

Client: Enerveo Limited
Unit 8
Spring Copse Business Park
Slinfold
West Sussex
RH13 0SZ

Area: Chichester Racquets & Fitness Club

Originator: Simon Francis

Date: 13 December 2023

Job Ref: 70826

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Report on Testing of Street Lighting Units

1.0 Introduction

1.1 Acting on the instructions of Simon Francis of Enerveo Limited, inspection and testing was carried out on 24 No. lighting columns for root and swage joint corrosion where applicable. Further column details were also recorded with respect to dimensions to enable the structural engineer to carry out calculations to determine the suitability for additional/new attachments. Amendments made to multiple column results following recalculations by structural engineer.

1.2 Site work was carried out on 23rd October 2023.

2.0 Procedure

2.1 Base and Root

2.1.1 Testing carried out in accordance with documented in-house method ST9 on the root of the unit using the Scribe Relative Loss of Section meter, which compares the relative mean sectional thickness of an area of column 100mm above to approximately 100mm below ground level with the same sized area of the same column and profile at a higher level using a pulsed eddy current technique. By testing at four equally spaced positions around the base of the column where it enters the ground, the four areas tested overlap thereby including the complete circumference of the vulnerable zone in the survey. The procedure adopted was to first test immediately below the inspected door (P1) and then progressively clockwise through 90° to P2, P3 and P4 where accessible.

2.1.2 A 5th reading was taken (P5) by placing the top of the head approximately 50mm below the door to establish if loss of section is present internally below the door opening.

2.1.3 The test area extends approximately 100mm above to 100mm below the base x 200mm wide and by comparing the value obtained at a non-corroded reference area with the reading at ground level, a relative reading for the apparent mean loss of 'sound' material is acquired.

- 2.1.4 If all loss of section is confined to the portion of the sensed zone g/l to -100mm, the displayed LSU's (relative loss of section units) approximate the apparent percentage loss of steel relative to the reference area. Where a significant loss has also occurred above g/l, and where a thin band total penetration has occurred the estimate of percentage does not apply but the indicated degree of severity remains valid.
- 2.1.5 Test results are used to categorise probable root condition. Experience to date indicates that category 4 & 5 columns invariably require repair or replacement, except where the value is influenced by the cable aperture being located within the sensed zone. Where this condition is identified during the inspection, the result is marked accordingly (*).

2.2 Base - visual observations

- 2.2.1 Additionally, the portion of the base g/l to +300mm is visually inspected and classified A to G as follows:
- A. Free from defects
 - B. Visible loss of paint/coating only
 - C. Surface corrosion only
 - D. Pitting/flaking. Minor loss of section
 - E. Extensive corrosion. Major loss of section
 - F. Hole visible within base/root of unit
 - G. Impact damage

2.3 Hot Swaged Joint

- 2.3.1 Assessment of relative loss of section from the internal surface at the swaged joint is carried out on units where appropriate using the swage joint analyser. Testing carried out in accordance with documented in-house method ST10. The instrument displays the approximate percentage bulk average loss of section relative to a reference position for an area approximately 10mm x 10mm. Changes in thickness are displayed as the search head is drawn incrementally vertically across the joint and the highest negative value recorded.

The testing sequence is similar to the root and base procedure with P1 being above the door and then progressively clockwise through 90° obtaining a total of four readings.

- 2.3.2 With the increasing age of internally unprotected lighting columns incorporating swaged joints there is a greater potential for water ingress into the column shaft and fatigue stress at the section change. This leads to acceleration in the rate of corrosion.

To minimise the risk of failure we recommend that columns lacking internal surface protection and having swaged joints falling within Class 1 are re-classified Class 2. Re-test will therefore be re-scheduled within 3 years.

Columns falling within Class 1 and known to be internally protected (galvanised) shall continue to be scheduled for re-test within 5 years. It is assumed that all such columns referred to in this report lack internal protection and are thus re-classified as 'Class 2'.

- 2.2.3 Columns of the folded sheet steel type (i.e. multi-sided) generally have a thinner wall than tubular steel columns. Consequently, once corrosion starts, the corresponding time taken to impact the structural integrity of such columns may well be significantly



less compared to tubular steel columns. (assuming that the rate of corrosion is nominally similar in each case). Based on the wall thickness, recent information received, test results and column age these columns are now being re- classified as minimum class 2 columns giving a maximum retest period of 3 years to minimise the risk of failure.

2.4 Additional Information

Column details were recorded with respect to their height, diameter, wall thickness ground conditions and details of existing attachments to enable calculations to be carried out by a structural engineer (HNT Consulting).

Using the test results and the additional column details recorded calculations were carried out to establish the suitability of the column to enable additional/new attachments to be fitted.

3.0 Results

- 3.1 Detailed individual test results are tabulated in Appendix 1 and the average value given to indicate the classification and relative severity of loss in each unit. Calculations from the structural engineer with respect to the suitability for attachments are given in Appendix 2.
- 3.2 The results apply to the column locations and references as received from the customer. Column references listed have been supplied by the customer.

4.0 Recommendations

It is recommended that the columns are adequate to carry the attachments however be retested within the time period specified in the following table.

Area	Unit No.	Unity* factor	Proposed retest period
Chichester Racquets & Fitness Club	1	0.77	2 Years
Chichester Racquets & Fitness Club	2	0.77	2 Years
Chichester Racquets & Fitness Club	3	0.77	2 Years
Chichester Racquets & Fitness Club	4	0.77	2 Years
Chichester Racquets & Fitness Club	5	0.44	2 Years
Chichester Racquets & Fitness Club	6	0.43	2 Years
Chichester Racquets & Fitness Club	7	0.74	2 Years
Chichester Racquets & Fitness Club	8	0.74	2 Years
Chichester Racquets & Fitness Club	9	0.76	2 Years
Chichester Racquets & Fitness Club	10	0.73	2 Years
Chichester Racquets & Fitness Club	11	0.75	2 Years
Chichester Racquets & Fitness Club	12	0.75	2 Years
Chichester Racquets & Fitness Club	13	0.75	2 Years
Chichester Racquets & Fitness Club	14	0.77	2 Years
Chichester Racquets & Fitness Club	15	0.77	2 Years
Chichester Racquets & Fitness Club	16	0.77	2 Years
Chichester Racquets & Fitness Club	17	0.77	2 Years
Chichester Racquets & Fitness Club	18	0.75	2 Years
Chichester Racquets & Fitness Club	19	0.89	1 Year
Chichester Racquets & Fitness Club	20	0.92	1 Year
Chichester Racquets & Fitness Club	21	1.02	1 Year
Chichester Racquets & Fitness Club	22	0.92	1 Year
Chichester Racquets & Fitness Club	23	0.88	1 Year
Chichester Racquets & Fitness Club	24	0.77	2 Years

- * < 0.80 = retest period 2 years
 ≥ 0.80 = retest period 1 year
 > 1.05 = not applicable; column inadequate for attachments

Recommendations assume:

- 1) Environmental and ground conditions remain consistent with the existing and past conditions.
- 2) The column does not suffer any impact damage or other activity that may accelerate the corrosion process.
- 3) No additional attachments are fixed to the column except those allowed for in the calculations given in Appendix 2.

Kiwa CMT



Kiwa CMT

Signed as Author: C Cunningham
Technical Administrator

Checked and Signed: S L. Toach
Senior Technical Administrator

Checked and Authorised: S. Spensley
Head of Street Lighting



Appendix 1

(No. of pages 2)

Relative Loss of Section (RLS) Screening Test and RLS at Swage Joint of Steel Lighting Columns

Job No: 70826

Col No.	Area	Emballished (Yes/No)	Base Height (m)	Base Diameter (mm)	Base Thickness (mm)	Column Height (m)	Shaft Diameter (mm)	Shaft Thickness (mm)	Bracket Length (m)	Foundation material	Root LSU's					Weighted Average P1-P4	Class.	Visual Defects (G.L. to Bottom of Door)	Visual Defects (Door Aperture)	Swage LSU's				Weighted Average	Class.	Visual Defects SWAGE	Visual Defects SHOULDER	Column Type	S or L Head Used	Signs	Tested By	Test Date	Comments
											P1	P2	P3	P4	P5					P1	P2	P3	P4										
1	Chichester Racquets & Fitness Club	No	1.7	220	4.70	10	140	4.10	2	Grass	-6	-4	-6	-4	-3	-5	-1	B	B						No HSJ	B	Fold Down Tubular	S	0	AH	23/10/23	4 Lanterns currently at top being reduced to 2 Lanterns when new lights are installed	
2	Chichester Racquets & Fitness Club	No	1.7	220	4.70	10	140	4.10	2	Grass	-5	-6	-4	-3	-2	-5	-1	B	B						No HSJ	B	Fold Down Tubular	S	0	AH	23/10/23	4 Lanterns currently at top being reduced to 2 Lanterns when new lights are installed	
3	Chichester Racquets & Fitness Club	No	1.7	220	4.70	10	140	4.10	2	Grass	-4	-2	-3	-4	-2	-3	-1	B	B						No HSJ	B	Fold Down Tubular	S	0	AH	23/10/23	4 Lanterns currently at top being reduced to 2 Lanterns when new lights are installed	
4	Chichester Racquets & Fitness Club	No	1.7	220	4.70	10	140	4.10	2	Grass	-6	-7	-5	-3	-1	-5	-1	B	B						No HSJ	B	Fold Down Tubular	S	0	AH	23/10/23	4 Lanterns currently at top being reduced to 2 Lanterns when new lights are installed	
5	Chichester Racquets & Fitness Club	No	1.9	168	4.40	8	115	4.00	0.5	Grass	-3	-4	-2	-1	-3	-3	-1	B	B						B	B	Steel tubular	L	0	AH	23/10/23	1 x Lantern at top (Sign: 310mm x 290mm)	
6	Chichester Racquets & Fitness Club	No	2	168	4.40	8	115	3.90	0.5	Soil	-2	-3	0	-2	-1	-2	-1	B	B						B	B	Steel tubular	L	0	AH	23/10/23	1 x Lantern at top	
7	Chichester Racquets & Fitness Club	No	2	194	5.70	10	140	4.20	0.5	Tarmac	-4	-4	NA	0	-2	-3	-1	B	B						B	B	Steel tubular	L	0	AH	23/10/23	2 x 0.5 Brackets with 1 lantern on each	
8	Chichester Racquets & Fitness Club	No	2	194	5.60	10	140	4.20	0.5	Soil	-3	-1	0	-2	0	-2	-1	B	B						B	B	Steel tubular	L	0	AH	23/10/23	2 x 0.5 Brackets with 1 lantern on each	
9	Chichester Racquets & Fitness Club	No	2	194	5.70	10	140	4.10	0.5	Tarmac	-2	-3	NA	0	-1	-2	-1	B	B						B	B	Steel tubular	L	0	AH	23/10/23	2 x 0.5 Brackets with 1 lantern on each	
10	Chichester Racquets & Fitness Club	No	2	194	5.70	10	140	4.20	0.5	Soil	-1	-4	NA	-2	-2	-2	-1	B	B						B	B	Steel tubular	L	0	AH	23/10/23	2 x 0.5 Brackets with 1 lantern on each	
11	Chichester Racquets & Fitness Club	No	2	194	4.70	10	140	4.00	1	Tarmac	-4	0	-1	-4	0	-2	-1	B	B						No HSJ	B	Steel tubular	L	0	AH	23/10/23	1 x 1 metre bracket with 1 lantern on each end	
12	Chichester Racquets & Fitness Club	No	2	194	4.70	10	140	4.00	1	Soil	-3	-1	0	-2	-2	-2	-1	B	B						No HSJ	B	Steel tubular	L	0	AH	23/10/23	1 x 1 metre bracket with 1 lantern on each end	
13	Chichester Racquets & Fitness Club	No	2	194	4.70	10	140	4.00	1	Paving	-2	-4	NA	0	-1	-2	-1	B	B						No HSJ	B	Steel tubular	L	0	AH	23/10/23	1 x 1 metre bracket with 1 lantern on each end	
14	Chichester Racquets & Fitness Club	No	1.9	194	4.70	10	140	4.00	1	Soil	-3	-2	-1	NA	0	-2	-1	B	B						No HSJ	B	Steel tubular	L	0	AH	23/10/23	1 x 1 metre bracket with 1 lantern on each end	
15	Chichester Racquets & Fitness Club	No	1.9	194	4.70	10	140	4.00	1	Soil	-1	-4	NA	-1	-2	-2	-1	B	B						No HSJ	B	Steel tubular	L	0	AH	23/10/23	1 x 1 metre bracket with 1 lantern on each end	
16	Chichester Racquets & Fitness Club	No	1.9	194	4.70	10	140	4.00	1	Soil	-3	NA	0	-2	-1	-2	-1	B	B						No HSJ	B	Steel tubular	L	0	AH	23/10/23	1 x 1 metre bracket with 1 lantern on each end	
17	Chichester Racquets & Fitness Club	No	1.9	194	4.70	10	140	4.00	1	Soil	-4	-2	NA	-3	-1	-3	-1	B	B						No HSJ	B	Steel tubular	L	0	AH	23/10/23	1 x 1 metre bracket with 1 lantern on each end	
18	Chichester Racquets & Fitness Club	No	2	194	4.70	10	140	4.00	1	Soil	-2	-3	-1	-2	0	-2	-1	B	B						No HSJ	B	Steel tubular	L	0	AH	23/10/23	1 x 1 metre bracket with 1 lantern on each end	
19	Chichester Racquets & Fitness Club	No	2	168	4.50	10	115	4.00	1	Soil	-3	-4	-2	NA	-1	-3	-1	B	B						No HSJ	B	Steel tubular	L	0	AH	23/10/23	1 x 1 metre bracket with 1 lantern on each end	
20	Chichester Racquets & Fitness Club	No	1.8	168	4.50	10	115	4.00	1	Soil	-4	-2	0	-3	-2	-2	-1	B	B						No HSJ	B	Steel tubular	L	0	AH	23/10/23	1 x 1 metre bracket with 1 lantern on each end	
21	Chichester Racquets & Fitness Club	No	1.2	168	4.50	10	115	4.00	1	Soil	-3	-4	-1	-2	0	-3	-1	B	B						No HSJ	B	Steel tubular	L	0	AH	23/10/23	1 x 1 metre bracket with 1 lantern on each end	
22	Chichester Racquets & Fitness Club	No	1.8	168	4.50	10	115	4.00	1	Soil	-2	-4	NA	0	-1	-2	-1	B	B						No HSJ	B	Steel tubular	L	0	AH	23/10/23	1 x 1 metre bracket with 1 lantern on each end	
23	Chichester Racquets & Fitness Club	No	0.9	168	4.50	10	115	4.00	0.5	Soil	-6	-3	-2	-4	NA	-4	-1	B	B						No HSJ	B	Steel tubular	L	0	AH	23/10/23	1 x Lantern at top	
24	Chichester Racquets & Fitness Club	No	1.7	168	4.50	10	115	4.00	0.5	Soil	-4	-2	-1	-3	-3	-3	-1	B	B						No HSJ	B	Steel tubular	L	0	AH	23/10/23	1 x Lantern at top	



Appendix 2

(No. of pages 9)



Structural Calculations

Lighting Columns with LEDs Chichester Racquets & Fitness Club

Project No: **23217**

Client Name: **Kiwa CMT (Job No: 70826)**

Document Ref: **23217-HNT-00-ZZ-CA-S-001**

Date: **10/12/2023**

Revision: **A**

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Project: **Lighting Columns with LEDs**

Project No:
23217

Designed:
PT

Sheet No:

Site Address: **Chichester Racquets & Fitness Club**

Date:
10/12/2023

Checked:
NH

1

Project No: **23217**

Project Name: **Lighting Columns with LEDs**

Project Address: **Chichester Racquets & Fitness Club**

Document Title: **Structural Calculations**

Document ref: **23217-HNT-00-ZZ-CA-S-001**

Client Name: **Kiwa CMT (Job No: 70826)**

Client Address: **Unit 5, Prime Enterprise Park Prime Way, Prime Pkwy, Derby DE1 3QB**

Prepared by: **PT**

Checked by: **NH**

Document Control

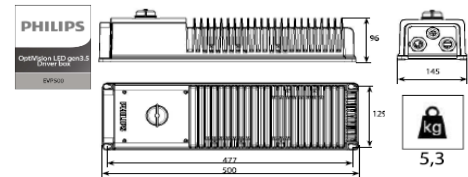
Revision	Date	Description	Prepared by
	08 November 2023	1st Issue	PT
A	10 December 2023	Angle confined 15°; Removed drivers on columns 19, 20, 21 & 22	PT

INTRODUCTION

- 1- These calculations are structural assessment of the base and shaft of the lighting columns based on in-situ testing data and specification of proposed attachment(s) provided by client.
- 2- The calculations are in accordance with BS EN 40-3-1 and BS EN 40-3-3.
- 3- The material of lighting columns is assumed as of mild steel S275.
- 4- If the size and weight of any existing traffic sign(s) mounted to the testing lighting column(s) are not available, each sign will be assumed to have a size of 0.5m x 0.5m and be mounted at 2.5m above GL, with a weight of 5kg.
- 5- If the size and weight of the existing light(s) are not provided, each light will be assumed to have a size of 0.6m x 0.25m and a weight of 20kg.
- 6- The specification of proposed attachment: **LEDs**



No driver



Type	kg	kg	m ²
	HGB	BV	90° HGB
BVP528	31	25	0,47
BVP518	27	21	0,33
BVP528 L	32,8	26,8	0,47
BVP518 L	28,2	22,2	0,33

SCx

Configuration	0°	15°	30°	40°	50°	65°	90°
BVP518 HGB	0,18	0,22	0,25	0,27	0,27	0,29	0,33
BVP518 HGB+ EXTERNAL LOUVER	0,23	0,25	0,27	0,26	0,25	0,25	0,32
BVP518 BV	0,10	0,17	0,21	0,24	0,26	0,30	0,34
BVP518 BV+EXTERNAL LOUVER	0,13	0,18	0,22	0,25	0,25	0,26	0,32

Please confirm Assumed max wind area

0.22 m²

Assumed BV518HGB will be used & fitted at max 15° therefore wind area & weight will be of 0.22m² & 28kg as marked up on the table above - Please confirm this angle before installing new LEDs.

Note: No driver box to columns 19, 20, 21 & 22

The table below shows the dimensions, weight, windage and mounted level of the new attachment(s) to be used for structural assessment of the lighting column(s) with the proposed attachment(s)

Attachment Name	Name Type in Calcs	Width (m)	Height (m)	Weight (kg)	Solidity (%)	Windage (width) (m)	Windage (height) (m)	Horz dist to column (m)	Level abv GL (m)
Philips BVP518 @8m ht	B1	0.69	0.32	28.00	100%	0.69	0.32	0.50	8.00
Philips BVP518 @10m ht	B2	0.69	0.32	28.00	100%	0.69	0.32	0.50	10.00
Philips driver box @8m ht	B3	0.50	0.10	5.30	100%	0.50	0.10	0.50	8.00
Philips driver box @10m ht	B4	0.50	0.10	5.30	100%	0.50	0.10	0.50	10.00

OUTPUT (SUMMARY) OF THE STRUCTURAL ASSESSMENT OF THE TESTING COLUMN(S) WITH PROPOSED ATTACHEMENT

+ All testing columns are satisfactory with the existing and proposed attachment as described and assumed above.

A	10/12/2023	Angle confirmed 15°; Removed drivers on columns 19, 20, 21 & 22
Revision	Date	Description

DETAILS OF CALCULATIONS

The structural calculations are tabulated in table 1 to table 4

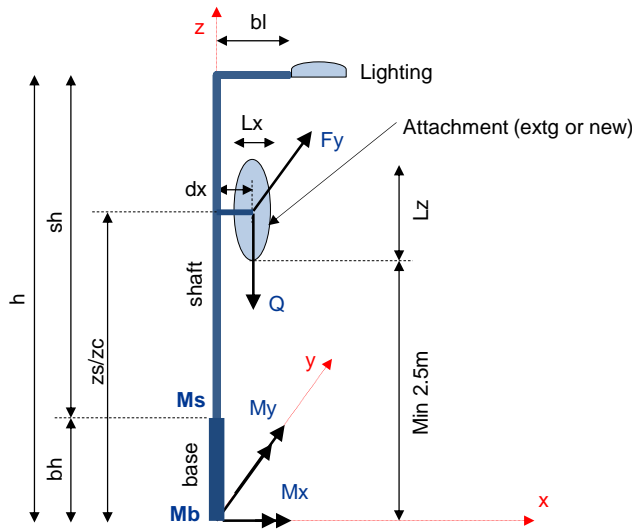
Table 1 - Summary of Capacity of Lighting Columns to Wind Load and Dead Load

Table 2- Capacity of Lighting Column to Wind and Dead Loads with Existing Attachment Only

Table 3- Capacity of Lighting Column to Wind and Dead Loads with Existing and Proposed Attachment

Table 4 - Wind Load Calculations to Lighting Column

Sketch below shows the concept of checking each column



+ Total moment at shaft or base at ultimate state

$$M_x = F_y z$$

$$M_y = Q dx$$

$$M = (M_x^2 + M_y^2)^{0.5}$$

$$M_s, M_b = 1.2 (M_x^2 + M_y^2)^{0.5}$$

+ Capacity of shaft or base

Assumed p_v of column = 275 N/mm²

Moment capacity of shaft or base

$$M_{c.s} = p_y S_s$$

$$M_{c.b} = p_y S_b$$

+ Capacity check $M_s/M_{c.s}$ or $M_b/M_{c.b}$
(S_s & S_b elastic section modulus - Conservative)

Schematic for attachment to lighting column

Load characteristics attached on column

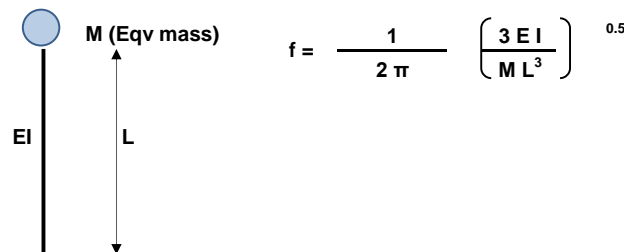
Name	Type	Lx (m)	Lz (m)	dx (m)	zc (m)	Q (N)	C_shape
Sign	S	0.50	0.50		2.50	50	1.8
Philips BVP518 @8m ht	B1	0.69	0.32	0.50	8.16	280	1.5
Philips BVP518 @10m ht	B2	0.69	0.32	0.50	10.16	280	1.5
Philips driver box @8m ht	B3	0.50	0.10	0.50	8.05	53	1.5
Philips driver box @10m ht	B4	0.50	0.10	0.50	10.05	53	1.5
Street light	L	0.60	0.40			200	1.2

C_s circular column = 1.2

C_s octagonal column = 1.3

+ Identify dynamic factor b for column (Table 2)

Each lighting column is considered as a single DOF to identify basic period of column



A	10/12/2023	Angle confirmed 15o; Removed drivers on columns 19, 20, 21 & 22
Revision	Date	Description



Project: **Lighting Columns with LEDs**
 Site Address: **Chichester Racquets & Fitness Club**

Project No: **23217**
 Date: **10/12/2023**

Designed: **PT**
 Checked: **NH**

Sheet No: **4A**

Table 1 - Summary of Capacity of Lighting Columns to Wind Load and Dead Load

Table column Description
 27-31 Capacity ratio with attachments: Existing and Existing with each attachment type
 OK=Satisfactory; Warning=Need to be considered

Road/ Street	Unit No.	Emb Y/N	Base Height mm	Base Ø mm	Base Thick mm	Col. Height m	Shaft Ø mm	Shaft Thick mm	Bracket Length m	Sec Type	Attachments						Existing only			Existing + New attachment			CMT Class		
											Extg		New				Base	Shaft	Check	Base	Shaft	Check	B	S	
											S	L	B1	B2	B3	B4									B5
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>23</i>	<i>24</i>	<i>25</i>	<i>51</i>	<i>52</i>	<i>53</i>	<i>54</i>	<i>55</i>	<i>26</i>	<i>27</i>	<i>28</i>	<i>29</i>	<i>30</i>	<i>31</i>		
Chichester Racquets & Fitness Club	1	No	1700	220	4.47	10	140.0	4.10	2	NO		4		2				0.41	0.86	OK	0.34	0.70	OK	1	
Chichester Racquets & Fitness Club	2	No	1700	220	4.47	10	140.0	4.10	2	NO		4		2				0.41	0.86	OK	0.34	0.70	OK	1	
Chichester Racquets & Fitness Club	3	No	1700	220	4.56	10	140.0	4.10	2	NO		4		2				0.40	0.86	OK	0.33	0.70	OK	1	
Chichester Racquets & Fitness Club	4	No	1700	220	4.47	10	140.0	4.10	2	NO		4		2				0.41	0.86	OK	0.34	0.70	OK	1	
Chichester Racquets & Fitness Club	5	No	1900	168	4.27	8	115.0	3.88	0.5	NO	0	1	1		1			0.23	0.34	OK	0.26	0.40	OK	1	2
Chichester Racquets & Fitness Club	6	No	2000	168	4.31	8	115.0	3.78	0.5	NO		1	1		1			0.22	0.33	OK	0.25	0.39	OK	1	2
Chichester Racquets & Fitness Club	7	No	2000	194	5.53	10	140.0	4.07	0.5	NO		2		2		2		0.31	0.56	OK	0.36	0.67	OK	1	2
Chichester Racquets & Fitness Club	8	No	2000	194	5.49	10	140.0	4.07	0.5	NO		2		2		2		0.31	0.56	OK	0.36	0.67	OK	1	2
Chichester Racquets & Fitness Club	9	No	2000	194	5.59	10	140.0	3.98	0.5	NO		2		2		2		0.30	0.57	OK	0.36	0.69	OK	1	2
Chichester Racquets & Fitness Club	10	No	2000	194	5.59	10	140.0	4.12	0.5	NO		2		2		2		0.30	0.55	OK	0.35	0.66	OK	1	2
Chichester Racquets & Fitness Club	11	No	2000	194	4.61	10	140.0	4.00	1	NO		2		2		2		0.36	0.57	OK	0.42	0.68	OK	1	
Chichester Racquets & Fitness Club	12	No	2000	194	4.61	10	140.0	4.00	1	NO		2		2		2		0.36	0.57	OK	0.42	0.68	OK	1	
Chichester Racquets & Fitness Club	13	No	2000	194	4.61	10	140.0	4.00	1	NO		2		2		2		0.36	0.57	OK	0.42	0.68	OK	1	
Chichester Racquets & Fitness Club	14	No	1900	194	4.61	10	140.0	4.00	1	NO		2		2		2		0.36	0.58	OK	0.42	0.69	OK	1	
Chichester Racquets & Fitness Club	15	No	1900	194	4.61	10	140.0	4.00	1	NO		2		2		2		0.36	0.58	OK	0.42	0.69	OK	1	
Chichester Racquets & Fitness Club	16	No	1900	194	4.61	10	140.0	4.00	1	NO		2		2		2		0.36	0.58	OK	0.42	0.69	OK	1	
Chichester Racquets & Fitness Club	17	No	1900	194	4.56	10	140.0	4.00	1	NO		2		2		2		0.37	0.58	OK	0.43	0.69	OK	1	
Chichester Racquets & Fitness Club	18	No	2000	194	4.61	10	140.0	4.00	1	NO		2		2		2		0.36	0.57	OK	0.42	0.68	OK	1	
Chichester Racquets & Fitness Club	19	No	2000	168	4.37	10	115.0	4.00	1	NO		2		2				0.48	0.82	OK	0.52	0.89	OK	1	
Chichester Racquets & Fitness Club	20	No	1800	168	4.41	10	115.0	4.00	1	NO		2		2				0.48	0.85	OK	0.51	0.92	OK	1	
Chichester Racquets & Fitness Club	21	No	1200	168	4.37	10	115.0	4.00	1	NO		2		2				0.48	0.94	OK	0.52	1.02	OK	1	
Chichester Racquets & Fitness Club	22	No	1800	168	4.41	10	115.0	4.00	1	NO		2		2				0.48	0.85	OK	0.51	0.92	OK	1	
Chichester Racquets & Fitness Club	23	No	900	168	4.32	10	115.0	4.00	0.5	NO		1		1		1		0.36	0.72	OK	0.40	0.82	OK	1	
Chichester Racquets & Fitness Club	24	No	1700	168	4.37	10	115.0	4.00	0.5	NO		1		1		1		0.36	0.62	OK	0.40	0.71	OK	1	

A	10/12/2023	Angle confined 150; Removed drivers on columns 19, 20, 21 & 22
Revision	Date	Description

