

Design Manual for Urban Roads and Streets

Street Design Audit

Prepared in respect of: *Convent Road, Delgany, Co. Wicklow*

Prepared by: *Egis Engineering Ireland*

Date: *February 2026*

Formatting Notes:

- The following set of tables are taken directly from a DMURS Street Design Audits (May 2019) template and are meant as a checklist for both Auditors and Designers.
- Text in **Black** are check list items with some additional extracts taken from DMURS relevant to this project.
- A Green indicates that the Audit Team considers that the criteria has been satisfactory dealt with in the design.
- Text in **Red** indicates that further consideration may be required and prompts for a Design Response.

Connectivity		
Key Issues	Key DMURS Reference.	Design Response
<p>Strategic routes/major desire lines been identified and are clearly incorporated into the design.</p>	<p>3.1 – Integrated Street Network The scheme has an efficient use of land, high quality urban design and effective integration in the provision of physical and social infrastructure such as active travel, landscaping, place making and other facilities combined to create places people want to live in. </p> <p>3.2.1 – Movement Function The development will use and improve the existing and will create new traffic calmed areas which is in keeping with the appropriate street hierarchy of the area. </p> <p>3.3.1 – Street layouts Designers implemented solutions that support the development of sustainable communities. In general, such networks</p>	

	<p>should:</p> <ul style="list-style-type: none"> • be based on layouts where all streets lead to other streets, limiting the use of cul- de-sacs that provide no through access. There is a cul de sac included in this scheme, but it allows for unhindered through movement for pedestrians and cyclists and only limits through traffic for vehicles. ■ • Maximise the number of walkable / cycleable routes between destinations. ■ <p>3.3.4 – Wayfinding All journeys within the development are relatively straightforward. ■</p> <p>During the next stage of the design, more information on regulatory signs and road markings (i.e. Stop Sign, Stop Lines etc) should be provided.</p>	<p>3.3.4 – Wayfinding This information is to be further developed and included in the detailed design pack</p>
<p>Multiple points of access are provided to the site/place, in particular for sustainable modes.</p>	<p>3.3.1 – Street Layouts Multiple access points are provided, active travel road users may access the site from both ends and from intermediate points from residential and commercial land use areas which border the scheme.. Transitions to and from the shared traffic lanes to the segregated cycle facilities need to be carefully considered in future design stages</p> <p>3.3.3 – Retrofitting¹ Pedestrian links are improved in terms of footpath widths and crossing facilities. ■</p>	<p>3.3.1 – Street Layouts The transition from the modal filter to the road is to be further developed in the detailed design pack</p>

<p>Accessibility throughout the site is maximised for pedestrians and cyclists, ensuring route choice.</p>	<p>3.3.1 – Street Layouts Shared street with a 20 kph speed limit and limitations on through traffic ■</p> <p>3.3.2 – Block Sizes Block sizes are optimal for pedestrian movement. ■</p> <p>3.4.1 – Vehicle Permeability Vehicle access to all the development across the scheme is maintained under the new proposals, while Convent Road is to be cul de saced, there is an alternative route to allow traffic access the areas north of the cul de sac. ■</p>	
<p>Through movements by private vehicles on local streets are discouraged by an appropriate level of traffic calming measures.</p>	<p>3.2.1 – Movement Function Through access is restricted. Appropriate use of shared space and traffic calming. ■</p> <p>3.2.2 – Place Context We classify this development as a cul de sac, it allows unhindered flow for pedestrians and cyclists, but prevents vehicles from transiting through the street, this limits vehicle traffic to only that which has an origin or destination within the scheme or one of the adjacent developments. ■</p> <p>3.4.1 – Vehicle Permeability The local street design offering limited restrictive access to the scheme will provide for higher level of accessibility for slow modes (i.e. pedestrians and cyclists) while not attracting through traffic, especially in the northbound direction. ■</p>	

¹ When connecting with existing communities a detailed analysis and extensive community consultation should be carried out to identify the optimal location for connections (refer also to the NTA Permeability in Existing Urban Areas: Best Practice Guide).

Self-Regulating Street Environment

Key Issues	Key DMURS Reference.	Design Response
<p>A suitable range of design speeds have been applied with regard to context and function.</p>	<p>3.2.1 – Movement Function. The Shared Street design promotes 20 km/h traffic speeds. This is appropriate for the speed limit within the development. ■</p> <p>3.2.3 – Place Context. The higher level of integration between users in this ‘Neighbourhood’ setting will calm traffic and increase ease of movement for more vulnerable users. ■</p> <p>4.1.1 – A Balanced Approach to Speed² There is a good balance between movement and place. Low speeds will be achieved through street design and use of different materials. ■</p>	
<p>The street environment will facilitate the creation of a traffic calmed environment via the use of ‘softer’ or passive measures.³</p>	<p>4.2.1 – Building Height and Street Width The building height: Street width ratio gives a strong sense of enclosure. ■</p> <p>4.2.2 – Street Trees The street trees add to the strong sense of enclosure. Smaller species with a canopy</p>	

² Refer also to the National Speed Limit Guidelines

³ In retrofit situations a detailed analysis should be carried out to establish what measures exist, what their likely effectiveness is and level of intervention required to achieve the designed design speed.

	<p>spread of 2-6m are best suited for Local Streets.</p> <p>Smaller species may be more appropriate where buildings are located in close proximity to the street edge carriageway (i.e. to take account of overshadowing, growth restrictions).</p> <p>To be effective, trees should be planted at intervals of 14-20m and allow for street lighting. ■</p> <p>4.2.3 – Active Street Edges</p> <p>The site layout promotes active street edges by placing buildings in close proximity of the street with a high frequency of entrances and openings. ■</p> <p>4.2.4 – Signage and Line Marking</p> <p>No details provided.</p> <p>We recommend that road lining and signage be kept to a minimum to promote traffic calming and more towards a self-regulating street environment.</p> <p>4.2.7 – Planting</p> <p>Planting promotes 'softer' landscape elements and a greener 'living' character. ■</p> <p>One key consideration needs to be given to the ongoing maintenance and size of street trees/planting at maturity and that these trees don't infringe on movement (i.e. for cyclists) or reduce visibility at junctions and accesses.</p> <p>4.4.2 – Carriageway Surfaces</p> <p>No surfacing details are provided.</p> <p>All raised surfaces are distinct from more mainstream road surface which use a 125mm high kerb.</p>	<p>4.2.4 – Signage and Line Marking</p> <p>Noted</p> <p>4.2.7 – Planting</p> <p>Noted, the design team will seek to maximise the potential for planting bearing in mind these constraints</p>
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	<p>The use of standard materials, such as macadam/asphalt should generally be confined to streets with moderate design speeds (i.e. 40-60km/h). Where low design speeds (i.e. 30km/h) are desirable then changes in the colour or texture of the carriageway should be used periodically, such as at crossings or at strategic locations, such as Focal Points. ■</p> <p>4.4.9 - On-Street Parking Advice Note 1 – Transitions and Gateways The on-street parking calms traffic, adds to the vitality of communities, provides a buffer to the footpath, regulates parking and provides passive security. Overall street-side parking provision is reduced and does not to promote driving over other more sustainable modes of travel. ■</p> <p>Loading areas are shown on the layout. ■ To reinforce narrower carriageways (particularly when spaces are empty) loading bays should be finished so that it is clearly distinguishable from the main carriageway.</p>	<p>4.4.9 – On-Street Parking Noted, loading bays will be made to be clearly distinguishable from the main carriageway.</p>
<p>A suitable range of design standards/measures have been applied that are consistent with the applied design speeds.</p>	<p>4.4.1 - Carriageway Widths The standard carriageway width for Link Roads (west of the site) should be between 6.0m and 6.5m. Local Streets (within the development) should be 5.0-5.5m. Shared surface streets (i.e. Homezones) should be 4.8m wide.</p> <p>4.4.4 – Forward Visibility</p>	<p>4.4.1 - Carriageway Widths Noted, road design to be reviewed in next design phase.</p> <p>4.4.4 – Forward Visibility</p>

	<p>A Stopping Sight Distance (SSD) of 59m should be provided along the Link Road. A SSD of between 33m should be applied within the development in keeping with a 'Neighbourhood' setting with reduced speed limit of 20km/h.</p> <p>4.4.5 – Visibility Splays</p> <p>A sight distance (Y value) of 59m should be applied to all junctions/accesses onto the Link Road. An setback distance (X value) of 2.4m should be used in conjunction with STOP controlled junctions. Internally, a Y value of 33m should be applied. The TTI requirements for visibility splays should be provided on the Caherlag Road.</p> <p>4.4.6 – Alignment and curvature</p> <p>The changes in horizontal alignment on Local Streets promote lower speeds and a more intimate sense of place. ■</p> <p>In 'Neighbourhood' areas, it is likely that the comfort of vulnerable road users will be the determining factor for desirable maximum longitudinal gradients on streets. Part M of the building regulations advises that access routes with a gradient of 1:20 or less are preferred. Therefore a maximum gradient of 5% is desirable on streets where pedestrians are active.</p> <p>4.4.7 – Horizontal and Vertical Deflections</p> <p>Advice Note 1 – Transitions and Gateways</p> <p>Raised uncontrolled pedestrian crossings across many side road junctions are proposed. ■</p>	<p>Accepted, SSD on Link Road to be reviewed with Wicklow City Council.</p> <p>4.4.5 – Visibility Splays Accepted</p> <p>4.4.6 – Alignment and curvature Accepted, gradients within the neighbourhood to be reviewed in next design stage to ensure comfortable street design.</p>
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Pedestrian and Cycling Environment

Key Issues	Key DMURS Reference.	Design Response
<p>The built environment contributes to the creation of a safe and comfortable pedestrian environment.</p>	<p>4.2.1 – Building Height and Street Width A good sense of enclosure is achieved in this 'Neighbourhood' stye setting with the building height to street width ratio provided and with trees planted along the streets. ■</p> <p>4.2.3 – Active Street Edges The buildings and street side parking provide passive surveillance of the street environment and promote pedestrian activity. ■</p> <p>4.2.5 – Street Furniture Limited details provided at this stage. Street furniture serves many purposes that relate to both place and function and includes a variety of commonly found items within a street such as public art, lighting, bollards, guardrails, seating and cycle parking.</p> <p>4.4.9 - On-Street parking Reduced street parking (and overall parking provided) will promote the use of more sustainable forms of transport and provide more space for pedestrians and cyclists.</p>	<p>4.2.5 – Street Furniture This information is to be further developed and included in the detailed design pack</p>

<p>Junctions been designed to ensure the needs of pedestrians and cyclists are prioritised⁴.</p>	<p>4.3.2 - Pedestrian Crossings All uncontrolled crossings are either raised or level ■ Footpaths across all lightly used side road junctions and private accesses are kept continuous and preferably raised. ■ Crossings should be provided at accesses located across the access of the adjoining development which correspond to pedestrian desire lines.</p> <p>4.3.3 – Corner Radii More details required. Corner Radii appear to be compact. ■ Corner radii should be between 1-3m where few larger vehicles are expected and allows the occasional HGV to cross centrelines if required.</p> <p>4.4.3 - Junction Design All internal junctions within the development have pedestrians crossings that will meet demand and desire lines. ■ Ensure that the necessary sight lines in accordance with DMURS can be achieved at all new and existing junctions and accesses.</p> <p>4.4.7 - Horizontal and Vertical Deflections No detail provided. All crossings at private accesses and lightly trafficked junctions are raised and</p>	<p>4.3.2 - Pedestrian Crossings This information is to be further developed and included in the detailed design pack</p> <p>4.3.3 – Corner Radii Noted</p> <p>4.4.3 – Junction Design Noted</p>
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⁴ Refer also to the National Cycle Manual (2011)

	<p>continuous indicating that pedestrians have priority over vehicles. ■</p>	
<p>Footpaths are continuous and wide enough to cater for the anticipated number of pedestrian movements.</p>	<p>3.2.1 – Movement Function. All internal roads are designed as Local Streets or shared streets (homezones) which is suitable for this type of development and the number of pedestrians and cyclists it generates. Traffic volumes will be low allowing pedestrians to cross more safely and easily. ■</p> <p>3.2.3 – Place Context. The development is considered a 'Neighbourhood' where caters for moderate levels of pedestrian activity. ■</p> <p>4.2.5 – Street Furniture We note Bike Parking is to be provided in some locations across the scheme. Limited numbers have been provided. Bike stands should be placed at regular intervals to match demand especially at the retail areas, green areas and other focal points. Street Furniture should be kept to the fringes and should not impede on movement and kept outside the visibility splays at junctions. The number of items used should be balanced with other facilities (including signage and line marking) to reduce clutter. The use of guardrails should be limited to steep ramps and at steps. They should</p>	<p>4.2.5 – Street Furniture This information is to be further developed and included in the detailed design pack</p>

	<p>not be used to control access or at crossings. ■</p> <p>4.3.1 - Footways, Verges and Strips Landscaped verges are provided in this development and planted landscape areas do not restrict movement. ■</p> <p>4.3.2 - Pedestrian Crossings Crossing points have been included across this scheme, they are located along pedestrian desire lines. ■</p>	<p>4.3.1 – Footways, Verges and Strips</p> <p>4.3.2 – Pedestrian Crossings</p>
<p>The particular needs of visually and mobility impaired users been identified and incorporated in the design.</p>	<p>4.2.5 - Street Furniture Limited details provided at this stage. Items used should be chosen from a limited palette that promotes visual cohesion while contrasting with the background to assist the visually impaired.</p>	<p>4.2.5 – Street Furniture This information is to be further developed and included in the detailed design pack</p>

	<p>Public Lighting is of particular importance in aiding the movement of visually and mobility impaired.</p> <p>4.3.1 - Footways, Verges and Strips Well-designed footpaths are free of obstacles and generally wide enough to allow pedestrians to pass each other in comfort. A min. footway width of 1.8m allows for two wheelchairs to pass each other. ■</p> <p>4.3.2 - Pedestrian Crossings All crossings should be a minimum width of 2-3m (4m for Shared Crossings). All crossings are raised across private entrances and well-lit to aid those with a visual or mobility impairment. All crossing lengths should be less than 6.0m long and be located to match desire lines. Forward visibility should be sufficient at all crossings with trees removed if they obscure visibility of a pedestrian waiting to cross.</p> <p>4.3.4 - Pedestrianised and Shared Surfaces Pedestrians and Cyclists are generally kept separate across the scheme.</p>	<p>4.3.1 – Pedestrian Crossings This information is to be further developed and included in the detailed design pack</p>
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Cycling facilities will cater for cyclists of all ages and abilities.⁵

3.2.1 – Movement Function.
Within the development, a Local Street design was applied which consists of a mixed or shared street which is suitable in low traffic single lane environments where cyclists take precedence over vehicular traffic. ■

3.2.3 – Place Context.
A 'Neighbourhood' design is generally a good environment for cyclists in terms of low traffic speeds and volumes, lighting, sense of place etc. ■

4.3.5 - Cycle facilities.
Cyclist parking is provided in some locations across the scheme
Secure cycle parking should be provided at suitable locations across the scheme such as at retail, green areas and other focal points.

The National Cycle Manual recommends that on lightly-trafficked/low-speed streets, designers are generally directed to create *Shared Streets* where cyclists and motor vehicles share the carriageway. A shared street mitigates the need for cyclists to cross the carriageway internally and allows cyclists to turn at the cycle park access and at side road accesses. ■

3.2.3 – Place Context.

This information is to be further developed and included in the detailed design pack

	low traffic speeds and volumes, lighting, sense of place etc. ■	4.3.5 - Cycle facilities This information is to be further developed and included in the detailed design pack
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⁵ Refer also to the *Cycle Design Manual (2023)*

Visual Quality

Key Issues	Key Considerations and DMURS Ref:	Design Response
<p>The landscape plan responds to the street hierarchy and the value of the place.</p>	<p>3.2.1 – Movement Function. The Local Street design appropriately has street-side trees planted along its length. ■</p> <p>3.2.3 – Place Context. The 'Neighbourhood' style of development is well suited for trees planted within open areas, verges and along walkways. ■</p> <p>4.2.2 – Street Trees Smaller species with a canopy spread of 2-6m will be best suited to narrower streets such as Local streets and where buildings are located in close proximity to the street edge carriageway (i.e. to take account of overshadowing, growth restrictions). To be effective, trees are planted at intervals of 14-20m. Consideration was given as to the impact of root growth. Tree roots may need to be contained within individual tree pits, continuous soil planting strips or using other methods to restrict growth under pavements/toward services.</p> <p>4.2.7 – Planting Advice Note 1 – Transitions and Gateways Limited details provided.</p>	<p>4.2.2 – Street Trees <i>Noted</i></p> <p>4.2.6 – Planting <i>Noted</i></p>

	<p>Plants are proposed beside the street and along walkways. ■</p> <p>In 'Neighbourhood' settings, emphasis should be placed on the use of planted materials to promote 'softer' landscape elements and a greener 'living' character. There is more scope for a greater variety of trees, shrubs and other plants that can be used with the larger green areas.</p> <p>Designers should also consider the size of trees, shrubs and other landscape elements at full maturity. In general designers should avoid planting that will grow to obstruct movement.</p>	
<p>Street furniture is orderly placed.</p>	<p>3.2.1 – Movement Function. Street furniture can serve many purposes that relate to both place and function.</p> <p>3.2.3 – Place Context. The placement of street furniture should be considered as part of a wider strategy, such as part of an integrated landscape plan appropriate a 'Neighbourhood' type development.</p> <p>4.2.5 - Street Furniture. Limited details provided at this stage. Street furniture includes a variety of commonly found items within a street such as public art, lighting, bollards, guardrails, bins, seating and cycle parking. Street furniture such as bike stands and seating should be included.</p> <p>4.3.1 Footways, Verges and Strips</p>	<p>3.2.3 – Place Context. Noted, the location of underground services and the widths available will also constrain the locations where tree planting is possible</p> <p>4.2.5 – Street Furniture. This information is to be further developed and included in the detailed design pack</p>

	<p>Footpaths remain clear of street furniture. Street furniture should be placed within a designated zone, such as in a verge or in a strip. ■</p>	
<p>The use of signage and line marking has been minimised.</p>	<p>3.2.1 – Movement Function. More details are required. Minimal signage is required on Local Streets due to their low-speed nature and low movement function. The generally lightly trafficked nature of these streets means that the use of signage can be minimised, and in some cases eliminated altogether.</p> <p>3.2.3 – Place Context. As noted in the Manual for Streets (2007), there may also be traffic-calming benefits of a 'less is more' approach to reinforce lower design speeds. The TSM warns against over providing signage and line marking. The TSM states in relation to signage in general, 'signs should only be erected where there is a demonstrable need, because unnecessary, incorrect or inconsistent signs detract from the effectiveness of those that are required and tends to lead to disrespect for all signs'. There is also a limit to how many signs/line markings drivers can absorb in a short period.</p> <p>An emphasis on the values of place also requires the visual impact of signage to be considered in order to reduce visual clutter.</p>	<p>3.2.3 – Place Context Noted</p>

	<p>4.2.4 - Signage and Line Marking. No details provided. Road lining at side road junctions is confined to a Stop Line, 6.0m long centre line accompanied with a Stop sign.</p>	<p>4.2.4 - Signage and Line Marking.</p>
<p>Materials and finishes used throughout the scheme have been selected from a limited palette and respond to the value of the place?</p>	<p>3.2.1 – Movement Function. Apply a hierarchical approach to the application of materials. Altering the palette according to the street hierarchy and/or importance of place will assist in way finding.</p> <p>3.2.3 – Place Context. High quality design solutions should be implemented that highlight and promote the importance of place.</p> <p>4.2.6 – Materials and Finishes The use of higher quality materials has wide economic benefits. In relation to shopping streets, research has shown that streets finished with better quality materials result in better market prices, better rents and better retail sales. Capital costs should also be measured against savings that result from a reduction in the need for barriers, signage, line marking and longer-term costs related to durability and maintenance.</p> <p>4.2.8 – Historic Contexts. There is a full appreciation for the historic context for this site with the proposed design. ■</p> <p>4.3.2 – Pedestrian Crossings Materials and finishes at crossings promote visual cohesion, while</p>	<p>3.2.1 – Movement Function <i>The materials used will be further considered during the detailed design stage</i></p> <p>3.2.3 – Place Context Noted</p>

	<p>contrasting with the background to assist the visually impaired. ■</p> <p>The layout and colour of tactile paving should ensure that a consistent logic is applied. This includes the cumulative impact of tactile paving with other material choices. For example, the use of strong red or yellow tactile paving may not be appropriate to avoid visual clutter associated with too many surface types or colours. In such instances an approach which balances the need for visual contrast (to aid the visually impaired) whilst promoting visual cohesion is preferable</p> <p>4.4.2 – Carriageway Surfaces</p> <p>Use of contrasting materials and textures to inform pedestrians and motorists of changes to the function of space (i.e. at verges, footpaths, strips, pedestrian crossings, street-side parking and loading bays and shared surfaces) and in particular to guide the visually impaired.</p>	<p>4.4.2 – Carriageway Surfaces</p> <p><i>The materials used will be further considered during the detailed design stage</i></p>
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Additional Comments

This DMURS Street Design Audit is an evolving document and should be updated during various stages of the design. This audit accompanies a Stage 1 RSA among other separated individual design audits and together forms part of an overall Quality Audit report commenced during the Preliminary Design Stage.

The Design Team should focus on the street design in terms of place making with priority for vulnerable road users such as pedestrians and cyclists. Given its location, the movement of residents should be focused on walking, cycling and public transport links. This scheme could show case a high-quality street environment for people rather than for private cars.

Motorists are accommodated but the designer should place pedestrians and cyclists at the top of the user hierarchy, particularly for this development, given its 'Neighbourhood' setting and amenity facilities in the area.

Personnel Information

	Name	Date	Signature
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