

ATKINS

Member of the SNC-Lavalin Group

**Residential Development,
Aderrig Phase 2, Adamstown,
Co. Dublin**

Stage 1 Road Safety Audit

Quintain Developments Ireland Ltd

May 2021





Notice

This document and its contents have been prepared and are intended solely for Quintain Developments Ireland Ltd. information and use in relation to the proposed residential development, Aderrig Phase 1, Adamstown, Co. Dublin Stage 1 Road Safety Audit.

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Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 0	Draft	DM	DC	DM	AFM	19.05.2021
Rev 1	Designers Response completed	DM	DC	DM	AFM	20.05.2021

Client signoff

Client	Quintain Developments Ireland Ltd
Project	Proposed residential development, Aderrig Phase 2, Adamstown, Co. Dublin
Job number	5150924
Client signature / date	

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1. Introduction

1.1. Background

This report describes the findings of a Stage 1 Road Safety Audit associated with the Aderrig Phase 2 development, Adamstown, Co. Dublin.

The Audit has been completed by Atkins on behalf of Quintain Developments Ireland Ltd.

1.2. Site Inspection

The site inspection was carried out by the audit team on the 13th of May 2021.

Weather conditions during the site inspection were sunny; road surfaces were dry.

1.3. The Team

The Road Safety Audit Team members were as follows:

- Team Leader: **Darragh Malone** BEng (Hons) MSc CEng MICE
- Team Member: **Dara Crosbie** BSc ME CEng MIEI

1.4. The Design

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

Table 1-1 – Design Team Documents & Drawings List

Drawing Number	Drawing Title	Revision
5150924 / HTR / 06 / DR /0000	Cover Sheet	-
5150924 / HTR / 06 / DR /0100	Street Typology – Sheet 1 of 2	-
5150924 / HTR / 06 / DR /0101	Street Typology – Sheet 2 of 2	-
5150924 / HTR / 06 / DR /0102	Road layout – Sheet 1 of 2	-
5150924 / HTR / 06 / DR /0103	Road layout – Sheet 2 of 2	-
5150924 / HTR / 06 / DR /0104	Junction Layout – Sheet 1 of 3	-
5150924 / HTR / 06 / DR /0105	Junction Layout – Sheet 2 of 3	-
5150924 / HTR / 06 / DR /0106	Junction Layout – Sheet 3 of 3	-
5150924 / HTR / 06 / DR /0107	Junction Visibility – Sheet 1 of 3	-
5150924 / HTR / 06 / DR /0108	Junction Visibility – Sheet 2 of 3	-
5150924 / HTR / 06 / DR /0109	Junction Visibility – Sheet 3 of 3	-
5150924 / HTR / 06 / DR /0110	Vehicle Tracking – Sheet 1 of 4	-
5150924 / HTR / 06 / DR /0111	Vehicle Tracking – Sheet 2 of 4	-
5150924 / HTR / 06 / DR /0112	Vehicle Tracking – Sheet 3 of 4	-
5150924 / HTR / 06 / DR /0113	Vehicle Tracking – Sheet 4 of 4	-
5150924 / HTR / 06 / DR /0114	Cross Sections – Sheet 1 of 3	-
5150924 / HTR / 06 / DR /0115	Cross Sections – Sheet 2 of 2	-

1.5. Road Safety Audit Compliance

Procedure and Scope

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

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

Compliance with Design Standards

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

Minimizing Risk of Collision Occurrence

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

2. Road Safety Issues Identified

2.1. Problem: Tactile paving for visually impaired

Location: Homezone Streets and Side Streets

The provision of tactile / blister paving at crossing locations is either missing or insufficiently provided across some homezone streets and side streets. Where such surface features are found to be deficient, there is potential for visually impaired pedestrians to inadvertently step out into the adjacent live carriageway resulting in an increased risk of pedestrian-vehicle collisions.



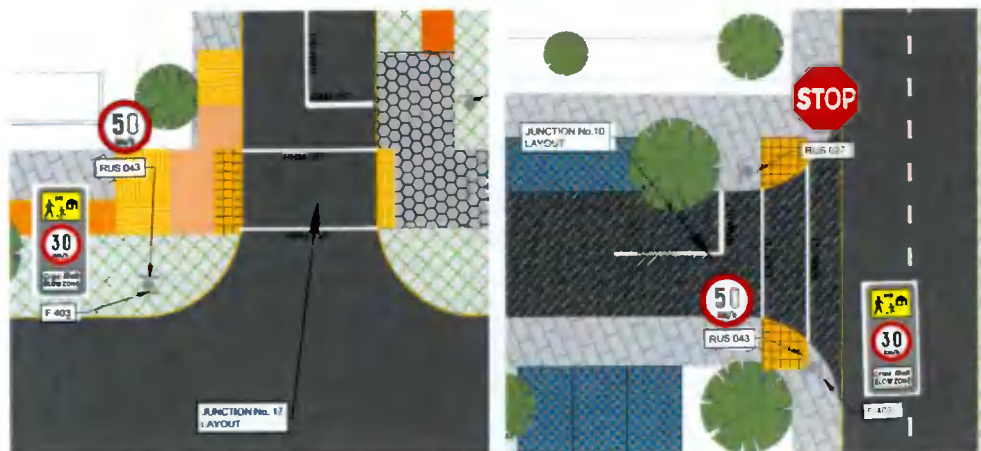
Recommendation

The Design Team should review the design provision / application of tactile paving at all crossing locations across the scheme, taking cognisance of required paving arrangement, colour and extent.

2.2. Problem: Speed Limits

Location: Junction 17 / Linear Park Road

There appears to be an inconsistency in proposed speed limit signage applicable to Linear Park Road. The proposed signage at Junction No 17 suggests 30kph for this road while all other junctions along this road suggest 50kph applies to the same road. Inconsistency in posted speed limits may lead to motorists ignoring the speed limit and/or progressing at speeds inappropriate to the surrounding environment leading to an increased risk of vehicle-vehicle and / or pedestrian-vehicle conflicts.



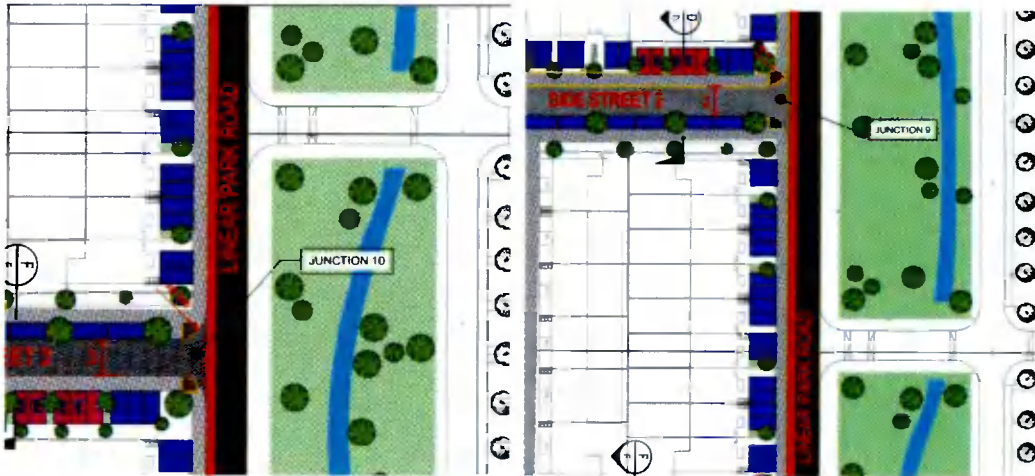
Recommendation

The Design Team should review the speed limit strategy taking cognisance of possible desire lines across the proposed Linear Park Road, i.e. between the proposed development and the recreational parkland area.

2.3. Problem: Formal Crossing Facilities vs Pedestrian Desire Line

Location: Linear Park Road

Given there is an apparent pedestrian desire line between the proposed development to the west of Linear Park Road and the linear park to the east, the proposed design does not make any provision for formalised crossing facilities to accommodate safe access to the parkland area. Where no formal crossing facilities are provided, pedestrians may attempt to cross the road in an area where it is unsafe to do so leading to an increased risk of pedestrian-vehicle conflicts.



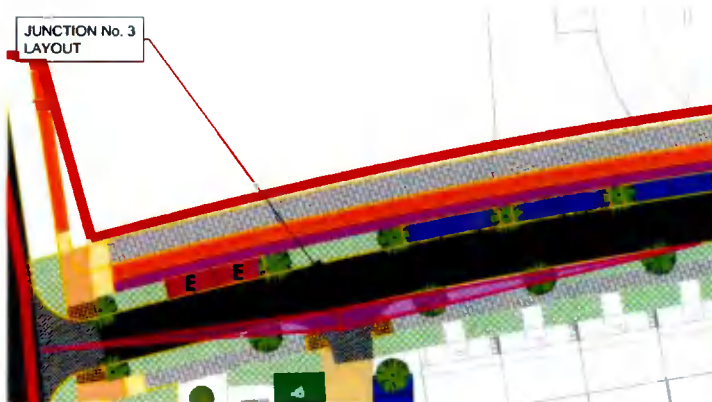
Recommendation

The Design Team should consider provision of formalised crossing points along Linear Park Road. Such provision should be consistent with others provided in the area for similar road type and posted speed limits.

2.4. Problem: Visibility at Junctions

Location: General / All junctions

Where proposed landscaping measures are located in the vicinity of proposed junctions, there is potential for landscape elements (e.g. shrubs, trees, etc) to encroach into visibility envelopes over time. Where visibility at junctions is compromised / reduced, there is increased risk of side swipe type vehicle-vehicle collisions or cycle-vehicle collisions where vehicles emerging from the minor road have inadequate visibility to approaching traffic.



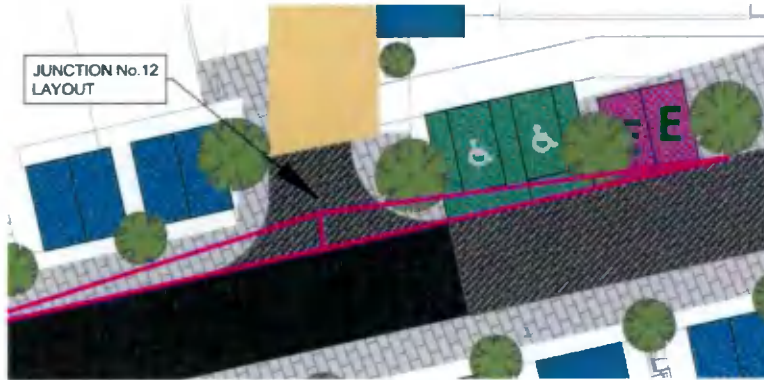
Recommendation

The Design Team should ensure that all landscaping elements are located away from junctions / visibility splays.

2.5. Problem: Visibility at Junction

Location: Junction No 12

Where a vehicle occupies the proposed accessible parking area or e-parking spaces immediately east of Junction No 12, there is an apparent encroachment into the visibility splay for the junction. This may be further exasperated by the proposed landscaping proposed in the same area (ref Item 2.4 above). Where visibility at junctions is compromised / reduced, there is increased risk of side swipe type vehicle-vehicle collisions or cycle-vehicle collisions where vehicles emerging from the minor road have inadequate visibility to approaching traffic.



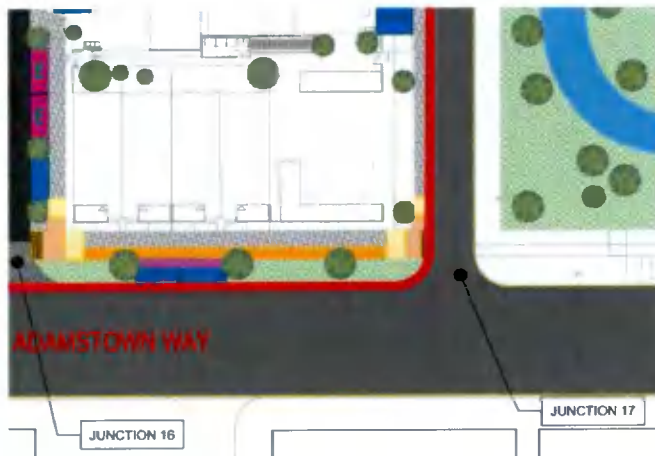
Recommendation

The Design Team should ensure the proposed visibility splays will not be compromised by adjacent parking provision.

2.6. Problem: Inadequate Parking Provision

Location: Junction No 16 & Junction No 17

The proposed 4 No residential and 1 No Flexible use units located between Junction No 16 and No 17 appear to have 2 No parking spaces between them. Where an insufficient allocation of parking is provided, residents will park outside their properties thereby adversely affecting the visibility splays at these adjacent junctions. Where visibility at junctions is compromised / reduced, there is increased risk of side swipe type vehicle-vehicle collisions or cycle-vehicle collisions where vehicles emerging from the minor road have inadequate visibility to approaching traffic.



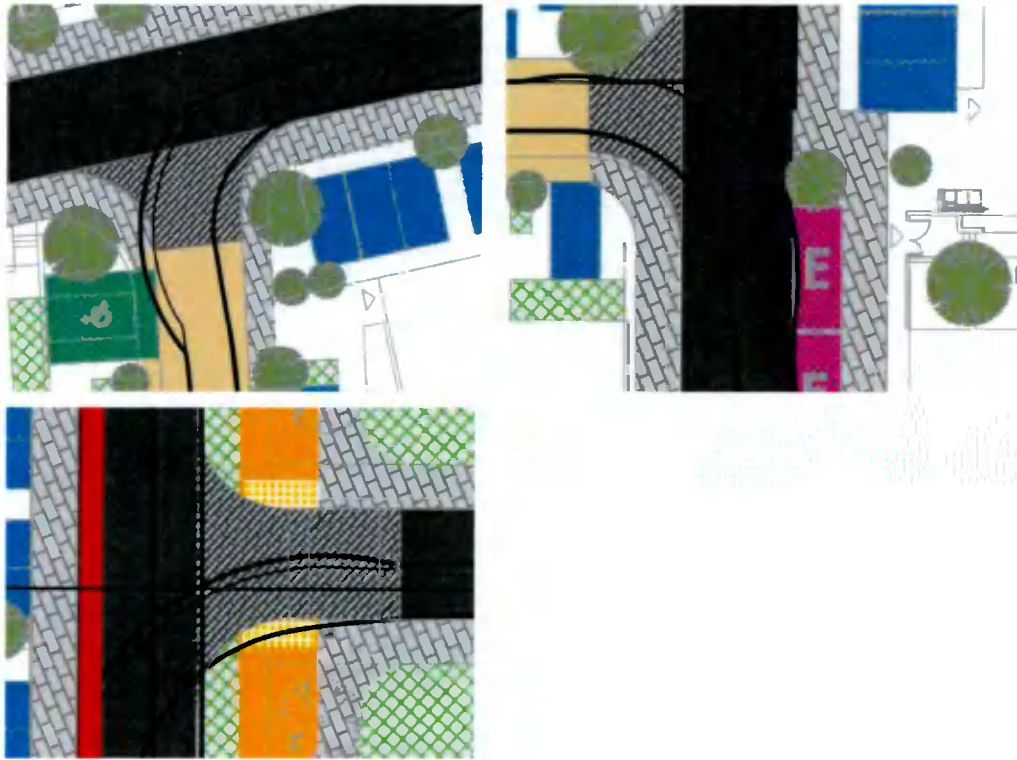
Recommendation

The Design Team should consider provision of additional parking allocations in this area, inclusion of parking control measures to ensure the proposed visibility splays (on major road) and junction approaches (on minor road) will not be compromised by potential on-street parking.

2.7. Problem: Access for Larger Vehicles

Location: Homezone Streets and Side Streets

Where access is required by larger vehicles (e.g. service vehicles [refuse truck] or emergency vehicles) the swept path analyses provided indicate that some turning movements would require the vehicle to mount footpaths when turning into a given street. This may lead to an increased risk of head-on type vehicle-vehicle collisions or larger vehicles being required to traverse pedestrian areas increasing the risk of vehicle-pedestrian collisions.



Recommendation

The Design Team should consider design measures or other alternative measures as appropriate to ensure such vehicles can safely pass through these junctions.

2.8. Problem: Inappropriate road markings

Location: General / All junctions

Pedestrian lines to M 131 of the Traffic Signs Manual are proposed at all uncontrolled pedestrian crossings. Pedestrian lines to M 131 of the TSM are used exclusively at signal controlled junctions. Provision of M 131 pedestrian lines at uncontrolled junctions may lead to pedestrian confusion in relation to crossing priority and cause pedestrians to step onto the carriageway when inappropriate to do so. This may lead to an increased risk of vehicle-pedestrian collisions.



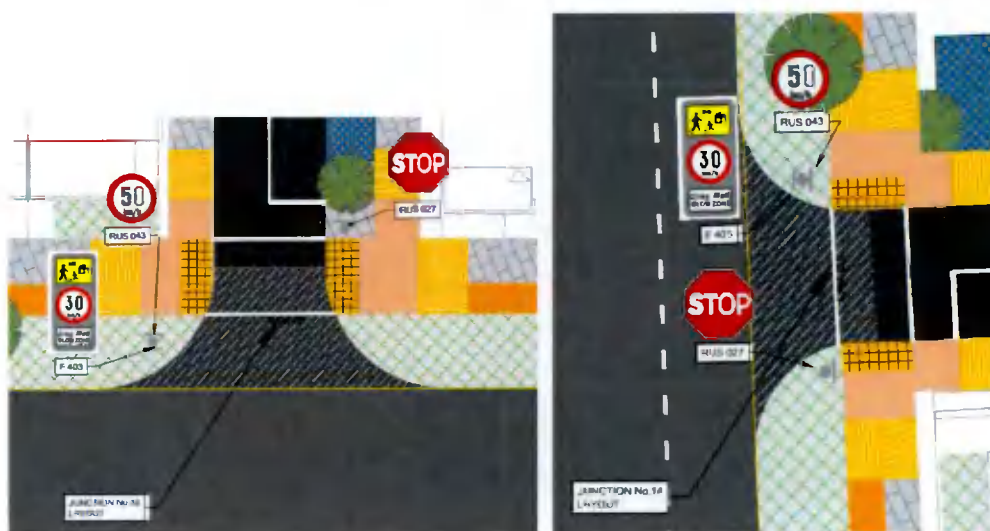
Recommendation

The Design Team should remove the proposed M 131 pedestrian lines at all uncontrolled pedestrian crossings.

2.9. Problem: Change in levels/materials at crossings

Location: Junction No. 14 & 16

The extent of the proposed raised table ends within the width of the proposed uncontrolled pedestrian crossing. Changes in levels and/or material types within the width of the proposed uncontrolled pedestrian crossings, parallel to the direction of crossing, may pose a trip hazard and could lead to slips, trips and falls.



Recommendation

The Design Team should extend the raised table treatment to ensure consistency in levels and material type across the entire width of the proposed uncontrolled pedestrian crossing.

3. Audit Team Statement

3.1. Certification

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

3.2. Sole Purpose

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

3.3. Implementation of RSA Recommendations

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

3.4. Audit Team's Independence to the Design Process

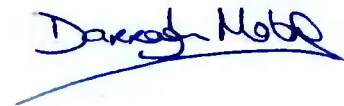
No member of the Audit Team has been otherwise involved with the design of the measures audited.

3.5. Road Safety Audit Team Sign-Off

Darragh Malone

Audit Team Leader
Road Safety Engineering Team
ATKINS

Signed:



Date: 19/05/2021

Dara Crosbie

Audit Team Member
Road Safety Engineering Team
ATKINS

Signed:



Date: 19/05/2021

4. Designer's Response

4.1. Preparing a Response to the Road Safety Audit

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

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

4.2. Returning the Feedback Form

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

Road Safety Engineering Team,
Atkins,
Atkins House,
150 Airside Business Park,
Swords,
Co Dublin,
Ireland.

Tel: 00 353 (0)1 810 8000

Email: darragh.malone@atkinsglobal.com

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

4.3. Triggering the Need for an Exception Report

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

Appendices

Appendix A. Road Safety Audit Feedback Form

Scheme: Residential Development, Aderrig Phase 2, Adamstown, Co. Dublin

Audit Stage: Stage 1 Road Safety Audit

Date Audit Completed: 13th May 2021

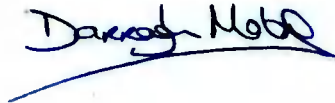
Paragraph No. in Safety Audit Report	To be completed by the Designer			To be completed by the Audit Team
	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures (describe)	Alternative Measures accepted by Auditors (yes/no)
2.1	Y	Y		
2.2	Y	Y		
2.3	Y	Y		
2.4	Y	Y		
2.5	Y	Y	Parking space locations will be adjusted at detailed design stage to ensure appropriate visibility is achieved.	
2.6	N	N	A total of 378 No. car parking spaces are provided for the 227 dwellings, a ratio of 1.6 spaces per dwelling. The location of these spaces has been carefully designed to ensure car parking is provided as close as reasonably possible to each dwelling. Additional car parking spaces located within 20metres on Side Street 4. The level of car parking is considered sufficient as shown in BKD drawing 6259-P-006 Parking Strategy. Appropriate Traffic Regulation Orders will be used on Adamstown Way to remove risk of inappropriate on-street car parking	Y
2.7	Y	Y		
2.8	Y	Y		
2.9	Y	Y		



Signed by the Designer:

Date: 20th May 2021

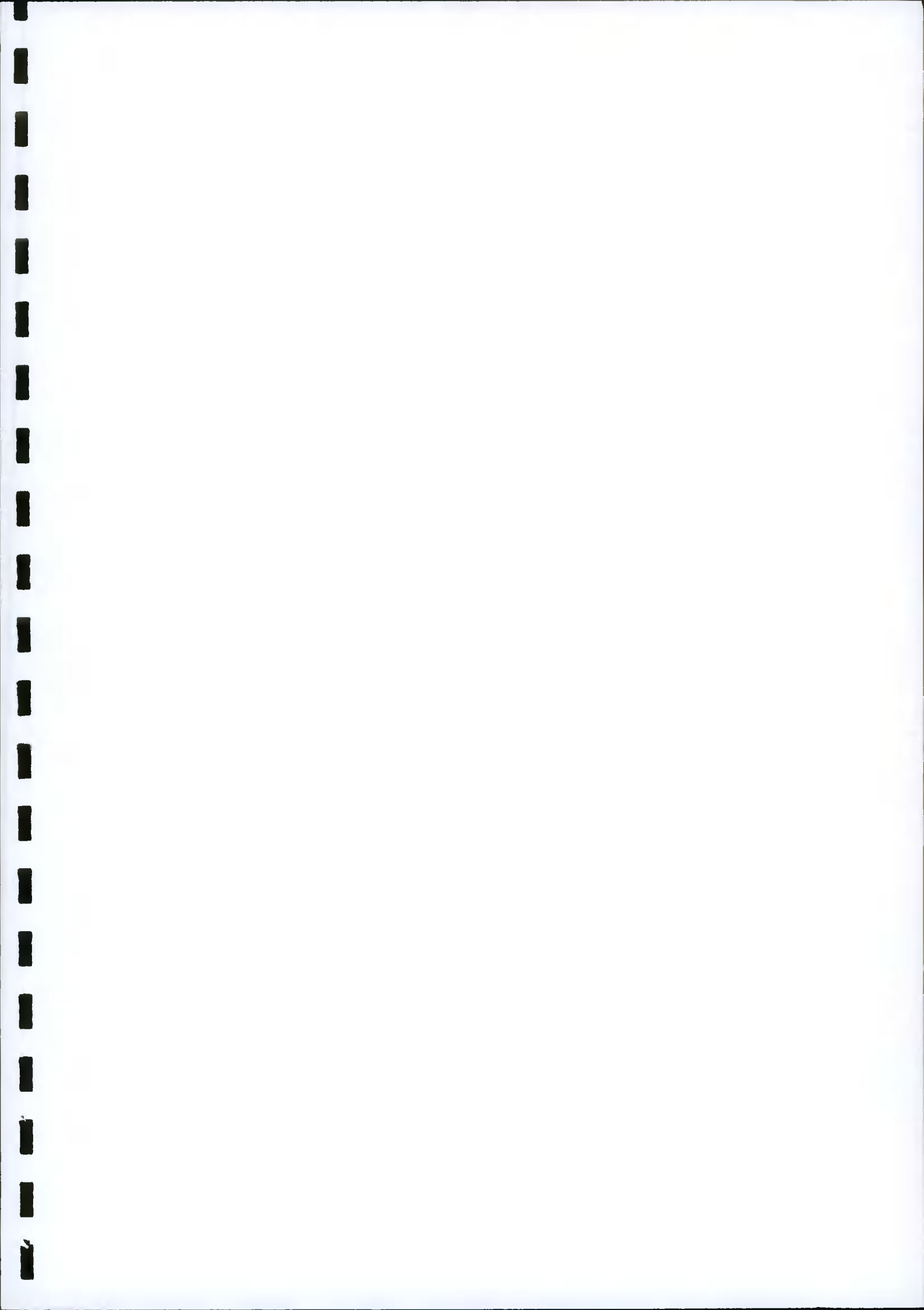
Signed by the Audit Team Leader:



Date: 20th May 2021

Signed by the Employer:

Date:



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