DUNBRITTON
HOUSING ASSOCIATION LIMITED

Development Brief
Design Guide and Specification

To be approved by committee

Approved by Management Committee on 12.12.07

Reviewed by Operational Sub Committee on: 16.09.13

DUNBRITTON HOUSING ASSOCIATION LIMITED

DESIGN GUIDE AND SPECIFICATION

INDEX

Introduction

Purpose of the Brief - to complement the Planning Legislation, Building Regulations, Road Design Guidelines, Housing for Varying Needs and Secure by Design Guidelines - which are not replicated in this Brief.

Any developments undertaken within Argyll & Bute Council or the National Park area must also take account of both organisations' Sustainable Design Guides.

The Association requires consultants to confirm to the Association that these guidelines are complied with and if there is any proposed variation from these guidelines these must be reported to Dunbritton's staff and, where deemed necessary, reported to the Operational Services Sub-Committee for consideration.

The Part 1 narrative to this brief is to explain the basis behind the design criteria set out in the checklist which forms Part 2 of the brief.

Part A

External Technical Brief (Environment)

A External Technical Brief (Environment)

1.0 Estate Layout

1.1 Definition of Public and Private Spaces

All external spaces must be well defined and their function clearly determined at the outset and designed accordingly. This should be illustrated on the plans for Association approval.

Avoid areas where the public space overlaps, the boundary is unclear, or where the private space is exposed or unprotected. Pedestrian routes through dwelling clusters should be avoided to reinforce their separate identity and private nature.

Open plan frontages to dwellings facing a semi-private cul-de-sac are acceptable. However in urban environments or where short cutting or other invasions of privacy might be a future problem, 1m high boundary treatment (fence or wall) is recommended. Dwellings fronting a main road or footpath must have a firm division or boundary.

Front gardens valuable in any development, they not only add to the streetscape but also fulfil a number of practical functions for residents. The design needs to be consistent and provide a robust edge to the street or adjoining public space whilst allowing for a degree of individual choice and expression.

Private rear gardens to have high boundaries to public areas with secure access gate where required. Shared boundaries within estates to be a maximum of 1m. Garden size should be suitable for necessary activities though not too large to be an inconvenience in maintenance for either the tenants or the Association.

Where possible, without reducing the amenity of the area, communal space that has no specific function should be incorporated into private garden space. All garden areas should comply with Secure by Design criteria.

The boundary wall or fence, if any, should blend with the main structures and the setting and where necessary should also be fitted with gates suitable for their purpose. It should be sufficiently high as to form a barrier between the pavement and the scheme, but not obscure the outlook.

1.2 Development of Form and Layout – *see checklist*

1.3 Orientation and Outlook – *see checklist*

1.4 General Car Access and Accommodation

The maximum amount of footpaths, road and services and public lighting should be adoptable by the local authority.

The local authority requirements for car parking are open for negotiation depending upon car ownership levels in client groups. The Association requires a minimum car parking level of 100% preferably within the curtilage of the dwelling.

1.5 Footpaths

No through routes are to be provided other than where remote parking is unavoidable. Where a right of way or unofficial shortcut is identified this should be altered to suit the development and the Brief. Public footpaths should not abut houses but should have a buffer space.

Rear footpath access to private gardens is desirable where there is no access from front to rear without passing through living areas. For security this should not be a continuous path behind terraced or grouped housing.

1.6 External Lighting & Security

Design should attempt to reduce the visual impact of street lighting columns. It is acceptable to fix them to gable ends, where appropriate and where they don't compromise security or near window openings.

Due to restrictions on adoption, security and safety may require footpaths and access routes to be lit by a landlord's supply, arranged with the appropriate utility or provide individual automatic lights.

1.7 Street Furniture – *see checklist*

2.0 <u>General Landscaping and Environmental Works</u>

2.1 Site Preparation – *see checklist*

2.2 Landscaping and Planting

Landscaping is an integral part of each scheme and should be considered at an early stage and discussed with staff and committee.

Design of footpath links is important to prevent short cutting and erosion of edges.
Adequate measures should be taken to protect them during the construction period.

The following factors should be considered in designing the planting layout:

(i) The function of each planting area, eg. screening, shelter, definition of boundaries or footpaths, simplification of grassed areas or focal point.

(ii) The choice of plant material to give a colourful display through the seasons.

(iii) Tolerance of plants to local climate and soil and the ease and economy of maintenance.

(iv) Co-ordination with services over items such as lighting, hydrants, garden standpipes, manholes, drainage and power supplies.

Well used public areas should be adequately lit and dense planting of trees and high growing shrubs/trees avoided.

Where possible landscape and planting schemes should be undertaken once development is complete and tenants can be consulted in the proposals.

3.0 Provision for Children's Play

A play area is required for family housing and this should reflect likely demand. Refer to the West Dunbartonshire Council, Argyll & Bute Council's or National Park Planning Brief for specified area per child bedspace. Play provision should be made specific to particular needs and detailed accordingly and ideally should be to adoptable standard. If this is the case, a sum should be built into the contract to meet the Council's requirements for adoption. The Association does not have a Play Area Brief so all proposals require approval by the staff and Committee. In all cases location of play areas should be nearer family housing units.

4.0 External Curtilage

4.1 Privacy and Security

The need for privacy is the most important factor in layout design. Private areas adjacent to public areas which are in heavy use should be protected.

For flatted blocks, common entrances, corridors and hallways should be well lit and have no hidden recesses. Lights are to be controlled by photocells and the use of renewable energy sources is encouraged where practicable. Common entrances or areas open to the public are to be avoided or be access controlled.

4.2 Gardens

Each dwelling or block should have a private external space related to house size, containing drying facilities, amenity space and a refuse collection point for wheelie bins.

4.3 Curtilage Fences, Walls and Hedges

Rear gardens should have boundaries marked by substantial fencing and gates while allowing easy access. Front gardens should have a strong definition of routes and spaces but can be open plan if in a cul-de-sac.

Paving slabs should be provided adjacent to buildings to facilitate cleaning and maintenance.

Boundary wall or fence should blend in with or complement the main structure. All fences and walls should be identified on the plan and approval sought from staff and committee.

Where privacy screens are required at the end of terraces, along the sides of end gardens or where private gardens adjoin well used paths or spaces, or other potentially antisocial land uses, a 1.8m high close boarded fence or wall should be provided.

All timber fences and gates should be pre-finished with wood preservative wood stain. Metal fences and gates including welding shall have a galvanised finish and not be painted. All fencing should be designed and specified for maximum longevity of components.

4.4 Provision for Clothes Drying

Clothes drying are preferred should be provided adjacent to flats and should be easily supervised and accessed by only one entrance leading directly to the dwellings they serve. Ideally no more than two households should share a specific drying green and the number of poles should be 5 per floor/house. Whirley gigs when used should be allocated 1 per house.

4.5 In Curtilage Parking

Where curtilage parking is impractical it should be provided in small groups within view and easily supervised.

4.6 Bin Storage & Collection, Meters & Pends

For maintenance and amenity purposes e.g. bin collection or meter monitoring the Association requires access to the rear of houses without passing through the interior. Pends should normally only serve two houses and should have lockable gates or doors. Location of bin store should be considered with regards to noise impact on properties.

5.0 Secured by Design

Addressing the need for housing designed to be secure in urban areas especially is a core requirement of this Brief. For more detailed or site specific advice please contact Strathclyde Police Architecture Liaison Officer.

5.1 Layout

Signage at the entrance to developments to aid those visiting or delivering to homes must be provided with the direction of travel to the postal numbers shown. Completion of house numbering of any properties must be completed before handover.

6.0 Rural Dimension

For rural developments there will be planning restrictions and local sensitivities to consider, most of which will be outlined in the Planning Brief or detailed by the Association on a scheme by scheme basis. Account should be taken of the Argyll & Bute Sustainable Design Guide.

Part B

External Built Form - Envelope and Common parts

B External Built Form - Envelope and Common Parts

1.0 General Construction Brief

Where a future change to Building Regulations is known every effort should be made to comply with the new standards. In all cases, the Regulations and standards should be viewed as a minimum and, if costs and site conditions allow, enhanced design is encouraged.

Greater use of Scottish Government planning publications such as 'Designing Places' and 'Designing Streets' is recommended to enable the structured briefing, specification, negotiation and assessment of variable elements of design. This should include aspects such as roads layouts, open space and local factors of design.

1.1 Future Consideration of Disability

The envelope, common parts and the external finishes should all be considered in light of the needs of those with impaired sight or balance.

The structure should be as adaptable as possible to allow ease of future adaptation, eg. a ceiling strong enough for a hoist, joists able to be trimmed for a future lift, stairs strong enough for a stair lift, removable walls between bedroom and bathroom entrance level WC positioned to allow further adaptation and space for a shower, etc.

1.2 Foundations – *see checklist*

1.3 Drainage– *see checklist*

1.4 Floor Construction

Upper Floor Construction

Where timber frame, the living spaces will be timber suspended and communal stairs concrete pre-cast.

All access hatches in floors should be screwed, not nailed, to be made of plywood and clearly identified. Where services cross joists they should be protected where necessary by metal plates and marked on the floor as required.

Noise

Minimum noise transmission between flats and within single dwellings horizontally and vertically is of prime importance and the Architect must ensure that maximum levels of sound insulation above building regulation standards are achieved with careful detailing to contain noise levels within allowable limits.

Floor Coverings

In a common stair a granolithic finish is desirable. Where finance allows a noise reducing rubber, linoleum or other durable floor covering should be used. Approval must be sought from the Association.

1.5 External Walls

The proposed external wall construction (traditional brick and block or timber frame) and external finish should be discussed with the Association in advance of any detailed design work and approval obtained from Technical Services Sub-Committee. Materials should be durable and sustainable supported by low maintenance requirements.

Well thought out material selection and an appreciation of colour are intrinsic to good quality design. Colour can inject vibrancy into the streetscape as well as providing identification.

1.6 Internal Wall Structure and Finishes

Finishes should always minimise maintenance and be durable and, where possible, be environmentally friendly.

1.7 Roofs

Any variation to traditional dual pitched roofs will require Association approval.

Planners may require a reduction of the height effect of a building in relation to the surrounding property. In such cases the Association will give sympathetic consideration to the use of a dormer or mansard form of roof. Implications of alternative roof structures must be discussed with the Association at an early stage.

1.8 Rainwater Goods – *see checklist*

2. 0 Security – *see checklist*

3.0 Entrances

All entrances must comply with Housing for Varying Needs criteria.

All flatted buildings should have controlled entrances. This may also be a consideration for 4 in a block upper flats depending upon the disability of the tenant.

4.0 Sound Insulation

To ensure privacy between houses, the Association requires sound insulation tests to be carried out, after construction and prior to acceptance, between adjacent flats and houses. The results must achieve a standard above Building Regulations and copies must be forwarded to the Association, even if "Deemed to Satisfy" construction has been approved and employed.

Part C

Internal Design Criteria

C Internal Design Criteria

1.0 Introduction

All dwellings are to be built to meet current Building Standards (Scotland) Regulations as well as Scottish Government and other good practice guidance on Barrier Free Housing - Housing for Varying Needs. All proposed building materials are to be of a durable nature and carefully considered in relation to future maintenance requirements and should be sympathetic to the environment.

Dwellings to be designed with energy conservation in mind and in particular current insulation standards to be a minimum with regard to roofs, external walls and floors.

Designers should appreciate the need for future-proofing with all properties having the facility to receive digital television.

2.0 Barrier Free Specification for Lifetime Homes

Any exceptions to achieving barrier free standards must be discussed and agreed by the Association.

3.0 Space Standards – *see checklist*

4.0 Layout

4.1 General Planning Of Dwellings – *see checklist*

4.2 Entrances – *see checklist*

4.3 Circulation Areas and Stairs – *see checklist*

4.4 Kitchens - *see checklist*

Location of kitchens to take account of possible heat recovery system; location of kitchens and bathrooms and WC's to minimise pipe runs and maximise possibility of warm air recovery system.

4.5 Utility Room – *see checklist*

4.6 Bathrooms and W.C. – *see checklist*

4.7 Bedrooms – *see checklist*

4.8 Living room – *see checklist*

4.9 Storage - *see checklist*

Overall storage space should exceed Scottish Housing Handbook or building regulation standards, especially for disabled accommodation and should be well distributed throughout the house or flat. Storage space in the form of built-in cupboards is desirable and should be sited in circulation areas. Outward opening doors and lighting to be provided.

Space should be made outside habitable rooms for items such as waste recycling, washing/drying clothes and properties with six or more occupants should be designed with dedicated utility space in mind.

Built-in general storage should be free of hot water cylinders and other obstructions. When designing housing for families, the designers should look at the possibility of a store near the front door to take a buggy. As a minimum, space should be provided to park a folded pram without obstructing circulation areas.

All walk-in storage should have artificial lighting provided. Long narrow stores should be avoided. Designers should also consider the option of home working when planning layouts.

4.10 Heating

Any well tried and tested proposal which can minimise costs to residents and maximise energy efficiency and sustainability will be considered favourably by the Association. – see section on energy efficiency and sustainability (Part E).

4.11 Space

Dwelling design should clearly articulate the space for furnishings, access and activity.

Open plan living will only be considered whereby the open space can easily be configured into habitable rooms meeting their respective room space standards to ensure future adaptability. Disabled users can find linked kitchen and living room areas that can be made open plan easier to negotiate with options such as sliding doors.

The minimum clear circulation width should be 1200mm to all dwellings. Doors from circulation areas should open to 'expose' rooms, usually opening against a wall to maximise usable floor and wall area. Staircases should not pitch directly down to the entrance door as this reduces accessibility and adaptability.

Part D

Special Needs Design Variations

D Special Needs Design Variations

1.0 Introduction

Special needs design may encompass housing for a wide range of disabilities including physical, sensory, learning difficulties, mental distress and hidden disabilities like epilepsy. Innovative design solutions will be required to support accommodation flexibly, should the circumstance of the resident change.

It is usual for the Association to allocate its disabled accommodation first but this will be some time into the contract usually after the structure is complete and certainly after designs are finalised. In addition, the house will have to serve a number of households over time with different needs which again might change radically.

Therefore a standard range of dwellings should be drawn up with the flexibility and the space to be fine tuned after allocation, interviews and the Occupational Therapist's report on the tenant's needs. Depending upon the nature of the work, a range of approved adaptations should be included in the Bill of Quantities for pricing or provisional sums allowed.

Careful consideration should be given to the placing of windows and doors and services which are more difficult to alter retrospectively. A downstairs WC should be provided in each house and should be capable of being adapted into a wet floor shower room. In dwellings of six people and above the downstairs WC should also be a shower room.

Full account must be taken of housing for varying needs and the enhanced standards to maximise the designs to accommodate current and future needs of all clients regardless of age and disability.

Developments aimed at elderly residents should take into consideration the requirements for those with dementia. Designers should consider the University of Stirling and CIH Scotland's publication titled 'Design of Housing to Assist those with Dementia' July 2013.

Part E

Energy Efficiency and Sustainability

E Energy Efficiency and Sustainability

1.0 Affordable Heat

The Association believes that energy efficiency in design is the most important general component of housing design. Dunbritton's future housing must be cheap for tenants to run in terms of heating, hot water and electricity. Affordable heat is also one key part of a strategy to eliminate condensation dampness.

When aspects of design are "competing" for resources, energy efficiency, affordable heat and solar gain should be the first priority. The Association will work with the design team to ensure that the housing design makes the best use of the aspects of the site that lend themselves to building energy efficient housing.

In particular the design should try to orientate buildings to the south, maximise passive solar gain through appropriate massing and glazing, select the most efficient and cheapest forms of heating (currently gas central heating in urban areas and a suitable alternative in rural areas without mains gas), install insulation levels greater than Building Regulations and consider simple heat exchanging ventilation systems.

Window sizing and positioning is critical according to the function of the space being naturally lit or heated and should be screened for high summer sun while admitting heat from lower winter sun. Likewise north facing penetrations should be minimised.

Where practicable, renewable energy sources should be used with an emphasis on air source systems for smaller developments and larger communal systems for bigger developments.

The Scottish Government has issued its Zero Waste Plan for Scotland. This publication sets the standard for change required to achieve its targets. It proposes long term targets for recycling 70% of all Scotland’s waste by 2025. As an environmentally conscious organisation, Dunbritton seeks to minimise the environmental impact of its new developments during both the construction phase and throughout the building’s lifetime.

The design should allow for recycling of materials during the construction phase and for household waste during occupancy. In particular, Local Government policies should be allowed for to encourage recycling by tenants and users.

Part F

Building Standards and Maintenance

F Building Standards and Maintenance

1.0 General Standards

The Association requires to plan maintenance for the life of every property. The structure and fabric of all buildings should therefore be designed to have minimal maintenance costs and an overall life expectancy of at least 60 years.

The Architect's choice of materials and their use is critical and a price consideration must be the life expectancy of the material and its lack of any characteristics which need constant maintenance. These considerations apply also to its services, fittings, external works and landscaping.

EXTERNAL TECHNICAL BRIEF CHECKLIST - A

DWELLINGS IN GENERAL TO SUIT VARYING NEEDS

B = Basic Requirement
D = Desirable Requirement

ELEMENT	DESIGN CRITERIA	REF	B	D	Comment
Definition of Public and Private Spaces	• All external areas to be well defined and their function clearly determined	1.1	•		
	• Every dwelling to have a zone of private space around it		•		
	• Dwellings to have a firm boundary division with 1 metre high fence to frontage		•		
	• Open plan frontage of dwelling in cul-de-sac or semi-private areas			•	This allows deletion of fencing
	• Private rear gardens to have minimum 1.8 metre high fencing with secure access gate		•		May be lower height fence in rural areas.
	• Division fences between gardens to have 1 metre high fencing		•		
	• Front boundary fencing to have gates where suitable for purpose			•	Consider operation of gates (footpaths)
	• Front boundary fencing must not obscure outlook from dwelling		•		
	• Minimise areas of communal space outwith curtilage of dwellings		•		Consider future maintenance costs
	• Maximise garden areas to larger house types			•	
	• Landscaping to be used to reinforce security and privacy of dwellings		•		
	• Landscaping design should prevent short-cutting and erosion of edges			•	
Development Form and Layout	• Development Sites to be close to local amenities and transport links	1.2		•	
	• Cul-de-sac or no through roads preferred to minimise traffic and maximise security		•		
	• Family housing to be of terraced or semi-detached design		•		
	• Flatted dwellings to be of cottage style design			•	Possibly 3-4 storeys in urban areas
	• Larger family dwellings must be dispersed throughout the development		•		
	• Generally, all dwelling types top be dispersed throughout development avoiding ‘clusters’			•	
	• Density to be sympathetic to neighbourhood but maximised for viability reasons		•		
	• Undefended and blank walls to be designed out to eliminate the possibility of graffiti		•		
	• Allow sufficient space for the provision of separate refuse or recycling bins		•		Consider location of refuse stores for access and noise issues.
Orientation and Outlook	• Living rooms and rear gardens should have aspects within 30^{o} of due south.	1.3		•	
	• Dwellings to be designed to maximise solar gain		•		
	• Frontage views should protect privacy to the occupants of the dwelling		•		
	• Design to minimise hidden or obscured areas		•		.
	• Provide buffer space at ground floor windows		•		Refer to 1.5

General Car Access and Pavements	• Road access to sites should be separated from pedestrian access where possible	1.4		•	
	• Shared surface roads are not favoured			•	Consider their use in rural development
	• Roads, footpaths and street lighting should be adopted by the Local Authority		•		Extent of non-adoptable to be minimal

ELEMENT	DESIGN CRITERIA	REF	B	D	Comment
Footpaths	• Rights of Way and unofficial shortcut routes to be altered to suit the development layout	1.5	•		Refer to 2.2
	• No through routes to be designed unless remote parking is unavoidable		•		
	• Public footpaths are not to abut houses and a buffer zone to be provided		•		Refer to 1.3
	• Footpath access to private rear gardens of dwellings must not pass through the dwelling		•		
	• Rear footpath access is not to be continuous for terraced or grouped housing		•		
Lighting and Security	• All developments to achieve Secured By Design status from Strathclyde Police	1.6	•		
	• Visual impact of street lighting is to be minimised and wall fittings are acceptable		•		Where new fittings are installed
	• Communal lighting to have appropriate utility supply and metered separately		•		.
	• Road and footpath lighting to be designed for adoption at completion by Local Authority		•		
	• Unbuildable areas to be clearly defined and densely planted with low maintenance shrubs			•	Refer to 2.2
	• Hard landscaping of unbuildable or common areas will be considered as an alternative			•	
	• Where necessary, lighting of unbuildable areas to be controlled by movement sensor		•		
Signage and Street Furniture	• Standard DHA development sign to be incorporated into development entrance	1.7	•		
	• Street furniture to be kept to a minimum and located to reduce danger to visually impaired		•		.
	• Seating should not provide the opportunity for groups to gather or anti-social behaviour			•	Consider location of street furniture
	• Seating to be adjacent to footpaths, amenity areas or elderly persons dwellings		•		
Site Preparation	• Landscaping areas to be well prepared and adequate drainage to be provided	2.1	•		
	• Best quality top soil and planting species (esp. grass / turf) to be used for landscaping		•		
Landscape and Planting Design	• An allowance of 2% of project cost to be allocated for soft landscaping works	2.2	•		
	• An allowance of 30% of landscaping cost to be made for maintenance within defect period		•		
	• Landscaping to be used to reinforce security and privacy to dwellings or footpath links		•		Refer to 1.5
	• Planting designs to achieve maximum colour and variation for visual effect		•		.
	• Small areas of communal grass to be avoided		•		Refer to 1.7
	• Sunken planting beds adjacent to ramps and steps to be avoided		•		

	• Designs to incorporate any suitable existing mature trees and shrubs		•		
	• Consider provision of outside water tap where appropriate to assist landscape maintenance			•	

ELEMENT	DESIGN CRITERIA	REF	B	D	Comment
Children's Play Areas	• Housing for elderly persons to be sited away from children's play areas. Play areas near family housing.	3.1	•		
	• Play areas to be sited adjacent to family dwellings to allow natural surveillance		•		
	• Play area designs and costs to be approved by the Association prior to implementation		•		
Privacy and Security	• Designs should eliminate overlooking of private gardens and bedrooms in dwellings	4.1	•		
	• Shared entrances should be controlled by means of a door entry system		•		
	• Common staircases should be well lit and the design should eliminate hidden recesses		•		
Gardens	• Private gardens to be enclosed by a fence with gates to Secured by Design guidelines	4.2	•		Refer to 1.7
	• Every dwelling or block to have a private external space related to house size and type		•		
	• External area to include drying facilities, refuse collection and amenity spaces		•		
	• Garden areas should be a minimum of 50 square metres per dwelling			•	.
	• Smaller garden areas will be considered for elderly, amenity or flatted dwellings			•	
	• Gardens for ground floor flats should be immediately adjacent to the flat for privacy		•		
Fences, Walls and Hedges	• Fences and to be of height and substance appropriate to their function	4.3	•		Refer to 1.7
	• Masonry walls to have a robust coping and damp proof course, using low porosity items		•		
	• Timber materials to be pre-finished with stain or preservative, to limit future maintenance		•		
	• Metal components including weld to be of galvanised finish		•		
	• All fencing should be designed and specified for maximum longevity of components		•		
Provision for Clothes Drying	• Drying area to be served by minimum 5 no poles, however, rotary driers are acceptable.	4.4	•		
	• Path to be provided to drying area, the width of which to comply with Technical Standards		•		Refer to 1.5
	• Drying areas for flats to be adjacent to flats and easily supervised with direct access		•		
	• Provision of 5 no. poles per storey or 1 no whirly gig per flat/house		•		
	• Drying areas for flats to have tall perimeter fencing for privacy		•		
	• Drying areas to be accessed by paved pathways with planting at suitable distance		•		Refer to 1.5

	• Planting around any drying areas to be appropriate to avoid clothes catching on it.		•		
In Cartilage Parking	• Grouped parking to be provided in as small a group as practical	4.5	•		

ELEMENT	DESIGN CRITERIA	REF	B	D	Comment
Bin Storage, Collection, Meters and Pends	• Refuse areas to be situated at the rear of dwellings and away from windows	4.6	•		
	• A minimum 900x1200mm level, slabbed area to be provided for each and every dwelling		•		Adjust area dependent upon no of bins
	• Refuse collection points to be accessible without need to pass through the dwelling		•		
	• Unobstructed pathway access to external facilities including meters to be provided		•		
	• Pends to have a lockable gate or door and be at least 1200mm wide with external lighting		•		

EXTERNAL BUILT FORM – ENVELOPE & COMMON PARTS CHECKLIST – B

DWELLINGS IN GENERAL TO SUIT VARYING NEEDS

ELEMENT	DESIGN CRITERIA	REF	B	D	Comment
Consideration of Disability	• All designs to comply with minimum standards of "Housing For Varying Needs" and Building Regulations	1.1	•		
	• Structures to be designed to allow ease of future adaptation		•		
Foundations	• Engineer to be fully aware of soil types and site conditions prior to foundation design	1.2	•		
	• Where options, foundations to be chosen for suitability reasons, then cost parameters		•		
Drainage	• All drainage to comply with current technical Standards and Scottish Water regulations	1.3	•		
	• Designs should encourage SUDS drainage systems or SEPA recommendations		•		
	• Contributions towards the drainage solutions by the Utility should be promoted			•	Either physical or grant contributions
	• Project Engineer to liaise with Utility over any possible incorporation of elements in designs		•		To maximise any financial contribution
Floor Construction **Floor Coverings**	• Minimum noise transmission between horizontally & vertically is of prime importance & the architect must ensure maximum levels of sound insulation are achieved with careful detailing to contain noise levels within allowable limits. The best sound insulation is tested and achieved.	1.4	•		
	• In a common stair a granolithic finish should be used where possible.		•		
	• Where finance allows a noise reducing rubber, linoleum or other durable floor covering should be used			•	
	• Approval to be sought from Association		•		
External Walls	• External Walls constructions must meet Building Standards as an absolute minimum & where practicable should surpass the minimum by 30% or higher	1.5	•		
	• Association's initial preference – traditional – cavity wall of brick & block finished externally with facing brick or suitable commons & render & internally with wet or dry lining			•	
	• Timber fame construction will be considered where site conditions allow			•	
	• Generally only for one or two storey houses but cottage flats are acceptable. No external stair access to cottage flats.			•	
	• If there is no disadvantage to using timber construction – it should be considered as an option - constitutes a renewable resource & allows easy achievement of low U-Values			•	
	• Also applies to other non-traditional types of construction where sustainability & energy efficiency objectives are better met			•	
Internal Wall	• Walls will normally be finished with silk or matt finish emulsion paint	1.6		•	Environmentally friendly products to be used

Structure & Finishes	• It is essential that plasterboard walls are sealed and screeded so that wallpaper can be removed without causing damage to plasterboard			•	
	• Wood surfaces within the dwelling to be coated with stain & varish. Painted acceptable.			•	Environmentally friendly products to be used

ELEMENT	DESIGN CRITERIA	REF	B	D	Comment
Roofs	• Preference for traditional dual pitched roofs	1.7		•	
	• Mono-pitched roofs should be avoided unless there is a strong justification and flat roofs are unacceptable		•		
	• Overhanging eaves are preferred to prevent rain wash on the building			•	
	• Rural developments may omit this in achieving the local vernacular style			•	
	• Structure should be designed with the potential to convert to future accommodation with minimal alteration		•		
	• Use of timber for soffit fascia not permitted in buildings over two storey. Buildings over two storey should have UPVC fascia soffit or equivalent		•		To assist with future maintenance
Rainwater Goods	• Standard u-PVC fittings should be used in most cases, unless sustainable alternative available	1.8		•	
	• The only exception being planning restrictions in which case cast iron should be used			•	
	• Watergoods should be in the private curtilage			•	
Security	• No ground floor gable windows are to be adjacent to a public footpath	2.0	•		
	• No wall should be without some form of window where practical		•		
Entrances	• To avoid indication of vulnerability & disability, consideration should be given to having ramped access to rear	3.0		•	
	• There should be no threshold step		•		.
	• Threshold bars are to be as flat as possible & only at flat entrances		•		
	• Ideally entrances should be well covered & illuminated			•	
	• All flatted buildings should have controlled entrances			•	
	• Also a consideration for 4 in a block upper flats depending upon the disability of the tenant			•	
Sound Insulation	• To ensure privacy between houses, the Association requires sound insulation tests to be carried out, after construction & prior to acceptance, between adjacent flats & houses	4.0	•		
	• The results must be achieve a greater standard that current Building Regulations & copies must be forwarded to the Association, even if 'Deemed to Satisfy' construction has been approved & employed		•		
Windows and Doors	• External windows to be of good quality and either clad with UPVC or aluminium. External doors to be UPVC or Steel with three point locking system. Specification for all windows to have Association approval to ensure high quality of product in relation to life cycle.	5.0	•		Must be certified by Secure by Design and have excellent life cycle qualities.

INTERNAL DESIGN CRITERIA CHECKLIST - C

DWELLINGS IN GENERAL TO SUIT VARYING NEEDS

ELEMENT	DESIGN CRITERIA	REF	B	D	Comment
Barrier Free Specification for Lifetime Homes	• All internal specification for houses inc first floors or ground & first floors flats (or all flats where there is a lift) should be designed to Barrier Free Visitable Standard & ideally Adaptable standard	2.0	•		
Space Standards	• Minimum space standards are those laid down in appropriate Scottish Housing Handbooks – in terms of disability, space is crucial to allow future adaptability – so the guidance should be treated as an absolute minimum	3.0	•		
Layout General Planning of Dwellings	• Consideration to be given to movement around the dwelling in a wheelchair & have access to bathroom, kitchen, living areas & at least one bedroom on ground	4.1	•		
	• This consideration also applies to the use of zimmers, prams & double buggies		•		
Entrances	• Where cost & design allow, the main entrance should always be into an enclosed lobby or hall, not directly into a living space	4.2		•	
	• Weather & draught stripping is essential to external doors		•		
	• Where possible first floor flats in a 4 in a block dwelling should have their own separate enclosed private entrance at ground floor level rather than a common staircase			•	
Circulation Areas & stairs	• In family dwellings a space should be provided to park a folded pram or wheelchair without obstruction	4.3		•	
	• A suitable area should be provided for hat & coat hooks			•	
	• Passages need to be more than 900mm if doors open off them or a right turn has to be made		•		
	• It is desirable for all internal doors to be solid core in all properties if costs allow			•	
	• Radiators & other obstructions should be positioned to avoid hampering etc movement		•		
	• Internal doors should not have thresholds or should be chamfered if they are necessary		•		
	• There should be minimal or no internal barriers to mobility or to full use of the accommodation, so no steps between areas on the ground floor		•		
	• Thought given to opening, closing & locking windows over sink			•	
	• With a straight flight that continues beyond at both top & bottom		•		
	• Single steps & winders should be avoided & staircase widths should be sufficient for the movement of furniture & headroom must comply with Building Regulations		•		
	• Ceilings over staircases should be at a level easily accessible for decoration		•		

ELEMENT	DESIGN CRITERIA	REF	B	D	Comment
Kitchen	• Kitchen should not be located internally but must have an external wall space & window(s)	4.4	•		
	• Hot & cold water supply & waste connection should be left for the washing machine connection with a cut out through kitchen unit to allow connection		•		
	• There should be a choice of gas or electric connection for the cooker		•		
	• As a minimum, space in the kitchen layout should allow for location of a fridge (625mm), washing machine (650mm) and cooker (625mm) with an additional space for a further appliance, eg. Dishwasher or tumble dryer (625mm), preferred		•		
	• The uninterrupted sequence of worktop, cooker, worktop, sink, worktop is required		•		
	• An adequate free worktop for preparation should be provided with the sink top to be 1.5 bowl stainless steel inset type		•		Larger house types require storage
	• An adequate amount of base units & wall units should be specified for approval by the Association		•		
	• The worktop above the fridge space should be removable for fridge-freezer use		•		
	• No wall unit should be positioned above that space and there should be adequate ventilation around the appliance		•		
	• Units will have 180 hinge, full backs & metal drawer runners		•		
	• Handles to be D profile for easy grip, doors, fronts, fasciae, trim & worktops will be from the same range for the whole development		•		
	• A choice of colours will be selected by the Association or its tenants during the contract		•		
	• Ideally there should be a separate eating area included in the design for all dwellings & this is essential for family housing		•		
	• The Association favours kitchen-and-dining areas where not seperate			•	
Utility Room	• In larger family housing or disabled accommodation a utility room should be provided for washing or other uses	4.5	•		
Bathrooms & W.C	• Bathrooms should have an external wall, natural light & ventilation	4.6	•		
	• Bathroom design should facilitate use by the elderly or disabled			•	
	• A platform at the head of the bath is desirable			•	
	• Bathroom dimensions should be 2100mm x 2100mm as a minimum		•		
	• All mainstream accommodation should have the plumbing & wiring for a shower over the bath available for connection under tenant's choice. Tiling to shower walls to be undertaken by Association.		•		
	• When designing disabled accommodation flexibility should be built in as the final internal design will be dictated by the tenant's individual needs			•	

	• Ideally the Architect should provide a menu of disabled details for future specification by an Occupational Therapist			•	
	• Partitions forming bathrooms & separate W.C.s should be sound insulated & capable of supporting grab rails & poles adjacent to the bath & w.c		•		

ELEMENT	DESIGN CRITERIA	REF	B	D	Comment
Bedrooms	• Wheelchair access to bedrooms should permit the wheelchair to be taken alongside the bed allowing the usual bedroom furniture	4.7	•		
	• Other mainstream double bedrooms need to be $12m^2$ & single bedrooms $9m^2$ minimum excluding storage		•		
	• Double bedrooms should allow provision of a double or twin beds		•		
	• Single bedroom shapes should allow siting of the bed in several positions		•		
	• Built in wardrobes should be provided to all bedrooms		•		
	• These to include shelf & hanging rail with adequate support			•	
Living Room	• The living room is the focus of family activity so the space should be adequate for a range of furniture to suit a typical family's needs & for the use of consumer durables	4.8	•		
	• Shape should allow maximum flexibility of use		•		
	• The NFHA has information on adequate space provision for particular combinations of furniture, etc		•		
Storage	• Overall storage should exceed Scottish Housing Handbook or building regulation standards, especially for disabled accommodation & should be well distributed throughout the house or flat	4.9	•		
	• Storage space in the form of built-in cupboards is desirable & should be sited in circulation areas			•	
	• Outward opening doors & lighting to be provided		•		
Heating	• The Association installs gas fired wall mounted fan flued boilers. Preferred option is to use condensing combination boiler A rated.	4.10	•		
	• Where mains gas is not available, the heating system should be the cheapest & most efficient to run. Types of renewables such as Air Source must be considered or biomass for larger scale developments.		•		
	• Radiators should be located in circulation or waste areas at pass doors must not impede door opening, access or mask controls & or electrical outlets. All radiators should be fitted with TRVs.		•		
Ironmongery	• All ironmongery to doors and windows to be easily manipulated and at a level suitable for all users. Ironmongery samples to be approved by Association.	4.11	•		
Electrical	• Communal TV systems should be considered within flatted developments with the individual aerials provided on smaller developments where communal is impractical.	4.12	•		

	• Smoke & Carbon monoxide detectors are to be mains powered with a battery backup. Minimum of one per floor and linked on multi-storey houses.	4.13	•		
	• Switches and sockets should comply with HfVN standards.	4.14	•		
	• Door entry systems must be installed to all communal stairs powered from shared supply. Top buttons must not be higher than 1200mm for wheelchair bound users.	4.15	•		
	• Communal lighting systems should be installed with PIR motion sensors and should be no more than 2.8m in height for safe maintenance access.	4.16	•		
	• Lighting fittings are to be of a low energy type. Natural light should be maximised to minimise the need for artificial light during daylight hours and reduce the effect of otherwise dark corners. Provide weatherproof fittings for external lights on front and rear doors with PIR operation and manual override. LED lighting should be used for external lighting in developments.	4.17	•		

SPECIAL NEEDS DESIGN VARIATIONS CHECKLIST - D

DWELLINGS IN GENERAL TO SUIT VARYING NEEDS

ELEMENT	DESIGN CRITERIA	REF	B	D	Comment
Heating & Services	• Design temperatures should be 22 ○ C throughout with external design temperatures taken as - 4 ○ C		•		
	• Radiator & programmer controls should be located to suit seated users		•		
	• Location of the central heating boiler must allow access to the control panel at the base & be fixed at a height of 1200mm maximum to the underside		•		
	• The Association will require radiator & pipe work layouts, prior to installation, for their comment		•		
	• Additional circuits in Wheelchair houses should be provided for **(i)** remote controlled door opener **(ii)** door entry system, **(iii)** filtered supply for Alert System, **(iv)** wheelchair charging, **(v)** external wheelchair charging, **(vi)** installation of an electric hoist, **(vii)** installation of clos-o-mat & **(viii)** optical smoke detector system		•		
Rooms	• An initial design for a particular house type will be provided for modification following Stage 2 visits and feedback		•		
Kitchen	• Stage 2 adaptations, specified by the O.T. may include: • Adjustment in height of kitchen units, worktops & fittings • Confirmation of appliances • Electric or Gas hob & oven • Position of electrical sockets & switches • Front controls to hob or sink			•	
Bathroom & W.C Compartments	• Stage 2 adaptations may require a range of tenant specific design features but a basic model for bathrooms & W.C should be provided along with a theoretical Stage 2 adapted design		•		
Living Room	• Stage 2 adaptations, specified by the O.T may include: • Door entry handset with roving lead & handset • Location of community care call system, Alert • Audio visual door bell signal				
Other Areas	• General Stage 2 adaptations to any room, specified by the O.T may include: • Low temperature radiators required throughout • Remote/manual window opening gear • Remote controlled door opening gear • Fire resistant sliding doors • Community care call system, Alert • Door entry system • Audio visual smoke alarm • Audio visual door bell signal				
Ambulant Disabled **Introduction**	• Ambulant disability is a difficult area to design for as the range of tenant disability is so great • The Association would initially require a basic design that conformed to the basic Scottish Government criteria & the more general disabled design notes above		•		
	• The final design to rely upon the Occupational Therapists & tenant input		•		

ELEMENT	DESIGN CRITERIA	REF	B	D	Comment
External Design Criteria	• Follow good Barrier Free practice & the above general external design for disabled accommodation		•		
	• Special details may be indicated by the Occupational Therapist's report			•	
Internal Design & Adaptation	• Space standards should aim for the Wheelchair housing levels & should certainly exceed the mainstream standards		•		
Elderly Amenity Housing **External Layout & Design**	• Current Social Work thinking concentrates on independent living in adapted mainstream accommodation with domiciliary care & support • To meet the need, DHA is committed to providing a reasonable proportion of Elderly Amenity accommodation in each scheme with appropriate design			•	
Design for Sensory Impairment **Introduction**	• In terms of sensory impairment the Association is terminology primarily referring to the Blind & Partially Sighted • The intention is to build mainstream or disabled accommodation with consideration for the needs of those with impaired sight • There may also be Stage 2 adaptations following the same brief				
Internal Design	• Occupational Therapy & the Social Worker for the Blind will provide guidance on appropriate internal adaptations • Further information & design guidance for the external & internal environment can be obtained from the RNIB & it is recommended that designers consult "Building Sight", their design guide or4 similar				

EXTERNAL DESIGN CRITERIA CHECKLIST - E

ENERGY EFFICIENCY AND SUSTAINABILITY

ELEMENT	DESIGN CRITERIA	REF	B	D	Comment
SAP Rating Target	• To focus the design on energy efficiency, the Association is setting a target to comply with current guidelines as a minimum standard				
Group Heating & Combined Heat & Power	• Time limits to the development process mean that Combined Heat & Power & Group Heating approaches, although desirable are generally not incorporated			•	Proposals for Combined Heat & Power must be taken to Committee before any design work undertaken
Sustainability & Environment	• The Association supports sustainable housing development based on sound ecological principles: • Reduce consumption of & dependence on finite natural resources • Avoid over-exploitation of renewable resources • Reduce generation of waste & pollution		•		
	• The Association is hampered to a great extent by the financial & regulatory regime but endeavours to achieve sustainable development across all aspects of design, building & maintenance			•	
	• More information can be obtained from Edinburgh Sustainable Architecture Unit, the SFHA Working Party on sustainable development or other sources			•	
	• Consideration should be given to the energy & CO2 emissions associated with building & materials with a view to reducing both			•	
	• Where high energy materials are used can it be justified in terms of prolonging the life of the building or is there an alternative?			•	
	• Aspects of the design must encourage recycling where possible & minimise the use of non-renewable energy or resources		•	•	
	• A particular area of concern is the use of materials that pollute or create serious pollution in their production			•	
	• Concern also applies to hazardous materials		•		
	• The Association prefers material options that discourage the use of PVC or related plastics			•	
	• The Association would ask for information on alternative materials from its designers			•	
	• There is also an absolute ban on materials that contain asbestos or mineral fibres that are known to cause diseases		•		
	• Designers should consider health issues when drawing up any aspect of the design or specification		•		

EXTERNAL DESIGN CRITERIA CHECKLIST - F

BUILDING STANDARDS AND MAINTENANCE

ELEMENT	DESIGN CRITERIA	REF	B	D	Comment
Building Defect Warranties	• All mixed tenure, traditional architect designed schemes will a recognised third party warranty cover & consultants will be expected to co-operate fully with their needs for information & design details		•		
	• In the case of Partnership projects the contractor will be required to use Third Party Warranty company		•		
	• However, it would be advantageous to consider the design & choice of materials in light of the warranty provider's guidance			•	
	• It is the consultant's responsibility to assess the level of work required to comply with any warranty provider's more onerous information & consultation needs		•		
	• For Design & Build projects & those that are 100% rented by tenure the Management Committee will decide on the basis of service & cost which of the building warranties should be obtained		•		
	• Again consultants & contractors will be required to co-operate with the needs of the Warranty organisation		•		
Whole Life Cycle Costing	• The Association requires details & costed information on all the components of its housing & other buildings to feed into the cyclical & planned maintenance system		•		
	• Consultants will be expected to provide a fully costed 30 year programme of inspections & cyclical & major repair works by Practical Completion, based on the priced Bill of Quantities, costed A.I.s & the final account			•	