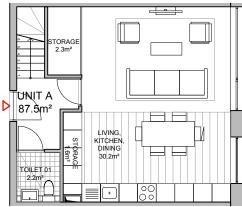
1. Internal Area:	Prov.	Req.
Kitchen/Living/Dining:	38.6m ²	(36.0m ²)
Bedroom 01:	13.0m ²	(13.0m ²)
Bedroom 02:	11.4m ²	(11.4m ²)
Bedroom 03:	8.6m ²	(7.1m²)
Bathroom 01:	4.3m ²	(4.0m ²)
Ensuite:	3.3m ²	
Storage:	9.0m ²	(9.0m ²)
Total	104.0m ^{2*}	(90.0m²)

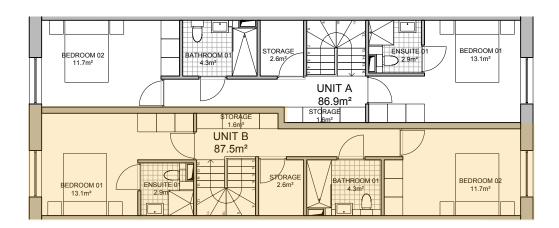
Areas shown are generally in compliance with the DHPLG Design Standards for New Apartments (March 2018), taking into account the fact that: "The majority of all apartments in any proposed scheme of 10 or more apartments shall exceed the minimum floor area standard for any combination of the relevant 1, 2 or 3 bedroom unit types, by a minimum of 10% (any studio apartments must be included in the total, but are not calculable as units that exceed the minimum by at least 10%).



2.6 2 BED DUPLEX | EAST-WEST





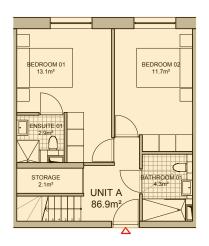


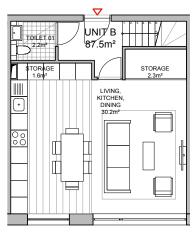
TYPE: F1 - 2 BED DUPLEX - OPTION 1 2 BED 86.9m²

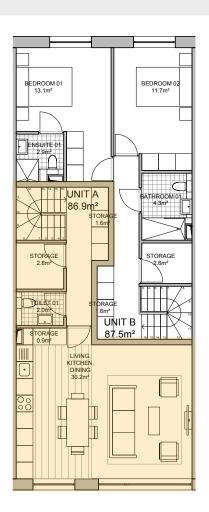
1. Internal Area:	Prov.	Req.
Kitchen/Living/Dining:	30.2m ²	(30.0m ²)
Bedroom 01:	13.1m ²	(13.0m ²)
Bedroom 02:	11.7m ²	(11.4m ²)
Bathroom 01:	4.3m ²	(4.0m ²)
Ensuite 01:	2.9m ²	
Storage:	6.0m ²	(6.0m²)
Total	86.9m ^{2*}	(73.0m²)

^{*} Areas shown are generally in compliance with the DHPLG Design Standards for New Apartments (March 2018), taking into account the fact that: "The majority of all apartments in any proposed scheme of 10 or more apartments shall exceed the minimum floor area standard for any combination of the relevant 1, 2 or 3 bedroom unit types, by a minimum of 10% (any studio apartments must be included in the total, but are not calculable as units that exceed the minimum by at least 10%).

2.6 2 BED DUPLEX | NORTH-SOUTH







TYPE: F2 - 2 BED DUPLEX - OPTION 2 2 BED 87.5m²

1. Internal Area:	Prov.	Req.
Kitchen/Living/Dining:	30.2m ²	(30.0m ²)
Bedroom 01:	13.1m ²	(13.0m ²)
Bedroom 02:	11.7m ²	(11.4m²)
Bathroom 01:	4.3m ²	(4.0m ²)
Ensuite:	2.9m ²	
Storage:	6.0m ²	(6.0m²)
Total	87.5m ^{2*}	(73.0m²)

^{*} Areas shown are generally in compliance with the DHPLG Design Standards for New Apartments (March 2018), taking into account the fact that: "The majority of all apartments in any proposed scheme of 10 or more apartments shall exceed the minimum floor area standard for any combination of the relevant 1, 2 or 3 bedroom unit types, by a minimum of 10% (any studio apartments must be included in the total, but are not calculable as units that exceed the minimum by at least 10%).

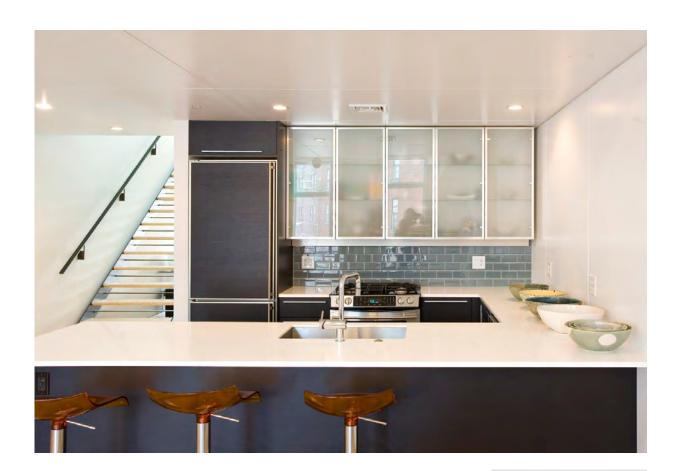


Image showing open staircase in duplex typology.

Image: Thin Flats by Onion Flats in

Philadelphia, US. Photograph: Mariko Reed **Source:** archdaily.com

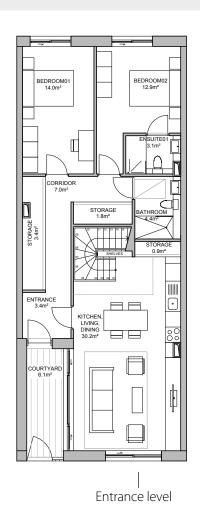


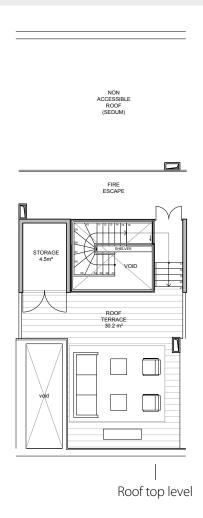
Image showing staircase in duplex. Careful design of staircases can be used to improve lighting conditions and avoid dark internal spaces.

Image: Thin Flats by Onion Flats in Philadelphia, US.

Photograph: Tim McDonald **Source:** archdaily.com

2.7 2 BED PENTHOUSE





TYPOLOGY G1 2 BED PENTHOUSE 88.9m²

1. Internal Area:	Prov.	Req.
Kitchen/Living/Dining:	30.2m ²	(30.0m ²)
Bedroom 01:	14.0m ²	(13.0m ²)
Bedroom 02:	12.9m ²	(11.4m ²)
Bathroom 01:	4.4m ²	(4.0m ²)
Ensuite 01:	3.1m ²	
Storage:	6.1m ²	(6.0m ²)
Total	88.9m²	(73.0m²)

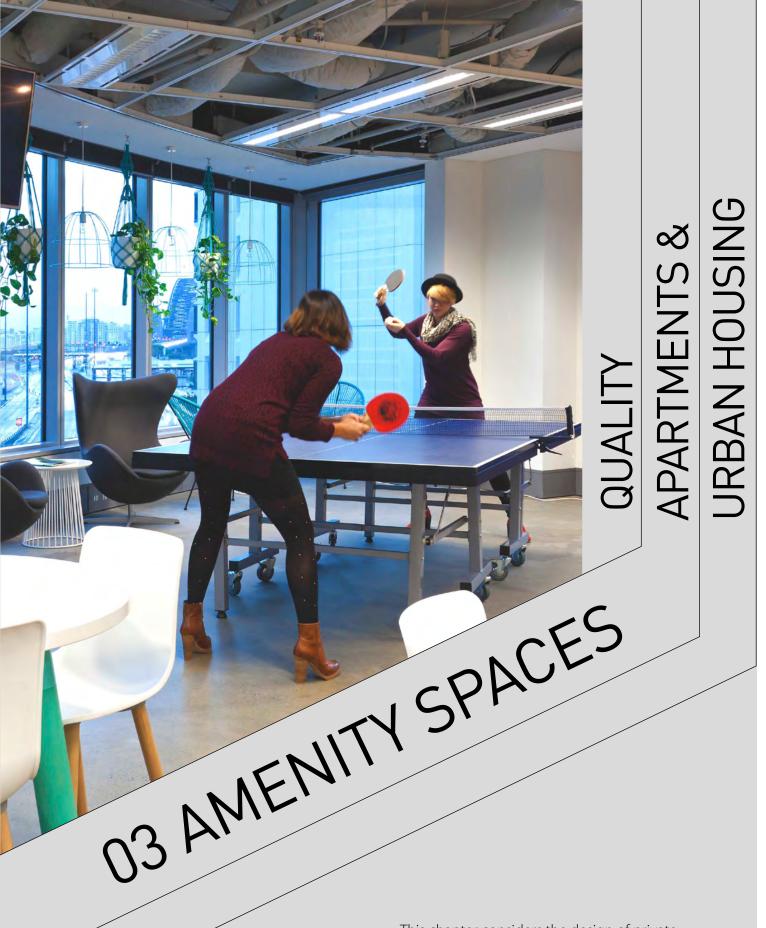
^{*} Areas shown are generally in compliance with the DHPLG Design Standards for New Apartments (March 2018), taking into account the fact that: "The majority of all apartments in any proposed scheme of 10 or more apartments shall exceed the minimum floor area standard for any combination of the relevant 1, 2 or 3 bedroom unit types, by a minimum of 10% (any studio apartments must be included in the total, but are not calculable as units that exceed the minimum by at least 10%).

Section showing roof garden.



Images: Kings Gate by Patrick Lynch in London, UK. Source: divisare.com





This chapter considers the design of private amenity spaces and shows how, if designed correctly, they add value to a scheme in terms of usability and quality of experience.

3.1 BALCONIES



Image showing wrap around balcony and screening.

Image: Spencer Dock by Urban Agency in Dublin, Ireland, by Hines

Source: Urban-Agency

Image showing wrap around corner balcony.

Image: Spencer Dock by Urban Agency in Dublin, Ireland, by Hines





Image: HSQ Housing by MV Cullinan Architects in Dublin, Ireland. Source: mimoa.com

Colourful boxes on balconies act as storage spaces.

Good quality balcony areas can be like a second living room in apartments. Balconies screened or enclosed as storage spaces for buggies, prams and other items that don't need protected storage, can be provided.

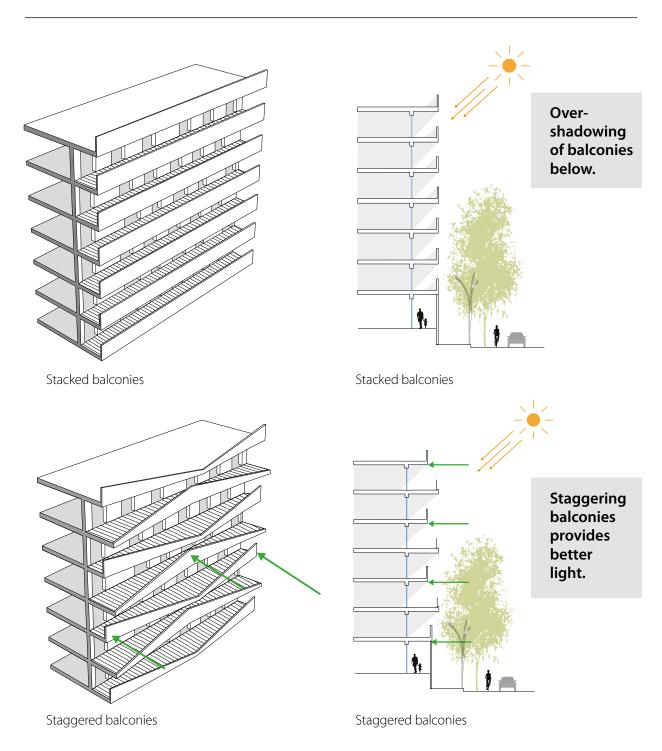


Diagram showing possible solutions to improve lighting conditions in wraparound balconies.

Diagram showing wrap around corner balcony.

3.1 BALCONIES

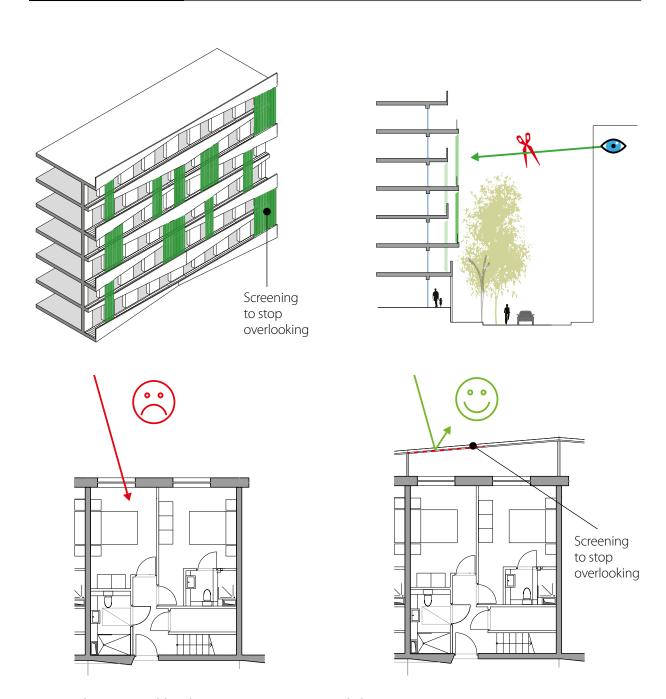


Diagram showing possible solutions to improve privacy in balconies.

3.1 BALCONIES

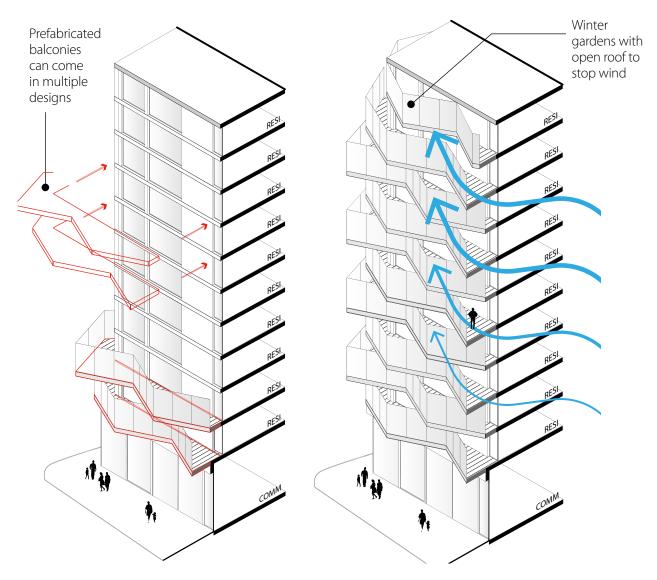


Image: th62 by Smart Homing in Berlin, Germany

Source: smarthoming.de

Image showing a good example of private semi in board balconies with planter pods to improve privacy and overlooking issues.

3.2 WINTERGARDEN



Source: Urban-Agency

Diagrams showing possible solutions to improve wind conditions on balconies.

3.2 WINTERGARDEN



Image showing glazed floor to ceiling panels in balconies.

Image: Student Accommodation by Brenac + Gonzalez in Issy-Les-Moulineaux, France

Source: brenac-gonzalez.fr

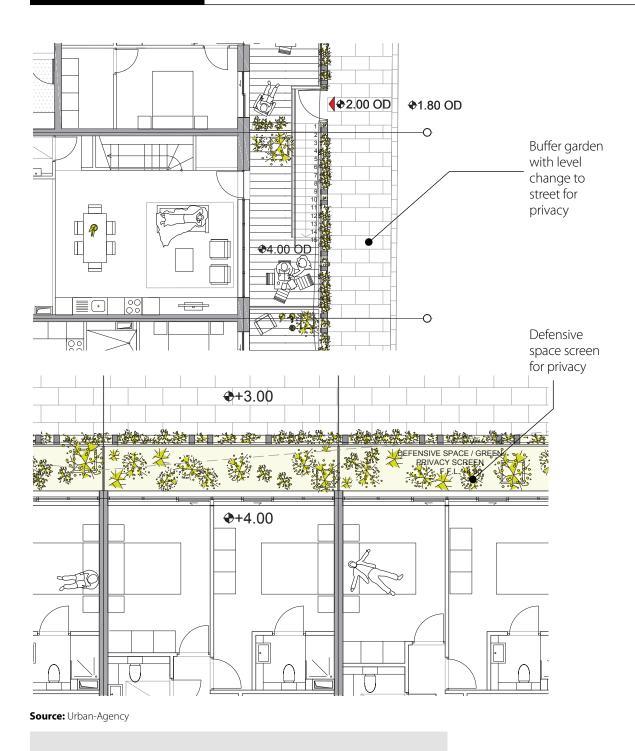


Student accommodation in Issy-Les-Moulineaux, France with glazed floor to ceiling panels in balconies.

Image: Student Accommodation by Brenac + Gonzalez in Issy-Les-Moulineaux, France

Source: smarthoming.de

3.3 PRIVATE GARDEN



Drawing showing buffer gardens in ground floor units.

3.3 PRIVATE GARDEN

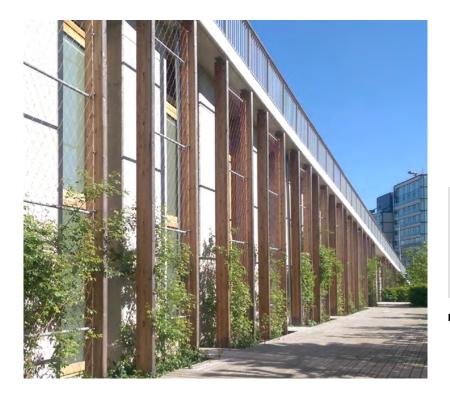


Image showing green screen in ground floor units.

Photograph: Urban-Agency



Image showing green screen in ground floor units.

3.3 PRIVATE GARDEN



Diagram showing street level condition for ground floor units and balconies.

3.3 PRIVATE GARDEN

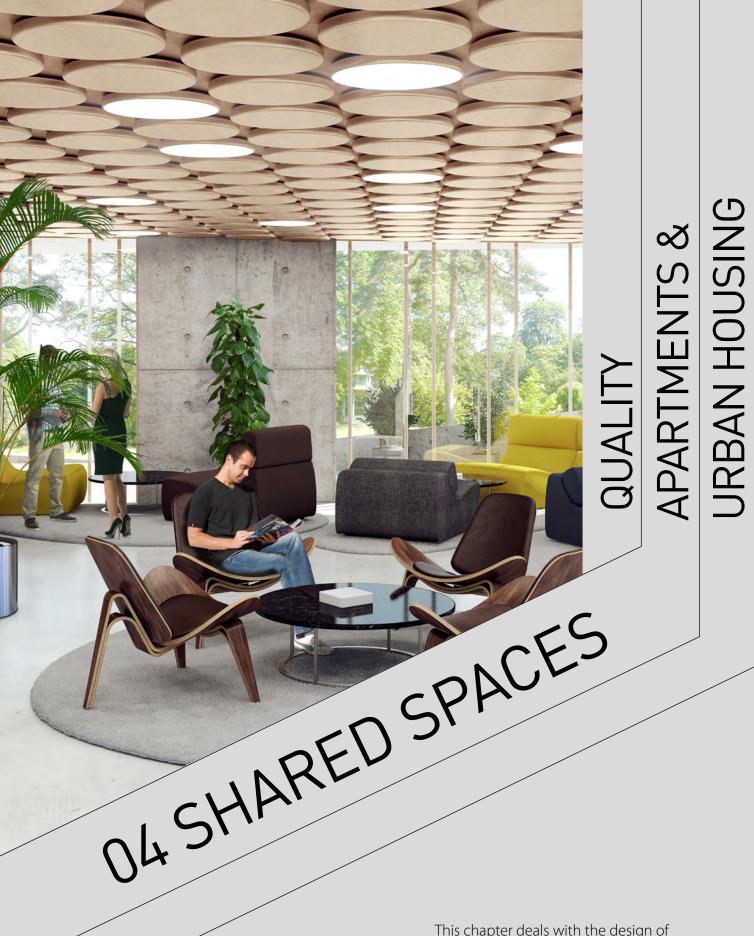


Image showing green screen for private gardens and balconies.



Drawing showing private garden design for ground floor units.



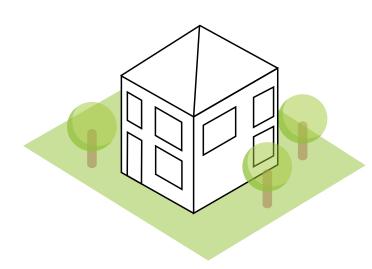


This chapter deals with the design of auxiliary spaces and common amenity spaces such as concierges, common rooms and tenant public areas. This is very common in build to rent but is becoming more common in apartments for sale.

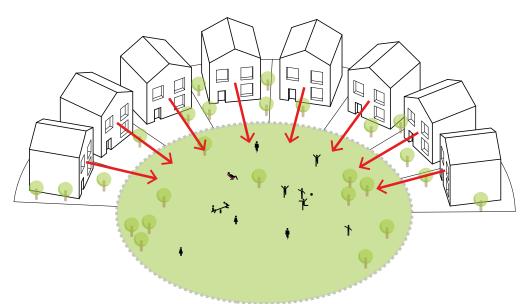
HOW DO WE CREATE PLACES WHERE PEOPLE WANT TO LIVE?

A good place to live has a:

- Sense of community
- Sense of neighbourhood
- Is safe
- Generous private open spaces



SAFETY



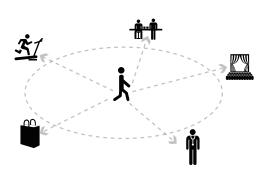
Shared well supervised open spaces

SENSE OF COMMUNITY

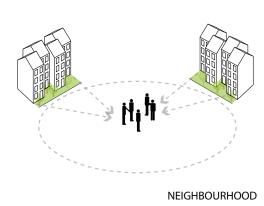


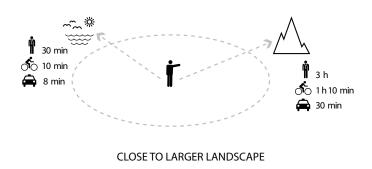
CHILDREN FRIENDLY



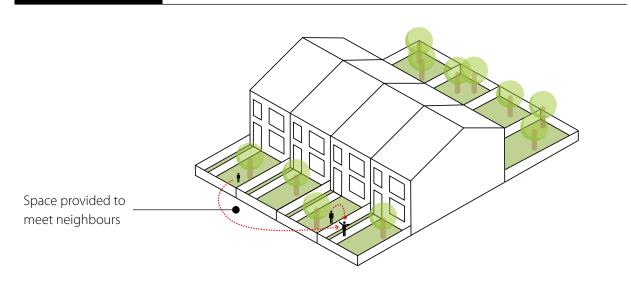


WALKING DISTANCE 5 min

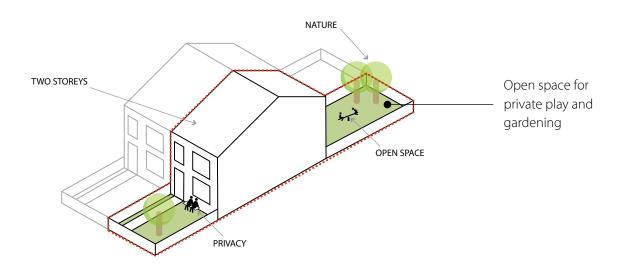




NEIGBOURHOOD



GENEROUS PRIVATE OPEN SPACE



4.1 CONCIERGE AND ENTRANCE AREAS



Image: Arcus Center by Studio Gang in Michigan, US. Photograph: Iwan Baan. Source: designboom.com



Image: Arcus Center by Studio Gang in Michigan, US. Photograph: Iwan Baan. Source: designboom.com

4.1 CONCIERGE AND ENTRANCE AREAS



Image: Arcus Center by Studio Gang in Michigan, US. Photograph: Steve hall © Hedrich blessing. Source: designboom.com

Good quality shared spaces such as living rooms, relaxation areas, reading zones and skype and laptop zones are important for any development.

4.2 COMMUNAL OPEN SPACE / PLAYGROUNDS



Image: Spencer Dock by Urban-Agency in Dublin, Ireland. **Source:** Urban-Agency



Image: The Pulse Park by CEBRA in Ry, Denmark.

Photograph: Mikkel Frost. Source: designboom.com



Image: Sculptural Playground by ANNABAU in Schulberg, Germany.

Source: Landezine.com

4.2 COMMUNAL OPEN SPACE / PLAYGROUNDS



Image: Station Center Family Housing by Fletcher Studio in Union City, CA, US. Photograph: Bruce Damonte. Source: dbarchitect.com

A colorful playground consisting of environmentally friendly products grace the courtyard at Station Center Family Housing.



Image: Tsun Yip Street Playground by WCWP in Kwun Tong, Hong Kong. Source: wcwp.hk

4.3 ROOF TERRACE AND AMENITY AREAS



Image: Kings Gate by Patrick Lynch in London, UK. **Source:** divisare.com

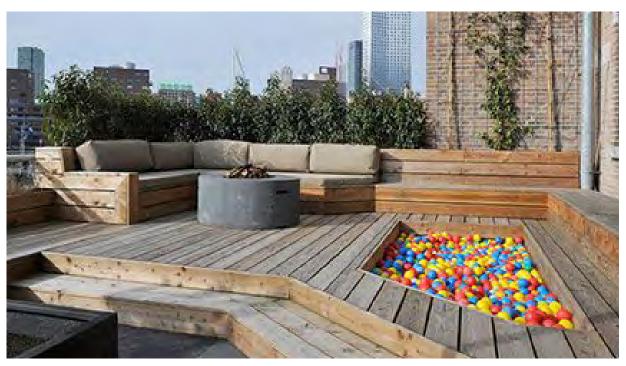


Image: Roof terrace by Joris van Oosten in Rotterdam, Netherlands. Source: inrichting-huis.com

04 SHARED SPACES

4.3 ROOF TERRACE AND AMENITY AREAS



Image: Roof terrace in Minneapolis ,US. **Source:** v-suites.com

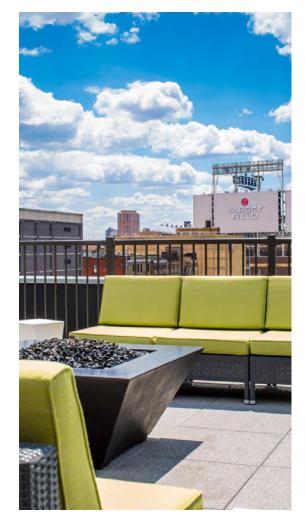


Image: Dock Street Flats in Minneapolis, US.

Source: mplsrent.com

4.4 BIKE PARKING AND CAR PARK ENTRANCE DESIGN



Image: Spencer Dock in Dublin, Ireland. Source: Urban-Agency



 $\textbf{Image:} \ \mathsf{FixStation} \ \mathsf{by} \ \mathsf{Urban} \ \mathsf{Velo.} \ \textbf{Source:} \ \mathsf{wired.com}$

4.4 BIKE PARKING AND CAR PARK ENTRANCE DESIGN



Image: Flatiron Apartments in Broomfield, US. Source: walkscore.com

Good quality parking spaces for bicycles are essential, particularly where there is lower car ownership. More and more apartment buildings are adding bike facilities to replace cars including bike rooms to fix your bike with free tools and vending machines for spare parts and nutrition bars for exercise.

4.5 BREAKOUT SPACE AND AMENITY DESIGN



Image: Spencer Dock in Dublin, Ireland. **Source:** Urban-Agency



Image: Spencer Dock in Dublin, Ireland. Source: Urban-Agency

4.4 BIKE PARKING AND CAR PARK ENTRANCE DESIGN



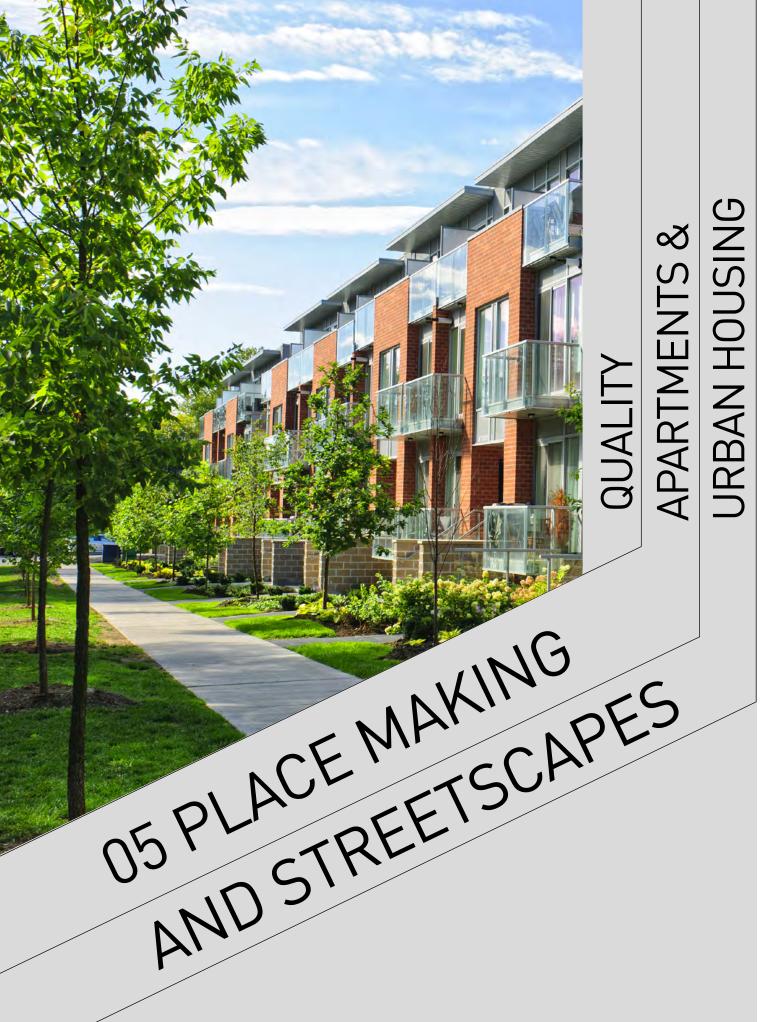
Image: We Work Fulton Center in New York, US. Source: wework.com



Image: Wunderman/Bienalto's by The Bold Collective in Sydney, Australia. Source: wunderman.com







THE MAILINGS NEWCASTLE

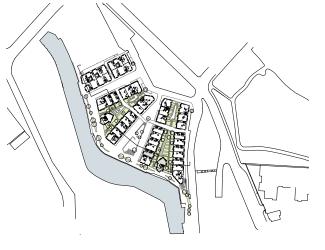
This project, by Ash Sakula Architects connects to the history of the city by reinventing the "Tyne-side flat", a Newcastle mid-ninteenth century typology. The scheme makes a cohesive community which takes cues from the tradditional life of terraced streets. Every home has its own front door which opens directly onto a proper street. Buildings run up the slope from the riverside creating a series of splayed spaces widening to the river with different degrees of private and public spaces. The architects used the section to create different environments, sometimes providing slightly raised garden areas which are more private and sloping streets which allow the public or the residents access to the canal. Overall this gives the scheme great diversity. Low divisions of the front gardens encourage neighborly relations and make the alleys a place of exchange.











ACCORDIA, CAMBRIDGE

The master plan by Feilden Clegg Bradley Studios is about the relationship between private and public spaces. It offers a new model of outside-inside living. Instead of traditional gardens, the architects' designed terraces, courtyards, interior rooftops and balconies create a different type of privacy. These spaces are completed with large communal gardens encouraging neighbours and children's activities in a safe place. Ground surfaces enhance pedestrians and cycles routes to create a healthier and quieter place to live in.



Photographer: ©Tim Crocker Copyright: ©Tim Crocker



ADAMSTOWN

Adamstown, by OMP Architects, is a key development on land located 16 km west of Dublin. Objectives are to develop a higher density district around a train station and reduce utilization of cars by promoting cycling and walking. A good variety of parks and places gives a strong identity to each neighborhood as well as gathering spaces for residents.







Source: OMP Architects

BOULOGNE BILLANCOURT





Boulogne-Billancourt is a mix-used district in Paris based on a network of generous planted public spaces. Paris is traditionally made of closed lots and provide very few public parks due to its density. Boulogne-Billancourt opens out the internal landscaped spaces, letting nature spread around the district. The project is a network of planted public spaces connecting three large green areas: the Billancourt's park, the Ile Seguin's garden and the river quays. Clever ground treatments offer multipurpose public surfaces.

Inside lots are public or semi-public, generously planted, creating car-free and safe paths in the city. It contributes to the high environmental quality of the district by reducing pollution.

Image: Herve Abbadie Source: http://www.ileseguin-rivesdeseine.fr

Image: Herve Abbadie Source: http://www.landezine.com Image: Sergio Grazia Source: https://www.archdaily.com







URBAN -AGENCY



