

ADDENDUM TO

Boundary Risk Assessment: Longridge CC

Report Number LSUK.15-0253_A

Client

Barratt Homes (Manchester)
4 Brindley Road
City Park
Manchester
M16 8HQ

Date 31/03/2015

CONTENTS

This report contains 4 pages.

It may not be used for commercial purposes, unless it is reproduced in its entirety

Labosport Limited is registered in England Number: 5185905

SUMMARY

The following addendum to the Boundary Risk Assessment: Longridge CC provides an assessment of the potential risk of cricket balls being hit into a new development adjacent to Longridge CC at a distance of 70 m from the edge of the cricket square to the revised cycleway/pathway.

REPORT COPIES TO:

Andrew Brown - Senior Land Manager (Barrett Homes)

REPORTED BY:



Dr Kathryn Severn (Operations Manager)



Dr Colin Young (Director)

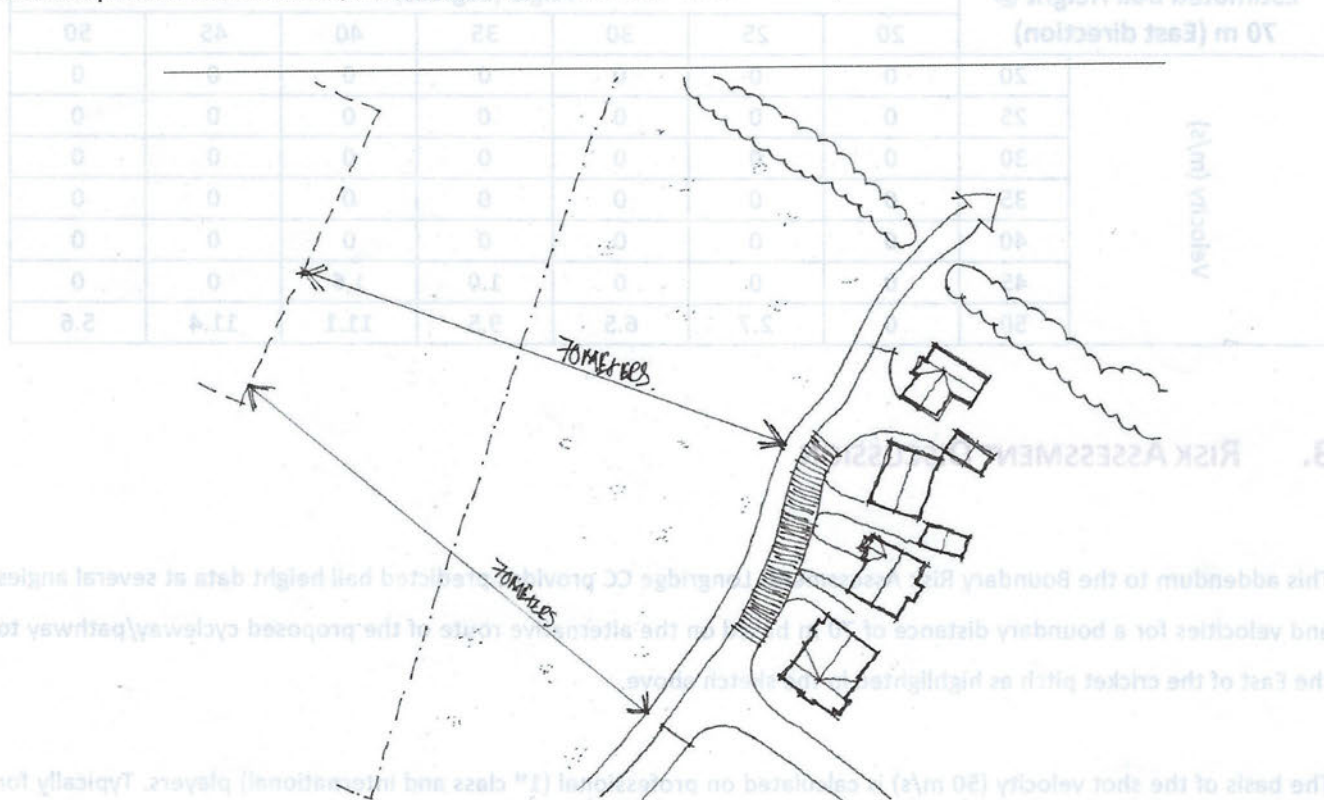
CONTENTS

1. INTRODUCTION	3
2. ESTIMATED BALL HEIGHT	3
3. DISCUSSION	4

Report Number	LSUK.15-0253_A	Page 2 of 4
Date	31/03/2015	

1. INTRODUCTION

The following addendum to the Boundary Risk Assessment: Longridge CC provides an assessment of the potential risk of cricket balls being hit into a new development adjacent to Longridge CC at a distance of 70 m from the edge of the cricket square to the revised cycleway/pathway to the East of the cricket pitch as shown on the sketch below.



2. ESTIMATED BALL HEIGHT (USING THE PROJECTION MODELLING TOOL)

Previous work undertaken for the ECB led to the development of a model to estimate the distance a ball would travel and its trajectory given a specific velocity and angle.

Model limitations:

The size of a cricket ball and its estimated drag coefficient has been added to the model, this in combination with classical Newtonian physics for the influence of air resistance and gravity have been used to predict the projectile path. However, for simplicity, there are some limitations to the model including but not limited to bat/ball restitution, atmospheric conditions, wind (speed and direction) and spin of the ball. **Due to these limitations the model is regarded as an indicative prediction tool.**

Report Number	LSUK.15-0253_A	Page 3 of 4
Date	31/03/2015	

The hit angles and velocities are estimated from in-game action to cover a range of 'typical' shots ranging from 20 degrees to 50 degrees and 20 m/s (45 mph) to 50 m/s (112 mph).

Estimated Ball Height @ 70 m (East direction)		Angle (degrees)						
		20	25	30	35	40	45	50
Velocity (m/s)	20	0	0	0	0	0	0	0
	25	0	0	0	0	0	0	0
	30	0	0	0	0	0	0	0
	35	0	0	0	0	0	0	0
	40	0	0	0	0	0	0	0
	45	0	0	0	1.0	1.6	0	0
	50	0	2.7	6.5	9.5	11.1	11.4	5.6

3. RISK ASSESSMENT DISCUSSION

This addendum to the Boundary Risk Assessment: Longridge CC provides predicted ball height data at several angles and velocities for a boundary distance of 70 m based on the alternative route of the proposed cycleway/pathway to the East of the cricket pitch as highlighted in the sketch above.

The basis of the shot velocity (50 m/s) is calculated on professional (1st class and international) players. Typically for community cricket clubs we undertake the assumption that 40 m/s is a suitable speed given the speed of bowling and batsman's skill when contrasted with elite players. 45 m/s and 50 m/s shots are considered very unlikely but information has been included for reference.

The height calculations of the ball trajectory suggest that the alternative route of the proposed cycleway/footpath to the East of the cricket pitch will provide a **good level of protection** for a community cricket club. Only those shots calculated on professional 1st class international players may be capable of surpassing a distance of 70 m, which is considered unlikely.

There are many examples around the country where open pathways run alongside existing cricket pitches which are less than 70 m from the cricket square and the cricket club has been able to identify a mitigation strategy to reduce risk to users of the pathways. This indicates that based on past experience that the above recommendation should be feasible.

Report Number	LSUK.15-0253_A	Page 4 of 4
Date	31/03/2015	