Measurement report

Rapla Selveri Suurjooks

10 km

Karen Aau
WA - AIMS B grade measurer
May 2025

GENERAL INFORMATION

Name of measurer: Karen Aau, B grade measurer

Address: Karikakra tee 21-3, Harku, Estonia

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Name of event: Rapla Selveri Suurjooks

Location: Rapla, Estonia

Race date: 24.05.2025

Distance: 10 km

Advertised race distance: not less than 10 000 m

Race contact person: Donatas Narmont

Phone: +3725045203

E-mail: donatas@tennis.ee

Description of the course

Type of course: flat, out & back

Race surface: asphalt

Separation: 0%

Altitude:

Start – 62 m, Finish 62 m

Highest point – 75 m, Lowest point – 58 m

Difference in elevation highest > lowest point – 17 m

Measurement details

Section of road available: entire width of road

Line to be taken at turns: shortest possible route

DETAIL OF THE CALIBRATION COURSE

Date: 01.05.2025

Location of calibration course: Pargi street

Measure method: steel taped

Number of measurements: 2

Markers: nails

Start time: 16:00   **Finish time:** 16:45

Temperature: *Start* +11°C, *Finish* +11°C, *Average* +11°C

MEASUREMENTS AND CALCULATIONS:

1   First measurement.

$$\underset{\substack{\text{\# tape} \\ \text{lengths}}}{5} \times \underset{\substack{\text{distance per} \\ \text{tape length}}}{49,9 \text{ m}} + \underset{\substack{\text{partial tape} \\ \text{length}}}{0,5 \text{ m}} = \underset{\substack{\text{measured} \\ \text{distance}}}{250 \text{ m}}$$

2   Second measurement.

$$\underset{\substack{\text{\# tape} \\ \text{lengths}}}{5} \times \underset{\substack{\text{distance per} \\ \text{tape length}}}{49,9 \text{ m}} + \underset{\substack{\text{partial tape} \\ \text{length}}}{0,498 \text{ m}} = \underset{\substack{\text{measured} \\ \text{distance}}}{249,998 \text{ m}}$$

3   Average raw (uncorrected) measurement of course 249,999 m

4   Temperature correction.

Correction factor = 1+ (0.0000116 x [11 – 20]) = 0,9998956

5   Multiply the temperature correction factor by the average raw measurement of the course

$$\underset{\text{correction factor}}{0,9998956} \times \underset{\text{avg. raw measurement}}{249,999 \text{ m}} = \underset{\text{corrected measurement}}{249,9729001 \text{ m}}$$

6   Final (adjusted) length of calibration course: **250 m**

249,9729001 m + 0,0270999 m = 300m

Summary: To get 250 m length calibration course, added 2,7 cm with steel tape.

BICYCLE CALIBRATION DATA SHEET

PRE-CALIBRATION:

Day: 01.05.2025   **Time:** 18.00   **Temperature**: +11°C

Start count	Finish count	Difference
225364	228110	2746
228110	230855	2745
230855	233601	2746
233601	236346	2745

Pre-measurement average count = (2746+2745+2746+2745) / 4 = 2745,5

Counts per km = 2745,5x1000/250 = 10982

Working Constant = 10982x1,001/1000 = **10,992982 c/m**

POST-CALIBRATION:

Day: 01.05.2025   **Time:** 19.30   **Temperature**: +11°C

Start count	Finish count	Difference
346732	349478	2746
349478	352223	2745
352223	354969	2746
354969	357714	2745

Pre-measurement average count = (2746+2745+2746+2745) / 4 = 2745,5

Counts per km = 2745,5x1000/250 = 10982

Working Constant = 10982x1,001/1000 = **10,992982 c/m**

CONSTANT FOR THE DAY = (10,992982+10,992982**)** / 2 = **10,992982 c/m**

COURSE MEASUREMENT DATA SHEET

| reading	counts	distance	adj.dist	location
Measured in running direction, 01.05.2025, c=10,992982 c/m				
--- adjustment here with steel tape adds 14,3 m ---				
236985	0	0.0m		START - at Kagu street (detailed sketch attached)
259768	0	2072,5 m	2086,8 m	P1 – bus stop sign post right hand after turn from Viljandi mnt
281153	0	4017,8 m	4032,1 m	P2 – road sign post "Tuti" right hand after turn from Rapla-Järvakandi-Kergu tee
325806	0	8079,8 m	8094,1 m	P3 – end of lane sign post after turn from road nr 20125
--- adjustment here with steel tape adds 14,3 m ---				
346600	**109614**	**9971,4 m**	**10000 m**	FINISH - at Kagu street (detailed sketch attached)

Note any adjustments made to the course after measurement:

As start and finish line is same, after measurement with bike i moved start/finish line with steel tape 14,3m. Summary added 28,6m.
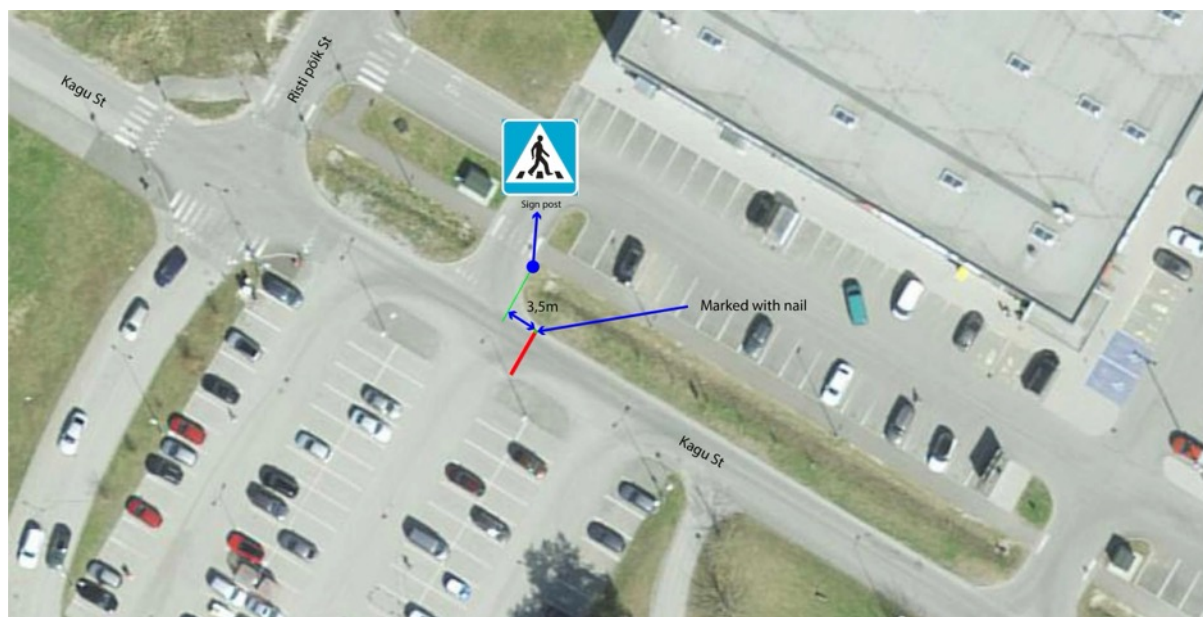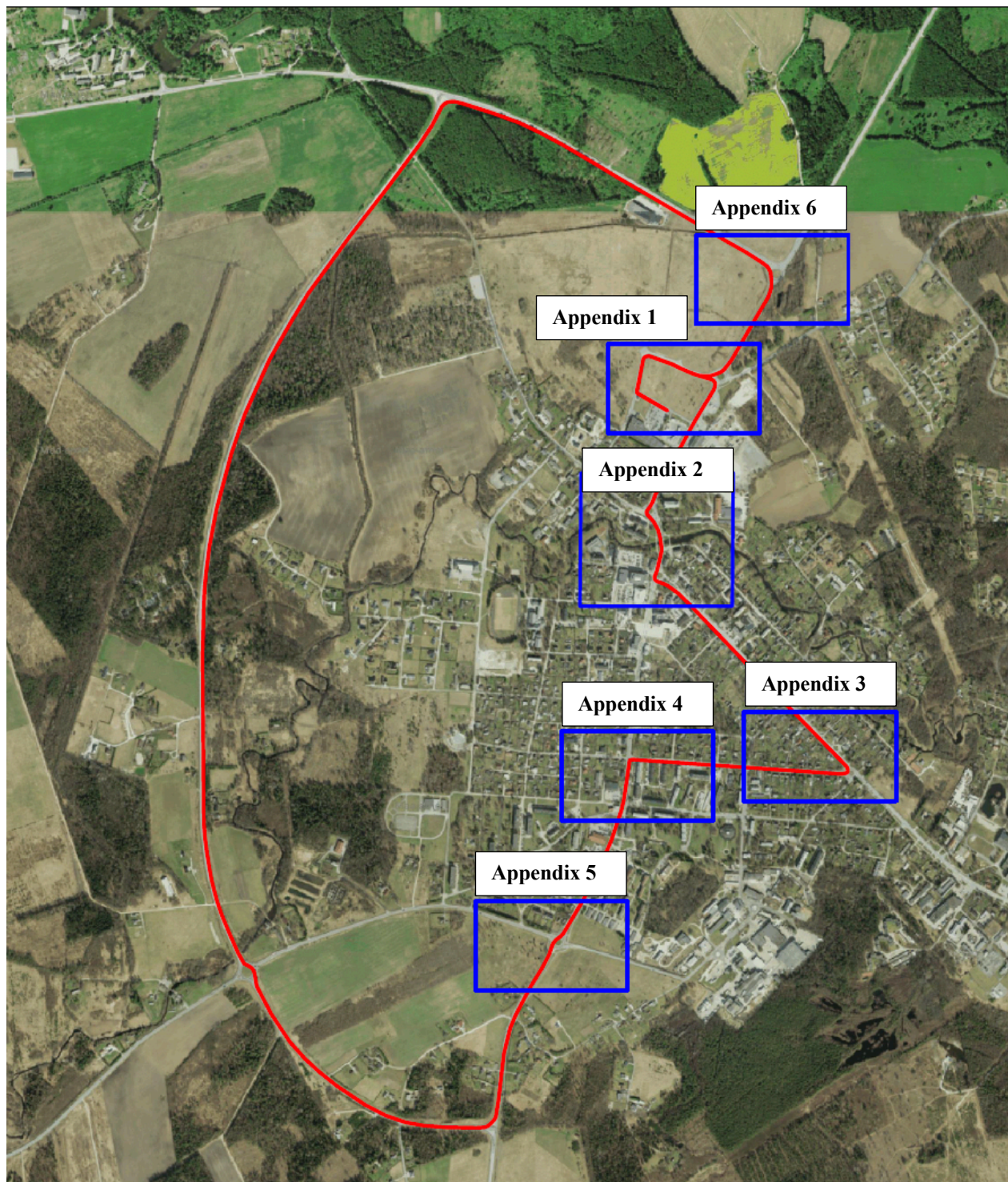
CALIBRATION COURSE

COURSE
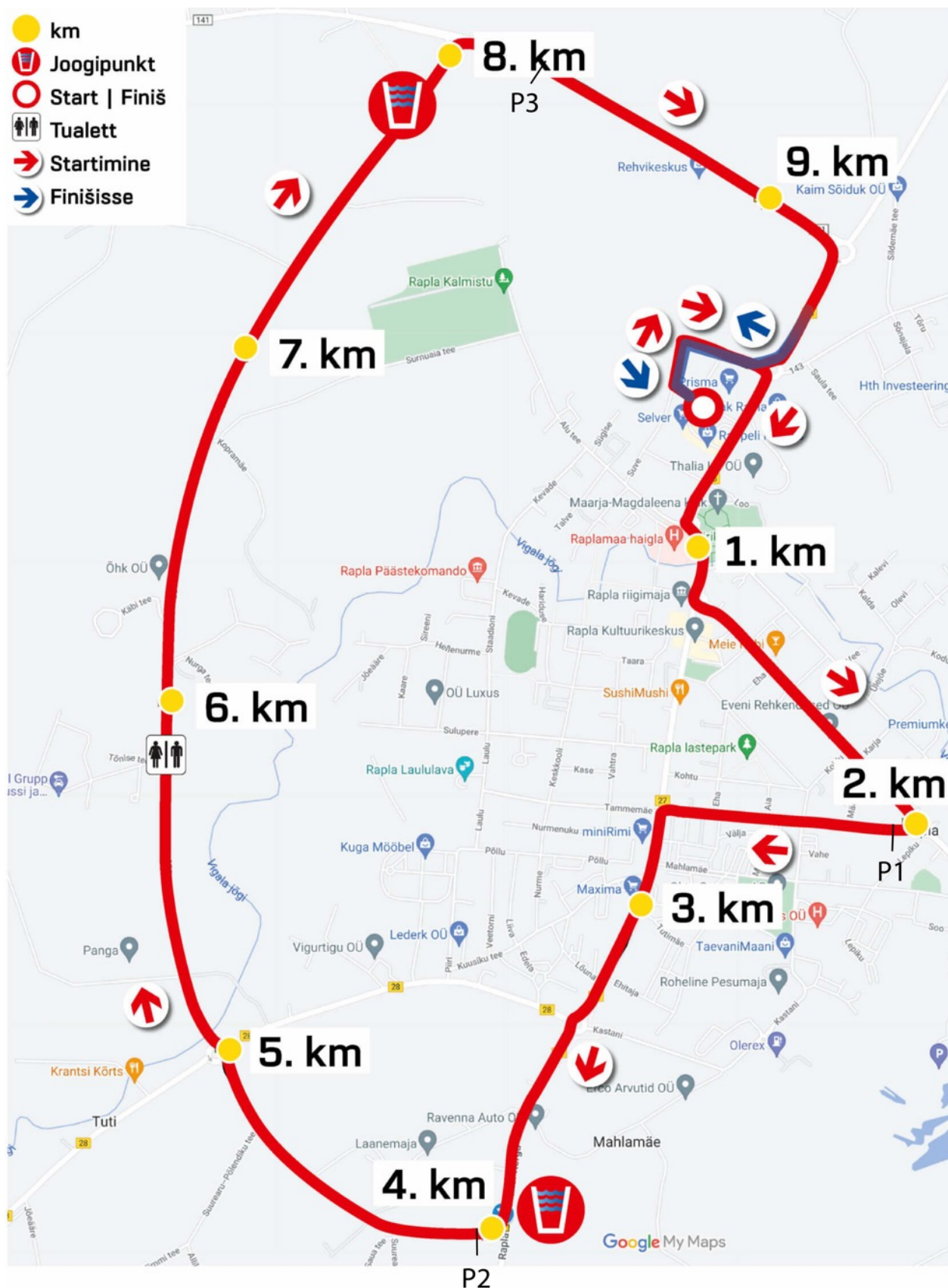
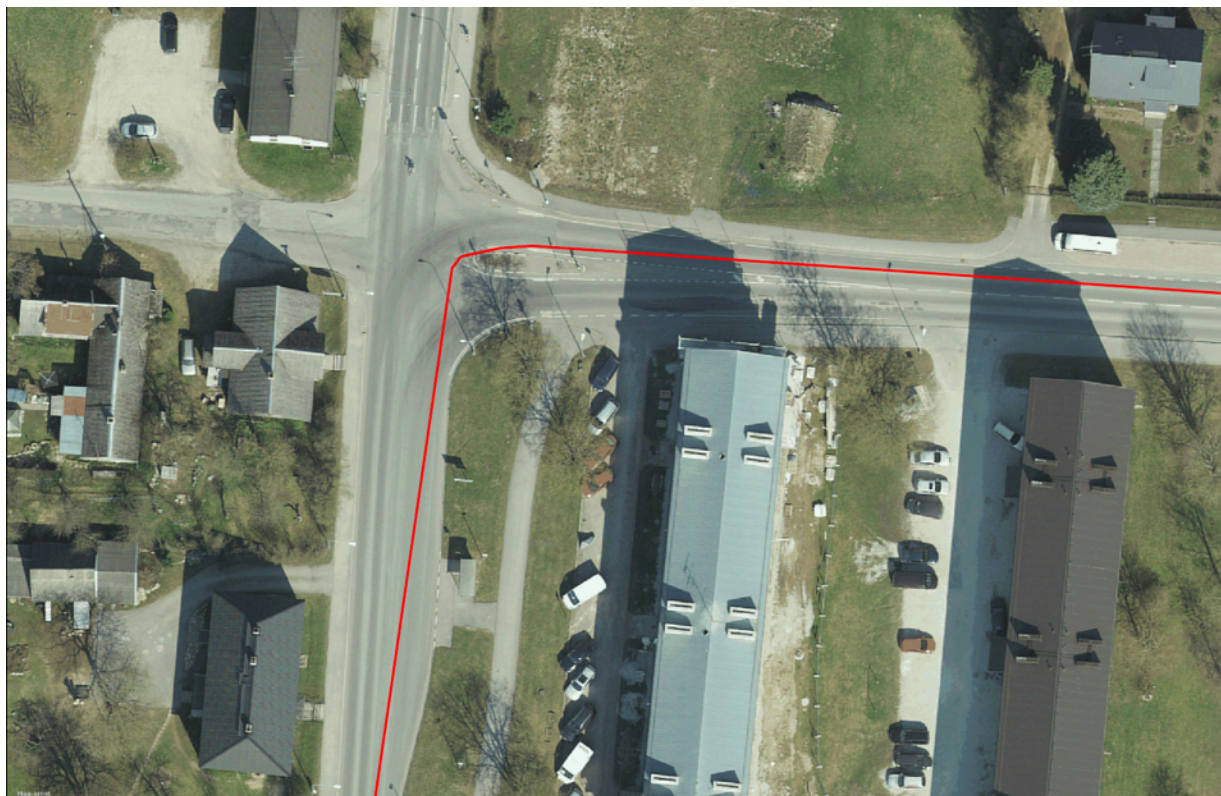# START / FINISH LINE

APPENDIXS

APPENDIX 1

APPENDIX 2

APPENDIX 3

APPENDIX 4

APPENDIX 5

APPENDIX 6