ATKINS

Member of the SNC-Lavalin Group

Coastal Quarter SHD 2

Stage 1 Quality Audit

Shankill Property Investments Limited

Sept 2022

Notice

This document and its contents have been prepared and are intended solely for Shankill Property Investments Ltd information and use in relation to the proposed Bray Coastal Quarter SHD Planning Application Stage 1 Quality Audit.

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Document history

Revision	Purpose description	Origin-ated	Checked	Reviewed	Author-ised	Date
REV 0	Draft Issue	CME/OC	OC	CJP	CJP	05/08/2022
REV 1	Issue for Planning	CME/OC	OC	CJP	CJP	23/08/2022

Client signoff

Client	Shankill Property Investments Ltd
Project	Strategic Housing Development at Bray Coastal Quarter, Co. Dublin.
Job number	5214419
Client signature / date	

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1. Introduction

1.1. Background

This report describes the findings of a Quality Audit associated with the adjoining road and footpath provision, accesses proposals and internal circulation for the strategic housing development at Bray Coastal Quarter, Co. Dublin.

The Audit has been completed by Atkins on behalf of Shankill Property Investments Ltd.

1.2. Site Inspection

A site inspection was completed on the 3rd August 2022 by the Audit Team leader.

Weather conditions during the site inspection were cool and dry. The existing site is largely undeveloped. An existing local road serves the site to the south. A rail line is located along the eastern boundary of the site with pedestrian linkage provide to the south-east of the site and below the rail line of the town of Bray. There is an existing school located of the east of the site.

During the inspection, occasional vehicle movement was noted on the road to the south. Pedestrian and cycle movement on the road to the south, across the site and also through the link below the rail line was relatively frequent during the time of the visit.

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:** Oisín Carroll BEng (Hons) MIEI
- **Team Trainee:** Caelan McEvoy

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
01-CE-0101	Street Typology – Sheet 1 of 2	-
01-CE-0102	Street Typology – Sheet 2 of 2	-
01-CE-0103	Road Layout – Sheet 1 of 2	-
01-CE-0104	Road Layout – Sheet 2 of 2	-
01-CE-0105	Long sections	-
01-CE-0107	Vehicle Tracking – Fire Truck – Sheet 1 of 2	-
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01-CE-0109	Vehicle Tracking – Refuse Vehicle – Sheet 1 of 2	-
01-CE-0110	Vehicle Tracking – Refuse Vehicle – Sheet 2 of 2	-
01-CE-0111	Junction Layout – Sheet 1 of 3	-
01-CE-0112	Junction Layout – Sheet 2 of 3	-
01-CE-0113	Junction Layout – Sheet 3 of 3	-

01-CE-0114	Junction Visibility Layout – Sheet 1 of 3	-
01-CE-0115	Junction Visibility Layout – Sheet 2 of 3	-
01-CE-0116	Junction Visibility Layout – Sheet 3 of 3	-
6948-L-2000	Landscape Masterplan – Overall Plan	-

1.5. Audit Brief

A pre-audit meeting was undertaken between the Design Team and Audit Team providing the background to the scheme and setting out the key objectives of the audit.

During this meeting it was outlined by the Design Team that pedestrian and cycle facilities within the site are not envisaged to have to cater to high levels of cycle through traffic from the north and south of the site.

1.6. 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. 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 building.	Design Stage
03	External Site & Public Footpath	Pedestrian Provision	Ensure footpath edges are clearly defined.	Design Stage
04	External Site & Public Footpath	Pedestrian Provision	Ensure defined pedestrian clear zone is free from street furniture and clutter.	Design & Operational Stages

I.D.	Location	Feature	Action	When
05	External Site & Public Footpath	Pedestrian Provision	Ensure steps are legible and contrasting colour nosings are provided.	Design Stage
06	Public Footpath	Pedestrian Provision	Ensure crossing points are located on all significant desire lines, where they are safe and convenient for all road users.	Design Stage
07	Public Footpath	Pedestrian Provision	Ensure appropriate drop kerbs and tactile paving is provided at crossing points.	Design Stage
08	External Site	Building Entrance	Ensure the main building entrances are well defined and easily contrasted to the rest of the building façade.	Design Stage
09	External Site	Building Entrance	Ensure clear sight lines to the main pedestrian entrances are provided from all approaches to the building. Trees and street furniture should not block this.	Design Stage
10	Public Footpath	Building Entrance	Ensure vulnerable road users are discouraged from entering service area and ramp to underground carparks.	Design Stage
11	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
12	General	Drainage	Ensure any break in surface or gap (such as a drainage gulley) no greater than 10mm and is perpendicular to line of travel. Locate drainage features away from crossing points.	Design Stage
13	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
14	External Site & Public Footpath	Provision of Street Furniture	Ensure furniture does not encroach on the clear width of pathways.	Design Stage
15	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
16	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
17	Underground Car Park	Car park provision	Ensure car parking is accessible, easy to use, and sufficient parking spaces are provided within a well-designed environment to meet the needs of all people expected to use them	Design Stage
18	Underground Car Park	Car park provision	Ensure location of designated spaces for car users with disabilities provide convenient access to the building.	Design Stage
19	Underground Car Park	Car park provision	Ensure car park levels are served by lifts providing access to all floors.	Design Stage

I.D.	Location	Feature	Action	When
20	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
21	General	Public Lighting	Ensure that the location of street lighting is set back from the pedestrian path along the footpath provisions provided.	Design Stage
22	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

3.1.1. Problem: Tactile Crossing Provision

Location: Junction 8

The design drawings appear to show a pedestrian crossing tactile opposite the mouth of Junction 7 shown below in **Figure 3-1**. Lack of coherent crossing facilities may result in pedestrians entering a live carriageway where it is unsafe to do so, potentially resulting in pedestrian to vehicle conflicts.

Figure 3-1 – Tactile at Junction 7

Recommendation

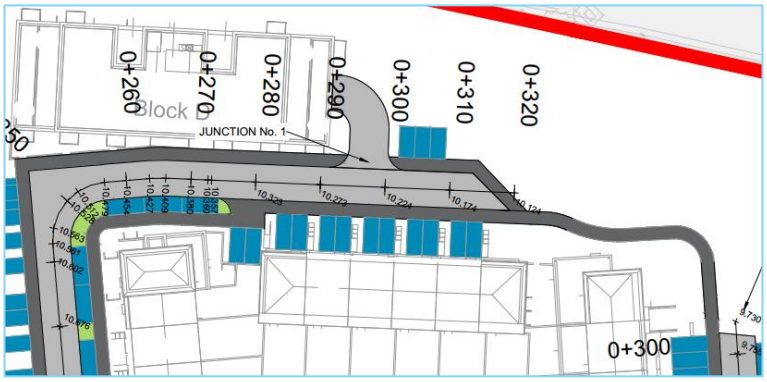
The Designer should relocate the tactile at this location to a location where pedestrian are not directed into opposing traffic.

3.1.2. Problem: Pedestrian Crossing Facilities

Location: Junction 1

The design drawings do not appear to have catered for pedestrians looking to cross from Block D to the housing to the south. Lack of pedestrian crossing facilities may result in pedestrians entering a live carriageway where it is unsafe to do so, potentially resulting in pedestrian to vehicle conflicts.

Figure 3-2 – Pedestrian Crossing at Junction 1



Recommendation

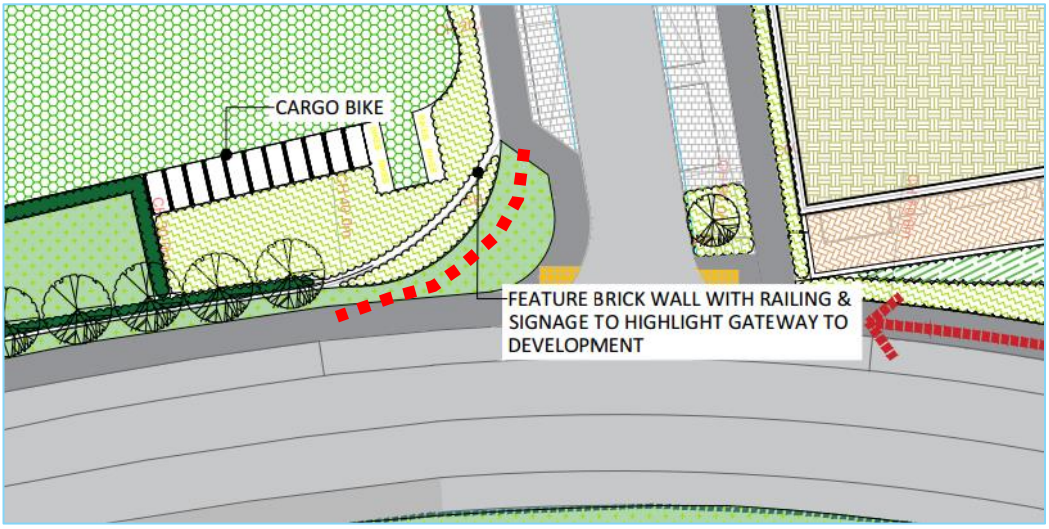
The Designer should assess the need for a crossing and consider providing crossing facilities to facilitate this movement.

3.1.3. Problem: Pedestrian Desire Line

Location: **Junction 12**

The landscape drawings do not appear to have catered for likely the pedestrian desire line pictured below in **Figure 3-3**.. Footfall on this landscaped area could pose a risk to vulnerable users potentially leading to slipping, tripping or falling

Figure 3-3 – Desire Line at Junction 12



Recommendation

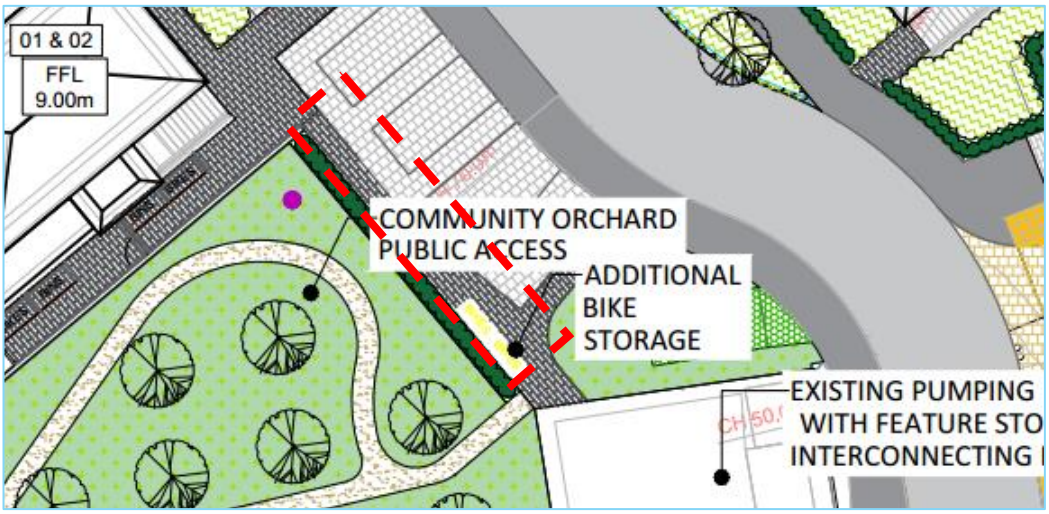
The Designer should ensure that likely pedestrian desire lines are catered for at this location.

3.1.4. Problem: Narrow Pedestrian Path

Location: **6948-L-2000**

The landscape drawings detail a narrow pedestrian path to the rear of the parking bays as shown in **Figure 3-4** below. Lack of adequate width along the path may impede the movement of those less abled. Potential arises for personal injury to those in wheelchairs looking to use the facilities made available. The narrow width might result in vulnerable users pushed into the parked cars when facing oncoming footpath traffic.

Figure 3-4 – Narrow Pedestrian Path



Recommendation

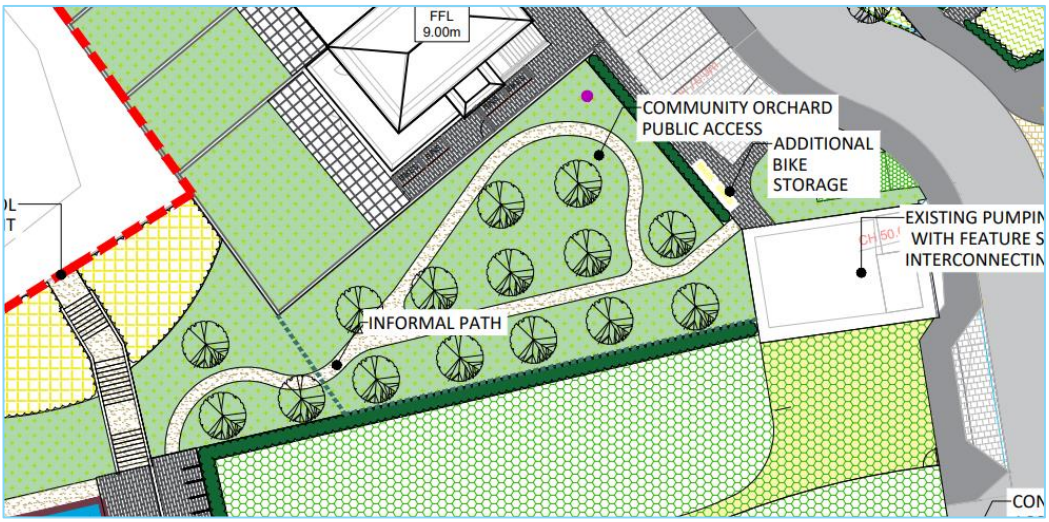
The Designer should ensure that sufficient width is provided to vulnerable road users along the footpath.

3.1.5. Problem: Informal Path

Location: **6948-L-2000**

The landscape drawings detail a narrow informal path on approach to the school entrance steps as shown in **Figure 3-10** below. Lack of adequate width along the path may impede the movement of those less abled. Potential arises for vulnerable user slips, trips and falls at this location.

Figure 3-5 – Informal Path on Approach to the School Entrance



Recommendation

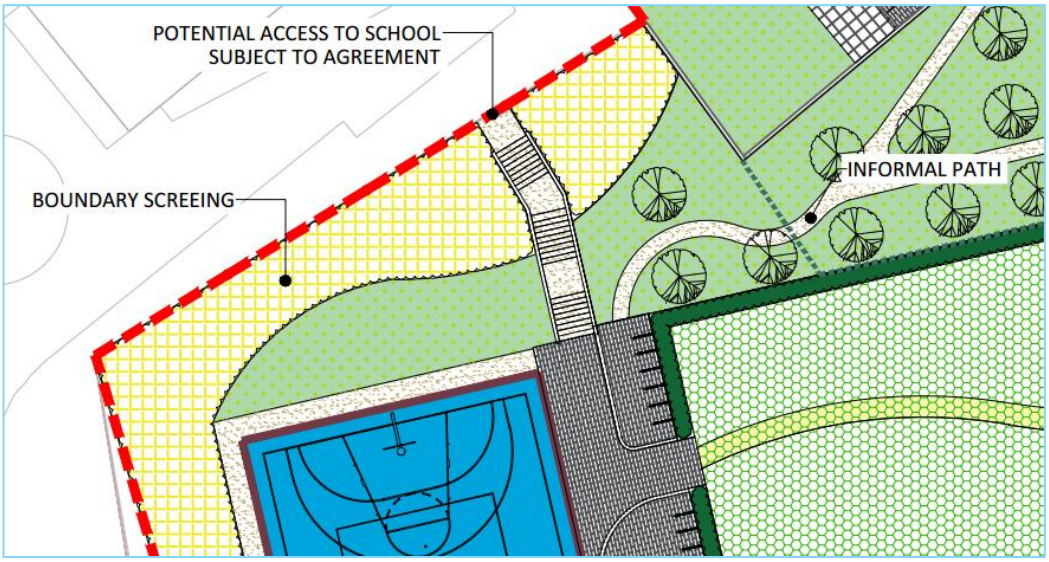
The Designer should ensure the path is wide enough to cater for likely demand and user needs.

3.1.6. Problem: Access for Wheelchair Users

Location: **6948-L-2000**

The landscape drawings appear to be missing adequate wheelchair friendly facilities as shown by the steps on approach to the boundary in **Figure 3-6** below. Lack of adequate wheelchair facilities can impede the movement of those less abled.

Figure 3-6 – Access for Wheelchair Users on Approach to School Entrance



Recommendation

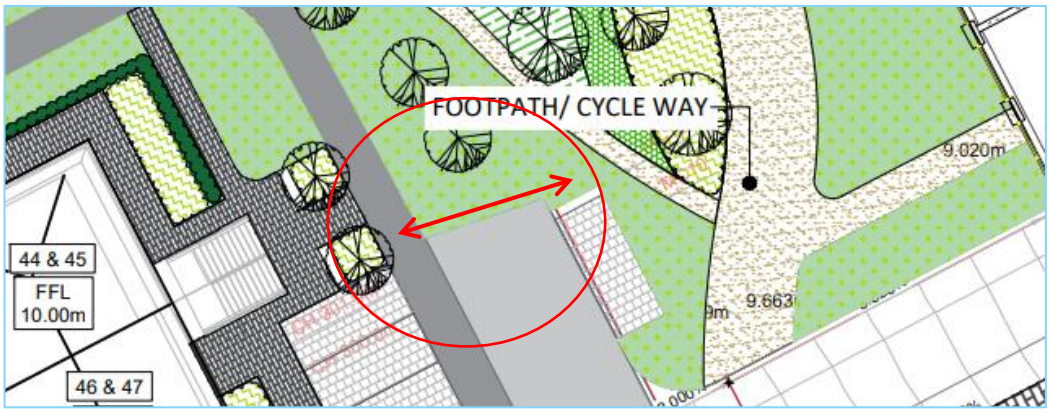
The Designer should consider the provision of wheelchair friendly facilities.

3.1.7. Problem: Pedestrian Crossing facilities

Location: **6948-L-2000**

The landscape drawings appear to be missing adequate pedestrian crossing facilities to cater for pedestrian desire lines from the housing block to the adjacent park and greenspace. This may result in pedestrians entering the live carriageway or utilising a desire line in the grass as pictured in **Figure 3-7.**

Figure 3-7 – Pedestrian Crossing Facilities



Recommendation

The Designer should consider providing a pedestrian path along the head of the road connecting these houses to the nearby greenspace.

3.1.8. Problem: Transition from Shared Space to Pedestrian Zone

Location: **6948-L-2000**

There is no tactile warning provided at the transition between pedestrian zone and shared space at the locations shown in **Figure 3-8** and **Figure 3-9** below. This may result in vulnerable and visually impaired pedestrians unknowingly entering the shared space. This may cause vehicle pedestrian conflicts.

Figure 3-8 – Transition from Shared Space to Pedestrian Zone

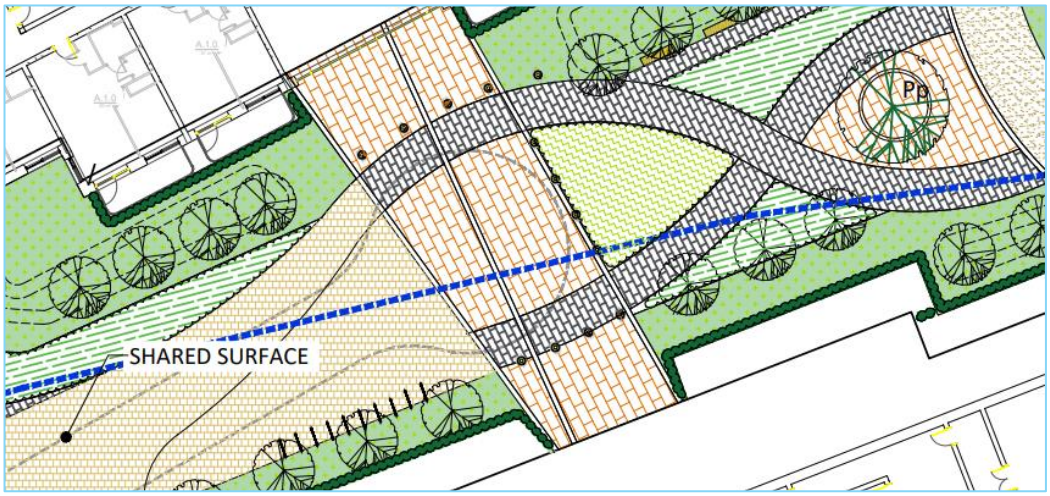
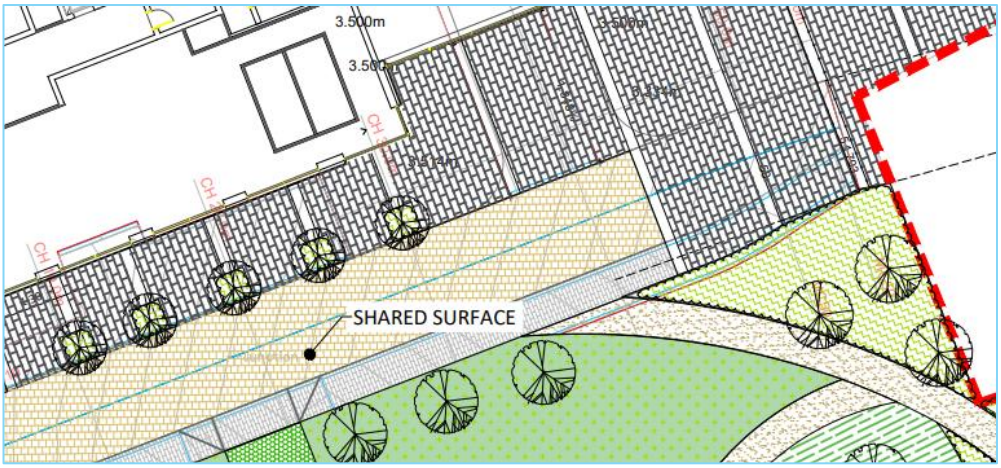


Figure 3-9 - Transition from Shared Space to Pedestrian Zone

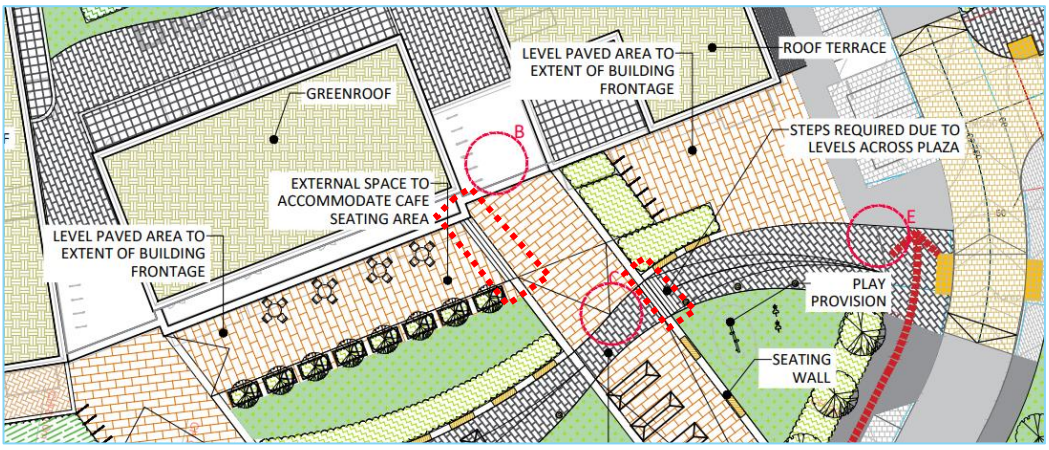


Recommendation
The Designer should consider the provision of tactile tiles to mark the transition between pedestrian and shared zones.

3.1.9. Problem: Access for Wheelchair Users

Location: **6948-L-2000**
The landscape drawings appear to be missing adequate wheelchair friendly facilities as shown by the steps on approach to the boundary in **Figure-16** below. Lack of adequate wheelchair facilities can impede movement of those less abled.

Figure 3-10 – Access for Wheelchair Users

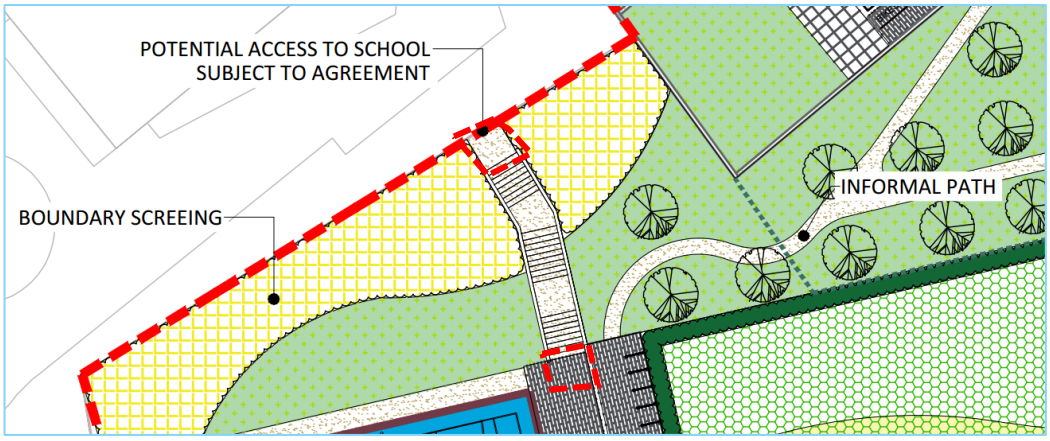


Recommendation
The Designer should consider the provision of wheelchair friendly facilities in this area.

3.1.10. Problem: Requirement for Corduroy Paving

Location: **Throughout the Scheme**
From the landscape drawings the provision of corduroy paving to the top and bottom of the steps throughout the scheme does not appear to have been made. Omission of corduroy paving may result in pedestrian slips, trips and falls which may result in injury type collisions.

Figure 3-11 – Requirement for Corduroy Paving at Top and Bottom of Steps

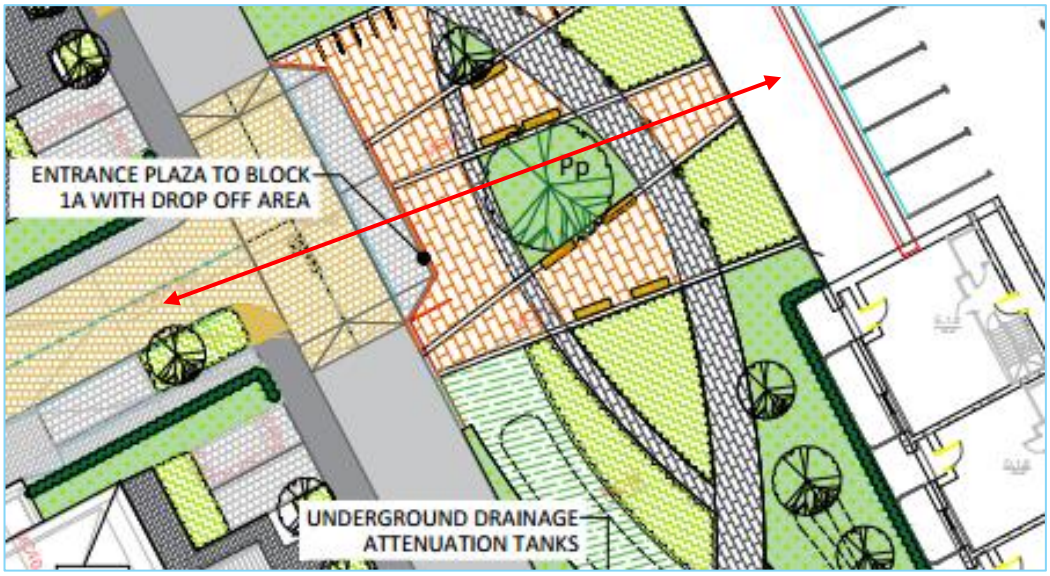


Recommendation
Corduroy paving should be provided at the top and bottom of steps throughout the site in accordance with good practice.

3.1.11. Problem: Tree Planting Impeding Pedestrian Movement

Location: 6948-L-2000
The landscape drawings show a large tree located in the centre of a key pedestrian desire line toward Block A. Planting at this location may compromise movement and lead to slips trips and falls and progression issues for less abled users.

Figure 3-12 – Plaza Layout



Recommendation
The Designer should rationalise the tree planting at this location as part of the detailed design.

4. Audit Team Statement

4.1. Certification

We certify that we have examined the drawings and documents 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: 5th August 2022

Oisín Carroll
Audit Team Member
Road Safety Engineering Team
ATKINS
Signed: 
Date: 5th August 2022

Caelan McEvoy
Audit Team Trainee
Road Safety Engineering Team
ATKINS
Signed: 
Date: 5th August 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

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

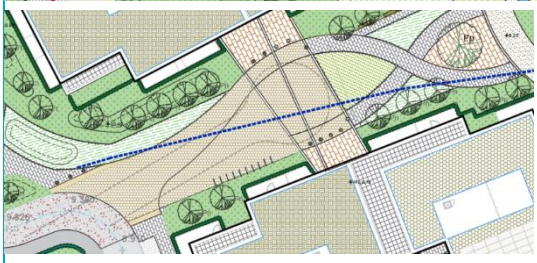
Appendix A: Quality Audit Feedback Form

Scheme: Coastal Quarter SHD Planning Application

Audit Stage: Stage 1 Road Safety Audit

Date Audit Completed: 3rd August 2022

	To be completed by the Designer			To be completed by the Audit Team
Paragraph No. in Safety Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures or comments	Alternative Measures accepted by Auditors (yes/no)
3.1.1	y	y	Tactile pacing area as indicated to be removed.	
3.1.2	y	y	Tactile paving to be provided to facilitate crossing.	
3.1.3	n	n	The proposed footpath is positioned sufficiently close to the desire line.	Yes. The Designer has confirmed design proposals are adequate.
3.1.4	y	n	The dedicated footpath along the route is positioned directly adjacent the street and is of sufficient width to cater for all users.	Yes. The Designer has confirmed design proposals are adequate.
3.1.5	y	n	The community orchard is an informal space with limited access and any stepped connection with the school is subject to agreement. Width and material of paths to be developed at detail design stage	Yes. To be considered further at detailed design.
3.1.6	y	n	Infrastructure for a compliant and designated less abled movement entrance has been provided by the school just outside the application red line boundary on the west corner of the site. Potential stepped access has been designed as a secondary linkage to the school and it is subject to agreement.	Yes. Provided for elsewhere. This connection is noted for later agreement.
3.1.7	y	y	The pedestrian desire lines are catered for by the paths proposed as part of the landscape design.	Final materials, colours and textures to be examined at detailed design stage.

3.1.8	y	y	  Changing paving in colour and texture define vehicular and pedestrian route.	
3.1.9	y	n	 With the existing nature of the site the proposed road levels from east to west are critical. In order to provide level frontages to the GF units in Block C, the plaza area has had to be designed as a series of terraces. A compliant access route from east to west has been designed on the peripheral footpath around the plaza which then provides compliant linkage to each terrace level.	Yes. Site constraints are noted that influence the design layout.
3.1.10	y	n	The location and positioning of corduroy paving at steps will be developed at detailed design.	Yes. To be considered further at detailed design.

3.1.11	n	n	 The main movement in this location is north to south. Access from drop off bay to podium is still available around the proposed planting bed and focal tree planting.	Yes. The Designer has confirmed design proposals are adequate.

Signed by the Designer: Chris Fay **Date:** 23/08/2022

Signed by the Audit Team Leader: Colin Brenchley **Date:** 23/08/2022

Signed by the Employer: Rachel Hoy **Date:** 26/08/22

Appendix B: Stage 1 Road Safety Audit

ATKINS

Member of the SNC-Lavalin Group

Strategic Housing Development at Bray Coastal Quarter, Co. Dublin.

Stage 1 Road Safety Audit

Shankill Property Investments Ltd

August 2022

Notice

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Document history

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Rev 0	Draft Issue	CME/OC	OC	CJP	CJP	05/08/2022
Rev 1	Including designers responses	CME/OC	OC	CJP	CJP	23/08/2022

Client signoff

Client	Shankill Property Investments Ltd
Project	Strategic Housing Development at Bray Coastal Quarter, Co. Dublin.
Job number	5214419DG0013
Client signature / date	

Contents

Tables

1. Introduction

1.1. Background

This report describes the findings of a Stage 1 Road Safety Audit associated with the adjoining road and footpath provision, accesses proposals and internal circulation for the Strategic Housing Development (SHD) at Bray Coastal Quarter, Co. Dublin.

The Audit has been completed by Atkins on behalf of Shankill Property Investments Ltd.

The SHD comprises 591 no. residential units in a mix of apartments, duplexes and houses. In addition, a childcare facility, café, retail unit and 2 no. mixed use commercial units are proposed along with all associated and ancillary development and infrastructural works, hard and soft landscaping, open spaces, boundary treatment works, ancillary car and bicycle parking spaces at surface, under croft and basement levels.

1.2. Site Inspection

A site inspection was completed on the 3rd August 2022 by the Audit Team leader.

Weather conditions during the site inspection were cool and dry. The existing site is largely undeveloped. An existing local road serves the site to the south. A rail line is located along the eastern boundary of the site with pedestrian linkage provide to the south-east of the site and below the rail line of the town of Bray. There is an existing school located of the east of the site.

During the inspection, occasional vehicle movement was noted on the road to the south. Pedestrian and cycle movement on the road to the south, across the site and also through the link below the rail line was relatively frequent during the time of the visit.

1.3. The Team

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

- **Team Leader:** Colin J Prendeville BEng (Hons) PCert (RSA) CEng MIEI, CIHT
- **Team Member:** Oisín Carroll BEng (Hons) MIEI
- **Team Trainee:** Caelan McEvoy

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
01-CE-0101	Street Typology – Sheet 1 of 2	-
01-CE-0102	Street Typology – Sheet 2 of 2	-
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01-CE-0109	Vehicle Tracking – Refuse Vehicle – Sheet 1 of 2	-

01-CE-0110	Vehicle Tracking – Refuse Vehicle – Sheet 2 of 2	-
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01-CE-0113	Junction Layout – Sheet 3 of 3	-
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01-CE-0115	Junction Visibility Layout – Sheet 2 of 3	-
01-CE-0116	Junction Visibility Layout – Sheet 3 of 3	-
6948-L-2000	Landscape Masterplan – Overall Plan	-

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.

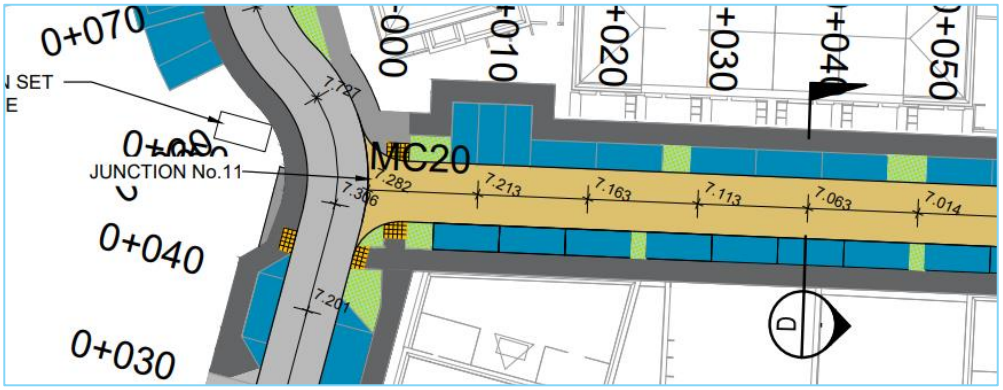
2. Road Safety Issues Identified

2.1. Problem: Vehicles Reversing onto Pedestrians Crossing

Location: **Junction 11**

Larger vehicles to the east of Junction 11 may reverse onto the pedestrian crossing facilities as they look to manoeuvre out of the perpendicular parking bays. The presence of trees may exacerbate the issue. This may result in vehicles colliding with crossing pedestrians and may result in injury.

Figure 2-1 – Junction 11



Recommendation

The designer should consider increasing the setback at this location to ensure large vehicles do not reverse onto the crossing point.

2.2. Problem: Crossing Blocked by Car Parking Provision

Location: **Junction 4 & 8**

The design drawings indicate the presence of parallel parking bays along the east of Junction 4 and Junction 8 as shown in**Error! Reference source not found.** Figure 2-3 below. These arrangements will obstruct pedestrians looking to cross east/west at the junctions and likewise drivers being less able to see pedestrians crossing. This may result in pedestrians having to enter the roadway at undesignated locations which may result in pedestrian to vehicle collisions. These locations are the main entrance to point to the adjacent apartment blocks. It would likely people wishing to travel east-west and vice versa will wish to take this path and will be obstructed by the movement of parked or manoeuvring vehicles.

Figure 2-2 – Junction 8

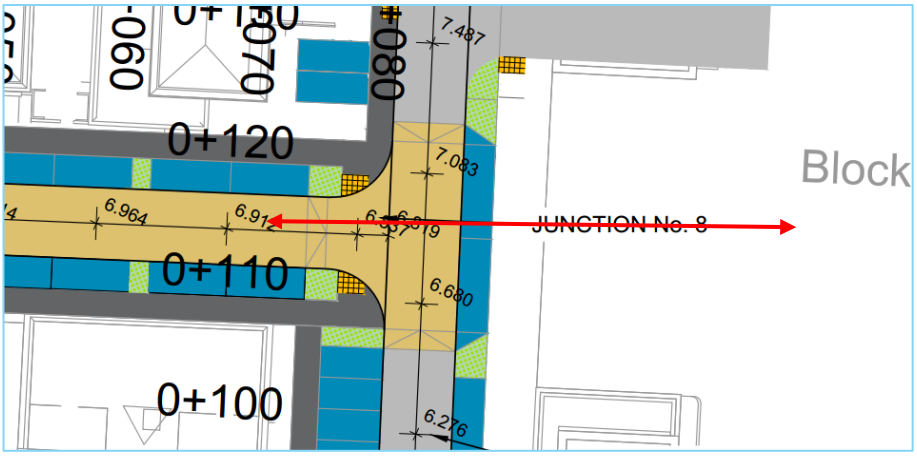


Figure 2-3 - Junction 4 & Junction 8

Recommendation

The Designer should ensure that pedestrian desire lines are catered for at these junction crossing points. Pedestrians desire lines should not be obstructed by vehicles.

2.3. Problem: Road Surfacing and Lack of Pedestrian Crossing Facilities

Location: **Junction 6**

The landscape drawings detail an ‘asphalt with red chip road’ surface for the bend at Junction 6 of the scheme. This surface is not used elsewhere throughout the scheme and

it is unclear if it is intended that this is to be used similar to the adjoining shared path provision.
Junction 6 forms a key link for the east to west and north to south desire lines and may direct vulnerable users into an active carriageway where it is unsafe for them to enter. The transition from pedestrian zone to shared space appears unmarked/lacking delineation , leaving vulnerable and visually impaired pedestrians in danger of entering a live carriageway.

Figure 2-4 – Surfacing and Lack of Crossing Facilities at Junction 6

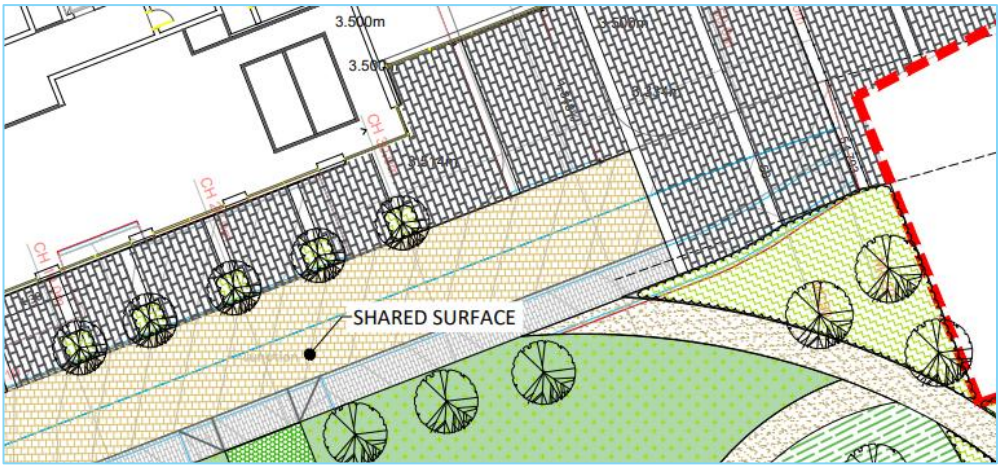
Recommendation
The layout should be reviewed and amended to address the risks highlighted. Appropriate measures should be provided to adequately guide / warn and delineate vehicles and non-motorised traffic in this area.

2.4. Problem: Visibility of Underground Car Park Entrance

Location: **6948-L-2000**

There is an entrance to an underground carpark at this location which is difficult to identify based on the surfacing materials chosen. The lack of pedestrian warning on approach may lead to vulnerable users slipping, tripping or falling into the junction and the risk of vehicle pedestrian conflicts.

Figure 2-5 – Visibility of Underground Car Park Entrance



Recommendation
The designer should consider how pedestrians are being warned on approach to the underground carpark entrance.

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 — Signed: 
Road Safety Engineering Team
ATKINS — Date: 5th August 2022

Oisín Carroll
Audit Team Member — Signed: 
Road Safety Engineering Team
ATKINS — Date: 5th August 2022

Caelan McEvoy
Audit Team Trainee — Signed: 
Road Safety Engineering Team
ATKINS — Date: 5th August 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

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.

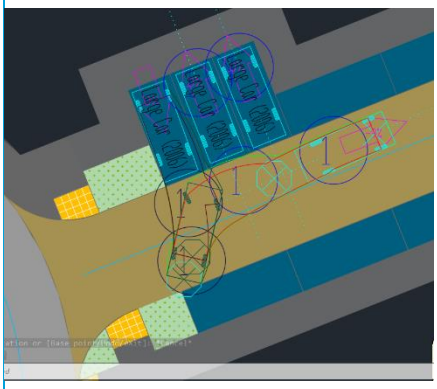
Appendices

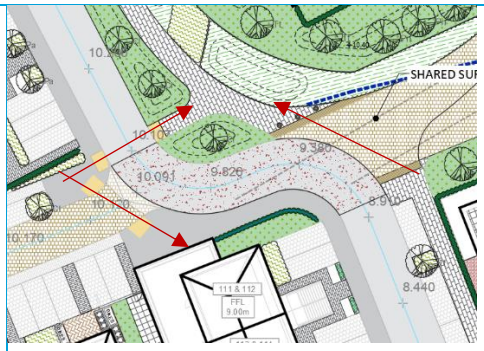
Appendix A: Road Safety Audit Feedback Form

Scheme: Strategic Housing Development at Bray Coastal Quarter, Co. Dublin.

Audit Stage: Stage 1 Road Safety Audit

Date Audit Completed: 5th August 2022

	To be completed by the Designer			To be completed by the Audit Team
Paragraph No. in Safety Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures or comments	Alternative Measures accepted by Auditors (yes/no)
2.1	n	n	The crossing will be repositioned away from the perpendicular bay as much as is possible, however as the screen grab to the left indicates a larger car can comfortable reverse out of the perpendicular parking back without intersecting the crossing area and as such the designer do not consider this to be a safety problem. 	Yes. The Designer has confirmed the design is appropriate.
2.2	y	y	A crossing will be facilitated in vicinity to the south of Junction 8 to accommodate this desire line. A crossing to the immediate north of Junction 4 is already provided.	
2.3	y	y	Junction 6 is a particular serpentine type of road that doesn't appear in any other location in the scheme. For this reason, a 'red chip road surface' has been designed to visually clearly distinguish pedestrian areas and vehicular areas over and above the kerblines that separate footpath from carriageway. To facilitate pedestrian movement, a designated crossing point has been provided.	

				
2.4	y	y	To facilitate pedestrian movement, a designated crossing point has been provided, materials and surfacing have been addressed to provide separation and a clear delineation along with a traditional kerb line separation. Pavement material will be considered and specified at detailed design.	

Signed by the Designer: Chris Fay **Date:** 25/08/2022

Signed by the Audit Team Leader: Colin Rencleville **Date:** 23/08/2022

Signed by the Employer: Rachel Hoy **Date:** 26/08/22

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