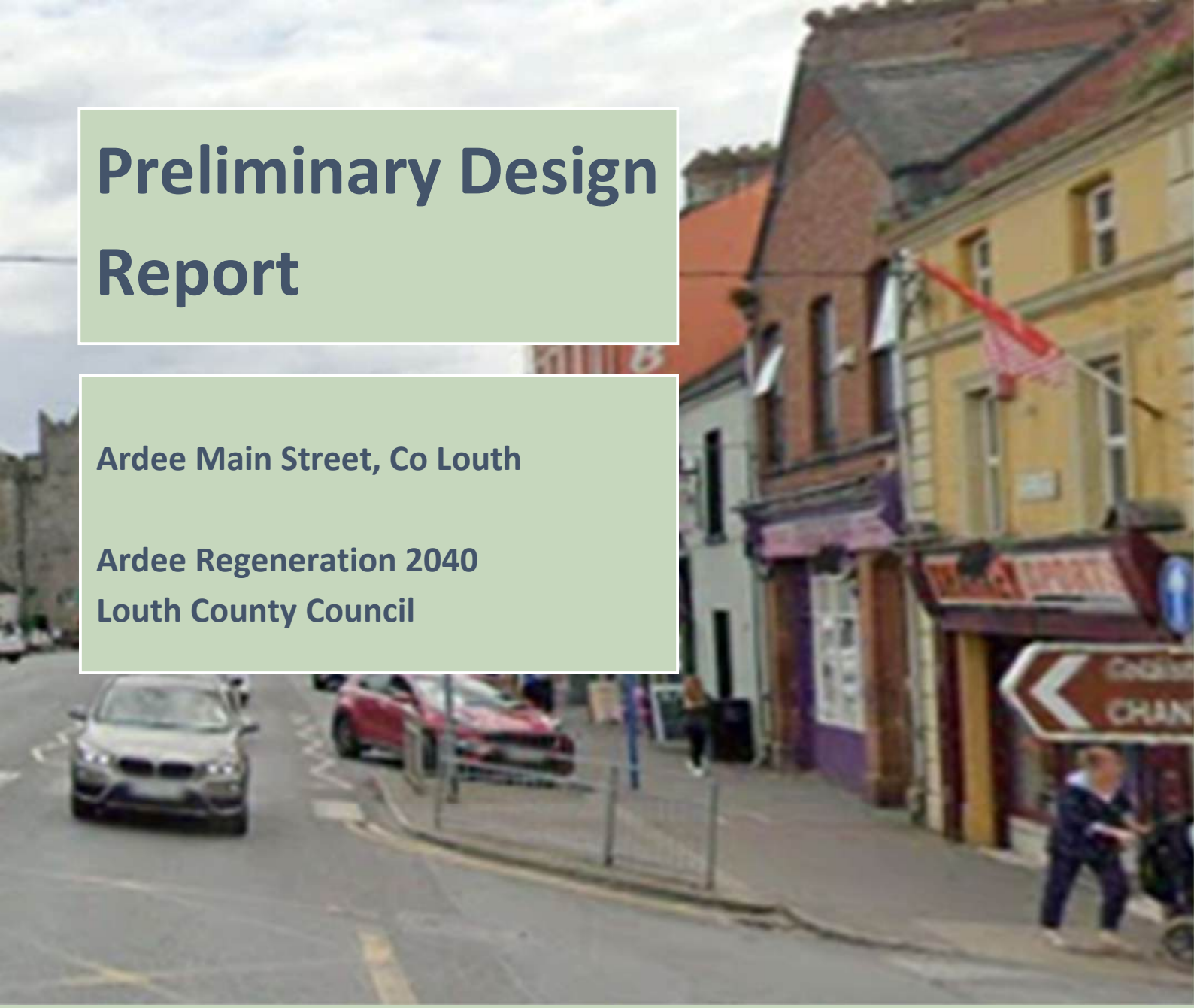

Preliminary Design Report

Ardee Main Street, Co Louth

Ardee Regeneration 2040
Louth County Council

November 2024 HDC1256/101_RevB

Hegsons Design Consultancy Limited
Dublin I Cork I Bedford I High Wycombe I Buxton I Saint-Denis-Le-Gast

Louth County Council

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Forward

This Preliminary Design Report has been prepared in accordance with TII Guidance on Minor Improvements to National Roads and in accordance with the Project Management Guidelines. It has been prepared in order to meet the requirements of TII DN-GEO-03030 'Design Phase Procedure for Road Safety Improvement Schemes, Urban Renewal Schemes and Local Improvement Schemes'. The scheme is within the 50 km / hour urban speed limit and the standard applied is the 'Design Manual for Urban Roads and Streets (DMURS)'.

The purpose of the Preliminary Design Report is to address and present issues relating to compliance with the relevant parts of the TII Publications, such as TII DN-GEO-03084-02 'The Treatment of Transition Zones to Towns and Villages on National Roads', the Cycle Design Manual (July 2023) and in 'Design Manual for Urban Roads and Streets (DMURS)', for the proposed scheme.

This project includes the provision of upgraded public realm facilities along the N2 Main Street in Ardee incorporating improved pedestrian permeability and active travel upgrades, pedestrian priority junction works, traffic calming. Pedestrian facilities along the route and upgraded public space at various location within the scheme.

1 Need for the Scheme

1.1 Existing Layout

Ardee, Co. Louth is on the N2 Dublin – Monaghan Road and is linked by the N33 to the M1 Dublin – Belfast motorway. Ardee is also on the N52 National Secondary Route, a cross-country diagonal route between Dundalk in the north and Nenagh in the south and linking many midlands towns along its route.

Ardee Main Street is a National Road and primary route for traffic moving in a north-south direction through Ardee. The road is a single carriageway, two-way road with footpath provided on both sides of the road along its full length. The carriageway is quite wide at various locations along the Main Street. A number of pedestrian crossing facilities are provided along the street however, no dedicated cycle facilities are provided along the street. A high level of car parking exists along the Main Street and a lot of the parking is in an irregular pattern, with combinations of parallel, saw-tooth and perpendicular parking along the street.

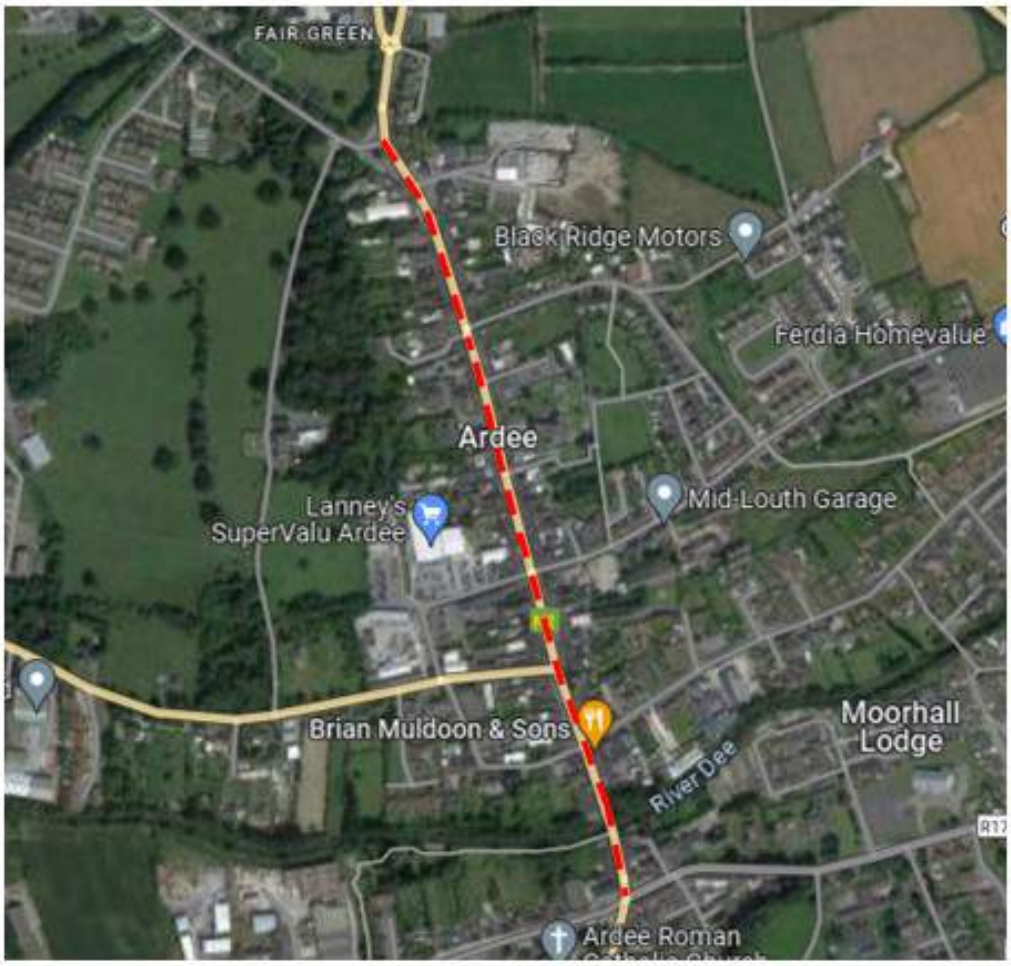


Figure 1.1: Site Location

The Main Street is recognised as a constrained route which caters for local and regional road traffic. This traffic is a mixture of heavy goods vehicles (HGVs), bus and utility service vehicles, as well as regional and local car traffic. Traffic is observed as relatively significant and constant throughout the day, particularly at peak times. The road is subject to an urban speed limit of 50 km/hr and 60km/hr within the study area.

The N52 connects Kells in the west to the town centre and the N2 at a priority-controlled junction in the centre of the town. The N52 is a single carriageway two-way road which caters for a high volume of traffic travelling form the west and onward to the north along the N2. The N52 Jervis Street section of the road has a pedestrian footpath on the northern side of the road between the N2 and Ash Walk. Footpaths are provided on the northern side of the road along the road, but only a small section of footpath is provided intermittently on the southern side of the road. The road is subject to an urban speed limit of 50 km/hr and 60km/hr within the study area.

Golf Links Road is a single carriageway two-way street which connects the N2 Main Street to the northwest areas of the town, including Ardee golf course. The N2 connects to the Golf Links Road at the priority-controlled junction. The street has footpaths on both side of the street along the section close to the N2 junction. A pedestrian crossing facility is provided to the west of the N2 in order to connect the Woodland Walk to the Town Park to the north of the road.

The existing pedestrian facilities along the N2 Main Street are substandard in locations and do not encourage sustainable transport modes of travel within the area due to the existing car dominant design of the N2 and the associated car parking arrangements.

The existing site drawings contained in Appendix A of this report provides details of the existing horizontal geometry on the section of the existing N2 under consideration. The horizontal geometry is characterised by primarily a wide straight road and the vertical profile along the centre line of the existing carriageway is generally flat.

Currently there are a number of domestic and commercial access locations and street junctions over the length of the scheme.

1.2 Existing Drainage

The existing road drainage network is served by gullies and a pipe network along the Main Street. The surface water assets specifically adjacent to the proposed works comprise of storm sewers extending along the N2 and eastward from the Main Street.

On the southern section of the scheme, the existing N2 crosses the River Dee. The presence of positive drainage in this location is not obvious.

However, it is reasonable to consider the river as the eventual receptor for the road runoff, as the N2 falls towards it.

1.3 Description of the Scheme

The introduction of improved active travel provisions, improved pedestrian permeability and junction upgrades, would assist in shifting priority in the town centre towards vulnerable road users. These works, in conjunction with a regenerated street scape, would enhance the town centre as an area to live and do business. These works will create improved access for all vulnerable road users to access the existing bus services in a safe and comfortable manner, which will encourage use of the service.

The proposed scheme will consist of:

1. Public realm improvement works at Ardee Main Street (N2) and surrounding streets comprising: new hard landscaping including resurfacing; soft landscaping including new tree planting; street furniture; new pedestrian connections and footpaths; Sustainable Urban Drainage System (SUDS); new cycle parking; tactile paving; and undergrounding of services.

2. Road improvement works at Ardee Main Street (N2) and surrounding streets to include: alteration of road alignment; realignment of Golf Links Road / N2 junction; raised junctions; resurfacing; shared surface treatments; revised access arrangements; pedestrian crossing points; reduction and rationalisation of the layout / orientation of existing on-street public car parking provision; installation of electric vehicle charging points; new bus stop shelters; road signs; and new public lighting.

3. Resurfacing of Bridge Street Bridge (NIAH Reg. No. 13823008 / Protected Structure Ref: LHS017/056) at Bridge Street.

4. Construction of a new segregated cycle lanes at Main Street (N2) (in the townland of Townparks), Ardee provided as dedicated one-way and two-way bi-directional cycle lanes and associated cycle parking stands.

5. Alterations to the existing car parking layout at Ardee Library off Ardee Main Street (N2) (in the townland of Townparks) to create in part a public plaza including retention of Sir Frederick Foster Memorial Fountain scheduled monument (NIAH Reg No. 13823042 / Protected Structure Ref: LHS017/070) and realignment of existing access road to Foster Close.

6. Extension of Ash Walk Road (extending approx. 60m to the west and upgrades to existing junction to the Supervalu car park / services access off Ash Walk Road.

7. All associated site works including: drainage; undergrounding of services; and all other associated ancillary development works.

Further to discussion with TII and feedback received through TII Departure submission no. 36213, it should be noted that any change of speed limit cannot be approved through the Departures process and that the design although encouraging a 30kph speed or lower, would be assessed in the same way whether it was a designated 30kph or 50kph speed limit zone. The proposed design, including raised tables and carriageway width, will create an urban environment which results in reduced vehicle speeds.

2 Objectives of the Scheme

2.1 Scheme Objectives

The initial objectives for the project are as follows:

- To address deficiencies in terms of alignment, cross-section width, curvature and visibility thereby improving the consistency, accessibility and safety of the carriageway along the Main Street.
- To provide a suitable structural pavement to cater for existing and future traffic needs.
- To avoid, reduce and, if possible, remedy any significant adverse impacts on the environment. This objective will be achieved by undertaking appropriate environmental assessments and screening, and implementing any specified mitigation measures and best practice guidelines.
- To provide safer and more efficient accessibility to the route to the local community and all road users including pedestrians and cyclists along this section.
- To minimise disturbance and severance affects to both residential and commercial holdings.
- To provide a project which is consistent with and/or fulfils the objectives within local, regional and national policies.

2.2 Design Objectives

In order to achieve the overall project objectives identified above, and in accordance with TII DMRB guidance and standards, the main design objectives for the scheme are:

- To achieve a localised improvement having regard to road user demand and required level of service, collision history, design speed as well as identified local constraints and the environment.
- To improve road safety and make better use of the existing road network.
- To address substandard design features and existing deficiencies on this legacy route within existing environmental and budget constraints.

2.3 Design Philosophy

The main principles applied to achieve these design objectives are:

- Alterations to the road alignment shall be consistent along the route.
- The impact of the realignment on existing accesses shall be considered and appropriate measures will be included to mitigate any adverse impacts.

- The proposed alignment should not introduce new safety problems along the section of road to be improved.
- The adopted geometric standards are appropriate for a design speed, which shall be consistent with the anticipated vehicle speeds on the road.
- Appropriate traffic signs and road markings should be limited in accordance with the requirements of the Traffic Signs Manual.

3 Collision History and Record

3.1 Introduction

The Road Safety Authority's (RSA) online collision database (http:// https://www.rsa.ie/en/RSA/Road-Safety/RSA-Statistics/Collision-Statistics/Ireland-Road-Collisions/) provides information on historic accident records on roads across Ireland over an 12 year period (2005 – 2016).

It should be noted that the RSA database is not a comprehensive record of collisions and does not include damage only collisions which might have been reported to the Local Authority / Gardaí records for the area. It does, however, provide a useful evidence base that can be used to identify roads that may currently suffer from an existing safety issue. A screenshot of the accident record on various study areas, for example along the Main Street, Ash Walk, etc between 2005 and 2016 are illustrated and documented in the following sections.

3.1.1 Main Street - South of N52 / N2 Junction

Figure 3.1 illustrates that over the 12-year period, a number of accidents were recorded on the N2 south of the N52, the N52 and in the vicinity of Ardee Castle.

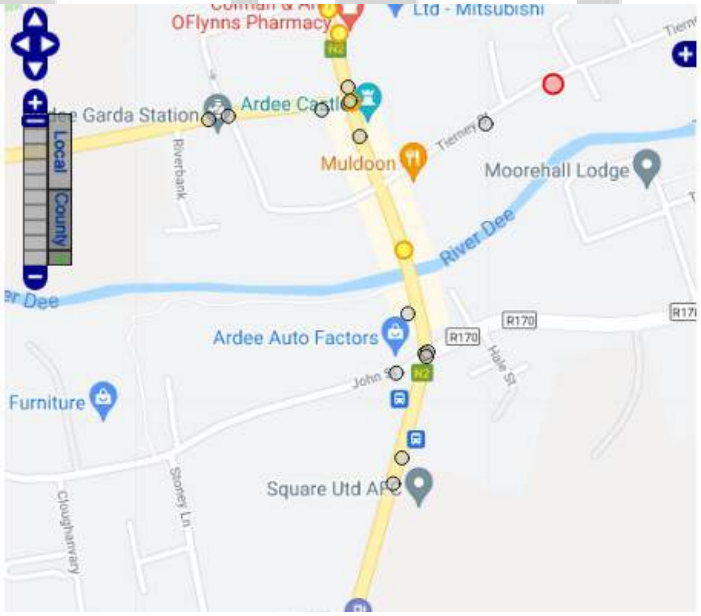


Figure 3.1: Collisions at the N2 South of the N52 Junction & the N52

The data shows that a number of accidents were recorded in the area of concern and the details of these accidents are as follows:

Fatal Accidents:

- 2005: Tierney Street: car accident involving a pedestrian occurred between 2300 and 0300 hours on a Saturday on a section of road which was subject to an 50kph speed limit – 2 fatalities recorded.

Serious Accidents:

- 2008: N2 / N52 Junction: an undefined vehicle accident involving a pedestrian occurred between 1000 and 1600 hours on a Tuesday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

- 2015: N2 north of the bridge R639: car accident involving a pedestrian occurred between 1600 and 1900 hours on a Monday on a section of road which was subject to an 50kph speed limit – 1 serious casualty recorded.

Minor Accidents:

South of John Street

- 2005: N2 South of John Street: car accident, a straight rear end accident, occurred between 2300 and 0300 hours on a Sunday on a section of road which was subject to an 80kph speed limit – 2 casualties recorded.

- 2014: N2 South of John Street: car accident involving a pedestrian occurred between 1000 and 1600 hours on a Friday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

N2 / John Street Junction & John Street

- 2008: N2 / John Street Junction: car accident, a head-on collision, occurred between 2300 and 0300 hours on a Sunday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

- 2010: N2 / John Street Junction: car accident involving a pedestrian occurred between 2300 and 0300 hours on a Thursday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

- 2015: N2 / John Street Junction: car accident, an angle right turn accident, occurred between 2300 and 0300 hours on a Monday on a section of road which was subject to an 50kph speed limit – 3 casualties recorded.

- 2015: John Street (West of N2 Junction): car accident involving a pedestrian occurred between 0300 and 0700 hours on a Sunday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

N2 South of Ardee Castle

- 2005: N2 (South of River Dee bridge): car accident, an angle right turn accident, occurred between 1000 and 1600 hours on a Monday on a section of road which was subject to an 30kph speed limit – 1 casualty recorded.

- 2012: N2 (North of Tierney Street): car accident involving a pedestrian occurred between 1900 and 2300 hours on a Monday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

N52 West of the N2

- 2009: N52 (West of the N2 junction): car accident involving a pedestrian occurred between 1600 and 1900 hours on a Saturday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.
- 2013: N52 at the Ash Walk / Malone Terrace Junction: undefined vehicle accident, an angle right turn accident, occurred between 1600 and 1900 hours on a Wednesday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

- 2013: N52 at the Ash Walk / Malone Terrace Junction: car accident, a rear end right turn accident, occurred between 1000 and 1600 hours on a Tuesday on a section of road which was subject to an 60kph speed limit – 2 casualties recorded.

N2 / N52 - Main Street Junction

- 2013: N2 / N52 Junction: car accident, a head-on collision, occurred between 2300 and 0300 hours on a Sunday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

- 2014: N2 / N52 Junction: car accident involving a bicycle occurred between 1000 and 1600 hours on a Tuesday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

- 2013: N2 / N52 Junction: car accident, a rear-end and straight collision, occurred between 1000 and 1600 hours on a Sunday on a section of road which was subject to an 50kph speed limit – 2 casualties recorded.

Tierney Street (towards Amenity Lands)

- 2008: Tierney Street: car accident involving a pedestrian occurred between 0300 and 0700 hours on a Sunday on a section of road which was subject to an 50kph speed limit – 2 casualties recorded.

3.1.2 Main Street – North of N52 / N2 Junction

Figure 3.2 illustrates that over the 12-year period, a number of accidents were recorded on the N2 north of the N52 up to the Golf Links Road Junction.

Figure 3.2: Collisions North of the N2 / N52 Junction

The data shows that a number of accidents were recorded in the area of concern and the details of these accidents are as follows:

Fatal Accident:

- 2008: N2 South of Markethouse Lane: Goods vehicles accident involving a pedestrian occurred between 1000 and 1600 hours on a Friday on a section of road which was subject to an 50kph speed limit – 1 fatality recorded.

Serious Accidents:

- 2008: N2 South of Ash Walk Junction: single car accident occurred between 1000 and 1600 hours on a Thursday on a section of road which was subject to an 50kph speed limit – 1 serious casualty recorded.

- 2015: N2 South of Ash Walk Junction: car accident involving a pedestrian occurred between 1000 and 1600 hours on a Saturday on a section of road which was subject to an 50kph speed limit – 1 serious casualty recorded.

Minor Accidents:

N2 North of Ash Walk

- 2009: N2 North of Ash Walk Junction: car accident involving a pedestrian occurred between 1000 and 1600 hours on a Tuesday on a section of road which was subject to an 50kph speed limit – 2 casualties recorded.

- 2013: N2 North of Ash Walk Junction: car accident involving a pedestrian occurred between 1600 and 1900 hours on a Tuesday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

- 2007: N2 North of Ash Walk Junction: Goods vehicle accident, a rear-end straight collision, occurred between 1900 and 2300 hours on a Tuesday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

N2 (close to Ardee Credit Union)

- 2015: N2: car accident, single vehicle only collision, occurred between 1900 and 2300 hours on a Wednesday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

- 2013: N2: car accident involving a pedestrian occurred between 1600 and 1900 hours on a Tuesday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

- 2006: N2: undefined vehicle accident involving a pedestrian occurred between 1000 and 1600 hours on a Friday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

- 2012: N2: car accident involving a pedestrian occurred between 1000 and 1600 hours on a Friday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

- 2013: N2: Motorcycle accident occurred between 1000 and 1600 hours on a Wednesday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

- 2016: N2: car accident involving a pedestrian occurred between 1000 and 1600 hours on a Monday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

N2 North of Markethouse Lane

- 2011: N2: car accident involving a pedestrian occurred between 1600 and 1900 hours on a Monday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

Main Street North / Golf Links Road

Figure 3.3 illustrates that over the 12-year period, a number of accidents were recorded on the northern section of the N2 and Golf Links Road.

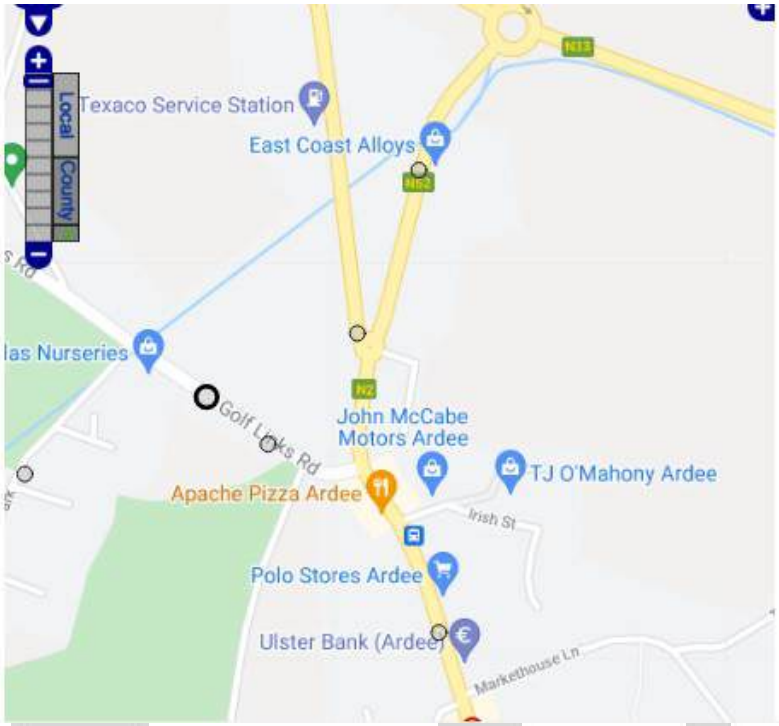


Figure 3.3: Collisions along the Main Street North / Golf Links Road

The data shows that a number of accidents were recorded in the area of concern and the details of these accidents are as follows:

Fatal Accident:

- No Fatal Accidents Recorded

Serious Accidents:

- No Serious Accidents Recorded

Minor Accidents:

N2 North of Golf Links Road Junction

- 2006: N2 Roundabout: two car accident, angle both travelling straight, occurred between 2300 and 0300 hours on a Monday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

Golf Links Road:

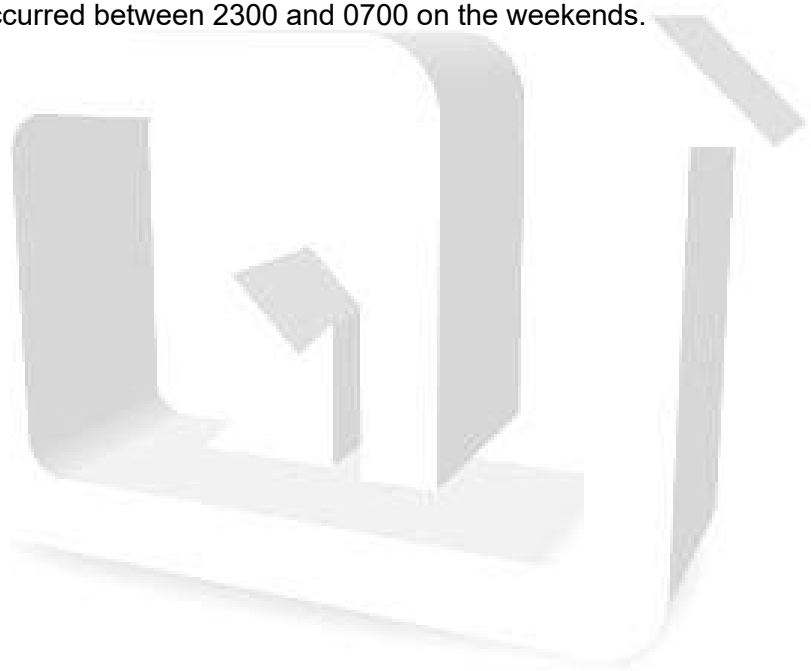
- 2010: Golf Links Road: single car accident occurred between 1900 and 2300 hours on a Saturday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

- 2011: Golf Links Road: single car accident occurred between 1600 and 1900 hours on a Tuesday on a section of road which was subject to an 50kph speed limit – 1 casualty recorded.

3.2 Summary

The initial accident analysis indicated that some accident clusters are experienced around the main junction of the N8/ John Street and the N8 / N52 junction. Also, a number of accidents were recorded close to the pedestrian crossing opposite the Ardee Credit Union. There are no details of any factors which could have caused the various accident however vulnerable users were present in c. 50% of all the accidents recorded. It is possible that vehicle accident only may have occurred but were unrecorded.

A number of accidents involved single vehicle accidents so it can be surmised that both accidents are likely to have been caused by driver error rather than any existing defects in the road layout. A number of accidents occurred between 2300 and 0700 on the weekends.



4 Existing Conditions

4.1 Existing Traffic Volumes

Traffic data has been taken from traffic counts undertaken as part of the study. Table 4.1 summaries the AADT traffic volumes along the section of the N2 in 2022.

Table 4.1: 2022 AADT Traffic Volumes, N2 Ardee Main Street

Location	2022 AADT		
	Light Vehicles	Heavy Vehicles	Total
N2 North of Golf Links Road	12,979	1,880	14,677
N2 Ardee Main Street - Central	10,159	1,174	11,333
N2 South of Monastery National School	12,577	1,959	14,536

4.2 Existing Speed

The posted speed limit at this section of the N2 is the urban area 50km / hour. Table 4.2 summaries the traffic speeds along the section of the N2 in 2022.

Table 4.1: 2022 AADT Traffic Volumes, N2 Ardee Main Street – Central Location

Location: N2 Ardee Main Street - Central			
	Total Volume	85th Percentile	Mean Average
Northbound (7-day average)	5,197	59.3 km/h	46.6 km/h
Southbound (7-day average)	6,235	59.4 km/h	49.2 km/h
Northbound (7-day average)	11,432	59.5 km/h	48.0 km/h

Design Speed calculation is not necessary for this section of the road as the posted speed limited is 50 km / hour and the road, although narrowing, the centreline broadly remains along the same alignment throughout the Main Street.

4.3 Horizontal Alignment

The horizontal alignment of the N2 along the Main Street is primarily straight for the extent of the scheme.

4.4 Vertical Alignment

The vertical alignment is flat at the proposed scheme location on the N2 with some minor changes in level along the route.

4.5 Cross Section Crossfall & Superelevation

The typical existing cross section for the N2 along the Main Street is outlined in Table 4.2 below. The typical cross section ranges along the extent of the Main Street range between 16.5m and 20.5m.

Table 4.2: Typical Existing N2 Cross Section

Design Elements	Typical Width
Foothpath (Western Side)	0.9m – 3.9m
Parallel On-Street Parking	2.0m – 2.3m
Single Lane (Northbound)	3.8m – 4.6m
Single Lane (Southbound)	3.8m – 4.6m
Footpath (Eastern Side)	1.4m – 3.0m
Total	16.5m – 20.5m

The existing crossfall is standard for a carriageway and the superelevation is not applicable.

4.6 Junctions & Accesses

There are a number of existing Stop priority junctions along the extent of the N2 Main Street scheme. These junctions, with the exception of the Ash Walk junction, provide two-way access to various area off the Ardee Main Street.

There are a number of private access points along the N2 leading to rear yards / garden areas of the old existing residential, retail and commercial buildings. These accesses are located at random along the road.

There is an existing bus stop on the northbound and southbound carriageway, approximately 80m south of the Golf Links Road junction with the N2. The bus cage is on the carriageway.

4.7 Facilities for Vulnerable Road Users

The Design Team have carried out audits on Walkability & Accessibility issues on the existing scheme and have used these issues to inform the design principles of the proposed scheme. Currently no cycling infrastructure is in place along the extents of the scheme.

The existing pedestrian facilities along the N2 Main Street are substandard in locations and do not present enticing sustainable transport modes of travel within the area due to the existing car dominant design of the N2 and the associated car parking arrangements.

There is a controlled and uncontrolled pedestrian crossing along the N2. Within the study area, only 2 pedestrian crossings and 1 zebra crossing are present.

Accessibility issues for all road user is currently impacted by the random nature of various parking orientations along the Main Street. There is a lack of a consistent approach to car parking and the Main Street currently accommodates parallel, perpendicular and saw-tooth parking at various points along the route. This can cause a significant issue regarding accessibility, in particular for mobility impaired users.

4.8 Visibility & Sightlines

The visibility and sightlines of the existing junctions and access along the N2 are within DMURS guidelines where possible. Due to the historic nature of the Main Street, many of the existing building lines are in close proximity to the junctions and limit the visibility available for vehicles exiting some of the side roads.

Table 4.3 outlines the current available visibility from the main junctions along the N2 / Main Street.

Table 4.3: Existing Visibility along the N2 / Main Street

Junction	Existing Visibility (m)	DMURS Requirement
Golf Links Road	**2.4m x 49m (NB) / 49m (SB)**	2.4 x 49m
Irish Street	*2.4m x 37m (NB) / 34m (SB)*	2.4 x 49m
Markethouse Lane	*2.4m x 11m (NB) / 15m (SB)*	2.4 x 49m
Access – Ardee Credit Union	*2.4m x 7m (NB) / 23m (SB)*	2.4 x 49m
O'Carroll Street	*2.4m x 14m (NB) / 21m (SB)*	2.4 x 49m
Barrett's Lane	*2.4m x 12m (NB) / 12m (SB)*	2.4 x 49m
Malones Terrace	*2.4m x 15m (NB) / 8m (SB)*	2.4 x 49m
Tierney Street	*2.4m x 21m (NB) / 12m (SB)*	2.4 x 49m

As can be seen from Table 4.3, only the N2 / Golf Links Road junction (highlighted in bold) currently provides the required visibility sightlines within the scheme. All other junctions (highlighted in red) have substandard visibility due to existing building lines or the provision of on-street parking along the Main Street.

4.9 Constraints

The constraints and uncertainties to be considered in the progression of this scheme are outlined in the Table 4.4.

Table 4.4: Known Constraints

Constraint	Source of Data	Key Issues
Existing Road Layout in conjunction with traffic volumes	OS Mapping & Traffic Counts	The existing traffic will be a Safety & Health hazard to personnel involved in the construction of the works. The works may cause delays to the N2 traffic and will be a hazard to road users during construction.
Domestic/ /Commercial accesses	There are a number of domestic and commercial access locations, pedestrian access locations and local road junctions.	Maintaining access. Limiting the number of accesses on to realigned section by providing shared access where possible.
Presence of Services	Service providers/ Ground Investigations	Eircom and water services are located within existing verges of the N2. Overhead ESB cables are provided along the scheme however these will be undergrounded as part of the proposals. Services require being maintained, protected and occasionally diverted.
Archaeology	Record of Monuments and Places	Protection of features of Archeological value within the extents of the scheme.
Land Requirements	Basemap and topographical survey	Potential impacts on property owners by the proposed scheme.

5 Options Considered

An extensive Masterplanning process was undertaken to establish the optimal redevelopment principles and proposals for the lands. This masterplanning process included an extensive review of the site and the wider area by an integrated design team, including a roads engineer, architect, urban designer, civil engineer, conservation architect, planner and ecologist, to identify potential physical, social and planning constraints for the project.

The design process considered feedback at key stages of the project obtained by non-statutory consultation and engagement, to balance the issues and opportunities, in order to establish design principles that ensure that the potential benefits of the redevelopment of the lands are optimised.

The scope of the project was to prepare a full Public Realm Strategy for Main Street (N2) and connecting streets with the aim to maintaining and strengthening the town centre as an active space and a place to gather.

The main aims of the public realm strategy include for the refurbishment of footways providing full accessibility for all users, modernise existing pedestrian crossings and replace street lighting, road improvements, to include raised tables and the provision of an integrated streetscape along with the reorientation / relocation of on-street parking.

Three preliminary options were prepared in line with the requirements for the area, each of which addressed pedestrian and cyclist linkages, permeability and connectivity opportunities along the N2 Main Street and street planning to reallocate road space to pedestrians and reduce car dominance.

A summary of the options considered for the Main Street scheme are outlined in Figure 5.1.

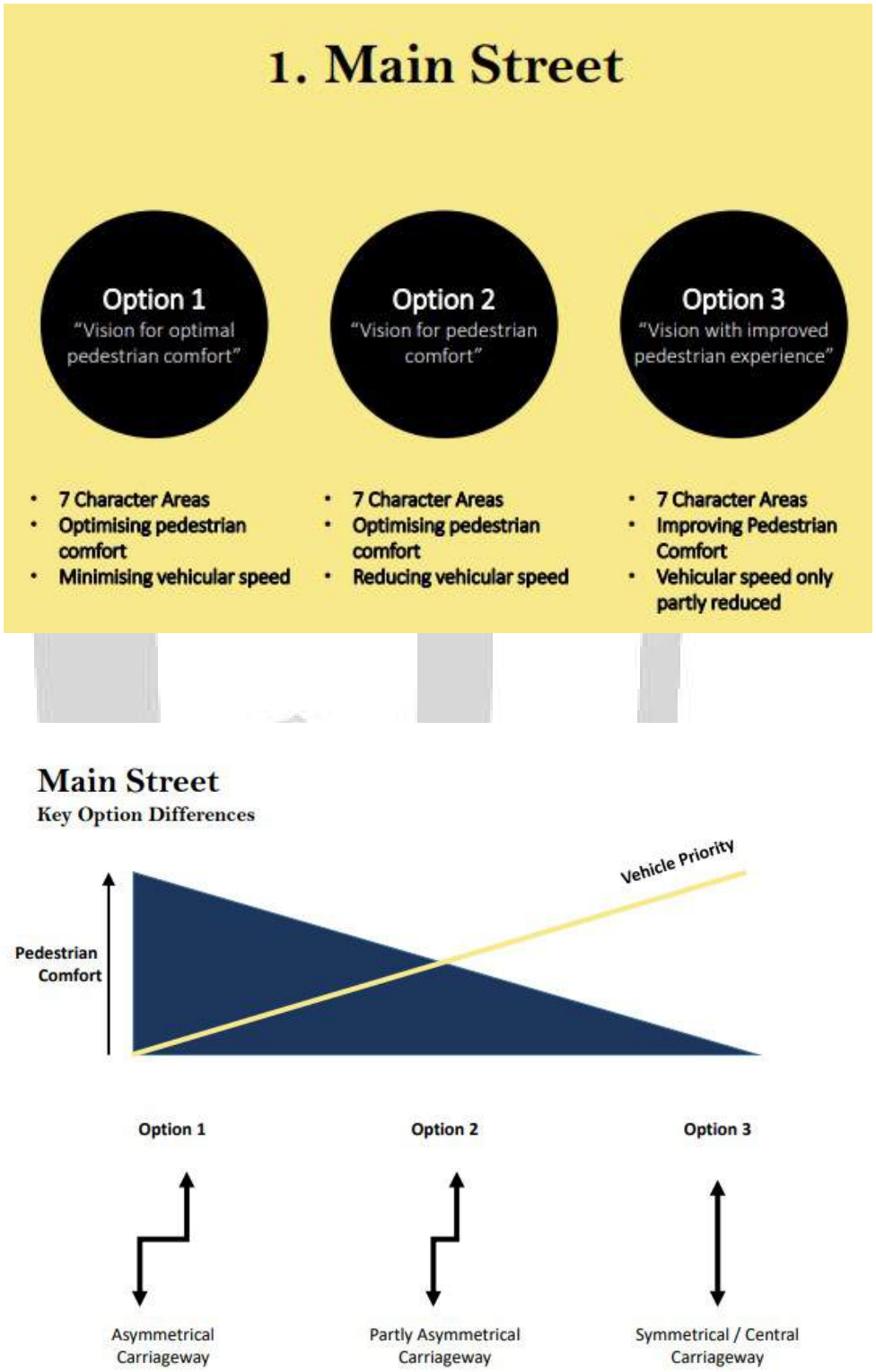


Figure 5.1: Summary of Options Considered

Having examined various reasonable alternative designs for each character area, it is considered that the proposed development (Option 1) represents the preferred option in terms of achieving the best sustainable development outcome of the site and its surrounding area.

Option 2 and 3 were discounted as it was decided that it didn't go far enough to improve the public realm and encourage alternative modes of sustainable transport, therefore the options would not deliver on the vision or objectives of the project.

6 Proposed Design

6.1 General

The proposed preliminary design drawings for the scheme are included in Appendix B.

6.2 Land Acquisition

A Land Acquisitions Report has been prepared on behalf of Louth County Council. This report confirms that the proposed scheme does not require any land acquisition along the route of Main Street.

6.3 Horizontal Alignment

The horizontal alignment of the N2 along the Main Street is primarily straight for the extent of the scheme. Some minor localised deviation to the centreline of the road is proposed along short sections of the route in order to accommodate parallel, cycle and pedestrian facilities. However, the traffic lanes have been maintained to a 3.25m width along the full extent of the route in order to demand manage the traffic flow. The removal of the existing car parking orientations, in favour of the reduced provision of parallel parking in section, has help to better define the carriageways horizontal alignment.

Where some changes to the horizontal alignment of the carriageway may be experienced these are of the form of large smooth radii's which will also operate as traffic calming initiatives to slow traffic movements and coincide with the vertical alignment changes along the route.

6.4 Vertical Alignment

There are no significant changes to the vertical alignment as part of the general existing road profile. However, a number of raised tables / shared use areas have been introduced in order to reduce vehicle speeds and enhance the pedestrian and cycle connectivity between the east and western sides of the street. The raised tables are predominantly centred around the main areas of activity (e.g. library, Ash Walk, Ardee Castle etc) and incorporate high visibility crossing points across the N2 as agreed in consultation with TII. The vertical changes to the alignment are not deemed to be a departure in standards.

The vertical changes would operate as traffic calming schemes to improve the safety of the national road where the N2 passes through the town. The speed reductions will be achieved by altering the appearance of the road through the town through the use of "gateways" or "character areas".

The posting of a reduced speed limit, a townwide urban 30kph speed limit, will be aided through the physical speed reducing measures in order to sufficiently reduce speeds. These self-enforcing traffic engineering methods will improve the safety of urban sections of the national road by reducing vehicle speed, and therefore reducing the frequency and severity of collisions in the town.

Further to discussion with TII, it should be noted that any change of speed limit cannot be approved through the Departures process and that the design, although encouraging a 30kph speed or lower, at this stage would remain within a designated 50kph speed limit zone. The proposal has been designed for this speed limit. The proposed design, including raised tables and carriageway width, will create an urban environment which results in reduced vehicle speeds.

6.5 Cross Section Crossfall & Superelevation

6.5.1 Cross Section

There are no changes proposed to the total width of the cross section along the N2 due to the existing building lines. A consistent approach to the carriageway width has been proposed and each traffic lane will be 3.25m wide in both the northbound and southbound direction.

The remaining cross section will be distributed across area for parallel car parking, dedicated cycle lanes and footpaths. The width of these areas will vary along the extent of the route, mainly due to the constraint associated with the existing building lines. Details of the typical range of width along the N2 cross section are outlined in Table 6.1.

Table 6.1: Typical Proposed N2 Cross Section

Design Elements	Typical Width
Foothpath (Western Side)	1.5m – 3.7m
Parallel On-Street Parking	2.4m – 2.5m
One-way off-road cycle track	1.0m – 1.5m
Two-way off-road cycle track	2.0m – 3.0m
Single Lane (Northbound)	3.25m
Single Lane (Southbound)	3.25m
Footpath (Eastern Side)	1.4m – 5.0m
Total	16.6m – 20.5m

Adequate circulation space is provided around all car parking spaces so that they are useable and accessible, especially the wheelchair accessible parking spaces.

Some typical cross sections of the proposed N2 road are outlined in Figure 6.1 below. Further cross section drawings showing various typical cross

sections of the road have been submitted in response to the additional information requested under Departure 36213.

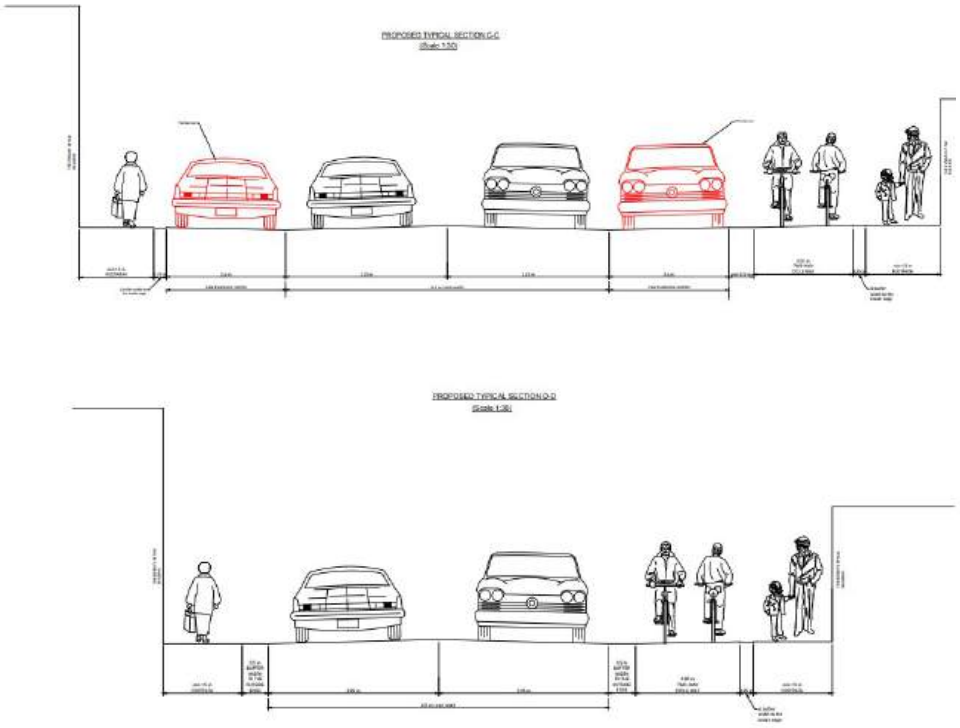


Figure 6.1: Typical N2 Cross Sections

6.5.2 Crossfall & Superelevation

The crossfall on the carriageway will be in accordance with the detailed pavement design proposed and these will be standard carriageway crossfalls. Further detail has been provided in the Proposed Drainage drawings which have been submitted in response to the additional information requested under Departure 36213.

6.6 Facilities for Vulnerable Road Users

The Design Team have carried out audits on Walkability & Accessibility issues on the existing road / pavement and have used these issues to inform the design principles of the proposed scheme. Currently no cycling infrastructure is in place along the extents of Ardee N2 Main Street.

The existing pedestrian facilities along the N2 Main Street are substandard in locations and do not present enticing sustainable transport modes of travel within the area due to the existing car dominant design of the N2 and the associated car parking arrangements.

Providing a DMURS compliant design with upgrades to the footpath and road space will result in a significant improvement to road safety conditions at the location, leading to enhanced connectivity to infrastructure and

facilities. Some minor audit issues are highlighted in this audit, predominately related to footpath space and the lack of cycle facilities along the route is also referenced.

The route is very well located in terms of connectivity to the wider commuter network and its close proximity to services means that sustainable travel modes are viable and offer significant advantages to prospective road users compared to private car travel.

Significant improvements to the streetscape by improving the geometry of the existing route, the quality of the crossing facilities, footpath and cycle provisions etc, will make the Main Street a more user-friendly environment for all.

The provision of a narrow single carriageway cross section will cater for vulnerable road users and allow for the incorporation of dedicated cycle ways along the route. Once the final design has been completed a Stage 3 Safety Audit will be undertaken on the scheme prior to construction.

All pedestrian crossings along the N2 will be high visibility pedestrian crossing or toucan crossings as per our consultation with TII. All facilities been designed with tactile paving, in line with DMURS.

6.7 Facilities for Cycle & Two-Wheeled Users

The Design Team, along with Louth County Councils Active Travel team, have developed a proposed cycle network along the extent of the study area in accordance with the Cycle Design Manual (August-September 2023) in order to address the current shortfall in cycle / pedestrian facilities along the extent of the scheme.

Based on the Cycle Design Manual guidance, the scheme includes for an off-road 1.5m wide single cycle lane and sections of 3.0m wide two-way cycle facilities along the full extent of the scheme with adequate crossing facilities provided to cater for the future demand.

The proposed cycle facilities are proposed to be finished in a red surface colour in line with the guidance set out in Table 5.1: Cycleway Pavement Materials and Mixtures of the Cycle Design Manual. The cycle lane will run continuous across the junction and accesses with vehicles required to give way to cyclists. A proposed section of two-way cycle facility is located in the paved area to the north of Hale Street / south of the River Dee. This area will provide potential connection points for the future extension of the cycle facilities east / west along the river and further south via Hale Street.

Some minor issues were highlighted within the Quality Audit and Road Safety Audit, predominately related to the current lack of cycle facilities along the route and future connectivity to potential wider cycle facilities outside the study area in the future. These have been addressed as part of the Designers Response to the Stage 2 Road Safey Audit.

Some of the key design features along the scheme include:

- The various elements of the cycle facilities have been designed to comply with the National Cycle Manual.

- The transition on / off the cycle lane at the northern point of the scheme has been designed to align with examples of similar cycle lanes designed on National roads in Ireland and set out in DMURS as no exact design approach is recommended in the Cycle Design Manual.

  The approach has been proposed by Louth County Council Active Travel team and in the absence of available space to provide a 'jug handle' design. The inclusion of a 'jug handle' design was explored however the design team's assessment identified that it would unacceptably encroach on proposed pedestrian facilities and third-party lands, particularly on the eastern side of the N2 as a 5m set back form the kerb edge would be required. A width of only 3-3.5m is available for the provision of cycle lane, footpath and space to access private properties along this section of the scheme. Taking these restrictions into consideration, it was determined that the 'jug handle' design was not suitable at this location and that a cycle lane which gradually merges with traffic would be the safest alternative approach at this location..

  The images below form the basis for the design and outline a currently operational precedent situation where this approach and design has been implemented (N15 Lifford to Castlefinn greenway). This design approach was considered acceptable in a 60 kph speed limit area.

Figure 4.60: Transition from carriageway to cycle track


Images: DMURS / N15 Site Observation (Turleys)

It should also be noted that future Active Travel Scheme may continue to the north (outside the scope of this study) whereby the existing proposals would tie into any future scheme.

- The design of the cycle facilities, particularly for south bound cyclists turning into Golf Links Road was reviewed and the provision of a toucan crossing across the N2 just south of the junction is proposed to reduce the risk for cyclists turning right into a junction from a cycle lane and crossing two lanes of traffic.

- The design of cycle lanes adjacent to bus stops has been reviewed to ensure there are no conflicts between cyclists and pedestrians queuing to get on / off the bus. An open sided bus shelter is proposed for this location.

- The termination point of cycle lane south of Bridge Street has been reviewed. Due to the restricted available widths on Bridge Street, a pedestrian crossing is proposed at this location and cyclist will be directed to travel on-road via Hale Street and access the N2 via the R170. Hale Street is a quiet road which is suitable to accommodate the transition from on-road to off-road cycle facilities.

  Adequate signage will be provided at the N2 / R170 junction and at the R170 / Hale Street junctions in order to direct cyclist to and from the cycle lane on the eastern side of the Main Street. This signage will take into account cyclists approaching these junctions from all directions. Following a detailed review, it is considered that this design approach is the safest route for cyclists to access the Main Street cycle lane facilities, avoiding existing pinch points in the road along Bridge Street. It also creates good connection opportunities to future greenway facilities to the east and west along the River Dee, as identified in the Ardee 2040 Vision document.

6.8 Junction Treatments

N2 / Golf Links Road / Irish Street Junction

As part of the scheme proposals, it is proposed to upgrade the existing N2 / Golf Link Road junction. The proposed enhanced junction will include:

- Realignment of the entry and exit lanes to and from Golf Links Road from the N2 in order to provide safer junction layout;
- Narrowing of the N2 carriageway to 6.5m in order to reduce vehicle speeds and enhance user safety;
- Provide enhanced pedestrian and off-road cycle facilities through the junction;
- A new crossing to cater for pedestrian and cyclist movements across the N2 and Golf Links Road;
- Provision of hard and soft landscaping measures to enhance the public realm at the junction;
- Provision of an uncontrolled pedestrian crossing point at Irish Street;
- Provision of car parking and disabled parking spaces along the Main Street; and
- Provision of a shared surface carriageway incorporating the proposed parking and bus stop facilities.

The current junction layout allows for higher speed vehicular movements to and from the Golf Links Road and has little regard for cycle, pedestrian and movement of vulnerable users in and around the area. The proposed junction arrangement will narrow the entry width of the junction and enhance the safe of the junction whilst catering for the existing vehicular movements in the area. The enhanced layout will enable better local public realm to be provided and safer connections to the existing park to the north and the Woodland Walk to the west of the area.

Main Street / Markethouse Lane Junction

The proposed scheme proposes the realignment of the Main Street and enhancement of the public realm in and around Ardee Library. This will involve the narrowing of the carriageway and the provision of a raised shared surface across the junction in order to encourage enhance pedestrian and cycle connectivity across the area. The existing car parking area will be partially removed to accommodate an external seating area, bicycle parking facilities and enhanced public realm for the area.

N52 / N2 Main Street / Castle Street – Ardee Castle

As part of the scheme proposals, it is proposed to enhance the public realm in and around Ardee Castle. The proposed enhanced layout will include:

- There is no significant change to the N52 / Main Street junction in terms of kerb alignments / entry and exit lanes to and from the N52 other than the removal of parking at the junction to enhance the safety of the junction;

- Narrowing of the main carriageway in order to reduce vehicle speeds and enhance user safety and the provision of a shared surface carriageway in front of Ardee Castle;
- Better provision of parking and crossing facilities to enhance connectivity between both sides of the street facilities in front of Ardee Castle; and
- Provision of hard and soft landscaping measures to enhance the public realm in at the junction.

The development proposals along the Main Street are seen to enhance the safety and connectivity for sustainable modes of transport in and around the town centre. In the short to medium terms, the proposed scheme will maintain and cater for the current level of traffic movements along the Main Street as the current two-way carriageway is being maintained – but the width of the carriageway has been reduced to 6.5m in order to better channelise vehicle movements and cater for a safer environment for pedestrians, cyclists and vulnerable road users. The proposed streetscape improvements will also reduce vehicles speeds and thus enhance the environmental credentials of the area.

The car parking strategy for the area reduces the number of overall car parking spaces and reorientates them in order to enhance the safety of the Main Street and to reduce the number of vehicle manoeuvres within the area. The provision of enhanced cycle and pedestrian facilities along the route will provide an alternative option to the private car, helping to reduce the need for vehicles to park on the Main Street.

It should be noted that once the N52 Ardee Bypass to the northwest of the town is provided this will assist in reducing traffic and HGV movement through the town, thus reducing congestion levels allowing for some ease of access around the town hence cutting down on the reliance on the car.

Autotrack analysis of the main junction and the proposed treatment are contained in Appendix C.

6.9 Visibility and Sightlines

The visibility and sightlines of the proposed junctions along the extent of the route have been maintained or improved on as a result of the new and better defined route alignment along the Main Street.

Irregular oriented on-street parking and wider footpaths have been proposed to ensure better sightlines along the route. Due to the alignment of the route, forward visibility in both directions would be within DMURS guidelines. The landscape proposals for the scheme will be designed / specified to ensure that all sightlines are maintained.

Details of the existing and proposed visibility sightlines are outlined in Table 6.2. The table indicates that although all the junctions do not achieve the required visibility sightlines for a 50kph speed limit, a significant improvement has been made in respect to the visibility at the junction

compared to the existing situation. The table highlights in green the junctions where the visibility has improved from the existing situation.

It should be noted that the proposal has been designed to encourage a reduction in vehicle speeds and would support a town wide 30kph speed limit should it be proposed for the area in line with the Governments proposals to reduce urban speed limits.

Further to discussion with TII, it should be noted that any change of speed limit cannot be approved through the Departures process and that the design, although encouraging a 30kph speed or lower, at this stage would remain within a designated 50kph speed limit zone.

The proposed design, including raised tables and carriageway width, will create an urban environment which results in reduced vehicle speed and once a 30kph speed limit is introduced the visibility requirements will be achieved at more of the junctions.

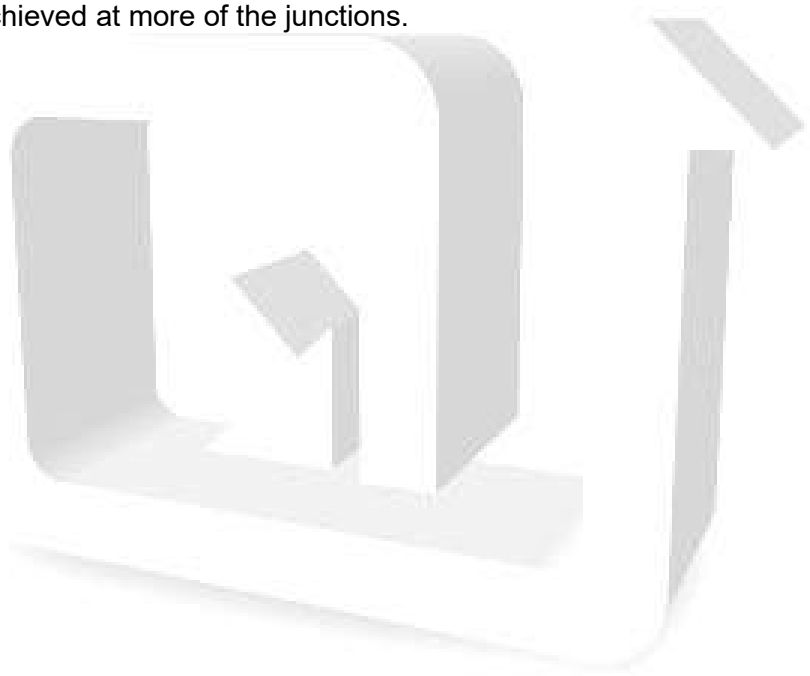


Table 6.2: Existing and Proposed Visibility Sightlines for the N2 Main Junction

Junction	Visibility (metre) Existing	DMURS Requirement	Proposed Available	Comments
Golf Links Road	2.4m x 49m (NB) / 49m (SB)	2.4 x 49m	2.4m x 49m (NB) / 49m (SB)	Existing & DMURS required visibility maintained / provided
Irish Street	2.4m x 37m (NB) / 34m (SB)	2.4 x 49m	2.4m x 49m (NB) / 23m (SB)	NB visibility increased to nearside oncoming traffic. Minor reduction in SB visibility but not critical as traffic travelling on farside lane
Markethouse Lane	2.4m x 11m (NB) / 15m (SB)	2.4 x 49m	2.4m x 11m (NB) / 10m (SB)	Minor reduction on the SB visibility. Not critical visibility as traffic travelling on farside lane.
Access – Ardee Credit Union	2.4m x 7m (NB) / 23m (SB)	2.4 x 49m	2.4m x 49m (NB) / 23m (SB)	Increase / maintained visibility from the access
O'Carroll Street	2.4m x 14m (NB) / 21m (SB)	2.4 x 49m	2.4m x 23m (NB) / 16m (SB)	NB visibility increased to oncoming nearside traffic. Minor reduction in SB visibility but not critical as traffic travelling on farside lane
Barrett's Lane	2.4m x 12m (NB) / 12m (SB)	2.4 x 49m	2.4m x 30m (NB) / 49m (SB)	Increased visibility at the N2 / N52 junction
Malones Terrace	2.4m x 15m (NB) / 8m (SB)	2.4 x 49m	2.4m x 16m (NB) / 8m (SB)	Increase / maintained visibility at the junction
Tierney Street	2.4m x 21m (NB) / 12m (SB)	2.4 x 49m	2.4m x 29m (NB) / 14m (SB)	Increased visibility at the junction

The proposed scheme along the N2 Main Street also maintains access to private properties. Many of these access points currently experience a low level of use. A total of 15-20 potential private access points are located along the scheme and through the reduction / alterations to the design approach of existing car parking on the Main Street the visibility of the access points has been significantly improved or is maintained the same. Due to the historic nature of the area, existing building lines restrict the required visibility being achieved at some locations. However, due to the lower volumes of traffic, if any, using the private access points, the proposed design, including raised tables and carriageway width, will create an urban environment which results in reduced vehicle speed. If a 30kph speed limit is introduced in the future the visibility requirements will be achieved at more of the access points.

Details of the visibility analysis at the main junctions are contained in Appendix C.

6.10 Drainage

The proposed road drainage network will continue to be served by gullies and a pipe network along the Main Street with the inclusion of SuDS measures (green areas, tree pits, etc) where possible. The design of the road drainage will be finalised at detailed design stage, but additional gullies may be provided in order to cater for the proposed changes in vertical alignment at the raised surface areas. A copy of the proposed drainage drawings for the development have been included as part of the additional information submitted for Departure no. 36213.

6.11 Safety Barrier Risk Assessment and Provision

There are no existing vehicle restraint systems (VRS) within the proposed scheme area. No safety barriers protected is proposals along the extent of the scheme.

An assessment of unprotected hazards has been undertaken and no such hazards have been identified along the scheme.

6.12 Traffic Signs and Road Markings

Traffic signs (regulatory, warning, and directional) and road markings have been prepared in accordance with the relevant TII Publications and the Department of Transport, Tourism and Sport Traffic Signs Manual (TSM).

Road markings are designed in accordance with Chapter 7 of the Department of Transport, Traffic Signs Manual and can be reviewed on the relevant drawings.

Signage for the proposed new scheme shall be designed in accordance with the Department of Transport, Traffic Signs Manual.

It is proposed prior to construction, that a review of all road markings and traffic signs through the area will be undertaken, in line with DMURS guidance. This will be done by Louth County Council in consultation with signing and lining designers at detailed design stage. Interactions between the regeneration plan and other schemes will be taken into account as part of this review.

6.13 Accommodation Works

Accommodation works are not applicable at this stage.

6.14 Public Lighting

The external artificial lighting design will generally be provided on 8m poles along Main Street. In certain locations where footpaths are quite wide, a second piggyback light will be mounted at 6m on the same pole to light the path behind. A copy of the proposed streetlighting drawings for the development have been included as part of the additional information submitted for Departure no. 36213 and included in Appendix C.

In regard to the maintaining of the lights, all the street and urban area light fittings are from Philips and are readily available. Lights are to be mounted on pole top mounted right-angle arms/brackets. Poles to be hexagonal or round galvanised steel.

It is proposed to utilise the existing mini-pillars within the redline area for power provision to the new proposed lighting if possible. Existing ESB connection boxes are indicated on the site services drawing provided. The consideration of existing light positions and strip-out works involved in the new lighting scheme installation has not been included as part of this submission.

The lighting scheme has been designed to following:

- Roads and footpaths:

  BS 5489-1:2020, C3 10 lux average, 40% uniformity.

It was highlighted by the ecologist, the importance of reducing the lighting levels around the area of the river due to the presence of bats in the area and to avoid light spill onto the river where possible. Wide beam lights have been used throughout the main street scheme with exception to the bridge where narrow beam lights in addition to louvres within the light fittings will be used to direct the light away from the water and to avoid light spill on the water.

6.15 Departures from Standard

There are no relaxations or departures from TII geometry standards as part of the proposed design.

6.16 DMURS Quality Audit

A DMURS Quality Audit was not carried out for the proposed N2 Main Street Scheme. The objective of "The Design Manual for Urban Roads and Streets" (DMURS) is to achieve better street design in urban areas. This will encourage more people to choose to walk, cycle or use public transport by making the experience safer and more pleasant. The proposed layout for Ardee promotes and prioritises walking and cycling.

Quality Audit is a defined process, independent of, but involving, the design team that, through planning, design, construction and management stages of a project provides a check that high quality places are delivered and maintained by all relevant parties, for the benefit of all end users. Quality Audit is a process, applied to urban roads, traffic management or development schemes, which systematically reviews projects using a series of discrete but linked evaluations and ensures that the broad objectives of place, functionality, maintenance and safety are achieved. The proposed Ardee scheme was designed in line with DMURS guidance. The proposed junction layout and proposed raised pedestrian zones were also designed in line with DMURS guidance.

The proposed design will match the material finishes proposed as part of other proposed schemes for the area at detailed design stage. This will ensure consistency in the design along the route for all users.

6.17 Road Safety Audit – Stage 2

A Stage 1 Road Safety Audit was carried out in accordance with the procedures and scope set out in TII publication number GE-STY-01024 – Road Safety Audit.

Subsequently, following discussions with TII, a Stage 2 Road Safety Audit was carried out in accordance with the procedures and scope set out in TII publication number GE-STY-01024 – Road Safety Audit. A final, signed copy of this report is provided in Appendix D.

No significant problems were identified with the proposed N2 Main Street scheme. All recommendation measures have either been accepted or an alternative identified and will be further reviewed at the prior to detailed design / construction.

Table 6.3 summarises the items raised, and the design team responses are outlined below and have been included were relevant on the final scheme drawings contained in Appendix B.

Table 6.3: Stage 2 Road Safety Audit Items Raised & Measures Suggested for the Proposed Scheme

Paragraph No. in Safety Audit Report (Stage 2)	Measures undertaken to Address the Item
3.1	The Council are promoting sustainable transport modes. A Car Parking Strategy will accompany the future planning application which will outline all car parking options in the centre of Ardee that are within a suitable walking distance to serve the Main Street area. These are existing spaces therefore no new signage will be required to direct people to these spaces.
3.2	All utility poles (with the exception of streetlighting) will be undergrounded as part of the proposed development. The location of streetlighting poles is identified on the proposed streetlighting drawings submitted as part of this additional information response. Pole positions will be reviewed further at detailed design stage.
3.3	There are 3 no. existing loading/trading bays along Main Street. 3 no. loading bays have been provided in a similar position to those existing. We consider that this will ensure that a similar level of accessibility to shops as currently exists remains following the construction of the proposed development.
3.4	Suitable effective width has been provided on revised scheme.
3.5	A standard toucan crossing has been provided at this location.
3.6	There is inadequate space available to the south of the bridge to accommodate an on-road to off road transition directly south of the Bridge Street bridge. Additional road signage will be proposed at the junction of the N2 / R170 which will direct cyclists approaching from the south in this direction. Further signage at the junction of the R170 / Hale Street will direct cyclists to turn up Hale Street to join the start of the proposed cycle lane. The planning application

Paragraph No. in Safety Audit Report (Stage 2)	Measures undertaken to Address the Item
	site boundary has been extended and notes added to the drawings to include additional signage to ensure this design approach is deliverable.
3.7	Suitable tramline tactile paving has been provided and the design amended.
3.8	Due to the physical constraints of this section of Bridge Street no new works, apart from resurfacing works, are proposed in this location. Wide vehicles will continue to operate an informal shuttle system to pass each other on this portion of the road. We do not consider that the introduction of a new pedestrian crossing point to the north of Bridge Street will impact on the informal shuttle system in operation at this location nor will the scheme increase traffic volumes in the area (traffic reduction envisaged).
3.9	Suitable tramline tactile paving has been provided and the design amended.
3.10	Suitable kerb heights have been provided on the relevant scheme drawing. Further detail is provided on the Cross Section drawings provided as part of this additional information response.
3.11	The car park currently operates without any issues and adequate operation turning space is currently available. The car park will be resurfaced as part of the proposed development but no design changes are proposed as part of the proposal.
3.12	Cycle lane directional markings have been provided.
3.13	The proposed development is not aiming to deliver a protected cycle lane as we consider this would impact the overall design appearance of the proposed development, which is a promoting a more pedestrian / cyclist friendly public realm. The proposed design will include a stepped cycle track design as per the requirements of the National Cycle Manual. The introduction of a 30kph speed limit needs to be introduced through a separate procedure to this planning application. The proposed design, including raised tables and carriageway width, will create an urban environment which results in reduced vehicle speed.
3.14	Well defined shared use area has been provided.

Paragraph No. in Safety Audit Report (Stage 2)	Measures undertaken to Address the Item
3.15	Swept path analysis has been undertaken and no issues identified. Autotracking drawings for junctions along the Main Street have been provided.
3.16	Suitable details and traffic calming has been provided.
3.17	Consistent road type has been provided.
3.18	The shared surface will be designed to decrease vehicle speed through the introduction of traffic calming measures.
3.19	Consistent road type has been provided
3.20	Adequate offset has been provided at the edges of the cycle facility.
3.21	Passing bay has been provided to allow for a vehicle to wait off the public road should another vehicle be exiting the private property. This provision should be adequate to meet the needs of the private property.
3.22	Autotrack analysis undertaken and adequate curve radii provided. Autotracking drawings for junctions along the Main Street have been provided.
3.23	An updated cycle lane design has been provided to address the potential issue raised.
3.24	Adequate space to accommodate cycle and pedestrian movements in the area are limited so the provision of a jug handle type arrangement at this location is not possible. As previously outlined in this Audit, the design proposed has been implemented on other national routes in Ireland e.g. N15 example photographs and we consider will lead to a safe access / egress to the cycle lane.
3.25	Open sided bus shelter proposed for this location.
3.26	Footpath has been re-routed to address this concern.
3.27	Lighting column to be relocated to the rear of the footpath.
3.28	Typical details for shared surface bus stop will be incorporated into the proposed design & addressed at the construction stage.
3.29	Suitable kerb heights have been provided as recommended.
3.30	Suitable kerb heights have been provided as recommended.
3.31	Gullies to be provided upstream of all areas identified.

Paragraph No. in Safety Audit Report (Stage 2)	Measures undertaken to Address the Item
3A.1	Kerbs have been amended to reflect the audit item.
3A.2	Arrangement has been amended to reflect the audit comment and an additional crossing point on the cycle facility provided.
3A.3	Tactile paving have been amended to reflect the audit comment.
3A.4	Kerbs have been amended to reflect the audit item.
3A.5	Kerbs have been amended to reflect the audit item.
3A.6	Tactile paving have been amended to reflect the audit comment.

Full details of the Stage 2 Road Safety Audit and the designer response are contained in Appendix D. The design responses have been discussed with the Audit team and agreed.

Section 4.0 Observations of the Stage 2 RSA identifies that the following information was not provided as part of the audit. The following provides clarification on these points.

Observation 4.1

- *Site Clearance* – site clearance details will be subject to the preferred approach / delivery of the project by the appointed contractor. No details were provided at this stage of the project.
- *Cross sections* – cross sections have been submitted as part of this submission. The levels / detail provided as part of the Audit was adequate to identify the proposed kerb heights etc.
- *Some road markings (centreline of N2)* – a review of the road markings has been undertaken. In line with DMURS, the minimal use of marking is proposed but will be further reviewed at detailed design stage.
- *Some signage including directional signage* – it is proposed that directional signage will remain consistent with the current situation as no significant alterations to the traffic flows is proposed Additional signage for cyclist and pedestrian will be incorporated into the scheme at detailed design stage.

- *Utility diversions* – this project is at planning application stage. The diversion route for utilities will be agreed at detailed design stage / construction stage with utilities providers.
- *Ramp gradients at raised tables* – a level is provided at the top and bottom of the raised tables to identify the change in gradient.
- *Colour and type of tactile paving* – high quality materials will be used for the proposed development. The colour and type of tactile paving will be identified at detailed design stage and will comply with the required standards.

Observation 4.2

- *The bridge over the River Dee may need to be checked for additional dead weight and loading due to the propose raised table* – this point has been noted and the structural integrity of the bridge will be assessed at detailed design stage.

Observation 4.3

- *Departures from Standard (Design Cycle Manual and TII Publications where appropriate) have not been provided to the Audit Team* – the Design Team notes this point.

Observation 4.4

- *Some electric vehicle charging points have recently been installed in the car park north of the River Dee bridge* – noted and these will be reused where possible.

Observation 4.5

- *It is assumed that suitable gradient transition kerbs will be provided between the full height kerbs and lower or flush kerbs* – the Design team can confirm that this assumption is correct.

Observation 4.6

- *EV charger locations and infrastructure has not been shown on the drawings* – the spaces that the Design Team have identified for EV charging points have been chosen as they can accommodate chargers without any detrimental impact on pedestrian / cycle movements or road safety.

Observation 4.7

- The swept path for HGV entering Ash Walk would be extremely difficult – the movement can be achieved within the proposed scheme layout however, it is envisaged that the N52 access would typically be used by such vehicles movements.

Appendix A Existing Site Drawings


DUNDALK ROAD
Golf Links Road
Irish Street
Saint Patrick'S Tce
6
7
8
9
10
11
12
GATE
Kerb Top
Building
Barrier
Centreline
Retaining Wall
8170
2500
9130
1960
7630
9650
1920
1670
6330
1810
9610
2200
2920
2060
24.77
24.75
24.74
24.81
24.65
24.76
25.20
25.46
25.51
25.70
25.85
25.40
25.55
25.72
25.81
25.84
25.99
26.05
26.21
25.37
25.34
25.42
25.47
25.54
25.59
25.68
25.82
26.00
25.24
25.39
25.26
25.43
25.56
25.57
25.50
25.52
25.55

Site Boundary
Existing Buildings
Existing Statue
Asphalt Road
Asphalt Paving
Brick Paving
Groundcover Planting with Deciduous Trees
Groundcover Planting
Path
Bus Stop
Bus Stop Shelter
Existing trees

Project: Ardee Main Street	
Project Address:	
Client Name:	Louth County Council
ARROW Architects ApS Nørre Farimagsgade 13. Th. DK-1364, Copenhagen K, Denmark 0045 4226 2860 info@arrowarchitects.com arrowarchitects.com	ARROW
Drawing Name:	LOUX3002-P-000-101-A
Author:	DP
Scale:	1:200
Created On:	14/11/2022
Design Phase:	CP
Page Size:	A1

IRISH STREET

18
20
44
48
37
57

Site Boundary
Existing Buildings
Existing Statue
Asphalt Road
Asphalt Paving
Brick Paving
Groundcover Planting with Deciduous Trees
Groundcover Planting
Path
Bus Stop
Bus Stop Shelter
Existing trees

Project:
Ardee Main Street

Project Address:

Client Name: Louth County Council

ARROW Architects ApS
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Author: DP

Scale: 1:200

Created On: 14/11/2022

Design Phase: CP

Page Size: A1

IRISH STREET

Markethouse Lane

FOSTER CLOSE

Gate
(Site of)

Statue

Ardee Library

11680
2480
2520
2280
2770
6040
4460
10210
2270
5900
4270
2310
12780
2350
2310

44
48
37
57
5
6
7

GATE
Building
Kerb Top
Centreline
TP

- Site Boundary
- Existing Buildings
- Existing Statue
- Asphalt Road
- Asphalt Paving
- Brick Paving
- Groundcover Planting with Deciduous Trees
- Groundcover Planting
- Path
- Bus Stop
- Bus Stop Shelter
- Existing trees

Project:	Ardee Main Street
Project Address:	
Client Name:	Louth County Council

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Author:	DP
Scale:	1:200
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MARKET STREET

Car Park

19 & 21

30

36

Graveyard

16960

7700

14380

2840

2670

2260

3940

13360

5270

3090

GATE

Building

Kerb Top

TP

Site Boundary
Existing Buildings
Existing Statue
Asphalt Road
Asphalt Paving
Brick Paving
Groundcover Planting with Deciduous Trees
Groundcover Planting
Path
Bus Stop
Bus Stop Shelter
Existing trees

Project:
Ardee Main Street

Project Address:

Client Name: Louth County Council

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Drawing Name: LOUX3002-P-000-104-A

Author: DP

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Design Phase: CP

Page Size: A1

MARKET STREET

3090
5270
15710
5490
2060
2950
15450
2420
3800
9840
4720

Emergency Phone
Emergency Phone

Hatch's Castle

O'Carroll Street

GATE
Building
Ramp
Kerb Top
Boundary

- Site Boundary
- Existing Buildings
- Existing Statue
- Asphalt Road
- Asphalt Paving
- Brick Paving
- Groundcover Planting with Deciduous Trees
- Groundcover Planting
- Path
- Bus Stop
- Bus Stop Shelter
- Existing trees

Project:	Ardee Main Street
Project Address:	
Client Name:	Louth County Council

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Author:	DP
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Ash Walk

Bank of Ireland

CASTLE STREET

9840
4720
5730
1860
8560
1640
1350
860
3220
1690
5340
5310
17270
3000
3360
6210
4590
4470
3720
2900
2860
18910

- Site Boundary
- Existing Buildings
- Existing Statue
- Asphalt Road
- Asphalt Paving
- Brick Paving
- Groundcover Planting with Deciduous Trees
- Groundcover Planting
- Path
- Bus Stop
- Bus Stop Shelter
- Existing trees

Project:
Ardee Main Street

Project Address:

Client Name: Louth County Council

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N52

Ardee Castle

CASTLE STREET

Ardee Bread Company Building

Tierney Street

Malone's Terrace

Barrier

Building

STOP

SLOW

Kerb Bottom

18910

1340

960

8320

2980

5850

720

7480

2290

2610

17230

6130

5310

3610

1110

930

850

1670

3660

2000

- Site Boundary
- Existing Buildings
- Existing Statue
- Asphalt Road
- Asphalt Paving
- Brick Paving
- Groundcover Planting with Deciduous Trees
- Groundcover Planting
- Path
- Bus Stop
- Bus Stop Shelter
- Existing trees

Project:
Ardee Main Street

Project Address:

Client Name: Louth County Council

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Author: DP

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Design Phase: CP

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Malone's Terrace

STOP

SLOW

1670

2000

3660

Kerb Bottom

11430

1610

2190

14280

5890

5100

Car Park

28360

24550

3980

8110

1440

River Dee - An Nith

Gate
(Site of)

8690

1440

1210

6280

BRIDGE STREET

1502

840

6670

- Site Boundary
- Existing Buildings
- Existing Statue
- Asphalt Road
- Asphalt Paving
- Brick Paving
- Groundcover Planting with Deciduous Trees
- Groundcover Planting
- Path
- Bus Stop
- Bus Stop Shelter
- Existing trees

Project:
Ardee Main Street

Project Address:

Client Name: Louth County Council

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Drawing Name:	LOUX3002-P-000-108-A
Author:	DP
Scale:	1:200
Created On:	14/11/2022
Design Phase:	CP
Page Size:	A1

- Site Boundary
- Existing Buildings
- Existing Statue
- Asphalt Road
- Asphalt Paving
- Brick Paving
- Groundcover Planting with Deciduous Trees
- Groundcover Planting
- Path
- Bus Stop
- Bus Stop Shelter
- Existing trees

Project:
Ardee Main Street

Project Address:

Client Name: Louth County Council

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Drawing Name:	LOUX3002-P-000-109-A
Author:	DP
Scale:	1:200
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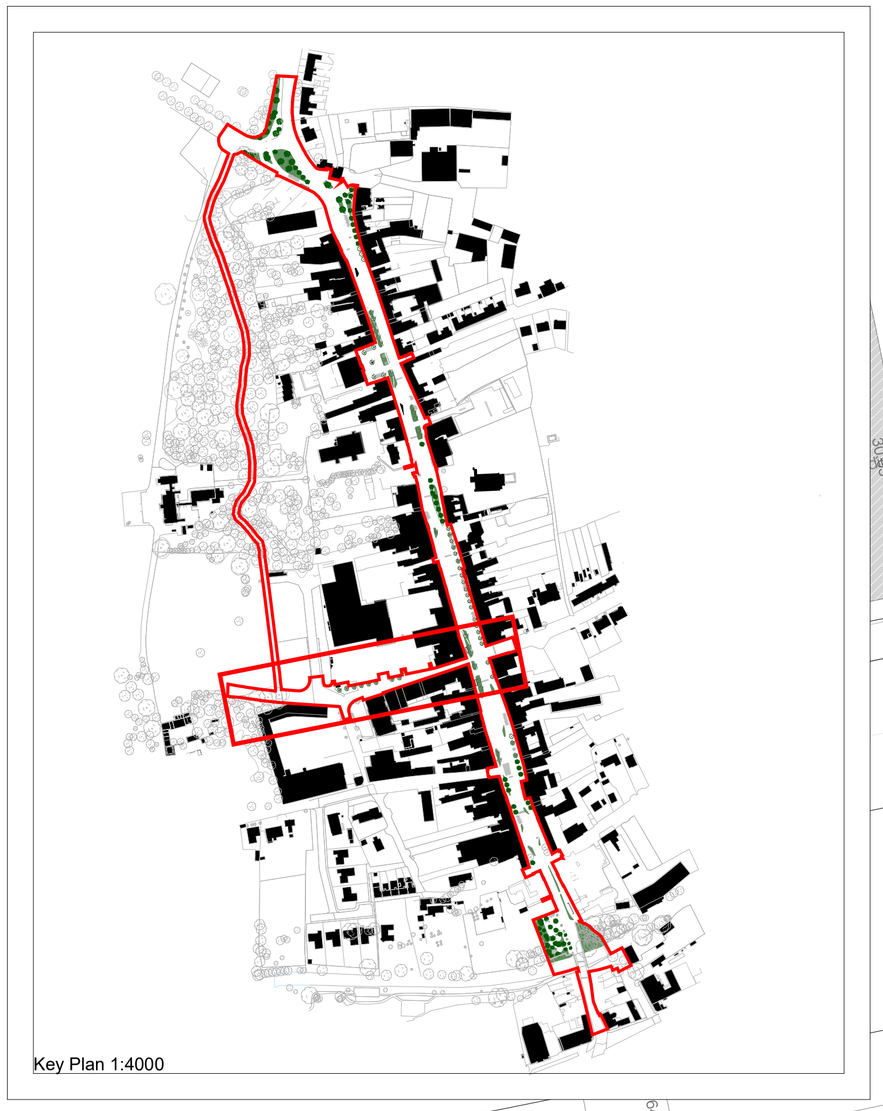
Design Phase:	CP
Page Size:	A1



Ash Walk

CASTLE STREET

Car Park

Car Park

Ashmews Apts.

Car Park

GATE

GATE

Site Boundary
Existing Buildings
Existing Statue
Asphalt Road
Asphalt Paving
Brick Paving
Groundcover Planting with Deciduous Trees
Groundcover Planting
Path
Bus Stop
Bus Stop Shelter
Existing trees

Project:	Ardee Main Street
Project Address:	
Client Name:	Louth County Council

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Drawing Name:	LOUX3002-P-000-110-A
Author:	DP
Scale:	1:200
Created On:	14/11/2022
Design Phase:	CP
Page Size:	A1

Car Park

Car Park

Gate
(Site of)

Car Park

Ashme

- Site Boundary
- Existing Buildings
- Existing Statue
- Asphalt Road
- Asphalt Paving
- Brick Paving
- Groundcover Planting with Deciduous Trees
- Groundcover Planting
- Path
- Bus Stop
- Bus Stop Shelter
- Existing trees

Project:	Ardee Main Street
Project Address:	
Client Name:	Louth County Council

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Scale:	1:200
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Design Phase:	CP
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Appendix B: Proposed Preliminary Scheme Design Drawings

DUNDALK ROAD

GOLF LINKS ROAD

Proposed 'Cycle Lane End'

Existing access

Existing Bollards to be Retained

Existing Gates and Footpath to be Retained

Proposed one-way 1.5m single-file cycleway Red-Coloured Asphalt

Tactile blister paving

Dense Evergreen Planting

Pedestrian and cycleway crossing

Dropped kerbs

Proposed 'Cycle Lane Start'

Proposed one-way 1.5m single-file cycleway Red-Coloured Asphalt

Proposed 6.5m wide carriageway

New Toucan crossing

Tactile blister paving

Pavement Type 1

Proposed one-way 1.5m single-file cycleway

Pedestrian and Cycle Crossing

Bollards

Existing Paving to be Retained

Dropped kerb

Tactile blister paving

Vehicular Access to Private Property Dropped Pavement Type 1

Passing bay

Cycle lane connection

Vehicular access to private property

Dense Evergreen Planting

On-street parking

Bicycle Parking

Wheelchair space

Exterior Seating

Dropped Bicycle Path

Blister tactile paving

Raised pedestrian & cycleway crossing

On-street parking

Kerb Bottom

STOP

6 7 8 9 10 11 12

- Site Boundary
- Area Proposed for Exterior Seating
- Existing Buildings
- Existing Scheduled Monument
- Dark Asphalt
- Light Asphalt
- Groundcover Planting with Evergreen Trees
- Groundcover Planting with Deciduous Trees
- Groundcover Planting
- Groundcover Planting with Wild Flowers
- Planting around Car Parking - max 90cm
- Paving Type 1 - Warm Natural Stone
- Lowered Paving Type 1 - Vehicular Access
- Paving Type 2 - Grey Paving Blocks
- Lowered Paving Type 2 - Vehicular Access
- Blister Tactile Paving
- Bonded Gravel
- Woodland Walk - Gravel Surface
- Woodland Walk - Existing Tarmac Surface (To be retained)
- Raised Asphalt Crossing
- Red Colored Asphalt Bicycle Path (150cm single, 300cm double lane)
- Lowered Bicycle Path - Vehicular Access
- Woodland Walk
- Bus Stop
- Bus Stop Shelter
- Car Parking Type 1 - Light Asphalt
- Car Parking Type 2 - Paved with Natural Stone
- Corten Steel Plate showing transition between character areas
- Accessible Parking
- EV Proposed Electrical Vehicle Charging According to Engineer's details
- LB Loading Bay
- Existing Trees
- Existing Trees to be Felled
- Proposed Evergreen Trees
- Proposed Deciduous Trees
- Wooden Benches
- Wooden Tables
- Moveable Planters
- Metal Bins
- Metal Bicycle Racks
- Sculptural Steel Seating and Playing Element
- Cycle lane ramp

CLIENT
Louth County Council

PROJECT
Ardee Main Street

DRAWING
Proposed Site Plan
SEC1.1 Northern Gateway

PROJECT NUMBER
Lo.06

DRAWING NUMBER
LOUX3002-P-000-112-A

AUTHOR
RPS

REVISION
N/A

STATUS

DATE
25.10.2024

SCALE
1:200 @ A1

ADDRESS

ARROW
Nørre Farimagsgade 13, Mezz. Th.
1364 Copenhagen K

Turley
40 Queen Square, Bristol
BS1 4QP

Bicycle Parking
Wheelchair space
Exterior Seating
Proposed one-way 1.5m single-file cycleway
Open sided bus shelter to be provided
Proposed relocated bus stop
A-A
Dense Evergreen Planting with Gravel Paths
Wheelchair space
On-street parking
Open sided bus shelter to be provided
Corten Steel plate showing change of character area
Proposed relocated bus stop
High visibility pedestrian crossing
Tactile paving
Groundcover Planting - Tall Grass
On-street parking
Proposed one-way 1.5m single-file cycleway Red-Coloured Asphalt
B-B
Pavement Type 2
18
20
44
BUS
IRISH STREET
26.00
26.05
26.15
25.80

- Site Boundary
- Area Proposed for Exterior Seating
- Existing Buildings
- Existing Scheduled Monument
- Dark Asphalt
- Light Asphalt
- Groundcover Planting with Evergreen Trees
- Groundcover Planting with Deciduous Trees
- Groundcover Planting
- Groundcover Planting with Wild Flowers
- Planting around Car Parking - max 90cm
- Paving Type 1 - Warm Natural Stone
- Lowered Paving Type 1 - Vehicular Access
- Paving Type 2 - Grey Paving Blocks
- Lowered Paving Type 2 - Vehicular Access
- Blister Tactile Paving
- Bonded Gravel
- Woodland Walk - Gravel Surface
- Woodland Walk - Existing Tarmac Surface (To be retained)
- Raised Asphalt Crossing
- Red Colored Asphalt Bicycle Path (150cm single, 300cm double lane)
- Lowered Bicycle Path - Vehicular Access
- Woodland Walk
- Bus Stop
- Bus Stop Shelter
- Car Parking Type 1 - Light Asphalt
- Car Parking Type 2 - Paved with Natural Stone
- Corten Steel Plate showing transition between character areas
- Accessible Parking
- EV Proposed Electrical Vehicle Charging According to Engineer's details
- LB Loading Bay
- Existing Trees
- Existing Trees to be Felled
- Proposed Evergreen Trees
- Proposed Deciduous Trees
- Wooden Benches
- Wooden Tables
- Moveable Planters
- Metal Bins
- Metal Bicycle Racks
- Sculptural Steel Seating and Playing Element
- Cycle lane ramp

CLIENT
Louth County Council

PROJECT
Ardee Main Street

DRAWING
Proposed Site Plan
SEC1.2 Northern Gateway

PROJECT NUMBER
Lo.06

DRAWING NUMBER
LOUX3002-P-000-113-A

AUTHOR
RPS

REVISION
N/A

STATUS

DATE
25.10.2024

SCALE
1:200 @ A1

ADDRESS

ARROW
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Turley
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Bristol
BS1 4QP

Groundcover Planting with Deciduous Trees

Tactile paving

Bicycle Parking

Sculptural Play Area with Reflective Surfaces and Wooden Tables

Existing Scheduled Monument

High visibility pedestrian crossing

Tactile paving

No setback priority cycleway crossing

Proposed one-way 1.5m single-file cycleway Red-Coloured Asphalt

Existing access to be retained

Proposed one-way 1.5m single-file cycleway

Loading bay

Loading bay

Bicycle Parking

Tactile paving

No setback priority cycleway crossing

Uncontrolled pedestrian crossing

ARDEE LIBRARY

FOSTER CLOSE

MARKET STREET

MARKETHOUSE LANE

MARKET STREET

- Site Boundary
- Area Proposed for Exterior Seating
- Existing Buildings
- Existing Scheduled Monument
- Dark Asphalt
- Light Asphalt
- Groundcover Planting with Evergreen Trees
- Groundcover Planting with Deciduous Trees
- Groundcover Planting
- Groundcover Planting with Wild Flowers
- Planting around Car Parking - max 90cm
- Paving Type 1 - Warm Natural Stone
- Lowered Paving Type 1 - Vehicular Access
- Paving Type 2 - Grey Paving Blocks
- Lowered Paving Type 2 - Vehicular Access
- Blister Tactile Paving
- Bonded Gravel
- Woodland Walk - Gravel Surface
- Woodland Walk - Existing Tarmac Surface (To be retained)
- Raised Asphalt Crossing
- Red Colored Asphalt Bicycle Path (150cm single, 300cm double lane)
- Lowered Bicycle Path - Vehicular Access
- Woodland Walk
- Bus Stop
- Bus Stop Shelter
- Car Parking Type 1 - Light Asphalt
- Car Parking Type 2 - Paved with Natural Stone
- Corten Steel Plate showing transition between character areas
- Accessible Parking
- EV Proposed Electrical Vehicle Charging According to Engineer's details
- LB Loading Bay
- Existing Trees
- Existing Trees to be Felled
- Proposed Evergreen Trees
- Proposed Deciduous Trees
- Wooden Benches
- Wooden Tables
- Moveable Planters
- Metal Bins
- Metal Bicycle Racks
- Sculptural Steel Seating and Playing Element
- Cycle lane ramp

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PROJECT
Ardee Main Street

DRAWING
Proposed Site Plan
SEC2 Cultural Quarter

PROJECT NUMBER
Lo.06

DRAWING NUMBER
LOUX3002-P-000-114-A

AUTHOR
RPS

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N/A

STATUS

DATE
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SCALE
1:200 @ A1

ADDRESS

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Turley
40 Queen Square, Bristol
BS1 4QP

MARKET STREET

ST MARY'S CHURCH

19 & 21

30

36

Uncontrolled pedestrian crossing

High visibility pedestrian crossing

Corten Steel plate showing change of character area

Groundcover Planting with Deciduous Trees

Tactile paving

On-street parking

Bicycle Parking

Potential pedestrian connection to Woodland Walk & HSE Lands

Wheelchair space

Evergreen Planting with Stepping Stones and Rocks

PROPOSED 6.5m WIDE CARRIAGEWAY

Corten Steel plate showing change of character area

Proposed one-way 1.5m single-file cycleway Red-Coloured Asphalt

Pavement Type 2

- Site Boundary
- Area Proposed for Exterior Seating
- Existing Buildings
- Existing Scheduled Monument
- Dark Asphalt
- Light Asphalt
- Groundcover Planting with Evergreen Trees
- Groundcover Planting with Deciduous Trees
- Groundcover Planting
- Groundcover Planting with Wild Flowers
- Planting around Car Parking - max 90cm
- Paving Type 1 - Warm Natural Stone
- Lowered Paving Type 1 - Vehicular Access
- Paving Type 2 - Grey Paving Blocks
- Lowered Paving Type 2 - Vehicular Access
- Blister Tactile Paving
- Bonded Gravel
- Woodland Walk - Gravel Surface
- Woodland Walk - Existing Tarmac Surface (To be retained)
- Raised Asphalt Crossing
- Red Colored Asphalt Bicycle Path (150cm single, 300cm double lane)
- Lowered Bicycle Path - Vehicular Access
- Woodland Walk
- Bus Stop
- Bus Stop Shelter
- Car Parking Type 1 - Light Asphalt
- Car Parking Type 2 - Paved with Natural Stone
- Corten Steel Plate showing transition between character areas
- Accessible Parking
- EV Proposed Electrical Vehicle Charging According to Engineer's details
- LB Loading Bay
- Existing Trees
- Existing Trees to be Felled
- Proposed Evergreen Trees
- Proposed Deciduous Trees
- Wooden Benches
- Wooden Tables
- Moveable Planters
- Metal Bins
- Metal Bicycle Racks
- Sculptural Steel Seating and Playing Element
- Cycle lane ramp

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PROJECT
Ardee Main Street

DRAWING
Proposed Site Plan
SEC3 Contemplation Quarter

PROJECT NUMBER
Lo.06

DRAWING NUMBER
LOUX3002-P-000-115-A

AUTHOR
RPS

REVISION
N/A

STATUS

DATE
25.10.2024

SCALE
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ADDRESS

ARROW
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Turley
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Bristol
BS1 4QP

Proposed one-way 1.5m single-file cycleway
Red-Coloured Asphalt

Pavement Type 2

On-street parking

Emergency Phone

Wheelchair space

HATCHS CASTLE

Proposed one-way 1.5m single-file cycleway

Proposed 6.5m wide carriageway

54

On-street parking

Circular Deciduous Tree Planters

MARKET STREET

Proposed one-way 1.5m single-file cycleway

Trading bay

Bicycle Parking

66

Proposed 2.0m cycleway

O'CARROLL ST

- Site Boundary
- Area Proposed for Exterior Seating
- Existing Buildings
- Existing Scheduled Monument
- Dark Asphalt
- Light Asphalt
- Groundcover Planting with Evergreen Trees
- Groundcover Planting with Deciduous Trees
- Groundcover Planting
- Groundcover Planting with Wild Flowers
- Planting around Car Parking - max 90cm
- Paving Type 1 - Warm Natural Stone
- Lowered Paving Type 1 - Vehicular Access
- Paving Type 2 - Grey Paving Blocks
- Lowered Paving Type 2 - Vehicular Access
- Blister Tactile Paving
- Bonded Gravel
- Woodland Walk - Gravel Surface
- Woodland Walk - Existing Tarmac Surface (To be retained)
- Raised Asphalt Crossing
- Red Colored Asphalt Bicycle Path (150cm single, 300cm double lane)
- Lowered Bicycle Path - Vehicular Access
- Woodland Walk
- Bus Stop
- Bus Stop Shelter
- Car Parking Type 1 - Light Asphalt
- Car Parking Type 2 - Paved with Natural Stone
- Corten Steel Plate showing transition between character areas
- Accessible Parking
- EV — Proposed Electrical Vehicle Charging According to Engineer's details
- LB — Loading Bay
- Existing Trees
- Existing Trees to be Felled
- Proposed Evergreen Trees
- Proposed Deciduous Trees
- Wooden Benches
- Wooden Tables
- Moveable Planters
- Metal Bins
- Metal Bicycle Racks
- Sculptural Steel Seating and Playing Element
- Cycle lane ramp

CLIENT
Louth County Council

PROJECT
Ardee Main Street

DRAWING
Proposed Site Plan
SEC4.1 Town Centre

PROJECT NUMBER
Lo.06

DRAWING NUMBER
LOUX3002-P-000-116-A

AUTHOR
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STATUS

DATE
25.10.2024

SCALE
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ADDRESS

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Mezz. Th.
1364 Copenhagen K

Turley
40 Queen Square,
Bristol
BS1 4QP

O'CARROLL ST

BANK OF IRELAND

ASH WALK

CASTLE STREET

66

7 & 9

14

C-C

Proposed 2.0m cycleway

Traffic Calming/Speed reducing road markings

Shared surface

Tactile paving

Uncontrolled pedestrian crossing

Tramline paving

Proposed 3.0m two-way cycleway

Toucan crossing

Traffic calming/speed reducing road markings

Groundcover Planting with Deciduous Trees

Wheelchair space

Two-way Bicycle Lane

On-street parking

Circular Deciduous Tree Planters

Corten Steel plate showing change of character area

- Site Boundary
- Area Proposed for Exterior Seating
- Existing Buildings
- Existing Scheduled Monument
- Dark Asphalt
- Light Asphalt
- Groundcover Planting with Evergreen Trees
- Groundcover Planting with Deciduous Trees
- Groundcover Planting
- Groundcover Planting with Wild Flowers
- Planting around Car Parking - max 90cm
- Paving Type 1 - Warm Natural Stone
- Lowered Paving Type 1 - Vehicular Access
- Paving Type 2 - Grey Paving Blocks
- Lowered Paving Type 2 - Vehicular Access
- Blister Tactile Paving
- Bonded Gravel
- Woodland Walk - Gravel Surface
- Woodland Walk - Existing Tarmac Surface (To be retained)
- Raised Asphalt Crossing
- Red Colored Asphalt Bicycle Path (150cm single, 300cm double lane)
- Lowered Bicycle Path - Vehicular Access
- Woodland Walk
- Bus Stop
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- Car Parking Type 1 - Light Asphalt
- Car Parking Type 2 - Paved with Natural Stone
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- Accessible Parking
- EV Proposed Electrical Vehicle Charging According to Engineer's details
- LB Loading Bay
- Existing Trees
- Existing Trees to be Felled
- Proposed Evergreen Trees
- Proposed Deciduous Trees
- Wooden Benches
- Wooden Tables
- Moveable Planters
- Metal Bins
- Metal Bicycle Racks
- Sculptural Steel Seating and Playing Element
- Cycle lane ramp

CLIENT
Louth County Council

PROJECT
Ardee Main Street

DRAWING
Proposed Site Plan
SEC4.2 Town Centre

PROJECT NUMBER
Lo.06

DRAWING NUMBER
LOUX3002-P-000-117-A

AUTHOR
RPS

REVISION
N/A

STATUS

DATE
25.10.2024

SCALE
1:200 @ A1

ADDRESS

ARROW
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Mezz. Th.
1364 Copenhagen K

Turley
40 Queen Square,
Bristol
BS1 4QP

Groundcover Planting with Deciduous Trees

Circular Deciduous Tree Planters

Corten Steel plate showing change of character area

Circular Evergreen Tree Planters

Tactile paving

Tramline Paving

High Quality Brick Paving

High Visibility Pedestrian Crossing

Dropped kerbs

Tactile paving

Tramline Paving

Tactile paving

Movable Planters

On-street parking

Proposed 3.0m two-way cycleway

Proposed 6.5m wide carriageway

On-street parking

Wheelchair space

Wheelchair space

Tactile paving

Tactile paving

Uncontrolled pedestrian crossing

BARRETT'S LANE

ARDEE CASTLE

CASTLE STREET

ARDEE BREAD COMPANY BUILDING

TIERNEY STREET

27

27.50 27.10 27.20 26.80 25.80 25.60

S30P

- Site Boundary
- Area Proposed for Exterior Seating
- Existing Buildings
- Existing Scheduled Monument
- Dark Asphalt
- Light Asphalt
- Groundcover Planting with Evergreen Trees
- Groundcover Planting with Deciduous Trees
- Groundcover Planting
- Groundcover Planting with Wild Flowers
- Planting around Car Parking - max 90cm
- Paving Type 1 - Warm Natural Stone
- Lowered Paving Type 1 - Vehicular Access
- Paving Type 2 - Grey Paving Blocks
- Lowered Paving Type 2 - Vehicular Access
- Blister Tactile Paving
- Bonded Gravel
- Woodland Walk - Gravel Surface
- Woodland Walk - Existing Tarmac Surface (To be retained)
- Raised Asphalt Crossing
- Red Colored Asphalt Bicycle Path (150cm single, 300cm double lane)
- Lowered Bicycle Path - Vehicular Access
- Woodland Walk
- Bus Stop
- Bus Stop Shelter
- Car Parking Type 1 - Light Asphalt
- Car Parking Type 2 - Paved with Natural Stone
- Corten Steel Plate showing transition between character areas
- Accessible Parking
- EV Proposed Electrical Vehicle Charging According to Engineer's details
- LB Loading Bay
- Existing Trees
- Existing Trees to be Felled
- Proposed Evergreen Trees
- Proposed Deciduous Trees
- Wooden Benches
- Wooden Tables
- Moveable Planters
- Metal Bins
- Metal Bicycle Racks
- Sculptural Steel Seating and Playing Element
- Cycle lane ramp

CLIENT
Louth County Council

PROJECT
Ardee Main Street

DRAWING
Proposed Site Plan
SEC5 Heritage Quarter

PROJECT NUMBER
Lo.06

DRAWING NUMBER
LOUX3002-P-000-118-A

AUTHOR
RPS

REVISION
N/A

STATUS

DATE
25.10.2024

SCALE
1:200 @ A1

ADDRESS

ARROW
Nørre Farimagsgade 13,
Mezz. Th.
1364 Copenhagen K

Turley
40 Queen Square,
Bristol
BS1 4QP

Site Boundary
Area Proposed for Exterior Seating
Existing Buildings
Dark Asphalt
Existing Scheduled Monument
Light Asphalt
Groundcover Planting with Evergreen Trees
Groundcover Planting with Deciduous Trees
Groundcover Planting
Groundcover Planting with Wild Flowers
Planting around Car Parking - max 90cm
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Lowered Paving Type 1 - Vehicular Access
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Corten Steel Plate showing transition between character areas
Accessible Parking
Proposed Electrical Vehicle Charging According to Engineer's details
EV
Loading Bay
LB
Existing Trees
Existing Trees to be Felled
Proposed Evergreen Trees
Proposed Deciduous Trees
Wooden Benches
Wooden Tables
Moveable Planters
Metal Bins
Metal Bicycle Racks
Sculptural Steel Seating and Playing Element
Cycle lane ramp

DRAWING
Proposed Site Plan
SECG.1 Southern Gateway

PROJECT NUMBER
LO.06

DRAWING NUMBER
LOUX3002-P-000-119-A

AUTHOR
RPS

REVISION
N/A

STATUS

DATE
25.10.2024

SCALE
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PROJECT
Ardee Main Street

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ADDRESS
ARROW
Nørre Farimagsgade 13.
Mezz. 1th.
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Turley
40 Queen Square.
Bristol
BS1 4QP

ARROW
Turley

BRIDGE STREET
TIERNEY STREET
MALONE'S TERRACE
BUILDING
Car Park
EV EV EV EV
Existing Trees to be Retained
Existing Statue to be Retained
Circular Bicycle Parking
Seating Area with Wooden Tables and Benches
Existing Stone Wall to be Retained
Existing height restriction to be retained
Tactile paving
Uncontrolled pedestrian crossing
Existing path to be resurfaced along the existing route
Existing Trees to be Retained
Existing Path to be Resurfaced
Proposed 'Cyclists Dismount' sign
Bollards
Removable Bollards
Tramline paving
Benches
Proposed 3.0m two-way cycleway
Bollards
Tramline paving
Proposed 'Cyclists dismount' sign
Existing Trees to be Retained
Tactile paving
Uncontrolled pedestrian crossing
Tactile paving

- Site Boundary
- Area Proposed for Exterior Seating
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- Existing Scheduled Monument
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- Wooden Tables
- Moveable Planters
- Metal Bins
- Metal Bicycle Racks
- Sculptural Steel Seating and Playing Element
- Cycle lane ramp

CLIENT
Louth County Council

PROJECT
Ardee Main Street

DRAWING
Proposed Site Plan
SEC6.2 Southern Gateway

PROJECT NUMBER
Lo.06

DRAWING NUMBER
LOUX3002-P-000-120-A

AUTHOR
RPS

REVISION
N/A

STATUS

DATE
25.10.2024

SCALE
1:200 @ A1

ADDRESS
ARROW
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1364 Copenhagen K

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40 Queen Square,
Bristol
BS1 4QP

ARROW
Turley

Proposed one-way 1.5m single-file cycleway

Trading bay

Bicycle Parking

Proposed 2.0m cycleway

Traffic Calming/Speed reducing road markings

Shared surface

Tactile paving

Tramline paving

Toucan crossing

Existing Trolley Bay to be Retained

Traffic calming/speed reducing road markings

Groundcover Planting with Deciduous Trees

Wheelchair space

On-street parking

ASHMEWS APTS.

7 & 9

66

ASH WALK

CASTLE STREET

MARKET STREET

NO ENTRY

- Site Boundary
- Area Proposed for Exterior Seating
- Existing Buildings
- Existing Scheduled Monument
- Dark Asphalt
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- Groundcover Planting
- Groundcover Planting with Wild Flowers
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- Wooden Tables
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- Cycle lane ramp

CLIENT
Louth County Council

PROJECT
Ardee Main Street

DRAWING
Proposed Site Plan
SEC7.1 Ash Walk

PROJECT NUMBER
Lo.06

DRAWING NUMBER
LOUX3002-P-000-121-A

AUTHOR
RPS

REVISION
N/A

STATUS

DATE
25.10.2024

SCALE
1:200 @ A1

ADDRESS

ARROW
Nørre Farimagsgade 13,
Mezz. Th.
1364 Copenhagen K

Turley
40 Queen Square,
Bristol
BS1 4QP

Path surface (10 mm of HDPE cellular paving with
angular gravel covered with 100 mm coarse grit sand bedding layer).
Path base (Min 150 mm of DTP Type 3 granular sub base).
(Please see the construction detail drawing 113)

Proposed "SHARED TRACK FOR PEDAL
CYCLES AND PEDESTRIANS" sign to TSM Dia no. RUS 058

Native wildflower
& grass planting

Proposed 3m wide
Woodland Walk

Timber Bollards (Please see the construction detail drawing 113-1)

Proposed "CYCLISTS DISMOUNT" sign to TSM Dia no. W 145

Footpath

Existing Roar / Footpath to
Connect to Part 8 Approved Road

PROPOSED SCHEME TO TIE IN TO PART 8 SCHEME

Existing Trolley Bay to
be Retained

- Site Boundary
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- Wooden Tables
- Moveable Planters
- Metal Bins
- Metal Bicycle Racks
- Sculptural Steel Seating and Playing Element
- Cycle lane ramp

CLIENT
Louth County Council

PROJECT
Ardee Main Street

DRAWING
Proposed Site Plan
SEC7.2 Ash Walk

PROJECT NUMBER
Lo.06

DRAWING NUMBER
LOUX3002-P-000-122-A

AUTHOR
RPS

REVISION
N/A

STATUS

DATE
25.10.2024

SCALE
1:200 @ A1

ADDRESS

ARROW
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Bristol
BS1 4QP

Appendix C : Design Drawings : Autotracks, Kerb Heights, Visibility Splays & Lighting

N

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Carriageway Types:

Standard Asphalt (To be agreed at Detailed Design Stage / Prior to Construction)

Coloured Asphalt (To be agreed at Detailed Design Stage / Prior to Construction)

rev.	date	description	chk.

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D02 NX53
www.hegsons.com

client:

Louth County Council

job title:

Main Street Ardee
Design Drawings

drawing title:

Engineering Design Drawings

Visibility Splays

scale:	date:	drawn by:	checked by:
1:500	July 2024	MRH	S.S

job number:	drawing number:	revision:
HDC1256	1002 (VS)	04

N

IRISH STREET

DRAWING HDC1256-1002

MARKETHOUSE LANE

Available visibility
11m N. 10m S.

2.4 x 49 m visibility splays

FOSTER CLOSE

MARKET STREET

MARKET STREET

Available visibility
23m S.

2.4 x 49 m visibility splays

Potential pedestrian connection to Woodford Walk & Hill Lands

DRAWING HDC1256-1006

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rev.	date	description	chk.

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client:

Louth County Council

job title:

Main Street Ardee
Design Drawings

drawing title:

Engineering Design Drawings

Visibility Splays

scale:	date:	drawn by:	checked by:
1:500	July 2024	MRH	S.S

job number:	drawing number:	revision:
HDC1256	1004 (VS)	04

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Carriageway Types:

- Standard Asphalt (To be agreed at Detailed Design Stage / Prior to Construction)
- Coloured Asphalt (To be agreed at Detailed Design Stage / Prior to Construction)

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client:

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job title:

Main Street Ardee
Design Drawings

drawing title:

Engineering Design Drawings

Visibility Splays

scale:	date:	drawn by:	checked by:
1:500	July 2024	MRH	S.S

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HDC1256	1006 (VS)	04

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Carriageway Types:

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rev.	date	description	chk.

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client:

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Main Street Ardee
Design Drawings

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Engineering Design Drawings

Visibility Splays

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HDC1256	1007 (VS)	04

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job title:

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Design Drawings

drawing title:

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With Vehicle Tracking

scale:	date:	drawn by:	checked by:
1:500	July 2024	MRH	S.S

job number:	drawing number:	revision:
HDC1256	1002 (VT)	04

N

IRISH STREET

DRAWING HDC1256-1002

MARKETHOUSE LANE

MARKET STREET

FOSTER CLOSE

MARKET STREET

Pedestrian diversion to Woodbrook walk & Dist Lands

DRAWING HDC1256-1006

General Notes:

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HDC1256	1004 (VT)	04

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Design Drawings

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Engineering Design Drawings

With Vehicle Tracking

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1:500	July 2024	MRH	S.S

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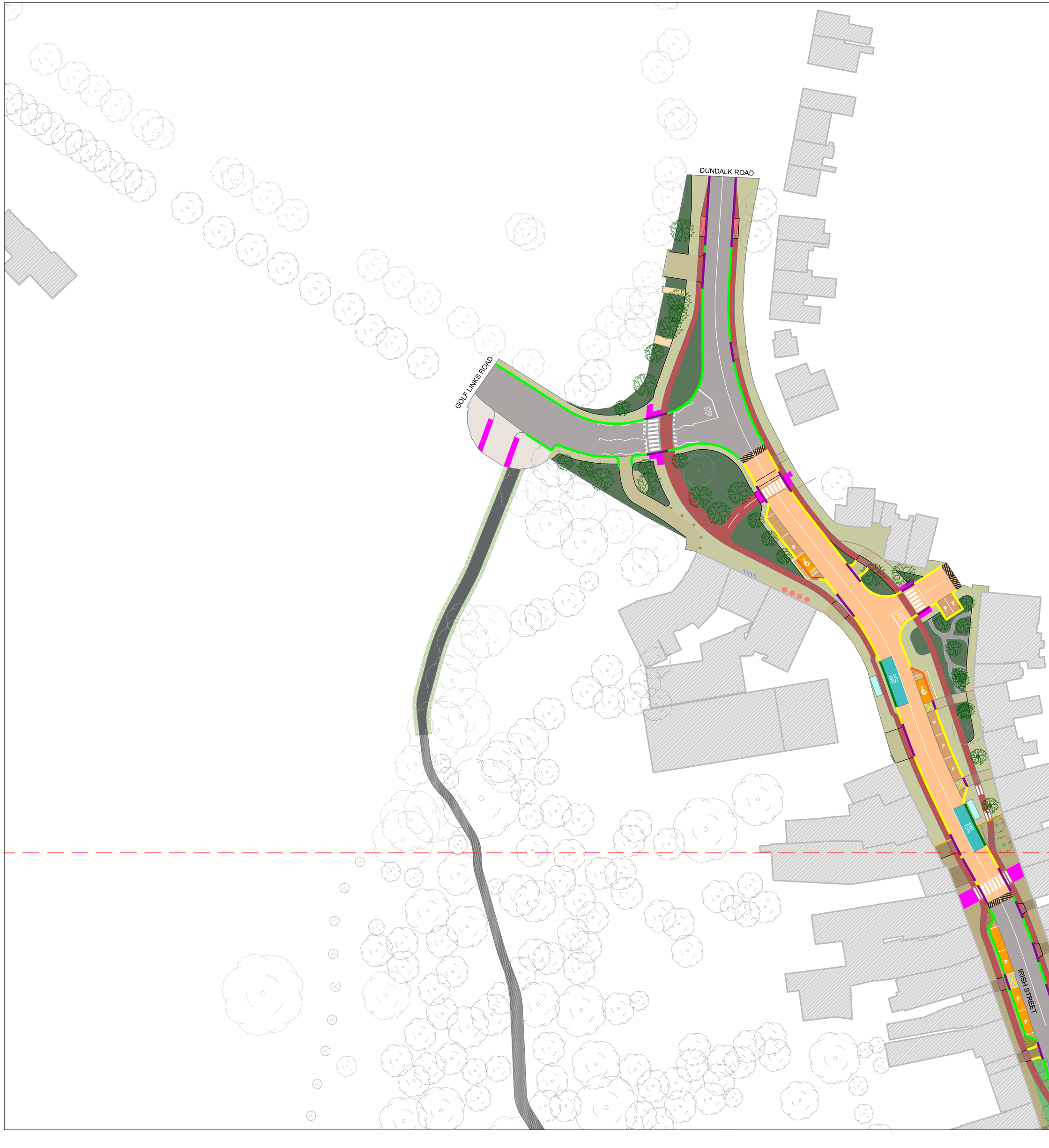
HDC1256	1007 (VT)	04



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Carriageway Types:

Standard Asphalt (To be agreed at Detailed Design Stage / Prior to Construction)

Coloured Asphalt (To be agreed at Detailed Design Stage / Prior to Construction)

Kerb Types:

Standard kerb height - 125mm (Subject to Detailed Design & LCC Specifications)

Flush kerb / upstand max. 50mm (Subject to Detailed Design & LCC Specifications)

Dropped Kerbs must be laid flush with carriageway surface - (Absolute maximum upstand of 6mm).
(Where a shared surface is proposed, a kerb may not be used / embedding kerb line or drainage channel into the carriageway to be proposed - Subject to Detailed Design & LCC Specifications)

Kassel Kerb or equivalent to be placed at bus stops

Flush kerb to be placed at disabled parking bays

rev.	date	description	chk.

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job title:

Main Street Ardee
Design Drawings

drawing title:

Engineering Design Drawings

Kerb Layout

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job number:	drawing number:	revision:
HDC1256	1002 (K)	04

N

IRISH STREET

MARKETHOUSE LANE

MARKET STREET

FOSTER CLOSE

MARKET STREET

DRAWING HDC1256-1002

DRAWING HDC1256-1006

Potential pedestrian connection to Woodbrook Walk & Dog Lands

General Notes:

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Kerb Types:

- Standard kerb height - 125mm (Subject to Detailed Design & LCC Specifications)
- Flush kerb / upstand max. 50mm (Subject to Detailed Design & LCC Specifications)
- Dropped Kerbs must be laid flush with carriageway surface - (Absolute maximum upstand of 6mm). (Where a shared surface is proposed, a kerb may not be used / embedding kerb line or drainage channel into the carriageway to be proposed - Subject to Detailed Design & LCC Specifications)
- Kassel Kerb or equivalent to be placed at bus stops
- Flush kerb to be placed at disabled parking bays

rev.	date	description	chk.

HEGSONS Design Consultancy limited
Pembroke Hall
38/39 Fitzwilliam Sq.
Dublin 2
D02 NX53
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client:

Louth County Council

job title:

Main Street Ardee
Design Drawings

drawing title:

Engineering Design Drawings

Kerb Layout

scale:	date:	drawn by:	checked by:
1:500	July 2024	MRH	S.S

job number:	drawing number:	revision:
HDC1256	1004 (K)	04

N

General Notes:

These drawings have been compiled with input and information provided by other parties and as such Hegsons Design Consultancy Limited accept no liability to the content of this information provided, on these drawings.

Levels and information that have been provided on these drawings are indicative for the planning submission stage and will be subject to detailed design stage prior to construction and safety audits.

In-line with SUD's requirements, the proposed scheme design has taken into account the future design of SUD's measures in respect to nature-based SUDs, the utilising of green areas, tree planting, porous paving with retention measures, such as swales and other measures, and selection of materials. These measures will be incorporated and designed at the detailed design stage of the works prior to construction to meet the SUD's requirements for the project.

Carriageway Types:

- Standard Asphalt (To be agreed at Detailed Design Stage / Prior to Construction)
- Coloured Asphalt (To be agreed at Detailed Design Stage / Prior to Construction)

Kerb Types:

- Standard kerb height - 125mm (Subject to Detailed Design & LCC Specifications)
- Flush kerb / upstand max. 50mm (Subject to Detailed Design & LCC Specifications)
- Dropped Kerbs must be laid flush with carriageway surface - (Absolute maximum upstand of 6mm). (Where a shared surface is proposed, a kerb may not be used / embedding kerb line or drainage channel into the carriageway to be proposed - Subject to Detailed Design & LCC Specifications)
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1:500	July 2024	MRH	S.S

job number:	drawing number:	revision:
HDC1256	1007 (K)	04

LEGEND OF SYMBOLS

DENOTES POSITION OF NEW LIGHTS

Column Quantity - 41
Column Height - 8m
Lantern Quantity - 41
Lantern @ 8m - Philips Milewide gen2 DX10 LED85/740

Column Quantity - 19
Column Height - 8m 'Piggy Back'
Lantern @ 8m - Philips Milewide gen2 DX10 LED85/740
Lantern Quantity - 19

Lantern @ 6m - Philips Milewide gen2 DX50 LED35/740
Lantern Quantity - 19

Column Quantity - 10
Column Height - 6m
Lantern Quantity - 10
Lantern - Philips Milewide gen2 DX50 LED35/740

Column Quantity - 3
Column Height - 8m
Lantern Quantity - 3
Lantern @ 8m - Philips Milewide gen2 DM12 LED65/740

THIS DRAWING INDICATES THE PROPOSED LUMINAIRE LOCATIONS FOR THE NEW LIGHTING DESIGN AND PROPOSED EXISTING ESB MINI PILLARS TO BE UTILISED FOR POWER SUPPLIES.

FOR LIGHTING LEVELS - REFER TO SIGNIFY LAYOUT DRAWINGS.

EXISTING SERVICES HAVE NOT BEEN INCLUDED ON THIS DRAWING AND REMOVAL OR RELOCATION OF SAME HAS NOT BEEN INCLUDED IN THIS JOB SCOPE.

GENERAL LIGHTING FOR ROADS, PATHWAYS AND URBAN AREAS THROUGHOUT LIGHTING SCHEME. LIGHT CONTROLLED BY PHOTOCELL.

FOR CONTINUATION SEE ARD-MET-ZZ-XX-DR-E-6001B

rev	date	description
P04	OCT.'24	FOR PLANNING
P03	OCT.'24	FOR PLANNING
P02	JUL.'24	FOR PLANNING
P01	JUN. '24	FOR PLANNING

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mechanical • electrical • energy

project: ARDEE PUBLIC LIGHTING
client: LOUTH COUNTY COUNCIL
architect: Turley

ISO 9001 · ISO 14001 · OHSAS 18001 · ACEI

drawing title: ARDEE PUBLIC LIGHTING SCHEME MAIN STREET - SHEET 1 OF 2

job no.	drawing no.
21011	ARD-MET-ZZ-XX-DR-E-6001A

drawn by	checked by	approved by
WS	WS	WS

date	scale	rev no.
MAR. '23	1:500 @ A0	P04

EXISTING ESB MINI PILLAR - POSSIBLE SUPPLY FOR PROPOSED PUBLIC LIGHTING

EXISTING ESB MINI PILLAR - POSSIBLE SUPPLY FOR PROPOSED PUBLIC LIGHTING

EXISTING ESB MINI PILLAR - POSSIBLE SUPPLY FOR PROPOSED PUBLIC LIGHTING

EXISTING ESB MINI PILLAR - POSSIBLE SUPPLY FOR PROPOSED PUBLIC LIGHTING

FOR CONTINUATION SEE ARD-MET-ZZ-XX-DR-E-6001A

NOTE:

THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING 6001A

rev	date	description
P04	OCT.'24	FOR PLANNING
P03	OCT.'24	FOR PLANNING
P02	JUL.'24	FOR PLANNING
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project: ARDEE PUBLIC LIGHTING
client: LOUTH COUNTY COUNCIL

architect: Turley

drawing title: ARDEE PUBLIC LIGJHTING SCHEME MAIN STREET - SHEET 2 OF 2

job no.:	drawing no:
21011	ARD-MET-ZZ-XX-DR-E-6001B

drawn by:	checked by:	approved by:
WS	WS	WS

date:	scale:	rev no.:
MAR. '23	1:500 @ A0	P04

Appendix D : Stage 2 Road Safety Audit

Title: **STAGE 2 ROAD SAFETY AUDIT**

For;

Main Street Ardee

Client: **Louth County Council**

Date: **June 2024**

Report reference: **2067R02 Rev 1**

VERSION: **October 2024 Addendum - FINAL**

Prepared By:

Bruton Consulting Engineers Ltd

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CONTENTS SHEET

Contents

1.0 Introduction

This report was prepared in response to a request from Mr. Lee Hannigan, Turley, on behalf of Louth County Council, for a Stage 2 Road Safety Audit of the proposed Ardee Main Street Regeneration Project.

The Road Safety Audit Team comprised of;

Team Leader: **Norman Bruton**, BE CEng FIEI, Cert Comp RSA.

TII Auditor Approval no. NB 168446

Team Member: **Owen O'Reilly**, B.SC. Eng Dip Struct. Eng NCEA Civil Dip Civil. Eng CEng MIEI

TII Auditor Approval no. OO1291756

The Road Safety Audit comprised an examination of the drawings and other material provided and a site visit by the Audit Team, on the 17th of June 2024.

The weather at the time of the site visit was mainly dry however with some rain showers. The road surface was generally dry and became damp.

This Stage 2 Road Safety Audit has been carried out in accordance with the requirements of TII Publication Number GE-STY-01024, dated December 2017.

The scheme has been examined and this report compiled in respect of the consideration of those matters that have an adverse effect on road safety. It has not been examined or verified for compliance with any other standards or criteria.

The problems identified in this report are considered to require action in order to improve the safety of the scheme for road users.

If any of the recommendations within this safety audit report are not accepted, a written response is required, stating reasons for non-acceptance. Comments made within the report under the heading of Observation are intended to be for information only. Written responses to Observations are not required.

A location map showing where each problem occurs is provided in **Appendix A.**

A list of the documents provided to the Audit Team is provided in **Appendix B.**

The feedback form is provided in **Appendix C.**

TII Approval of the Audit Team is provided in **Appendix D.**

A Combined Stage 1&2 Road Safety Audit was carried out in November 2023 by the same Audit Team (report ref 2067R01).

The first version of this report was finalised in July 2024. Since then the design has developed to accommodate private accesses and other minor adjustments along the scheme. This has resulted in some localised changes to the design. This version of the report includes an additional section (Section

3A) which is based on a review of the updated drawings at these locations. The new drawing references are added to Appendix B. For ease of reference and clarity text associated with this October 2024 update is presented in blue.

2.0 Background

Ardee Main Street is part of the N2 National Primary route. The road is a single carriageway, two-way road with footpaths provided on both side of the road along its full length. The carriageway is quite wide at various locations along the Main Street and narrow at one point close to the Dee River crossing.

A number of pedestrian crossing facilities are provided along the street however, no dedicated cycle facilities are provided along the street. A high level of car parking is experienced along the Main Street and a lot of the parking is in an irregular pattern, with combinations of parallel, echelon and perpendicular parking along the street.

The proposed development would consist of:

- Realignment and narrowing of the carriageway on Main Street and alterations / rationalising of on-street parking provision to reduce the overall number of spaces.
- Creation of new urban civic spaces, streets, road junctions, pedestrian pavements and cycle routes.
- Active Travel Upgrades along the Main Street
- Construction of new public realm comprising new hardscape surfaces, kerbing, street furniture, public street and feature lighting, soft landscape planting, cycle parking and signage.
- Alterations to the existing car parking layout outside Ardee Library to create a public plaza.

The site location map is shown below.

For ease of reference and clarity text associated with this October 2024 update is presented in blue.

Image Courtesy of openstreetmap.org

3.0 Issues Identified in this Stage 2 Audit (June 2024)

3.1 Problem (Repeat of Issue 3.1 in the Stage 1&2 RSA)

Location

Throughout the scheme, parking.

Problem

Although the scheme promotes vulnerable road users and active travel there is a risk that the reduction of parking areas will lead to illegal parking on the footpaths and cycle tracks thereby rendering them unsafe for vulnerable road users. Traffic wardens are generally only present in Ardee one day per week to enforce compliance.

Recommendation

It is recommended that sufficient alternative parking spaces be provided close to the Main Street to facilitate those trading in the area. Signage to direct drivers to these parking areas may be required until they are well established for those who can no longer park along the Main Street.

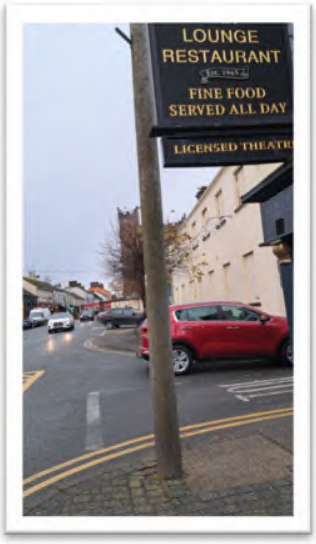
3.2 Problem (Repeat of Issue 3.2 in the Stage 1&2 RSA)

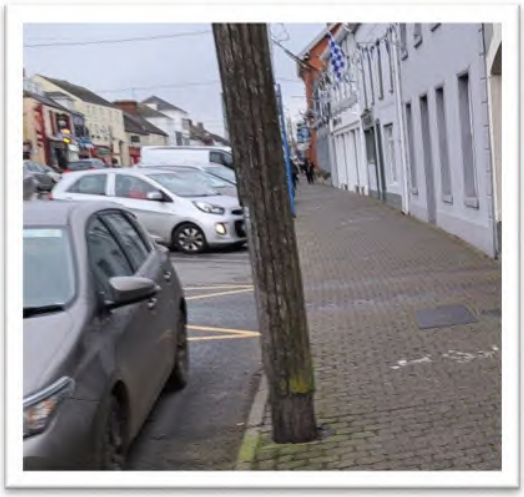
Location

Throughout the scheme, Utility Poles.

Problem

There are some substantial utility poles in the footpaths along the scheme. It is unclear if these poles are to be removed. If they are to remain they present hazards for pedestrians who may collide with them if not looking up, or if the pedestrians are visually impaired and also the poles reduce the effective width of the footpath to such an extent that some pedestrians may step onto the carriageway to avoid them thereby increasing the risk of being struck by a passing vehicle.





Recommendation
It is recommended that the poles be removed.

3.3 Problem (Repeat of Issue 3.3 in the Stage 1&2 RSA)

Location
Throughout the scheme, Loading bays.

Problem
It is noted that some loading bays have been provided along the scheme. Main Street is a long street with many commercial & retail premises. The loading bays may be remote from many shops leading to delivery vehicles parking on the cycle tracks and footpaths thereby blocking the routes for cyclists and pedestrians leading to those vulnerable road users entering the carriageway and being at risk of being struck by passing vehicles.

Recommendation
It is recommended that an assessment be carried out for the need for additional loading bays along the scheme and they should be provided as required.

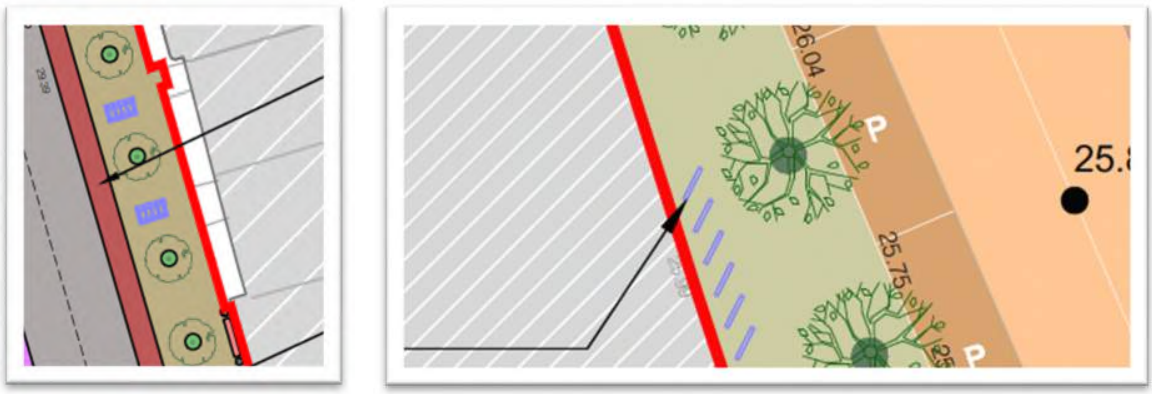
3.4 Problem (Repeat of Issue 3.4 in the Stage 1&2 RSA)

Location

Throughout the scheme, Street furniture including tree pits.

Problem

It is proposed to provide street furniture including trees along the scheme. There is a risk that the effective width of the remaining footpath may be less than the capacity needed to cater for the volumes using it. This could lead to collisions between pedestrians, spillover of pedestrians into cycle tracks or pedestrian collisions with street furniture.



Examples only

Recommendation

It is recommended that a suitable effective width of footpath be maintained throughout the scheme to cater for the typical volumes in Ardee, including increased future pedestrian use as a result of this scheme.

3.5 Problem

Location

Drawing HDC1256 106 Rev 06, Toucan crossing south of Ash Walk.

Problem

The northbound cycle track commences within the L-shaped tactile paving. This area should be shared use and access to the push buttons should be available. The Zebra type road markings should not be provided at toucan crossings as priority may be confusing. A lack of clarity could lead to collisions between vulnerable road users and passing traffic.

Recommendation

It is recommended that a standard layout toucan crossing be provided.

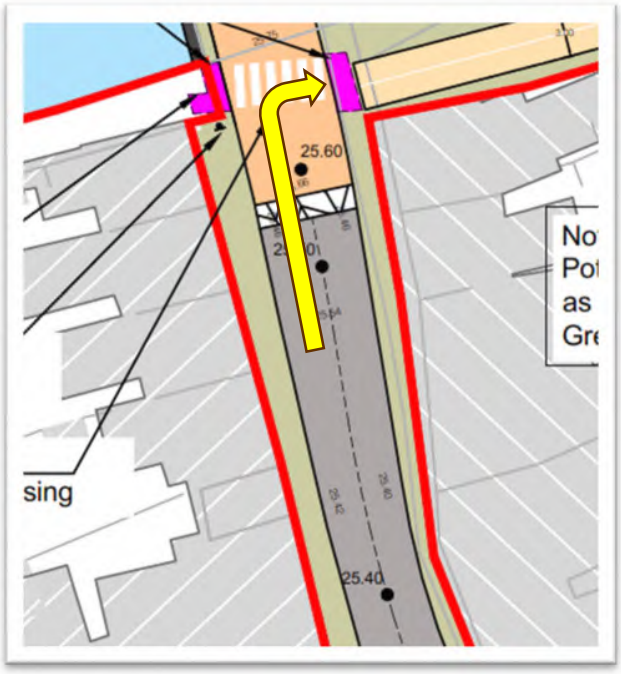
3.6 Problem (Update of Issue 3.6 in the Stage 1&2 RSA)

Location

Drawing HDC1256 107 Rev 07, South of Dee River bridge.

Problem

There is no provision for northbound cyclists to exit the N2 and wait to cross the signalised crossing. Cyclists will therefore continue travelling northbound on the Main Street carriageway thereby increasing the risk of collisions with general traffic. A proposal to direct cyclists via Hale Street was suggested in the Feedback Form of the Stage 1&2 Road Safety Audit. That proposal does not appear to be included in this design update.



Recommendation

It is recommended that a transition from on-road to off-road be provided for cyclists.

3.7 Problem

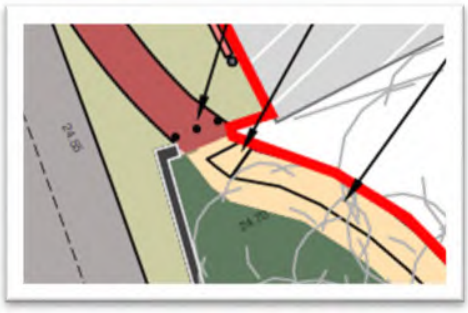
Location

Drawing HDC1256 107 Rev 07, Interface of Shared use and cycle only facilities.

Problem

A lack of guidance at the interface of shared use and cycle only facilities could lead to blind or partially sighted pedestrians entering a cyclists only area which would increase the likelihood of a collision with cyclists.

Examples only



Recommendation
It is recommended that suitable tramline tactile paving be provided at the interfaces.

3.8 Problem (Repeat of Issue 3.8 in the Stage 1&2 RSA)

Location
Drawing HDC1256 107 Rev 07, South of Dee River bridge.

Problem
There is a pinch point in the carriageway south of the bridge. Wide vehicles currently operate an informal shuttle system to pass each other. This may not be possible with the introduction of the new crossing as vehicles may be stuck in position while queuing at the signals. This could lead to side-swipe collisions, damage to bollards and mounting of the footpath. It is noted from the site visit that queuing on the N2 is common for long periods of each day. (It was observed during the most recent site visit that flexible bollards in the footpath at this location have been struck many times and have collapsed)

Recommendation
It is recommended that an analysis be carried out of the likelihood of queues at the pinch point and the possible need for a longer formal shuttle system.

3.9 Problem

Location

Drawing HDC1256 107 Rev 07, Pedestrian /cyclists bridge over the River Dee.

Problem

The two-way cycle track leads to a shared use area on approach to the bridge. Pedestrians have no area to join the shared use area. This could result in pedestrians crossing the road bridge which has a very narrow footpath and pedestrians would be subject to wind forces from heavy goods vehicles possibly leading to loss of balance.

Recommendation

It is recommended that an area be provided for pedestrians to access the pedestrian bridge.

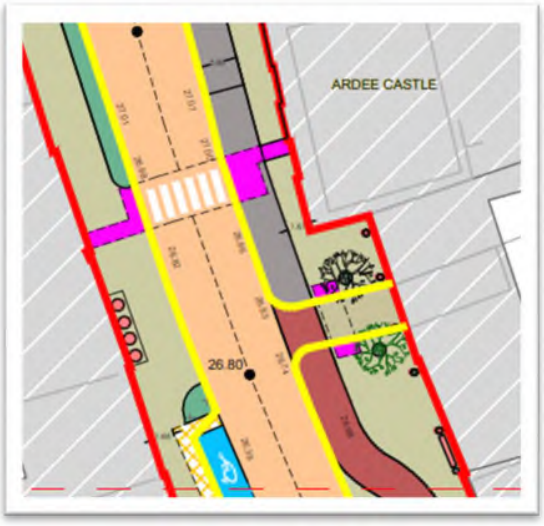
3.10 Problem

Location

Drawing HDC1256 107 Rev 06, General issue, Flush kerbs.

Problem

It is proposed to provide flush kerbs between the footpaths and cycle tracks at areas of raised tables. Given the arterial nature of the N2 and the high percentage of HGVs there will be no resistance to overrun by wide vehicles and no containment of errant vehicles. The flush kerbs will lead to higher turning speeds at side roads and private accesses which would increase injury severity if a vulnerable road user is struck. The flush kerbs also provide no warning for blind or partially sighted pedestrians that they could be entering an area trafficked by vehicles.



Example area only.

Recommendation

It is recommended that a suitable kerb upstand be provided except at pedestrian crossing areas.

3.11 Problem (Repeat of Issue 3.11 in the Stage 1&2 RSA)

Location

Drawing HDC1256 107 Rev 07, Car park north of Dee River crossing.

Problem

Some proposed car parking spaces appear to be difficult to enter and egress especially if the adjacent spaces are occupied. This could lead to material damage of vehicles or inaccessibility for some users with mobility impairment but not sufficient to be entitled to use the disabled spaces.

Recommendation
It is recommended that adequate turning space be provided for all car parking spaces.

3.12 Problem

Location
Drawing HDC1256 107 Rev 0, Two-way cycle track.

Problem
The two -way cycle track along the eastern side may not be obvious to all users that it is two-way This could lead to lack of discipline by cyclists travelling side by side thereby increasing the risk of collisions with oncoming cyclists.

Recommendation
It is recommended that additional cycle road marking logos with arrow heads be provided at regular intervals. (These are provided on some drawings).

3.13 Problem (Update of Issue 3.13 in the Stage 1&2 RSA)

Location
Drawing HDC1256 107 Rev 07, Cycle track adjacent to the carriageway.

Problem
Some portions of the two-way cycle track are adjacent to the N2 carriageway. The N2 (being a national primary route linking Dublin to Derry and connecting with the N52 (without tolls) has a high percentage of heavy goods vehicles (HGVs) and the lack of a buffer could lead to less confident cyclists wobbling,

especially if affected by the wind forces associated with HGVs, resulting in collisions. This may particularly be an issue at raised tables where there are flush kerbs only to segregate cyclists from general traffic. There was a suggestion of having a 30km/hr speed limit in Ardee town centre in the feedback form of the Stage 1&2 Road Safety Audit. This does not however appear to be part of the current proposal.

Recommendation

It is recommended that the 30km/hr speed limit be confirmed or that a buffer zone, bollards or a suitable kerb upstand be provided.

3.14 Problem (Repeat of Issue 3.14 in the Stage 1&2 RSA)

Location

Drawing HDC1256 107 Rev 07, Pedestrian Crossing at Ardee Castle.

Problem

The pedestrian crossing at Ardee castle has a two-way cycle track on the eastern side. A lack of warning could lead to blind or partially sighted pedestrians not realising they are sharing space with cyclists.

Recommendation

It is recommended that a well-defined shared area be provided with suitable ladder and tramline tactile paving at either side. This applies to other similar crossings throughout the scheme.

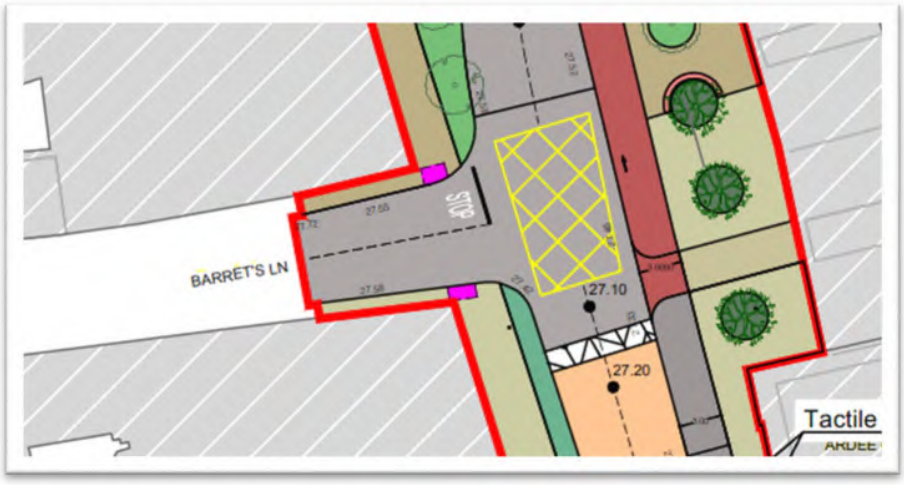
3.15 Problem (Repeat of Issue 3.15 in the Stage 1&2 RSA)

Location

Drawing HDC1256 107 Rev 07, N52 Barret's Lane.

Problem

The N52 is a national secondary road which is proposed to bypass Ardee in the future as part of a separate scheme. There is however no guarantee that this scheme will progress and a high volume of HGVs will continue to use the N52 if this scheme progresses. Although the N52 junction is being built out from its current layout it is unclear if HGVs will be able undertake the turning manoeuvres from and to the N2 in both directions. A lack of space would lead to overrunning of the footpaths, cycle track or side swipe/head -on collisions with other vehicles.



Recommendation

It is recommended that a swept path analysis be carried out for HGVs to ensure that turning manoeuvres can be undertaken. If this cannot be achieved a signalised junction may be required.

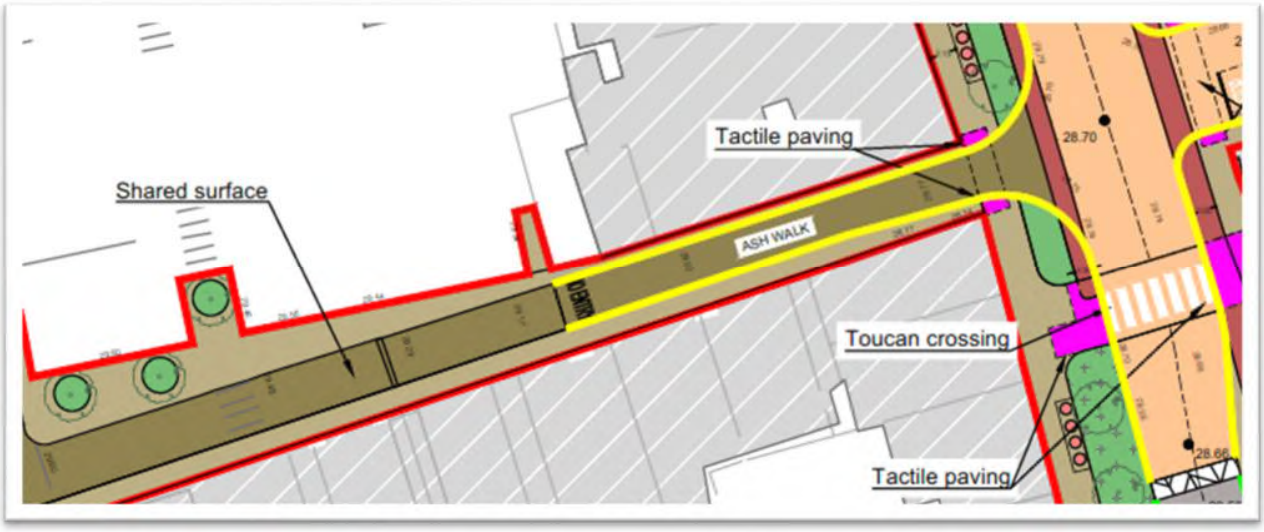
3.16 Problem

Location

Drawing HDC1256 106 Rev 06, Ash Walk, Shared Street.

Problem

Ask Walk is shown to be a 'Shared Street' It is unclear what distinguishing features or what signage will be provided to indicate this to users, especially drivers, as they enter this area. It appears that the footpaths are to be retained beyond the initial section from the N2 which does not signify a shared street but segregated facilities for pedestrians. A lack of clarity can lead to drivers presuming priority resulting in collisions.



Recommendation

It is recommended suitable details be provided to denote a 'shared street' at its transition from the N2.

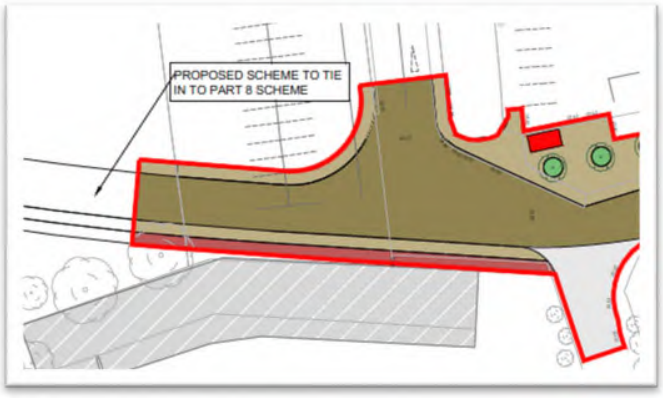
3.17 Problem

Location

Drawing HDC1256 106 Rev 06, Ash Walk.

Problem

Ash Walk is shown to tie-into a Part 8 scheme at the western end. Ash Walk is shown as a 'Shared Street'. It is unclear if the Part 8 scheme is to be a shared street and if its nature and use will therefore be consistent. A change of street type could increase the risk of collisions with vulnerable road users.



Recommendation
It is recommended that consistency in street type be provided.

3.18 Problem (Repeat of Issue 3.18 in the Stage 1&2 RSA)

Location
Drawing HDC1256 106 Rev 06, Ash Walk.

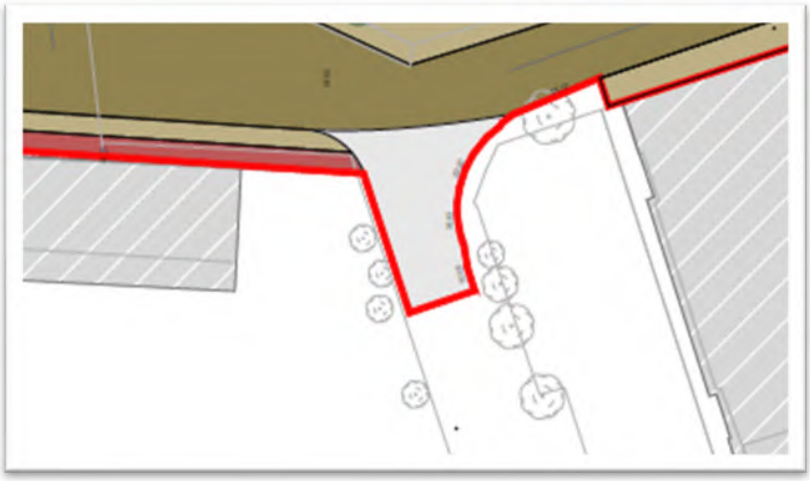
Problem
Ash Walk is relatively long and straight and one-way. This could lead to high vehicle speeds. High speeds leads to high injury severity if a vulnerable road users is struck by an errant vehicle.

Recommendation
It is recommended that traffic calming be provided along Ash Walk. (It is unclear if an existing raised table is to be retained)

3.19 Problem

Location
Drawing HDC1256 106 Rev 06, Ash Walk, tie in with link road to the N52.

Problem
The link road to the N52 from Ash Walk is not shown to be a shared street. A change of street type could increase the risk of collisions with vulnerable road users.



Recommendation

It is recommended that that consistency in street type be provided or that a suitable transition be provided.

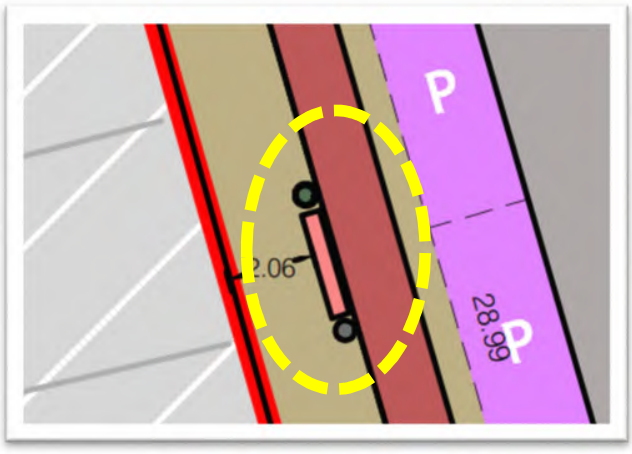
3.20 Problem

Location

Drawing HDC1256 106 Rev 06, benches adjacent to the cycle lane.

Problem

It is proposed to provide benches adjacent to the cycle track. If they are located too close to the cycle track they may be hazards for cyclists who may get their handlebars caught leading to loss of control and falls.



Example only

Recommendation

It is recommended adequate offset be provided at the edges of the cycle track without obstacles.

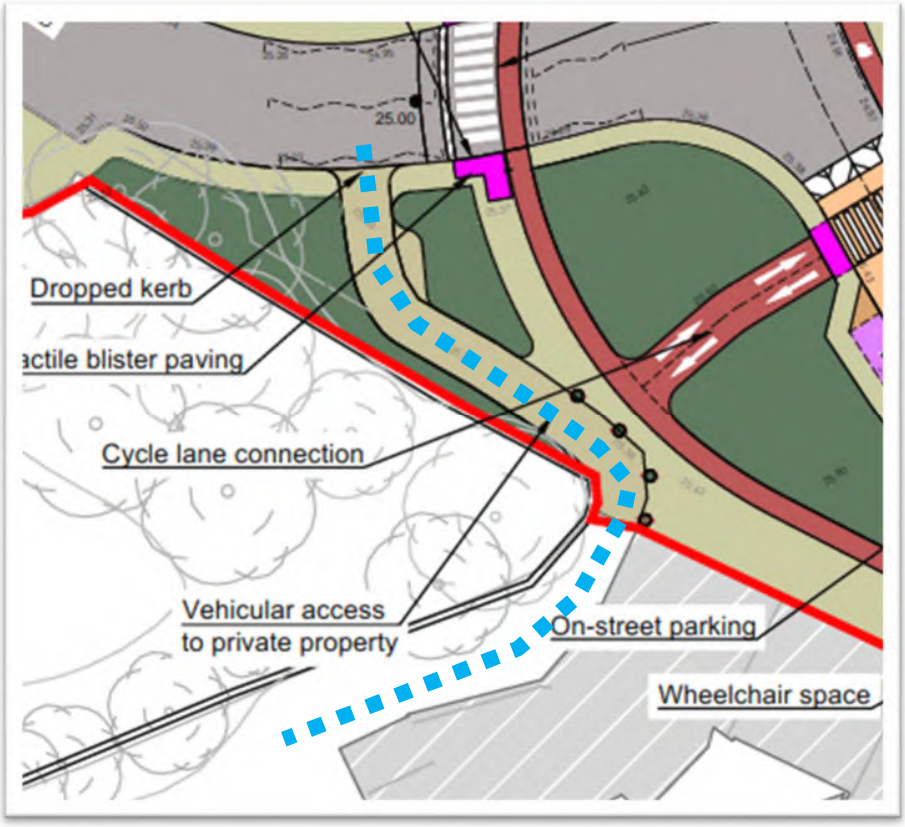
3.21 Problem (Repeat of Issue 3.21 in the Stage 1&2 RSA)

Location

Drawing HDC1256 102 Rev 07, Vehicular Access to Public House.

Problem

The vehicular access to the car park of the bar at the junction of Golf Links Road is for a single vehicles only. Drivers entering the route will not have inter-visibility to drivers leaving which could lead to reversing onto Golf Links Road resulting in collisions with through traffic or crossing pedestrians.



Recommendation

It is recommended that a passing bay be provided. Depending on the amount of usage this lane may need to be segregated from the pedestrian route.

3.22 Problem

Location

Drawing HDC1256 102 Rev 07, Golf Links Road Junction.

Problem

The corner radii at the Golf Links Road junction with the N2 are large. This could lead to high turning speeds and thus higher severity collisions.

Recommendation

It is recommended that the corner radii be reduced

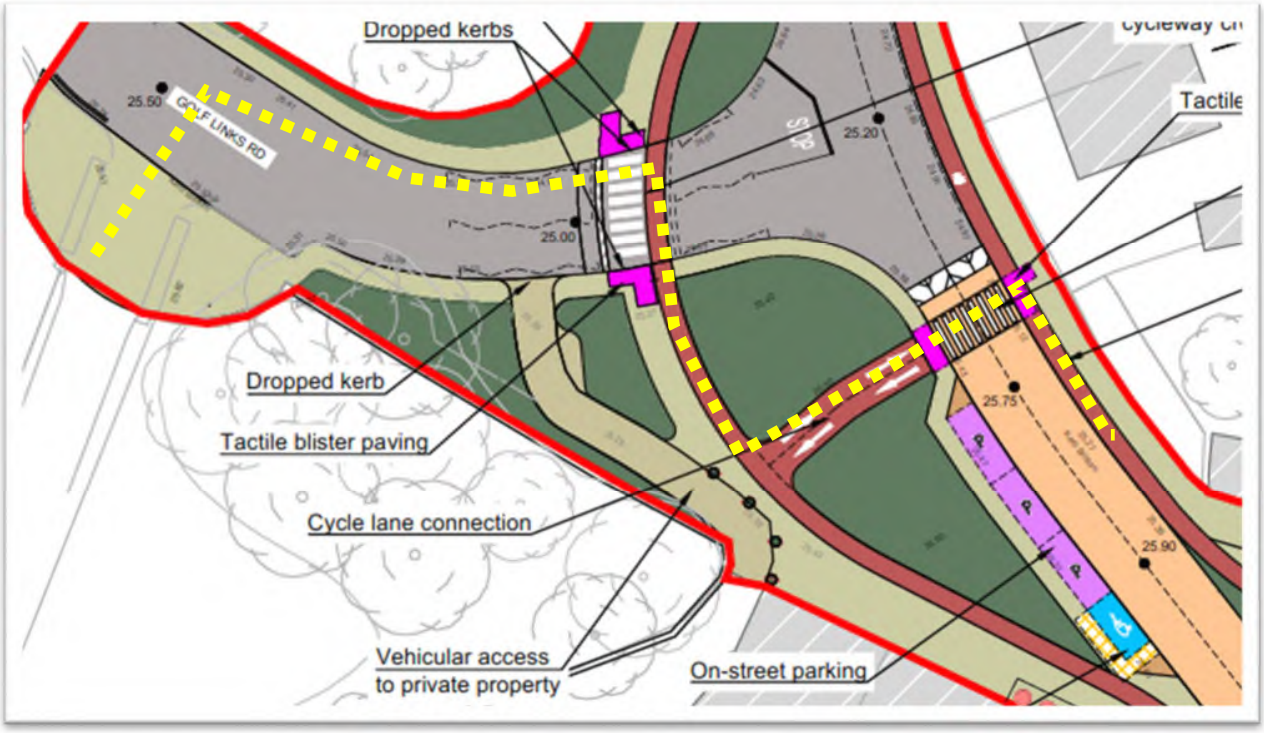
3.23 Problem

Location

Drawing HDC1256 102 Rev 07, Crossing on Golf Links Road.

Problem

A two-way section of cycle track is proposed to allow cyclists access the southbound cycle track. There is however no link for cyclists coming from Golf Links Road to do so. The new developments on the St. Joseph's site will generate cyclists movements that are not catered for. A lack of facilities will lead to cyclists travelling contra flow on the northbound cycle track which would increase the likelihood of collisions with other cyclists.



Recommendation

It is recommended that a link to the southbound site be provided to avoid cyclists travelling contraflow on the northbound cycle track.

3.24 Problem (Repeat of Issue 3.24 in the Stage 1&2 RSA)

Location
Drawing HDC1256 102 Rev 07, Northern cycle track tie-in.

Problem
The northbound cycle track tapers gently from off-road to on-road. This could lead to cyclists entering the busy N2 without looking to see if traffic is approaching. This could lead to 'squeezing' and collisions especially as the N2 carriageway width has been reduced.

Recommendation
It is recommended that the cycle track be terminated with a jug turn type arrangement whereby cyclists will be perpendicular to traffic and will have to stop before entering the carriageway.

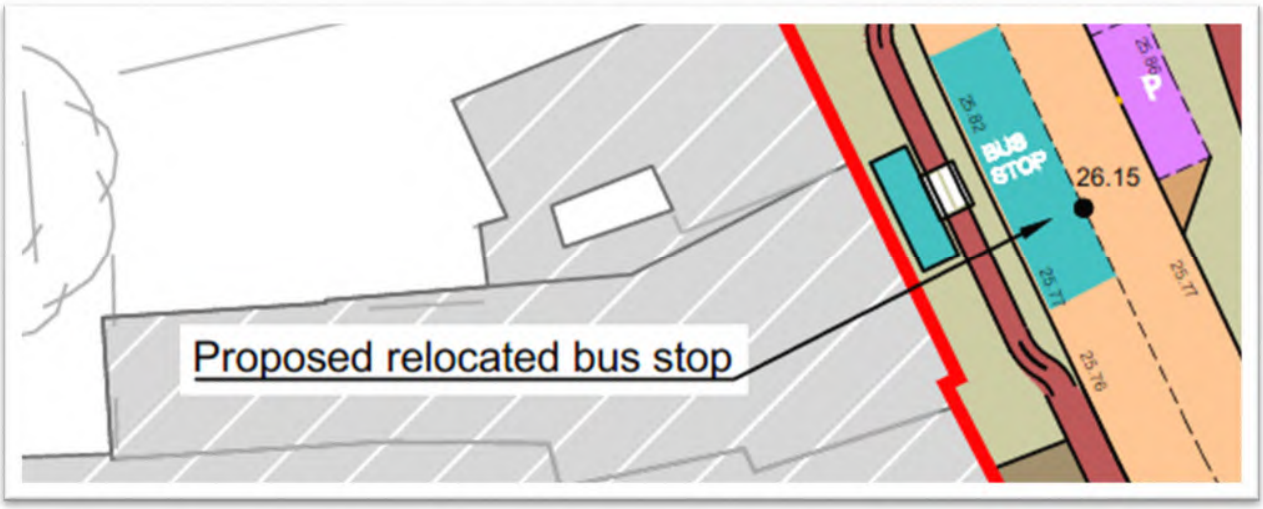
3.25 Problem

Location

Drawing HDC1256 102 Rev 07, Northbound bus shelter.

Problem

It is unclear what type of bus shelter is proposed at the relocated northbound bus stop. A full panel shelter could lead to a lack of space for pedestrians to pass leading to some pedestrians entering the cycle track where they would be at risk of being struck by passing cyclists.



Recommendation

It is recommended that a suitable type shelter be provided to avoid excessive restrictions in the footway.

3.26 Problem

Location

Drawing HDC1256 102 Rev 07, Disabled parking space.

Problem

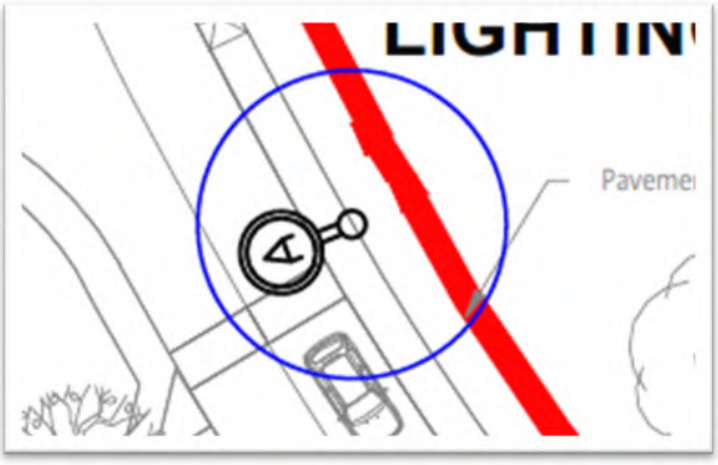
The buffer zone for the disabled parking space to the south of the southbound bus stop coincides with the footpath. It is unclear what the levels will be and if a wheelchair user will be able to use the space freely to access all areas of the car. A lack of space could lead to users entering the carriageway where they would be at greater risk of being struck by a passing vehicle.

Recommendation
It is recommended that that the footpath be rerouted to the rear of the buffer zone.

3.27 Problem

Location
Drawing ARD-MET-ZZ-XX-DR-E-6001A Rev P01, Lighting Columns, General issue.

Problem
Some lighting column locations are shown on the boundary between the cycle track and the footpath. The columns would be hazards for both cyclists and pedestrians.



Example only

Recommendation
It is recommended that the columns be located to the rear of the footpath or in green areas.

3.28 Problem

Location

Drawing HDC1256 102 Rev 07 (kerbs)

Problem

Flush kerbs are shown at the bus stops. This could lead to inaccessibility for some users resulting in loss of balance and falls.

Recommendation

It is recommended that kassel kerbs be provided at the bus stops with suitable transition gradients.

3.29 Problem

Location

Drawing HDC1256 106 Rev 06 (kerbs)

Problem

Full height kerbs are shown through the buffer zones of the disabled parking spaces. This could lead to inaccessibility, loss of balance, inability to use wheelchairs and to users entering the carriageway where they would be at greater risk of colliding with passing vehicles.

Example only

Recommendation

It is recommended that suitable kerbing and access to the footpath be provided outside the buffer zones.

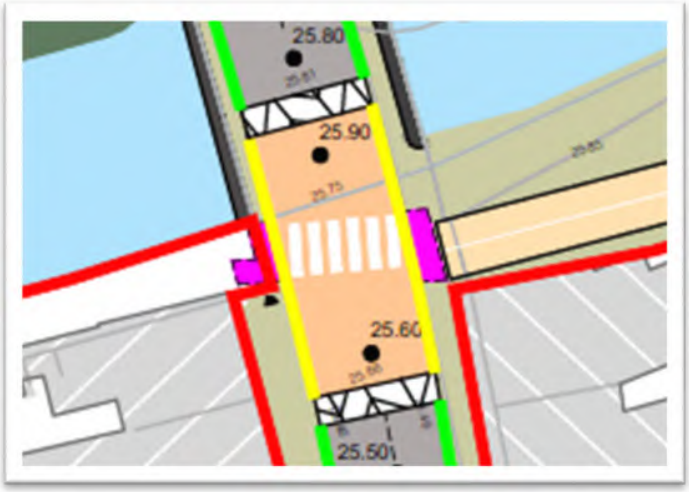
3.30 Problem

Location

Drawing HDC1256 1002Rev 06 (kerbs)

Problem

Flush kerbs are shown at the raised table partially over the river Dee bridge. A lack of kerb upstand will lead to no resistance to errant vehicle whose driver may loose concentration even at low speed resulting in a collision with the bridge parapet. This could lead to structural damage.



Recommendation

It is recommended that flush kerbs only be provided at the crossing point.

3.31 Problem

Location

Drawing 533273-NOD-01-XX-DR-C-020101 P03, Gullies at raised tables and crossing points for pedestrians and cyclists.

Problem

Gullies have not been provided upstream of each raised table and each pedestrian/cyclist crossing. This could lead to surface water ponding, loss of traction and loss of control in icy weather and slips and falls for vulnerable road users.

Example only

Recommendation

It is recommended that gullies be provided upstream of all raised area and crossing points to avoid surface water ponding.

3A Issues Identified in this Stage 2 Audit (October 2024)

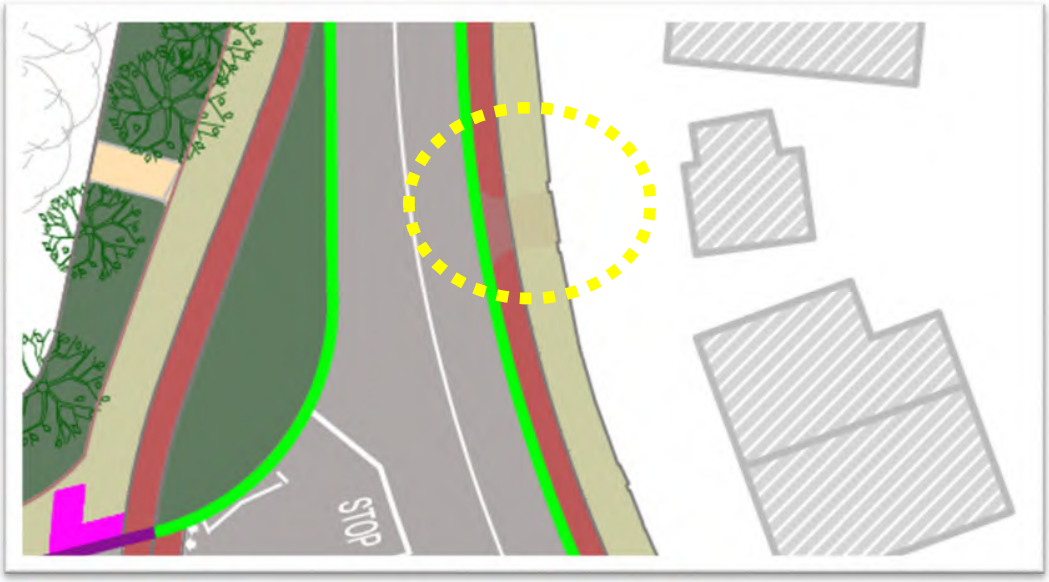
3A.1 Problem

Location

Drawing HDC1256 1002 (K) Rev 03 Kerb Layout, Access to private garage off N2.

Problem

The drawing shows a 125mm high kerb at the proposed vehicular access to the private garage on the eastern side of the N2 just north of the Golf Links Road junction. A high kerb could lead to vehicles 'bouncing back' when trying to access the driveway to the garage resulting in rear-end collisions.



Recommendation

It is recommended that the kerb height be adjusted to facilitate vehicular access.

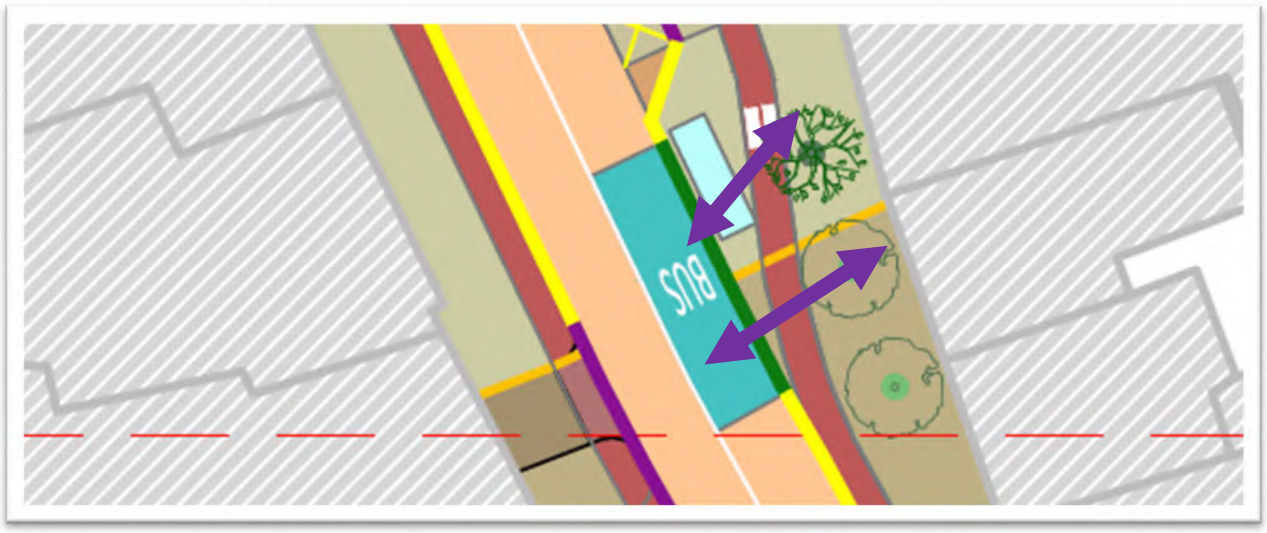
3A.2 Problem

Location

Drawing HDC1256 1002 (K) Rev 03 Kerb Layout, Relocated Bus stop and bus shelter, south bound.

Problem

The location of the bus shelter between the bus stop and the pedestrian crossing of the cycle track does not appear to allow enough space for pedestrian movements from the footpath if the shelter will have back or front panels. This could lead to pedestrians crossing the cycle track away from the highlighted striped areas resulting in a higher likelihood of collision with cyclists who do not expect pedestrians to cross. Also, if passengers alight from the front of the bus there is very little space between where they will step out and the cycle track. This could lead to collisions with passing cyclists.



Recommendation

It is recommended that the layout be changed to provide adequate space for bus users without conflict with cyclists.

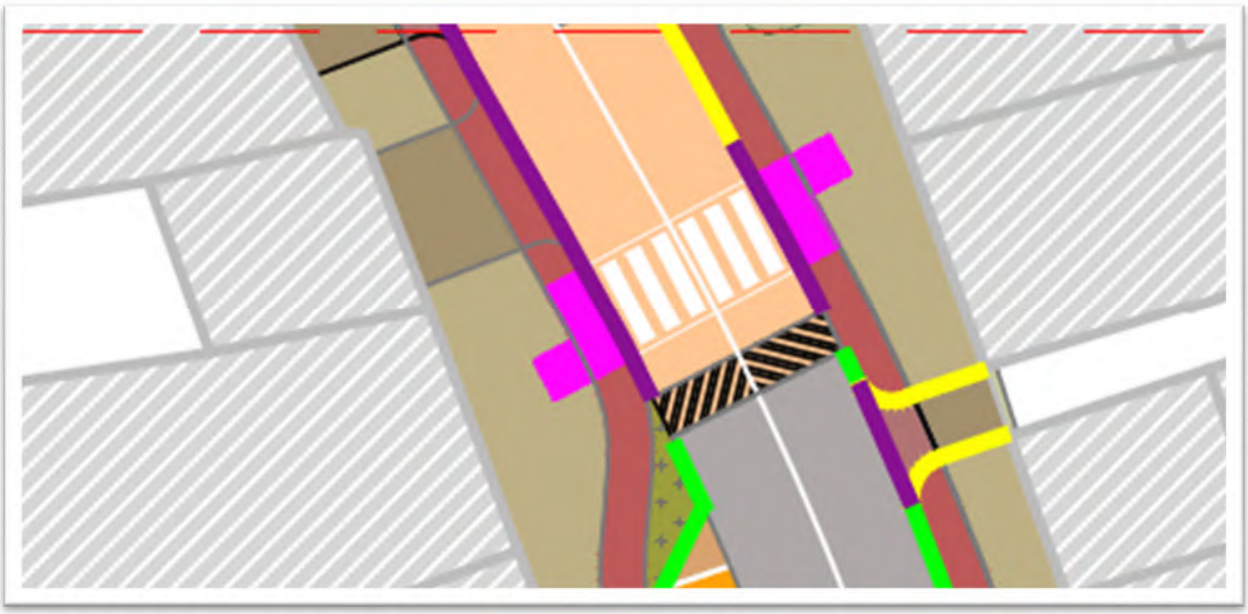
3A.3 Problem

Location

Drawing HDC1256 1002 (K) Rev 03 Kerb Layout, Zebra Crossing.

Problem

The tactile paving for the zebra crossing is within the cycle lane. It may not be clear to cyclists that pedestrians have priority as they approach the crossing. This could result in collisions between the two user groups.



Recommendation

It is recommended that a shared use area be developed at both sides of this zebra crossing and other similar crossings.

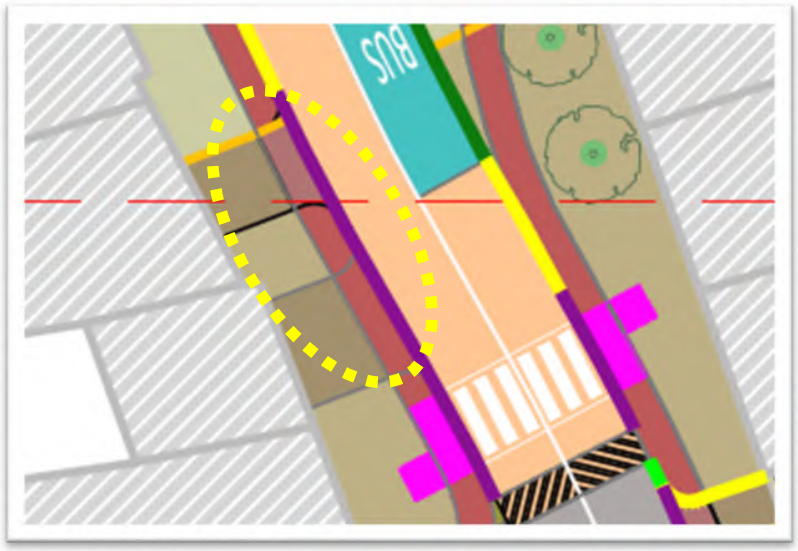
3A.4 Problem

Location

Drawing HDC1256 1002 (K) Rev 03 Kerb Layout, Flush Kerbing.

Problem

Flush kerbing is provided beyond the extents of the crossing areas at the zebra crossing. A blind or partially sighted pedestrian may inadvertently enter the carriageway if they cannot detect a level difference. This could result in collisions with passing vehicles.



Example only

Recommendation

It is recommended that flush kerbs only be provided at crossing points or access areas for pedestrians only.

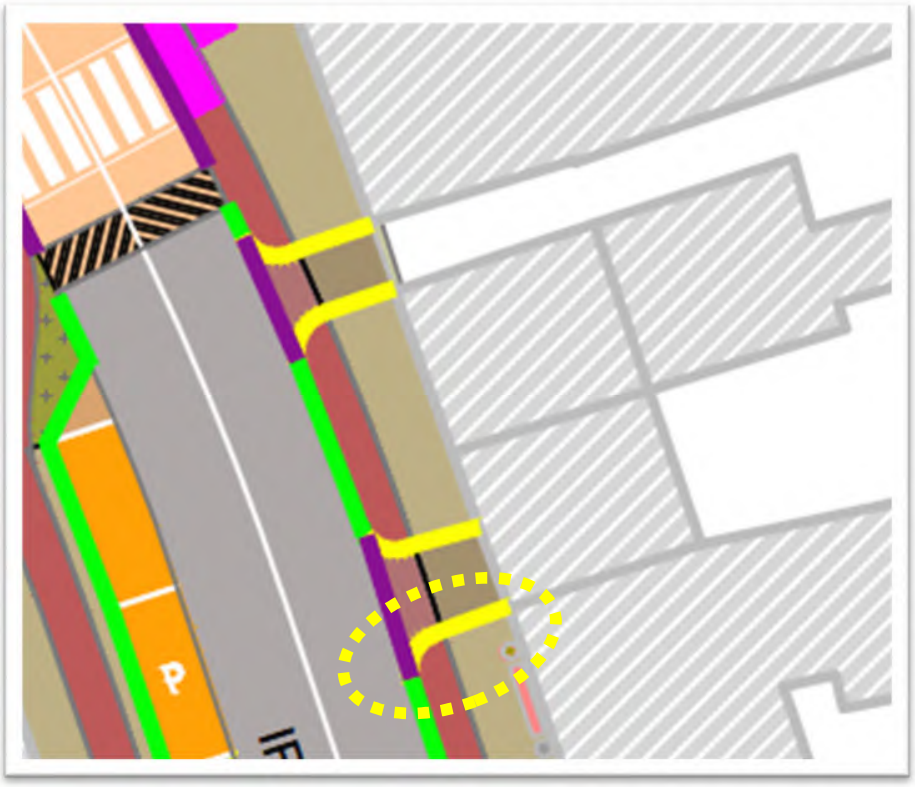
3A.5 Problem

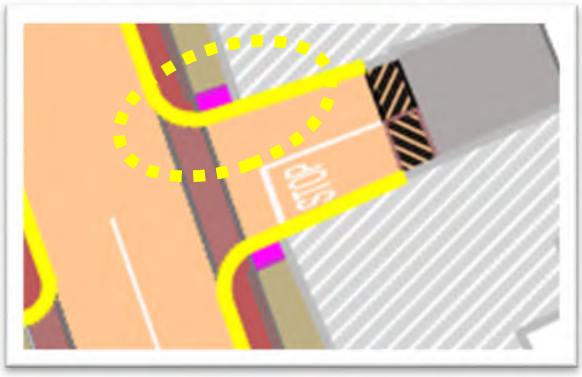
Location

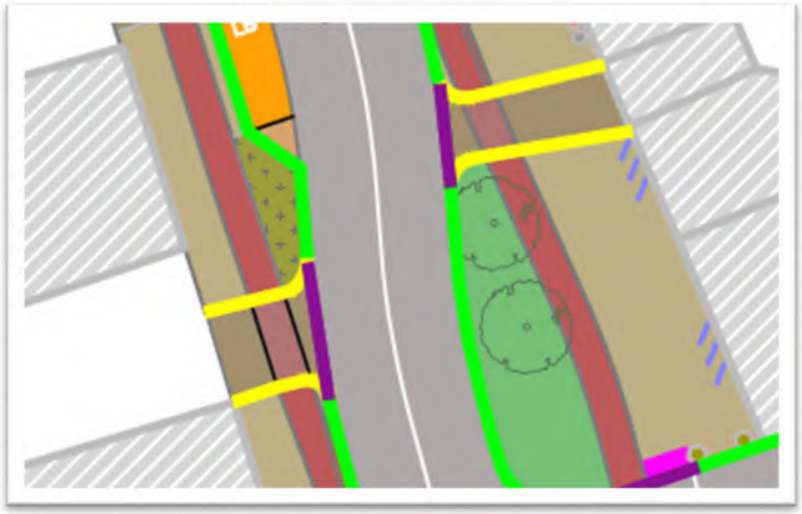
Drawing HDC1256 1002 (K) Rev 03 Kerb Layout, 50mm high kerbing at accesses.

Problem

It is proposed to provide 50mm high kerbing at some accesses across the footpath. This would be a trip hazard and would lead to inaccessibility for mobility impaired pedestrians.







Examples only

Recommendation

It is recommended that flush kerbs be used or no kerbs and that continuous footpath and cycle track facilities be used.

3A.6 Problem

Location

Drawing HDC1256 1004 (K) Rev 03 Kerb Layout, Tactile Paving.

Problem

The tactile paving shown at the western side crossing does not match in extent on both sides. There is a risk that blind or partially sighted pedestrians may use the tactile paving as a guide to have completed the crossing however may not detect it is not provided directly across from the start. In addition, the shading for the uncontrolled tactile paving is shown the same as controlled tactile paving. It is assumed that this is just a draughting issue and that buff coloured tactile paving will be used at uncontrolled crossings.

Recommendation

It is recommended that the extent of the tactile paving be matched on both sides.

4.0 Observations

4.1 Observation

The following have not been provided to the Audit Team;

- Site Clearance
- Cross sections
- Some road markings (centreline of N2)
- Some signage including directional signage
- Utility diversions.
- Ramp gradients at raised tables.
- Colour and type of tactile paving.

4.2 Observation

The bridge over the River Dee may need to be checked for additional dead weight and loading due to the propose raised table.

4.3 Observation

Departures from Standard (Design Cycle Manual and TII Publications where appropriate) have not been provided to the Audit Team.

4.4 Observation

Some electric vehicle charging points have recently been installed in the car park north of the River Dee bridge.

4.5 Observation

It is assumed that suitable gradient transition kerbs will be provided between the full height kerbs and lower or flush kerbs.

4.6 Observation

EV charger locations and infrastructure has not been shown on the drawings

4.7 Observation (October 2024)

The swept path for HGV entering Ash Walk would be extremely difficult to carry out. It is assumed that the N52 access would be used by such vehicles.

5.0 Audit Statement

We certify that we have examined the site and the information provided. The examination has been carried out with the sole purpose of identifying any aspects of the design which could be added, removed or modified in order to improve the safety of the scheme.

The problems identified have been noted in this report together with associated safety improvement suggestions which we would recommend should be studied for implementation. The audit has been carried out by the persons named below who have not been involved in any design work on this scheme as a member of the Design Team.

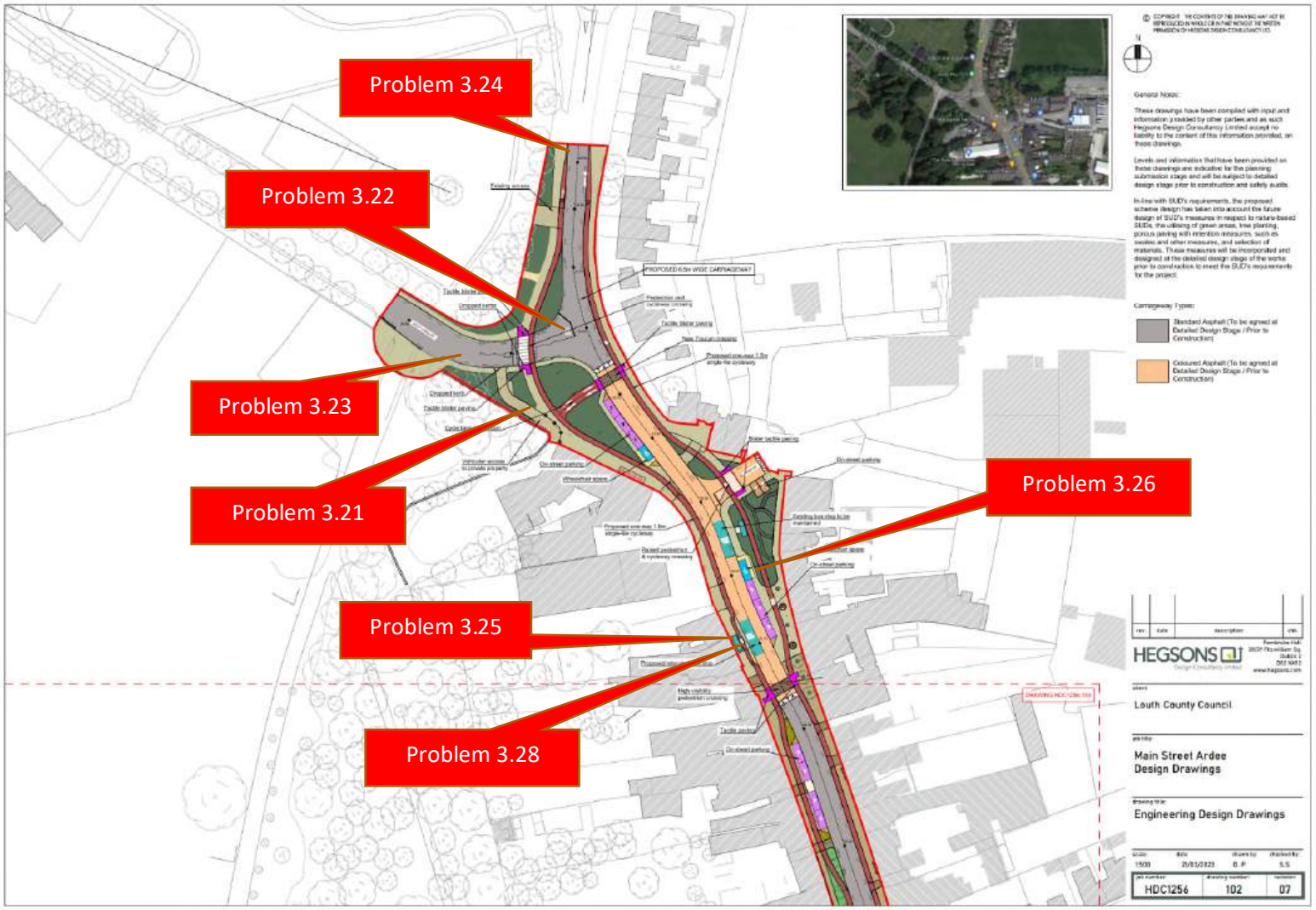
Norman Bruton **Signed:** 

(Audit Team Leader) **Dated: 25-10-2024**

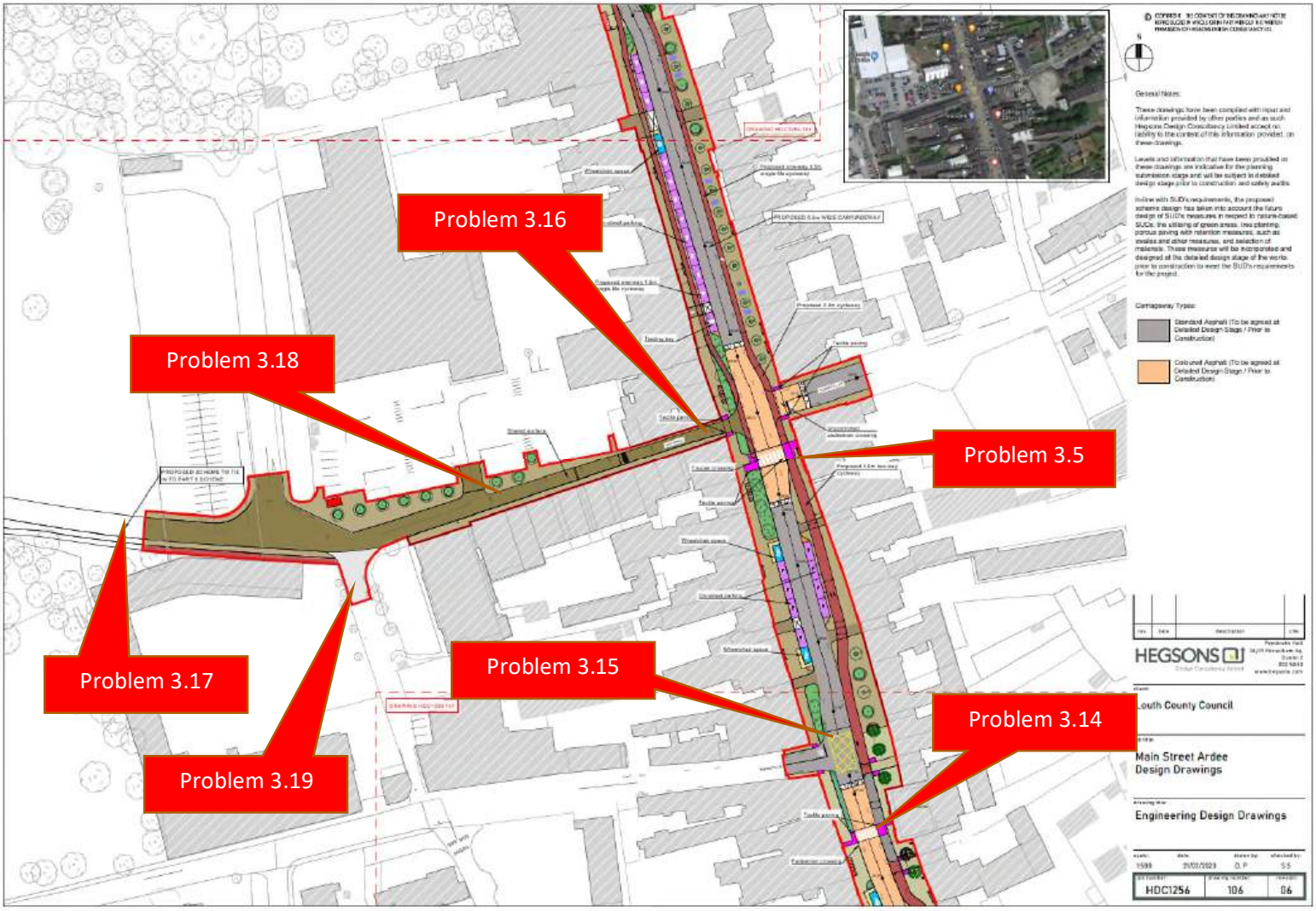
Owen O'Reilly **Signed:** 

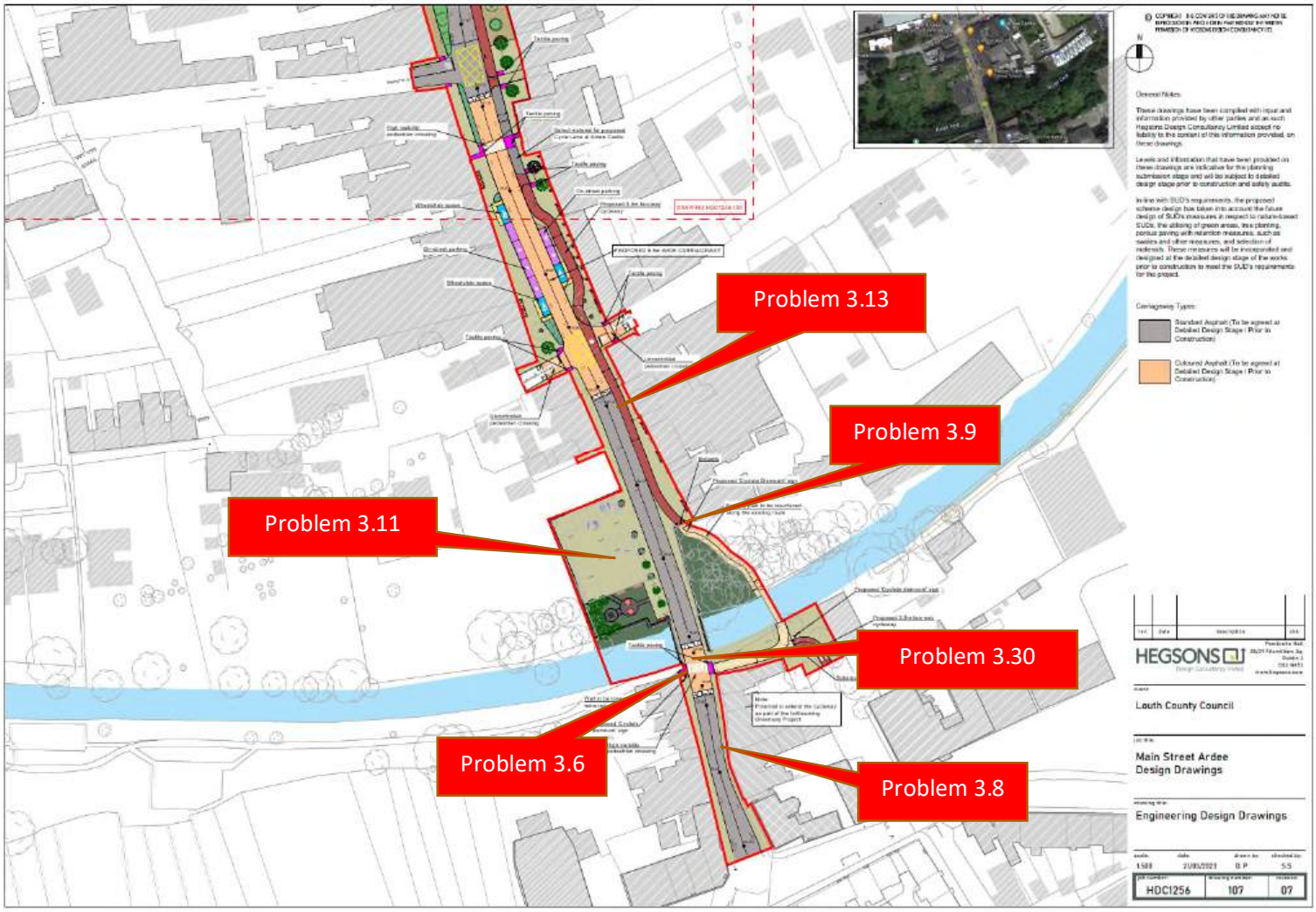
(Audit Team Member) **Dated: 25-10-2024**

Appendix A – Problem Location Map (June 2024)

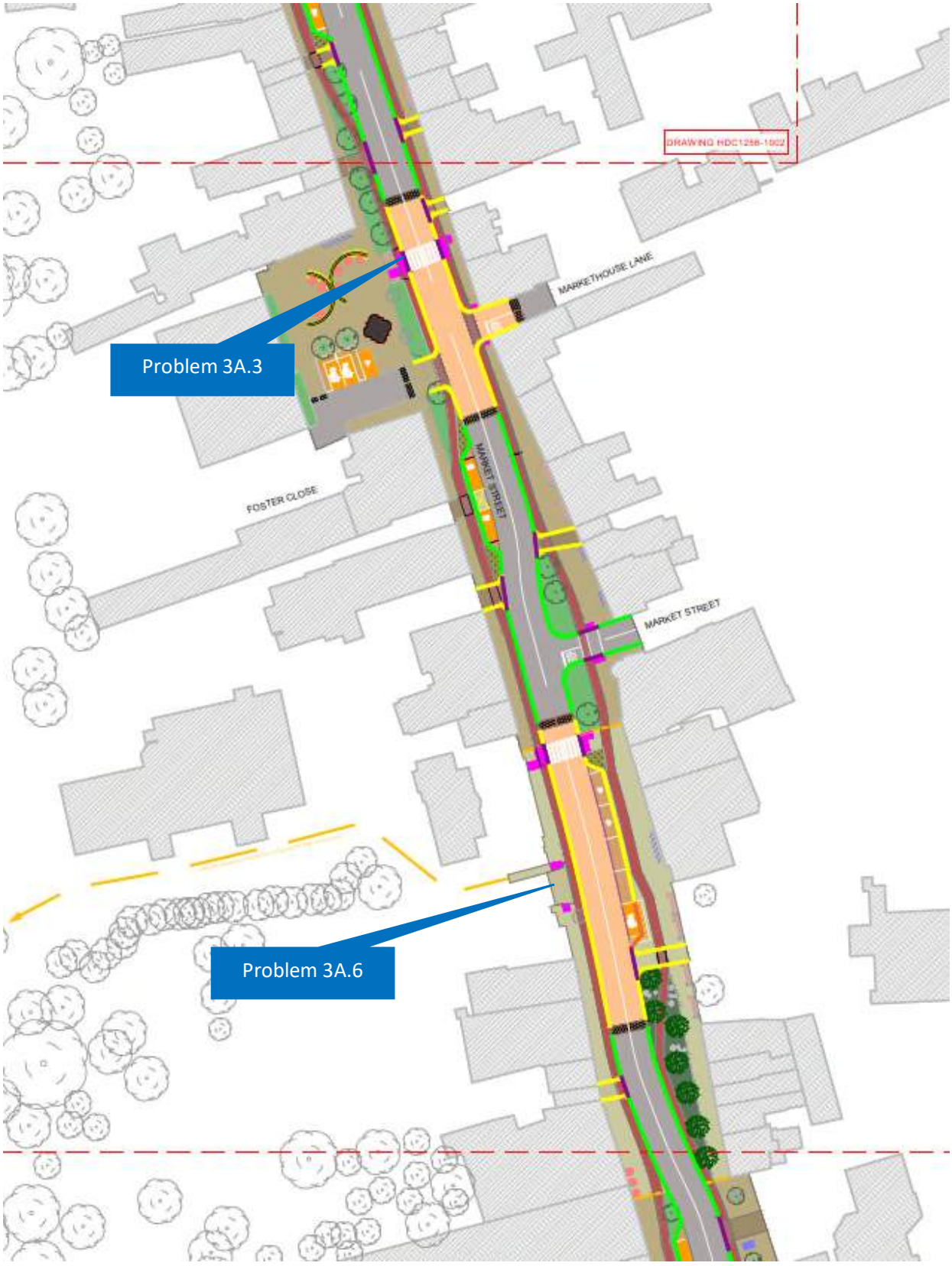


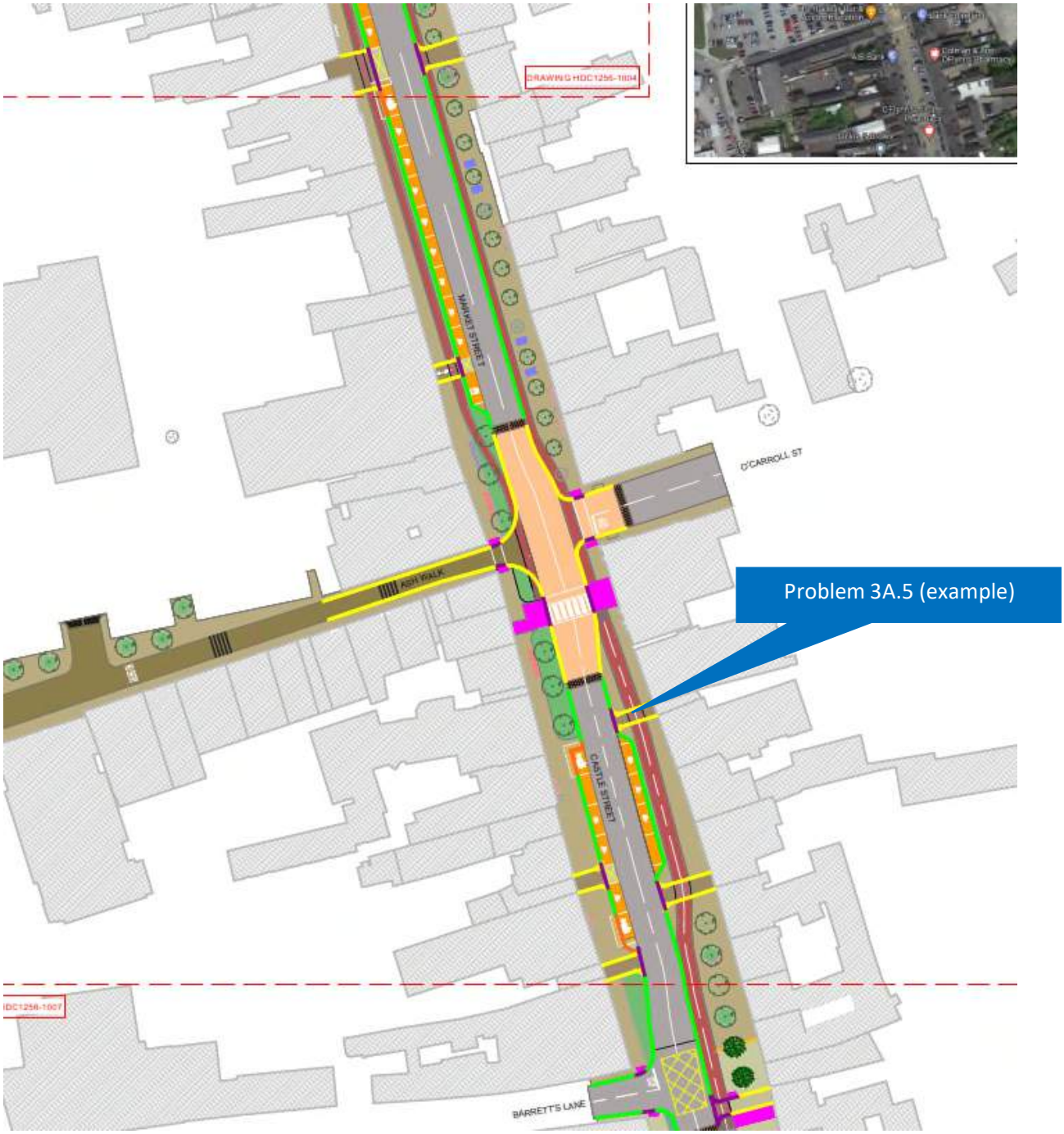

General Notes:
Carriageway Types:
Standard Asphalt (To be agreed at Detailed Design Stage / Prior to Construction)
Coloured Asphalt (To be agreed at Detailed Design Stage / Prior to Construction)
HEGSONS
Louth County Council
Main Street Ardee
Design Drawings
Engineering Design Drawings
HDC1256
104
05


Problem 3.16
Problem 3.18
Problem 3.5
Problem 3.17
Problem 3.15
Problem 3.14
Problem 3.19
HEGSONS
Louth County Council
Main Street Ardee
Design Drawings
Engineering Design Drawings
HDC1256
106
06


Problem 3.13
Problem 3.9
Problem 3.11
Problem 3.30
Problem 3.6
Problem 3.8
HEGSONS
Louth County Council
Main Street Ardee
Design Drawings
Engineering Design Drawings
HDC1256
107
07

Appendix A – Problem Location Map (October 2024)


DRAWING HDC1258-1002
MARKETHOUSE LANE
Problem 3A.3
FOSTER CLOSE
MARKET STREET
MARKET STREET
Problem 3A.6


DRAWING HDC1256-1004
MARKET STREET
O'CARROLL ST
ASH WALK
CASTLE STREET
BARRETT'S LANE
Problem 3A.5 (example)


DRAWING HDC1256-1208
CASTLE STREET
TERNEY STREET
MALONE'S TERRACE
BRIDGE STREET
Car Park
BRIDGE STREET
HALE STREET
WILLIAM STREET

Appendix B

Information Supplied to the Audit Team (June 2024)

- Drawing LOUX3002-P-000-112 A
- Drawing LOUX3002-P-000-114 A
- Drawing LOUX3002-P-000-115 A
- Drawing LOUX3002-P-000-118 A
- Drawing 20240604_ARW_Ardee.dwg
- Drawing ARD-MET-ZZ-XX-DR-E-6001A Rev P01
- Drawing ARD-MET-ZZ-XX-DR-E-6001B Rev P01
- Visibility Analysis table for junctions, Hegsons
- Drawing HDC1256 102 Rev 07
- Drawing HDC1256 104 Rev 05
- Drawing HDC1256 106 Rev 06
- Drawing HDC1256 107 Rev 07
- Drawing HDC1256 102 Ex
- Drawing HDC1256 104 Ex
- Drawing HDC1256 106 Ex
- Drawing HDC1256 107 Ex
- Drawing HDC1256 102 Rev 07 (Kerbs)
- Drawing HDC1256 104 Rev 05 (Kerbs)
- Drawing HDC1256 106 Rev 06 (Kerbs)
- Drawing HDC1256 107 Rev 07 (Kerbs)
- Drawing HDC1256 102 Rev 07 (Visibility)
- Drawing HDC1256 104 Rev 05 (Visibility)
- Drawing HDC1256 106 Rev 06 (Visibility)
- Drawing HDC1256 107 Rev 07 (Visibility)
- Drawing 533273-NOD-01-XX-DR-C-020101 P03
- Drawing 533273-NOD-01-XX-DR-C-020102 P03
- Drawing 533273-NOD-01-XX-DR-C-020103 P03
- Drawing 533273-NOD-01-XX-DR-C-020104 P03
- Drawing 533273-NOD-01-XX-DR-C-020105 P03
- Drawing 533273-NOD-01-XX-DR-C-020106 P03
- Drawing 533273-NOD-01-XX-DR-C-020107 P03

Information Supplied to the Audit Team (October 2024)

- Drawing HDC1256 1002 (K) Rev 03
- Drawing HDC1256 1004 (K) Rev 03
- Drawing HDC1256 1006 (K) Rev 03
- Drawing HDC1256 1007 (K) Rev 03
- Drawing HDC1256 1002 (VT) Rev 03
- Drawing HDC1256 1003 (VT) Rev 03
- Drawing HDC1256 1006 (VT) Rev 03
- Drawing HDC1256 1007 (VT) Rev 03
- Drawing HDC1256 1002 (VS) Rev 03
- Drawing HDC1256 1004 (VS) Rev 03
- Drawing HDC1256 1006 (VS) Rev 03
- Drawing HDC1256 1007 (VS) Rev 03
- Drawing LOUX3002-P-000-125-A
- Drawing LOUX3002-P-000-126-A
- Drawing LOUX3002-P-000-112-A
- Drawing LOUX3002-P-000-113-A
- Drawing LOUX3002-P-000-114-A
- Drawing LOUX3002-P-000-115-A
- Drawing LOUX3002-P-000-116-A
- Drawing LOUX3002-P-000-117-A
- Drawing LOUX3002-P-000-118-A
- Drawing LOUX3002-P-000-119-A
- Drawing LOUX3002-P-000-120-A
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- Drawing LOUX3002-P-000-122-A
- Drawing LOUX3002-P-000-123-A
- Drawing LOUX3002-P-000-124-A
- Drawing ARD-MET-ZZ-ZZ-DR-E-6001A_P03
- Drawing ARD-MET-ZZ-ZZ-DR-E-6001B_P03
- Drawing 533273-NOD-01-XX-DR-C-020101
- Drawing 533273-NOD-01-XX-DR-C-020102

- Drawing 533273-NOD-01-XX-DR-C-020103
- Drawing 533273-NOD-01-XX-DR-C-020104
- Drawing 533273-NOD-01-XX-DR-C-020105
- Drawing 533273-NOD-01-XX-DR-C-020106
- Drawing 533273-NOD-01-XX-DR-C-020107

Appendix C

Feedback Form

SAFETY AUDIT FORM – FEEDBACK ON AUDIT REPORT

Scheme: Ardee Main Street
Stage: 2 Road Safety Audit
Date Audit (Site Visit) Completed: 17-06-2024

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)
3.1	Yes	No	The Council are promoting sustainable transport modes. A Car Parking Strategy will accompany the future planning application. These are existing spaces therefore no new signage will be required.	Yes
3.2	Yes	Yes	N/A	
3.3	Yes	Yes	There are 3 no. existing loading/trading bays along Main Street. 3 no. loading bays have been provided in a similar position to those existing. We consider that this will ensure that a similar level of accessibility to shops as currently exists remains following the construction of the proposed development.	
3.4	Yes	Yes	N/A	
3.5	Yes	Yes	N/A	
3.6	Yes	No	There is inadequate space available to the south of the bridge to accommodate an on-road to off road transition directly south of the Bridge Street bridge. Additional road signage will be proposed at the junction of the N2 / R170 which will direct cyclists approaching from the south in this direction. Further signage at the junction of the R170 / Hale Street will direct cyclists to turn up Hale Street to join the start	Yes

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)
			of the proposed cycle lane. The planning application site boundary will be extended and notes added to ensure this design approach is visible to cyclists.	
3.7	Yes	Yes	N/A	
3.8	Yes	No	Due to the physical constraints of this section of Bridge Street no new works, apart from resurfacing works, are proposed in this location. Wide vehicles will continue to operate an informal shuttle system to pass each other on this portion of the road. We do not consider that the introduction of a new pedestrian crossing point to the north of Bridge Street will impact on the informal shuttle system in operation at this location nor will the scheme increase traffic volumes in the area (traffic reduction envisaged).	Yes
3.9	Yes	Yes	N/A	
3.10	Yes	Yes	N/A	
3.11	Yes	No	The car park currently operates without any issues and adequate operation turning space is currently available. The car park will be resurfaced as part of the proposed development but no design changes are proposed as part of the proposal.	Yes
3.12	Yes	Yes	N/A	
3.13	No	No	The proposed development is not aiming to deliver a protected cycle lane as we consider this would impact the overall design appearance of the proposed development, which is a promoting	Yes

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)
			a more pedestrian / cyclist friendly public realm. The proposed design will include a stepped cycle track design as per the requirements of the National Cycle Manual. The introduction of a 30kph speed limit needs to be introduced through a separate procedure to this planning application. The proposed design, including raised tables and carriageway width, will create an urban environment which results in reduced vehicle speed.	
3.14	Yes	Yes	N/A	
3.15	Yes	Yes	Swept path analysis has been undertaken and no issues identified.	
3.16	Yes	Yes	N/A	
3.17	Yes	Yes	N/A	
3.18	Yes	Yes	The shared surface will be designed to decrease vehicle speed without the requirement for a physical speed control restraint.	
3.19	Yes	Yes	N/A	
3.20	Yes	Yes	N/A	
3.21	Yes	Yes	N/A	
3.22	Yes	Yes	N/A	
3.23	Yes	Yes	N/A	
3.24	No	No	Adequate space to accommodate cycle and pedestrian movements in the area are limited so the provision of a jug handle type arrangement at this location is not possible. The design proposed has been implemented on other national routes in Ireland e.g. N15 example	Yes

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)
			photograph and we consider will lead to a safe access / egress to the cycle lane.	
3.25	Yes	Yes	N/A	
3.26	Yes	Yes	N/A	
3.27	Yes	Yes	N/A	
3.28	Yes	Yes	Typical details for shared surface bus stop will be incorporated into the proposed design & addressed at the construction stage.	
3.29	Yes	Yes	N/A	
3.30	Yes	Yes	N/A	
3.31	Yes	Yes	N/A	

Signed...(on behalf of Turley)..... **Date** 04/07/2024
Design Team Leader

Signed..... **Date**..... 15/7/2024
Audit Team Leader

Signed..... **Date**..... 4/7/2024
Employer For & On Behalf of LCC.

SAFETY AUDIT FORM – FEEDBACK ON AUDIT REPORT (OCTOBER 2024)

Scheme: Ardee Main Street
Stage: 2 Road Safety Audit
Date Audit (Site Visit) Completed: 17-06-2024

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)
3A.1	Yes	Yes		
3A.2	Yes	Yes		
3A.3	Yes	Yes		
3A.4	Yes	Yes		
3A.5	Yes	Yes		
3A.6	Yes	Yes		

Signed..... **Date**24/10/2024.....
Design Team Leader (On behalf of Turley)

Signed..... **Date**25-10-2024.....
Audit Team Leader

Signed..... **Date:** 24 10 2024
Employer: For & On Behalf of LCC

Appendix D

From: Pat Phelan <Pat.Phelan@tii.ie>
Sent: Friday, July 26, 2024 3:41 PM
To: Lee Hannigan <lee.hannigan@turley.co.uk>
Cc: Lucy Curtis <LCurtis@kerry.nrdo.ie>
Subject: TII Road Safety Audit Approvals System - N2 Ardee Main Street Audit Team Approval

Lee,

I'm afraid not.

I was just speaking to Owen and he is keen to get his portal access issued resolved, but it won't be immediate as he has issues with his Microsoft Authenticator app.

If you need to progress with the Stage 2 RSA with the same team as previous (Norman Bruton & Owen O'Reilly), please proceed.

Owen is an experienced Audit Team Member and will be approved on the portal once we resolve his access issues. We can then catch up with the electronic approval on the system.

This email can be used as evidence of the approval of Norman (Team Leader) & Owen (Team Member) for the undertaking of the Stage 2 RSA of the N2 Ardee Main Street project in the interim.

Regards,

Pat Phelan | Road Safety Engineer

Transport Infrastructure Ireland

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