





MATERIALS AND FINISHES REPORT

FASSAROE | BRAY | CO. WICKLOW

January 2022



INDEX

03	INTRODUCTION
04	FINISHES AND DETAILING
06	APARTMENTS
07	HOUSES
08	KIOSK
09	CRECHE
10	GYM AND CONCIERGE
11	CAFE AND RETAIL
12	CAR AND CYCLING PARKING
13	PUBLIC LIGHTING
15	SUSTAINABILITY

APPENDIX

16	LANDSCAPING MATERIALS REPORT
21	REFUSE STORAGE REPORT

NDEX 2

DETAIL LANGUAGE AND MATERIALS

The proposed buildings employ a controlled palette of materials where detailing is intentionally sharplined, taut and edited.

The primary materials for the development will be a mix of high-quality brick textures with complementary stone details in selected areas to the street elevations. The material choice will ensure that the buildings proposed are durable as well as being of high visual quality.

Each one of the 5 proposed character areas has legible unique features that will create a sense of identity and place, while applying a coherent architectural language through the use of repeating elements such as complementary brick types, window types, balcony treatments, stone cladding and metal cladding. Such features will be discussed in more detail the next pages.

The use of these high quality, durable and low maintenance materials within the scheme will contribute to the longevity, appearance and character of the proposed development. The landscaped podium, defensible spaces/paving and soft landscaping have been detail designed by Mitchell + Associates Landscape Architects with the relevant pages in the appendix of this document and the full report accompanies this planning application

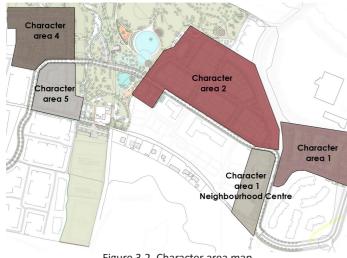


Figure 3.2. Character area map



Figure 3.1. Neighbourhood Centre and character area 2

FINISHES AND DETAILING

- BRICKWORK AND STONEWORK

4 shades of clay bricks and 2 types stonework are proposed for this phase of development. This complementary materials pallet is employed as a coherent family of materials that will run through the different character areas and create an unique identity to Fassaroe

The muted buff brick colour will be complemented by the well defined red brick details in the proposed apartment buildings, while the houses will have the same brick type or complementary brick colours to the apartment buildings in special details.

Stone cladding is used carefully to define spaces, complement the brickwork and add to visual interest.

- TOP FLOOR AND STAIRCORE CURTAIN WALLING

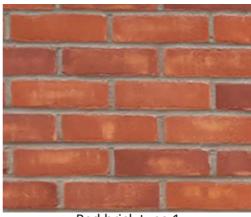
These glazed areas are designed with repeating regular modules and with minimum definition of the aluminium transoms and mullions. The panes of glass are positioned in a way that expresses minimal external façade shadowing. The framing and the large glass areas read as taut flat skins, sheer reflecting surfaces contrasting with the textured surfaces adjacent.

- ZINC CLADDING

Zinc cladding is proposed for selected areas mainly in 2 different forms, as window dormers in the houses and cladding to penthouses and roof edging in apartment buildings. This additional material variation adds to visual interest while also complements the pallet of natural materials proposed



Buff brick Creme with grey mortar or similar approved



Red brick type 1 Heritage red with grey mortar or similar approved



Red brick type 2 Cayenne with grey mortar or similar approved



Brown brick Chailey hamsey or similar approved



Off White / cream Sandstone cladding



Reconstituted Stone detailing



Zinc cladding - dormer windows



Zinc cladding - walls

- WINDOWS

To deliver visual variety and add variations of perceived wall depth, it is envisaged that a diversity of different detailing approaches will be applied to the in-wall opes:

- Curtain walling to create a sense of delicacy at selected corners and penthouses
- Well considered wall openings balanced through different facades creating a rhythm

In all cases, the aesthetic aim is to play on the contrast between solid and void between the glass and brick.

- BALCONIES

The design and detailing of these elements follow those of the curtain walling. Balcony balustrading is to be glass supported on framing systems positioned behind the glass to deliver a clean appearance, while downplaying the mild steel framing.

Balcony construction will be either pre- fabricated concrete or pre- fabricated mild steel, with supporting columns, all to later specification

Special wrap around corner balconies are proposed to enhance the volumetric composition of the Neighbourhood centre with a contour stone band detail

- SIGNAGE

Way-finding signage is proposed in selected locations as part of the public realm and character of each area. These signs will be made integral to the materiality of the surrounding and corresponding character area, varying from stone, stainless steel and concrete.



Curtain wall example 1 - penthouses



Balconies example 1
Pre - fabricated concrete



Building signage example 1S Stainless steel on stone clad plinth



Curtain wall example 2 - penthouses



Balconies example 2
Pre - fabricated metal



Building signage example 2

Etched sandstone

MATERIALS - APARTMENT

The combination of glazed and solid surfaces is controlled, with the intention of creating visual interest while negotiating the volumetry of the building across the development. A slight play with stone panels help to create a sense of hierarchy within the facade and public realm while adding to the visual interest to the overall development. The aesthetic follows through to the balcony balustrade and the curtain walling of the staircores.

Blocks 1 and 2 have been designed with book end corners strategy, accentuated by the red brick while the body of the building has a buff muted brick pallet. This aesthetic treatment follows through to Block 3, with the addition of stone cladding details in selected areas tying in with the neighbourhood centre.

To announce the neighbourhood centre area as the heart of the public realm, stone cladding is proposed in larger areas of the neighbourhood centre building, aided by appropriate signage for the neighbourhood concierge and Cafe. A complementary red brick texture is used in the infill areas linking the design aesthetics to character areas 2 to the north west and blocks 1 to 3 to the north east. Curtain wall finish is proposed to the penthouses and stair cores which will reduce the perceived scale of the building as the development transitions to smaller scale houses in character areas 2, 4 and 5.

Block 4 is a smaller scale building, proposed mainly in red brick to blend in with the houses adjacent, with some infill areas of a complementary brown brick adding to the visual interest of the building.









RED BRICK TYPE CORNERS

BUFF BRICK INFILLS





RED BRICK TYPE 2 CORNERS



BUFF BRICK INFILLS



SANDSTONE CLADDING DETAILS





RED BRICK TYPE 1
INFILLS



SANDSTONE CLADDING DETAILS



CURTAIN-WALLS PENTHOUSES





RED BRICK TYPE 1 CORNERS



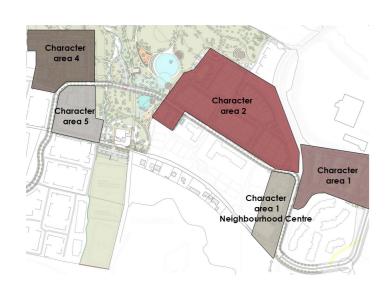
BROWN BRICK INFILLS

MATERIALS - HOUSES

The houses in character area 2 are designed with a more traditional style and materials pallet, using a well defined red brick complemented by reconstituted stone details around doors and windows reveals.

Character area 4 is proposed in a more contemporary architectural language with a more muted buff brick overall complemented by an accentuated brown / maroon brick bands around the dormer windows and at the bottom. Additional rendered or reconstituted stone detail in door and window reveals will add to the visual interest and well defined lines of the facades.

The contemporary design language will carry through to character area 5, complemented by off centre window mullions arrangement and a combination of red brick panel linking the entrance door front window and buff brick overall.









KIOSK

This pavilion like design has large openings to take in as much as possible of the views. The glazed areas will be glass supported on framing systems positioned behind the glass to deliver a clean appearance, while downplaying the mild steel and aluminium framing.

The walls are proposed in a muted buff brick, a durable and low maintenance material that will be well integrated to the park itself.

The roof edge has a large cantilever favouring outdoor areas and it is clad in pressed metal, contrasting from the buff brick below and creating a sense of a floating roof.

A Decked area wraps around the building with generous outdoor seating offered. This is discussed in more detail in Mitchell + Associates report attached to this application





Figure 8.1. CGI of Kiosk



CRECHE

The creche is located at the threshold of the park and character area 2. A combination of red brick to tie in with the houses adjacent is proposed in combination with a stone clad corner that announces the large public district park to the west.

The windows are related to the design of character area 2, with a discrete variation in size to ensure visual coherence

Appropriate signage will be provided at the pedestrian and cycling entrance of the creche

The play areas are well defined by the landscaping and by the use of low metal railing, all detailed in more in Mitchell + Associates report



Figure 9.1. CGI of creche





GYM AND CONCIERGE

Neighbourhood Concierge and multi- purpose space

Stone banding and large glazed windows are used to identify this central communal space with ease. A pressed metal entrance canopy projecting over the entrance door together with the landscaping ground design articulation announces the main entrance of the space

A combination of hard and soft landscaping is proposed to articulate this important corner of the development

The use of appropriate signage will also be employed to clearly identify the space and entrance.

Gym

The gym entrance uses a combination of curtain walling and stone clad panes to extrude from the building face; defining itself as complementary space to the community concierge. The use of a contour stone clad band at this important corner helps to define the amenity space for resident's usage combined with large glazed areas supported on framing systems positioned behind the glass to deliver a clean appearance and creating visual openness.





- COMMUNITY LOUNGE / MEETING / MULTIPURPOSE ROOM
- 2 GY
- 3 COMMUNITY CONCIERGE

Figure 10.1 neighbourhood concierge and gym facade

CAFE AND RETAIL

The Cafe is constructed with a lively red brick and complemented by stone banding at the corner framing the public plaza opposite.

On the roof terrace a large curtainwall surface wraps around the corner above the stone band below with a floating roof clad in pressed metal above. A solid wall was design closer to the apartment buildings as a privacy measure while also creating a solid and void play between the ground and first floor facades.

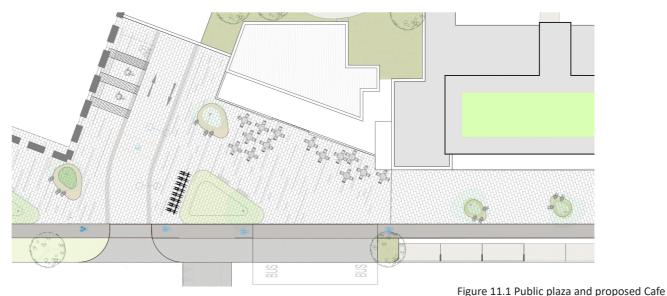
A Signage space on the first floor level etched on reconstituted stone will complement the materiality in setting a sense of importance to the area, all to later details.

Similarly to the area next to the neighbourhood concierge, a combination of hard and soft landscaping is proposed to create a sense of place in this area. The seating area is delineated by ground markings as well as planters along the road, with an awning above.

This cafe space announces the beginning of the retail area proposed. As such the materiality both in the facades and hard landscaping will flow along the link street, with a similar solid and void play through the with the use of curtainwalling and stone clad entrances to the apartments along the street.











Kerb and planter's threshold

CAR AND BICYCLE PARKING

Car parking as proposed will not dominate the visual character of the street. In all cases where either on street or on curtilage parking is proposed, a strong street planting scheme has been detailed by Mitchell and Associates.

Basements and undercroft arrangements by their nature take the car out of the public realm for the apartment buildings. The developer will provide car charging points at the outset to the quantity required by a planning authority

10% of the non curtilage parking spaces will be fitted with a charging point and that the other 90% are "charger ready". Typically this means cable and ducting installed, back to a 3rd party meter and an associated billing system. All houses will also be "charger ready".

This is covered in more detail in the E-car charging document prepares by McElligott Consulting Engineers attached to this application

Bike parking spaces are provided in different configurations, depending on the necessity of each area. All bike parking areas in basements will be well demarcated and properly secured. Bike parking for visitors will be provided in some cases on surface where they are designed to be well integrated to the proposed landscaped areas and public realm.



Figure 12.1 Parking and landscaping proposed for houses Comparable size development delivered by Cosgrave



Figure 12.2 E-charging points

Comparable size development delivered by Cosgrave



Figure 12.3 Sample image of bike lanes



Figure 12.1 Sample image of secure bike parking spaces provided in basement Comparable size development delivered by Cosgrave

PUBLIC LIGHTING

A fully detailed public lighting layout has been prepared by Mc'Elligott Consulting Engineers and included in this planning application. This is to ensure that safe movement through the site is provided for the vehicular and pedestrian transport. The public lighting scheme covers all streets proposed throughout the site and is provided along the cycle path over the N11 bridge and down to the R918 road. Existing fittings will be replaced with new high efficiency LED lamp heads and the overall design will comply with the requirements of Dun Laoghaire Rathdown and Wicklow Co. Co. Public Lighting Departments.

All public lighting proposed for the development will be LED. This is one of the more accessible routes to gaining NZEB compliance. An LED light source will last at least twice as long as a low energy bulb and use about half of the energy. Another advantage of the LED bulbs is that their low energy demand correlates with less heat rejected to the space and adding to the potential of overheating.

The proposed lighting is designed in accordance with BS5489-2020 Class P4 and in accordance with the DRL and Wicklow Co. Co. Public lighting standards as shown in indicative lighting layout image 14.1

For more details, please refer to Energy Statement document prepared by Mc'Elligott Consulting Engineers attached to this application



Figure 13.1 Sample image of public lighting within the landscaped park lands Comparable size development delivered by Cosgrave



Figure 13.2 Sample image of public lighting in public walkways Comparable size development delivered by Cosgrave



Figure 13.3 Sample image of public lighting in the urban fabric Comparable size development delivered by Cosgrave



Figure 13.4 Sample image of public lighting in the urban fabric Comparable size development delivered by Cosgrave

PUBLIC LIGHTING

Luminaire A Data



Supplier	C U Phosco
Туре	P863-32-P4-NW-F0750-73W
Lamp(s)	740P NW
Lamp Flux (klm)	8.68
File Name	P863-32-P4-NW-F0750-73W.ies
Maintenance Factor	0.80
lmax70,80,90(cd/klm)	682.6, 178.4, 0.0
No. in Project	75

Luminaire B Data



Supplier	C U Phosco
Туре	P863-16-P4-NW-F0350-19W
Lamp(s)	740P NW
Lamp Flux (klm)	2.20
File Name	P863-16-P4-NW-F0350-19W.ies
Maintenance Factor	0.80
lmax70,80,90(cd/klm)	653.9, 172.3, 0.0
No. in Project	5
	•

Luminaire C Data



Supplier	C U Phosco
Туре	P863-16-F2-WW-E0900-47W
Lamp(s)	730P WW
Lamp Flux (klm)	5.14
File Name	P863-16-F2-WW-E0900-47W.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	457.9, 58.0, 0.0
No. in Project	5

Luminaire D Data



Supplier	C U Phosco
Туре	P852-12-R3B-WW-CA0200-9W
Lamp(s)	730C WW
Lamp Flux (klm)	1.04
File Name	P852-12-R3B-WW-CA0200-9W.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	876.7, 56.5, 1.7
No. in Project	31

Alinea Handrail



Unrivalled performance, coupled with seamless aesthetics, to deliver the best experience.



Sample image of Alinea Handrail fitting



SUSTAINABILITY

OVERALL STATEMENT

All of the units will be subject to the NZEB (Nearly Zero Energy Building) requirements of the updated Part L Regulations, from 2021 that are in effect. In terms of energy ratings all of the units on site will have a Building Energy Rating (BER) of A2 / A3.

The measure of compliance with Part L of the Regulations is demonstrated using the Dwelling Energy Assessment Procedure (DEAP) software. A revised version 4.2 of the software has now been issued which will formally allow assessors to confirm the NZEB standard has been achieved. Carbon generation and energy consumption figures for all new dwellings have been revised downwards with the net result that the proposed apartments and houses at Fassaroe will have to use 30% of the energy that the equivalent unit, built to the prevailing 2005 standard would have used. The required renewables contribution in each unit is now a percentage, 20%, of the overall energy density that the dwelling requires.

RENEWABLE ENERGY

Since 2008 and the introduction of the European Performance of Building Directive it has been mandated that each dwelling unit must generate a portion of their energy demand. The proposed buildings supply the renewable energy contribution in order to meet the Energy Performance Criteria of 0.3 as compliance hinges around either the ability to generate hot water (for sanitary purposes) using a heat pump with a related COP of over 230% or providing sufficient photovoltaic capacity to lower the imported energy into the unit.

A summary of the renewable solutions to be adopted on site are:

- Solar Photovoltaic (PV)
- Combined Heat and Power
- Heat pumps

All components proposed to achieve the renewable energy requirements were considered from the early stages of the design process and incorporated within the landscaping and built fabric to minimise any negative visual impact.

U-PVC WINDOWS

PVC framing is proposed at Fassaroe for its energy efficiency and low maintenance characteristics compared with aluminium windows.

When assessing the energy efficiency of a window the frame has a bigger impact on the U value than the glass, effectively it is the weakest link in the thermal performance of the overall assembly. PVC framing material performs better than aluminium, having improved insulation qualities. At the point of manufacture the embodied energy of uPVC is 80 MJ/kg whereas the equivalent aluminium figure is 170 MJ/kg, a reduction of over 50%. Although the lifespan of both aluminium and PVC is similar at circa 35 years, aluminium frames depend on their paint cover, minimum of 70 microns, for protection whereas the PVC frame material is designed to be exposed and does not require an outer protective layer, and therefore require less up-keeping



Figure 15.1 Sample image of U-pvc windows Comparable size development delivered by Cosgrave

BUILDING FABRIC

The building fabric elements that will be used in the construction of the dwellings will achieve the following performance

 Walls
 0.18W/m2K

 Roof
 0.16 W/m2K

 Windows
 1.4 W/m2K

 Floors
 0.16 W/m2K

The specified air tightness for the unit is to achieve an air tightness level of 3 air changes an hour or better. Based on previously project experience with Cosgrave Property Group we expect that this figure will be comfortably exceeded within the house/apartment types proposed. It is proposed to provide heat recovery ventilation systems in each unit. The gains in thermal performance become quite marginal below this level.

GREEN ROOFS

We are providing a minimum of 60% green Sedum roof to all apartment buildings, this type of green roof requires little maintenance compared to other green roofs as they have shallow roots and only need a small amount of rain water and nutrients to survive. Upkeeping is mostly related to periodic gutters and edge cleaning but the meadow itself requires little attention.

Sedum roof systems have been shown to have benefits for a range of insects. Sedum flowers do provide foraging for pollinators, especially bees in late June, providing much need habitats and food sources for wildlife and insects

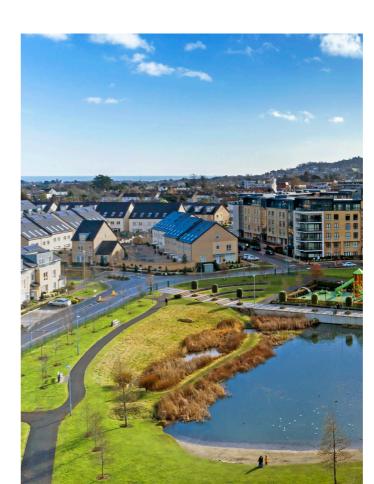


Figure 15.2 Sample image of similar building fabric Comparable size development delivered by Cosgrave



Figure 15.3 Sample image of Sedum Roof Comparable size development delivered by Cosgrave



Figure 15.4 Sample image of Sedum Roof biodiversity Comparable size development delivered by Cosgrave

SUSTAINABILITY 15

PAVING AND MATERIAL PALETTE

PC Paving

Dimensions: Varies

Colour: Sandstone

Pattern TBC

Used in Overview platforms



PC Corduroy Paving Hazard Warning

To be placed on top and bottom of stairs - Tobermore

Dimensions: 400x400x50mm

Colour: Natural



PC Paving

Dimensions: 240x160x80

Colour: Silver with graphite stripes

Patern TBC

Used in key areas





Mulch

Used in the Adventure Play Area

Need to use 300 to 400mm of Mulch to fall absorption



Buff coloured tarmac

Used in park for path

As shown in details



Concrete footpath

Used for vehicular crossing and pedestrians sidewalks



White colored chipping tarmac

Used in homezone and shared surface areas

As shown in details



Rubber paving for playgrounds

Use of flexotop or equivalent

Colors to be agreed in the next phases



LFAS006 - Fassaroe Material, Furniture, Planting - November 2021 20

MITCHELL + ASSOCIATES

FURNITURE PALETTE

Sheffield bike racks

Size: 1100x715 mm

800 mm above ground when in-

stalled

Material: Marine grade 316 stain-

less steel

Finish: Satin



Railing

Size: 1100(h)

Colour : Steel

Stainless steel railing



Bollard - Omos s23

Size: 1500x114mm diameter

Height: 1000mm above ground

Finish: Brushed 316 grade stainless steel body with radially polished stainless steel cap.
Recessed grooves with reflective vinyl band in white.



Metal edge 'Fort' or equivalent

Kinley Product - Galvanised steel

Dimensions: 6 x 150mm



Handrail

Stainless steel single handrail



PC kerb

Dimensions: varies

Material: concrete

Finish: exposed aggregate

Colour: Granite aggregate



LFAS006 - Fassaroe Material, Furniture, Planting - November 2021 21

MITCHELL + ASSOCIATES

FURNITURE PALETTE - BENCHES

S96w seat - Omos

Galvanized steel cantilever support beam with seat and backrest supports. Iroko seat and back boards. Armrests optional.

Dimensions: Length 1800, depth 565mm, height 790mm.

Use of below surface flange

Rough & Ready Curved bench - Streetlife

Transverse modular beams mounted in a self-supporting comb

Dimensions: 50cm depth

Colour: Natural - Hardwood Virgin

Curved Bench for Shared Area Plaza

Concrete and Hard wood

Colour: Natural - Hardwood Virgin

Regular Concrete bench for play areas

Concrete and Hardwood

Dimensions: 1800x600x480mm













Solid Picnic Sets - Streetlife

Galvanized steel and hardwood

Dimensions: Standard Length 2340 or 3000mm, depth 930mm, height 1180mm.







LFAS006 - Fassaroe Material, Furniture, Planting - November 2021 22

MITCHELL + ASSOCIATES

OTHER FURNITURES



Amphitheater made up of concrete steps integrated into the grassy slope

Dimension varies



Circular entrance to the park made up of vertical steel sections (See corresponding details)



Vertical steel signage scattered throughout the park

RETAINING WALL

Anchor® Landmark®

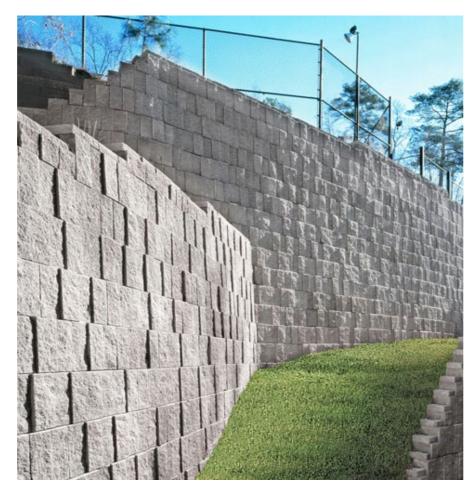
Portrait orientated 'riven stone' face of slightly varying depths. Naturally textured appearance.

Dimensions: length 200mm; depth 300mm; height 380mm

Colour: basalt

Location: Retaining wall within the park





KeyWaste



General Proposals for Bin Rooms / Waste Areas - Apartment Buildings and Neighbourhood Centre

General proposals for the bin rooms proposed to serve the apartments and neighbourhood centre are set out below and illustrated in some typical images:

- It is proposed to provide basic drainage for the bin areas. This is to allow for up keep/power washing of the areas. The detailed specification for this drainage will be advised to the contractor at construction and fit-out stage.
- Mechanical ventilation is proposed at bins rooms / waste areas in line with relevant regulations.
- Adequate lighting is proposed, which is above the standard requirement. to allow for a brighter, safer environment. Lux of 350-450 advised minimum.
- A waste brush and pan set be shall be kept in all bin rooms. This allows the tenants to keep the rooms clean if a bag spills.
- A Grey waterproof epoxy paint will be used on the floors and 5ft up wall the remainder to ceiling in white. This allow for spillages to be easily cleaned, but also for greatly improved aesthetics.
- Recycling guidelines and policy information displays for residents will be provided.
- Air fresheners and hand sanitisers will be installed, to make for a better experience.

Proposed Bin Colour Types



KeyWaste



Unifomed Signage And Posters For Bins/Bin Rooms



Bin Size Dimensions



KeyWaste



Examples of Bin Rooms:









KeyWaste



Recycling Centre Information Example ('Boghall Rd. Recycling Centre' nearest facility)



6.2 Site Breakdown for Proposed Waste Management Measures

Total 650 Residential Units. Commercial/Retail/Creche. broken down as follows:

- 241 x Individual Houses
- 409 x Apartments
- Commercial/Retail/Creche
- Bring Recycling Centre