



# MIDDLETON STONEY ROAD, BICESTER.


## PROPOSED PHASE 1B WORKS

### Stage 1 Road Safety Audit

**May 2024**

**SG-AA-2024-4431-RSA1**

Report title:	Middleton Stoney Road, Bicester. Phase 1B Works. Stage 1 of RSA
Date:	22 <sup>nd</sup> May 2024
Document reference and revision:	SG-AA-2024-4431-RSA1
Prepared by:	The Safety Forum Ltd
On behalf of:	Oxford County Council

Revision Status	Prepared by: (Name)	Checked by: (Name)	Approved by: (Signature)	Date Approved:
Original	S.Gajja	A. Ashfield		22/05/24
Designer's Response				
Authority's Response				
Audit Response				

<b>Client:</b>	
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	Date: 22/05/2024

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**APPENDIX A**            Location Plan

## 1.0 INTRODUCTION

- 1.1 This report results from a Stage 1 Road Safety Audit (RSA) carried out on the proposed highway works relating to the Himley Village development that comprises 1,700 homes, extra-care housing, commercial uses, community facilities, and a primary school.
- 1.2 The highway proposals include:
- Two vehicular accesses with associated carriageway widening to accommodate two ghost right turn lanes into the proposed development.
  - Provision of Bus stops
  - NMU facilities – Shared Use facility / Cycle Lanes / Footways
  - Internal spine roads and associated infrastructure
  - Swales to facilitate drainage
- 1.3 The Stage 1 RSA was carried out at the request of Hydrock.
- 1.4 The Road Safety Audit Brief was supplied by Rob Pembridge of Hydrock. The overseeing organisation is Oxford County Council. The RSA Brief was accepted by the Audit Team as adequate to complete the RSA.
- 1.5 The Audit was carried out between 19<sup>th</sup> and 22<sup>nd</sup> May 2024 by consultants working on behalf of The Safety Forum Limited. The Audit Team, which is established from The Safety Forum Ltd and independent of the project design team, has had no involvement with the project.

The Auditors were:

Siraj Gajja – Team Leader, BA (Hons), MCIHT MSoRSA, HE RSA Certificate of Competence

Andy Ashfield - Team Member, FCIHT FIHE MSoRSA HE RSA Certificate of Competence

- 1.6 The report has been prepared in accordance with General Principles and Scheme Governance General Information, GG 119, Road Safety Audit (Formerly HD 19/15).
- 1.7 The Audit consisted of a desktop study and a site visit. The site visit was carried out on 20<sup>th</sup> May 2024, between 12:00 and 13:00 hours by all members of the Audit Team together. The weather was sunny and the road surface was dry. Traffic conditions were moderate and considered free flowing.

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- 1.8 Issues relating to the health & safety of operatives constructing, operating or maintaining the highway are not covered by Road Safety Audit. Only issues relating to the design and construction of facilities for highway maintenance that may potentially contribute to a Road Safety Matter are considered by the Road Safety Audit process.

Road Safety Audit is not a technical check that the design conforms to Standards and/or best practice guidance. Design Organisations are responsible for ensuring that their designs have been subjected to the appropriate design reviews (including, where applicable, Walking, Cycling & Horse Riding Assessment & Review) prior to Road Safety Audit.

Road Safety Audit is not a check that the scheme has been constructed in accordance with the design.

Whilst reference is made to certain design standards, where safety may be compromised by a reduction in standard, this report is not intended to provide a design check. The Auditors have only reported on matters that might have an adverse effect on road safety in the context of the chosen design. No attempt has been made to comment on the justification of the scheme or the appropriateness of the design. Consequently, the Auditors accept no responsibility for the design or construction of the scheme.

- 1.9 The recommendations in this report are aimed at addressing the road safety problems; however there may be other alternative acceptable ways to overcome a specific problem, when other practical issues are considered. The recommendations contained herein do not absolve the Designer of his/her responsibilities.
- 1.10 The Overseeing Organisation response to the RSA should be formally recorded and reported to the Designer and the RSA Team so that a record of the Audit process is contained in the *As Built* design pack to be provided and retained by the Overseeing Organisation on final completion.
- 1.11 All problems identified in this Road Safety Audit Report are indicated on a location plan in Appendix A

## 2.0 ITEMS CONSIDERED

2.1 The Road Safety Audit was undertaken on the scheme detailed in the following Hydrock documentation.

27141-HYD-XX-XX-DR-C-3000	Phase 1B Infrastructure RM Boundary	P06
592-PL-101	Site Boundary - Parameter Plan 1	Rev B
P22-3093_DE_003_H_01	Framework Plan	Rev H
P22-3093_EN_04_D_00	Phase 1B Detailed Infrastructure Landscape Proposal	Rev D
27141-HYD-XX-XX-DR-D-0100	Primary Access Junction General Arrangement Sheet 1	P03
27141-HYD-XX-XX-DR-D-0101	Secondary Access Junction General Arrangement Sheet 2	P03
27141-HYD-XX-XX-DR-D-0102	Pedestrian/Cycle Link General Arrangement Sheet 3	P03
27141-HYD-XX-XX-DR-D-0103	Sites Accesses Visibility Splays	P01
27141-HYD-XX-XX-DR-D-0104	Swept Path Analysis-Sh1	P02
27141-HYD-XX-XX-DR-D-0104.1	Swept Path Analysis-Sh2	P01
27141-HYD-XX-XX-DR-D-0105	Swept Path Analysis-Sh3	P01
27141-HYD-XX-XX-DR-C-2050	Phase 1B Vehicle and Cycle Visibility Sheet 1 of 4	P01
27141-HYD-XX-XX-DR-C-2051	Phase 1B Vehicle and Cycle Visibility Sheet 1 of 4	P01
27141-HYD-XX-XX-DR-C-2052	Phase 1B Vehicle and Cycle Visibility Sheet 1 of 4	P01
27141-HYD-XX-XX-DR-C-2053	Phase 1B Vehicle and Cycle Visibility Sheet 1 of 4	P01
27141-HYD-XX-XX-DR-C-2200	Phase 1B Engineering Strategy Sheet 1 of 4	P07
27141-HYD-XX-XX-DR-C-2201	Phase 1B Engineering Strategy Sheet 2 of 4	P08
27141-HYD-XX-XX-DR-C-2202	Phase 1B Engineering Strategy Sheet 3 of 4	P08
27141-HYD-XX-XX-DR-C-2203	Phase 1B Engineering Strategy Sheet 4 of 4	P07
27141-HYD-XX-XX-DR-C-2200	Phase 1B Bus Tracking Sheet 1	P06
27141-HYD-XX-XX-DR-C-2600	Phase 1B Bus & Large Car Tracking Sheet 2	P06
27141-HYD-XX-XX-DR-C-2601	Phase 1B Refuse & Large Car Tracking Sheet 3	P06
27141-HYD-XX-XX-DR-C-2602	Phase 1B Refuse & Large Car Tracking Sheet 4	P06

2.2 No departure from standards or other information was submitted to the Audit Team.

2.3 Accepting that this request is for a Stage 1 RSA, further safety aspects to be considered at subsequent Audit stages should include, but are not limited to:

- relevant regulatory / warning signs and road marking schedules;
- street lighting assessments to ensure adequate illumination
- kerb details
- review of carriageway and shared facility surfacing detail and gradients;
- review of drainage design; and
- review of site clearance.

2.5 No deflection arrows have been provided at either end of the proposed ghost island right turn lane. These should be implemented as part of the proposals.

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### **3.0 MATTERS ARISING FROM THIS STAGE 1 AUDIT.**

#### **3.1 PROBLEM**

LOCATION: Middleton Stoney Road – West of proposed vehicular access

SUMMARY: Risk of vehicles speeding in excess of the posted speed limit

The scheme proposals include extending the existing 40mph speed limit westwards to include the location of both the vehicular accesses into the proposed development. Motorists travelling in an eastbound direction west of the development may be travelling at or above the National Speed Limit (ie 60mph) on this approach. Although 40mph signs have been proposed, the provision of signage alone may not be sufficient for eastbound road users to comply with the change in speed limit ahead. Inappropriate speeds within the vicinity of the proposed vehicular accesses/crossings may result in collisions of all types, including injury to NMUs using the crossing. Collisions involving excessive speeds will also likely increase the severity of collisions.

#### **RECOMMENDATION**

The Audit Team recommend additional measures including the provision of signage is provided to achieve compliance with the proposed 40mph speed limit at the new highway features.

#### **3.2 PROBLEM**

LOCATION: Vehicular access (western end)

SUMMARY: Risk of vehicle to bus type collisions and/or vehicles striking kerb/loss of control

The alignment of the eastbound lane in relation to the proposed bus lay-by is such that it directs road users into the bus lay-by where they may either come into conflict with a bus stopped here or the nearside kerb. This may increase the likelihood of vehicles colliding with busses or single vehicle loss of control collisions as a result of sudden manoeuvring/striking the kerb.

#### **RECOMMENDATION**

The Audit Team recommends that the eastbound near-side kerb alignment is adjusted to provide a smoother alignment for road users. This could be achieved by providing a more conventional bus lay-by arrangement than that proposed.

### 3.3 PROBLEM

LOCATION: General to Middleton Stoney Road and internal roads

SUMMARY: Risk of NMU incursions into swale with risk of drowning

The scheme proposals include the provision of swales in close proximity to shared use facilities / cycleways and footways. From the information provided, some of the proposed swales are to be a minimum of 0.6m deep. With the absence of any features to protect NMU's from incursions into the swale, NMU's particularly cyclists may be at risk of exposure to level differences. This would be further exacerbated during periods of heavy rainfall where storm water may create a drowning hazard for any such incursions.

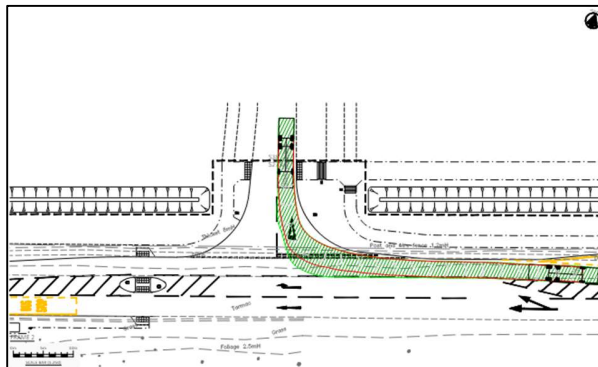
#### RECOMMENDATION

The Audit Team recommend providing measures to protect NMU's from incursions into the proposed swales throughout the scheme extents.

### 3.4 PROBLEM

LOCATION: Middleton Stoney Road – Vehicular Access Eastern end

SUMMARY: Insufficient carriageway geometry



From the vehicle swept path analysis provided as part of the scheme submission, it is evident that larger service/refuse vehicle cannot turn left from the site without encroaching onto the right turn lane. Insufficient carriageway widths to accommodate long wheel based vehicular turning movements may increase the risk of vehicle on vehicle side impact/sideswipe type collisions.

#### RECOMMENDATION

The Audit Team recommends providing adequate carriageway geometry to ensure that all likely vehicle types to use this junction can carry out turning safely and without obstruction.



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### 3.5 PROBLEM

LOCATION: Middleton Stoney Road – Both access Junctions

SUMMARY: Vegetation within visibility splays

The scheme proposals indicate visibility splays either side of the proposed accesses onto Middleton Stoney Road. It was noted during the site inspection that there is existing vegetation in the vicinity of the proposed accesses. Obstruction of the visibility splays may increase the likelihood of failure to give way by motorists emerging from the site and a risk of associated vehicle on vehicle type collisions.

#### RECOMMENDATION

The Audit Team recommend that the existing vegetation is cut back and adequately maintained, in order that the proposed visibility splays are kept clear of obstruction.

### 3.6 PROBLEM

LOCATION: Middleton Stoney Road – Eastern Access.

SUMMARY: Risk of vehicle overhang on mainline carriageway.

It is unclear from the drawings provided whether there will be sufficient carriageway width between the edge of the give-way and the mainline carriageway of Middleton Stoney Road. Insufficient width may result in vehicles entering the proposed access overhanging the mainline carriageway when stopped to give-way to cyclists at this location. This may increase the risk of vehicle on vehicle side impact type collisions and possible injury to vehicle occupants.

#### RECOMMENDATION

The Audit Team recommend that sufficient carriageway length is provided between the proposed give-way and the mainline carriageway to accommodate all vehicles expected to use this junction.

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## 4.0 AUDIT TEAM STATEMENT

4.1 We certify that this audit has been carried out in accordance with GG 119.

### AUDIT TEAM LEADER

Name: Siraj Gajia  
Position: Audit Team Leader  
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Signed: 

Date: 22<sup>nd</sup> May 2024

### AUDIT TEAM MEMBER

Name: Andy Ashfield  
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Signed: 

Date: 22<sup>nd</sup> May 2024



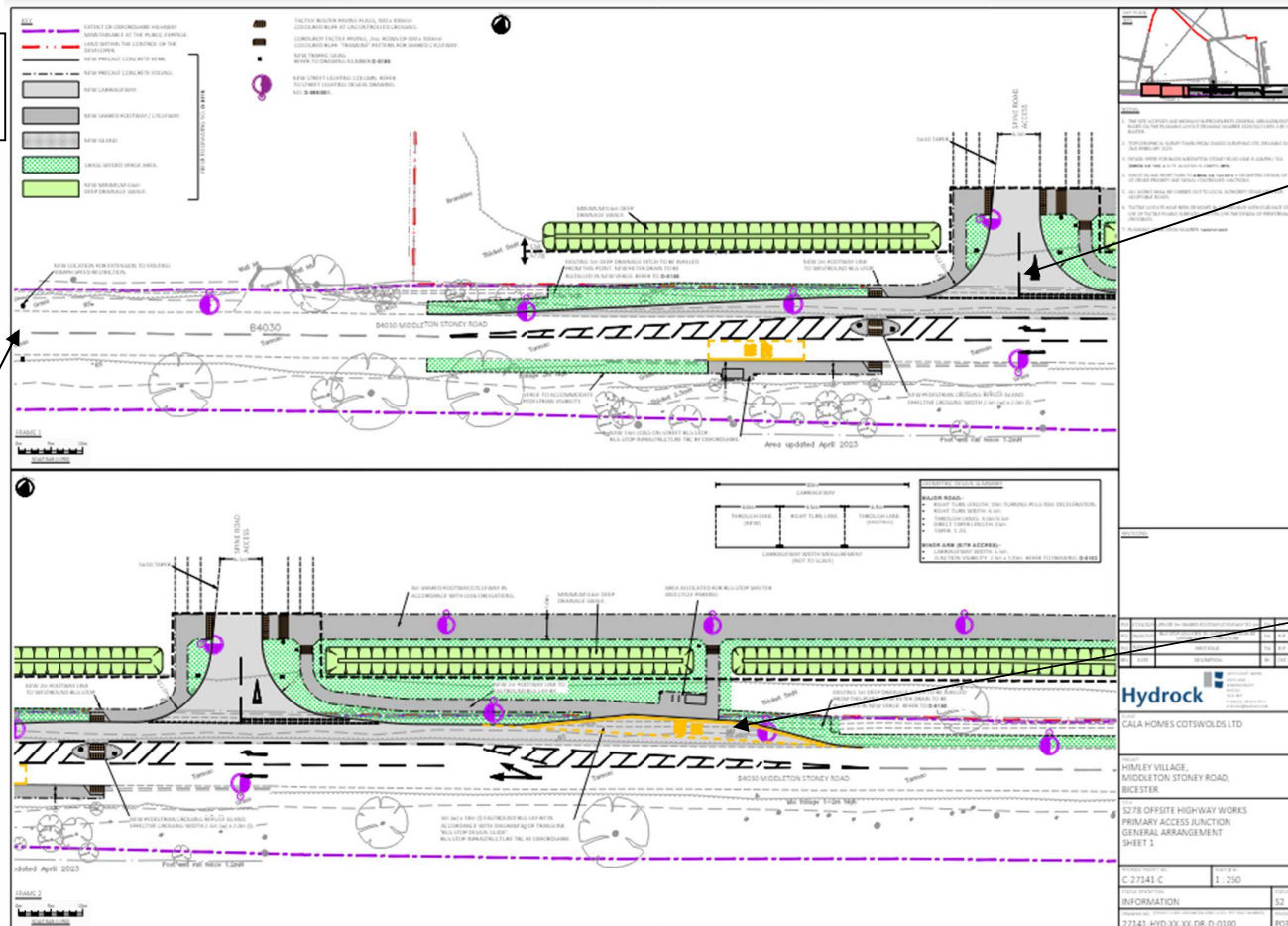
## APPENDIX A: LOCATION PLAN

GENERAL:  
3.3

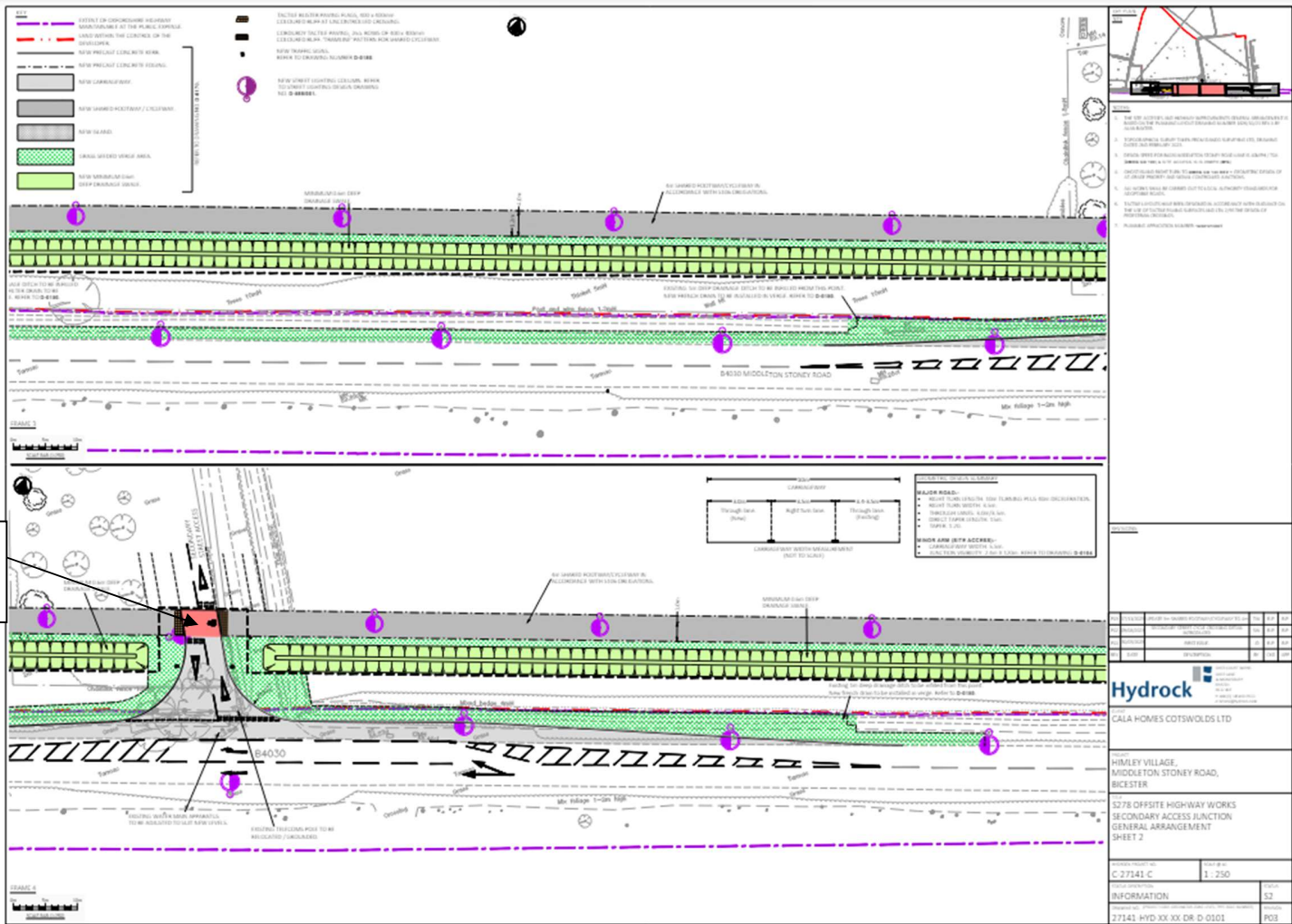
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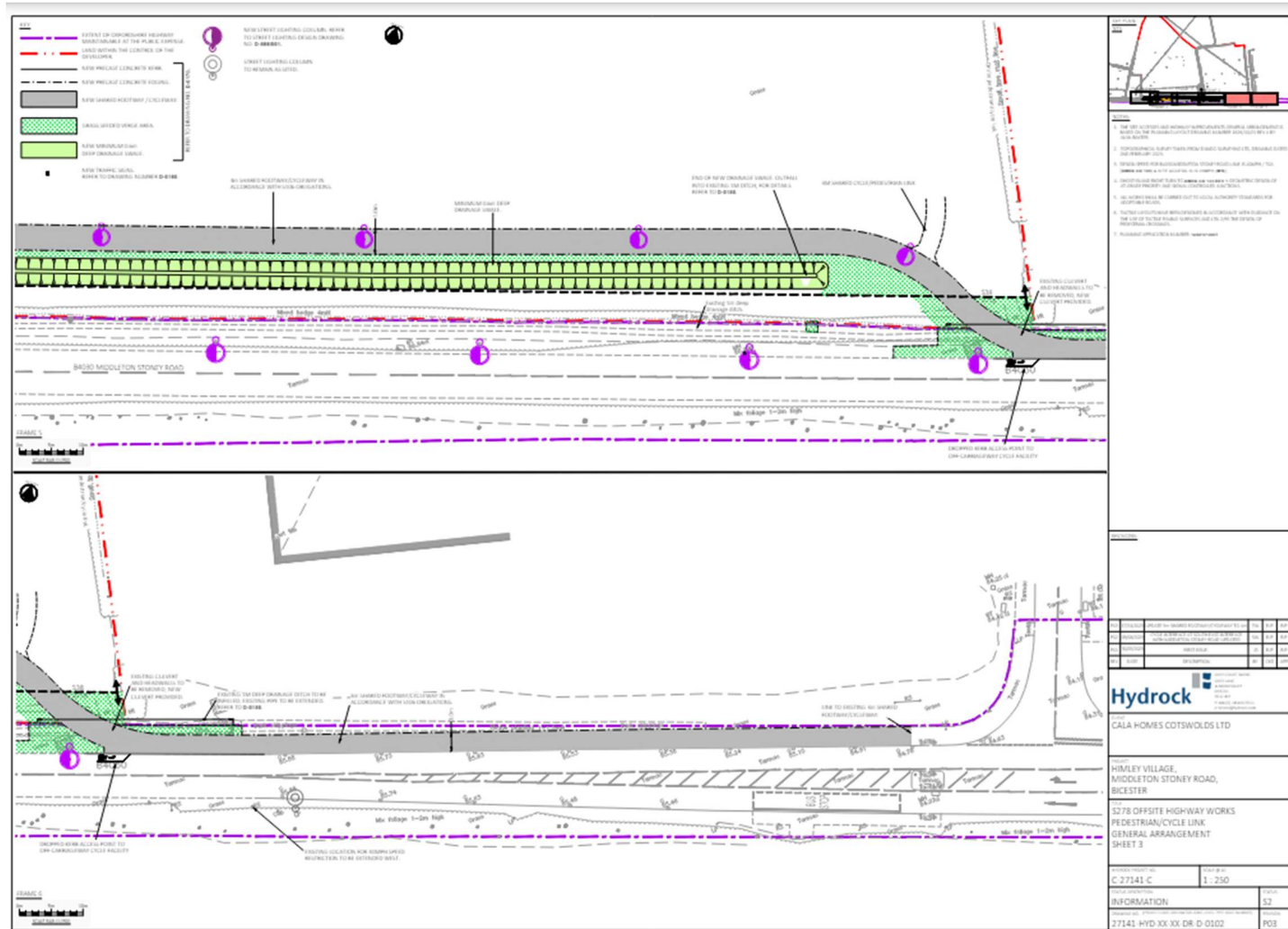
3.5

3.2



3.4, 3.5 & 3.6





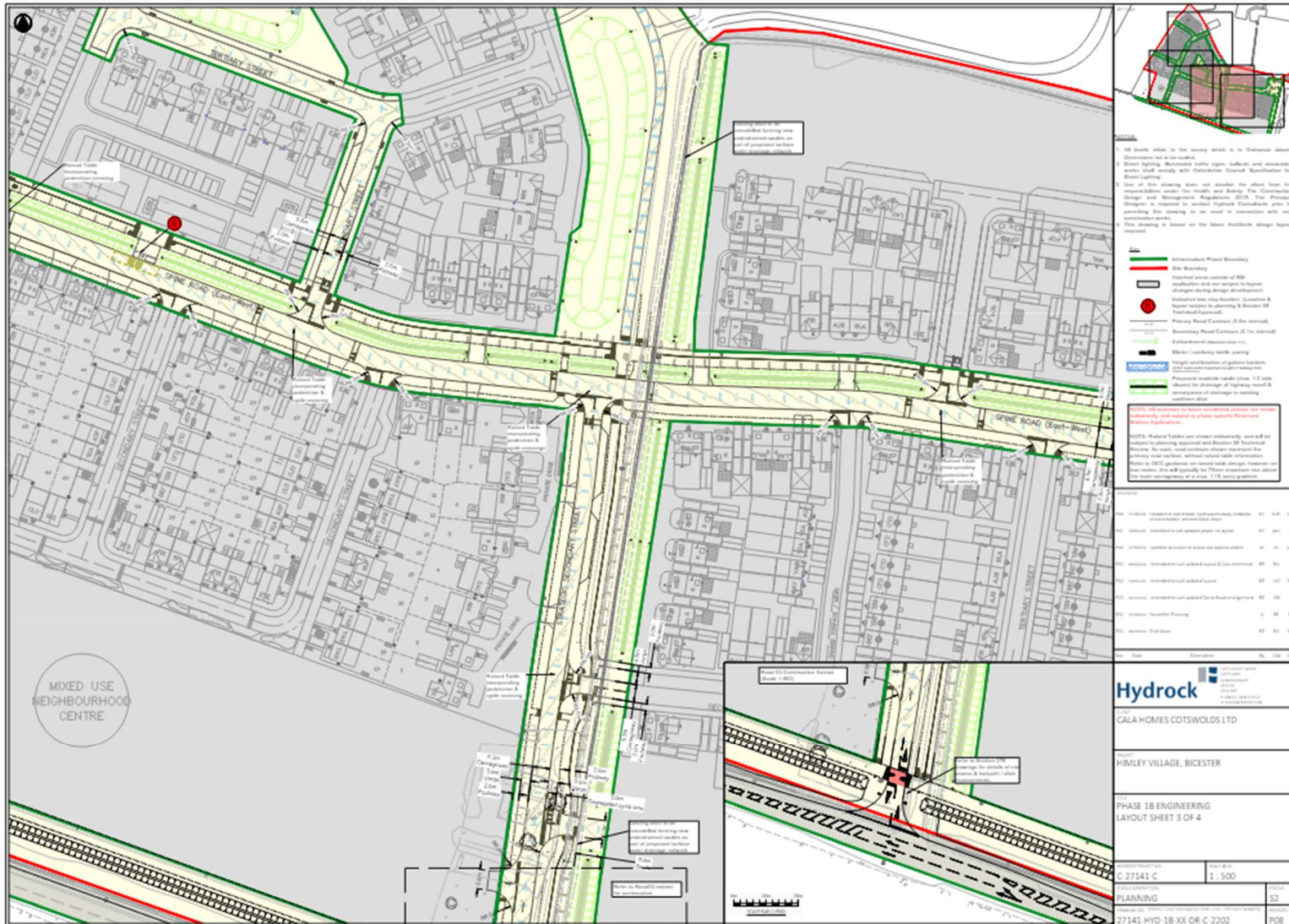
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