

7.7 Building Services & Maintenance

Energy Strategy

- All homes and apartments will be provided with Air Source Heat Pumps to generate heating and hot water.
- The apartment ASHPs will be integral within the flats, and no additional plant shall be required at roof level.
- Photovoltaic panels will be incorporated on pitched roofs and biosolar flat roofs.

Fire Suppression

- Block A apartment building will incorporate a water misting system as automatic fire suppression. Each dwelling will contain a pump within the kitchen, linked to the fire safety system and additional booster plant at ground floor level.

Dry Risers

- A dry riser is provided at the apartment building entrance at ground floor.
- Landing valves are provided at each level linked by pipework to inlet breaching valves externally accessible to the fire brigade for point of connection.

Lifts

- A single vertical transportation lifts will be provided in Block A, to serve all floors
- The specification of lifts shall be developed later in the building design process

Rainwater goods

- Positive drainage of all balconies and roofs via external hoppers and downpipes,
- All goods to be aluminium. Colour RAL to match associated building materiality as indicated on drawings.

CDM - Health & Safety

- The green roofs will require annual inspection. For the houses this is anticipated that scaffolded visual inspection could take place via the exterior of the building
- The apartment building roof has been been designed with a collective edge protection, parapets at min. 1.1m height.
- The access hatch has been maintained separate to AOV requirements so that access can be made safer.
- Most of the M&E plant that will require inspection, maintenance and eventually dismantling, removal and replacement have been located at the ground floor.
- The façade material is brick and pre-cast or grp concrete elements that are considered non-combustible and maintenance free and the cavity insulation is also non-combustible.
- The windows have been designed to be cleaned internally by the residents whereas the communal windows can be cleaned by water-fed poles from the ground.



Example of maintenance access hatch

Sedum



Biodiverse



Typical rooftop combining PV & biodiverse planting

7.8 Building for Life

Integrated Neighbourhoods

Natural Connections

- Pedestrian access maintained along all three existing surrounding streets
- New pedestrian connection created east-west across the formerly closed off site.
- Mature trees and planting maintained and enhanced to create a green public realm
- Increased hedging, rain gardens, street tree planting and offsite biodiversity contributions

Walking, cycling and public transport

- Car parking provision balanced against need and other development demands.
- Blue badge parking and visitor parking integrated. All spaces are designed as active EVCPs.
- New pedestrian link improving connectivity to wider public transport links
- Integrated cycle parking and storage for all homes.

Facilities and services

- Intensify development in a well connected site, with good public transport and local service connections
- Street facing buildings with front doors on the main street elevations
- Planted buffers providing privacy to ground floor residences without obscuring glazing

Homes for everyone

- All homes designed for affordable rent.
- A mixture of homes including bespoke 'downsizer' apartments, and houses for a range for family sizes.
- All homes are design with flexibility in mind; above NDSS space standards, the majority of

bedrooms designed as twin rooms, opportunity for closed or open plan layouts

- All homes have private outdoor amenity space as well as shared gardens for the apartments, and public amenity space.

Distinctive Places

Making most of what's there

- Mature Cat B trees retained where possible.
- A mixture of building heights from 2 to 4 storeys, in keeping with the local context
- The natural topography of the site is used to minimise the impact of taller homes
- Raingardens and SUDs features incorporated in the public realm improvements
- Integrating biodiversity features and new planting to achieve a biodiversity net gain
- Rear communal amenity backs onto neighbouring gardens and improves existing garden amenity.

A memorable character

- Various design options have been tested, arriving at creating a family of buildings with distinct typologies and arrangement that knits in to the existing site context.
- High value and quality existing green infrastructure, such as the mature Norway Maple in the southwest corner of the site, are retained as key focal points in the public realm.

Well defined streets and spaces

- The arrangement of buildings helps define the street edge with a positive, active frontage
- The apartment building is designed to resolve the linear frontage along Burghfield Road, acting as a 'full stop' in the townscape and highlighting the new street corner.,
- Communal front doors and individual house

entrances face the street and create activity.

- All homes are designed as dual or triple aspect.
- Buildings A is designed to respond to its corner locations; frontage on all sides of equal importance.
- Gaps between buildings are celebrated as positive, secure connections to rear gardens prevent opportunity for negative behaviour, and ensure a robust public realm treatment while allowing sunlight to reach neighbouring homes.

Easy to find your way around

- Principal street frontage well defined with built form or robust boundary treatments and hedging.
- Secondary access points to gardens are clear defined with secure gates preventing public access.
- Site levels are accessible for all users in street and rear amenity spaces.
- The new street on site offers no through travel for vehicles, but accommodates all on site manoeuvring for service and deliveries reducing the impact on the existing street network

Streets for all

Healthy Streets

- The proposals seek to minimise the necessary parking and access roads, designing them to integrate greening and encourage pedestrian friendly activity..
- Proposed semi-mature street trees to line the road, some with underplanting to provide SUDs and additional greening.
- New pedestrian permeability provided across the site for the local community.

Cycle and car parking

- Car parking reflective of current census data requirements, including blue badge parking and

minimal visitor provision.

- On-street parking bays grouped and separated with planting.
- On plot driveways allow for parking to sit behind the building line, reducing cars' visual dominance in the street
- All car parking spaces designed as active EVCPs
- Integrated cycle parking near to front entrances or accessed directly from the garden.

Green and blue infrastructure

- Landscape proposals achieve a biodiversity net gain incorporating offsite measures
- The existing mature Cat B are retained, with their siting strengthened with additional planting and publically open amenity,
- Biodiversity features such as bird and bat boxes integrated within buildings, and hedgehog routes within boundaries.
- All flat roofs are designed as green roofs.
- SUDs are integrated as rainwater gardens and on site attenuation
- Apartment Garden design creates a 'loop' to encourage active walking circuits.

Back of pavement, front of home

- All street facing homes with defensible planting to street
- Waste storage is integrated within front gardens for direct refuse collection, screened from the public realm via low walls or hedging.
- All houses have their own front doors, facing the street.
- A single communal entrance on the new street offers clear, legible access to the apartment building.
- Wide balconies overlook street spaces while offering privacy to residents, and offer variation of aspect.
- Communal circulation spaces in the apartment building are glazed and overlook the street.



CONCLUSION



8.0 Conclusion

The redevelopment of the vacant and allocated site on Dwyer Road site represents the enhancement of a once valued existing brownfield location, into attractive and exemplar affordable, mulit-generational homes for Reading Borough Council.

A Collaborative Design Process

Nearly a year of design development; including engagement with the local community, stakeholders, planning officers, local councillors, statutory consultees, crime prevention design advisor, and the Reading Design Review Panel has directly helped shape the proposals.

Revitalising Vacant Sites

The former Alice Burrows Care Home site has been vacant since its demolition for the last 15 years. The redevelopment of the brownfield, allocated site for housing will open up this space to the local area again, creating activity and a new community of residents.

Respecting Surrounding Neighbours

The design has been carefully evolved to respond to surrounding properties, in keeping with existing context storey heights, and arranging buildings to maintain privacy for neighbours

A Multi-Generational Community

The 31 new homes proposed offer a range of dwelling types to meet the needs of residents, at every stage of life.

Creating private and shared amenity, alongside pedestrian friendly streets will give all tenants the option and opportunity to interact as a new community.

Sustainable Living

All homes are designed to achieve Net Zero Carbon in operation. Informed by Passivhaus principles, the fabric first approach proposes well insulated homes, zero-carbon renewable energy, biodiverse roofs, SUDs and PV panels. Water and energy efficient fittings are also incorporated.

The proposals strengthen the existing green character of the site, retaining mature Cat B trees on site, and integrating new street trees and planting in the public realm. In conjunction with offsite measures such as local street tree planting, the landscape design will achieve a Biodiversity Net Gain

The Proposals	
"Redevelopment of the Site at Dwyer Road to deliver 31 new homes comprising 16 houses and 15 flats, alongside new access, soft and hard landscaping, parking and ancillary works".	
Site Allocation	WR3p Dwyer Road
Total Number of Homes	31 homes
Number of new houses	15 homes
Number of new apartments	16 homes
Number of Wheelchair Adaptable Homes	2 (6%)
Proposed Habitable Rooms	104
Site Area	0.58 ha
Density Homes/Ha	53.4 Homes/Ha
Density Habitable Rooms/Ha	179 Habitable Rooms/Ha
Tenure	100% affordable (social rent)
Housing Mix	1 bed (x15); 3 bed (x9); 4 Bed (x6); 5 Bed (x1)
Building Heights	4, 3 and 2 storeys
Residents' Shared Gardens	288.7 sqm
Residents' Private Amenity	841.8sqm (702.8 sqm rear gardens, 139sqm balconies)
Public Amenity	282.1 sqm
Biodiverse Green Roofs	645 sqm
Car Parking Spaces	27 in total (6 on plot / 21 on street)
Electric Vehicle Charging Points	100% active charging spaces
Residential Cycle Parking Spaces	36
Biodiversity Net Gain	+11.36% (including offsite measures)
Sustainability Targets	Net Zero Carbon in operation. To include; Renewable Energy: Air Source Heat Pumps & Photovoltaics, Air Permeability of 1m3/hm2 (@50 Pa) Water Consumption <95l per person per day

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