

5. Design Guidance: Street Structure - Junction Types and Arrangements

The needs of pedestrians should be prioritised in the design of street junctions.

Key Principles

- Junctions should be designed to suit the needs of pedestrians first in terms of visibility and desire lines.
- Junctions should be designed to suit street style, use and demand.
- Residential areas should incorporate a variety of different junction types prioritising urban design objectives that consider the quality of the space, rather than relying on standardised solutions.
- Swept paths for large vehicles and parking requirements for residents should be taken into consideration.

Further Guidance

- Designing Streets Pages 35-37
- SCOTS Road Development Guide, p.39 & pp.70-73.



Tight Corners:

Are an effective means of reducing traffic speeds and making the street safer for pedestrians.



Raised Junction:

Slows traffic speed and provides crossing point for pedestrians.



Alternative Street Transition:

Different treatment to show transition from one street type to another.



Crossroads:

Are an effective way of reducing traffic speed in urban areas.

5. Design Guidance: Street Structure - Streets for People

Streets should be designed to create places where people can meet and socialise.

Key Principles

- Streets should provide shared spaces for social interaction and safe activity by a community.
- Shared space should be designed to encourage low vehicle speeds and to prioritise pedestrians.

Further Guidance

- Designing Streets Pages 38-39
- SCOTS Road Development Guide, p.39-41 & pp.85-94.



Central Green Space:
Provides social space for neighbourhood residents.



Shared surfacing:
With tight corners helps reduce traffic speeds and provides a connection between the surrounding houses and green space.



Falkirk High Street:
Has provision for vehicles but is prioritised for use by pedestrians.



Shared streets:
Create safe places for activities.

5. Design Guidance: Street Structure - Integrated Parking

The quality of the street should be enhanced through the use of a variety of types of parking.

Key Principles

- Car parking to meet Falkirk Council's standards should be carefully designed into developments to lessen visual impact.
- Integrated parking should be incorporated into street design by a variety of means to enhance street quality.

Further Guidance

- Designing Streets Pages 40-43
- SCOTS Road Development Guide, p.41-42 & pp.137-170.



Undercroft Residents' Parking:

Stops vehicles and parking bays dominating the street layout.



Parking Courts:

Allows cars to be taken off the streets.



Integrated Parking:

Parking is well integrated into this shared use street through appropriate planting and materials.



Variety of hard surfacing :

Parking areas are highlighted by contrasting materials to enhance the shared space in this development.

5. Design Guidance: Street Structure - Emergency and Service Vehicles

Street layouts should accommodate emergency and service vehicles without compromising a positive sense of place.

Key Principles

- Street layouts should be designed with the consideration of the needs and space standards required by emergency and service vehicles.
- Service and emergency vehicles should be accommodated by street design without compromising the quality of the place or dominating the layout.
- Swept path analysis is a useful tool to inform street layout and design.

Further Guidance

- Designing Streets Pages 44-45
- SCOTS Road Development Guide, p.43, p.74, pp. 81-82 & pp.95-98.



Service Vehicles:

Can be accommodated through careful street design without dominating the street layout.



Street Design:

Should accommodate service vehicle without dominating the street layout.



Well connected street patterns:

Reduce the need for reversing of service and emergency vehicles.



Emergency Vehicles:

Street design should accommodate emergency vehicles without detriment to positive quality of place.

5. Design Guidance: Street Structure - Building Form and Detail

The form and detailing of individual buildings should combine the best of the past and present, combining an understanding of local context and tradition with crisp, contemporary design.

Key Principles

- The design of buildings should respect their context and take inspiration from local vernacular traditions.
- Infill developments in particular should respect the immediate context in terms of height, massing, building lines, and materials.
- Elevational treatment and window arrangements should be crisp, balanced and well ordered, avoiding fussy 'period' features and detailing.
- A limited palette of appropriate materials should be deployed, again taking account of local context.
- The curtilage of buildings should be well defined, providing a clear demarcation between public and private space.
- The building layout and positioning of windows should provide the requisite levels of privacy and daylighting.



Best of Past and Present: These townhouses take design references from the surrounding traditional buildings incorporating steep pitched roofs and timber windows and doors within a contemporary design.



Balanced Composition: This development creates clean lines and a well ordered composition of windows and doors; the limited palette of colours and material helps create a unified appearance.



Contemporary Tenements: This redevelopment provides a contemporary interpretation of the Victorian tenements it replaced. Sandstone reclaimed from the previous buildings has been reused to provide a further link with the past. The colour of brick has been chosen to match the warmth of the red sandstone.



Local Distinctiveness: The elevations on this standard house type reflect the local context in terms of design, proportions and materials.
(Copyright Mactaggart & Mickel Homes Ltd)

5. Design Guidance: Street Structure - Drainage

Drainage should be integrated into the design of a place in order to minimise environmental impacts.

Key Principles

- Streets should incorporate SUDS (Sustainable Urban Drainage Systems) techniques under current legislation as required.
- Drainage design principles should be discussed with Falkirk Council at an early stage in the design of street layouts.
- Scottish Water should be consulted as early as possible on proposed design and layout plans for drainage strategies.
- All assets intended to vest into Scottish Water must be constructed in compliance with latest Sewers for Scotland guidance.
- All drainage proposals for developments must consider Surface Water Management options early on as connection to the combined sewer network will not be accepted.

Further Guidance

- Designing Streets Pages 46-47
- SCOTS Road Development Guide, pp.43-47, p.117, pp.125-130, & pp.172-173.
- Falkirk Council: SG05 Biodiversity and Development
- CIRIA SUDS Manual (C757)
- Sewers for Scotland (current edition)
- PAN61: Sustainable Urban Drainage Systems
- Scottish Water's Surface Water Policy
- SUDS for Roads
- SUSDRAIN



Retention Pond:
Is integral to housing layout design.



Retention Pond:
Is integral to housing layout design and provides opportunities to enhance local biodiversity.



Variation of retention pond:
Exemplar of use of SUDS treatments in a modern neighbourhood design.
(Copyright City Legacy Homes)



Porous Paving:
A permeable resin surface surrounding trees allows water to penetrate the ground surface to the soil underneath.

5. Design Guidance: Street Structure - Utilities

The layout of streets and footways should not be dictated by the accommodation of services.

Key Principles

- The accommodation of services in streets should be designed to maintain the quality of place.
- Unless agreed otherwise, all services other than sewers should be located in land eligible for adoption by Falkirk Council as Roads authority, i.e. footways, verges and adoptable footpaths.

Further Guidance

- Designing Streets Page 48
- SCOTS Road Development Guide, p.47, & pp.98-102.
- National Joint Utilities Group at www.njug.org.uk.



Use of cobbles to form service strip retains the quality of the place without the street layout being dictated by the placement of services.



Services/Utilities strip at the side of a road.



The accommodation of utilities should not affect the layout/design of roads and footways.



Utilities can be integrated into a service strip at the side of the roadway as a means of easy maintenance.

5. Design Guidance: Street Structure - Planting

Street design should integrate natural landscaping features and foster biodiversity.

Key Principles

- Existing and new soft landscape features should be integrated into street design to enhance biodiversity value, add visual interest and to improve the micro-climate.
- Decisions on planting design including maintenance arrangements should be discussed with Falkirk Council at an early stage in the design process.
- Falkirk Council, acting in the role as Roads Authority, will not generally adopt planted areas except grass verges within the road boundary, main road visibility splays and elements of the SUDS system.

Further Guidance

- Designing Streets Pages 49
- SCOTS Road Development Guide, p.48, pp.106-107, pp.131-133 & pp.172-173.



Use of street trees and grass verges helps soften the appearance of the street.



Street visual quality is enhanced by the retention of mature trees and by the addition of new planting and appropriate hard landscaping materials.



Gardens as grass verges soften visual impact.



Street design should integrate soft landscape features and enhance biodiversity value.

5. Design Guidance: Street Structure - Materials

Appropriate specification and detailing of street materials contributes to the visual appeal and long term sustainability of streets.

Key Principles

- Street materials should be durable, sustainable, safe and easy to maintain.
- Where streets are to be adopted, choice of materials must be acceptable to the Council.
- Different materials should be used creatively to add visual interest and richness as well as clear functional definition to the street environment.
- Materials should be appropriate to their context. Use of high quality, traditional elements such as natural stone paving, or a suitable imitation, will be encouraged in high profile locations and conservation areas.

Further Guidance

- Designing Streets Page 50



Small Element Paving:

A wide range of paving materials are available to add colour, interest and definition, appropriate to the character of the area.



Detailing:

Careful detailing of this of shared use space enables the carriageway to be subtly delineated.



Whin setts, a traditional and durable street material, are used creatively to reinforce a narrowing of the street and a transition in the street environment.



Quality:

A small area of reclaimed stone flags with a setted margin have been used in a conservation area setting to provide a high quality, visually rich public realm. Use of reclaimed materials increases the sustainability of the scheme.

5. Design Guidance: Street Structure - Reducing Clutter

Street signs, road markings and lighting should be minimised, and furniture appropriately designed, to reduce street clutter.

Key Principles

- Street markings and signage should be minimised and designed to avoid having a dominant visual impact on a place.
- Street lighting should be designed as an integral part of the design at an early stage in the design process.
- Street furniture should add to the overall quality of design of a place; location, quantity and design should avoid pedestrian obstruction.

Further Guidance

- Designing Streets Pages 51-53
- SCOTS Road Development Guide, p.48, p.100 & pp.121-137.



Signage:

No street markings and minimal signage creates a clear, uncluttered environment which does not obstruct pedestrian movement.



Lighting:

Has been integrated throughout the design process reducing street clutter.



Furniture:

Street furniture has been considered as an integral part of the street design to create quality public realm.



Street Lighting:

Bespoke street lights reduce clutter.

6. Design Principles Checklist and The Place Standard

Checklist

The following is a summary checklist of the design principles set out in this SG.

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| Context and Character | Street structure should be informed by a thorough understanding of local conditions including topography, landscape, surrounding buildings and street patterns. Proposed street and building types should be determined in accordance with place and movement functions to create diversity and mixed use. |
| Permeability and Legibility | Permeable layouts, incorporating multiple connections with existing street and path networks, should prioritise pedestrian and cycle movement over vehicles. Local facilities should be easy to access. The location of distinctive features at key nodes facilitates easy navigation and orientation. |
| Green Infrastructure | Proposed residential neighbourhoods should be designed around a landscape and open space framework which harnesses the potential of the site and connects with the surrounding green network. Open spaces for social interaction, street trees, structure planting and sustainable urban drainage systems should be integrated into the green infrastructure to enhance and unify developments. |
| Buildings and Spaces | Buildings should be designed to create distinctive streets and spaces, with high quality architectural treatments to frontages facing on to streets, open spaces and paths. Street elevations should be considered as an exercise in coherent, integrated design to avoid random collections of house types. |
| Building Form and Detail | The design of individual buildings should reflect local building tradition in a contemporary manner. Detailing and materials should mirror the local context. The curtilage of buildings should provide clear demarcation between public and private space. |
| Achieving Appropriate Traffic Speed | The mitigation of traffic speed should be considered and incorporated from the earliest stages of the design process. Features such as landscaping, on-street parking, staggered building lines, minimising lengths of streets between junctions and careful use of materials can be employed to good effect to achieve appropriate traffic speed. |
| Junction Types and Arrangements | The design of junctions should primarily address pedestrian desire lines and visibility. Junctions in proposed residential neighbourhoods should vary in design to reflect street type, use and context rather than apply standardised solutions. |
| Streets for People | Shared spaces for safe, communal activity should be incorporated into proposed residential neighbourhoods. |
| Integrated Parking | Integrated car parking should enhance the streetscape by applying a variety of means. Parking provision should meet Falkirk Council's standards. |
| Emergency and Service Vehicles | Streets should be designed to allow for the needs and space standards required by emergency and service vehicles, without compromising the quality of place. |
| Drainage | Streets should incorporate SUDS - Sustainable Urban Drainage Systems - to meet local and national requirements. |
| Utilities | The placement of services in streets should address local requirements without compromising the quality of place. |

6. Design Principles Checklist and The Place Standard

Checklist (continued)

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| Planting | Natural landscape features should be incorporated into street design to provide visual interest, biodiversity and improve the micro climate. |
| Materials | Careful choice and design of materials in the streetscape adds to the quality of a place, providing variety, richness and visual interest. Different materials can be applied to delineate a variety of functions. |
| Reducing Clutter | Street markings, signage, lighting and street furniture should be designed at the outset of the design process to add to the overall quality of a place. Location, quantity and design should be carefully considered to avoid pedestrian obstruction. |

The Place Standard

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| The Place Standard | The Place Standard is a tool for assessing the quality of a place and identifying how it can be improved - see www.placestandard.scot . It helps local communities assess what works well about places and highlights where there is room for improvement. It allows for consistency in the assessment of a place and helps communities set out their aspirations. It is part of the conversation and consultation process between local communities, the developer and the planning authority. |
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