Design Principles for New Homes and Remodelling



Contents

Introduction	3
Design Principles	10
Principle 1: Independent Living	12
Principle 2: Value for Money	14
Principle 3: Co-Production	16
Principle 4: Health, Safety & Regulatory Compliance	17
Principle 5: Sustainability	19
Appendix 1: Design Standard Overview	21
Appendix 2: Size and Space Standard Principles	31

Introduction

Established in 1971, Bield Housing & Care (Bield) has grown to be one of Scotland's largest registered social landlords and a leading provider of retirement housing to allow people to live independently for longer in their own homes. Owning more than 4,600 properties and with a successful 50+ year track record, we benefit from significant scale, experience and reach across Scotland and operate in 21 of Scotland's 32 local authority areas.

In addition, more than 14,000 customers use our alarm receiving centre (BR24), we deliver around 2,500 care hours per week, have 150-day care customers and employ almost 700 people.

Owner of OVET 4,600 properties

Delivering **2,500** care hours per week



VISION AND MISSION STATEMENT

Our Purpose:

We make it possible for more people to live their best lives, at home, surrounded by a supportive community.

Our 10-Year Vision:

66 We will lead, set and deliver the global standard for ageing at home. 99

At Bield, we place our tenants and other services users firmly at the heart of what we do. We provide a variety of housing options to our tenants from social rental through to shared ownership. Our building types include amenity housing, retirement housing, retirement housing with meals, retirement housing plus and owner services. We also provide day care and Bield at Home services.

OUR INDEPENDENT LIVING APPROACH

Bield acknowledges that everyone is different and has different needs and aspirations, therefore we endeavour to support our tenants to lead the life that they want to live. Our Independent Living Approach is the lens in which we view everything through and focusses on:



Bield believes we should all be supported to live our best lives creating true personcentred approaches to the way services are delivered. Engagement with our tenants, to listen and be able to adapt with their needs and offer services when required, is key.

BIELD'S STRATEGIC ASSET MANAGEMENT (SAM) STRATEGY

Bield is guided by our values, and we look to build on our existing skills and experience and manage our asset portfolio to facilitate future growth and enable us to continue to make positive contributions to our people, our homes and our communities.

This ethos is echoed within our SAM Strategy - Setting the Standard - which has been developed to support the delivery of our corporate strategy. It details our strategic intentions to invest over the next 10 years to support healthy aging at home in safe, warm and affordable homes.

The SAM Strategy ensures that Bield's values are reflected in each asset management decision; enabling sustainable, long-term growth that benefits tenants and communities.

Setting the Standard

BIELD

10 Year Strategic Asset Management Strategy

CO-PRODUCING THE DESIGN PRINCIPLES

The Design Principles have been co-produced with our tenants and internally, with different teams and staff groups across Bield. Many of our tenant groups were involved in writing these Design Principles including Bield's Communication Champions, Equality Network, and Compliment and Complaint Collective. The Bield Partnership Forum also discussed the principles in detail and helped the team to finalise them. We received really positive feedback from tenants on the principles - this was encouraging and showed we had listened correctly and captured what they wanted in their homes.

> Co-production is a key part of Bield's approach in design, not just for our homes but also within transformation and improvement projects. Co-production enables us to design homes and services that better meet the needs of our tenants and ensures we meet our commitment to keeping tenants at the heart of everything that we do.

Purpose of the Design Principles

The purpose of Bield's Design Principles is to ensure that our customers' independent living needs and expectations are reflected in how we design new homes and remodel existing ones. This document details the core principles of design to enable our Independent Living Approach, support ageing in place and promote opportunities within local communities to offer advice and support to assist with tenants' changing needs. As part of this, the Design Principles also consider the digitalisation of our assets and how best to incorporate technologies that could make life easier for our tenants.

The Design Principles for New Housing and Remodelling have been produced in the context of Bield's broader strategic objectives. Our corporate strategy, 'Setting the Pace... Our People, Our Homes Our Communities', sets five clear strategic intentions:



The strategy details our ambitions as an organisation to play a leading role in meeting the housing needs of future generations of older people by providing high-quality, highly responsive and personalised services.

This document provides high level guidelines that Bield and their partners should follow to ensure we deliver appealing, innovative, flexible, sustainable and affordable homes that will deliver high levels of tenant satisfaction and support tenants to live independently and longer at home.

The Design Principles are intended to assist in achieving high standards, to encourage good design and incorporate proposals which enhance the environment and show innovative design. Our standards encourage innovation, thoughtful design solutions that address the diverse needs of our tenants, and create inclusive independent living environments. We aim to exceed standard requirements whenever feasible, creating homes that meet both current and future needs.

The standard aligns with new government legislation and aims to be flexible to adapt where required and kept under continual review to update as new targets and legislation are implemented.

Our Customers

Bield is dedicated to creating housing solutions for older individuals, emphasising accessibility and independence. We aim to reduce physical and environmental barriers, enabling people to live with greater autonomy and dignity.

HOUSING FOR OLDER ADULTS

The majority of Bield's housing provision has been developed for those aged 60+, however, individual developments may provide housing to those aged 50+.

HOUSING WITHOUT COMMUNAL FACILITIES

These properties provide self-contained accommodation for individuals within a development offering a sense of community to our tenants, either in an apartment or cottage-style property. These properties are adaptable to individuals' changing needs, in terms of physical and digital adaptations, to ensure a safe and secure environment.

HOUSING WITH COMMUNAL FACILITIES

Bield provides accommodation for older people within developments that incorporate shared spaces, such as lounges, laundries, guest rooms and kitchens. The purpose of these shared spaces is to foster community interaction and reduce isolation, while still supporting independent living.

Bield also provides housing for other customer groups, which will be identified within project design briefs to align with community requirements. These may include:

GENERAL NEEDS ACCOMMODATION

This housing will be to meet demand within an area, and is detailed within the design specification for these projects. These properties will be suitable for larger households and families.

HOUSING FOR PEOPLE WITH ADDITIONAL SUPPORT/ VARYING NEEDS

We may participate in projects to meet the specific needs of individuals or groups within an area. Each project is carefully tailored and guided by the Project Brief to ensure optimal accessibility and usability for the intended tenant group.

FLEXIBLE TENURE OPTIONS

Bield also develop housing for older people through differing tenure groups and, to that end, certain site/project specific requirements may be required - especially in relation to housing for shared ownership. This will also be specified individually in the Project Brief.

BIELD'S HOUSING OPTIONS AND SERVICES

Bield offers a variety of housing options and support services designed to meet the diverse needs of older adults, fostering independent living, helping them live their best lives. These are noted below:

AMENITY HOUSING

Self-contained flats or houses: Housing which allows older or disabled people to live independently at home. These properties usually do not have communal facilities or on-site staff. Access to a 24-hour response service in the event of an emergency can be provided through a hardwired system or a digital dispersed alarm unit on request.

DAY CARE

Day Care services are provided to older people who still live independently in their own homes. The service offers support packages, typically for frail and vulnerable adults over the age of 60. An assessment to access the support services may be required.

RETIREMENT HOUSING

Self-contained flats with management support: Safe and secure homes providing independent living for older people, typically over the age of 60. On-site management support is provided and communal facilities are available. A 24-hour response service in the event of an emergency is available via BR24, our community alarm service.

Within some of our retirement housing developments, additional services can be accessed such as:

Meal Service Provision

Meals are provided, at an additional cost, from our on-site catering service, which provides two meals per day, lunch and dinner, 365 days per year. Food is served in a communal dining area, enabling greater social interaction, or tenants can opt to have meals delivered to their homes. Supported Living Services

These services provide care and support to individuals within their tenancies and can be provided as part of an arrangement with the local authority commissioning departments or individually as part of a personalised care package. Our supported living services are registered with the Care Inspectorate.

OWNER SERVICES

Self-contained flats or houses: Properties form part of a home ownership scheme. This provides the option of buying a share in the property (normally between 25% and 75%) and paying rent on the remaining share. Typically designed for those who are aged 60+ and can afford to invest in a property but want the safety and security of knowing that communal services and maintenance are available. A 24-hour response service in the event of an emergency is available via BR24 on request.

BIELD AT HOME

Bield at Home provides a "Care at Home" service for older people to offer support within a specific development or within the local community. This is currently only available to older people living in Linlithgow.

BIELD RESPONSE 24 (BR24)



BR24 is our digital alarm monitoring service which operates 24 hours a day, 7 days a week, 365 days a

year. This professional and reliable service is available to support people in both planned and emergency situations and provides greater peace of mind for customers and their loved ones.

Our telecare services vary depending on the development and the device that is most suitable for tenants' needs. The majority of our telecare solutions are primarily in the form of a development link, where the alarm in the property is a small box fitted inside homes and connected to the main building system. With this simple and easy-to-use system, tenants can access immediate remote support. Other telecare devices include an independent alarm system placed in homes and which connects directly to BR24 when support is required.

DESIGN FEATURES ACCORDING TO BUILDING TYPES

The following table gives some general guidance on the design features of the different types of project.

Project type	Housing for older people without facilities	Housing for older people with facilities
Barrier free	S	\checkmark
Full central heating and energy efficient	S	S
Secured by Design		
Sustainable	\checkmark	
Emergency call system	\checkmark	\checkmark
Sprinkler system	\checkmark	
Communal facilities	\mathbf{x}	\checkmark
Office and staff room	\mathbf{x}	\checkmark

Environmental Social and Governance (ESG)

Environmental, Social and Governance (ESG) is a management and analysis framework to understand and measure how sustainable an organisation is operating. ESG is often used as a consideration when investing into companies and offering grants, as it helps understand how an organisation is managing risks and opportunities related to environmental, social and governance criteria (sometimes called ESG factors).

It is important that we can demonstrate strong ESG credentials. Bield needs to ensure we prove that we are sustainable and carry less risk, which directly aligns with what investors are looking for. It is therefore critical Bield's Design Standard Principles consider all ESG aspects as part of any investment to develop new homes or remodel existing ones. ESG will be factored into all design decisions and is evident throughout the Design Principles on the next page.



Design Principles

SUMMARY OF DESIGN PRINCIPLES

Bield seeks to meet the independent, modern and flexible living requirements of older people in the design of our housing but also meet the housing needs of future generations of older people by providing high-quality, highly responsive and personalised services.

Our design will follow five key principles:



DESIGN PRINCIPLES INTRODUCTION

Bield's Design Principles for independent living must support ageing in place and preventative care. Design that provides accommodation which is easy to look after, accessible, warm and energy efficient, digitally-enabled and secure can enhance the quality of life of older people and those in need, who may be affected by problems with mobility, dexterity and sensory impairment.

Bield have a clear vision to support ageing in place with home at the centre of an integrated network of preventative services, within established communities. The social inclusion of older people and others in need, who are often isolated, can also be enhanced by the provision of shared communal facilities. Where such facilities are provided, they must meet the same standards for accessibility, warmth and security as the private accommodation within the development.

We want our homes to be designed in a way that meets the needs of our current and future tenants, helping them live independently both now and in the long-term. Where practical and affordable, we aim to offer a wider range of housing options, including different types of tenure, to serve the communities we work with. The mix, type and scale of each development will clearly need to be defined and agreed at the outset. All elements need to be carefully co-ordinated at design stage to avoid layout difficulties and arrangements that are not acceptable. Design should allow for flexibility in use and be readily capable of future adaptation. This includes remodelling of existing developments.

The design for remodelling must take a whole development and fabric-first approach, where it is practical and affordable to do so. We see this as an essential part of improving the attractiveness, demand and energy efficiency of our homes and development as we transition to net zero.

The enhancements required in our existing homes must reflect how our tenants want to make best use of the spaces available to them to support healthy independent living longer at home – this includes the space behind their own front door, the communal space within each development and the outdoor space, to support the expansion in our range of independent living services at each of our developments and our retrofit journey and transition to net zero.

Improving accessibility and improved use of our communal spaces for independent living will be embedded into our design and we will work with our tenants and other stakeholders to determine this and the use of the outdoor space.

DESIGN STANDARD OVERVIEW

This document sets out the high-level Design Principles and not the detailed technical specification of how Bield want our homes designed. These principles are the strategic overview of what is important to Bield when we design our homes to ensure we meet our values and mission and support our independent living approach.

An simple overview of the Design Standards is available in Appendix 1. This will be developed further into a full Design Specification in partnership with other teams and Bield tenants.

Principle 1: Independent Living

ACCESSIBILITY

All Bield homes must be accessible and adaptable as standard. A centre focus on accessibility design is required and should offer features in new build homes that help create a flexible design for all accommodation types to facilitate specific needs for households.

The basic criteria are level access to the main entrance, two lifts (where practically possible) a flush threshold, sufficiently-wide doorways and circulation space and a toilet at entrance level. There should be no steps between the pavement and the main entrance, more space to move around in all areas of the home, and homes should be easily adaptable to improve accessibility in the future as needed.

Some existing Bield developments are on multiple levels or at the bottom/top of hills which can make it challenging for older people, especially those with mobility issues. Remodelling designs of our existing developments need to consider how issues can be resolved and additional support requirements for our existing and future tenants.

An accessibility strategy must be prepared on a project basis in conjunction with the site layout design.

COMMUNAL AND LANDSCAPED SPACES

Designing and investing in our developments and the surrounding environments in ways that reflect and support our tenants and other service users to live independently, age in place and connect them to communities is essential to ensure social inclusion.

Designs should aim to increase health and wellbeing to promote independent living designs for new and existing developments by incorporating communal areas and green spaces, where appropriate. This may include garden areas, lounges, kitchens, dining areas, libraries and such like. Designs should also aim to accommodate the local demographic and cultural needs which may consider religious requirements.

Well-designed landscaping is important to integrate with the existing surroundings. The form and type of

planting and the design of streets and spaces should reflect the character of the local area and contribute to the overall feel of the

development. A balance of hard and soft outputs should be considered with imaginative solutions for independent sustainable living which will weather well and enhance biodiversity.

A communal and landscape strategy must be prepared on a project basis in conjunction with the site layout design.

CONNECTIVITY

The digital and technology standards required to support independent living across all our developments, connecting our people, our homes and our communities, should enable us to deliver more responsive, personalised support and care. This includes endto-end delivery improvements across Bield's business infrastructure which is required to support a more personcentred service delivery model across our products, systems and processes.

Requirements will be dependent on the size and function of a development. No one size fits all, therefore designs should aim to be flexible as possible and take a two-pronged approach:



- 1. Building Need
- 2. Individual Personalised Need

The Technology for our Ageing Population: Panel for Innovation (TAPPI) principles ensure Bield properties are digitally-enabled to support independent living by focusing on connectivity, affordability, support, co-production, seamless integration and safety. They promote reliable and secure internet with backups, affordable and accessible solutions, and ongoing digital skills support. Co-production involves tenants and their circle of support in designing inclusive and future-proofed systems that adapt to changing needs. TAPPI also emphasises prevention, fostering independence, and safeguarding personal data, ensuring technology empowers tenants while protecting them from misuse or exclusion.



Our BR24 service helps us to better connect our people, our homes and our communities. Bield's vision is for all our developments to be digitalised by learning from our tenants and service users about the benefits of good digital design principles and incorporating these into our design standard principles. This will place Bield at the forefront of digital technology for older people across the UK. Our properties will come with telecare as standard, with options for the integration of advanced telecare to allow an adaptable approach to individual needs as and when required.

Connectivity is essential throughout all developments to ensure they are digitally-enabled for all tenants. All hard-wired and 5G technologies should be considered as part of any new or existing development t project to ensure the most effective solution is installed. Back-ups, for resilience purposes, must be installed as standard for all systems reliant on hard-wired connectivity to operate.

A digital design and funding model must be prepared on a project basis in conjunction with Bield requirements.

Principle 2: Value for Money

Good value for money is a cornerstone of our development and remodelling approach. Projects will be assessed for value for money on a case-by-case basis in line with current guidance and good practice.

As detailed within our Procurement Strategy, best practice procurement can significantly improve the quality of services delivered. It is recognised that value for money is not just about cost and quality, but about the best balance of cost, quality, and sustainability in line with the Scottish Model of Procurement and Bield's Business Strategy. The balance of criteria that determines value for money in each procurement exercise will vary on a case-by-case basis. The rationale behind the criteria and weightings to be used in the evaluation of each tender should be considered at the beginning of each procurement exercise and evidenced within the tender strategy. Individual projects must be able to demonstrate value to Bield's 30-year plan in both financial and nonfinancial terms through a full appraisal. All projects and programmes of work will be assessed in this context and in line with investment appraisal good practice including HM Treasury Green Book for projects and programmes of work. All significant projects and programmes require a full investment business case to support decision making and approval by the Board of Management.

Demographics should also be considered as part of any project to ensure demand within the local area for independent living accommodation for the lifetime of the building. Design should allow flexibility in use and be readily-capable for adaptation in the future.

SCOTTISH HOUSING REGULATOR PRACTICE PRINCIPLES

To mitigate risk and achieve value for money, the Scottish Housing Regulator's practice principles for development to assist with compliance with the Regulatory Standards and Business Planning Recommended Practice (BPRP) should be followed:

- **Strategy:** ensure development fits within business strategy
- Risk: be aware of inherent risk
- **Product:** understanding of housing need and demand
- **Capacity:** organisational capacity to effectively manage
- 5. **Governance:** arrange to have full oversight
- Appraisal: determine proposals are viable, value for money and capture whole-life costs
 - Funding: financial strategy is in place and understanding of impact on future cash flows
- Project Management: processes are in place across the organisation
- **Procurement:** strategic approach which complies with legislation
- **Stakeholders:** actively manage and engage with all stakeholders.

SCOTTISH GOVERNMENT AFFORDABLE HOUSING SUPPLY PROGRAMME

Development of design proposals and costs for new and remodelling will follow the stages outlined in the Scottish Government Affordable Housing Supply Programme Process and Procedures:-

- Development/remodelling proposals including unit numbers and tenure mix
- Feasibility report including site, appraisal, investigation, services and geo-technical study
- · Housing need and demand assessment

Programme agreement with Local Authority and Scottish Government

- · Cost plan approval
- Tender approval based on various procurement choices.

In addition to Scottish Government approval, Board of Management approval is required at the critical stages of acquisition and tender. The Board of Management also monitors progress and performance.

LIFE-CYCLE COST OF BUILDINGS

The life-cycle costs of buildings are of great importance, therefore design must be undertaken on the assumption that the building will remain in Bield's ownership in perpetuity. Cost-effectiveness of the building is essential and should be a key consideration of design.

BUILDING LIFE, OPERATION AND MAINTENANCE

All new developments must be designed to achieve a minimum life of 60 years, subject to a sustainable programme of maintenance and repairs and allowing for planned major repairs and renewal of building components as appropriate.

Assessment of ongoing repairs, voids, other pertinent data and business intelligence may be beneficial to determine the most appropriate design, value for money and longevity for existing developments.

Life-cycle management is the comprehensive approach to managing a building's life-cycle, from design and construction to operation and maintenance. Costeffective maintenance of the building is essential and should be a key consideration of the design, in particular, ways in which the building can be futureproofed by including infrastructure for undemanding retrofit works at a later stage. Major repairs and replacements are funded by Bield without grant support. It is recognised that designs have to achieve a balance between quality and the constraints on costs.

Building operations and maintenance includes all the activities that you need to perform to operate, maintain and manage your buildings effectively, including integration with existing systems where sustainable. A full electronic copy of all Operation and Maintenance Manuals must be provided on completion of any works. Demonstration and training of new systems must be completed prior to handover to all relevant supplier and staff. Operation and Maintenance Manuals must include:

- Project Information
- · Contractor and Sub Contractor details
- · Design team details
- Project Specifications including as fit drawings and schematics for all systems and services
- · Manufacturers Literature/Information
- Testing and Commissioning Certification and Reports
- · Warranties Information
- · Asset register
- · Health & Safety
- · Service Level Agreements

All asset information should be provided in a format which is compatible with Bield's asset management system and allow Building Information Modelling (BIM) as a means of management of digital representation of physical and functional characters of any asset.

Principle 3 - Co-Production

CO-PRODUCTION

A co-production approach is about combining everyone's strengths (staff, tenants, family, volunteers and friends) so that we can work together to achieve positive change. By using co-production, we move from working *for* people to working *with* them. Sharing lived experiences, skills and ideas will ensure we are all working together on decisions that make a real difference to real lives.

We will employ co-production through:



Established Tenant Groups: Regularly engaging our existing tenant groups to gather ongoing input



Ad-Hoc Tenant Groups: Creating flexible, temporary groups for specific projects, enabling tailored insights from tenants directly involved in projects



Tenant Personas: using our Tenant Personas based on real tenant demographics, needs and preferences to guide our design and decisionmaking processes



Tenant surveys and insights: drawing on feedback from continuous surveys to inform our strategies and address evolving needs.

For each new build and remodelling project, we will implement an Engagement Strategy that clearly outline aims and objectives. This ensures tenants are wellinformed, their concerns are addressed and they feel supported throughout the project. By prioritising open communication, we work to minimise disruption and keep tenants at the heart of every development.

Principle 4: Health, Safety & Regulatory Compliance

STATUTORY APPROVALS

The design and construction of all new and remodelling developments shall comply with all other relevant statutory regulations and instruments. All completed developments must be capable of satisfying the criteria established by Local Authority mandatory testing and related standards and be capable of securing the appropriate test and/or compliance certifications.

HEALTH & SAFETY

All relevant Health and Safety Regulations must be met by using digital connectivity where appropriate to do so, for example, installation of monitoring devices for damp, mould and humidity. Consultants and contractors are required to ensure that they comply with the key aims of the Construction (Design and Management) Regulations 2015.

NEW DEVELOPMENT PRINCIPLES

In general, new developments for Bield should meet the following design principles except where varied by this brief. Any conflicting guidance should be referred to Bield:

- Scottish Building Standards Domestic Technical Handbook
- Housing 2040
- Housing for Varying Needs A Design Guide Part 1: (Houses and Flats)
- Housing for Varying Needs A Design Guide Part 2: (Housing with Integral Support), outlining design criteria for dwellings specifically for the needs of older, ambulant disabled people, and people with learning and physical disabilities where applicable
- Local Authority Design Standards where applicable

- · PassivHaus or Equivalent Standards
- BREEAM New Construction Standards
- Sustainable Housing Design Guide for Scotland, 2007
- Heat Network Regulations
- DDA Compliance
- Secured by Design Accreditation
- · Dementia Design Principles
- Energy Efficiency Standard for Social Housing (EESSH)
- Habinteg and the Centre for Accessible Environments – The Inclusive Housing Design Guide

REMODELLING OF DEVELOPMENTS PRINCIPLES

In general, remodelling of developments for Bield should meet the following design standards:

- Scottish Building Standards Domestic Technical Handbook
- Housing 2040
- Housing for Varying Needs A Design Guide
 Part 1: (Houses and Flats)
- Housing for Varying Needs A Design Guide Part 2: (Housing with Integral Support), outlining design criteria for dwellings specifically for the needs of older, ambulant disabled people, and people with learning and physical disabilities where applicable
- Local Authority Design Standards where applicable
- EnerPHit or equivalent Standards
- · BREEAM Refurbishment and Fit-out Standards
- Sustainable Housing Design Guide for Scotland, 2007
- · Heat Network Regulations

- DDA Compliance
- Secured by Design Accreditation
- Dementia Design Principles
- Energy Efficiency Standard for Social Housing (EESSH)



Principle 5: Sustainability

NET ZERO

Bield recognise that working to a minimum standard is no longer fit for purpose. We therefore need to raise the standard through our Design Standard Principles. We aim for quality and sustainability through our standard to future-proof our investment, such as Passivhaus (or equivalent) for new build homes and EnerPHit (or equivalent) for our existing homes.

All development must provide greener, cleaner places and reduce the cost of heating our homes.

Affordable, low carbon living and working is essential by means of re-using, re-proposing and re-cycling. Any new homes or remodelling of homes must take cognisance of this and move away from fossil fuel heating systems whilst retaining the energy performance of buildings.

A sustainability strategy must be prepared on a project-by-project basis which aligns with Bield's policies, targets and specifications.



Appendices



Appendix 1: Design Standard Overview

The below has been prepared using the Design Principles to make decisions about how we view certain aspects of our Design Standard.

1.0 GENERAL REQUIREMENTS

DEVELOPMENT/UNIT REQUIREMENTS

All new properties must comply with Bield's minimum size and layout standards, Building Standards and Housing for Varying Needs.

The form and overall number of units of any new development will be very much dependant on land availability, topography and locality. Ideally, a development will compromise of 30 to 40 units with communal spaces and office space. Efficient use of space available will be crucial and will be agreed at the outset of any new development. The site must also be financially viable to offer a positive return in investment over a 30 year period.

Designs should look to maximise natural daylight, solar gains, open plan and have flexibility for future adaptation. The general building form and service type to be used for any particular project will be agreed at an early stage with the design team and

CORE DESIGN REQUIREMENTS

The publication of Housing to 2040 underpins much of Bield's development and strategic asset management work over the next 15 years, focussing as it does on the physical housing 'product' and build environment. This must be embedded into any core design.

Bield homes must support those with long-term conditions and disabilities and everyone who can and wants to is enabled to live independently in a home of their own. Bield has to focus on providing good quality and affordable homes that are accessible, adapted and improve choice for older people.

Modern housing, through modular construction and energy efficiency, is also key to providing homes that have zero emissions but, just as importantly, to adapt, retrofit and decarbonise existing homes to align with the Housing 2040 strategy and deliver statutory requirements for climate change and fuel poverty.

Housing 2040 and at Bield's core is to provide quality homes in quality places, where people want to live, work and thrive. To support homes in town centres and wider communities, there is a stronger focus on developing vacant and derelict land, be co-produced with various stakeholders from inception.

At a local level, our project designs and specifications will inevitably be influenced by specific site constraints and the existing built environment. Therefore, rather than adopting a one size-fits-all design or specification, Bield will retain some local flexibility that blends national aspirations with local needs, delivering a built environment which is fit for purpose, cost-efficient and user and environmentally friendly.

Information gained from monitoring the designs and specifications during the full completion appraisal for each and every project, which includes tenant and end -user surveys, will feed back into our ongoing commitment for continuous improvement.

repurposing existing properties and locating homes closer to services and facilities within '20-minute neighbourhoods'. The '20-minute neighbourhood' emphasises the importance of living well locally and having most of people's daily needs nearby.

All designs must embed the Housing our Ageing Population: Panel for Innovation (HAPPI) principles; ensuring our tenants can age in place. These are based on the following 10 key design criteria:

- Space and flexibility
- Daylight in the home and in shared spaces
- Balconies and outdoor space
- Adaptability and 'care ready' design
- Positive use of circulation space
- Shared facilities and 'hubs'
- Plants, trees and the natural environment
- Energy efficiency and sustainable design
- Storage for belongings (including bicycles) and external shared surfaces
- 'Home zones'

The HAPPI principles are also consistent with the National Care Service policy imperative that as many homes as possible can support care at home or responder services and adaptability.

ACCESSIBILITY

Accessibility to and from developments is essential to allow people to access them as independently and as freely as possible. Retrofit and new developments should be designed to comply with current standards from the Local Authority, Building Regulations and Housing for Varying Needs.

A provision for electrically-powered wheelchairs or scooters in housing developments must be included within all designs. Allowance should be made for storage and battery re-charging on the basis of a number of wheelchairs/ scooters per development.

MINIMUM SIZE AND SPACE STANDARD

Spaces should be designed to reflect Bield's minimum size and layout standards (detailed within Appendix 2) and Housing for Varying Needs. Spaces within buildings should allow satisfactory furniture layouts. Rooms within flats should not be irregular shapes.

SECURE BY DESIGN

All windows and doors must meet the relevant "Secure by Design" standards, use the SBD logo and be to BS7950. The standard will be project-specific however we should aim for 'Silver standard' as a minimum.

The locks to front doors within a development should be part of a patented master suite with a master key and internal thumb-turn that can be used to gain access in the event of emergency.

REFUSE AND STORAGE AREAS

The design team shall determine the refuse and/or recycling collection arrangements in the area of the proposed development and design the refuse and/or recycling collection provision according to local authority requirements. Consideration must be given to the location and design of such arrangements to allow for the likely restricted abilities of wheelchair and mobility users to access such provision.







PARKING

Car parking should be agreed on a site-by-site basis and comply with planning requirements. All designs should incorporate additional spaces for staff, visitors and electric vehicle charging and provide suitable provision for the number of units within the development. All spaces should be wider than normal to facilitate accessibility. Disabled parking should be located closest to the building.

Any access roads and footpaths should be built to the appropriate highway authority adoptable standards, including access for ambulances and fire appliances as appropriate.

Potential SUDS and drainage attenuation measures in parking areas will be considered to facilitate surface water run-off and attenuation. Designs should be discussed with Scottish Water at an early design stage to confirm that local wastewater/combined sewer capacities are available.

LANDSCAPING

All external spaces must be clearly defined and their function determined from the outset and designed accordingly through co-production to determine how outdoor spaces may want to be used by tenants.

Small grassed areas should be avoided and rather given over to intensive shrub planting or suitable hard landscape. Planting should be of a native species based on defined habitat types. Existing trees and mature shrubs should be retained where practical. Landscape planting should be robust and not require high levels of maintenance.

Designs should provide sensory planting for communal areas and raised plant beds where practical. All landscape planting should be accessible to all tenants within the development. Hardy/ prickly shrubs should be considered for providing security. Mowing strips to be provided. All communal areas should be designed to allow safe and easy access for grass cutting machinery.



CLOTHES DRYING

External clothes drying facilities should be provided for all houses and flats. The distances from drying facilities and houses/flats must be kept to a minimum but locating drying facilities directly outside living-room windows should be avoided. Drying areas will be accessed by block paved or tarmac pathways. Sufficient drying areas shall be provided to reflect the number of units within a development. A minimum of 6m rope space per property should be provided.

Individual clothes drying facilities (houses) should be provided with rotary type dryers with adjustable height facilities.

Communal clothes drying facilities (flats) should be provided with 'T' style clothes poles or rotary type dryers with adjustable height facilities.



2.0 SUSTAINABILITY

POLICY OBJECTIVES

Designs for retrofit and new development must achieve high levels of energy efficiency aspiring to meet EnerPHit for existing buildings or PassivHaus for new buildings (or as far as reasonably practicable).

Properties should provide a sustainable environment for existing and future tenants and provide high levels of comfort at low cost to prevent fuel poverty.

All existing and new buildings must be designed to ensure they are fit for purpose in a future climate. These should take into consideration intense rainfall, wind and storm patterns and overheating. Technology will be incorporated to ensure a building can be monitored and managed to achieve the highest performance possible.

NET ZERO TARGETS

Designs should seek to integrate energy efficient and sustainable measures at all stages of new-build and redevelopment projects.

A 'Fabric First' approach will be followed on existing assets by undertaking thermal upgrades, addressing airtightness and cold bridging, and achieving net zero emissions. This will assist with demand and therefore help to make the installation of some zero emissions heating systems more technically viable and cost effective. It will also reduce overall energy demand and prevent an increase in household running costs.

Reducing the carbon embodied in the construction process will be achieved by using Modern Methods of Construction (MMC) where feasible. This includes a range of processes that incorporate various types of pre-manufacturing, site-based materials and process innovation. MMC processes seek to streamline cost and contribute to low-carbon, environmentally-sustainable development in a variety of ways such as reducing waste and transport as well as often involving materials that use less carbon in their manufacture.

eve All new developments have to achieve a minimum SAP (Standard Assessment Procedure) rating of 85

THERMAL PERFORMANCE

SAP (Standard Assessment Procedure) rating of 85 and be designed to a minimum of the Association for Environment Conscious Building's (AEBC) 'Silver standard' to achieve affordable, low energy construction.

The building fabric should be designed to be as thermally-efficient as possible within, as far as reasonably practicable and within financial constraints, whilst limiting heat loss and regulating internal thermal comfort. Layouts should be designed to ensure thermal comfort during the different stages of the day.

Alongside this, the building's fabric should be as airtight as possible to limit unwanted heat loss and to exclude cold air.

All windows must be double glazed as a minimum. Triple glazed timber or Alu clad windows are preferable.

ENERGY AND WATER USAGE

Designs should limit energy and water use, optimise energy efficiency and recycle energy as much as feasibly possible within new and existing developments. Design team proposals are to incorporate low water use fittings, dual flush toilets and a rainwater collection options appraisal.

MATERIALS AND FINISHES

Design teams must ensure a suitable specification which takes a precautionary approach to the use of materials which may adversely affect health, habitat or the environment at any point in its lifecycle. It should also encourage reduction in adverse environmental impacts through minimising transportation and waste.

Consideration has to be taken on the reduction, reuse and recycling of construction materials. All materials should be responsibly-sourced and from sustainable sources with low volatile organic compounds (VOC). Materials should be robust, fit for purpose with low maintenance throughout the lifespan of the building.

HEAT LOSS FORM FACTOR

The building form must be as compact as practically possible, reducing the amount of external envelope, whilst maximising the internal floor and ensuring efficiency measures are met. Where achieving Passivhaus, the heat loss factor should be three or less; therefore design teams must ensure an efficient form limiting the number of cold bridges that result from external junctions.

AIR QUALITY

Any design should aim to optimise and achieve high indoor air quality. The design team are to include modelling and passive management of internal humidity as part of the design development.

Regarding indoor air quality, upper ranges of relative humidity should be maintained below 60% (dust mite populations increase rapidly at relative humidity levels above 50% and fungal amplification occurs above 65%). Hygroscopic materials such as open grain timber or clay plaster will impact positively in maintaining midrange levels.

Consideration should be taken on the removal mitigation of airborne contaminants through purification coupled with highly efficient ventilation systems with heat recovery.

BUILDING FABRIC – AIR TIGHTNESS

Design team proposals should achieve a maximum of 5 m3/m2/hr @ 50 Pa for new build and a maximum as set out within current Building Standards. Mechanical extract ventilation must be considered as part of achieving this rate.

OVER HEATING AND COOLING RISK

It is essential design teams complete a detailed analysis at early design stages to ensure glazing sizes and locations, as well as shading to mitigate overheating within the design of the building envelope. Consideration should be given to where external shading alongside natural cross ventilation is required.

BIODIVERSITY

New and existing properties must enhance biodiversity and habitat creation and add nature-friendly features to our house types and garden designs.

New developments should respect and, where appropriate, enhance existing vegetation and other natural features. Mature trees should be retained wherever possible and replanting should be undertaken where development involves their loss.

Design teams are encouraged to use deciduous planting to enhance the micro climate when appropriate, establish which parts of the site are optimum for growing vegetation and allow redevelopment to take place on the least ecologically promising part of the site.

The BS 8683 process for designing and implementing Biodiversity Net Gain – Specification and BS42020 Biodiversity – Code of Practice for Planning and Development must be adhered to.

3.0 MATERIALS AND WORKMANSHIP

GENERAL

Designs should take a suitable specification but precautionary approach to the use of materials which may adversely affect health, habitat or the environment at any point in its lifecycle. Designs should also encourage reduction in adverse environmental impact through minimising transportation and waste.

PROHIBITED MATERIALS

Prohibited materials include but are not limited to:

- High alumina cement in structural elements
- Wood wool slabs in permanent formwork to concrete or in structural elements
- Calcium chloride in admixtures for use in reinforced concrete
- Asbestos or asbestos-containing products
- Naturally occurring aggregates for use in reinforced concrete
- Urea formaldehyde foam or materials

4.0 BUILDING ELEMENTS

ROOFS

Tiled pitched roofs are preferred however flat roofs may be considered in particular situations such as planning restrictions of building height and roofline. Pitch, tile lap and fixing, hip, ridge, verge and other details should be considered as a whole. Traditional or plywood sarking should be used - chipboard will not be permitted.

Any roof should be designed to take into account particular weather conditions within the particular area and how these may be affected by the surrounding landscape or other buildings. Rainfall volume and collection calculations must be carried out as part of any roof design to ensure they are sufficient.

Complicated roofs should be avoided as these offer poor value for money and potentially higher maintenance costs.

Access to roofs should be provided from within the building. Where flat roofs are designed, man-safe systems must be included to ensure safe access for maintenance and other access requirements.

Roof spaces must be insulated and ventilated to latest Building Standards.

- Materials which generally comprise of mineral fibres which have a diameter of three microns or less and a length of 200 microns which contain any fibres not sealed or otherwise stabilised to ensure fibre migration is prevented
- Calcium silicate bricks
- Products which contain or release CFC's
- Any other product not in accordance with British Standards and Codes of Practice.

CEILINGS

All wall must be sheet or wet applied in-situ. Insulated taper-edged sheet plasterboard on a timber base, finished with ames-taped joints and skim coating of plaster is the preferred method. Any use of suspended ceilings grids should be avoided where possible. Accommodation of access hatches should be incorporated to ensure access to services for maintenance.

WALLS (EXTERNAL)

Materials, forms of construction and details should be chosen and designed to give the maximum practical period of maintenance-free life commensurate with value for money. For example, the use of less frost resistant brick as a cost saving should not be considered. The design should allow adequate drips at cill, window heads and other projections. Rough cast, timber weatherboard or similar high maintenance materials must be limited. Any cladding must have the correct fire classification to comply with Building Standards.

WALLS (INTERNAL)

Insulated linings to walls should be carefully deigned to avoid cold bridging at junctions etc. Separating walls of "back to back" flats should not be raggled at the same point in both flats, avoiding sound transmission problems. Internal walls should be suitably designed to take any load from fixing or attaching of heaters, cupboards, handrails etc. Additional supports must be installed for future installations.

WINDOWS AND DOORS

All windows above ground floor should allow for cleaning and reglazing internally. Careful consideration must be given to the external cleaning and maintenance of windows.

Window sizes should facilitate daylighting factors which comply with Building Regulations. Window designs must consider fastener locations at a low level.

In living rooms, low level sills and avoidance of transoms at eye level (for the seated person) are important.

Curtain plates should be provided above all windows.

Entrance doors should place a high priority on security, be solid and have a bolt through handle. Letter plates should have internal hoods and prevent access to door locks.

All windows and door must be secure by design as per 1.0.

FLOORS

Designs should ensure that, within properties, common lounge and dining areas floors should generally be timber - either suspended or floating. A possible exception would be in shower rooms where a solid floor may be necessary to accommodate wet floor shower areas. Where chipboard is being used, this must be moisture-resistant.

Timber floors should be avoided in all communal areas with the exception of the lounge and dining areas.

Voids below suspended floors must be adequately insulated and ventilated.

Non-slip flooring should be provided in kitchens and bathrooms generally.

DAYLIGHT, SUNLIGHT, VENTILATION AND CONDENSATION

New properties should be orientated to take best advantage of levels of natural sunlight. Design teams should use the site layout to provide access to sunshine for as many dwellings as possible; avoiding overshadowing and wind chill.

Housing layouts should be orientated within 30 degrees of due south wherever possible in order for solar gain to be most useful. All principal living rooms should be on the south side of dwellings. Design teams should plan cooler service spaces to the north side.

Glazing should be optimised to provide larger areas concentrated on the south side with maximised solar gain.

Ventilation must be designed to Building Standards to achieve the necessary rate of air replacement to satisfactory conditions throughout the building and to minimise condensation. All common areas, kitchens, bathrooms, etc. must have ventilation as standard. Ventilation systems must be designed to remain quiet, vibration-free and unobtrusive.

The design should attempt to minimise condensation risks. Where needed, an internal drying space should be provided with suitable ventilation arrangements. Attention should be paid to adequate general insulation, exposure on gable ends and other prominent positions, the possibility of cold bridging around lintels etc., inefficient or inadequate heating, inadequate ventilation and the incorrect location of vapour barriers.

LIFTS

A lift should be provided where a development is formed on more than one storey. Two lifts should be installed where practicable. The lift should be located in the most convenient position to serve the majority of tenants whilst maintaining structural separation to avoid transfer of noise and vibration to flats. Lifts should be designed, manufactured, installed and tested in accordance with essential health and safety requirements and meet the needs/demands of the development. Power supplies must be incorporated into the internal stair design to enable the prompt installation of a stair lift in the event of an unplanned service failure.

DRAINAGE

All mains drainage is to be designed to adoptable standards. Non-adopted areas of drainage are to be identified at an early stage and written guidance on maintenance requirements are to be provided to Bield. Designers must consult with SEPA at an early stage.

Expected rainwater levels, including increases due to climate change, must be considered and water table and natural water issues explored and resolved at design stage. Soft landscaping can be considered to assist with the management of excessive water levels. Porous paving schemes must be used within parking and external spaces to minimise drainage requirements.

HEATING AND HOT WATER SERVICES

Heating and hot water services should be net carbon by design where practicable. Whether individual or communal plant will be determined by the form of development.

Underfloor heating is preferred to allow more adaptability within the footprint of the property. Radiant panels should be considered as part of heating designs within communal areas to maximise circulation.

Distribution pipes should not be buried in floor screeds or behind dry linings unless in ducts with access covers. The water main stopcock, gas cock and electrical mains switch should be readily locatable and easily operated.

Low surface temperature radiators should be provided in all developments within living and communal spaces. All radiators should be installed with thermostatic radiator values as standard. Thermostatic mixing values should be installed where relevant.

ELECTRICAL INSTALLATION

All electrical installations shall comply with the recommendations set out in the following publications, where applicable, together with such special requirements as may be described hereafter:

- (i) The Building Standards (Scotland) (Consolidation) Regulations 2023 and all subsequent amendments;
- (ii) Regulations for Electrical Installation (BS 7671:18th Edition) as issued by the Institution of Engineering and Technology;
- (iii) The Rules, Regulations and Requirements of the Electricity Supply Authority as the Electricity Supply Regulations 1988;
- (iv) The Electricity at Work Regulations 1989;
- (iv) The appropriate British Standard Specifications and Codes.

INTERNAL LIGHTING

Lighting to communal spaces must provide adequate illumination for older people using design and fitting that are as modern in style as possible. Any lighting installation should be suitable for the purpose or purposes of the space. A full lighting design must be completed to ensure fittings are satisfactory for the space and provide the correct levels of light. Emergency lighting must be designed to be fully compliant with BS 5266 & BS EN 1838 and the fittings will be of the self-testing type.

EXTERNAL LIGHTING

Design team proposals for external lighting are to incorporate all external lighting (except security) to have an efficacy of at least 150 lumens/circuit watt, designed to avoid night pollution and controlled through daylight sensing.

The lighting scheme generally should ensure visual security for all public areas and that all areas in need of supervision are particularly well lit. Street lighting serving adoptable roads and footpaths is to comply with local authority standards for adoption.

All non-adopted street lighting is to be clearly identified to Bield for approval. All external lighting should be on lighting standards or attached to the dwelling. Adequate lighting is to be provided to all access pathways.

FIRE ALARM SYSTEM

The smoke, carbon dioxide and fire safety systems, including sprinkler/misting systems, must comply with the relevant local authority or relevant regulatory requirements. All projects must have a full building fire strategy as part of the design and approval process.

Carbon dioxide detectors and heat alarms are to be installed as per the current Building Regulations.



EMERGENCY CALL SYSTEM

Any project design should incorporate a self-contained emergency call system (i.e. warden call system) which is compatible and connected to BR24. The system must allow tenants to contact Bield in the event of an emergency. The project brief will stipulate the requirements for each project.

CONNECTIVITY

Connectivity within new and existing developments must be designed to align with Bield's delivery model. Network requirements must be clearly defined including the number of access points with the flexibility to add to the network at a later date. Designs must ensure primary cover and capacity is optimised and the relevant number of access points are installed to optimise performance. A digital design must be completed and verified by design staff to ensure requirements are met.

5.0 INTERNAL LAYOUT

GENERAL

All floor plans should indicate furniture layout, activity spaces, radiator positions, electrical points and kitchen equipment.

ENTRANCE/CIRCULATION AREAS LIVING AREAS

Entrance areas should be designed to open into a hall and not directly into a living space. The opening should be designed to ensure manoeuvrable space with a walking aid and for a wheelchair beyond the swing of the door. All thresholds must be level and not prevent a barrier for access and egress to the property. Consideration needs to be given to storage generally, but especially wheelchairs, cupboards for shoes, coats, bags and deliveries etc. Rear doors into garden areas should always open from a circulation area or kitchen, not from a living room. Living rooms are project-specific and can be separate from the kitchen diner or part of an open plan layout. All living spaces must be as accessible and flexible as possible. The space should benefit from high levels of natural daylight and sunlight, and have a strong physical link to external spaces which can act as an extension of the living room.

The living room must be of a size and shape (when furnished) ensuring there is space to allow circulation and access to each item of furniture and to windows, heating appliances, etc. Additional seating spaces for number of bedspaces + two guests are to be allowed for within the living space.

DINING AREAS

A dining space must be allowed for either within the living room or the kitchen. This should allow for a table and chairs for the number of bedspaces.

KITCHENS

Kitchens must be designed to be convenient and safe to use by all occupants. Kitchens must be designed to allow occupants to access all units and worksurfaces easily. Consideration should be taken to specify rise and fall mechanisms. Sink tops, worktops and cooker hobs should all be located at the same height with a continuous surface between the sink and cooker. Removable worktops should be fitted over fridge spaces.

Kitchen storage must comply with Scottish Housing Quality Standards with a minimum of 1m³ capacity. The total storage can be made up from the individual capacities of different base, drawer/base, drawer and wall units. Washing machine provision must be allowed for per property/ kitchen. Slip resistant flooring must be provided.

BEDROOMS

Bedrooms should be regular in shape and avoid being overly narrow. Bedroom layouts should show furniture and circulation zones to optimise usability, ventilation and natural daylight. Multiple furniture arrangements should be possible. Where built-in storage is provided, this may replace some other storage requirements such as drawer space. Sockets should be provided at either side of the bed as standard.

The shape of single bedrooms should allow for a bed in more than one position. All double bedrooms should be able to accommodate two single beds.

BATHROOMS

All bathrooms should be wet floor showers unless stipulated for care reasons. Shower areas must be carefully detailed and constructed to a high standard to ensure both adequate drainage and safety in use. Bathroom designs must allow flexibility for future adaptation and replacement including the strengthening of walls for grab rails and such like. The bathroom space must ensure accessible use for all mobility requirements.

All wet floor shower designs must align with Bield's Stage 3 Adaptation specification.

Adequate ventilation must be provided as per Building Regulations. Taps should be easy to grip. Floor finishes must be non-slip. Wet walling must be installed around shower areas as a minimum.

STORAGE

Storage must be maximised within flats and communal spaces. All built-in storage should be provided in a location and format that allows tenants to conveniently access and fully utilise it.

Long narrow stores are not generally acceptable, but where unavoidable, should be provided with artificial light and an outward-opening door.

POSITION OF KEY BUILDING ELEMENTS

The position of doors, windows, radiators, thermostats, warden call alarms, sockets, light switches, etc. must be considered carefully in order to achieve good use of space and ease of use.



Appendix 2: Size and Space Standard Principles

All units must also reflect the minimum space standards for new dwellings and preferred layouts shown below by embedding the HAPPI principles.

Table A1.1 Minimum and best practice internal space standards for new dwellings										
Type of dwelling		Minimum gross internal floor areas (GIA)* and storage (sqm)							Best practise extra space	
Number of bedrooms	Number of bedspaces	1-sto dwell	rey ings	2-storey 3- dwellings dv		3-storey dwellings		Built-in storage		
1b	1p	39/37 43/41	*					1.0 1.5		+4
	2p	50	55	58	63			1.5	2.0	+5
2b	Зр	61	67	70	76			- 2.0	2.5	+6
	4р	70	77	79	86				2.0	2.5
3b	4р	74	84	84	94	90	100			+10
	5р	86	97	93	104	99	110	2.5	3.0	+11
	6р	95	107	102	114	108	120			+12

Key: b: bedrooms p: persons

^ New dwelling in the context includes new-build, conversions and change of use

*Where a one-single-bedroom, one-person dwelling has a shower room instead of a bathroom, the floor area may be reduced from 39/43sqm to 37/41sqm, as shown.



PREFERRED TRADITIONAL NEW CONSTRUCTION STANDARD LAYOUTS













2,450

*

1,925

ST 0.3 m

*

2,225

ST 1.0 m²

1,275

*

**

1,250

*





PREFERRED OFF SITE MODULAR CONSTRUCTION BUNGALOWS STANDARD LAYOUTS



TYPE A5 70.4sqm









Please contact **communications@bield.co.uk** if you require this document in a different format or language.

- **f** bieldhousingandcare
- in bield-housing-&-care
- X BieldScotland



Registered Office 79 Hopetoun Street Edinburgh EH7 4QF Tel: 03000 132 162 Craighall Business Park 7 Eagle Street Glasgow G4 9XA Tel: 03000 132 162 1 Bonnethill Gardens 1 Caldrum Terrace Dundee DD3 7HB Tel: 03000 132 162

Email: info@bield.co.uk Website: www.bield.co.uk Scottish Charity SC006878 Property Factor Registration PF000146

