

Relevant Sections from Clonburris SDZ Planning Scheme 2019

A key layer of the Clonburris SDZ Planning Scheme Framework is the provision of green infrastructure.

Chapter 2: Movement and Transport

'Local Streets will act as quieter **traffic calmed** thoroughfares'. 'Some Local Streets will comprise Home Zones or Intimate Local Streets in the form of fully shared surfaces for the integrated movement of vehicles, pedestrians and cyclists in quieter residential areas.' A key component of traffic calmed local streets are street trees.

Figures 2.2.5, 2.2.6, 2.8.4 and 2.8.9 below indicate tree lined avenues and streets trees. Street trees are also a requirement of DMURS (2013) .

Figure 2.2.5 | Example Link Street

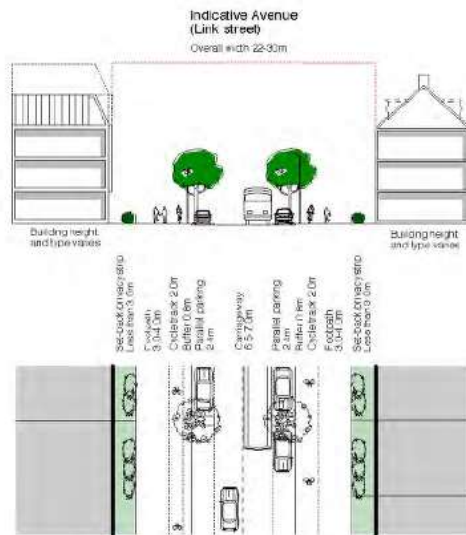


Figure 2.2.6 | Example Local Streets including Homezone (Intimate Scale)

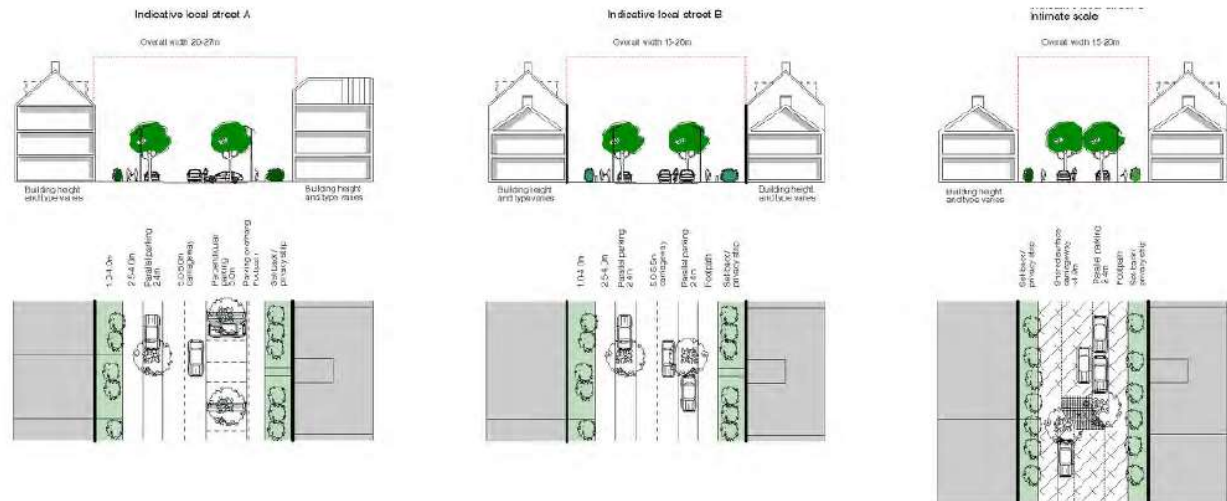
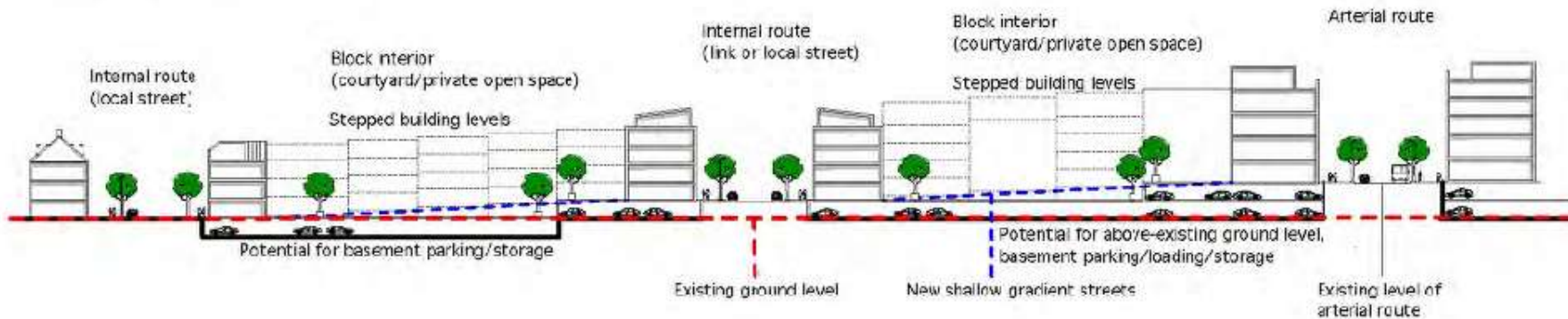


Figure 2.8.4 Section of Example Response to Site Levels (Note tree configuration within local streets)

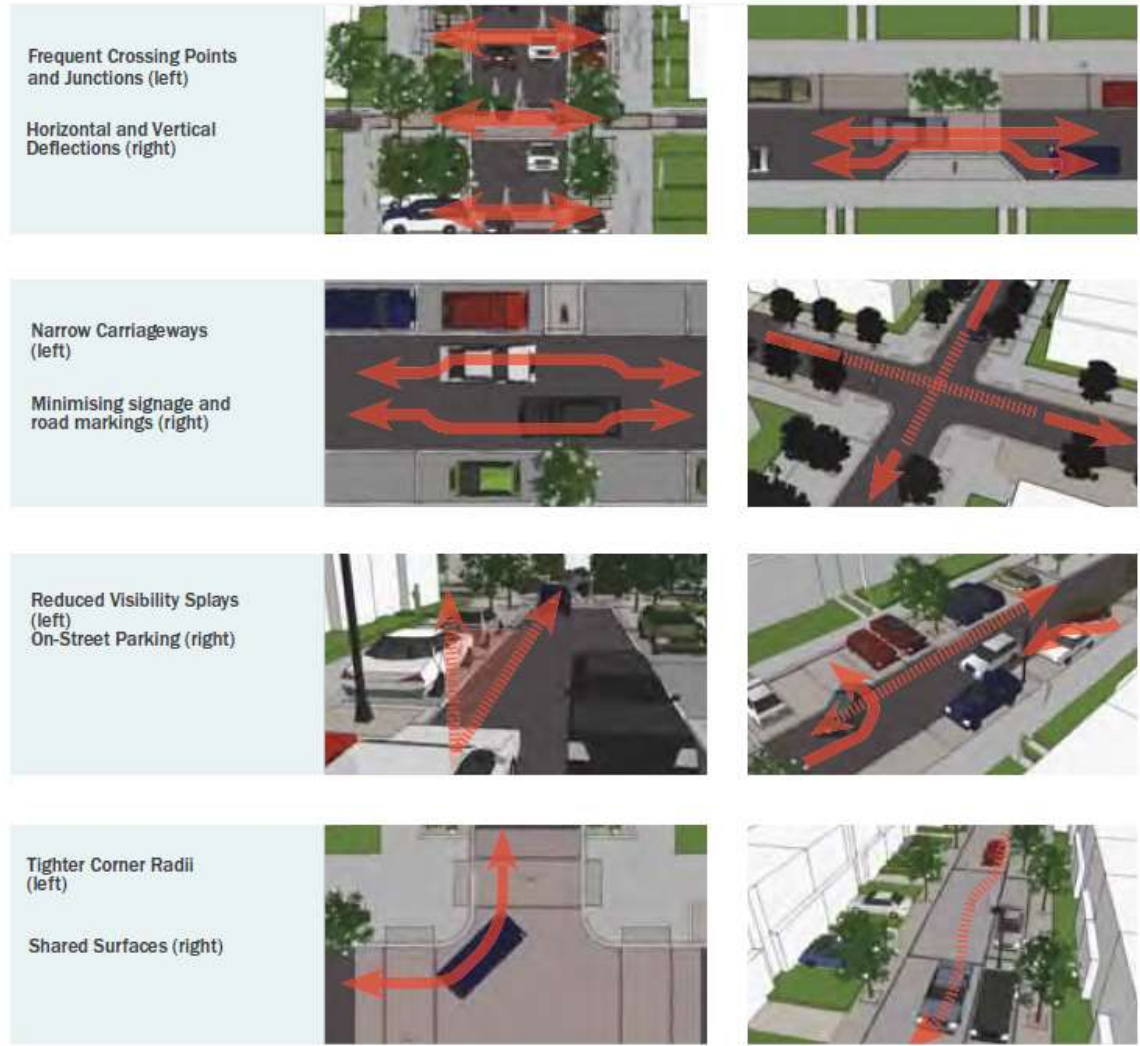


2.3 Green and Blue Infrastructure

Key Principles

- To protect, enhance and develop an interconnected green and blue infrastructure network of parks, open spaces, hedgerows, grasslands, protected areas, rivers and streams for amenity and recreation, biodiversity protection, flood management and adaptation to climate change;
- To retain and improve key landscape and ecological features such as hedgerows, the Grand Canal...;
- To incorporate new elements of Green and Blue Infrastructure such as tree planting, parks and natural open spaces and sustainable urban drainage systems;
- To connect parks and areas of open space with ecological and recreational corridors to aid the movement of biodiversity and people and to strengthen the overall Green Infrastructure network;
- To support native plant and animal species and encourage corridors for their movement; and
- To seek to retain hedgerows, aquatic habitats and established tree lines wherever possible.

Figure 2.8.9 | Suggested Measures for the Design of Integrated Streets



Source: Adamstown Street Design Guide (2010)

2.3.2 Green Infrastructure Network

'Blue and green spaces will cover approximately 30% of the SDZ lands'.

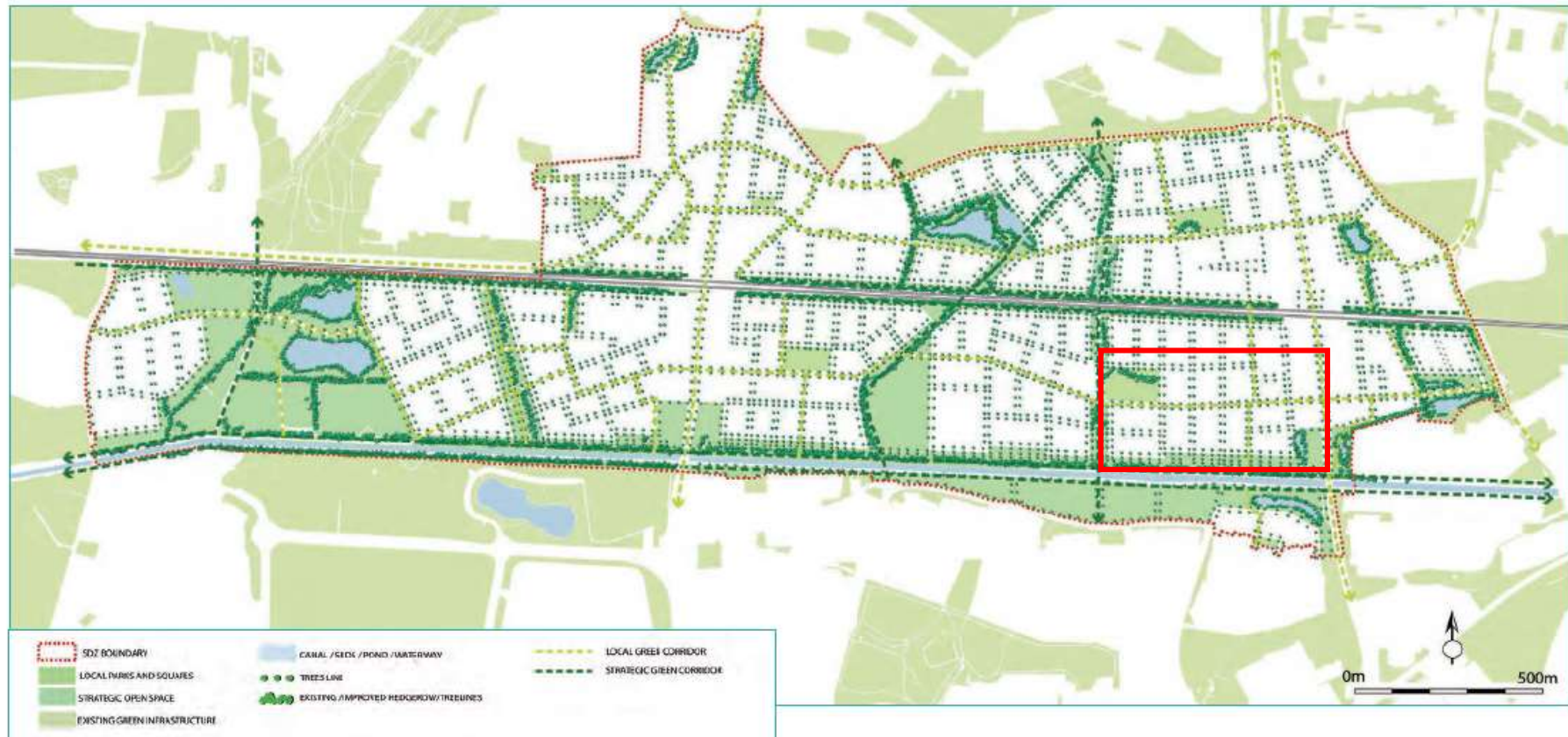
'New green spaces will be interconnected with existing green infrastructure to form multifunctional corridors and hubs ... along the Grand Canal... through existing and proposed Parks, ... through existing hedgerows ... and connecting into existing green spaces outside the SDZ lands. Local level green infrastructure corridors shall be provided along the new urban structure of streets and spaces (i.e. trees, tree lines, swales margins).

Developments on the SDZ lands should identify and protect (where possible) the existing green infrastructure elements on the lands including green open spaces, hedgerows, large trees, watercourses and other natural physical features as these are a strong part of the lands history and will define the character of areas and help to create attractive neighbourhoods.

These blue and green spaces will take the form of parks, open spaces, constructed wetlands, swales, tree planting, hedgerows, parks, permeable paving, green roofs and a green bridge over the railway line. These spaces will provide for amenity and recreation, biodiversity protection and enhancement, water management and adaption to climate change.'

Figure 2.3.1 indicates the retention and improvement of existing hedgerows and treelines. **Note retention/improvement of existing hedgerows/treelines in local parks as well as along the Grand Canal north side, and tree lined streets and avenues.**

Figure 2.3.1 | Green Infrastructure



Grand Canal

'Development proposals on the SDZ lands close to the Grand Canal **shall protect and incorporate** high value natural heritage features including watercourses, **wetlands, grasslands, woodlands, mature trees, hedgerows and ditches** and include for a 50m setback for all buildings and a 30m set-back distance for development (with the exception of bridges and footpaths) from the pNHA boundary to facilitate the continuity of the Grand Canal as a corridor for protected species, biodiversity, and a fully functioning Green Infrastructure network '

Sustainable Urban Drainage Systems

'Sustainable Urban Drainage Systems (SUDS) is widely recognised as **a green infrastructure based approach** to drainage and storm water management. The development of the SDZ lands will require a planned and incidental approach to SUDS and Infrastructural SUDS, to address drainage and storm water management issues. The **system should be designed as an ecological resource** through appropriate planting and landscape intervention.

It is essential that open spaces accommodating SUDS measures such as attenuation ponds, shall be designed in order to achieve a balance between surface water management and high quality open space.

The key elements of the proposed SUDS measures are as follows:

- **The SUDs shall be designed into the street, public squares and open space network, as a series of 'wet' and 'dry' landscape elements. These should be of a high quality to achieve a multifunctional space for amenity, biodiversity and surface water management and should include grasses and swales, and high quality, well designed attenuation ponds and constructed wetlands.**
- A system of infiltration trenches, **tree pits**, permeable paving green roofs, and other elements shall be provided that should direct surface water to attenuation areas.
- **Swales** should be designed as linear landscape elements and **used as elements to enhance streetscape** and neighbourhood character and identity.
- **Surface water should be captured and treated within the curtilage of each site using green roofs, rainwater gardens, filter trenches or bio retention units.**

2.8 Built Form and Design

2.8.6 Building Height and Street Width

Roofscapes

*'To mitigate the risk of flooding the Planning Scheme promotes the use of **Green Roof** measures in accordance with Section 2.9.5 (Surface Water Drainage and Sustainable Urban Drainage Systems).'*

2.8.10 Design of Parking and Loading

Car Parking

'Parking shall not dominate streetscapes and should be carefully considered as part of the overall public realm in terms of layout, surface treatment and landscaping (see Section 2.2.6 for parking standards).

External parking should primarily be provided on-street in accordance with the recommendations of DMURS (2013).

All on-street parking shall be broken up, landscaped and designed according to street typology in line with the measures set out under DMURS (2013), the example street typologies contained within Section 2.2 of this Planning Scheme and, where provided adjacent to cycle paths/lanes, the National Cycle Manual (2011).

*To ensure that it does not dominate streetscapes, **on-street parking shall be broken up into a series of bays separated by planted build outs.** The number of parking spaces per bay should generally be limited to **three parallel spaces (including loading areas) and six perpendicular spaces.***



2.8.11 Street Planting, Furniture and Materials

*'Streets should be generously planted at frequent intervals to soften the impact of parking and strong building frontages at intervals of 14 – 20 metres. **Street trees should be planted** in areas such as medians, verges and build outs. Street trees should also be augmented by planting within privacy strips along residential streets. In the interest of biodiversity and place making, reduced spacing between street trees should be considered where appropriate and achievable.'*

In order to mitigate against noise and air pollution, double and triple planting of trees in medians and verges shall be incorporated along wide and busy streets such as Arterial and Link Streets.

*To mitigate the risk of flooding **the Planning Scheme promotes the use of Green Roof measures** in accordance with Section 2.9.5 (Surface Water Drainage and Sustainable Urban Drainage Systems).*

2.9 Services, Infrastructure and Energy Framework

Key Principles

- *To mitigate the risk of flooding promoting the installation of **Green Roofs in all apartment buildings**, by integrating a comprehensive and high quality Sustainable Urban Drainage System (SUDS) into the design of new developments and maximising opportunities to incorporate rainwater attenuation measures into public realm, parks and open spaces.*

2.9.5 Surface Water Drainage and Sustainable Urban Drainage Systems

'Develop a high quality Sustainable Urban Drainage System (SUDS) integrated within public realm and public open space where feasible, to provide high quality and attractive 'green and blue' corridors, features and focal points with the SDZ landscape, which can also enhance local amenity, ecology and biodiversity;

Effective operation and maintenance of SUDs measures, to ensure that such systems are operating to their designed capacity; and

Account for climate change and any changes to the amount of impermeable areas over the design life of the development, in accordance with the (GDS) (and any future updates to this Study).'

Character of the SUDS System

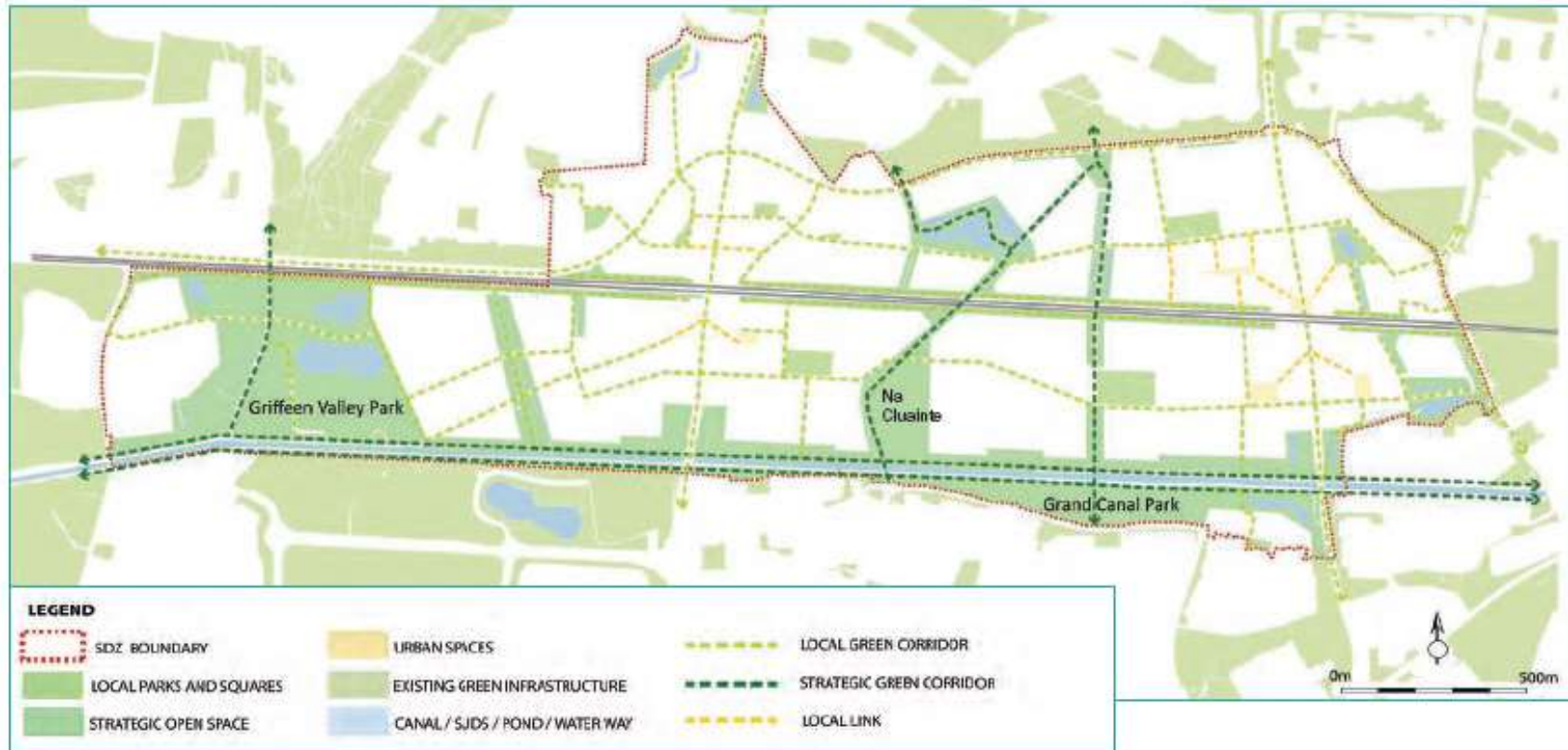
*'Measures in public realm and open space areas could include, for example, **ponds/wetlands, detention basins, infiltration basins and filter strips. Ponds could be integrated as amenity and ecology features within parks and open spaces and be utilised as a local amenity within the overall SDZ scheme, as well as providing the additional volumetric storage required during extreme rainfall occurrences (i.e. 1 in 100 year storm events).** The type, design and exact location for the pond attenuation areas is required to be agreed at detailed design stage. In general terms, **the attenuation areas should be designed to be integral elements of any related open space and landscape structure. The perimeter of the attenuation areas should be profiled to enable walkways, high quality planting, amenity edges, and habitat establishment,** in addition to the necessary surface water management.'*

*...surface water runoff should pass through at least one level of treatment using a SUDS component prior to treatment and attenuation in public realm and open space areas. Roof water runoff should be captured and treated within the curtilage of each site, for example through use of Blue and/or Green Roofs. Such measures should be prioritised for larger/mixed use developments within the Kishoge and Clonburr urban centres. Other measures within individual development sites could include, for example, **pervious paving, swales and on-site rainwater harvesting measures. The use of underground tanking systems are generally not permitted within the SDZ.** The Planning Scheme requires, where feasibly practical and viable, the provision of green roofs for all new public buildings (Council buildings, school buildings, hospitals, community centres, sports facilities, libraries, Garda stations etc), to assist in flood alleviation, insulation and improved biodiversity, and to actively promote these measures where appropriate in new commercial and industrial buildings.*

All SUDS proposals within the SDZ should comply with the SUDS Manual C753.

2.10 Landscape and Open Space

Figure 2.10.1 | Open Space



The Open Space Strategy requires local green corridors which could be provided through Street Trees and an ecologically based SuDS network.

2.10.3 Hierarchy of Open Space

Strategic Routes and local links

*Strategic Routes and local links provide opportunities to link a network of open spaces to all the neighbourhoods and opportunities for **habitat conservation**.*

*Within both the existing and proposed amenity routes and local links, **there are significant opportunities to develop Sustainable Urban Drainage Systems (SUDS)**. **SUDS infrastructure provide an opportunity to create a series of blue and green spaces which could including riparian planting, wetlands, tree planting and ponds.***

Tables 2.10.1 to 2.10.5 Design criteria require SuDS measures and retention and enhancement of green infrastructure.

Design Criteria for Open Spaces

Objective: *Include for important Sustainable Urban Drainage System functions*

Components:

'SUDS features such as major detention ponds and swales' and

'Retention and enhancement of selected hedgerow'

Table 2.10.1 | Design Criteria for open spaces

Landscape element	Objective	Components
Strategic open spaces	<p>To incorporate major strategic corridors such as the Canal and Railway.</p> <p>To provide major parks with district-wide functions.</p> <p>To provide for larger scale active recreation.</p> <p>To provide for a range of passive amenity.</p> <p>To include important Sustainable Urban Drainage System functions.</p> <p>To protect and enhance biodiversity hubs.</p> <p>To provide for a range of childrens play.</p> <p>To assist in area-wide legibility and placemaking.</p>	<p>Full size playing pitches/ Sports fields. These full size facilities will also facilitate local nearby schools addressing the need for outdoor sports facilities.</p> <p>Amenity routes.</p> <p>SUDS features such as major detention ponds and swales.</p> <p>Controlled access areas for biodiversity enhancement and protection.</p> <p>Playgrounds and play areas.</p> <p>Mass planting in lines or drifts to enhance definition and functional areas.</p> <p>Retention and enhancement of selected hedgerow.</p> <p>A range of fully inclusive children's playspaces</p>

Design Criteria for Local Parks and Squares

Objective: include local level SuDS function

Components:

small swales and bioretention areas and

Retention and enhancement of selected hedgerow

Table 2.10.2 | Design Criteria for Local parks and squares

Landscape element	Objective	Components
Local parks and squares	<p>To serve the needs of residential areas.</p> <p>To provide everyday, local level amenity needs.</p> <p>To include a mix of smaller scale passive and active amenity facilities.</p> <p>To include local level SUDS function.</p> <p>To assist in local legibility and placemaking.</p>	<p>Smaller sports facilities, such as multi-use games areas.</p> <p>Sitting areas.</p> <p>Small swales and bio-retention areas.</p> <p>Playgrounds and play areas.</p> <p>Planting in lines to define edges and different functional areas.</p> <p>Retention and enhancement of selected hedgerow.</p>

Design Criteria for Local Links

Components:

'Tree lined street and avenues' and

'Incorporation of small scale SUDS features such as swales, where appropriate'.

Table 2.10.5 | Design Criteria for Local Links

Local links	<p>To provide a fine network of local routes connecting local and strategic open spaces.</p> <p>To prioritise comfortable use by pedestrians and cyclists.</p>	<p>High quality pedestrian and cycle links.</p> <p>Tree lined streets and avenues.</p> <p>Incorporation of small scale SUDS features such as swales, where appropriate.</p>
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The following strategic route shall be provided:

Grand Canal Ecological Corridor

The corridor will form a key element of the proposed Na Cluainte Park to the north and the Grand Canal Park to the south. **It is an objective of the scheme to enhance the biodiversity and ecological character of the pNHA.** Developments fronting onto the Canal shall facilitate the continuity of the ecological corridor through the planting of native tree and hedgerow species and with appropriate access to the northern towpath. **The design of the Grand Canal ecological corridor shall be in accordance with the Parks and Landscape Strategy and Biodiversity Management Plan for the Planning Scheme.**

All buildings shall be set back 50m from the Grand Canal pNHA boundary and development (with the exception of footpaths and bridges) shall be set 30m from the Grand Canal pNHA boundary. Development proposals along the Grand Canal Corridor shall be accompanied by ecological impact assessments undertaken by an appropriately qualified and experienced ecologist and in line with CIEEM guidelines (2016) .

2.11 Biodiversity and Natural Heritage

Key Principles

- *To seek to protect and enhance natural, built and cultural heritage features, where appropriate, such as the Grand Canal, streams, Protected Structures and barony and townland boundary hedgerows;*
- *To improve the quality, character and continuity of the Grand Canal (pNHA);*
- *To avoid or minimise the impact on protected species and their habitats;*
- *To promote local heritage, the naming of any new residential development should reflect the local and historical context of its siting, and may include the use of the Irish language; and*
- *Incorporate biodiversity and heritage into new developments*

2.11.2 Biodiversity and Natural Heritage Features

Grand Canal

The Grand Canal is a proposed Natural Heritage Area (pNHA) and comprises the canal channel and the banks on either side of it. It is considered to be the most valuable natural, built and cultural heritage asset on the lands. The ecological value of the canal lies in the diversity of species it supports along its linear habitats including Annex II of the EU Habitats Directive species Otter and White-clawed Crayfish, Bats species (Common Pipistrelle, Soprano Pipistrelle, Leisler's Bat, Daubenton's Bat and Brown Long-eared Bat), and also flora and fauna of local importance.

Any development within the SDZ lands shall assist with safeguarding and improving the quality, character and continuity of the Grand Canal (pNHA) and facilitating the protected species, biodiversity, and its contribution to a fully functioning Green Infrastructure network. **The Planning Scheme provides**

for a 50m set-back for all buildings from the northern side of the Grand Canal pNHA boundary, to afford the optimal degree of protection to the Grand Canal ecological corridor.

Hedgerows

*In addition to the primary ecological corridors, there is in excess of 30 km of hedgerow/treeline habitat within the SDZ lands. **The Hedgerow/treeline habitat linking the Grand Canal Corridor and the Rail corridor should be retained where possible, in order to maintain the continued ecological integrity of these habitats including for foraging and commuting bats. Where these hedgerows cannot be retained, a new hedgerow network composed of the same species shall be planted along roadways within the development.***

A Method Statement for the construction, planting regime and species selection of both 'dry' and 'wet' hedgerows shall be provided with all planning applications for developments within 10m of existing hedgerows along the barony boundary, the Grand Canal and the Griffeen and Kilmahuddrick stream