

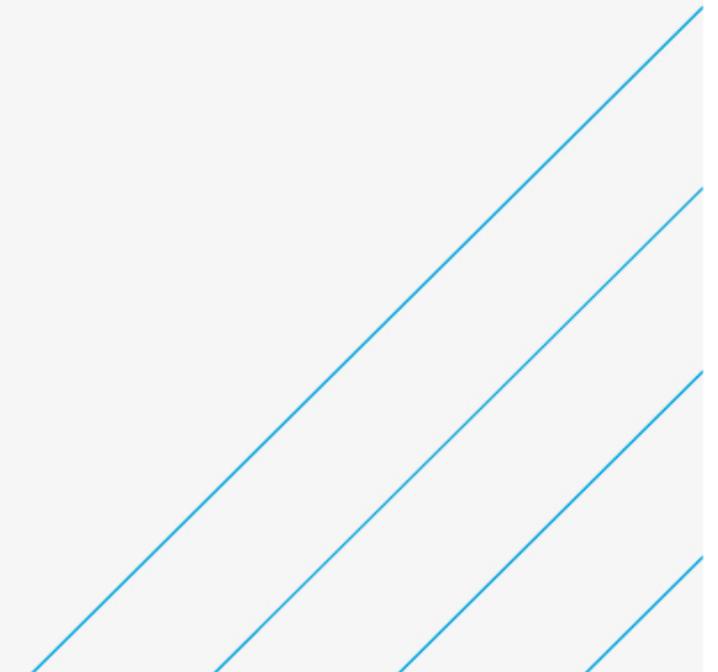
# Kiltiernan SHD

## Lands at Wayside, Kiltiernan

Quality Audit

Liscove Ltd.

June 2022



# Notice

This document and its contents have been prepared and are intended solely for Liscove Ltd information and used in relation to the Quality Audit for Lands at Wayside, Kiltarnan Co Dublin.

WS Atkins Ireland Limited assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its contents.

## Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 0	Draft Issue	AB	AB	CP	CP	May '22
Rev 1	With designer responses	CP	CP	CP	CP	May '22
Rev 2	Final	CP	CP	CP	CP	June 22'

## Client signoff

Client	Liscove Ltd.
Project	Lands at Wayside, Kiltarnan
Job number	5158632
Client signature / date	

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# 1. Introduction

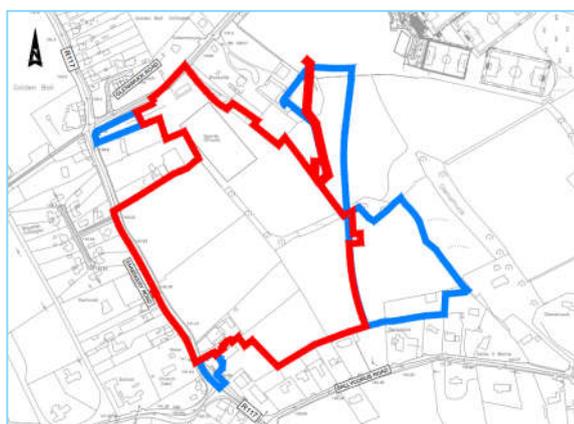
## 1.1. Background

This report describes the findings of a Quality Audit associated with the proposed commercial and residential development for Lands at Wayside, Kiltiernan Co Dublin. The Audit has been completed by Atkins on behalf of Liscove Ltd.

Lands at Wayside, Kiltiernan are located south west of M50 J15 on the Glenamuck Road. The proposed development will incorporate a new entrance to the proposed development on the Glenamuck Road, three junctions on the Enniskerry Road and a further junction of the proposed Glenamuck Distributor Link Road to the east. The proposed development comprises the construction of a new mixed-use neighbourhood centre, commercial, office units, medical and residential development on a site of c. 10.7 hectares. The scheme will include;

- 383 No. residential units (165 No. houses, 118 No. duplex units and 100 No. apartments) and
- a Neighbourhood Centre, which will provide a creche (439 sq m), office (317 sq m), medical (147 sq m), retail (857 sq m),
- convenience retail (431 sq m) and a community facility (321 sq m).
- The 383 No. residential units will consist of 27 No. 1 bedroom units (19 No. apartments and 8 No. duplexes),
- 128 No. 2 bedroom units (78No. apartments and 50 No. duplexes),
- 171 No. 3 bedroom units (108 No. houses, 3 No. apartments and 60 No. duplexes) and
- 57 No. 4 bedroom units (57 No. houses).

The development includes the provision of a publicly accessible green area to the west adjacent to the Enniskerry Road and another located at the eastern boundary of the site, a public neighbourhood square within the centre of the site, pedestrian and cycle routes, car parking (within two separate undercroft areas and at surface level), bicycle parking, substations, waste management facilities, access arrangements and service yard, and all associated ancillary works. The scheme location and extents are reflected in the figure following;



**Figure 1-1 – Site Extents and Location**

The lands are predominantly undeveloped green field areas at present. The Glenamuck District Road Scheme and Enniskerry Rd / Glenamuck Part 8 schemes are being delivered by DLRCC to provide new connections / roads to the east and north respectively. These roads have not been subject to this quality audit with the expectation of the immediate access / egress points that serve the development.

## 1.2. Site Inspection

The site inspection was carried out on the morning of 17th of May 2022 by the Audit Team.

Weather conditions during the site inspection were warm, dry and overcast. Traffic conditions were light but with continuous intermittent movement along the Enniskerry Road to the west and Glenamuck Road to the north. Pedestrian and cycle movements were low at the time of the inspection.

## 1.3. The Team

The Audit Team members associated with the Quality Audit were as follows:

- **Team Leader:** Colin J Prendeville BEng (Hons) PCert (RSA) CEng MIEI, CIHT
- **Team Member:** Andrew Butterly BEng MIEI

## 1.4. The Design

The following drawings were examined as part of the Quality Audit:

**Table 1-1 - Design Team Drawing List**

Drawing Number	Drawing Title	Revision
02_0000	COVER SHEET	0
02_0001	SITE LOCATION MAP	0
02_0100	STREET TYPOLOGY PLAN	0
02_0101	GENERAL ROAD LAYOUT KEY PLAN	0
02_0102	GENERAL ROAD LAYOUT SHEET 1 OF 2	0
02_0103	GENERAL ROAD LAYOUT SHEET 2 OF 2	0
02_0104	JUNCTION LAYOUT KEY PLAN	0
02_0105	JUNCTION LAYOUT SHEET 1 OF 3	0
02_0106	JUNCTION LAYOUT SHEET 2 OF 3	0
02_0107	JUNCTION LAYOUT SHEET 3 OF 3	0
02_0108	JUNCTION VISIBILITY KEY PLAN	0
02_0109	JUNCTION VISIBILITY SHEET 1 OF 3	0
02_0110	JUNCTION VISIBILITY SHEET 2 OF 3	0
02_0111	JUNCTION VISIBILITY SHEET 3 OF 3	0
02_0112	REFUSE - VEHICLE TRACKING - SHEET 1 OF 2	0
02_0113	REFUSE - VEHICLE TRACKING - SHEET 2 OF 2	0
02_0114	ENNISKERRY ROAD	0
02_0115	TYPICAL CROSS SECTION KEY PLAN	0
02_0116	TYPICAL CROSS SECTIONS SHEET 1 OF 5	0
02_0117	TYPICAL CROSS SECTIONS SHEET 2 OF 5	0
02_0118	TYPICAL CROSS SECTIONS SHEET 3 OF 5	0
02_0119	TYPICAL CROSS SECTIONS SHEET 4 OF 5	0

02_0120	TYPICAL CROSS SECTIONS SHEET 5 OF 5	0
02_0121	LONG SECTION SHEET 1 OF 3	0
02_0122	LONG SECTION SHEET 2 OF 3	0
02_0123	LONG SECTION SHEET 3 OF 3	0
02_0124	FIRE APPLIANCE - VEHICLE TRACKING - SHEET 1 OF 2	0
02_0125	FIRE APPLIANCE - VEHICLE TRACKING - SHEET 2 OF 2	0
02_0126	BASEMENT- UNDERCROFT VEHICLE TRACKING STANDART VEHICLE	0
1609-DWG-01-Rev N	Landscape Plan	R01
21009 - PL101	Architects Plans - Site Plan Layout	-

## 1.5. Compliance

This Quality Audit is undertaken in accordance with **Section 5.4.2** of the Design Manual for Urban Roads and Streets. The UK Department for Transport Traffic Advisory Leaflet (TAL) 5/11 has also been referred to for additional guidance.

This Quality Audit consists of the following elements:

- **Access Audit** – focusing on accessibility requirements of vulnerable road users and in particular those of the visual and mobility impaired
- **Walking and Cycling Audit** – focusing on movement and place function requirements of pedestrians and cyclists
- **Road Safety Audit** – focusing on issues relating directly to road safety

## 2. Access Audit

### 2.1. Best Practice Guidance

This Access Audit has been carried out in accordance with general best practice guidance set out within the following documents:

- The Disability Act 2005;
- British Standards Institute BS8300:2001;
- Building Regulations 2000, Technical Guidance Document M – Access for People with Disabilities (Department of the Environment, Heritage and Local Government),
- Buildings for Everyone Access and use for all citizens (National Disability Authority)
- Access Auditing of the Built Environment Guidelines (National Disability Authority)
- Traffic Management Guidelines (Irish Government Publications 2003)
- Guidance on the use of Tactile Paving Surfaces: UK Department for Transport

### 2.2. Objectives

The objectives of this Access Audit are as follows:

- To ensure a high level of accessibility to the proposed development site for all vulnerable road users and in particular visually and mobility impaired user
- To ensure that the access infrastructure in relation to the external built environment is in accordance with current best practice
- To ensure that the current and future access needs within the scheme are recognised and developed

### 2.3. Accessibility Recommendations

In terms of progression, following delivery of the Accessibility Audit, the Design Team should consider all issues raised herein for inclusion into the final design. It is less costly to make the changes now, pre-construction, than later after the scheme has been commissioned.

### 2.3.1. Problem: Provision of Seating / Rest Areas

#### Location: East and west of Scheme

Limited rest and seating areas appear to be provided at both green areas to the east and west of the scheme. This may result in progression issues for less able users. The scheme as a whole in combination with the Enniskerry Road, Glenamuck Road and Proposed Link Road to the east, the Glenamuck Link Distributor Road (GLDR), will create loop for recreational purposes. The absence of rest areas may become problematic for those require areas to sit and rest.

#### Recommendation

The Designer should consider the provision of seating along the east and west of the scheme for less able users.

### 2.3.2. Problem: Access to Bus Stop

#### Location: Bus Stop on west of Scheme

Existing bust stop no. 3280 located on Enniskerry Road does not seem to be catered for within the proposed design. This is particularly relevant for those using a wheel chair as a revised location may be force a wheel chair user to take a long route to access and egress the scheme.



Figure 2-1 – Existing bus stop

#### Recommendation

The Designer should ensure a suitable location for the existing bus stop, with regards to access and egress to the proposed scheme.

### 2.3.3. Problem: Location of bin store

#### Location: South of Street 6

The proposed bin store is located in what appears to be remote of the proposed residential and commercial properties. This naturally increases the difficulty for people to access this area.



Figure 2-2 – Bin Store on Street 6

#### Recommendation

The Designer should assess the viability of having the bin store closer to the properties and reduce the need to cross the junctions and roads to access the store.

2.3.4. **Problem:** Restricted wheelchair movement

**Location:** Between Cell 8 & 9

A series of stairs are indicated between housings cells 8 and 9. It is not apparent how wheelchair users would travel along this part of the scheme and between the adjacent roads.

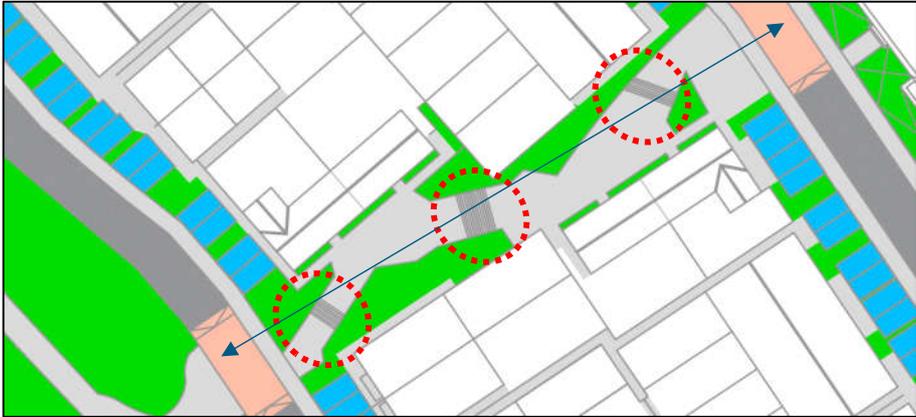


Figure 2-3 – Path between Cell 8 and 9

**Recommendation**

The Designer should consider the movement of wheelchair users in the location described is adequately considered.

## 2.4. General Accessibility Recommendations

A summary of the design features, together with recommended actions to be taken during the relevant stage of the design or operation of the scheme have been detailed in the following table and should be given consideration by the design team.

**Table 2.1 - Access Audit Finding Summary Table**

I.D.	Location	Feature	Action	When
01	Public Footpath	Pedestrian Provision	Ensure pedestrian environments are logical and clear to understand reducing the need for way finding / signage.	Design Stage
02	External Site & Public Footpath	Pedestrian Provision	Ensure contrasting colours/materials are used to define the pedestrian provision and also the street fronting the buildings across the site.	Design Stage
03	External Site & Public Footpath	Pedestrian Provision	Ensure footpath edges are clearly defined without the creation of trip hazards.	Design Stage
04	External Site & Public Footpath	Pedestrian Provision	Ensure defined pedestrian clear zone is free from street furniture and excessive clutter that could hamper progress for partially sighted users.	Design & Operational Stages
05	Public Footpath	Pedestrian Provision	The existing pedestrian footway outside the site has been in service for some time; and is showing signs of general wear and tear. Ensure safe pedestrian footway is provided during and after construction.	Design Stage & Operational Stages
06	Public Footpath	Pedestrian Provision	Ensure appropriate drop kerbs and tactile paving is provided at crossing points throughout.	Design Stage
07	External Site	Building Entrance	Ensure the main building entrances are well defined and easily contrasted to the rest of the building façade.	Design Stage
08	External Site	Building Entrance	Ensure clear sight lines to the main pedestrian entrances are provided from all approaches to buildings. Trees and street furniture should not block this.	Design Stage
09	Public Footpath	Building Entrance	Ensure vulnerable road users are discouraged from entering service areas and undercroft carpark areas.	Design Stage
10	External Site & Public Footpath	Street Lighting	Ensure street lighting is located where pedestrian movement decisions are required (i.e. at crossing points, entrances and junctions).	Design Stage
11	General	Drainage	Ensure any break in surface or gap such as (as a drainage gully) no greater than 10mm and is perpendicular to line of travel. Locate drainage features away from crossing points.	Design Stage

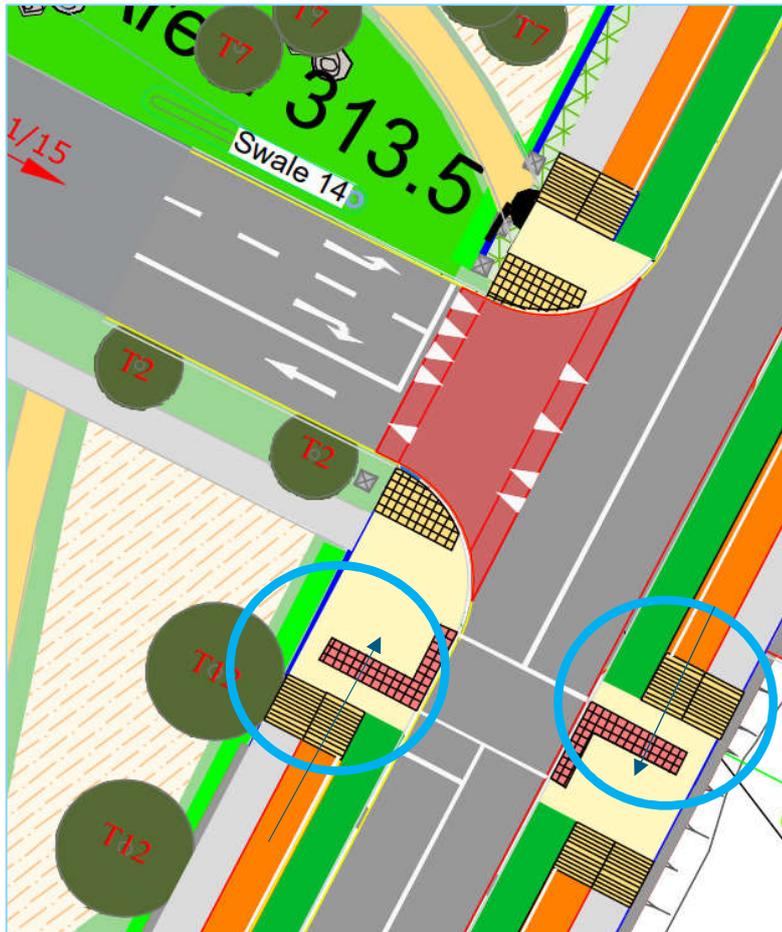
<b>I.D.</b>	<b>Location</b>	<b>Feature</b>	<b>Action</b>	<b>When</b>
12	General	Drainage	Ensure access routes are laid to even falls to allow proper drainage and prevent the formation of puddles. The cross-fall gradient to any access route should not exceed 1 in 50, except when associated with a dropped-kerb.	Design Stage
13	External Site & Public Footpath	Provision of Street Furniture	Ensure furniture does not encroach on the clear width of pathways and minimum clear widths are provided.	Design Stage
14	External Site & Public Footpath	Provision of Street Furniture	Ensure street furniture contrasts in colour with the background and is identified with a 75-100mm marking.	Design Stage
15	External Site & Public Footpath	Provision of Street Furniture	Ensure that any pedestal mounted items are fitted with a tapping rail 250mm above the ground, contrasting in colour with the pavement.	Design Stage
16	External Site & Public Footpath	Provision of Street Furniture	Ensure provision of seating (rest area) is provided where steep gradients exist or long sections or walkways.	Design Stage
17	Underground Car Park	Car park provision	Ensure car park levels are served by lifts providing access to all floors.	Design Stage
18	General	Public Lighting	Ensure that the location of street lighting is considered so that pedestrian decision points, particularly mid-block crossing points, junction crossing points and pedestrian access points, are appropriately lit.	Design Stage
19	General	Disabled Parking Provision	Ensure that sufficient disabled car parking provision is provided and to an appropriate geometric standard, located in a well-lit environment in close proximity to building entrances.	Design Stage

# 3. Walking and Cycling Audit Findings

## 3.1. Problem: Proximity of tramlines to tactile paving

**Location:** Eastern Extents of Scheme

The drawings indicate that cyclists will be entering a shared area directly adjacent to the pedestrian waiting area of the signalised pedestrian crossing. There is a risk of conflict between cyclists and visually impaired pedestrians or people who may be pushing buggies as they have limited opportunity and space to avoid each other.



**Figure 3-1 – Signalised Pedestrian Crossing**

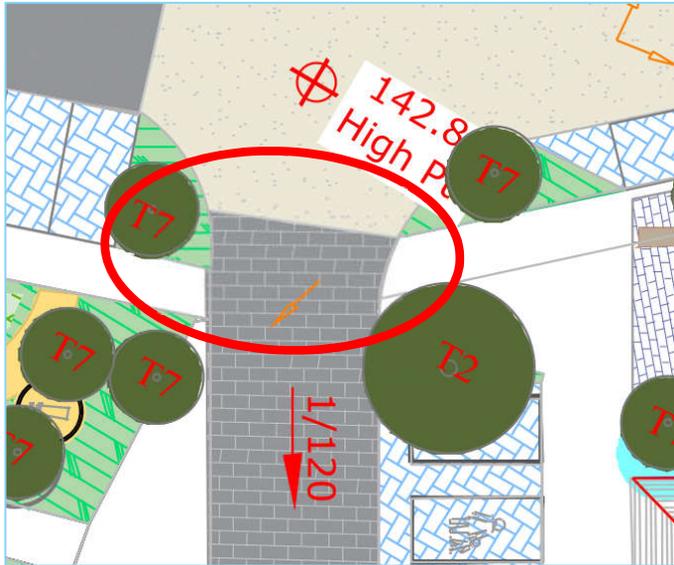
### Recommendation

The Designer should increase the length of the shared area to ensure cyclists have enough time to slow down or dismount and account for pedestrians waiting in the areas highlighted.

### 3.2. Problem: Inadequate warning at crossing point

**Location:** Village Green Landscaped Areas

The design drawings do not indicate warning measures at various locations across the scheme. An example of this is the crossing point at the north-east corner of the Village Green. This may result in pedestrians entering the roadway without warning which may result in pedestrian / vehicle collisions.



**Figure 3-2 – Internal Junction**

There are multiple other locations where suitable guidance / warning has not been provided and may lead to conflict where less abled users / visually impaired are not suitably warned.

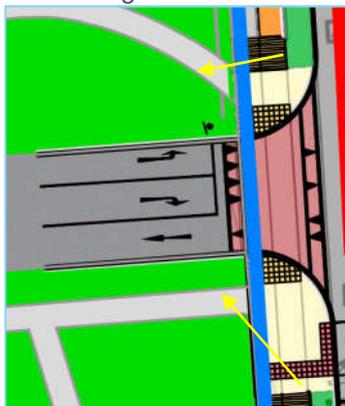
#### **Recommendation**

The Designer should ensure adequate warning features are provided on all desire lines, at the junction crossing points and interface between shared use zones and footpaths throughout the scheme.

### 3.3. Problem: Cycle provision to development on east

**Location:** Junction 1

The proposals do not indicate how cyclists will enter and exit the development on the east through Junction 1. This may lead to pedestrian / cycle conflict.



**Figure 3-3 – Cyclist access through junction 1**

#### **Recommendation**

The Designer should ensure that cyclists can enter and exit the development while considering the movement of pedestrians across the junction.

### 3.4. Problem: Enniskerry Road pedestrian entrances

**Location:** Enniskerry Road

The drawings detail pedestrian entrances into Duplex Block A1 opening directly onto the Enniskerry Road. There is potential for drivers to mount the kerb and park within these areas, leading to potential conflicts with pedestrians.

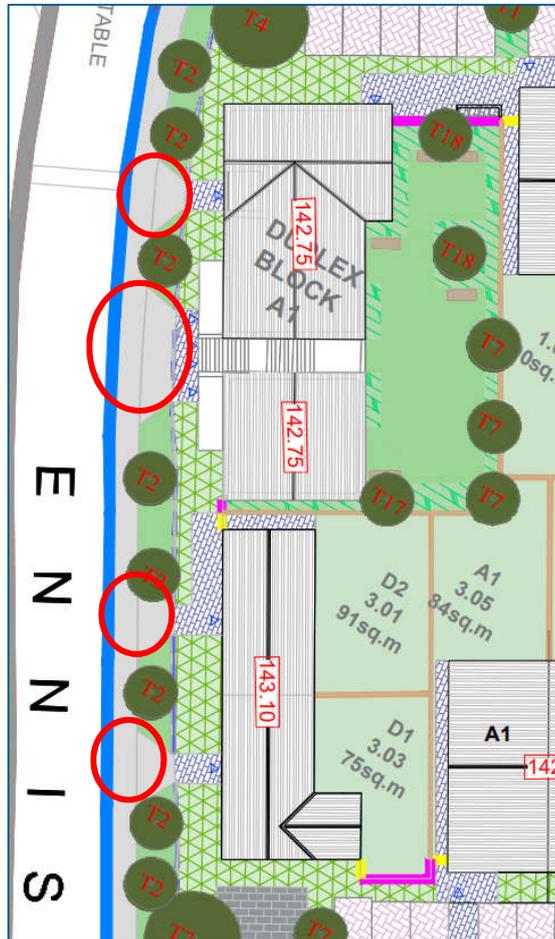


Figure 3-4 – Access points to buildings along west of scheme

#### Recommendation

Consideration should be given to deliveries and visitors in and out of the complex. The designer should consider measures to deter vehicles from parking in these areas.

### 3.5. Problem: Angle of Crossing

**Location:** Junction 12 and 16

The angle of footpaths and tactile paving is such that users may be incorrectly directed across the junction and fail to reach the opposing footpath. This may lead to an increased risk of conflict with vehicles moving through the junction.

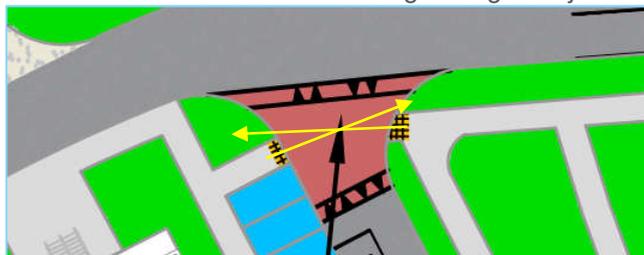
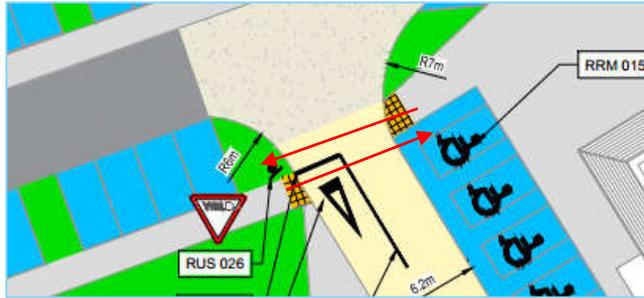


Figure 3-5 – Junction 16 Alignment

A similar concern relates to Junction 12.



**Figure 3-6 – Junction 12 stagger on crossing**

**Recommendation**

The layouts should be amended to have the crossing lining up directly on both sides of the junction.

## 4. Audit Team Statement

### 4.1. Certification

We certify that we have examined the drawings listed in Chapter 1 of this Report.

### 4.2. Sole Purpose

The Quality Audit has been carried out with the sole purpose of identifying any features of the design which could be removed or modified in order to improve the user experience aspects of the scheme.

### 4.3. Implementation of Quality Audit Recommendations

The problems identified herein have been noted in the Report together with their associated recommendations for quality improvements. We (the Audit Team) propose that these recommendations should be studied with a view to implementation.

### 4.4. Audit Team's Independence to the Design Process

No member of the Audit Team has been otherwise involved with the design of the measures audited.

### 4.5. Quality Audit Team Sign-Off

**Colin Prendeville**

Audit Team Leader  
Road Safety Engineering Team

**ATKINS**

Signed:



Date:

25<sup>th</sup> May 2022

**Andrew Butterly**

Audit Team Member  
Road Safety Engineering Team

**ATKINS**

Signed:



Date:

25<sup>th</sup> May 2022

## 5. Designer's Response

### 5.1. Preparing a Response to the Quality Audit

The Designer should prepare an Audit Response for each of the recommendations using the Quality Audit Feedback Form attached in Appendix A.

When completed, this form should be signed by the Designer and returned to the Audit Team.

### 5.2. Returning the Feedback Form

Please return the completed Quality Audit Feedback Form attached in Appendix A of this report to the following email or postal address:

Email address: [colin.prendeville@atkinsglobal.com](mailto:colin.prendeville@atkinsglobal.com)

Postal address: Road Safety Engineering Team  
Atkins  
150 Airside Business Park  
Swords  
Co Dublin  
K67 K5W4

Telephone: 00 353 (0)1 810 8000

The Audit Team will consider the Designer's response and reply indicating acceptance or otherwise of the Designer's response to each recommendation.

## 6. Road Safety Audit

### 6.1. Stage 1 Road Safety Audit Report

The Stage 1 Road Safety Audit has been provided within Appendix B with accompanying Road Safety Audit Feedback Form.

# Appendices

# Appendix A. QA Feedback Form

**Scheme:** Lands at Wayside, Kilternan

**Audit Stage:** Quality Audit

**Date Audit Completed:** 17/05/2022

	To be completed by the Design Team			To be completed by the Audit Team
Paragraph No. in Safety Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures (describe)	Alternative Measures accepted by Auditors (yes/no)
2.3.1	Y	Y	Additional seating to be incorporated at detailed design stage in green areas to the east of the scheme. In relation to exterior roads the provision of seating facilities is beyond the Applicants control. We will liaise and raise this issue with relevant DLRCC bodies.	
2.3.2	Y	Y	Location of bus stop facility provided on updated drawing.	
2.3.3	Y	Y	Bike and bin storage area is located in optimal location is shown based on available space, proximity to user sand frequency of uses.	
2.3.4	Y	Y	DDA compliant route is provided to all dwellings and from dwellings to car parking areas. Area will be further reviewed at detailed design to optimise access further.	
3.1	Y	Y	Details will be changed/finalised at detailed design.	
3.2	Y	Y	Provision provided	
3.3	Y	Y	Shared area to be extended to allow for access and reduce conflicts and provide appropriate path for entry and exit of cyclists to the scheme.	
3.4	Y	Y	A full height kerb with no drops(upstand 125mm) is proposed along Enniskerry Rd that will prevent/discourage cars from mounting the kerb. Appropriate Traffic Regulation	

			Orders and ban on “wheel stoppers” will be implemented. Parking for these units on Enniskerry Road is provided to the rear. This includes provision for visitor car parking and servicing.	
3.5	Y	Y		

Signed by the Designer:



Date: 25/05/2022

Signed by the Audit Team Leader:



Date: 26/05/2022

Signed by the Employer:



Date: 8/06/2022

# Appendix B. Road Safety Audit Stage 1

**ATKINS**

Member of the SNC-Lavalin Group

# Lands at Wayside, Kilternan

Stage 1 Road Safety Audit

Liscove Ltd

June 2022



# Notice

This document and its contents have been prepared and are intended solely for the Liscove Ltd's information and use in relation to the proposed housing development at Wayside, Kiltiernan, Co. Dublin Stage 1 Road Safety Audit.

WS Atkins International Limited assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its contents.

## Document history

Revision	Purpose description	Origin-ated	Checked	Reviewed	Author-ised	Date
Rev 0	Draft Issue	CJP	CJP	AB	CJP	May '22
Rev 1	Including Designer Responses	CJP	CJP	CJP	CJP	May '22
Rev 2	Final	CJP	CJP	CJP	CJP	June '22

## Client signoff

Client	Liscove Ltd
Project	Lands at Wayside, Kiltiernan
Job number	5158632DG0037
Client signature / date	

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# 1. Introduction

## 1.1. Background

This report describes the findings of a Stage 1 Road Safety Audit associated with the proposed commercial and residential development for Lands at Wayside, Kiltarnan Co Dublin.

The Audit has been completed by Atkins on behalf of Liscove Ltd.

The proposed development comprises the construction of a new mixed-use neighbourhood centre, commercial, office units, medical and residential development on a site of c. 10.8 hectares.

## 1.2. Site Inspection

The site inspection was carried out on the morning of 17th of May 2022 by the Audit Team.

Weather conditions during the site inspection were warm, dry and overcast. Traffic conditions were light but with continuous intermittent movement along the Enniskerry Road to the west and Glenamuck Road to the north. Pedestrian and cycle movements were low at the time of the inspection.

The lands are predominantly undeveloped green field areas at present. The Glenamuck District Road Scheme and Enniskerry Rd / Glenamuck Part 8 schemes are being delivered by DLRCC to provide new connections / roads to the east and north respectively. These roads have not been subject to road safety audit with the expectation of the immediate access / egress points that serve the development.

## 1.3. The Team

The Audit Team members associated with the Road Safety Audit Stage 1 were as follows:

- **Team Leader:** Colin J Prendeville BEng (Hons) PCert (RSA) CEng MIEI, CIHT
- **Team Member:** Andrew Butterly BEng MIEI

## 1.4. The Design

The following drawings were examined as part of the Road Safety Audit Stage 1:

**Table 1-1 - Design Team Drawing List**

Drawing Number	Drawing Title	Revision
02_0000	COVER SHEET	0
02_0001	SITE LOCATION MAP	0
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02_0107	JUNCTION LAYOUT SHEET 3 OF 3	0
02_0108	JUNCTION VISIBILITY KEY PLAN	0
02_0109	JUNCTION VISIBILITY SHEET 1 OF 3	0
02_0110	JUNCTION VISIBILITY SHEET 2 OF 3	0
02_0111	JUNCTION VISIBILITY SHEET 3 OF 3	0
02_0112	REFUSE - VEHICLE TRACKING - SHEET 1 OF 2	0
02_0113	REFUSE - VEHICLE TRACKING - SHEET 2 OF 2	0
02_0114	ENNISKERRY ROAD	0
02_0115	TYPICAL CROSS SECTION KEY PLAN	0
02_0116	TYPICAL CROSS SECTIONS SHEET 1 OF 5	0
02_0117	TYPICAL CROSS SECTIONS SHEET 2 OF 5	0
02_0118	TYPICAL CROSS SECTIONS SHEET 3 OF 5	0
02_0119	TYPICAL CROSS SECTIONS SHEET 4 OF 5	0
02_0120	TYPICAL CROSS SECTIONS SHEET 5 OF 5	0
02_0121	LONG SECTION SHEET 1 OF 3	0
02_0122	LONG SECTION SHEET 2 OF 3	0
02_0123	LONG SECTION SHEET 3 OF 3	0
02_0124	FIRE APPLIANCE - VEHICLE TRACKING - SHEET 1 OF 2	0
02_0125	FIRE APPLIANCE - VEHICLE TRACKING - SHEET 2 OF 2	0
02_0126	BASEMENT- UNDERCROFT VEHICLE TRACKING STANDART VEHICLE	0

## 1.5. Road Safety Audit Compliance

### Procedure and Scope

This Road Safety Audit has been carried out in accordance with the procedures and scope set out in TII publication number **GE-STY-01024 - Road Safety Audit**.

As part of the road safety audit process, the Audit Team have examined only those issues within the design which relate directly to road safety.

### Compliance with Design Standards

The road safety audit process is not a design check, therefore verification or compliance with design standards has not formed part of the audit process.

### Minimising Risk of Collision Occurrence

All problems described in this report are considered by the Audit Team to require action in order to improve the safety of the scheme and minimise the risk of collision occurrence.

## 2. Road Safety Issues Identified

### 2.1. Problem: Crossing Junction 1 for VRUs

**Location: Junction 1**

The construction of the Glenamuck Link Distribution Road on the east and upgrade of the Glenamuck Road on the north would appear to create an attractive route for recreation and exercise where people can travel on a continuous loop around the development and area of Kiltarnan in general.



**Figure 2-1 – Loop around development**

Junction 1 on the east is an uncontrolled 3 lane layout (on the western arm) serving the development. The movement of vehicles into and out of the development may conflict with pedestrian, runners and cyclists who are utilising the loop and those users may find it difficult to cross 3 streams of traffic as they travel north-south and through the junction.



**Figure 2-2 – Junction 1 on East**

**Recommendation**

The Designer should ensure the un-controlled crossing is appropriate for the likely demand of vehicles and non-motorised users that are anticipated to use the junction and facilities proposed.

## 2.2. Problem: Restricted visibility due to stopped vehicles

### Location: Junction 1

Junction 1 contains two lanes for exiting vehicles from the development. As a driver stops in the nearside lane, pedestrian may start to cross from the northern side unaware that a vehicle is approaching in the outer right turn lane. This may lead to conflict between turning vehicles and pedestrians where the pedestrian passes the first stopped vehicle and conflicts with the vehicle approaching in the outer later.

### Recommendation

The Designer should consider measures to address the risk of confusion and conflict noted.

## 2.3. Problem: Cyclist confusion

### Location: Junction 1

The drawings indicate cyclists will bypass the controlled pedestrian crossing and can continue through the junction while the lights may be on red. The presence of stopped vehicles at the pedestrian crossing may suggest it is safe / clear to continue however traffic may still be entering and existing the development at the same time which are unsighted/unexpected by the cyclists. This may lead to conflict between turning vehicles and cyclists.

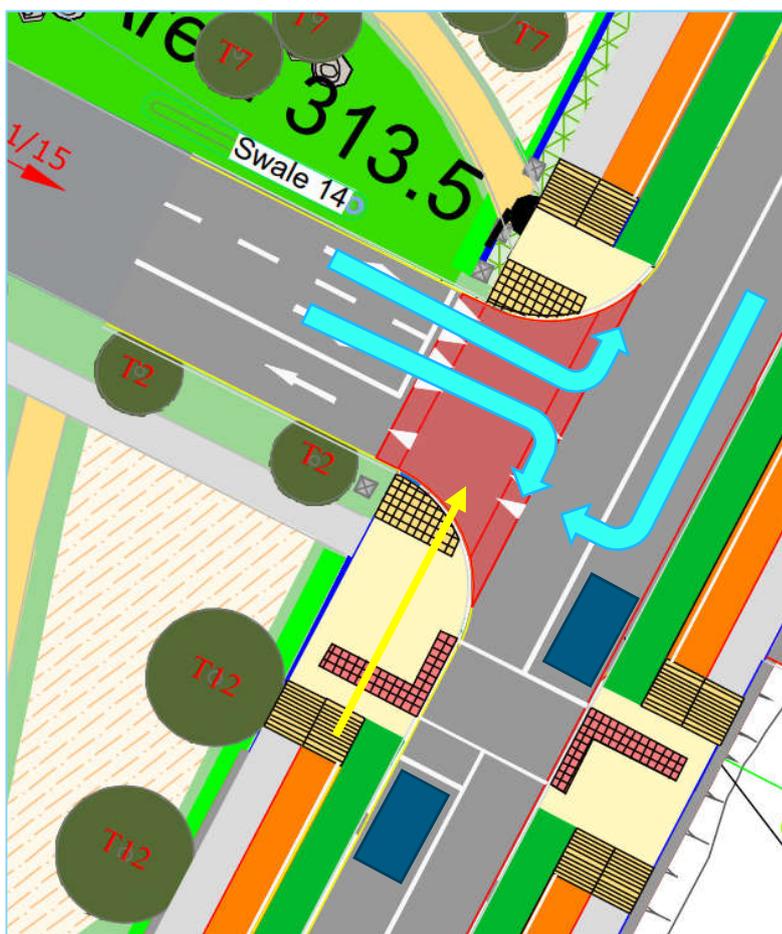


Figure 2-3 – Continuity of Cyclists at Junction 1

### Recommendation

The Designer should consider measures to address the risk of confusion and conflict noted.

## 2.4. Problem: Pedestrians crossing to west of scheme

### Location: Along Enniskerry Road

The scheme proposes 3 junctions on the west along the Enniskerry Road. Crossing provision for pedestrians, cyclists and less abled user have not been detailed in the scheme proposals. The existing Enniskerry Road was observed to have relatively frequent traffic travelling at moderate speed. The nearest crossings are located at the village of Kiltarnan at Farmer Brown's public house and the Circle K further south which are approximately 500m apart. It is unlikely that people will utilise these to cross the road and attempt to cross the road closer to Junctions 2, 3 and 4. Where adequate provision is not provided, conflict may arise.

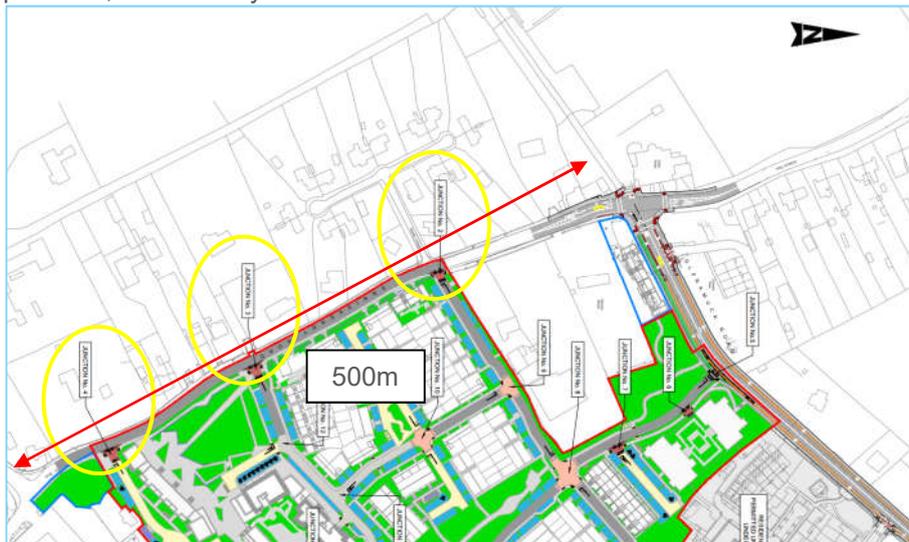


Figure 2-4 – Junction 11

### Recommendation

The Designer should assess the scheme proposals in the context of likely desire lines across Enniskerry Road and propose measures that would cater for desire lines and demand. The provision of a crossing(s) would also likely contribute to calming traffic speed along the road in addition to providing appropriate crossing opportunities for less non-motorised users.

## 2.5. Problem: Alignment through junction

### Location: Junction 8

The north-south alignment includes a relatively sharp change/kink. Drivers may find it challenging to negotiate the junction and opposing traffic with the degree of stagger indicated. This may lead to conflict such as swipe and head-on collisions.

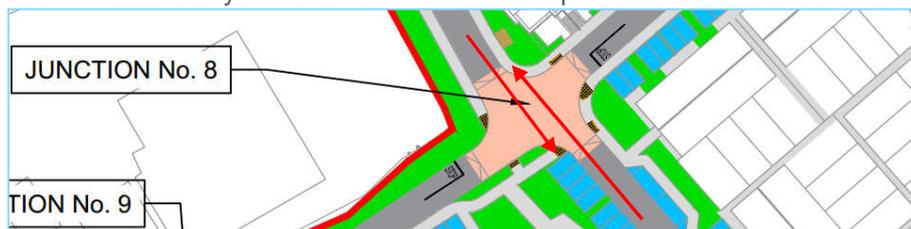


Figure 2-5 – Alignment Through Junction 8

### Recommendation

The Designer should review the extent of stagger proposed and allow a smoother movement of traffic in the 'main' north-south flow of traffic.

## 2.6. Problem: Multiple crossings in proximity to each other

### Location: Dingle Way

Two paths are serving Dingle Way on the east of the development. This is proposed within an area of trees and landscaping which may be dark. Drivers may not be expecting users of the path to come from multiple locations in quick succession with the dark environment adding to the risk of confusion. This may lead to conflict between vehicles and path users.



Figure 2-6 – Paths Crossing Dingle Way

### Recommendation

The Designer should assess the need to provide 2 paths crossing at this location. Additionally curtailment of the proposed landscape / trees may assist in making the crossing points more apparent. If 2 paths are required, consideration should be made to increase the distance between these to allow greater opportunity to react to a secondary person trying to cross.

## 2.7. Problem: Vehicles in proximity to crossings

### Location: Scheme Wide

Parking is indicated directly adjacent to pedestrian crossings. This may result in vehicles restricting visibility of people wishing to cross the junction. Additionally parked vehicles may need to reverse across the junction while exiting the parking locations. This may also lead to conflict.

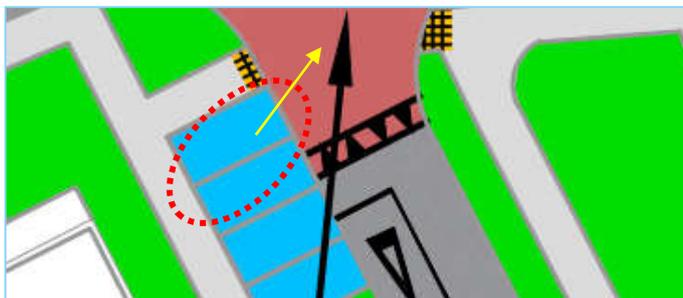


Figure 2-7 – Adjacent Junction 16

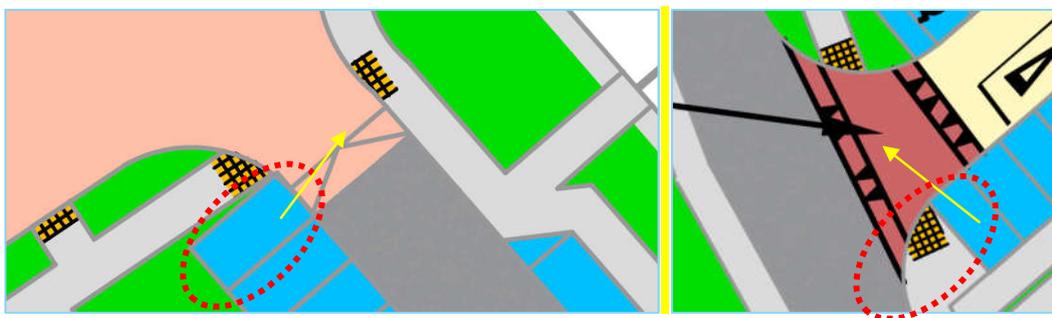


Figure 2-8 – Adjacent Junctions 8 & 7

### Recommendation

The Designer should ensure adequate visibility is provided and sufficient space between the crossing and parking areas to allow for manoeuvring vehicles.

## 2.8. Problem: Road alignment

**Location: Street 6**

Street 6 is proposed to be a shared street for all road users. There are 2 junctions in proximity to each other which is combined with a series of curved alignments. The combination of junction proximity and curved alignment may increase the frequency and likelihood of vehicles crossing into the path of other vehicles and also across the zone where pedestrians are expected to walk.



**Figure 2-9 – Curved alignment and junctions Street 6**

### Recommendation

The Designer undertake a check to ensure vehicles can move through this area without excessively needing to cross centre of the road or the area where pedestrians may need to walk. Where required the curved alignment through the junction may be straightened to address the concerns noted.

## 2.9. Problem: Missing crossing provision

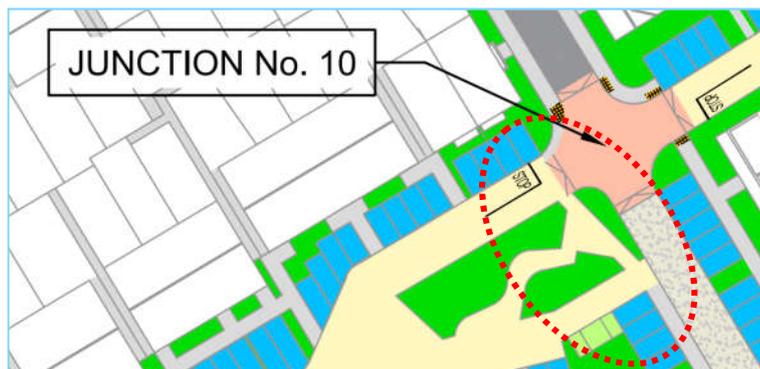
**Location: Junction 10 and 11**

Provision for pedestrians wishing to cross Junction 11 are not reflected in the proposals. This junction is located towards the centre of the scheme and a natural focal point and likely to have vulnerable road users wishing to cross east-west. Where adequate provision is not provided, conflict may arise.



**Figure 2-10 – Likely desire line Junction 11**

A similar concern relates to Junction 10 where a clear dedicated path for pedestrians is not evident in the design drawings.



**Figure 2-11 – Likely desire line Junction 10**

**Recommendation**

The Designer should review the locations outlined and make adequate provision for pedestrians wishing to cross.

**2.10. Problem: Protection for cyclists through junction**

**Location: Junction 5**

Provision for cyclists across the Glenamuck Road at Junction 5 is proposed to be in the form of on-road painted cycle lane. This may not provide sufficient protection for cyclists wishing to cross the junction and leave them more vulnerable to conflict with traffic.



**Figure 2-12 – On road cycle track Junction 5**

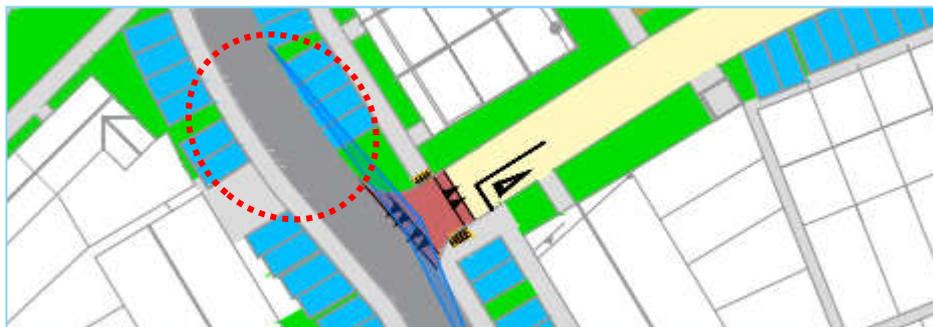
**Recommendation**

The provision of a continuous / raised cycle track should be made through the junction to prioritise cycle movement.

**2.11. Problem: Compromised visibility**

**Location: Junction 14**

Parked vehicles are likely to compromise the visibility splay to the north of the junction. This may result in vehicles pulling out when it is unsafe to do so which may lead to conflict such as swipe, shunt and side-impact collisions.



**Figure 2-13 – Parking Junction 14**

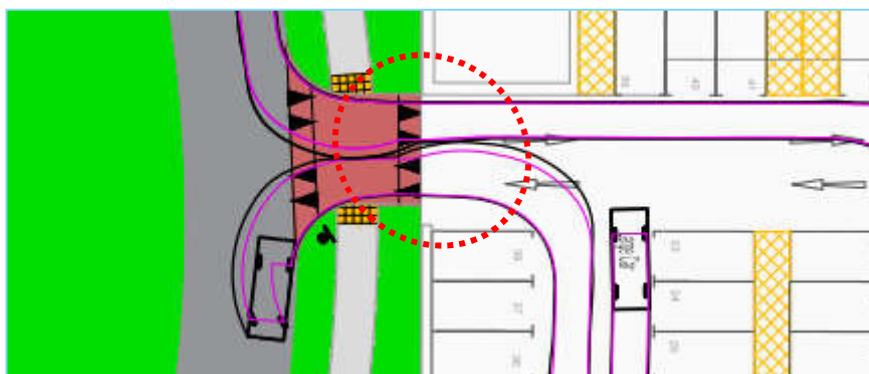
**Recommendation**

The Designer should ensure adequate visibility is provided at the location described.

**2.12. Problem: Compromised visibility**

**Location: Block C & D**

The walls serving the parking area of block C&D may compromise visibility to pedestrians crossing at the entrance / exit area. This may result in vehicle / pedestrian conflict.



**Figure 2-14 – Parking Block C&D**

**Recommendation**

The Designer should ensure adequate visibility is provided at the location described. This should include consideration to any canopies / overhangs that may be proposed for the structure that may impact on the presence of crossing pedestrians.

## 3. Audit Team Statement

### 3.1. Certification

We certify that we have examined the drawings and documents listed in Chapter 1 of this Report.

### 3.2. Sole Purpose

The Road Safety Audit has been carried out with the sole purpose of identifying any features of the design which could be removed or modified in order to improve the road safety aspects of the scheme.

### 3.3. Implementation of RSA Recommendations

The problems identified herein have been noted in the Report together with their associated recommendations for road safety improvements. We (the Audit Team) propose that these recommendations should be studied with a view to implementation.

### 3.4. Audit Team's Independence to the Design Process

No member of the Audit Team has been otherwise involved with the design of the measures audited.

### 3.5. Road Safety Audit Team Sign-Off

**Colin Prendeville**

Audit Team Leader  
Road Safety Engineering Team  
**ATKINS**

Signed: 

Date: 25<sup>th</sup> May 2022

**Andrew Butterly**

Audit Team Member  
Road Safety Engineering Team  
**ATKINS**

Signed: 

Date: 25<sup>th</sup> May 2022

## 4. Designer's Response

### 4.1. Preparing a Response to the Road Safety Audit

The Designer should prepare an Audit Response for each of the recommendations using the Road Safety Audit Feedback Form attached in Appendix A.

When completed, this form should be signed by the Designer and returned to the Audit Team.

### 4.2. Returning the Feedback Form

Please return the completed Road Safety Audit Feedback Form attached in Appendix A of this report to the following email or postal address:

Email address: [colin.prendeville@atkinsglobal.com](mailto:colin.prendeville@atkinsglobal.com)

Postal address: Road Safety Engineering Team  
Atkins  
150 Airside Business Park  
Swords  
Co Dublin  
K67 K5W4

Telephone: 00 353 (0)1 810 8000

The Audit Team will consider the Designer's response and reply indicating acceptance or otherwise of the Designer's response to each recommendation.

### 4.3. Triggering the Need for an Exception Report

Where the Designer and the Audit Team cannot agree on an appropriate means of addressing an underlying safety issue identified as part of the audit process, an Exception Report must be prepared by the Designer on each disputed item listed in the audit report.

# Appendices

# Appendix A. RSA 1 Feedback Form

**Scheme:** Lands at Wayside, Kiltiernan

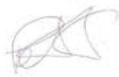
**Audit Stage:** Road Safety Audit Stage 1

**Date Audit Completed:** 25/05/2022

	To be completed by the Design Team			To be completed by the Audit Team
Paragraph No. in Safety Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures (describe)	Alternative Measures accepted by Auditors (yes/no)
2.1	Y	Y	Junction has been designed with input from DLRCC) to reflect demand from all users including motorised vehicle and non-motorised users.	
2.2	Y	Y	A review of junction at detailed design will be undertaken and the optimum layout finalised considering concerns noted.	
2.3	Y	Y	A review of junction at detailed design will be undertaken and the optimum layout finalised considering concerns noted.	
2.4	Y	N	Traffic flows on Enniskerry Rd will significantly reduce when the GDRS is implemented with a bus gate restricting traffic flows travelling north south through Enniskerry Neighbourhood Centre. Road has been narrowed and footpath widened and landscape improvement. Proposal will provide opportunities for multiple crossings in low traffic low speed environment.	Yes. Shift of traffic and cross section changes noted to help address concerns noted. . Designer might consider crossing of this road by all road users during the detailed design stage to and from other developments including the church.
2.5	Y	N	Alignment of road has been developed to encourage low speeds in accordance with DMURS principles of self-regulating streets. Stagger will encourage lower speed and will provide pedestrian priority	Yes. Designer notes the layout is in keeping with design intent.

2.6	Y	N	Location of paths are informed by landscaping including the location of existing mature trees. The overall design is to create a pleasant walking experience in a landscape environment. Vehicle flows and speeds through this environment at very low and design is appropriate for these conditions.	Yes, Layout to be reviewed with more detail at next design stage.
2.7	Y	Y	Design has been modified and car parking spaces moved away from junctions	
2.8	Y	Y	Check undertaken and vehicles do not excessively cross centre of the road.	
2.9	Y	Y		
2.10	Y	Y		
2.11	Y	Y	Design provides adequate visibility given road alignment, design speed and vehicle flows both along the local street and in particular the homezone street where there is limited traffic expected as noted in DMURS (section 4.4.5 page 109 – <i>“Designers must also take a holistic view of the application of reduced forward visibility splays as this can provide traffic calming benefits“</i>	Yes. Designer confirms that adequate visibility has been provided.
2.12			Visibility given road alignment, design speed and vehicle flows both along the local street and in particular the homezone street where there is limited traffic expected as noted in DMURS (section 4.4.5 page 109 – <i>“Designers must also take a holistic view of the application of reduced forward visibility splays as this can provide traffic calming benefits“</i>	Yes. Designer confirms that adequate visibility has been provided.

Signed by the Designer:



Date: 25/05/2022

Signed by the Audit Team Leader:



Date: 26/05/2022

Signed by the Employer:



Date: 8/06/2022

Road Safety Engineering Team  
**WS Atkins International Limited**  
Atkins House  
150 Airside Business Park  
Swords  
Co. Dublin

**Tel: +353 1 810 8000**  
**Fax: +353 1 810 8001**

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# Appendix C. Auditor Approval

**Prendeville, Colin**

**From:** TII Systems Notification <noreply@tii.systems>  
**Sent:** 2021-06-22 21:50  
**To:** Prendeville, Colin  
**Cc:** roadsafetyaudits@nra.ie; Fiona.Bohane@corkrdo.ie; Alastair.DeBeer@TII.ie; Bryan.kennedy@TII.ie; LCurtis@Kerrycoco.ie  
**Subject:** RSAAS - Road Safety Audit Approvals System - Auditor Approval CP3369500  
**Importance:** High

*Colin James Prendeville  
Atkins House  
150 Lakeside Drive  
Airside Business Park  
Swords, Co.Dublin*

Date: 22/06/2021

Ref: CP3369500

**re: APPROVAL AS ROAD SAFETY AUDITOR**

Dear Colin James Prendeville,

You meet the qualification and experience requirements for Road Safety Audit as follows:

Scheme Category	Audit Team Status	Team Leader Expiry Date
Road Scheme	Team Leader	31/05/2023
Development Scheme	Team Leader	31/05/2023

The above assessment is based on information supplied and the qualification and experience requirements of National Roads Authority in accordance with HD 19 "Road Safety Audit". Further approval through RSAAS must be sought for the proposed road safety audit team for each audit undertaken on a National Road.

Yours sincerely,

Lucy Curtis

*Regional Road Safety Engineer*  
[roadsafetyaudits@tii.ie](mailto:roadsafetyaudits@tii.ie)

**Butterly, Andrew**

---

**From:** TII Systems Notification <noreply@tii.systems>  
**Sent:** 2020-11-10 17:34  
**To:** Butterly, Andrew  
**Cc:** roadsafetyaudits@nra.ie; Fiona.Bohane@corkrdo.ie; Alastair.DeBeer@TII.ie; Bryan.kennedy@TII.ie; LCurtis@Kerrycoco.ie  
**Subject:** RSAAS - Road Safety Audit Approvals System - Auditor Approval AB4429918  
**Importance:** High

*Andrew Butterly  
Atkins House  
150 Lakeside Drive  
Airside Business Park  
Swords, Co.Dublin*

Date: 10/11/2020

Ref: AB4429918

**re: APPROVAL AS ROAD SAFETY AUDITOR**

Dear Andrew Butterly,

You meet the qualification and experience requirements for Road Safety Audit as follows:

Scheme Category	Audit Team Status	Team Leader Expiry Date
Road Scheme	Team Member	
Development Scheme	Team Member	

The above assessment is based on information supplied and the qualification and experience requirements of National Roads Authority in accordance with HD 19 "Road Safety Audit". Further approval through RSAAS must be sought for the proposed road safety audit team for each audit undertaken on a National Road.

Yours sincerely,

Lucy Curtis

*Regional Road Safety Engineer*  
[roadsafetyaudits@tii.ie](mailto:roadsafetyaudits@tii.ie)

Colin Prendeville  
**WS Atkins Ireland Limited**  
Atkins House  
150 Airside Business Park  
Swords  
Co. Dublin  
K67 K5W4

**Tel: +353 1 810 8000**

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