

Preliminary Design Report Addendum (TII Departure No. 36213)

N2 Road, Ardee (Ardee 2040 Regeneration Project)

April 2025

Introduction

1. This Preliminary Design Report Addendum has been prepared in response to the rejection notice received from TII on the 28 January 2025 relating to works to the N2 Road, Ardee (Departure No. 36213).
2. The Addendum relates to works to the south of the existing bridge at Bridge Street, Ardee which is a protected structure under National Built Heritage Service (NBHS) registration no. 13823008. All references to any proposed works to the existing bridge, and the high visibility pedestrian crossing to the south of the bridge contained within the Preliminary Design Report prepared by Hegsons Design Consultancy Limited and uploaded to the TII Departure from Standards website on 7 November 2024 have been superseded by design amendments as described in this Preliminary Design Report Addendum.
3. All other works to the N2 Road in Ardee associated with the development remain as described in the Preliminary Design Report submitted on 7 November 2024.

TII Rejection Notice

4. The following provides a summary of the rejection reasons published on the TII Departure from Standards website on 28 January 2025 for Departure No. 36213.

"The submission of a Design Report in accordance with DN-GEO-03030 - Design Phase Procedure for Road Safety Improvement Schemes, Urban Renewal Schemes and Local Improvement Schemes for the N2 Ardee 2040 Regeneration Project is REJECTED. Any works proposed to the bridge structure no. LH-N02-001.00, over the River Dee, need to be agreed with the relevant TII Regional Bridge Manager. The Applicant shall consult and agree any works to structure no. LH-N02-001.00, the bridge over the River Dee, with the Leinster Regional Bridge Manager prior to the resubmission of this Design Report. The applicant should ensure that the swept path of vehicles entering Ash Walk from the N2 does not impact on pedestrian facilities. The applicant should ensure that appropriate transition lengths are provided on transitions from cycle facilities to carriageway".

5. Prior to the submission of an amended proposed site layout the Design Team engaged with TII, including the Leinster Regional Bridge Manager, at 2 no. online meetings to discuss the reasons for the rejection notice. The main concerns discussed at this meeting related to the potential structural impact of the inclusion of a raised table in close proximity to the existing bridge and proposed works to alter the existing wall of the bridge on the basis that it has potential to alter the character of a protected structure (NBHS Reg No. 13823008). TII also advised that the wall of the bridge was

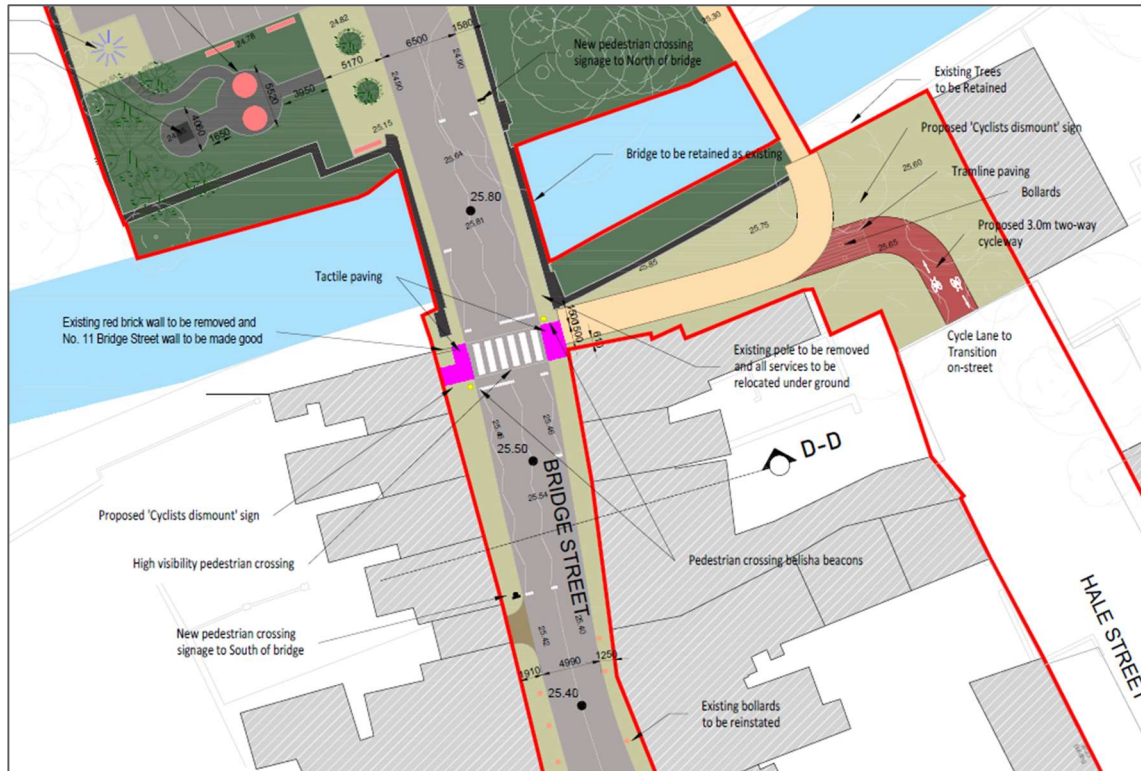
shown inaccurately on the proposed drawings. These discussions informed the amendments to the updated proposed site layout.

6. The Design Team and Client note the following comments from TII and can confirm that we consider that the proposed design is suitable to avoid any potential safety impacts on pedestrians / cyclists.
 - The applicant should ensure that the swept path of vehicles entering Ash Walk from the N2 does not impact on pedestrian facilities.
 - The applicant should ensure that appropriate transition lengths are provided on transitions from cycle facilities to carriageway.

Proposed Amended Design

7. The following summarises the characteristics of the proposed amended design. The amendments relate to the portion of the proposed development located on / to the south of the existing bridge at Bridge Street (see **Figure 1**):
 - The raised table has been removed from the proposed design. The proposed road at this section of the proposal will have a standard kerb height of 125mm. This will ensure the structural integrity of the existing bridge is not impacted and improve safety for pedestrians crossing the bridge through the inclusion of a vertical change between the public road and footpath.
 - The proposed high visibility pedestrian crossing will be realigned to be perpendicular to the footpath and will be accessed via a dropped kerb. Tactile paving is positioned on either side of the crossing. Belisha beacons are proposed on both sides of the crossing to ensure that approaching vehicles are aware of the crossing.
 - It is proposed that the existing brick wall adjacent to no. 11 Bridge Street will be removed and the wall of no. 11 Bridge Street made good.
 - The existing wall to the south west corner of the bridge (protected structure), adjacent to the access to the riverside walk, will remain unaltered. The removal of the adjacent brick wall will provide an opening width of approx. 1.36m. The existing opening width is 0.96m therefore the proposed layout will improve the existing situation.
 - Signage is proposed to the north and south of the high visibility crossing advising vehicles travelling south and north that there is a pedestrian crossing ahead.
 - The walls of the bridge, a protected structure, have been accurately shown on the existing and proposed drawings.
8. The proposed amendment will not have an impact on any existing / proposed vehicular junctions therefore the visibility splay / auto tracking details remain as previously proposed.

Figure 1: Extract from Proposed Site Layout



Description of the Scheme

9. The development has been described in Section 3 of the Preliminary Design Report submitted on the 7 November 2024. Point 3 of this description states that *"Resurfacing of Bridge Street Bridge (NIAH Reg. No. 13823008 / Protected Structure Ref: LHS017/056) at Bridge Street"* forms part of the proposed development. Whilst the raised table has been removed from the bridge, the road surface and footpaths will be resurfaced with the proposed finished ground level being the same as existing, therefore point 3 of the description of development is still relevant.
10. The amendment proposed in this addendum does not relate to any other points of the description of development.

Stage 2 Road Safety Audit

11. Clarification by the Design Team to Observation 4.2 of the Stage 2 Road Safety Audit (RSA) (Version: October 2024 Addendum – FINAL) prepared by Bruton Engineering states that *"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"*. As the raised table has been removed this is no longer a consideration. The bridge will continue to operate as existing.
12. Bruton Engineering Ltd, the author of the Stage 2 RSA for the project, assessed the amended proposed development and identified 2 no. problems. A copy of the Stage 2 RSA is included at **Appendix 1**. The problems identified include:

- Problem 3B.1 which relates to the alignment of the tactile pavement on the eastern side of the road. The recommendation to address this problem was for “a stem be provided on the tactile paving so that such vulnerable road users will know that it is a crossing where they have priority and the stem may be detected by those travelling on the shared use path”. This recommendation was accepted and design proposal updated.
- Problem 3B.2 relates to the inclusion of a gully on the pedestrian crossing. The recommendation is that gullies be relocated immediately upstream of the crossing. This recommendation has been accepted and proposed drainage drawing updated accordingly.

13. The recommendations of the Stage 2 RSA Addendum have been accepted and the proposed drawings package (as included in the Appendices of this Addendum) updated to include the recommendations.

Additional Information

14. The following provides detail on the drawings / reports that have been superseded by this Addendum. No other amendments have been made to any other design information submitted to the TII Departure from Standards website on 7 November 2024.

Table 1: Amended Information

Original Drawing / Report Details (submitted 7/11/2024)	Amended Drawing / Report Details (March 2025)	Appendix No.
Stage 2 Road Safety Audit (Version: October 2024 Addendum – FINAL)	Stage 2 Road Safety Audit (Version: March 2025 Addendum – FINAL)	Appendix 1 – Stage 2 Road Safety Audit Addendum – March 2025
Existing Site Layout (Dwg. No. LOUX3002-P-000-108-A)	Existing Site Layout (Dwg. No. LOUX3002-P-000-108-B)	Appendix 2 – Existing Site Layout
Existing Site Layout (Dwg. No. LOUX3002-P-000-109-A)	Existing Site Layout (Dwg. No. LOUX3002-P-000-109-B)	Appendix 2 – Existing Site Layout
Proposed Site Plan SEC6.1 Southern Gateway (Dwg. No. LOUX3002-P-000-119-A)	Proposed Site Plan SEC6.1 Southern Gateway (Dwg. No. LOUX3002-P-000-119-B)	Appendix 3 – Proposed Design Drawings
Proposed Site Plan SEC6.2 Southern Gateway (Dwg. No. LOUX3002-P-000-120-A)	Proposed Site Plan SEC6.2 Southern Gateway (Dwg. No. LOUX3002-P-000-120-B)	Appendix 3 – Proposed Design Drawings
Visibility Splays (Dwg. No. 1007 (VS) Rev 04)	Visibility Splays (Dwg. No. 1007 (VS) Rev 06)	Appendix 4 - Design Drawings : Autotracks, Kerb Heights, Visibility Splays & Lighting
Vehicle Tracking (Dwg. No. 1007 (VT) Rev 04)	Vehicle Tracking (Dwg. No. 1007 (VT) Rev 06)	Appendix 4 - Design Drawings : Autotracks, Kerb Heights, Visibility Splays & Lighting
Kerb Layout (Dwg. No. 1007 (K) Rev 04)	Kerb Layout (Dwg. No. 1007 (K) Rev 06)	Appendix 4 - Design Drawings : Autotracks, Kerb Heights, Visibility Splays & Lighting

Ardee Public Lighting Scheme, Main Street (Sheet 2 of 2) (Dwg. No. ARD-MET-ZZ-XX-DR-E-6001B)	Ardee Public Lighting Scheme, Main Street (Sheet 2 of 2) (Dwg. No. ARD-MET-ZZ-XX-DR-E-6001B)	Appendix 4 - Design Drawings : Autotracks, Kerb Heights, Visibility Splays & Lighting
Drainage – Combined Layout Site Plan (Sheet 6 of 10) (Dwg. No. 533273-NOD-01-XX-DR-C-020107 Rev P05)	Drainage – Combined Layout Site Plan (Sheet 6 of 10) (Dwg. No. 533273-NOD-01-XX-DR-C-020107 Rev P07)	Appendix 5 – Proposed Drainage Site Layout Plan

Conclusion

15. In conclusion, there are no relaxations or departures from TII geometry standards as part of the proposed design. The proposed design has been altered to remove the raised table therefore removing any potential structural issues associated with the proposed development. The existing wall to the south west side of the bridge will be retained, ensuring the character of the protected structure is not impacted. The existing red brick wall adjacent to no. 11 Bridge Street will be removed, improving on the existing opening width to the riverside walk. The crossing has been realigned to be perpendicular with the footpath and will be identified through the inclusion of additional signage and belisha beacons.
16. No issues of concern have been identified in the addendum to the Stage 2 RSA. All of the above design amendments will combine to create a safe environment that does not impact on the structural integrity of the bridge.

Appendix 1: Stage 2 Road Safety Audit Addendum – March 2025





Title: **STAGE 2 ROAD SAFETY AUDIT**
For;
Main Street Ardee

Client: **Louth County Council**

Date: **June 2024**

Report reference: **2067R02 Rev 2**

VERSION: **March 2025 Addendum FINAL (28-3-2025)**

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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.

In March 2025 a small change was made to the design proposal relating to the proposed raised crossing south of the Dee River bridge on the N2. The bridge structure could not withstand the additional loading and so the raised crossing is to be replaced with a at-grade zebra crossing with belisha beacons and associated road markings and tactile paving. The updated design was assessed by the Audit Team and this report updated. Text associated with this update is provided in green for ease for the reader.

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 the October 2024 update is presented in blue.

For ease of reference and clarity text associated with this March 2025 update is presented in green.

STAGE 2 RSA – ARDEE MAIN STREET
LCC



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.

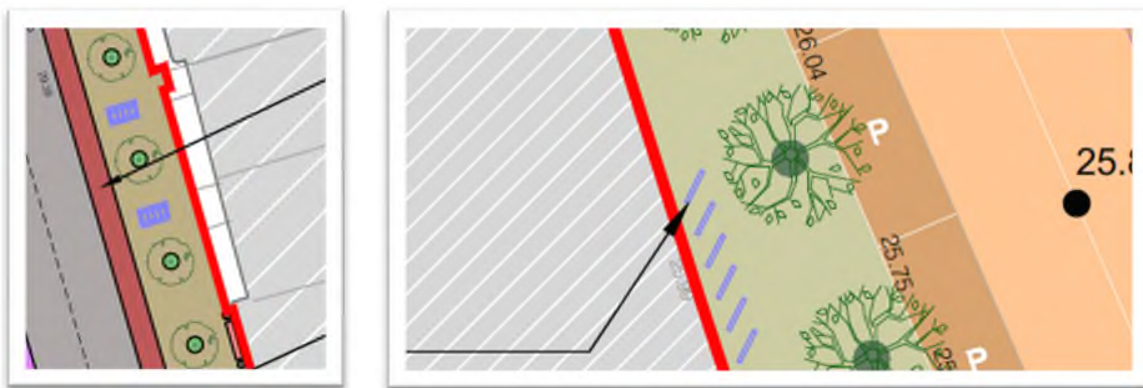
3.4 Problem (Repeat of Issue 3.4 in the Stage 1&2 RSA)

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.

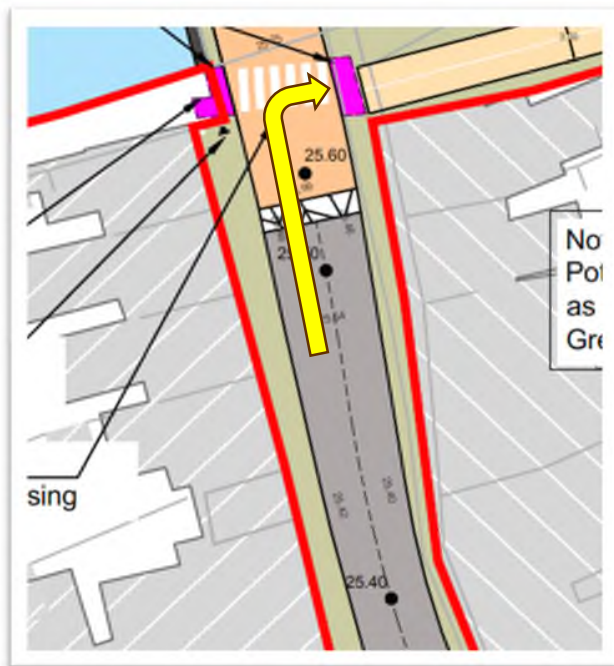
3.6 Problem (Update of Issue 3.6 in the Stage 1&2 RSA)

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.

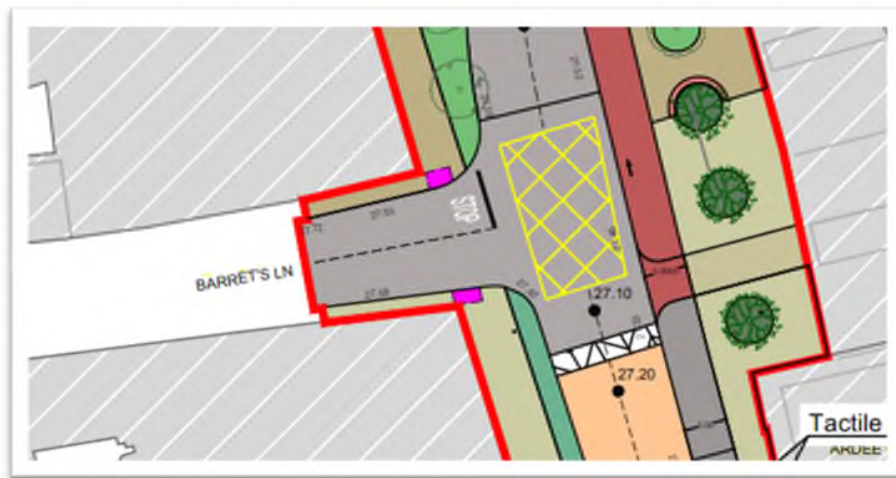
3.15 Problem (Repeat of Issue 3.15 in the Stage 1&2 RSA)

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.

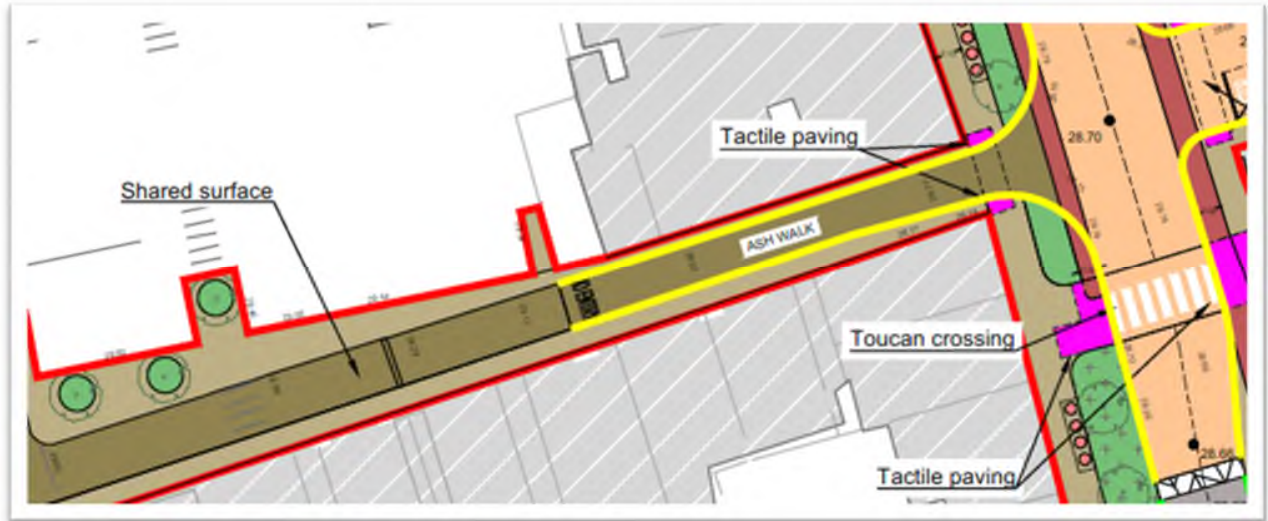
3.16 Problem

Location

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

Problem

Ash 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.

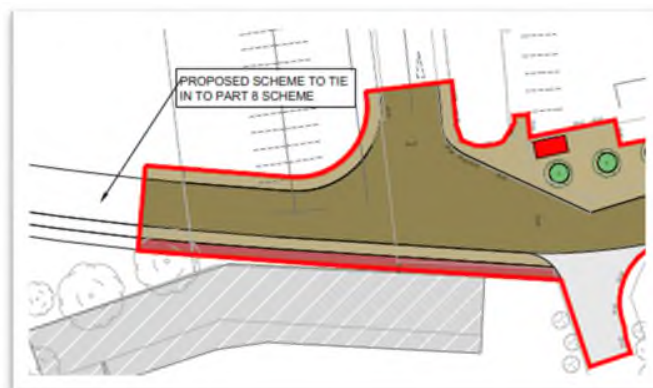
3.17 Problem

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)

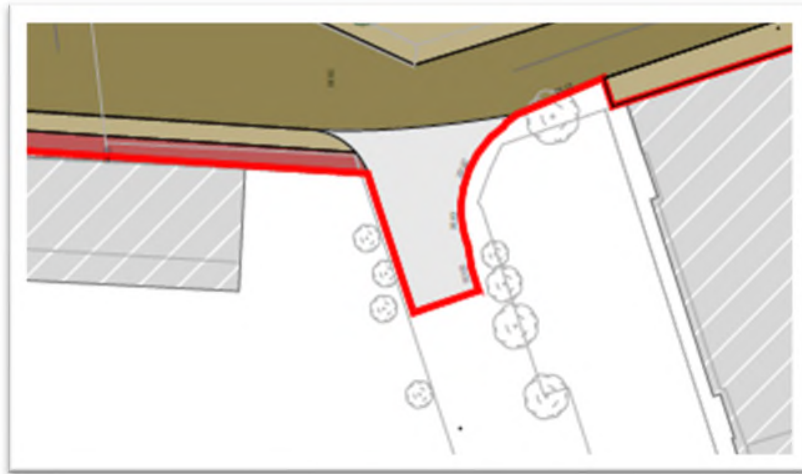
3.19 Problem

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.

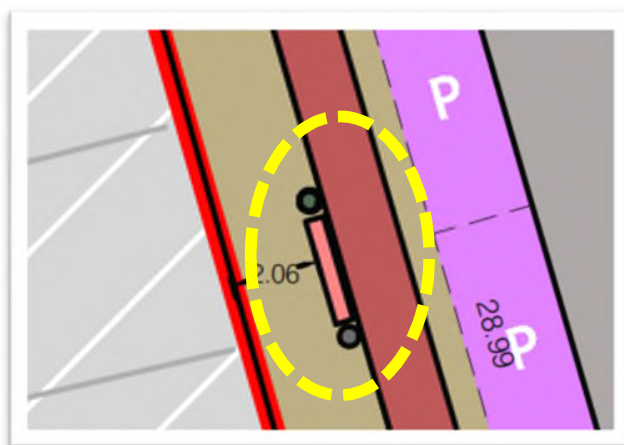
3.20 Problem

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.

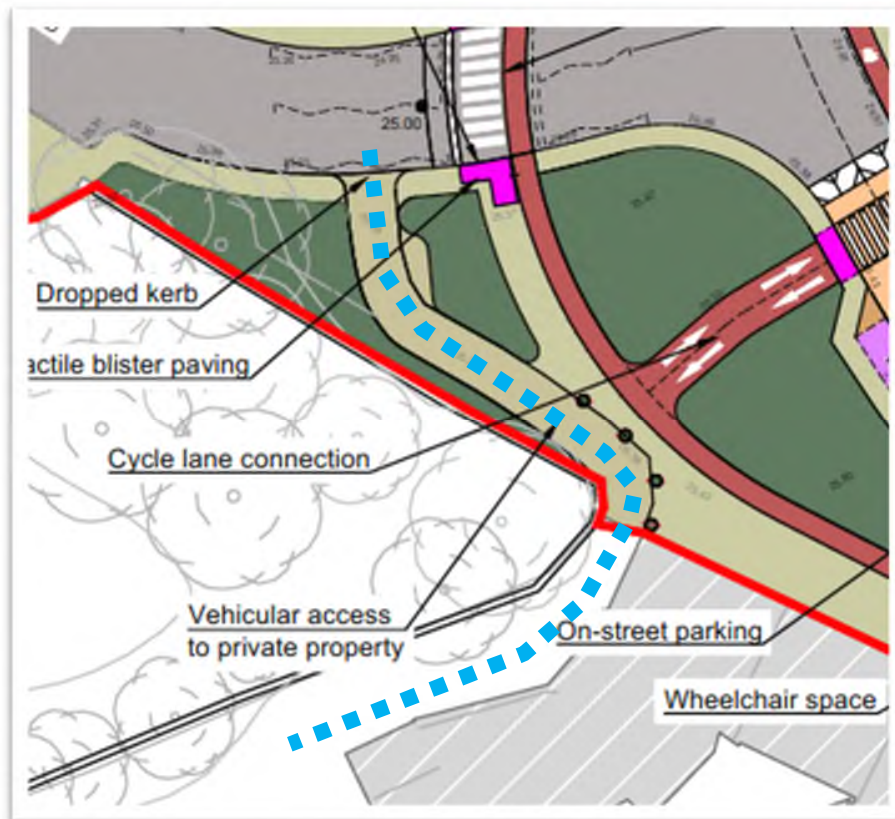
3.21 Problem (Repeat of Issue 3.21 in the Stage 1&2 RSA)

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

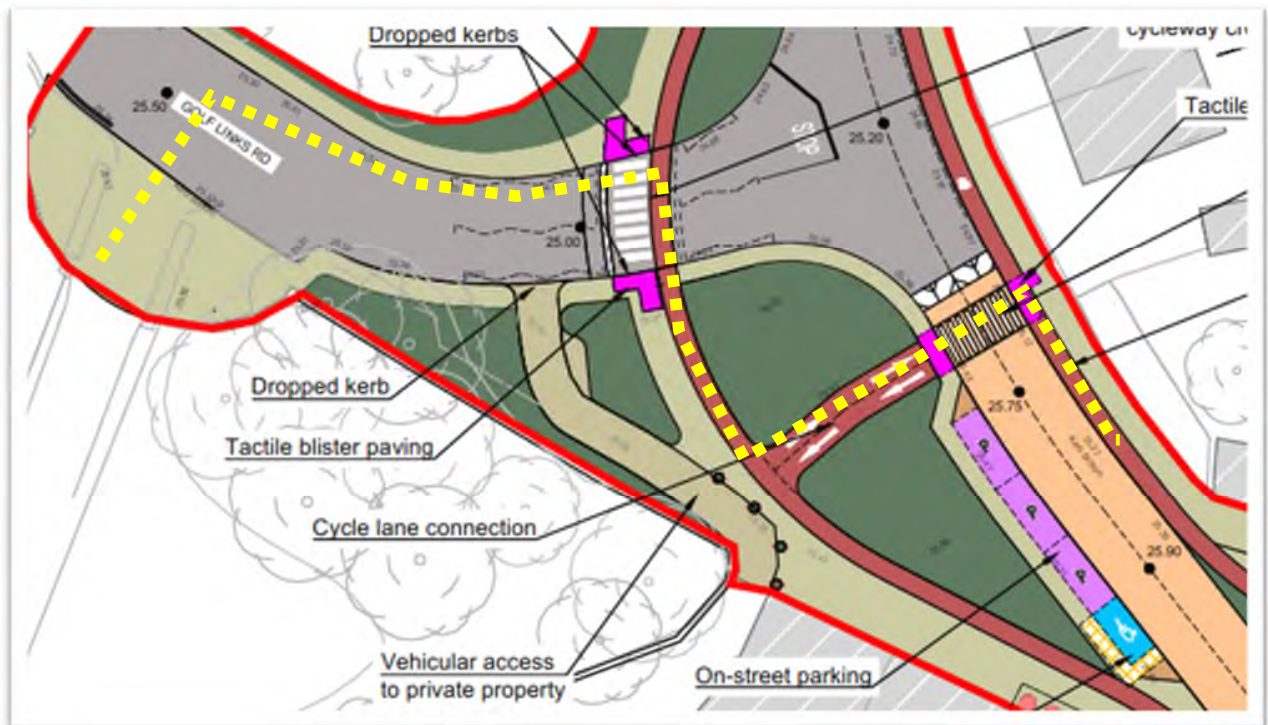
3.23 Problem

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 the footpath be rerouted to the rear of the buffer zone.

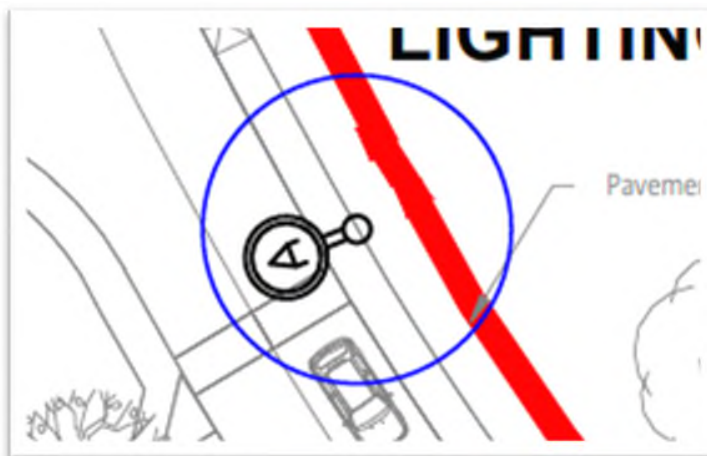
3.27 Problem

Location

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

Problem

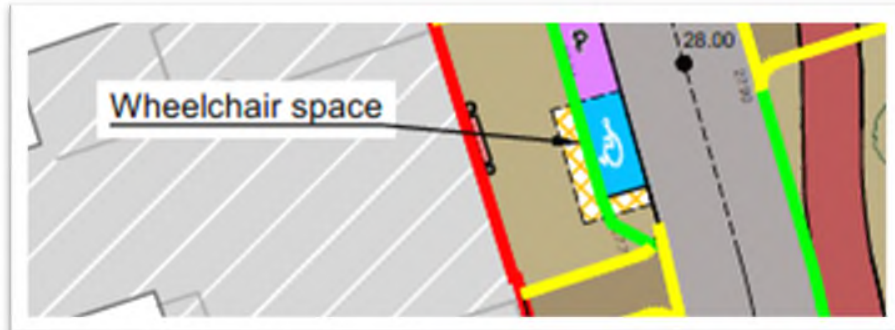
Some lighting column locations are shown on the boundary between the cycle track and the footpath. The columns would be hazards for both cyclists and pedestrians.



Example only

Recommendation

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



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 lose 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.

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

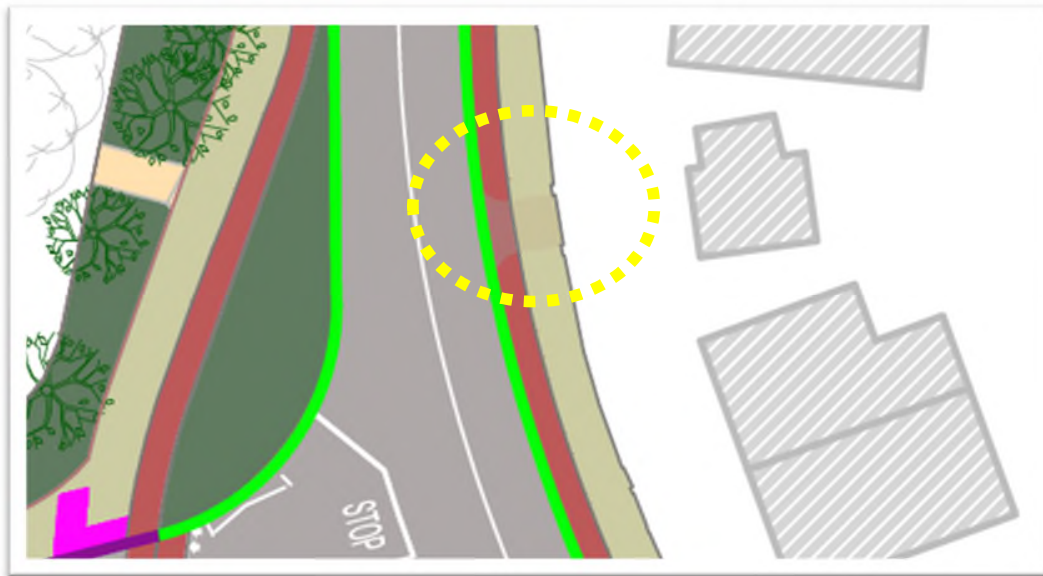
3A.1 Problem

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.

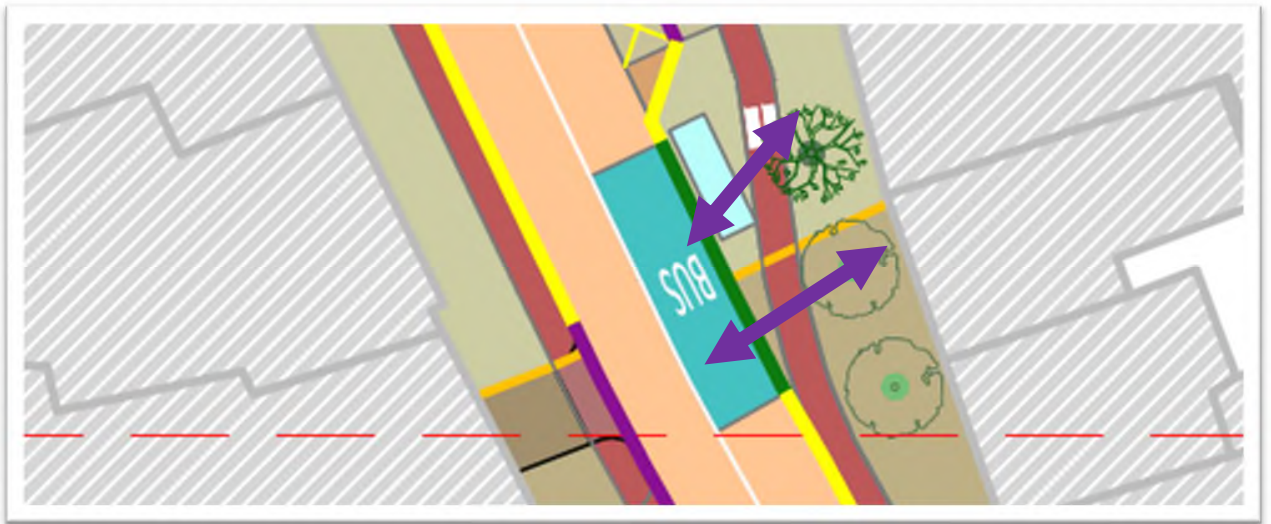
3A.2 Problem

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.

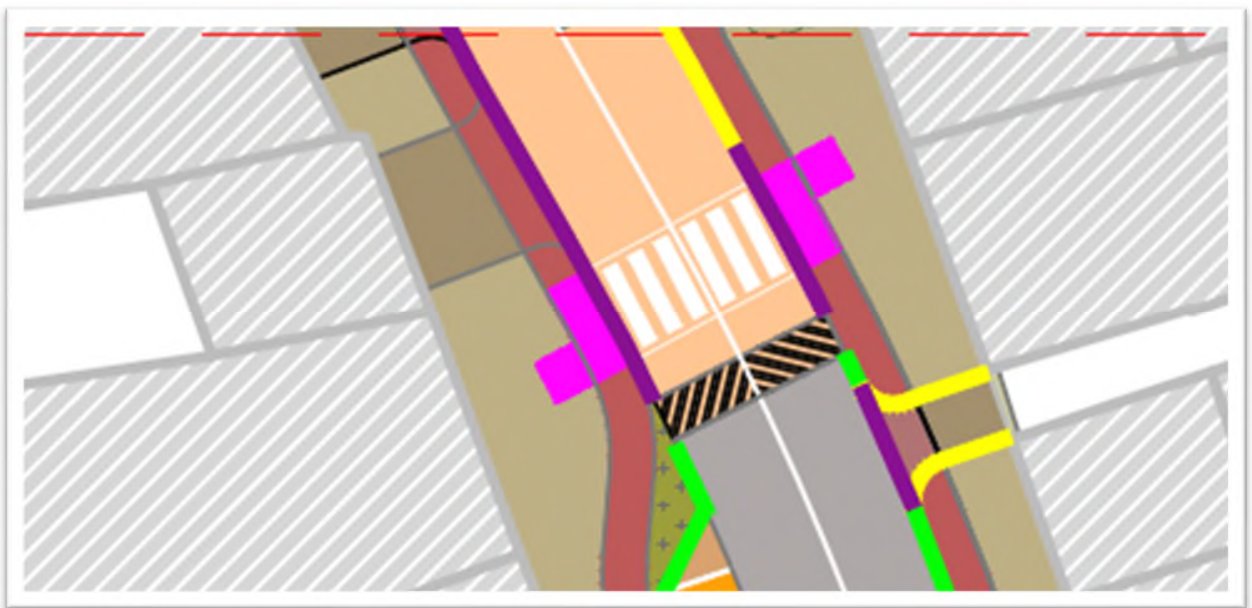
3A.3 Problem

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.

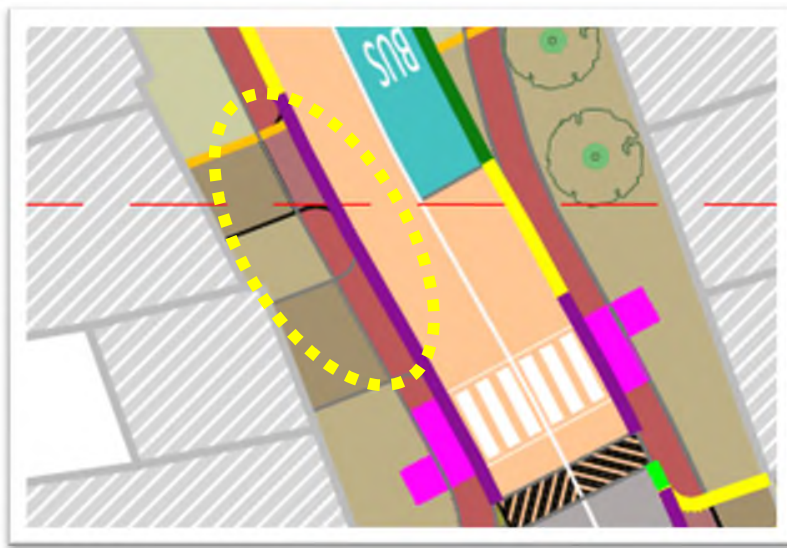
3A.4 Problem

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.

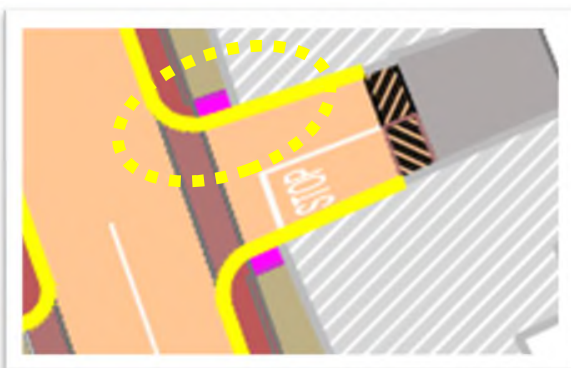
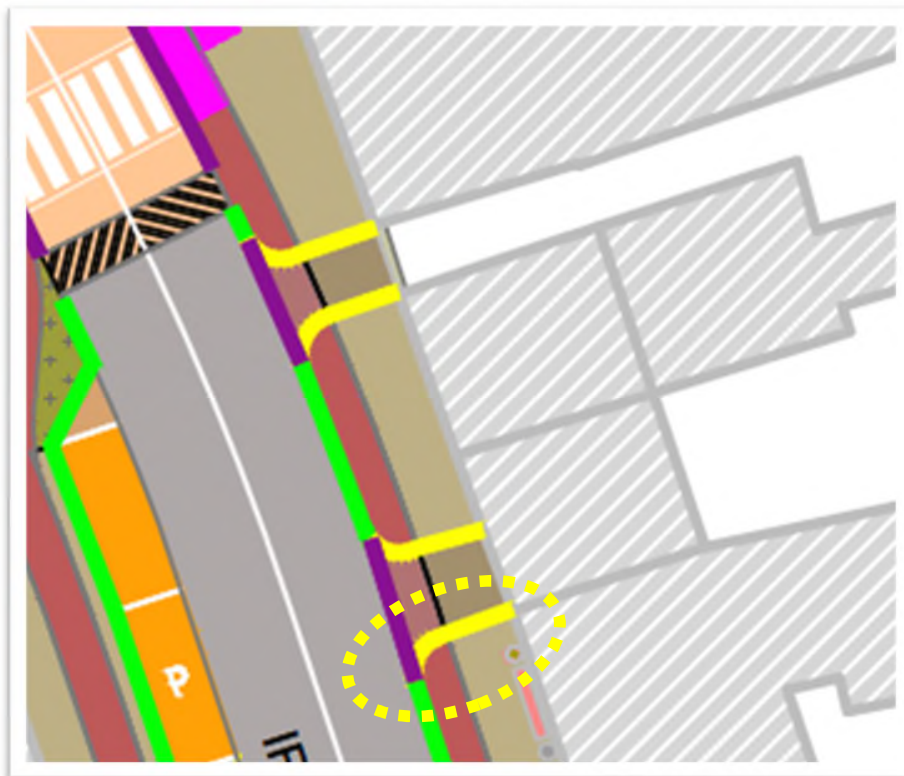
3A.5 Problem

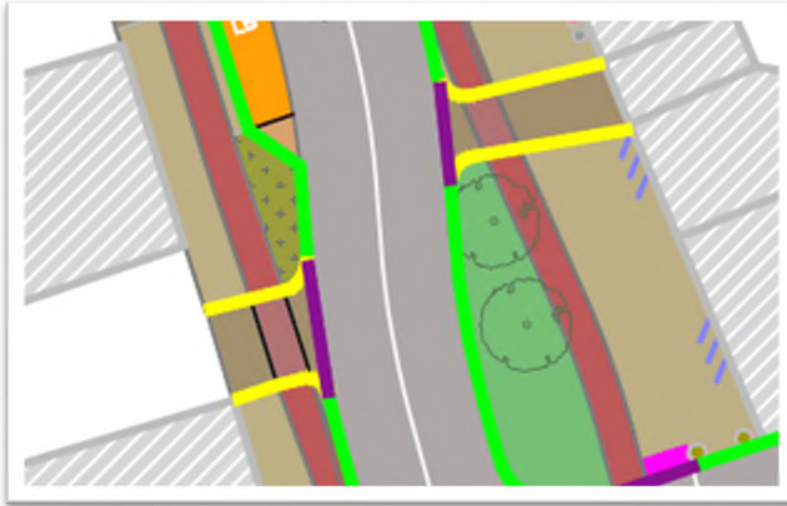
Location

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

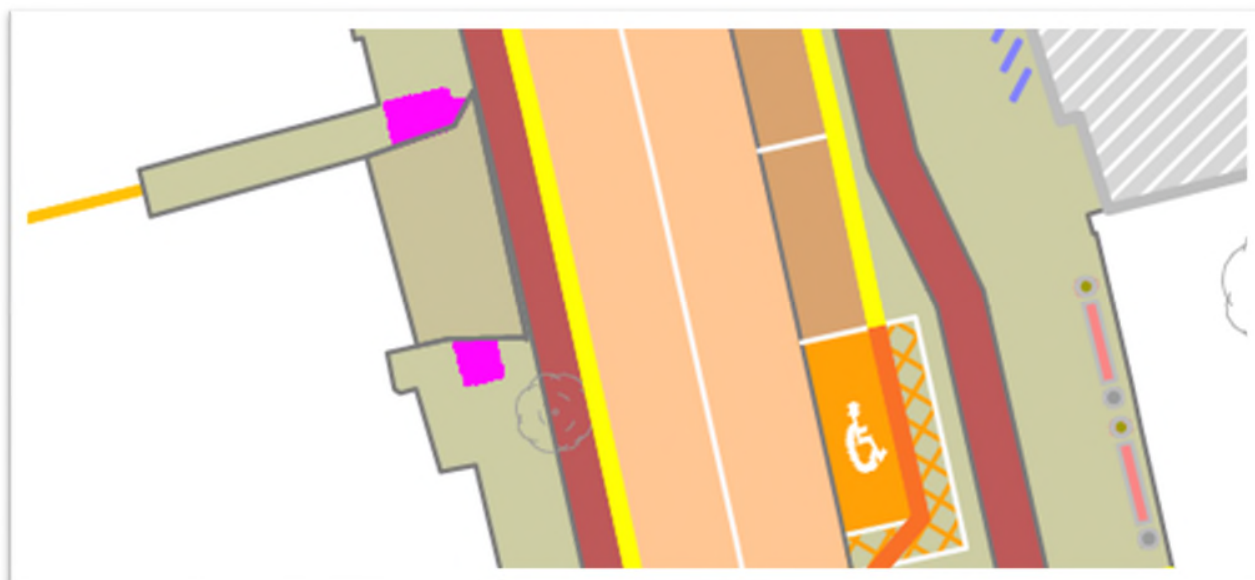
Recommendation

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

Location

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.



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

3B Issues Identified in this Stage 2 Audit (March 2025)

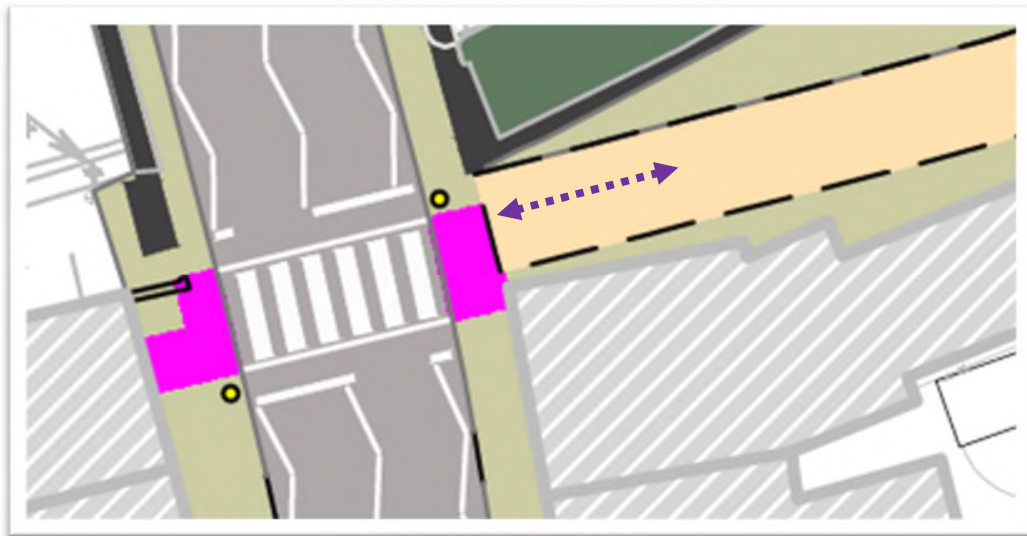
3B.1 Problem

Location

Drawing HDC1256 1007 (VT) Rev 05, At zebra crossing.

Problem

There is a slight misalignment of the extent of the tactile paving associated with the zebra crossing and the shared use path on the eastern side. However this may be required to ensure there is enough room for mobility impaired users to get around the belisha beacon pole. The shape of the tactile paving may be confusing and not help guide a blind or partially sighted pedestrian to the crossing.



Recommendation

It is recommended that a stem be provided on the tactile paving so that such vulnerable road users will know that it is a crossing where they have priority and the stem may be detected by those travelling on the shared use path.

Location

Problem

It is proposed to provide a road gully at the zebra crossing. This could lead to narrow wheels getting stuck or to those wearing narrow heels getting stuck and injured. There is also a risk that if the gully becomes blocked that surface water ponding will take place at the crossing location which could result in pedestrians crossing at another location where drivers do not expect or to slips and falls in icy conditions.



It is recommended that gullies be provided immediately upstream of the dropped kerb and not along the path of the crossing.

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 proposed 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: Norman Bruton

(Audit Team Leader)

Dated: 28-3-2025

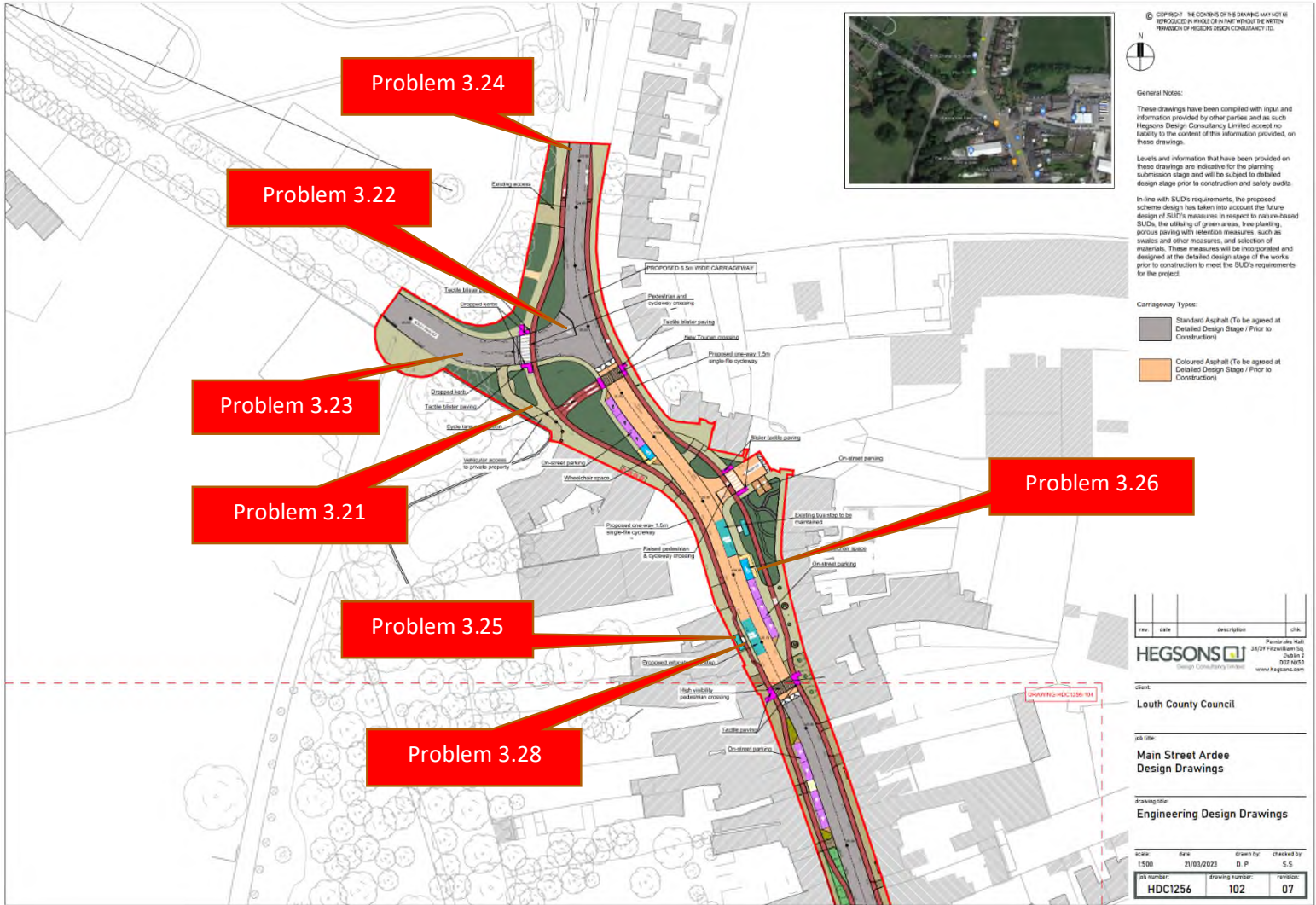
Owen O'Reilly

Signed: Owen O'Reilly

(Audit Team Member)

Dated: 28-3-2025

Appendix A – Problem Location Map(June 2024)



**BRUTON
CONSULTING
ENGINEERS**

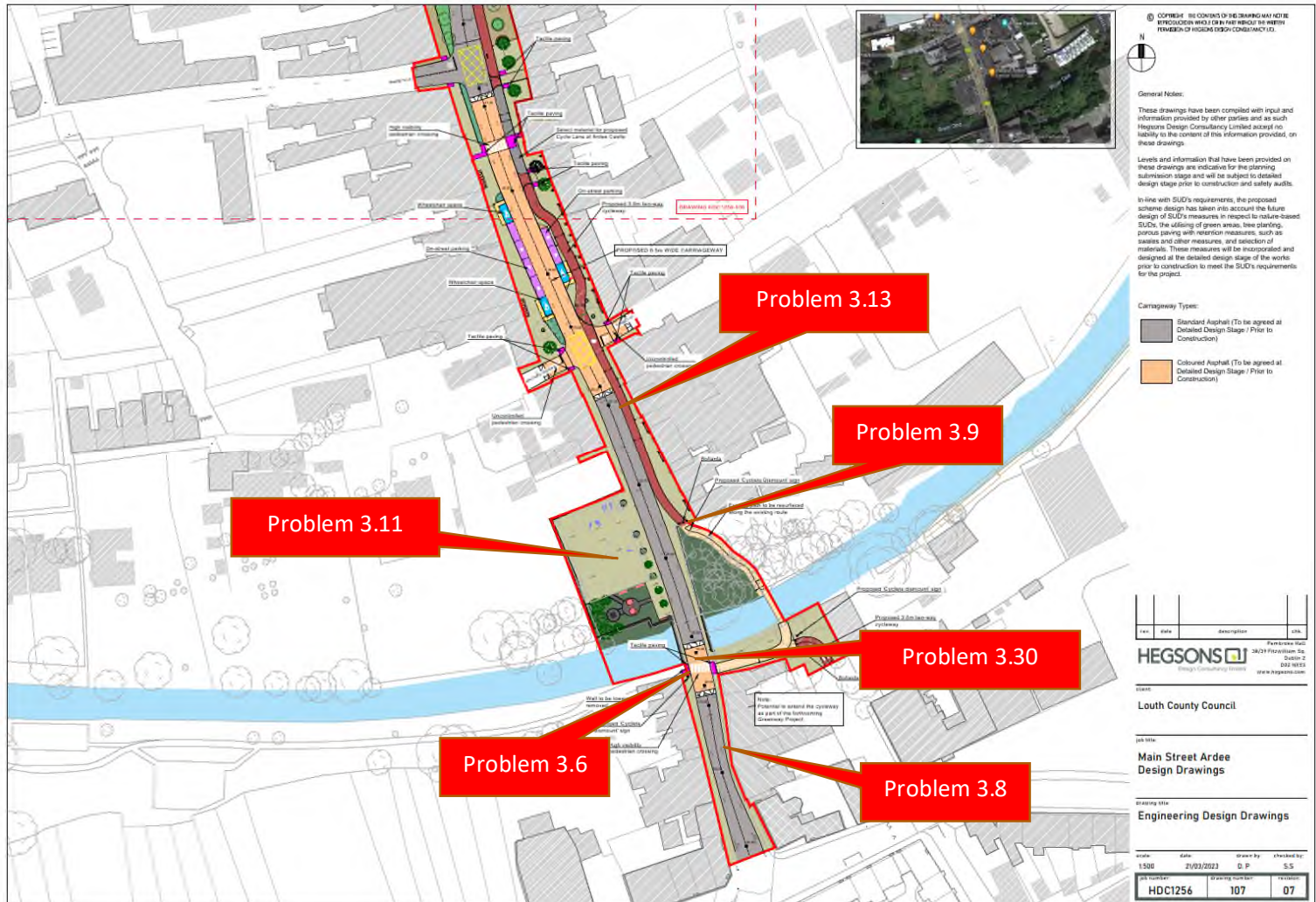


**BRUTON
CONSULTING
ENGINEERS**



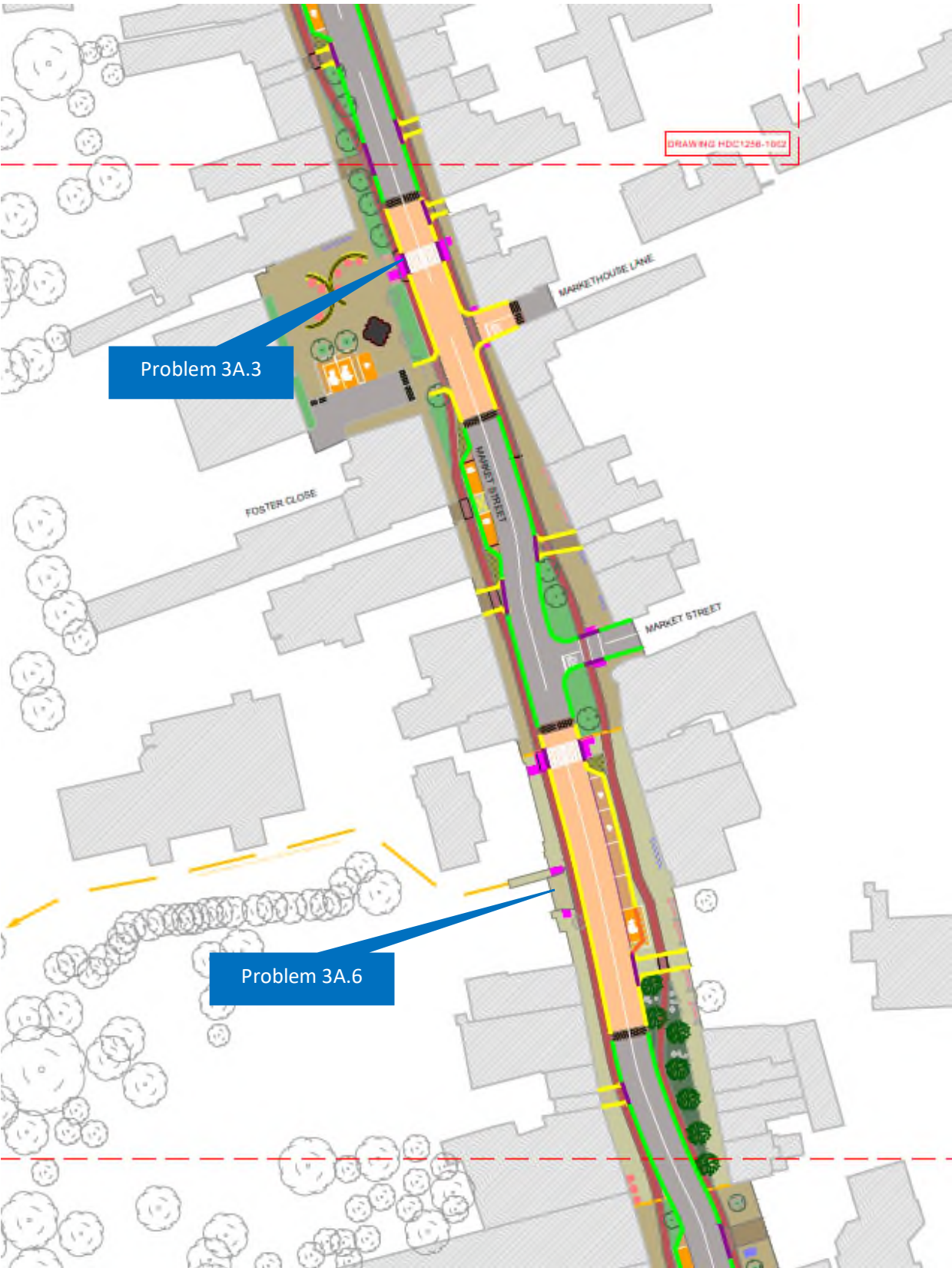
STAGE 2 RSA – ARDEE MAIN STREET LCC

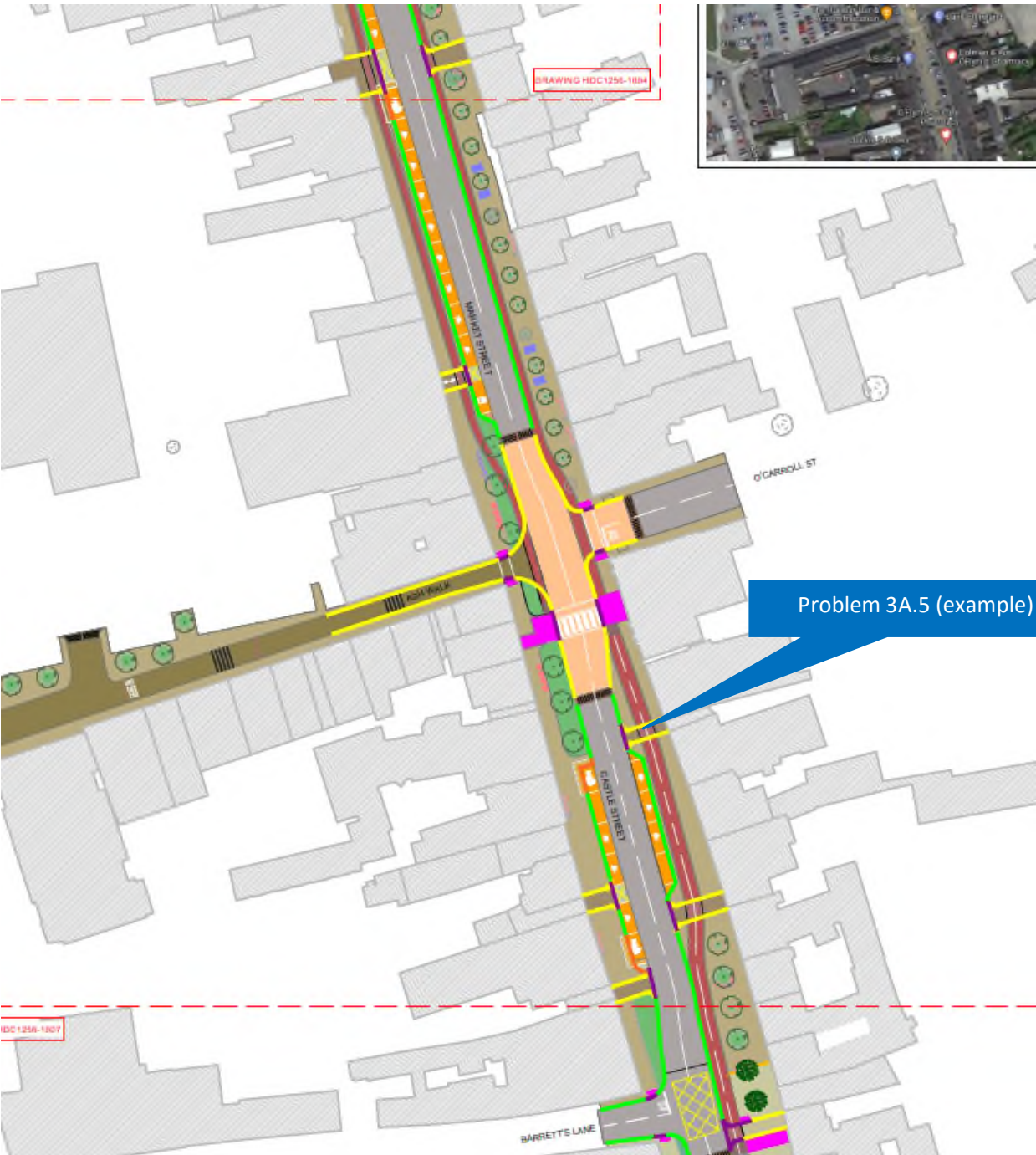
**BRUTON
CONSULTING
ENGINEERS**



Appendix A – Problem Location Map (October 2024)

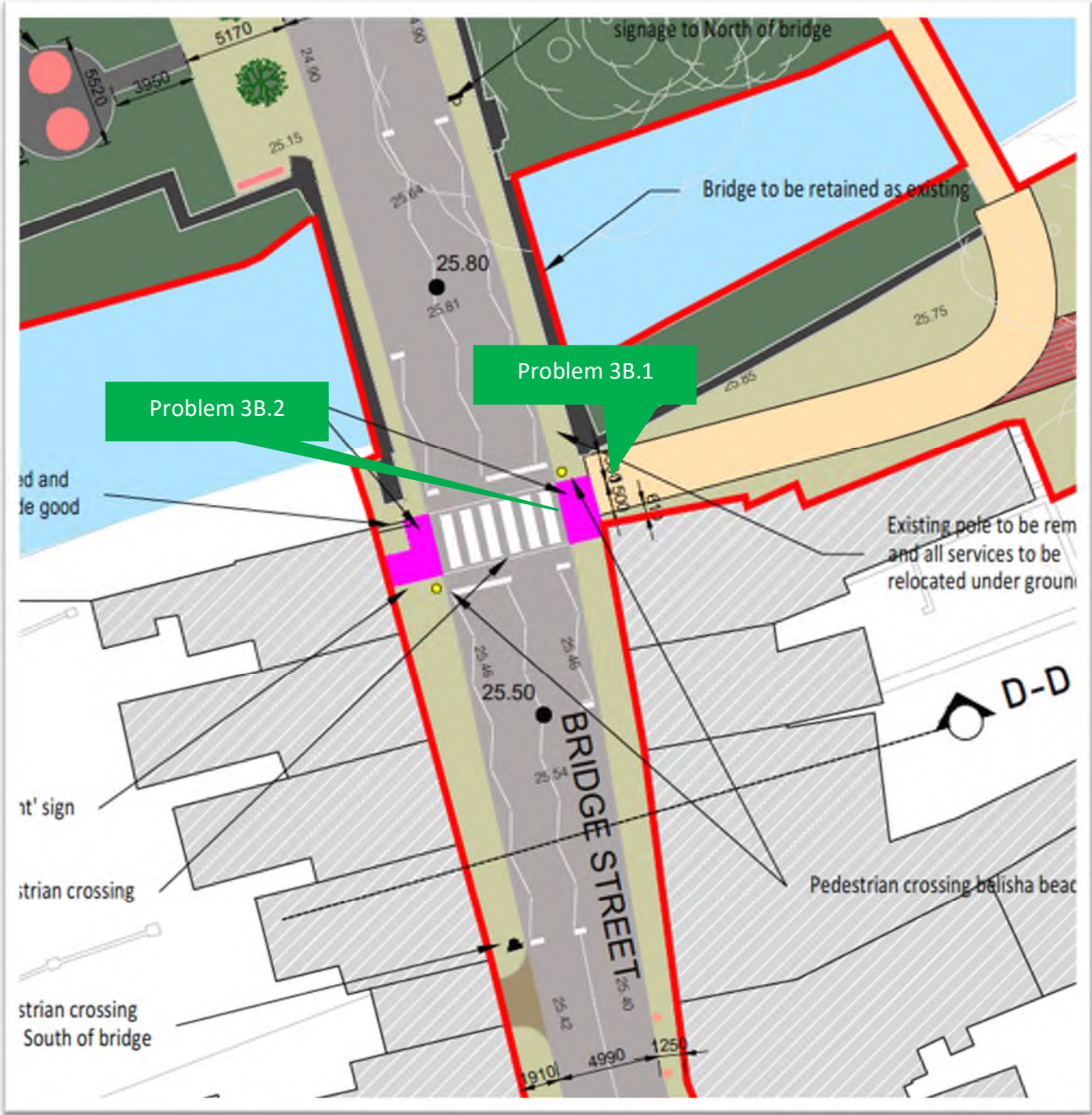








Appendix A – Problem Location Map (March 2025)



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
- Drawing LOUX3002-P-000-121-A
- 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

Information Supplied to the Audit Team (March 2025)

Drawing LOUX3002-P-000-108-B

Drawing LOUX3002-P-000-109-B

Drawing LOUX3002-P-000-119-B

Drawing LOUX3002-P-000-120-B

Drawing Appendix 2 - Existing Site Layout

Drawing Appendix 3 - Proposed Design Drawings

Drawing Appendix 4 - Design Drawings - Autotrack, Kerb Height, Visibility Splays, Lighting

Drawing Appendix 5 - Proposed Drainage Design

N2 Ardee Preliminary Design Report Addendum (TII Departure No. 36213)_March 2025 (DRAFT)

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	

L. Hannigan

Signed...(on behalf of Turley).....
Design Team Leader

Date 04/07/2024

Norman Bruton

Signed.....
Audit Team Leader

Date..... 15/7/2024

Aileen Morrissey
For & On Behalf of LCC.

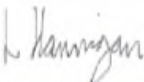
Signed.....
Employer

Date..... 4/7/2024

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

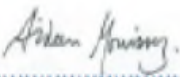
Paragraph No. in Safety Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures (describe)	Alternative measures accepted by Auditors (Yes/No)
3A.1	Yes	Yes		
3A.2	Yes	Yes		
3A.3	Yes	Yes		
3A.4	Yes	Yes		
3A.5	Yes	Yes		
3A.6	Yes	Yes		


Signed.....
Design Team Leader (On behalf of Turley)

24/10/2024
Date.....


Signed.....
Audit Team Leader

25-10-2024
Date.....


Signed.....
Employer: For & On Behalf of LCC

Date: 24 10 2024

SAFETY AUDIT FORM – FEEDBACK ON AUDIT REPORT (MARCH 2025)

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)
3B.1	Yes	Yes		
3B.2	Yes	Yes		

Signed.....

Design Team Leader (on behalf of Turley)

Date...27/03/2025...

Signed.....

Audit Team Leader

Date...28-3-2025.....

Signed.....

Employer

Date...27th March 2025.....

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

Parkgate Business Centre, Parkgate Place, Parkgate Street, Dublin 8, Ireland, D08 DK10

((01) 6463600 📞 086 0564892 * Pat.Phelan@TII.ie

Appendix 2: Existing Site Layout





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This drawing is for illustrative purposes only and should not be used for any construction or estimation purposes. It is to be used for planning application purposes only. No liability or responsibility is accepted arising from reliance upon the information contained within this drawing. Dimensions shown in millimetres, height marks in metres.

- 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

CLIENT
Louth County Council

PROJECT
Ardee Main Street

DRAWING
Existing Site Plan
SEC6.1 Southern Gateway

PROJECT NUMBER
Lo.06

DRAWING NUMBER
LOUX3002-P-000-108-B

REVISION
N/A

DATE
14.03.2025

SCALE
1:200 @ A1

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

Turley
40 Queen Square,
Bristol
BS1 4QP





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- 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

CLIENT		Louth County Council
PROJECT		Ardee Main Street
DRAWING		Existing Site Plan SEC6.2 Southern Gateway
PROJECT NUMBER		Lo.06
DRAWING NUMBER	AUTHOR	RPS
LOUX3002-P-000-109-B		
REVISION	STATUS	
N/A		
DATE	SCALE	1:200 @ A1
14.03.2025		
ADDRESS		ARROW Nørre Farimagsgade 13, Mezz. Th. 1364 Copenhagen K
		Turley 40 Queen Square, Bristol BS1 4QP



Appendix 3: Proposed Design Drawings





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- 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
- 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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Louth County Council

PROJECT
Ardee Main Street

DRAWING
Proposed Site Plan
SEC6.1 Southern Gateway

PROJECT NUMBER
Lo.06

DRAWING NUMBER
LOUX3002-P-000-119-B

REVISION
N/A

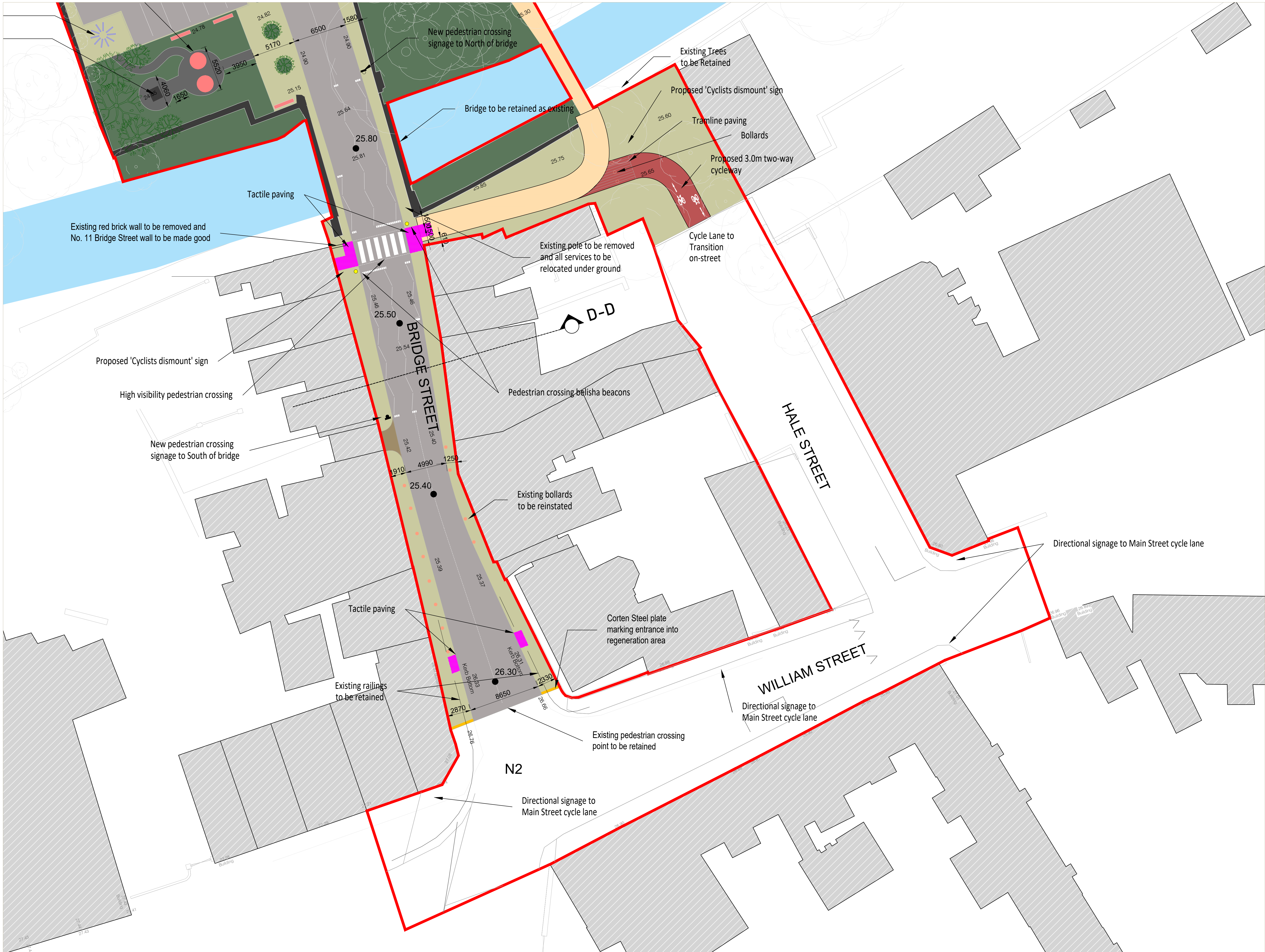
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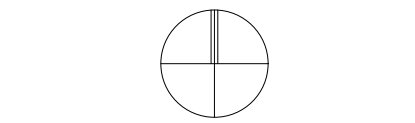
ADDRESS
ARROW
Nørre Farimagsgade 13,
Mezz. Th.
1364 Copenhagen K

Turley
40 Queen Square,
Bristol
BS1 4QP





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- 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
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- 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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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-B

REVISION
N/A

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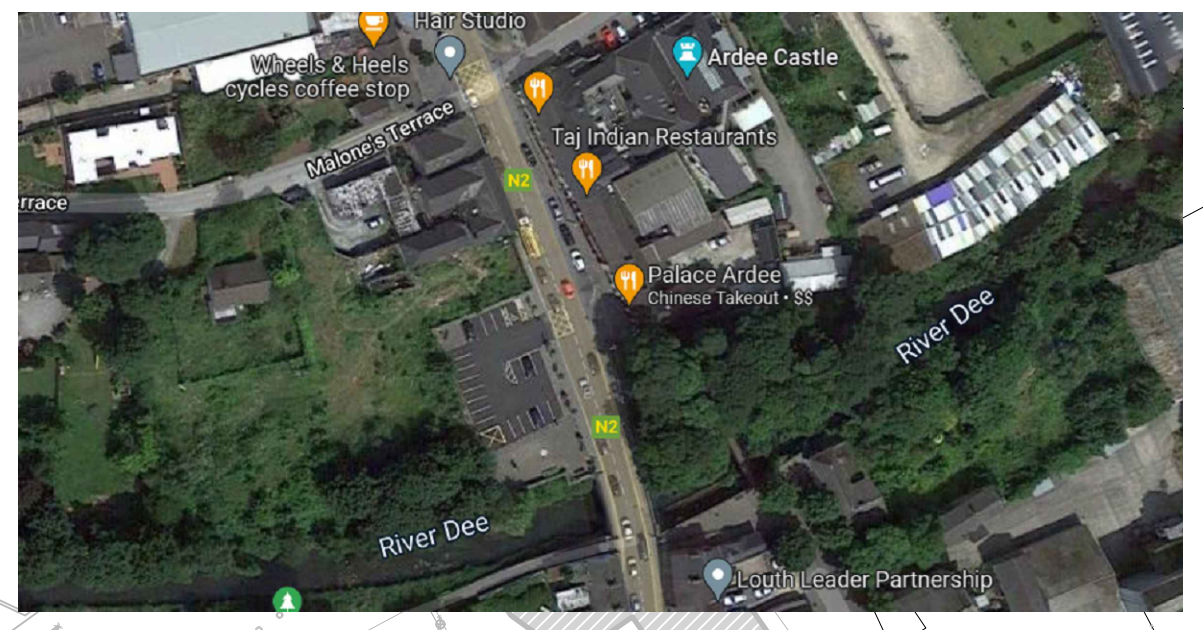
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ARROW
Nørre Farimagsgade 13,
Mezz. Th.
1364 Copenhagen K

TURLEY
40 Queen Square,
Bristol
BS1 4QP

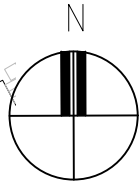


Appendix 4: Design Drawings: Autotracks, Kerb Heights, Visibility Splays & Lighting





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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)

rev.	date	description	chk.

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client:
Louth County Council

job title:
**Main Street Ardee
Design Drawings**

drawing title:
Engineering Design Drawings

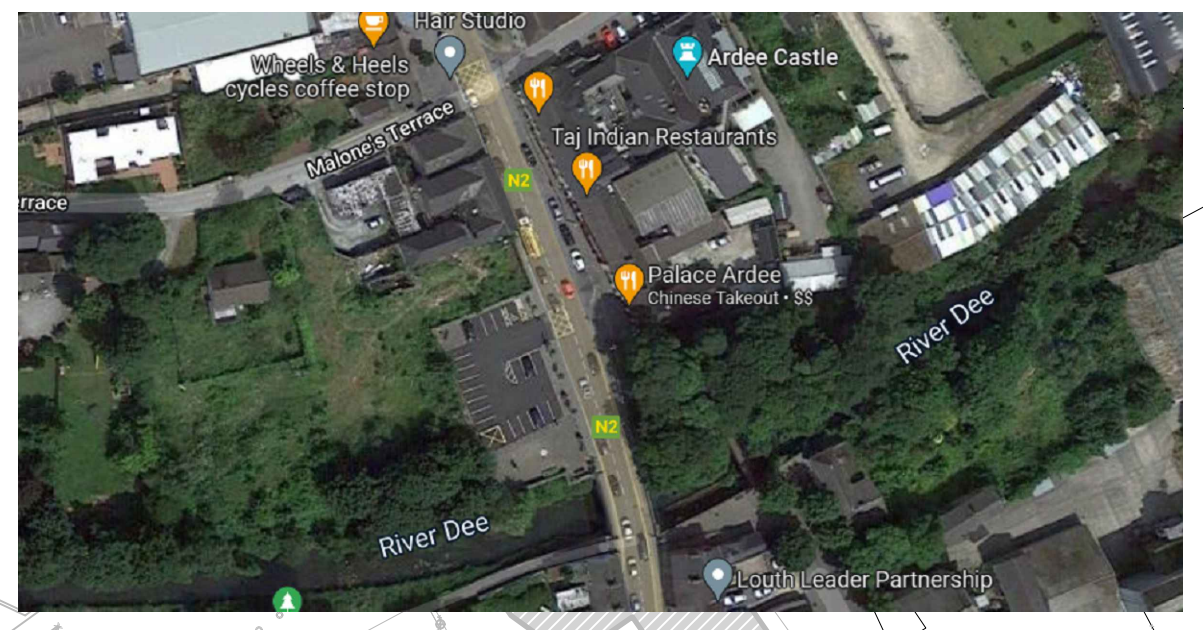
With Vehicle Tracking

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

job number:	drawing number:	revision:
HDC1256	1007 (VT)	06



DRAWING HDC1256-1006



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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)

rev.	date	description	chk.

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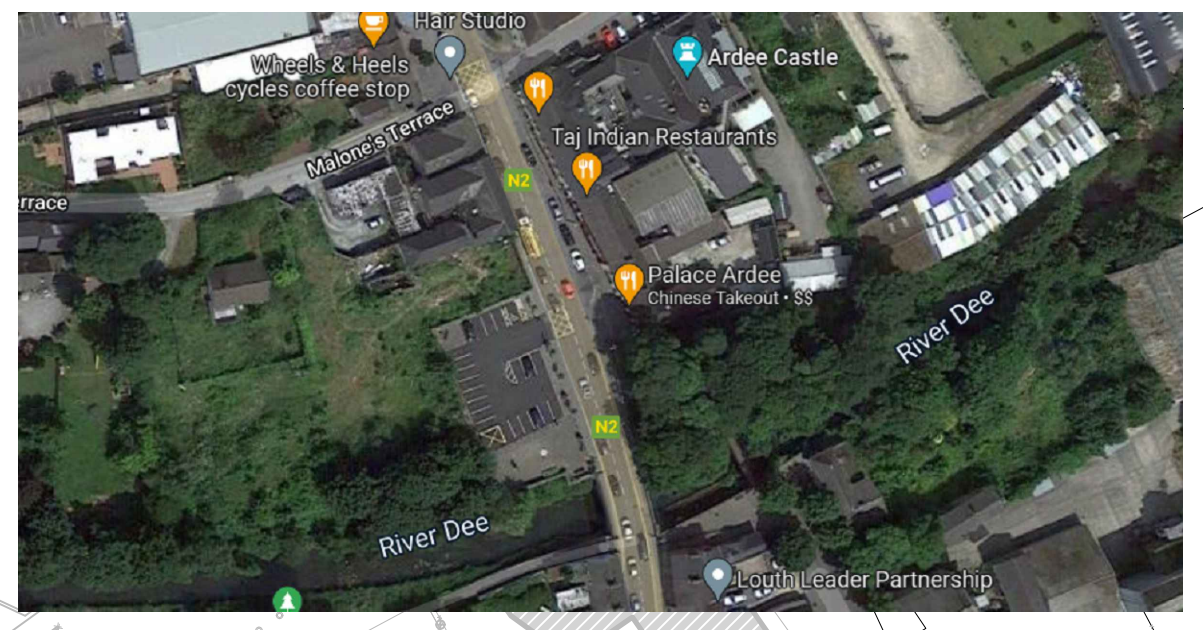
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D02 NX53
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client:
Louth County Council

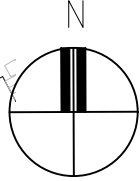
job title:
**Main Street Ardee
Design Drawings**

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	1007 (VS)	06	



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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)

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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client:

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job title:

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Design Drawings

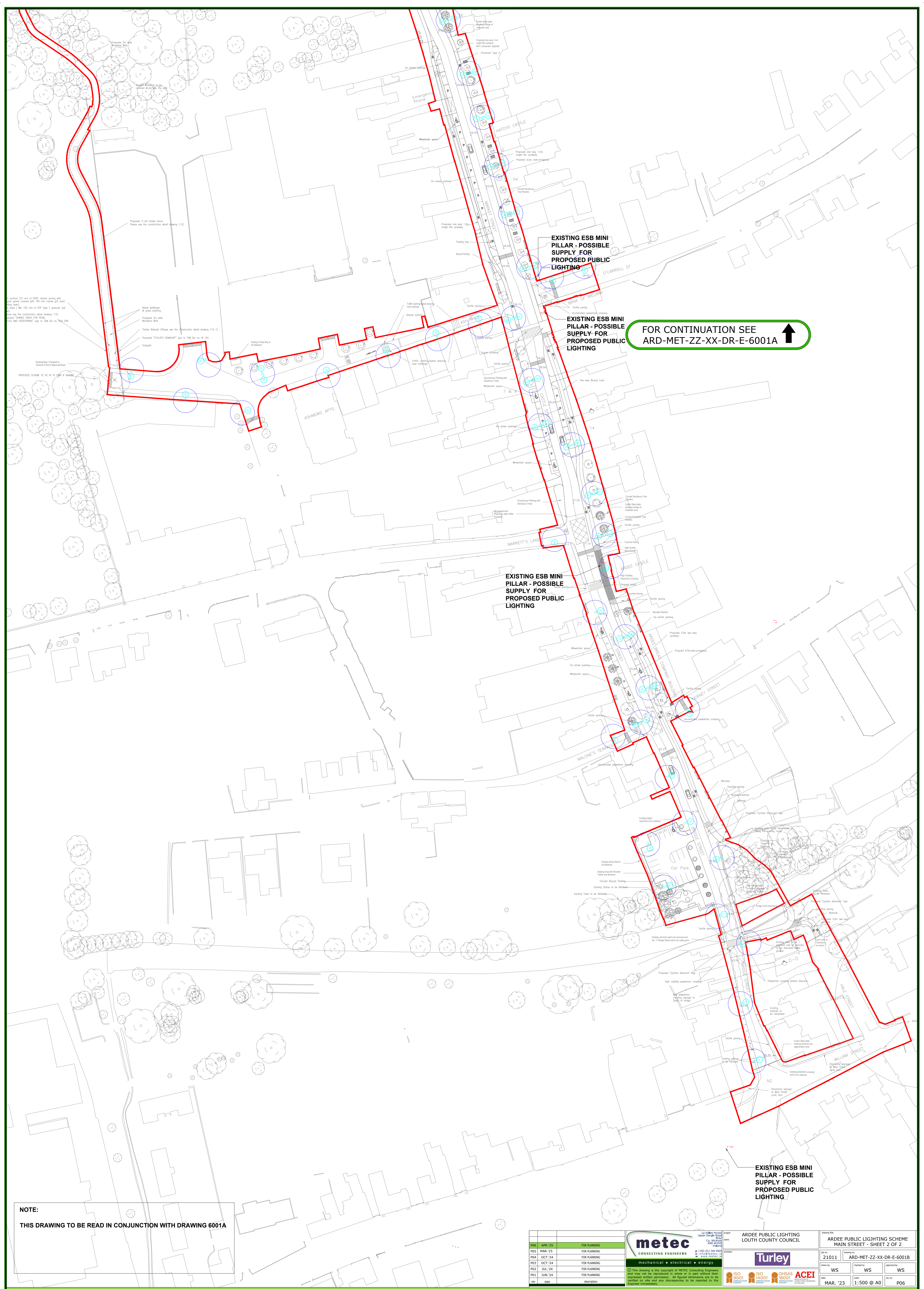
drawing title:

Engineering Design Drawings

Kerb Layout

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

job number:	drawing number:	revision:
HDC1256	1007 (K)	06



NOTE:
THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING 6001A

REV	DATE	DESCRIPTION
P06	APR.'25	FOR PLANNING
P05	MAR.'25	FOR PLANNING
P04	OCT.'24	FOR PLANNING
P03	OCT.'24	FOR PLANNING
P02	JUL.'24	FOR PLANNING
P01	JUN.'24	FOR PLANNING
REV	DATE	DESCRIPTION

metec
CONSULTING ENGINEERS
mechanical • electrical • energy

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Upper Glange Road
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W90 2200
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P: +353 (0)1 204 0000
E: info@metec.ie
W: www.metec.ie

ARDEE PUBLIC LIGHTING
LOUTH COUNTY COUNCIL

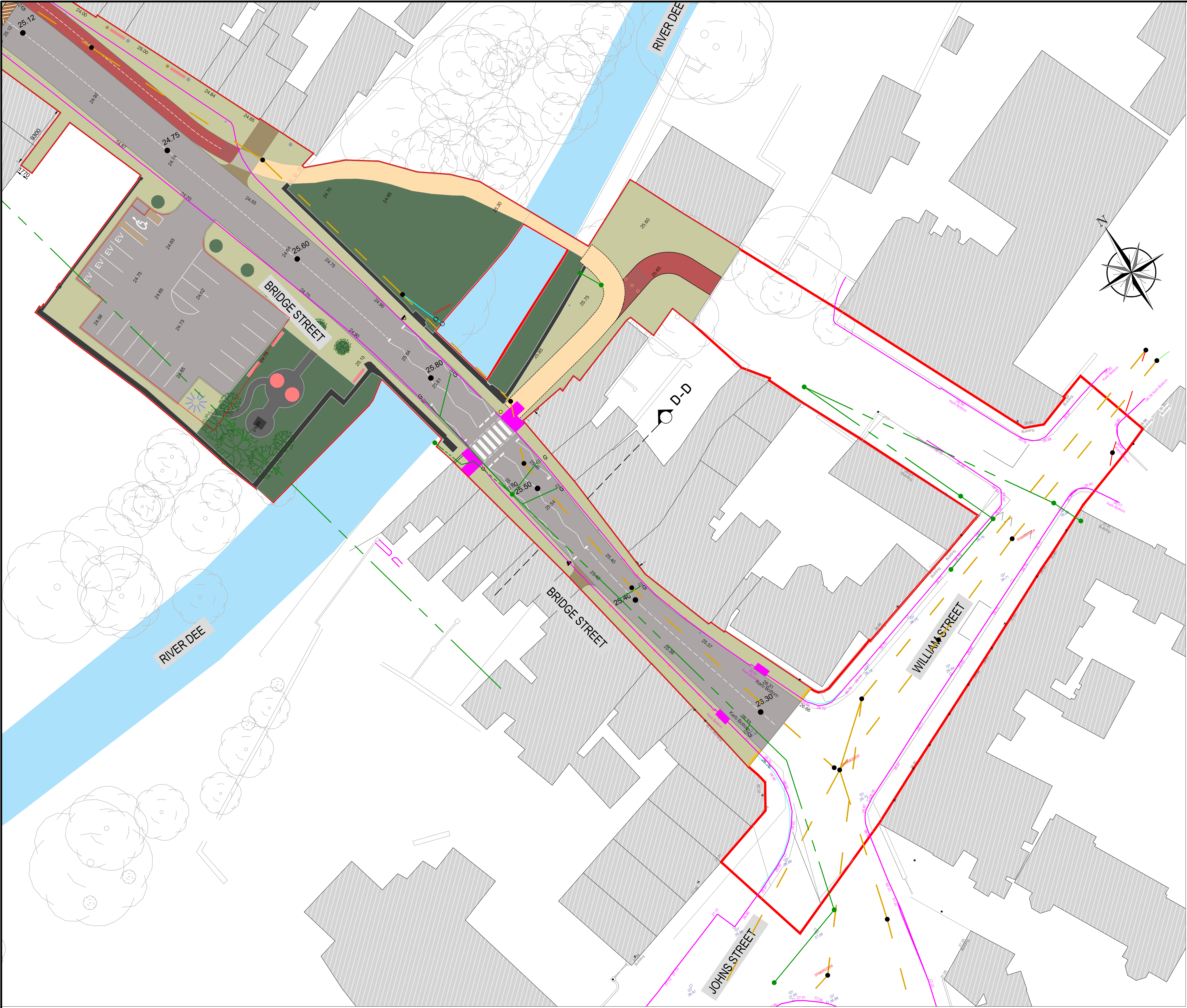
Turley

ISO 9001
ISO 14001
OHSAS 18001
ACEI

drawing title	ARDEE PUBLIC LIGHTING SCHEME MAIN STREET - SHEET 2 OF 2		
job no.	21011	drawing no.	
checked by:	WS	approved by:	WS
date	MAR.'23	scale	1:500 @ A0
rev.		rev.	P06

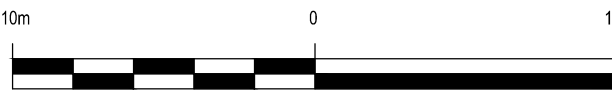
Appendix 5: Proposed Drainage Site Layout Plan





LEGEND

- EXISTING FOUL SEWER
- EXISTING STORM SEWER
- EXISTING COMBINED SEWER
- EXISTING OVERFLOW SEWER
- EXISTING KERB LINE
- RED LINE BOUNDARY
- EXISTING GULLY
- NEW GULLY



SCALE 1:250

P07	02.04.25	OVERALL LAYOUT AMENDED	PMcD	DR	DR
P06	20.03.25	OVERALL LAYOUT AMENDED	PMcD	DR	DR
P05	31.10.24	OVERALL LAYOUT AMENDED	PMcD	DR	DR
P04	08.10.24	LAYOUT AMENDED	PMcD	DR	DR
P03	12.06.24	OVERALL LAYOUT AMENDED	PMcD	DR	DR
P02	04.01.24	LAYOUT AMENDED AND SUDS ADDED	PMcD	DR	DR
P01	12.04.23	FIRST ISSUE	PMcD	DR	DR
REV	DATE	DESCRIPTION	D	C	A

PROJECT No.	STAGE
533273	PLANNING

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CLIENT
TURLEY

PROJECT
ARDEE

TITLE
COMBINED LAYOUT SITE PLAN SHEET 6 OF 10

SCALES @ A1	DRAWN	CHECKED	APPROVED
1:250	PMcDONALD	D REDDY	D REDDY
	DATE	DATE	DATE
	12.04.23	12.04.23	12.04.23

SUITABILITY CODE	SUITABILITY DESCRIPTION
S1	FOR COORDINATION

DRAWING No.	REVISION
533273-NOD-01-XX-DR-C-020107	P07