



HOUSING QUALITY ASSESSMENT

RESIDENTIAL DEVELOPMENT AT IN THE TOWNLANDS OF TRUSKY EAST, TRUSKY WEST, FREEPORT AND AHAGLUGGER,
BEARNA, CO. GALWAY

STRATEGIC HOUSING DEVELOPMENT SUBMISSION TO AN BORD PLEANÁLA ON BEHALF OF BURKEWAY HOMES LTD

SEPTEMBER 2020

FILE REF 924-606



1. Overall Summary

Unit distribution throughout the scheme

Total Site Areas	sqm	ha	
Total Land Ownership	95484	9.55	
Application Site Boundary	53828	5.38	
Nett Site Area	34705	3.47	
Proposed Number of Units	121		
Proposed Density (Nett Site)	35	Units Per Hectare	
Public Open Space (Nett Site)	6711	0.67	19.3% of NETT Site Area
LAP Zoned Open Space (LU-4)	13670	1.37	
Total Public Open Space	20381	2.04	42.1% of Application Site Area excl roadworks

Summary Unit Breakdown	#		
4 Bed Houses	15		
3 Bed Houses	37		
Total Houses	52		
2 Bed Apartment	18		
3 Bed Duplex	18		
Total Duplex	36		
1 Bed Apartment	9		
2 Bed Apartment	24		
Total Apartments	33		
Total 1 Bed Units	9	7.4%	
Total 2 Bed Units	42	34.7%	
Total 3 Bed Units	55	45.5%	
Total 4 Bed Units	15	12.4%	
Total Units	121	100%	

The proposed strategic housing development (SHD) consists of 121 no. dwelling houses together with a creche facility, associated outdoor play areas, car parking and open space amenity development and a public linear park along the Trusky Stream located at Trusky East, Bearna, Co. Galway.

1.2. | Apartment Summary



BLOCK A1

	#	SA	DA	Unit Area	GF	1ST	2ND	3RD	No. Apts	Total Areas
1 Bed Apartment Type 1		2		60.81	0	1	1		2	121.62
1 Bed Apartment Type 2			3	56.30	1	1	1		3	168.90
2 Bed Apartment (Type 1)			3	85.17	1	1	1		3	255.51
2 Bed Apartment (Type 2)			3	88.22	1	1	1		3	264.66
2 Bed Apartment (Type 3)			2	94.82	1	1			2	189.64
2 Bed Apartment (Type 3a)			1	88.50			1		1	88.50
Total Apartments (NET)	5	9			4	5	5	0	14	1088.83
Gross Floor Area					506.9	490.9	476.6			1474.40

Mix		
Studio		0.0%
1 Bed	5	35.7%
2 Bed	9	64.3%
3 Bed		0.0%
Total	14	100.0%

Dual Aspect	9	64%
CAS	88 sq.m	

BLOCK A2

	#	SA	DA	Unit Area	GF	1ST	2ND	3RD	No. Apts	Total Areas
1 Bed Apartment Type 1		2	0	60.81	0	1	1		2	121.62
1 Bed Apartment Type 2			2	56.30	0	1	1		2	112.60
2 Bed Apartment (Type 1)			3	85.17	1	1	1		3	255.51
2 Bed Apartment (Type 2)			3	88.22	1	1	1		3	264.66
2 Bed Apartment (Type 3)			2	94.82	1	1			2	189.64
2 Bed Apartment (Type 3a)			1	88.50			1		1	88.50
Multipurpose Room				56.30	1					
Total Apartments (NET)	5	8			3	5	5	0	13	1032.53
Gross Floor Area					506.9	490.9	476.6			1474.40

Mix		
Studio		0.0%
1 Bed	4	30.8%
2 Bed	9	69.2%
3 Bed		0.0%
Total	13	100.0%

Dual Aspect	8	62%
CAS	83 sq.m	

BLOCK A3

	#	SA	DA	Unit Area	GF	1ST	No. Apts	Total Areas
2 Bed Apartment (Type C1)			1	98.58	1		1	98.58
2 Bed Apartment (Type C3)			1	106.69		1	1	106.69
Total Apartments (NET)	0	2			1	1	2	205.27
Gross Floor Area					102.9	102.9		205.80

Mix		
2 Bed	2	100.0%
Total	2	100.0%

Dual Aspect	2	100%
CAS	12 sq.m	

BLOCK A4

	#	SA	DA	Unit Area	GF	1ST	No. Apts	Total Areas
2 Bed Apartment (Type C1)			1	98.58	1		1	98.58
2 Bed Apartment (Type C2)			1	98.59	1		1	98.59
2 Bed Apartment (Type-C3)			2	106.70		2	2	213.40
Total Apartments (NET)	0	4			2	2	4	410.57
Gross Floor Area					207.1	207.1		414.20

Mix		
2 Bed	4	100.0%
Total	4	100.0%

Dual Aspect	4	100%
CAS	24 sq.m	

Note
SA - Single Aspect
DA - Dual Aspect
CAS - Communal Amenity Space
All areas in square metres

Total Mix		
Studio	0	0.0%
1 Bed	9	27.3%
2 Bed	24	72.7%
3 Bed	0	0.0%
Total	33	100.0%

Section 3.4 and 'Specific Planning Policy Requirement 3' of the 'Design Standards for Apartments 2018' sets minimum areas for 1 Bed Apartments at 45sq.m and 73sq.m for 3 Bed Apartments. All apartments are at least 15% above the minimum areas. This exceeds Section 3.8 'Safeguarding Higher Standards' of the Design Standards for apartments which requires 'a majority of all apartments' to exceed the minimum floor area by 10%.

Duplex 1 (D1)

Type	Type	Gross Area sq.m		Total Areas
1	2 Bed Ground Floor Unit	89.0	2	178.0
2	2 Bed Ground Floor Unit	89.0	0	0.0
3	3 Bed 2 Storey Unit	120.0	2	240.0
			4	418.0

Duplex 2 (D2)

Type	Type	Gross Area sq.m		Total Areas
1	2 Bed Ground Floor Unit	89.0	3	267.0
2	2 Bed Ground Floor Unit	89.0	1	89.0
3	3 Bed 2 Storey Unit	120.0	4	480.0
			8	836.0

Terrace 5 (T5)

Type	Type	AREA sq.m		Total Areas
1	2 Bed Ground Floor Unit	89.0	0	0.0
2	2 Bed Ground Floor Unit	89.0	2	178.0
3	3 Bed 2 Storey Unit	120.0	2	240.0
			4	418.0

Duplex 3 (D3)

Type	Type	Gross Area sq.m		Total Areas
1	2 Bed Ground Floor Unit	89.0	2	178.0
2	2 Bed Ground Floor Unit	89.0	1	89.0
3	3 Bed 2 Storey Unit	120.0	3	360.0
			6	627.0

Duplex 4 (D4)

Type	Type	Gross Area sq.m		Total Areas
1	2 Bed Ground Floor Unit	89.0	7	623.0
2	2 Bed Ground Floor Unit	89.0	0	0.0
3	3 Bed 2 Storey Unit	120.0	7	840.0
			14	1463.0

Please note all units are at minimum through aspect.
No single aspect duplex units are proposed

Type 1	14
Type 2	4
Type 3	18
Total Units	36
Duplex Area	3762.0

Section 3.4 and 'Specific Planning Policy Requirement 3' of the 'Design Standards for Apartments 2018' sets minimum areas for 2 Bed Apartments at 73sq.m and 90sq.m for 3 Bed Apartments.
All Duplex units are at least 15% above the minimum areas. This exceeds Section 3.8 'Safeguarding Higher Standards' of the Design Standards for apartments which requires 'a majority of all apartments' to exceed the minimum floor area by 10%.



1.4. | Aspect Ratio



Block	Single Aspect Units	Dual Aspect Units	Total Units	% Dual Aspect
A1	5	9	14	64%
A2	5	8	13	62%
A3	0	2	2	100%
A4	0	4	4	100%
D1	0	4	4	100%
D2	0	8	8	100%
T5*	0	4	4	100%
D4	0	6	6	100%
D5	0	14	14	100%
Totals	10	59	69	86%

*Apartment / Duplex type units only included. All houses in the scheme are minimum through aspect

'Specific Planning Policy Requirement 4 (ii)' & Section 3.17 of the 'Design Standards for Apartments 2018' requires a 50% Dual Aspect ratio for apartment developments on 'suburban or intermediate locations' and 'greenfield sites'. Overall, excluding houses (none being single aspect), but including all duplex and apartment units, the scheme achieves a ratio of 86%.

As per the above table, only 2 blocks do not achieve 100% Dual Aspect with individual blocks achieving a minimum 62% Dual Aspect Ratio.

The 10 No. Apartments which are not Dual Aspect are East facing, ensuring direct sunlight and ensuring no north only facing apartments. These single aspect units also enjoy views over the proposed linear park and Truskey Stream.

1.5. | Houses Summary

Type	Type	AREA sq.m	AREA sq.ft	#	Total Areas (sq.m)	Notes
H1	4 Bed Detached	147.8	1590.9	3	443.4	*Includes 2No. mirrored version (H1M)
H1A	4 Bed Detached	145.3	1564.0	1	145.3	
H3	4 Bed Detached	194.3	2091.4	1	194.3	
H4	4 Bed Detached	147.4	1586.6	2	294.8	*Includes 1No. mirrored version (H4M)
H5	4 Bed Detached	212.8	2290.6	1	212.8	
H2A	4 Bed Semi-Detached	130.9	1409.0	3	392.7	*Includes 1No. mirrored version (H2B)
H2	3 Bed Semi-Detached	119.0	1280.9	14	1666.0	
H2C	3 Bed Semi-Detached	119.5	1286.3	3	358.5	*Includes 1No. mirrored version (H2B)
T1/T2/T4	3 Bed Mid-Terrace (T9)	115.5	1243.2	8	924.0	
T4	3 Bed Mid-Terrace (T9A)	122.4	1317.5	2	244.8	
T3/T5	3 Bed Mid-Terrace (T9C)	116.0	1248.6	6	696.0	
T1/T2/T3	3 Bed End of Terrace (T9B)	126.8	1364.9	4	507.2	
T1/T2/T4	4 Bed End of Terrace (9D)	150.4	1618.9	4	601.6	
				52	6681.4	

4 Bed Houses	15	2284.9
3 Bed Houses	37	4396.5
	52	

4 Bed Detached	8
4 Bed Semi Detached	3
4 Bed End of Terrace	4
3 Bed Semi Detached	17
3 Bed Mid Terrace	16
3 Bed End of Terrace	4
	52

As per Table 5.1 of the Quality Housing for Sustainable Communities Guide, all housing units comfortably exceed the minimum areas required for dwelling units.

A 2 storey, 4 bed house should provide a minimum area of 110 sq.m, the smallest 4 bed dwelling (House Type 2A) provided achieves 130.9 sq.m with units increasing incrementally up to the largest unit of 212.8sq.m providing a range of types.

A 2 Storey, (5 person) 3 Bed dwelling should provide 92sq.m in accordance with the Quality Housing for Sustainable Communities Guide. The smallest proposed unit, the Mid-Terrace T9 achieves 115.5 sq.m.



1.6. | Private Amenity Summary



Garden Areas			
Unit Number	Unit Type	Private Area	
01	H1M	103,99	
02	H2A	78,26	
03	H2	87,1	
04	H2	76,13	
05	H2	78,97	
06	H2	82,32	
07	H2	85,54	
08	T1-9D	87,65	
09	T1-9	60,12	
10	T2-9	60,05	
11	T1-9B	79,52	
12	T3-9B	80,72	
13	T3-9C	61,22	
14	T3-9B	100,67	
15	H4	216,97	
16	H4M	399,96	
17	T2-9B	76,85	
18	T2-9	61,68	
19	T2-9	60,7	
20	T2-9D	145,66	
21	H2	103,97	
22	H2	118,26	
23	H1	116,80	
24	H2	78,86	
25	H2	77,57	

Garden Areas			
Unit Number	Unit Type	Private Area	
26	H2	77,63	
27	H2	62,47	
28	H1M	117,25	
29	H3	251,9	
30	T4-9D	78,68	
31	T4-9	60,17	
32	T4-9	63,74	
33	T4-9A	71,2	
34	T4-9	72,19	
35	T4-9A	78,86	
36	T4-9	77,61	
37	T4-9D	101,2	
38	H2A	108,13	
39	H2	85,78	
40	H2	85,1	
41	H2	85,94	
42	H2	85,53	
43	H2	85,68	
44	H2	87,11	
45	H2B	85,74	
46	H1A	100,66	
47	D1-DT1	75,34	
49	D1-DT1	61,97	
51	D2-DT1	63,11	
53	D2-DT1	61,09	

Garden Areas			
Unit Number	Unit Type	Private Area	
55	D2-DT1	60,92	
57	D2-DT2	56,57	
59	T5-DT2	60,36	
61	T5-9C	67,96	
62	T5-9C	66,96	
63	T5-9C	60,26	
64	T5-9C	60,26	
65	T5-9C	60,69	
66	T5-DT2	53,08	
68	D3-DT1	66,09	
70	D3-DT1	50,5	
72	D3-DT2	33,92	
74	D4-DT1	44,01	
76	D4-DT1	34,16	
78	D4-DT1	35,65	
80	D4-DT1	44,26	
82	D4-DT1	24,65	
84	D4-DT1	31,55	
86	D4-DT1	39,88	
121	H5	303,66	

**Upper duplex units and apartments private amenity space is included in individual unit audit.
All Areas in square metres

- Target Minimum Private Amenity Standards
- 4 Bed House - 75 sq.m
 - 3 Bed House - 60 sq.m
 - 2 Bed Ground Floor Duplex Apartment - 7sq.m

House Garden Areas are calculated in accordance with Table 4.1.5A Private Open Space Guidelines of the Bearna LAP 2007-2017. (no reference made in the current Bearna Plan)
"3/4/5 Bed houses should provide 60-70sq.m behind the building line."

Duplex and Apartments are provided in accordance with the Design Standards for Apartments 2018, sections 3.35-3.39 and Appendix 1, Minimum Floor Areas for Private Amenity Space. This section should be read in conjunction with section 2 of this report which assesses individual unit types and provides Private Amenity / Terrace areas for units without garden areas.

1.7. | Public Open Amenity Space

Total Site Areas	sqm	ha	
Total Land Ownership	95484	9.55	
Application Site Boundary	53828	5.38	
Nett Site Area	34705	3.47	
Proposed Number of Units	121		
Proposed Density (Nett Site)	35	Units Per Hectare	
Public Open Space (Nett Site)	6711	0.67	19.3% of NETT Site Area
LAP Zoned Open Space (LU-4)	13670	1.37	
Total Public Open Space	20381	2.04	42.1% of Application Site Area excl roadworks

Public & Communal Open Space

In accordance with Section 13.2 General Development Guidelines of the Galway County Development Plan 2015-2021 (b) Design Guidelines, the development provides more than 15% Public Open Space required across the Nett area of the site.

When provision of the LU-4 Zoned Open Space is included in the overall scheme, 2 hectares of Public Open Space is provided. When road works are excluded from the site area, this equates to over 42% of the current greenfield area being provided as open space.

In total 0.67 Hectares or 19.3% of the NET site area is provided as public open space (zones indicated in orange) within the development. This is inclusive of the children's play areas mentioned below. This combines with the land zoned open space (shaded purple) to form a large linear park, providing over 2 hectares or 42% of the greenfield site as Public Open Space.

Children's Play

Playground have been integrated into the linear park, with a play spaces for children ages 0-6 years and 6-12 years located just north of the crèche. These play zones are c150sq.m and c300sq.m respectively and through a mix of fences and defensive planting provide a secure environment.

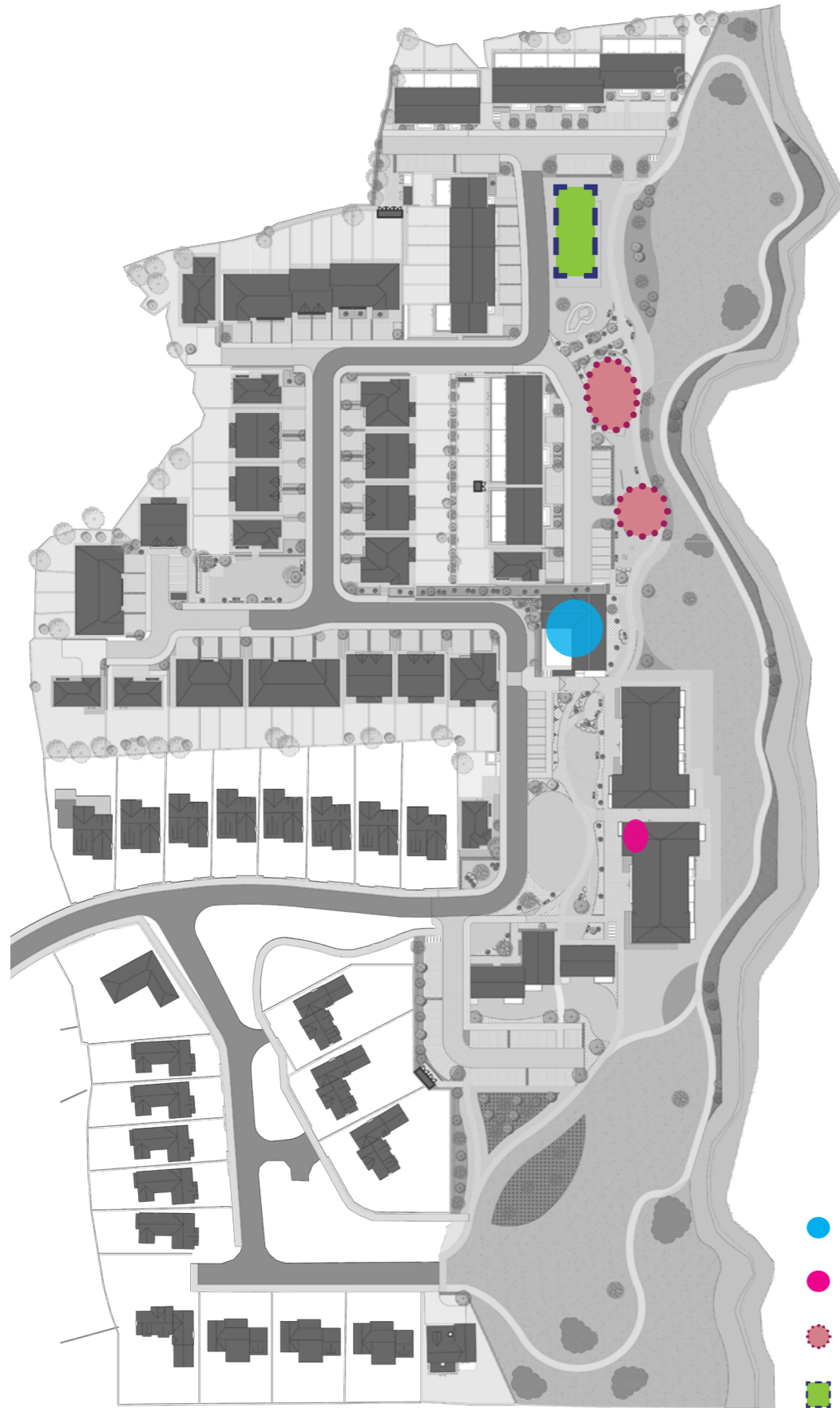
These play areas are separated by a path and planting from a teen space consisting of seating, raised mounds and a designated c300sq.m kick-about area with ample, additional boundary run off area.

All of these areas are overlooked by 3 storey duplex units, with sizes exceeding the requirements of section 4.13 of the Design Standards for Apartments.

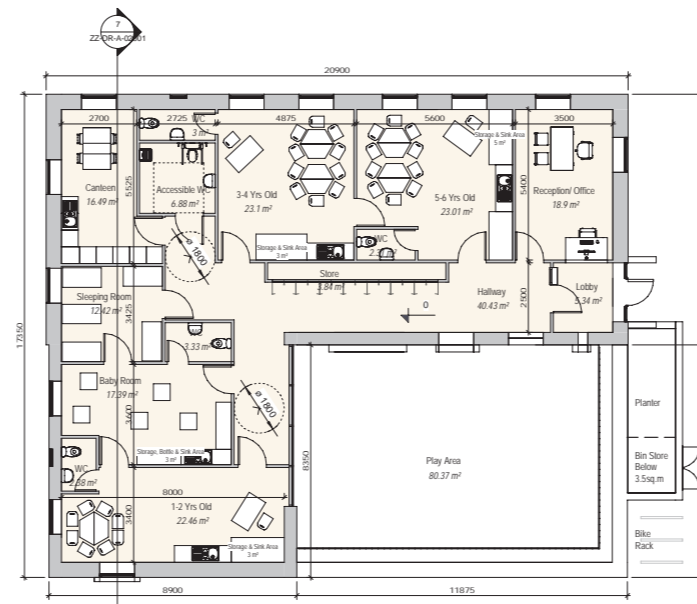
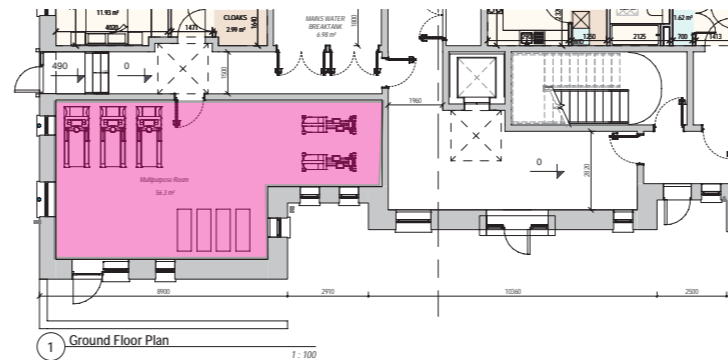
Please see section 6 of Racharc's Landscape Report for further details.



1.8. | Communal Amenity Facilities



- Crèche
- Multi-purpose Room
- Child's Play Area
- Kickabout Area



In addition to the large outdoor park and play areas described in the last section, indoor communal facilities are also provided within the development.

Multi-purpose Room

Within Apartment block A2 a multi-purpose room is proposed for the residents of the scheme. This 56sq.m room, located at ground floor has both access from the core and direct access to the external.

This flexible room could be used for a variety of uses. The open plan space could be used as a gym with the potential for yoga, circuit training or cyclist turbo training sessions.

The direct access would also allow the space to be used for children's parties or movie nights with the direct external access beneficial to users who may live in other buildings. Its proximity to the crèche could also allow the place function as a supervised after school drop off area for children.

Crèche

A 224.8sq.m (gross) crèche is provided for use in the scheme. This building provides designated rooms for babies, 1-2 years, 2-3 years and 3-6 year olds as well as a designated outdoor play area belonging to the crèche. In accordance with the document 'Childcare Facilities; Guidelines for Planning Authorities', 2001, Appendix 1: General Standards these rooms have the potential to provide for a combined 33 children. This capacity is based on clear floor space and excludes storage and ancilliary facilities such as sinks and sleeping areas as per the guidance in the Childcare Facilities document.

This provision in accordance with the requirement of appendix 2 of the Childcare Facilities Guidelines which recommends ratio of 20 child places per 75 units (32 places per 121 units).

Housing

No bin storage is proposed to the front gardens of housing. The majority of the houses have rear gardens that can be accessed by either a private side passage or shared link allowing bin storage to be provided in the private open space to the rear of each house. A standard 240 litre bin measures 1170mm High x 580mm Wide x 740mm Deep, which will easily pass along the 1.2metre minimum width side passages provided.

5 No. Mid terrace houses facing onto the pocket park, are not provided with a rear passage. Bin storage for these houses is facilitated by central communal store.

Apartment

The requirements for bin storage is set by the Galway County Development Plan 2015-2021. ‘Guidelines for Residential Development (Urban and Rural) DM Standard 2: Multiple Housing Schemes (Urban Areas)’ Part V) Bin Storage states that:

“For Residential Units without private open space, a set of three x 240 litre bins shall be provided for a block of 10 apartments.”

Communal bin stores are sized to accommodate at least three standard 1100 litre bins measuring 1300mm High x 1370mm Wide x 1120mm Deep. This ensures a high level of capacity for all units and allow adjustment of provision in co-ordination with collection companies for the provision of glass collection and other recyclables.





Bins are conveniently located for each user. For Apartment blocks A1 & A2, bins are located to the rear door which allows for high levels of ventilation. Own door duplex and apartment units are provided with convenient yet discreetly located communal bin stores.

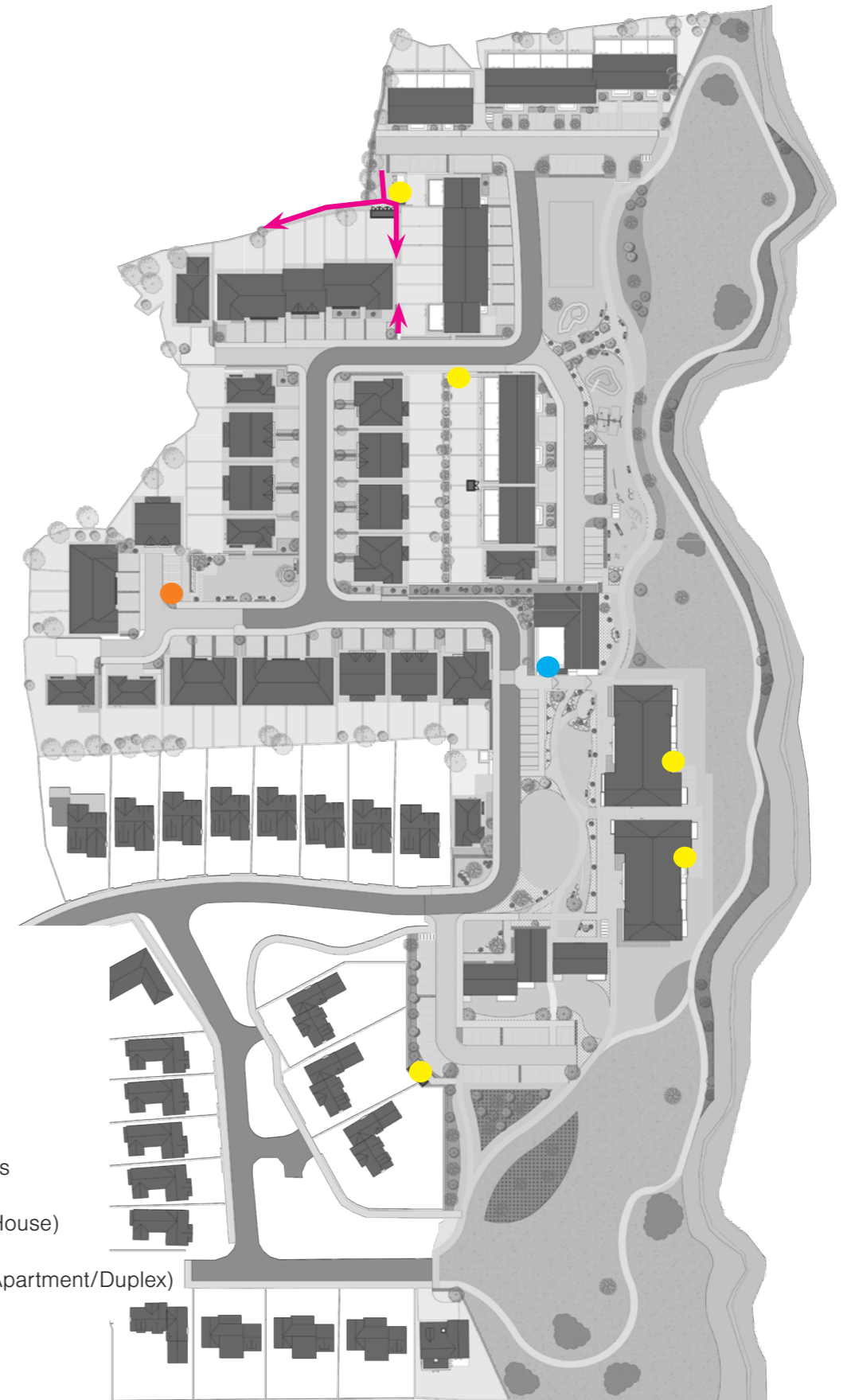
Crèche

Given the crèche’s raised location, bins are located at road level on approach to the building. Bins are fully enclosed with a raised planter adjoining the entrance door to the crèche extending over the proposed storage area and allowing for the storage of 240L bins.

General

All communal bin stores are ventilated enclosures which ensure bins are not exposed to the elements and that bins are catered for discreetly and not visible from public areas.

-  Terrace Unit Rear Garden Access
-  Communal Bin Store Location (House)
-  Communal Bin Store Location (Apartment/Duplex)
-  Crèche Bin Store



1.10. | Car Parking Requirements



Summary Unit Breakdown	# Units	Car Parking Requirement	Car Parking Provided / Unit	Total
4 Bed Houses	15	2 Per Unit	2	30
3 Bed Houses	37	2 Per Unit	2	74
Total Houses	52			104
2 Bed Apartment	18	1 Per Unit	1	18
3 Bed Duplex	18	1 Per Unit	1	18
Duplex Resident	36			36
Duplex - Visitor		1 Per 4 Units	0.25	9
Total Duplex				45
1 Bed Apartment	9	1 Per Unit	1	9
2 Bed Apartment	24	1 Per Unit	1	24
Apartments - Residential	33			33
Apartments - Visitor		1 Per 4 Units	0.25	8
Total Apartments	15			41
Total Resident Spaces				173
Total Visitor Spaces				17
Total Residential	121			190
Creche		1 Per Staff		4
Creche Drop Off				4
Total Parking				198

Car Parking for dwelling houses is provided following or in excess of Table 13.5 of the Galway County Development Plan which requires 1.5 spaces per 1-3 bedroom dwelling/apartment and 2 spaces per 4 bedroom dwelling/apartment. As shown in the table above both 3 and 4 Bedroom dwellings are provided with 2 spaces per unit. This is within curtilage for all bar 2 No. 3 Bed units where it is provided in close proximity and designated solely for the use of the respective houses.

Car Parking for apartments/duplex is provided in accordance with the Design Standards for Apartments 2018, Section 4.22 'Peripheral and/or Less Accessible Urban Locations' which requires one space per unit together with one visitor space per 3/4 apartments.

Spaces are also sized to provide for accessibility in accordance with Part M. 4 No. Spaces are dispersed throughout the development with 1 located in each of the following locations: Main southern car park for apartments, creche, parking area north of creche serving duplex and main apartments buildings, northern homezone area serving duplex.

Ducting provision for electric vehicle charging shall also be put in place to each dwelling house with provision also made to communal car parks, see reports by Varmings Consulting Eng for more details.

1.11. | Bike Parking Requirements

Summary Unit Breakdown	# Units	Bike Parking / Unit	Location Provided	Communal Required	Total Provided
4 Bed Houses	15	2	Rear Garden	N/A	
3 Bed Houses	37	2	Rear Garden	N/A	
Total Houses	52				0
2 Bed Duplex (D1/D2)	6	2	GFL Unit with Garden	N/A	
3 Bed Duplex (D1/D2)	6	3	Communal Store BK2	18	
Communal Store BK2					18
2 Bed Duplex (T5/D3/D4)	12	2	GFL Unit with Garden	N/A	
3 Bed Duplex (T5/D3/D4)	12	3	Communal Store BK1	36	
Communal Store BK1					36
Duplex Resident	36	1 Per Bedroom			54
Duplex - Visitor		1 space per 2 units	External Sheffield Stands	18	18
Total Duplex					72
Apartment Block A1 (1 Bed)	5	1	Bike Store Within Block	5	
Apartment Block A1 (2 Bed)	9	2	Bike Store Within Block	18	
Apartment Block A1					23
Apartment Block A2 (1 Bed)	4	1	Bike Store Within Block	4	
Apartment Block A2 (2 Bed)	9	2	Bike Store Within Block	18	
Apartment Block A2					22
Apartment Block A3	2	2	Communal Store (BS1)	4	
Apartment Block A4	4	2	Communal Store (BS1)	8	
Communal Store BS1					12
Apartments - Residential	33	1 Per Bedroom			57
Apartments - Visitor		1 space per 2 units	External Sheffield Stands	17	20
Total Apartments					77
Communal Resident Spaces					111
Total Visitor Spaces					38
Total Residential	0				149
Creche			External Sheffield Stands	External Sheffield Stands	6
Total Bike Parking					155

Bike Storage Requirements based on Section 4.17 of the Design Standards for New Apartments
 - 1 Residential Space per bedroom, 1 Visitor space per 2 units

Designated covered bike parking is provided to Duplex and Apartment units which do not have rear gardens. These secure stores are covered ensuring protection of bikes.

The spaces in the main apartment blocks A1 & A2 are located centrally, and accessible from the core. This store allows for predominantly singled racked bikes, with one double rack in order to meet the requirements of 1 space per bedroom set in the Design Standards for Apartments. The single racked areas could be converted to a tiered bike storage system in future and further increase capacity.

The own door units (Duplexes and Blocks A3,4) are provided with discreet and central tiered bike stores which provide a space per bedroom for the units they serve.

Further visitor Sheffield style stands are provided in dispersed locations across the development, serving the apartment buildings, creche, duplex and providing convenient access to the park.

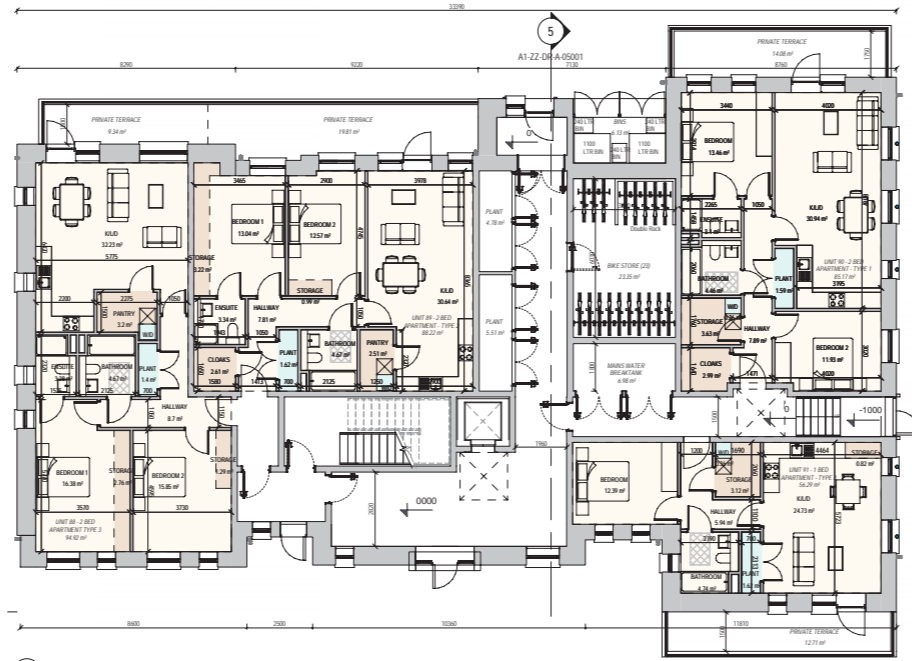


- Internal Bike Store (A1, A2)
- Communal Bike Store
- Creche Parking
- External Visitor Parking

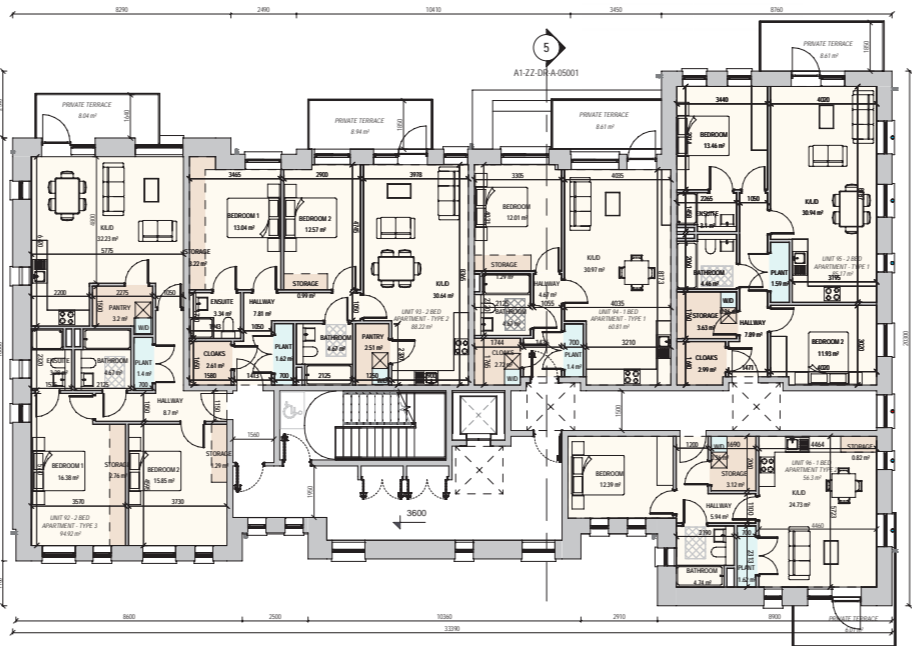
1.12. | Security Considerations



← Passive Surveillance towards Public Realm



1 Ground Floor Plan 1:100



2 First Floor Plan 1:100

The scheme is laid out to ensure all public open space are overlooked by homes to ensure that the roads and amenities are safe to use. The public realm is considered as a usable, integrated element in the design of the development with children's' play spaces central to this. Natural, passive surveillance is a key aspect of the scheme in accordance with section 3.40 of the Design Standards for New Apartments.

Passive Monitoring

Dwellings have been designed to address and face the public parks and streets and also "bookend" the proposed new streets. Typically corner units are double fronted with aspect to the front and a side approach, providing access and animation to the public areas and encouraging presence, use and passive surveillance of the public areas. All houses adhere to the topography of the site with the proposed design generating predominantly a East, West or South facing private open space for each dwelling. Private gardens are clearly delineated through the use of concrete block fences.

Duplex units are set back from the road edge, parking and planting providing a privacy strip and defensible space from the public realm. Apartment blocks A3 & 4 are own door units with access points set away from, yet clearly visible from the main pathways further ensuring privacy yet visual links.

The main apartment blocks A1 & A2 are provided with a main entrance point facing onto the landscaped courtyard and entrance to the overall scheme. A natural desire line is created through the park ensuring pedestrian traffic to other parts of the development is set away from the units to provide privacy yet close enough to provide activity and passive monitoring to the area. Similarly the linear park to the east of the buildings provides activity yet at a distance ensuring indoor privacy isn't interfered with. This approach ensures only local traffic to the small 13 & 14 unit apartment blocks directly approach each block's entrance yet passive monitoring is maintained in the vicinity of the apartments and scheme as a whole.



1.13. | Internal Requirements

Internal Layouts, M&E requirements and Storage

The internal layout of all units are designed to comply with 'Sustainable Urban Housing: Design Standards for New Apartments' (2018). This is clearly described on a room by room bases for each unit in section 2 of this document.

Storage

All units are achieve and exceed minimum storage requirements within apartment layouts. Store rooms are split up into numerous smaller stores where possible, with no store exceeding the 3.5sq.m 'rule' described in section 3.31 of the 'Design Standards for New Apartments'. All storage units proposed are full floor to ceiling height, with any reduced height storage provided in addition to the minimum requirement.

While bike storage provided at ground floor level of apartment blocks, this bulky storage is provided separately and in addition to apartment storage requirements.

M&E

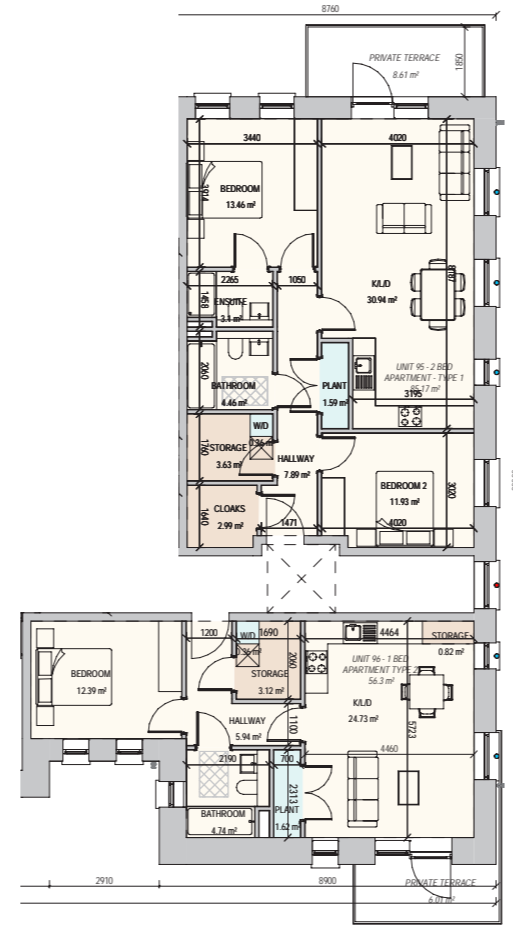
Each apartment is also provided with a designated plant room in addition to storage requirements. This facilitates the heat pump and water storage requirements for each unit. Water storage is provided within the attic of the 2 bed duplex unit.

An additional area is also provided for washer/dryers within each unit. While this may be located within a storage room, its area is excluded from the storage requirement.

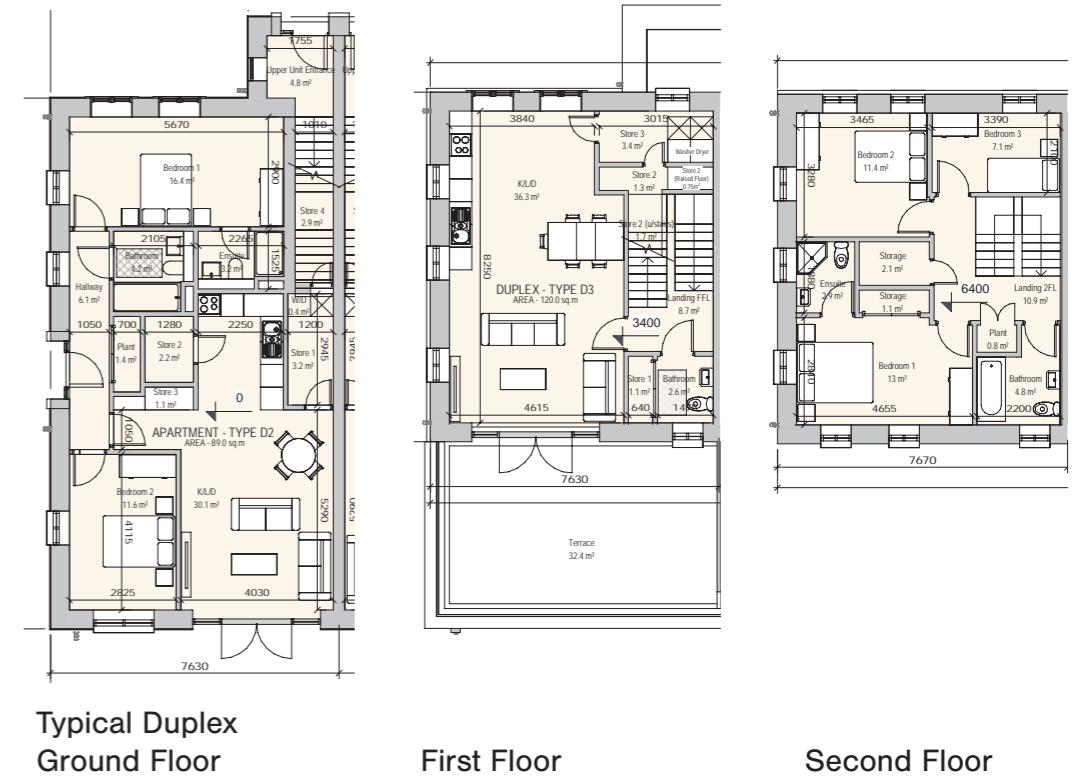
Floor to Ceiling Heights

As per section 3.22 of the Design Standards for New Apartments, and Specific Planning Policy Requirement 5, ground floor units are provided with at least 2.7m floor to ceiling height within Duplex units. This increased to 3m as recommended by section 3.22 for the apartment buildings which allows for flexibility in any potential future use. This is measured to the suspended ceiling, allowing for the build up required to achieve fire and sound transmission requirements.

On upper floors of duplex units, a minimum floor height of 2.4m is achieved in accordance with section 3.21. This is increased on any floors with living areas (duplex or apartments) ensuring minimum 2.7m floor to ceiling heights allowing for spacious feeling and well ventilated units.



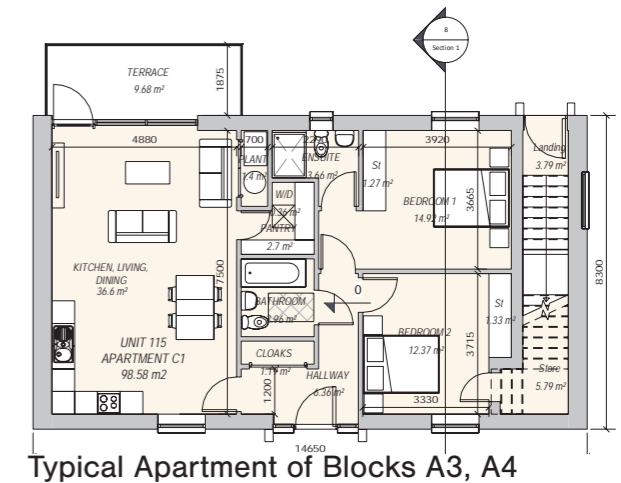
Typical 1, 2 Bed Apartments of Blocks A1, A2



Typical Duplex Ground Floor

First Floor

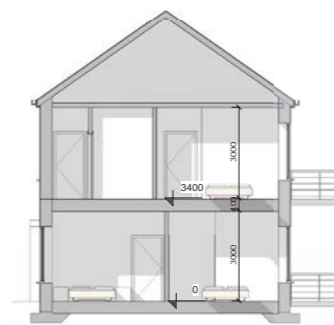
Second Floor



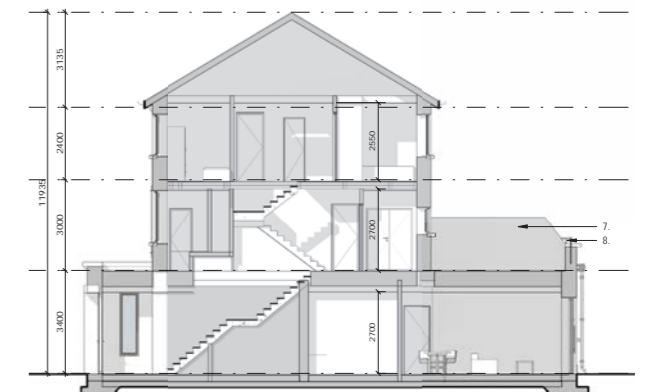
Typical Apartment of Blocks A3, A4



Section Typical of Blocks A1, A2



Section Typical of Blocks A3, A4



Section Typical of Duplex Units

2 Unit Assessment

Ensuring all aspects of the development exceed the standards required

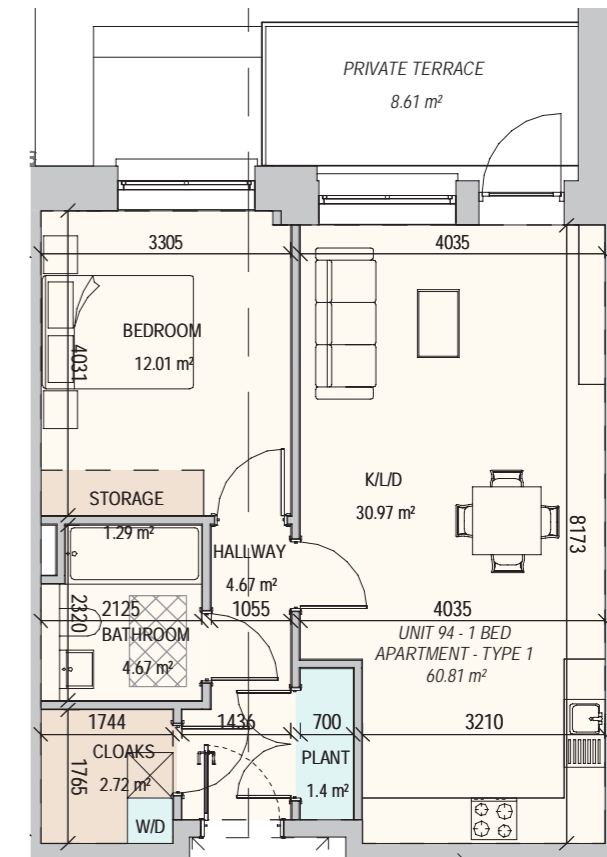
2.1. | 1 Bed, Type 1

2020.09.30							
Housing Quality Assessment: Apartments 1 Bed, Type 1							Single Aspect
Room	Min Area(m2)	Actual Area(m2)	Difference	Occupancy	Min Width (m)	Actual Width (m)	Compliant
Gross Internal Area	45	60.81	135%				Yes
Kitchen/Dining/Living	23	30.97	135%		3.3 (living)	4.46	Yes
Bedroom 1	11.4	12.01	105%	2	2.8	3.11	Yes
Combined Bedroom	11.4	12.01	105%	2			Yes
Store 1 (Cloaks)		2.72					
Store 2 (Bed)		1.29					
Combined Store	3	4.01	134%				Yes
W/C		4.67					
Entrance Hall		4.67					
W/D (Washer/Dryer) Plant		0.36 1.4					
Private Amenity/Terrace	5	8.61					Yes

Block	# Apts	Unit Numbers	Total Units	Dwg Code
Block A1	2	94, 98	2	A1
Block A2	2	107, 112	2	A2
Block A3	0		0	A3
Block A4	0		0	A4
			4	

Min Area / Width Source: Appendix, Design Standards for New Apartments (2018)

Plant includes for Exhaust Air Heat Pump Unit and water storage



Note Unit Plan from Apartment Block A1
Layout will be mirrored in Block A2

2.2. | 1 Bed, Type 2

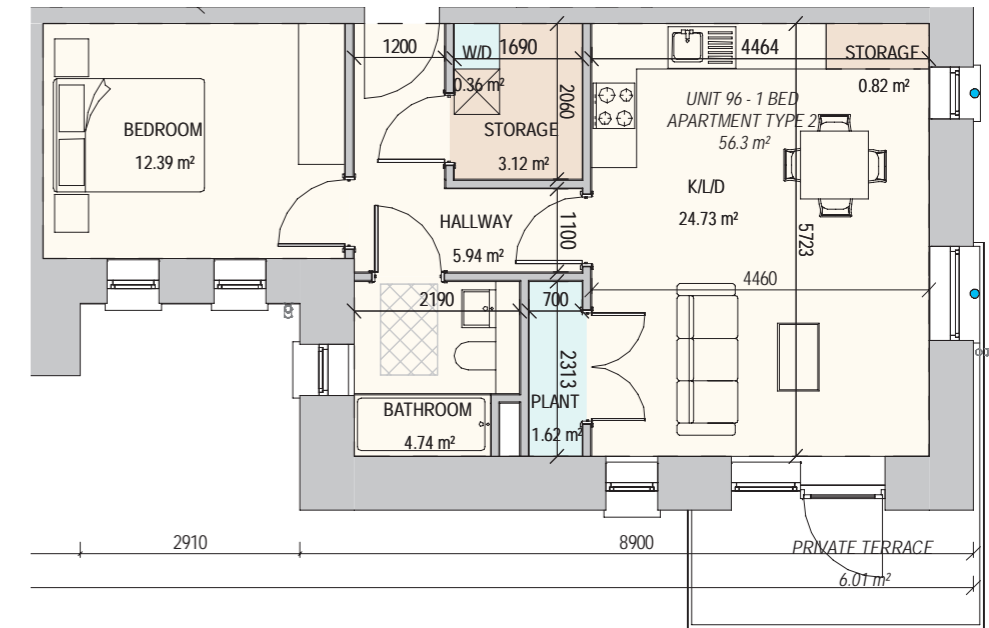
2020.09.30							
Housing Quality Assessment: Apartments 1 Bed, Type 2							Dual Aspect
Room	Min Area(m2)	Actual Area(m2)	Difference	Occupancy	Min Width (m)	Actual Width (m)	Compliant
Gross Internal Area	45	56.3	125%				Yes
Kitchen/Dining/Living	23	24.73	108%		3.3 (living)	4.464	Yes
Bedroom 1	11.4	12.39	109%	2	2.8	3.11	Yes
Combined Bedroom	11.4	12.39	109%	2			Yes
Store 1		3.12					
Store 2 (kitchen)		0.82					
Combined Store	3	3.94	131%				Yes
W/C		4.74					
Entrance Hall		5.94					
W/D (Washer/Dryer) Plant		0.36 1.62					
Private Amenity/Terrace*	5	6.01	120%				Yes

Block	# Apts	Unit Numbers	Total Units	Dwg Code
Block A1	3	91, 96, 101	3	A1
Block A2	2	105, 110	2	A2
Block A3	0		0	A3
Block A4	0		0	A4
			5	

Min Area / Width Source: Appendix, Design Standards for New Apartments (2018)

*Larger terrace to ground floor unit (#91) - 12.71sq.m

Plant includes for Exhaust Air Heat Pump Unit and water storage



Note Unit Plan from Apartment Block A1
Layout will be mirrored in Block A2

2.3. | 2 Bed, Type 1

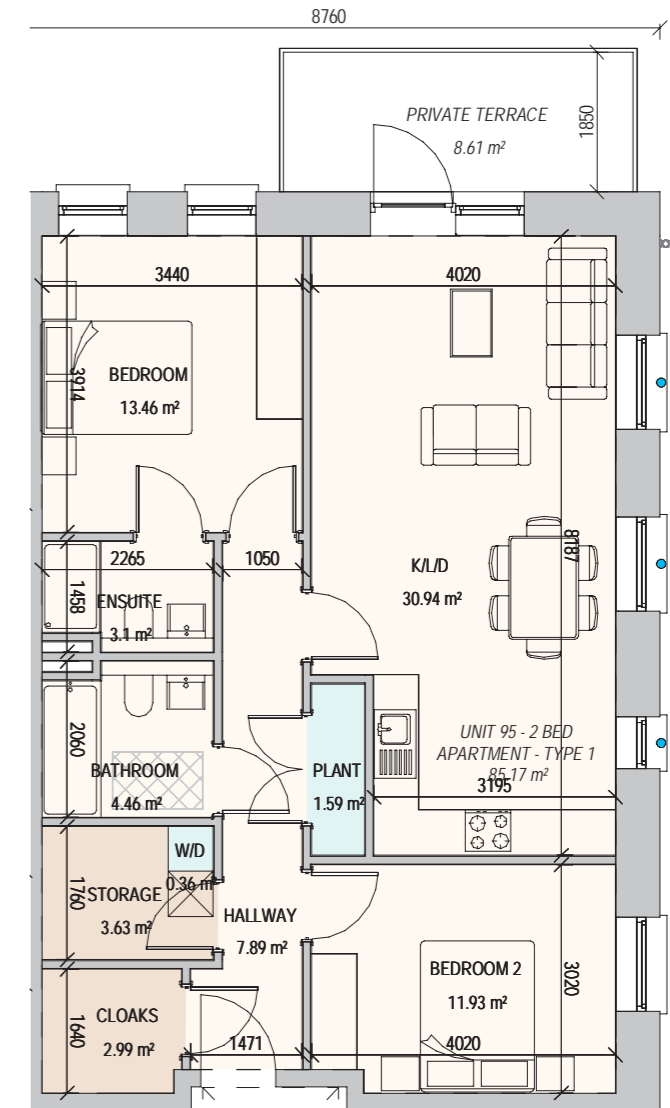
2020.09.30							
Housing Quality Assessment: Apartments 2 Bed, Type 1							Dual Aspect
Room	Min Area(m2)	Actual Area(m2)	Difference	Occupancy	Min Width (m)	Actual Width (m)	Compliant
Gross Internal Area	73	85.17	117%				Yes
Kitchen/Dining/Living	30	30.94	103%		3.6 (living)	4.02 (living)	Yes
Bedroom 1	13	13.46	104%	2	2.8	3.44	Yes
Bedroom 2	11.4	11.93	105%	2	2.8	3.02	Yes
Combined Bedroom	24.4	25.39	104%	4			Yes
En-Suite Bedroom 1		3.1					
Store 1 (Cloaks)		2.99					
Store 2 (Bed 1)		3.63					
Combined Store	6	6.62	110%				Yes
W/C		4.46					
Entrance Hall		7.89					
W/D (Washer/Dryer)		0.36					
Plant		1.59					
Private Amenity/Terrace	7	8.61	123%				Yes

Block	# Apts	Unit Numbers	Total Units	Dwg Code
Block A1	3	90, 95, 100	3	A1
Block A2	3	102, 106, 111	3	A2
Block A3	0		0	A3
Block A4	0		0	A4
			6	

Min Area / Width Source: Appendix, Design Standards for New Apartments (2018)

*A1 Ground Floor Terrace Size; Unit 90 - 14.08 sq.m

Plant includes for Exhaust Air Heat Pump Unit and water storage



Note Unit Plan from Apartment Block A1
Layout will be mirrored in Block A2

2.4. | 2 Bed, Type 2

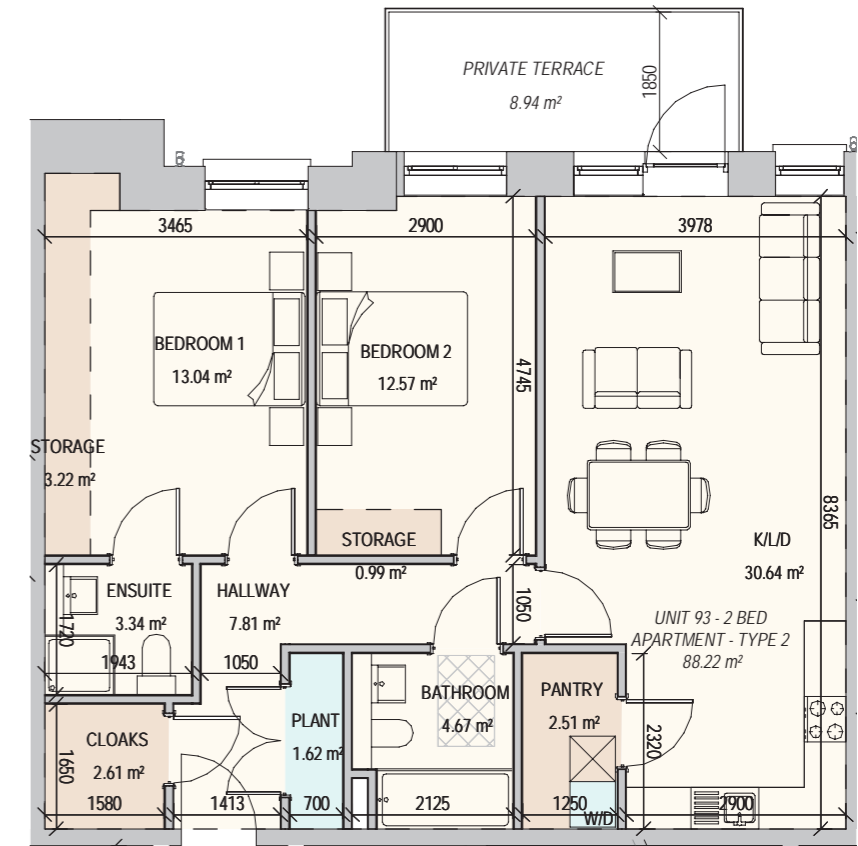
2020.09.30							
Housing Quality Assessment: Apartments 2 Bed, Type 2							Single Aspect
Room	Min Area(m2)	Actual Area(m2)	Difference	Occupancy	Min Width (m)	Actual Width (m)	Compliant
Gross Internal Area	73	88.22	121%				Yes
Kitchen/Dining/Living	30	30.64	102%		3.6 (living)	3.978	Yes
Bedroom 1	13	13.04	100%	2	2.8	3.465	Yes
Bedroom 2	11.4	12.57	110%	2	2.8	2.9	Yes
Combined Bedroom	24.4	25.61	105%	4			Yes
En-Suite Bedroom 1		3.34					
Store 1 (Cloaks)		2.61					
Store 2 (Bed 1)		3.22					
Store 3 (Bed 2)		0.99					
Pantry		2.51					
Combined Store	6	9.33	156%				Yes
W/C		4.67					
Entrance Hall		7.81					
W/D (Washer/Dryer)		0.36					
Plant		1.62					
Private Amenity/Terrace*	7	8.94	128%				Yes

Block	# Apts	Unit Numbers	Total Units	Dwg Code
Block A1	3	89, 93, 98	3	A1
Block A2	3	103, 108, 113	3	A2
Block A3	0		0	A3
Block A4	0		0	A4
			6	

Min Area / Width Source: Appendix, Design Standards for New Apartments (2018)

*Ground Floor Terrace Size; Unit 89 - 19.81 sq.m & Unit 103 - 19.82

Plant includes for Exhaust Air Heat Pump Unit and water storage



Note Unit Plan from Apartment Block A1
Layout will be mirrored in Block A2

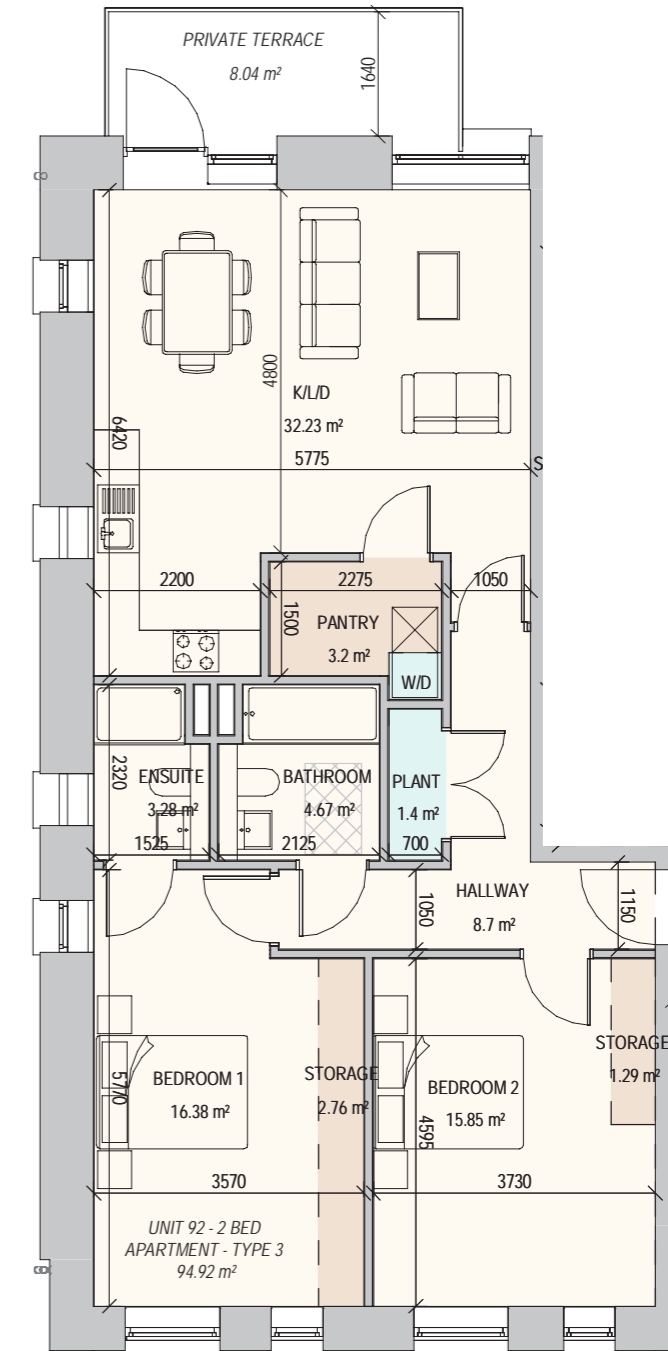
2.5. | 2 Bed, Type 3

2020.09.30							
Housing Quality Assessment: Apartments 2 Bed, Type 3							Dual Aspect
Room	Min Area(m2)	Actual Area(m2)	Difference	Occupancy	Min Width (m)	Actual Width (m)	Compliant
Gross Internal Area	73	94.92	130%				Yes
Kitchen/Dining/Living	30	32.23	107%		3.6 (living)	4.8	Yes
Bedroom 1	13	16.38	126%	2	2.8	3.57	Yes
Bedroom 2	11.4	15.85	139%	2	2.8	3.73	Yes
Combined Bedroom	24.4	32.23	132%	4			Yes
En-Suite Bedroom 1		3.28					
Store 1 (Bed 1)		2.76					
Store 2 (Bed 2)		1.29					
Pantry		3.2					
Combined Store	6	7.25	121%				Yes
W/C		4.67					
Entrance Hall		8.7					
W/D (Washer/Dryer)		0.36					
Plant		1.4					
Private Amenity/Terrace*	7	8.04	115%				Yes

Block	# Apts	Unit Numbers	Total Units	Dwg Code
Block A1	2	88, 92	2	A1
Block A2	2	104, 109	2	A2
Block A3	0		0	A3
Block A4	0		0	A4
			4	

Min Area / Width Source: Appendix, Design Standards for New Apartments (2018)

*Ground Floor Terrace Size; Unit 88 - 8.26 sq.m; Unit 104 - 8.42sq.m
Plant includes for Exhaust Air Heat Pump Unit and water storage



Note Unit Plan from Apartment Block A1
Layout will be mirrored in Block A2

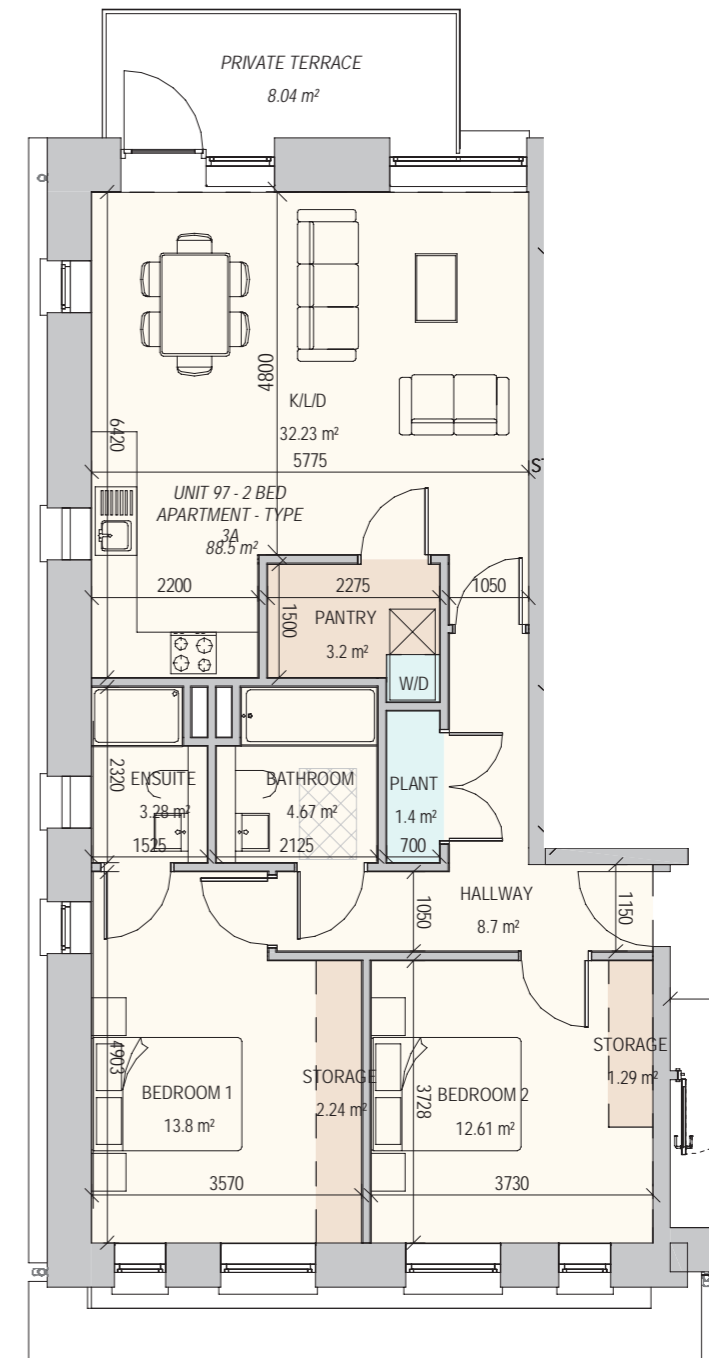
2.6. | 2 Bed, Type 3A (2FL only)

2020.09.30							
Housing Quality Assessment: Apartments 2 Bed, Type 3a							Dual Aspect
Room	Min Area(m2)	Actual Area(m2)	Difference	Occupancy	Min Width (m)	Actual Width (m)	Compliant
Gross Internal Area	73	88.5	121%				Yes
Kitchen/Dining/Living	30	32.23	107%		3.6 (living)	4.8	Yes
Bedroom 1	13	13.8	106%	2	2.8	3.57	Yes
Bedroom 2	11.4	12.61	111%	2	2.8	3.728	Yes
Combined Bedroom	24.4	26.41	108%	4			Yes
En-Suite Bedroom 1		3.28					
Store 1 (Bed 1)		2.24					
Store 2 (Bed 2)		1.29					
Pantry		3.2					
Combined Store	6	6.73	112%				Yes
W/C		4.67					
Entrance Hall		8.7					
W/D (Washer/Dryer)		0.36					
Plant		1.4					
Private Amenity/Terrace	7	8.04	115%				Yes

Block	# Apts	Unit Numbers	Total Units	Dwg Code
Block A1	1	97	1	A1
Block A2	1	114	1	A2
Block A3	0		0	A3
Block A4	0		0	A4
			2	

Min Area / Width Source: Appendix, Design Standards for New Apartments (2018)

Plant includes for Exhaust Air Heat Pump Unit and water storage



Note Unit Plan from Apartment Block A1
Layout will be mirrored in Block A2

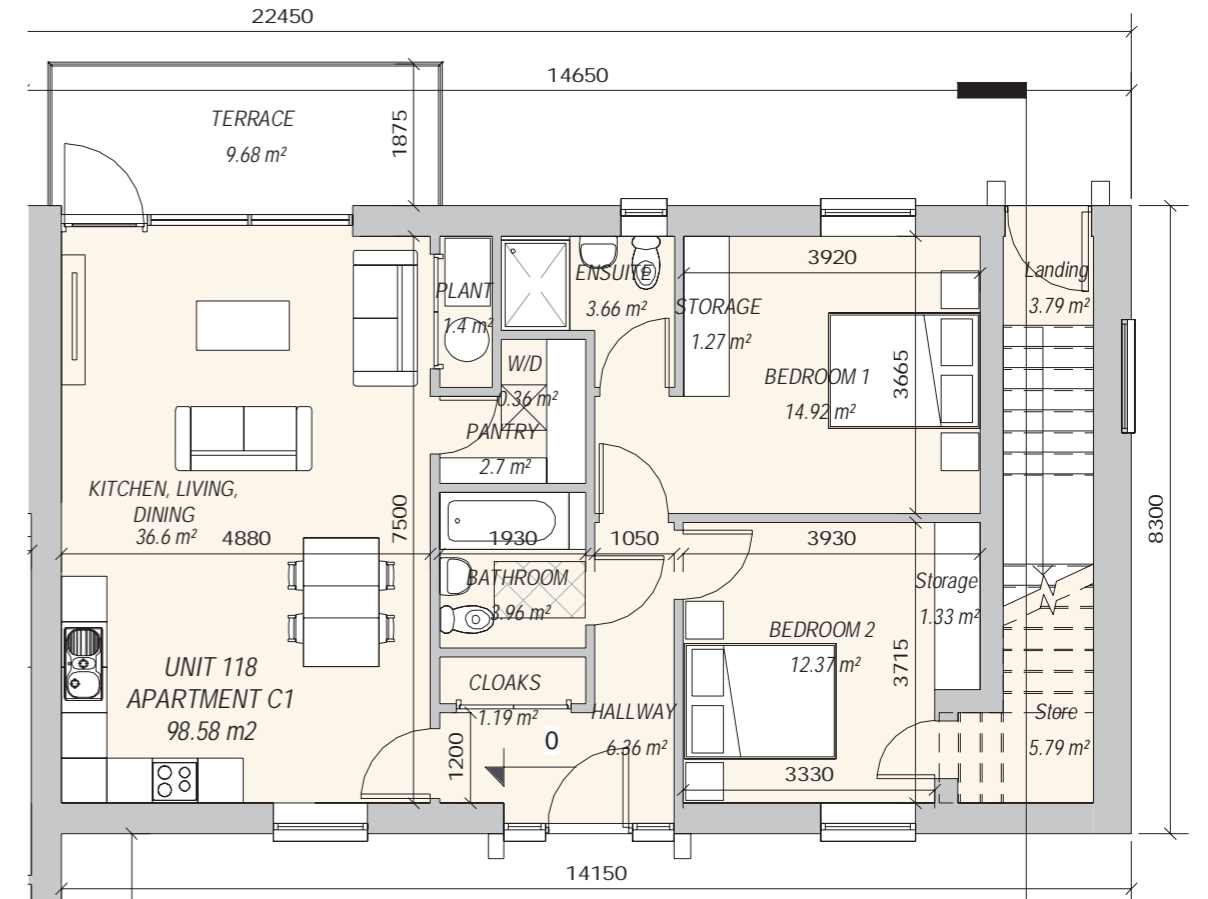
2.7. | 2 Bed, Type C1

2020.09.30							
Housing Quality Assessment: Apartments 2 Bed, Type C1							Dual Aspect
Room	Min Area(m2)	Actual Area(m2)	Difference	Occupancy	Min Width (m)	Actual Width (m)	Compliant
Gross Internal Area	73	98.58	135%				Yes
Kitchen/Dining/Living	30	36.6	122%		3.6 (living)	4.88	Yes
Bedroom 1	13	14.92	115%	2	2.8	3.665	Yes
Bedroom 2	11.4	12.37	109%	2	2.8	3.33	Yes
Combined Bedroom	24.4	27.29	112%	4			Yes
En-Suite Bedroom 1		3.66					
Store 1 (Bed 1)		1.27					
Store 2 (Bed 2)		1.33					
Cloaks		1.19					
Pantry		2.7					
Combined Store	6	6.49	108%				Yes
*Store (under stairs)		5.79					
W/C		3.96					
Entrance Hall		6.36					
W/D (Washer/Dryer) Plant		0.36					
Private Amenity/Terrace	7	9.68	138%				Yes

Block	# Apts	Unit Numbers	Total Units	Dwg Code
Block A1	0		0	A1
Block A2	0		0	A2
Block A3	1	115	1	A3
Block A4	1	118	1	A4
			2	

Min Area / Width Source: Appendix, Design Standards for New Apartments (2018)

*Store under stairs provided in addition to minimum storage requirements
 Plant includes for Exhaust Air Heat Pump Unit and water storage
 Washer Dryer located in pantry, area provided in addition to pantry area (total room 3.05sq.m)



2.8. | 2 Bed, Type C2

2020.09.30							
Housing Quality Assessment: Apartments 2 Bed, Type C2							Dual Aspect
Room	Min Area(m2)	Actual Area(m2)	Difference	Occupancy	Min Width (m)	Actual Width (m)	Compliant
Gross Internal Area	73	98.59	135%				Yes
Kitchen/Dining/Living	30	36.45	122%		3.6 (living)	4.78	Yes
Bedroom 1	13	14.42	111%	2	2.8	3.445	Yes
Bedroom 2	11.4	12.75	112%	2	2.8	3.43	Yes
Combined Bedroom	24.4	27.17	111%	4			Yes
En-Suite Bedroom 1		3.66					
Store 1 (Bed 1)		1.3					
Store 2 (Bed 2)		2.22					
Cloaks		1.16					
Pantry		2.67					
Combined Store	6	7.35	123%				Yes
*Store (under stairs)		5.79					
W/C		4					
Entrance Hall		6.36					
W/D (Washer/Dryer) Plant		0.36					
Private Amenity/Terrace	7	9.68	138%				Yes

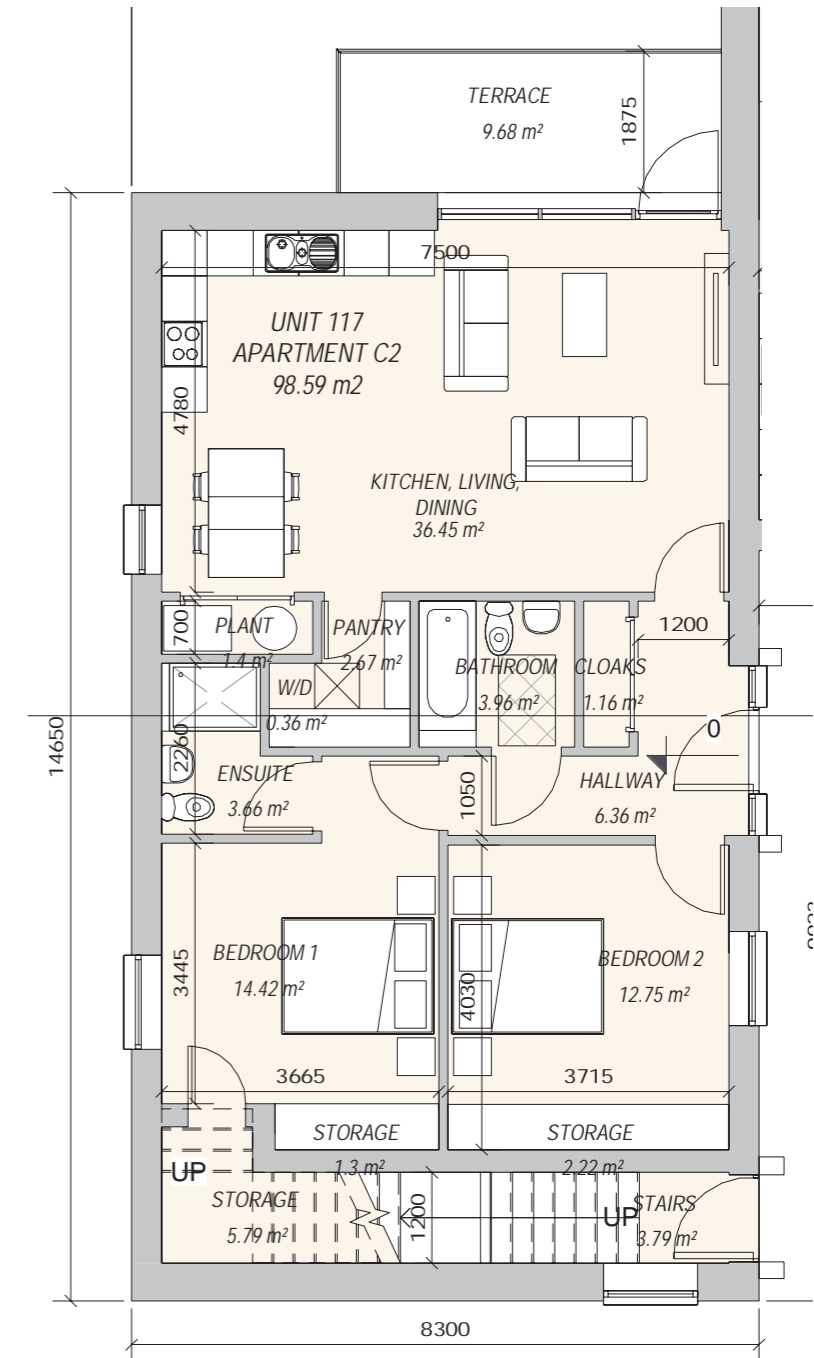
Block	# Apts	Unit Numbers	Total Units	Dwg Code
Block A1	0		0	A1
Block A2	0		0	A2
Block A3	0		0	A3
Block A4	1	117	1	A4
			1	

Min Area / Width Source: Appendix, Design Standards for New Apartments (2018)

*Store under stairs provided in addition to minimum storage requirements

Plant includes for Exhaust Air Heat Pump Unit and water storage

Washer Dryer located in pantry, area provided in addition to pantry area (total room 3.03sq.m)



2.9. | 2 Bed, Type C3

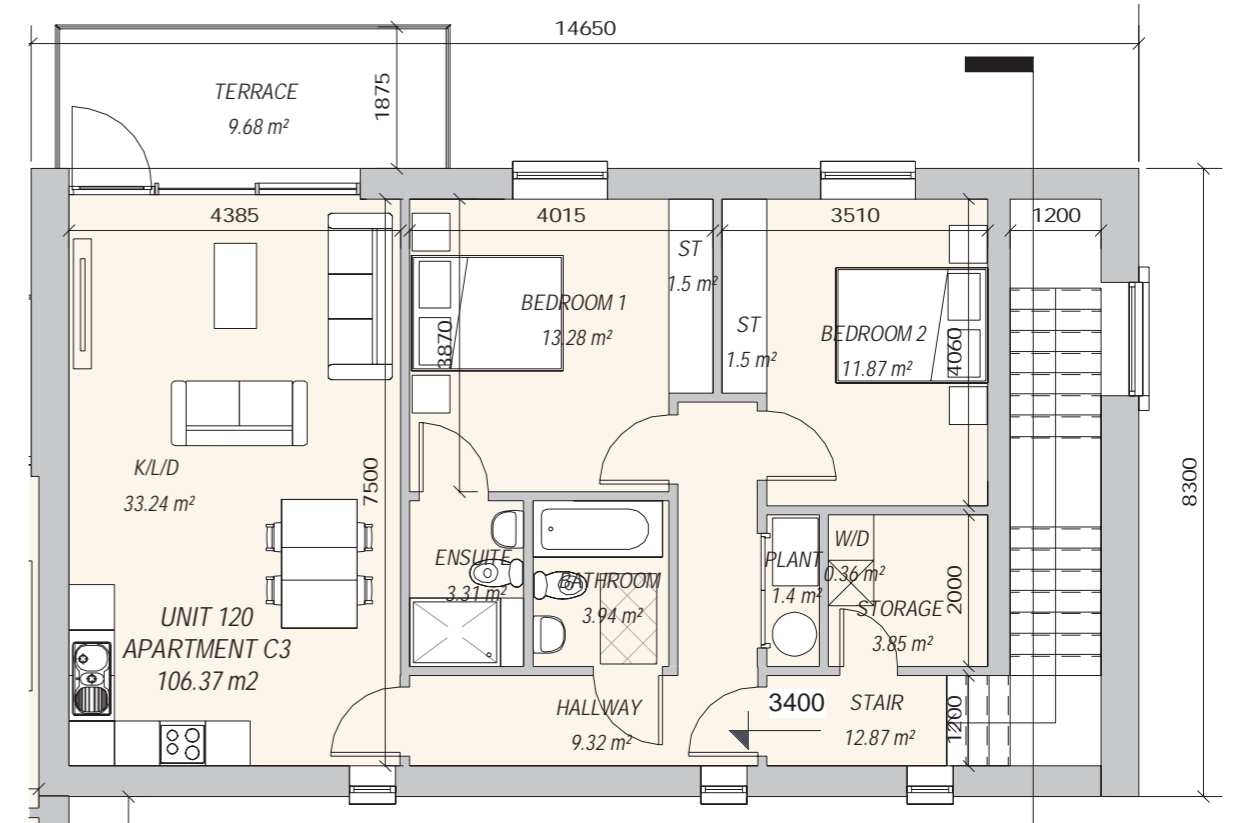
2020.09.30							
Housing Quality Assessment: Apartments 2 Bed, Type C3							Dual Aspect
Room	Min Area(m2)	Actual Area(m2)	Difference	Occupancy	Min Width (m)	Actual Width (m)	Compliant
Gross Internal Area	73	106.69	146%				Yes
Kitchen/Dining/Living	30	33.24	111%		3.6 (living)	4.385	Yes
Bedroom 1	13	13.28	102%	2	2.8	3.87	Yes
Bedroom 2	11.4	11.87	104%	2	2.8	3.51	Yes
Combined Bedroom	24.4	25.15	103%	4			Yes
En-Suite Bedroom 1		3.31					
Store 1 (Bed 1)		1.5					
Store 2 (Bed 2)		1.5					
Storage		3.85					
Combined Store	6	6.85	114%				Yes
W/C		3.94					
GFL Landing		3.79					
Stair & Landing (FFL)		12.87					
Hallway (FFL)		9.32					
W/D (Washer/Dryer)		0.36					
Plant		1.4					
Terrace	7	9.68	138%				Yes

Block	# Apts	Unit Numbers	Total Units	Dwg Code
Block A1	0		0	A1
Block A2	0		0	A2
Block A3	1	116	1	A3
Block A4	2	119, 120	2	A4
			3	

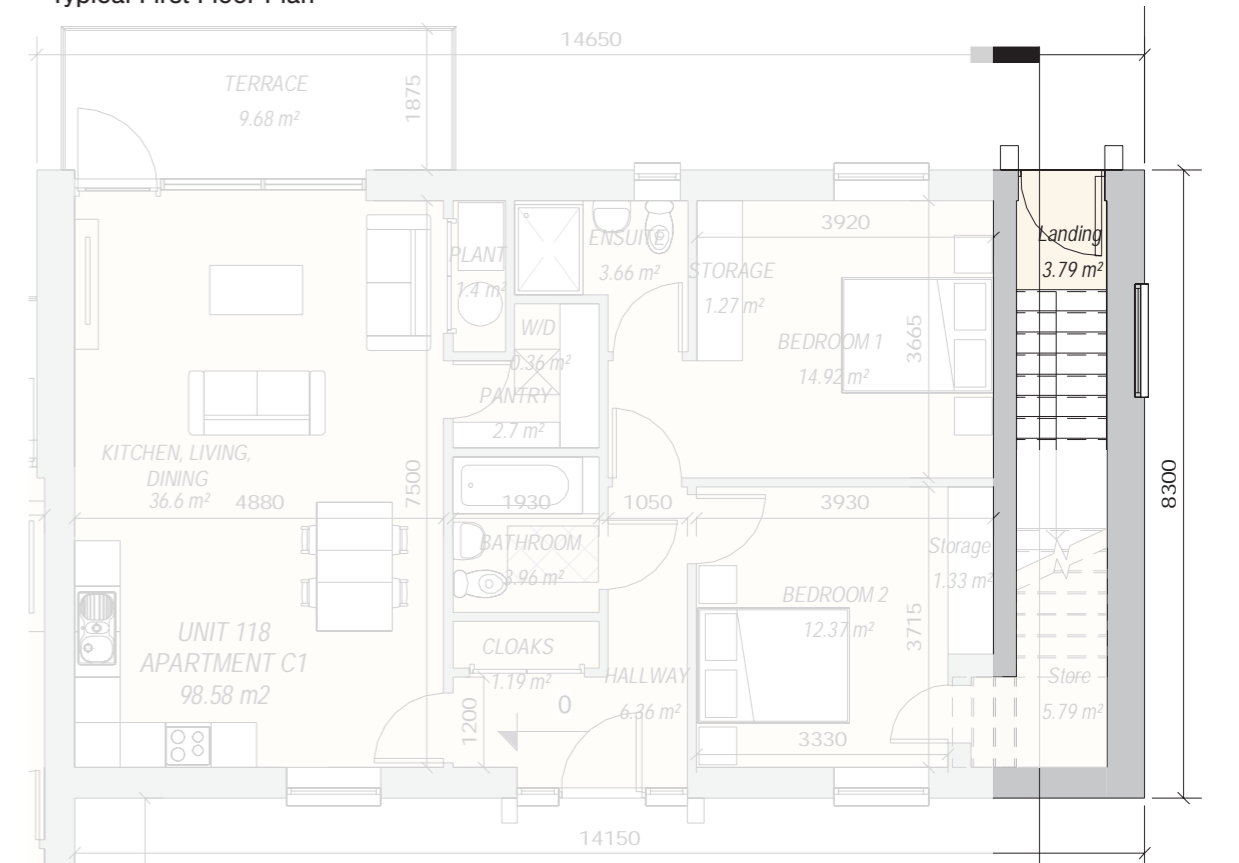
Min Area / Width Source: Appendix, Design Standards for New Apartments (2018)

Plant includes for Exhaust Air Heat Pump Unit and water storage

Washer Dryer located in storage room, area provided in addition to storage area (total room 4.21sq.m)



Typical First Floor Plan



Typical Ground Floor Plan (adjoining apartment faded out)

2.10. | 2 Bed, Type D1

2020.09.30							
Housing Quality Assessment: Duplex Ground Floor - 2 Bed, Type 1							Dual Aspect
Room	Min Area(m2)	Actual Area(m2)	Difference	Occupancy	Min Width (m)	Actual Width (m)	Compliant
Gross Internal Area	73	89	122%				Yes
Kitchen/Dining/Living	30	30.1	100%		3.6 (living)	4.03	Yes
Bedroom 1	13	13	100%	2	2.8	2.9	Yes
Bedroom 2	11.4	11.6	102%	2	2.8	2.825	Yes
Combined Bedroom	24.4	24.6	101%	4			Yes
En-Suite Bedroom 1		3.2					
Store 1		3.2					
Store 2		2.2					
Store 3		1.1					
Combined Store	6	6.5	108%				Yes
Store (under stairs)		2.9					
W/C		4.2					
Entrance Hall		9.2					
W/D (Washer/Dryer)		0.4					
Plant		1.4					
Private Amenity/Garden**	7	24.6	351%				Yes

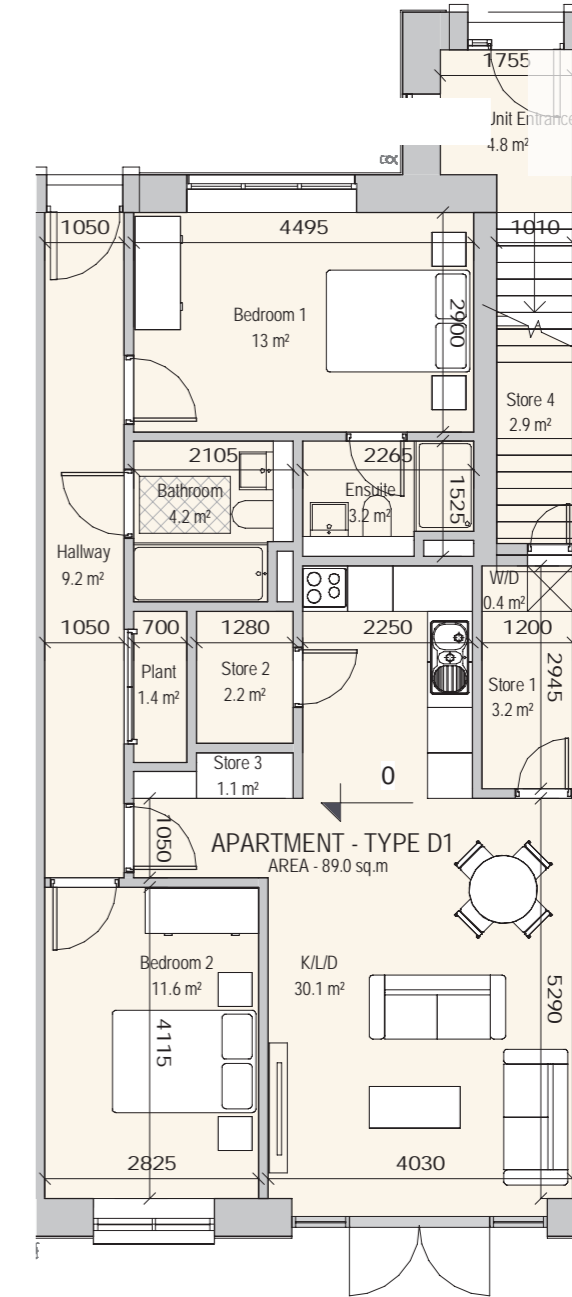
Block	# Apts	Unit Numbers	Total Units	Dwg Code
Block D1	2	47, 49	2	D1
Block D2	3	51,53,55	3	D2
Block D3	2	68, 70	2	D3
Block D4	7	74,76,78,80,82,84,86	7	D4
Block T5	0		0	T5
			14	

Min Area / Width Source: Appendix, Design Standards for New Apartments (2018)

*Store under stairs provided in addition to minimum storage requirements

**Smallest Garden Area Provided - Unit 82; See section 1.6 of Housing Quality Assessment & Site Plan for each unit
Plant includes for Exhaust Air Heat Pump Unit and water storage

50



Ground Floor Plan (upper unit entrance faded out)

2.11. | 2 Bed, Type D2

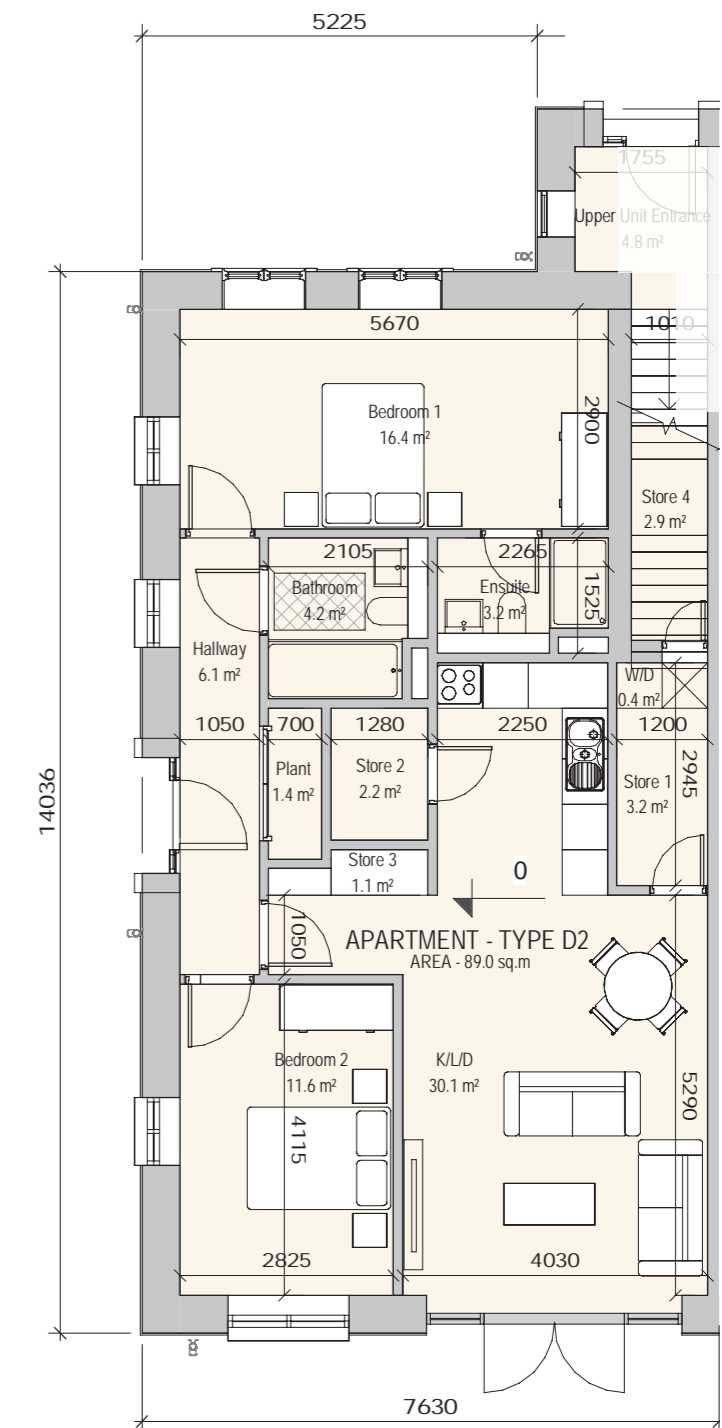
2020.09.30							
Housing Quality Assessment: Duplex Ground Floor - 2 Bed, Type 2							Dual Aspect
Room	Min Area(m2)	Actual Area(m2)	Difference	Occupancy	Min Width (m)	Actual Width (m)	Compliant
Gross Internal Area	73	89	122%				Yes
Kitchen/Dining/Living	30	30.1	100%		3.6 (living)	4.03	Yes
Bedroom 1	13	16.4	126%	2	2.8	2.9	Yes
Bedroom 2	11.4	11.6	102%	2	2.8	2.825	Yes
Combined Bedroom	24.4	28	115%	4			Yes
En-Suite Bedroom 1		3.2					
Store 1		3.2					
Store 2		2.2					
Store 3		1.1					
Combined Store	6	6.5	108%				Yes
Store (under stairs)		2.9					
W/C		4.2					
Entrance Hall		6.1					
W/D (Washer/Dryer) Plant		0.4					
Private Amenity / Garden**	7	33.9	484%				Yes

Block	# Apts	Unit Numbers	Total Units	Dwg Code
Block D1	0		0	D1
Block D2	1	57	1	D2
Block D3	1	72	1	D3
Block D4	0		0	D4
Block T5	2	59, 66	2	T5
			4	

Min Area / Width Source: Appendix, Design Standards for New Apartments (2018)

*Store under stairs provided in addition to minimum storage requirements

**Smallest Garden Area Provided - Unit 72; See section 1.6 of Housing Quality Assessment & Site Plan for Plant includes for Exhaust Air Heat Pump Unit and water storage



Ground Floor Plan (upper unit entrance faded out)

2.10. | 3 Bed, Type D3

2020.09.30 Housing Quality Assessment: Duplex - 3 Bed Unit							
							Dual Aspect
Room	Min Area(m ²)	Actual Area(m ²)	Difference	Occupancy	Min Width (m)	Actual Width (m)	Compliant
Gross Internal Area	90	120	133%				Yes
Kitchen/Dining/Living	34	36.3	107%		3.8	4.04	Yes
Bedroom 1	13	13	100%	2	2.8	2.84	Yes
Bedroom 2	11.4	11.4	100%	2	2.8	3.28	Yes
Bedroom 3	7.1	7.1	100%	1	2.1	2.1	Yes
Combined Bedroom	31.5	31.5	100%	5			Yes
En-Suite Bedroom 1		2.8					
Store 1 FFL		1.1					
Store 2 FFL		1.3					
Store 3 FFL		3.4					
Store 2FL Bed 1		1.1					
Store 2FL Hallway		2.1					
Combined Store	9	9	100%				Yes
*Store 2 (under stairs)		1.7					
*Store 2 (Raised Floor)		0.75					
W/C		2.5					
Bathroom		4.8					
Porch/GFL		4.8					
Landing FFL		8.7					
Landing 2FL		11.3					
**Washer/Dryer (W/D)		0.8					
Plant		0.8					
Private Amenity / Terrace***	9	30.6	340%				Yes

Block	# Apts	Unit Numbers	Total Units	Dwg Code
Block D1	2	48,50	2	D1
Block D2	4	52,54,56,58	4	D2
Block D3	3	69,71,73	3	D3
Block D4	7	75,77,79,81,83,85,87	7	D4
Block T5	2	60,67	2	T5
			18	

Min Area / Width Source: Appendix, Design Standards for New Apartments (2018)

* Any storage area with reduced floor to ceiling height not included in 9sq.m requirement

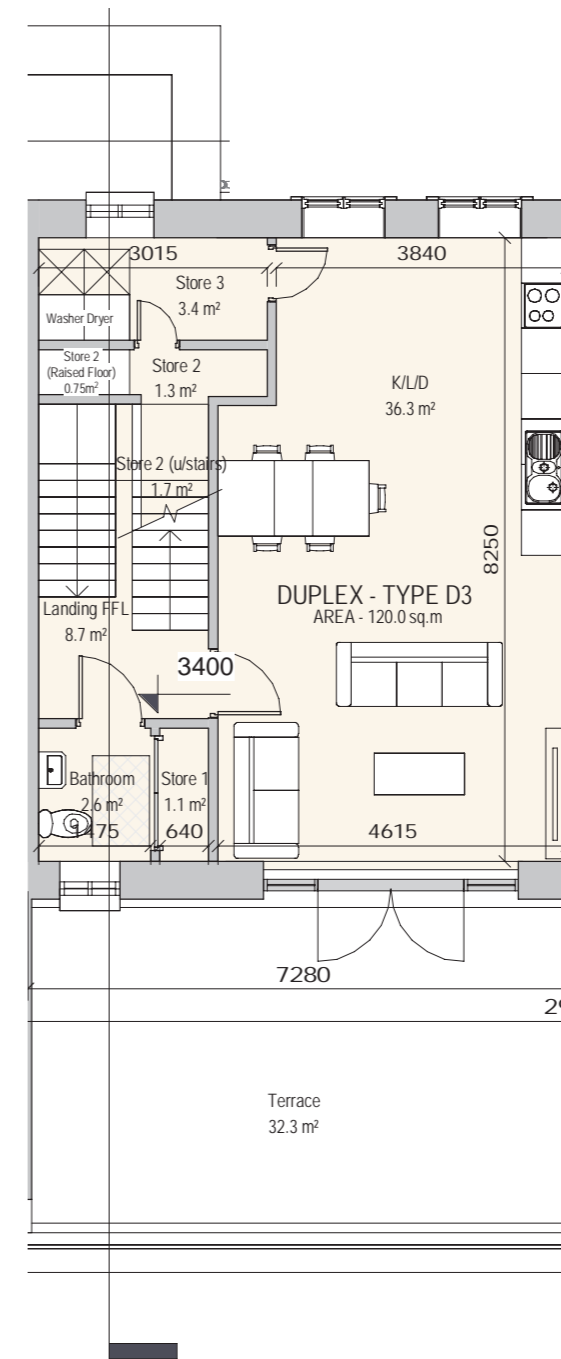
**Washer Dryer single stacked located in store 3, provided in addition to room area

*** Smallest Terrace Area, Block D4 units 83 & 87

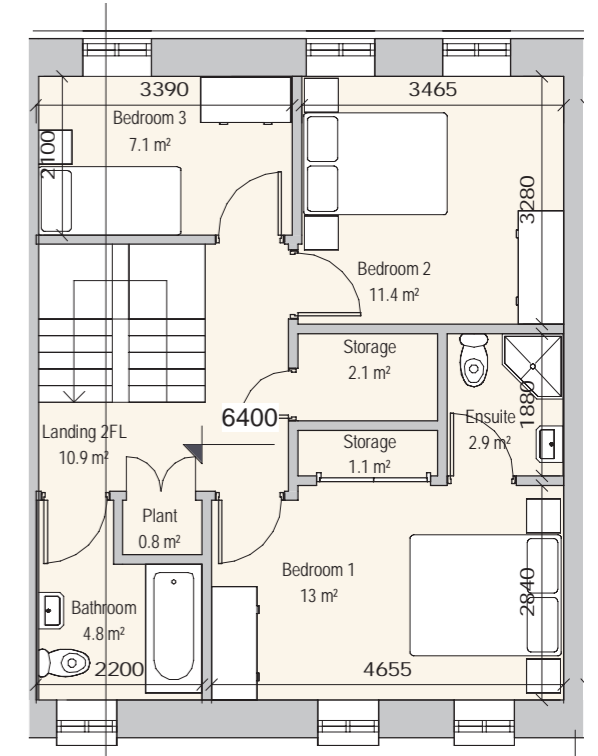
Plant includes for EAHF unit, attic to provide water storage



Ground Floor Plan
(Adjoining unit faded out)



First Floor Plan



Second Floor Plan



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