



Appendix 14.2

Quality Audit

Proposed RB Central Apartments Development, Sandyford, Dublin 18

On behalf of

IRES Residential Properties Limited

Prepared by

CST GROUP Chartered Consulting Engineers
1, O'Connell St, Sligo, F91 W7YV

April 2019

Civil
Structural
Traffic

TABLE OF CONTENTS

1. INTRODUCTION..... 2

2. PROPOSED DEVELOPMENT 3

3. ITEMS RESULTING FROM THIS QUALITY AUDIT 4

4. AUDIT TEAM STATEMENT 10

APPENDIX I: List of Drawings Examined

APPENDIX II: Quality Audit Feedback Form

Revision History:	R0	R1	R2					
Purpose of Issue: P=Preliminary PG=Progress C=Comment I=Information FC=Fire Cert Q=Quotation PL=Planning T=Tender CN=construction CT=Contract	P	PL	PL					
Date:	18 08 16	07 12 18	23 04 19					
Originator:	PB	PB	PB					
Checked By:	PB	PB	PB					
Approved By:	FF	FF	FF					

© CST Group 2019

1. INTRODUCTION

1.1 This report describes a Quality Audit carried out on the proposed RB Central Apartments development on behalf of IRES Residential Properties Limited. The audit was carried out between 15/10/18 and 19/10/18 in the offices of CST Group.

1.2 The audit team members were as follows:

Team Leader

Francis Fidgeon, Chartered Engineer, BE CEng MIEI, Partner, CST Group
Certificate of Competency in Road Safety Audits (NUI Dublin, Oct 2013)
TII Auditor Ref. FF74289

Team Member

Philip Bayfield, Chartered Engineer BE, MSc, CEng, MIEI, MICE Senior Engineer, CST Group
TII Auditor Ref. PB106343.

1.3 The audit comprised an examination of the drawings relating to the scheme supplied by the designers. Site visits were carried out by both team members on 11th and 14th July 2016 and 15th October 2018. Weather conditions during the inspections were fine and the surfaces were dry. Photographs were taken during the inspection.

1.4 This Quality Audit has been carried out generally in accordance with the relevant section 5.4.2 of the *Design Manual for Urban Roads and Streets (DMURS)* as published by DoTTS and DoECLG in 2013. The audit incorporates a Stage 1/2 Road Safety Audit carried out generally in accordance with the relevant sections of the Transport Infrastructure Ireland (TII) Publication (Standard) GE-STY-01024 (Dec 2017) 'Road Safety Audit'. The audit team has examined only those issues within the design relating to the road user (where applicable), cyclist, and pedestrian movements throughout the site and has therefore not examined or verified the compliance of the design to any other criteria. Assessment for compliance with respect to DAC audit and disabled access has been undertaken by another consultant.

1.5 Appendix I describes the documents examined by the audit team.

1.6 All of the problems described in this report are considered by the audit team to require action in order to improve the quality of amenity for non-motorised users of the site.

2. PROPOSED DEVELOPMENT

- 2.1** The development comprises construction of three residential apartment blocks comprising 428 apartments plus a crèche and small retail units at ground floor level. The new residential units are located at the south east corner of the Rockbrook site. The scheme fronts onto an existing pedestrian boulevard which crosses the site and Carmanhall Road to the south. The works also include the completion of a parking basement to accommodate parking and infrastructure for the proposals.

3. ITEMS RESULTING FROM THIS QUALITY AUDIT

NON MOTORISED USERS

3.1 Pedestrian Audit

3.1.1 Pedestrian Crossing – Blackthorn Drive Entrance

Issue: The existing pedestrian crossing at the existing entrance has zebra crossing markings in conjunction with tactile paving. The tactile paving is not the correct colour and no belisha beacons are provided which is normally required for such crossings in public places.

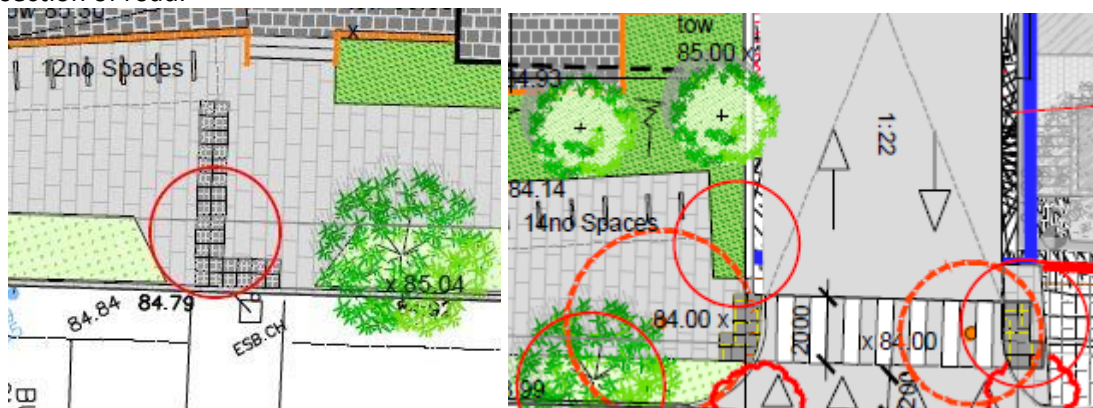


Hazard: Partially sighted pedestrians may be confused as to their priority for the crossing.

Recommendation: Remove the zebra crossing markings to ensure pedestrians do not incorrectly assume right of way to crossing. The lines surrounding the bar markings can remain.

3.1.2 Tactile Paving for Crossings – Carmanhall Road

Issue: The landscaping drawing indicates incorrect colour and layouts to pedestrian crossings on this section of road.

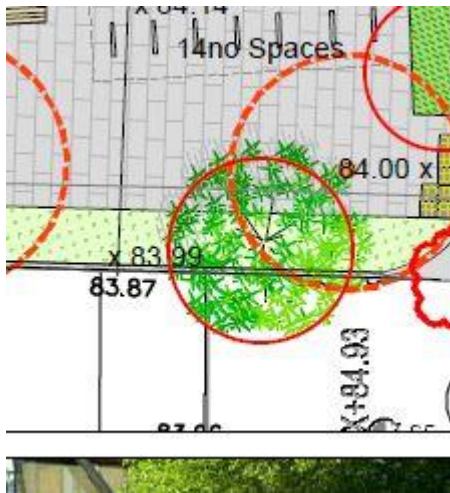


Hazard: Partially sighted pedestrians may be confused by the priority of the crossings leading to an accident.

Recommendation: Tactile paving layout/colour should be to best practice

3.1.3 Carmanhall Road – Car Park Exit – adjacent Landscaping

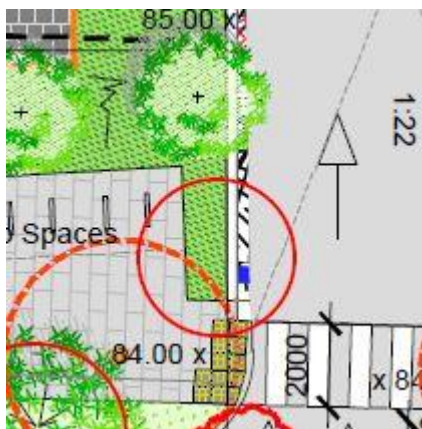
Issue: semi mature tree inside visibility splay for basement exit – girth will increase with growth impeding visibility to right.



Recommendation: Ensure that landscaping does not encroach into visibility splays

3.1.4 Carmanhall Road - Car Park Ramp Adjacent Retaining wall/Landscaping

Issue: Planting and retaining wall adjacent to ramp potentially impeding visibility of pedestrians on path

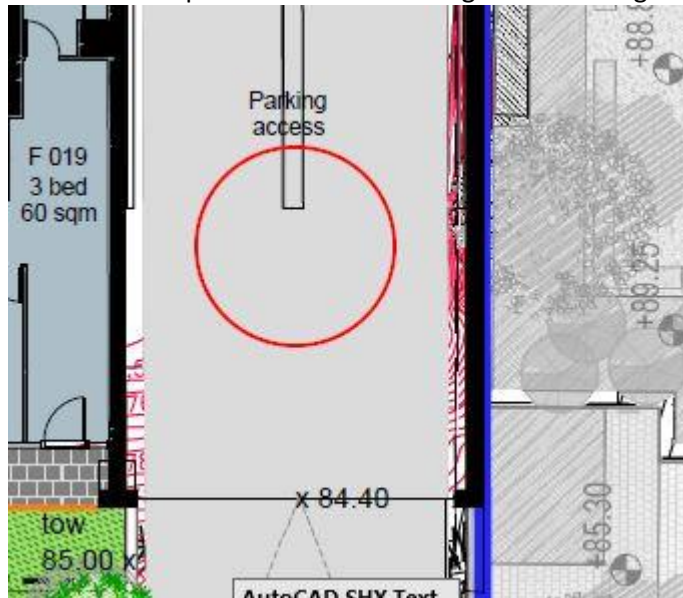


Hazard: Exiting vehicles may collide with crossing pedestrians.

Recommendation: ensure low level planting provided and/or low upstand to wall to ensure that both horizontal and vertical visibility splays are accommodated.

3.1.5 Carmanhall Road – Car Park Access Ramp – splitter island

Issue: There is potential for drivers to go down wrong side of ramp, or over run same.



Recommendation: Provide appropriate retroreflective/signage to highlight hazard.

3.1.6 Courtyard Cycle Stands

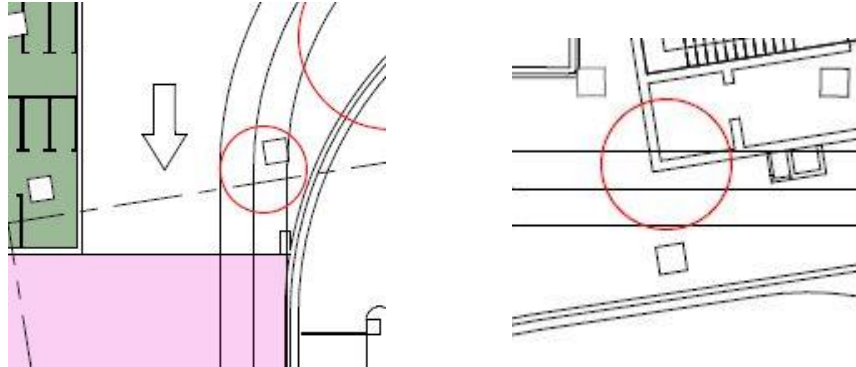
Issue: Finish at cycle stands is called up as compacted gravel. This is likely to erode over time leading to ponding/trip hazards.



Recommendation: Use robust paving finish

3.1.7 Columns and Core Walls on Cycle Track

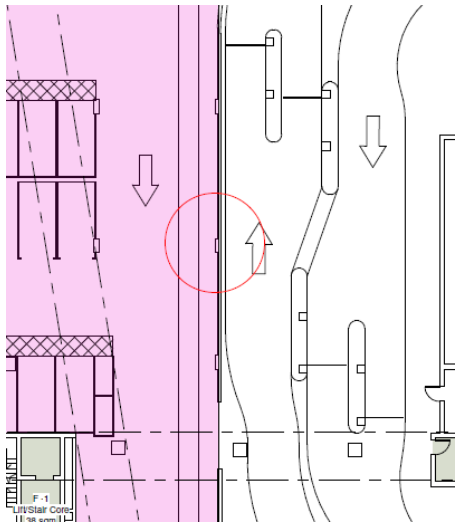
Issue: Structural elements encroach into cycle access routes.



Recommendation: Relocate/remove elements to ensure cycle routes are unimpeded. Cyclists should also be advised to dismount where headroom within the basement is less than 2.40m.

3.1.8 Walls adjacent Cycle Track

Issue: Structural walls located in close proximity to cycle access routes.

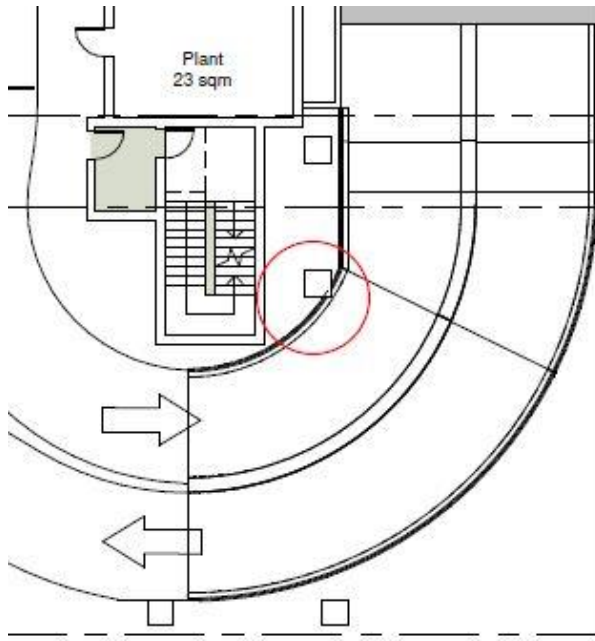


Recommendation: Offset cycle track to ensure there are not hazards adjacent, but also ensuring sufficient space for vehicles to pass. Checks should also be made for vertical clearances – and where insufficient cyclists should also be advised to dismount where headroom within the basement is less than 2.40m.

MOTORISED USERS

3.1.9 Car Park Access Ramp

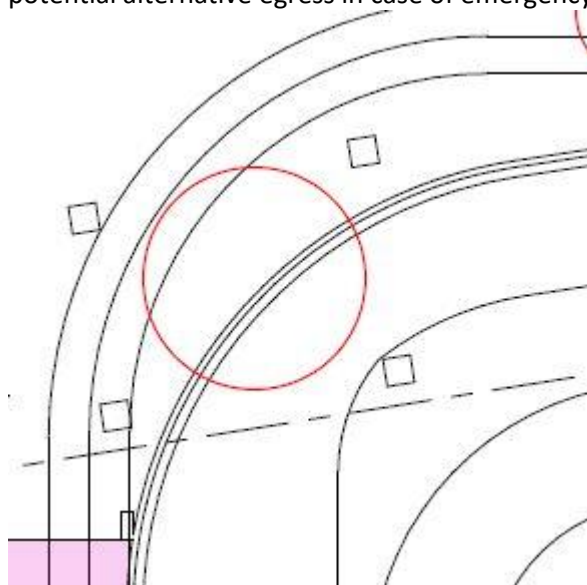
Issue: A column encroaches into ramp rubbing strip which is likely to be hazardous to approaching traffic.



Recommendation: ensure columns are located outside rubbing strips

3.1.10 Demarcation between Car Park Access Ramps

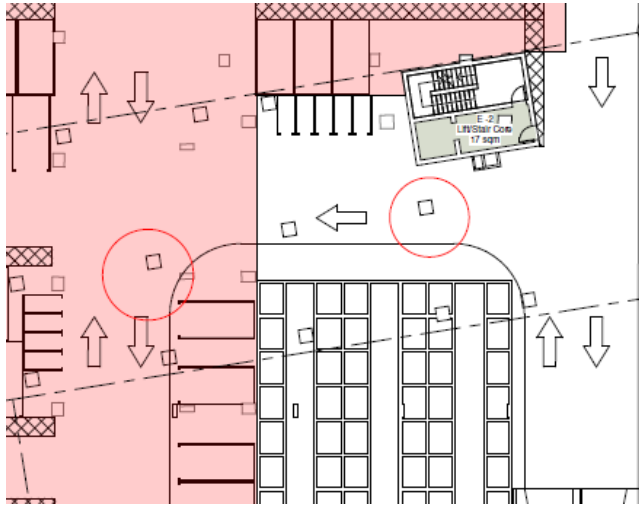
Issue: A solid separation between accesses to Carmanhall Road and Blackthorn Drive which prevents potential alternative egress in case of emergency.



Recommendation: provide removable/openable section in wall.

3.1.11 Columns on Car Park access Routes

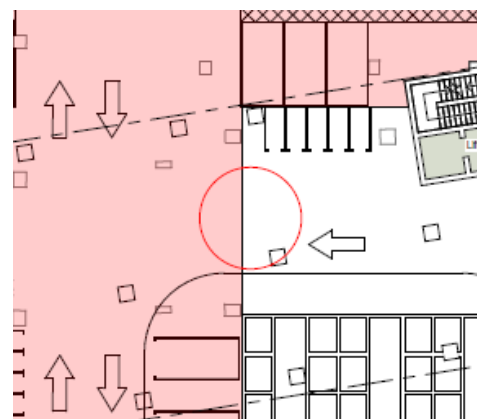
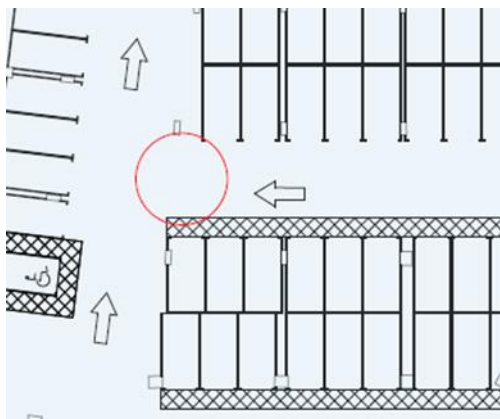
Issue: Columns obstructing car access routes



Recommendation: relocate or remove columns to ensure that access widths comply with IStructE Multi storey car park guidelines.

3.1.12 Car Park – Vehicle routing

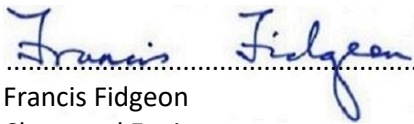
Issue: There is no instruction to drivers of no entry to one way aisles where they are one way.



Recommendation: ensure 'no entry' markings and overhead signs are provided to aid wayfinding.

4. AUDIT TEAM STATEMENT

4.1 We certify that we have examined the drawings and other information listed in Appendix 1. This examination has been carried out with the sole purpose of identifying any features of the design that could be removed or modified to improve the safety of the scheme. The problems that we have identified have been noted in the report, together with suggestions for improvement which we recommend should be studied for implementation. No one in the audit team has been involved with the scheme design as shown in Appendix I.

Signed 
Francis Fidgeon
Chartered Engineer
Audit Team Leader

Date 23/04/19

Signed 
Philip Bayfield
Audit Team Member

Date 23/04/19

APPENDIX I

List of Drawings Examined:

TOTP Drawings

P204 – Basement -1

P203 – Basement -2

P201 – Basement -3

Murray Associates Drawings

1729_SK_P_01 Rev E – Landscape Masterplan

APPENDIX II

Quality Audit Feedback Form

Scheme: Rockbrook	Route Nos: N/A
Audit Stage: Quality Audit	Date Audit Completed: 19/10/18

To be completed by Designer					
Issue	Item Accepted		Recommended Measure Accepted		Describe Alternative Measure
	Yes	No	Yes	No	
3.1.1	x		x		Will show zebra markings to be removed.
3.1.2	x		x		1) Tactile to Carmanhall crossing will be changed to red. 2) Zebra markings to carpark ramp cross will be removed.
3.1.3	x		x		Tree will be removed
3.1.4	x		x		Will provide height details for low upstand wall and ensure planting is low level
3.1.5	x		x		
3.1.6	x		x		Cycle parking paving to match adjacent footpath paving
3.1.7	x		x		Cycle lane moved. Work in progress to move the columns.
3.1.8	x		x		Cycle lane moved. The car access is minimum 4.2m wide.
3.1.9	x		x		Work in progress.
3.1.10	x		x		Gate added.
3.1.11	x		x		Work in progress.
3.1.12	x		x		Plans updated.

Signed: *Chris Ryan* Designer Date: 26/10/2018.....

Signed: *Jim Bloxam* Designer Date: 26/10/2018.....

Signed: *J. Filson* Audit Team Leader Date: 29/11/18.....

Signed: *Barry J. Jones* Employer Date: 19/11/2018.....
BARRETT DESIGN / IRES.