

Norwegian Athletic Federation

Ullevaal stadion

Sognsveien 75 J

0840 Oslo

NORWAY

E-mail: friidrett@friidrett.no

Phone: +47 94 83 33 26



COURSE MEASUREMENT REPORT

- REPORT FOR NATIONAL CERTIFIED COURSE -

INFORMATION ABOUT EVENT AND COURSE
Event: Forusløpet 2022 (Forus perseløp)
Technical Organiser: Spirit Stavanger Friidrettsklubb
City/Place: Forus / Stavanger
Date of Arrangement: 6 th September 2022
Date and time for measurement: 20 th August 2022 – 10:00 am
Measured distance(s): 3 km
Length of calibration course: 350 metre
Terrain: Flat <input checked="" type="checkbox"/> Slightly hilly <input type="checkbox"/> Hilly <input type="checkbox"/> Terrain <input type="checkbox"/>
Type of course route: Closed loop <input checked="" type="checkbox"/> Back and forth <input type="checkbox"/> A to B <input checked="" type="checkbox"/> Other <input type="checkbox"/>
Race surface: Asphalt
Elevation Start - Finish: 1 m
Description of start: Cyclepath at crossing Kanalvegen / Røynebergsetta
Description of finish: Cyclepath along Åsenvegen, left corner Petrolink building
Distance, in a straight line, between start & finish: 400 m
Start and Finish marked: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Km-markings: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Measurement direction: Running direction <input type="checkbox"/> Opposite running direction <input checked="" type="checkbox"/>
National record can be approved: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

CONTACT INFORMATION		
	Measured by:	Organizer:
Contact person:	Erling Hiorth	Einar Søndeland
Phone:	+47 91337338	+47 92403587
Email:	Erling.hiorth@lyse.net	Einar.sondeland@spirit-friidrett.com

It is hereby confirmed that the course has been measured by a national certified course measurer from Norwegian Athletics. The course is measured in accordance with Norwegian athletics regulations, and the distance(s) has the minimum reported length(s). The survey is valid for 5 years, except if the route is changed.

21th August 2022 Erling Hiorth

Date Signature by Course measurer

26.8.2022 Peer Jensen

Date Signature by NFIF

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CALIBRATION COURSE AND PROCEDURE	
Length of measuring tape (steel measuring tape only)	50 m
Length of calibration course 1st measurement	350 m
Length of calibration course 2nd measurement	350,005 m
Possible 3rd measure (max. 1 cm diff per 100m 1 st and 2 nd)	No
Average of measurements before adjustments	350,0025 m
Temperature (road or measuring tape)	17 C
Adjustment cf. $D-(D*(1+(temp-20)*0,0000115))$	- 0,012 m
Measured calibration distance after adjustment	349,998 m (added 0,008)
Distance from start/finish to calibration distance	600 m

CALIBRATION INFORMATION - (max 8 counts difference of 1000 m between 4 measurements, ie 2 counts of 300m and 3 count of 400m)						
	Pre-measurement:			Post measurement:		
	Date and Time: 20 th Aug – 09:45			Date and Time: 20 th Aug – 11:00		
	Start	End	Diff.	Start	End	Diff.
1st measure	861 100	864 915	3815	958 300	962 113	3813
2nd measure	864 915	868 730	3815	962 113	965 925	3812
3rd measure	868 730	872 544	3814	965 925	969 737	3812
4th measure	872 544	876 359	3815	969 737	973 549	3812

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	Pre measurement	Post measurement	
Average (1+2+3+4) / 4	3814,75	3812,25	Today's constant. Either highest or average of before and after measurement
Constant 1 km	10899,335	10892,192	
Addn. +1‰	10,899	10,892	
Measurement constant (rounded)	10910	10903	10907

MEASUREMENT PROCEDURE		
Measurement constant	10907	
Measured Distance	Counter	Description of place
1st round – opposite direction		
	885500	Finish
3000 m	918230	Start – Calculated based on pre-meas 10910
2nd round – control - in course direction		
	918300	Start
3001,1	951042	Finish
3000 m		Total measured without adjustments
+ 0,8 m		Post-measure – average measured constant 10907
+ 0,8 m		Total measured adjustments
3000,8 m		Total measured course

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CONCLUSION OF MEASUREMENT

1. General information about race course and start/finish
 - The course is a closed loop of 2,5 km + 500 m
 - Technical Organiser has pre-marked course direction through 4 roundabouts
2. Measurement of calibration course
 - Forus cycle path, 600 m from finish line
 - Measured in accordance with procedure, 2 persons, both ways independent
 - Fixed points both ends, temp calculations -12 mm, adjustment on ground + 8 mm
3. Calibration of bicycle
 - Calibration in accordance with procedure, 4 measures, variance max 1
 - Pre- and post-measurement calibration performed
4. Measurement of the course
 - From pre-set finish line and opposite running direction, based on pre-calc using pre-measure constant 10910. Total 3000 m.
 - Marked start line, turned around and did a 2nd round in course direction (control)
5. Course adjustments
 - None
 - 2nd round was 1,1 m longer, both did not follow shortest route at one roundabout
 - Both pre-marks on ground, start and finish, kept unchanged & based on 1st round
6. Overall length of the course
 - Overall length of course adjusted after post-measure, new constant 10907
 - Overall course length is longer than 3000 m
7. Additional info
 - Km marks not applicable
 - Attached course map were generated during item 4. "Measurement of the course"
 - Course direction through 4 roundabouts attached

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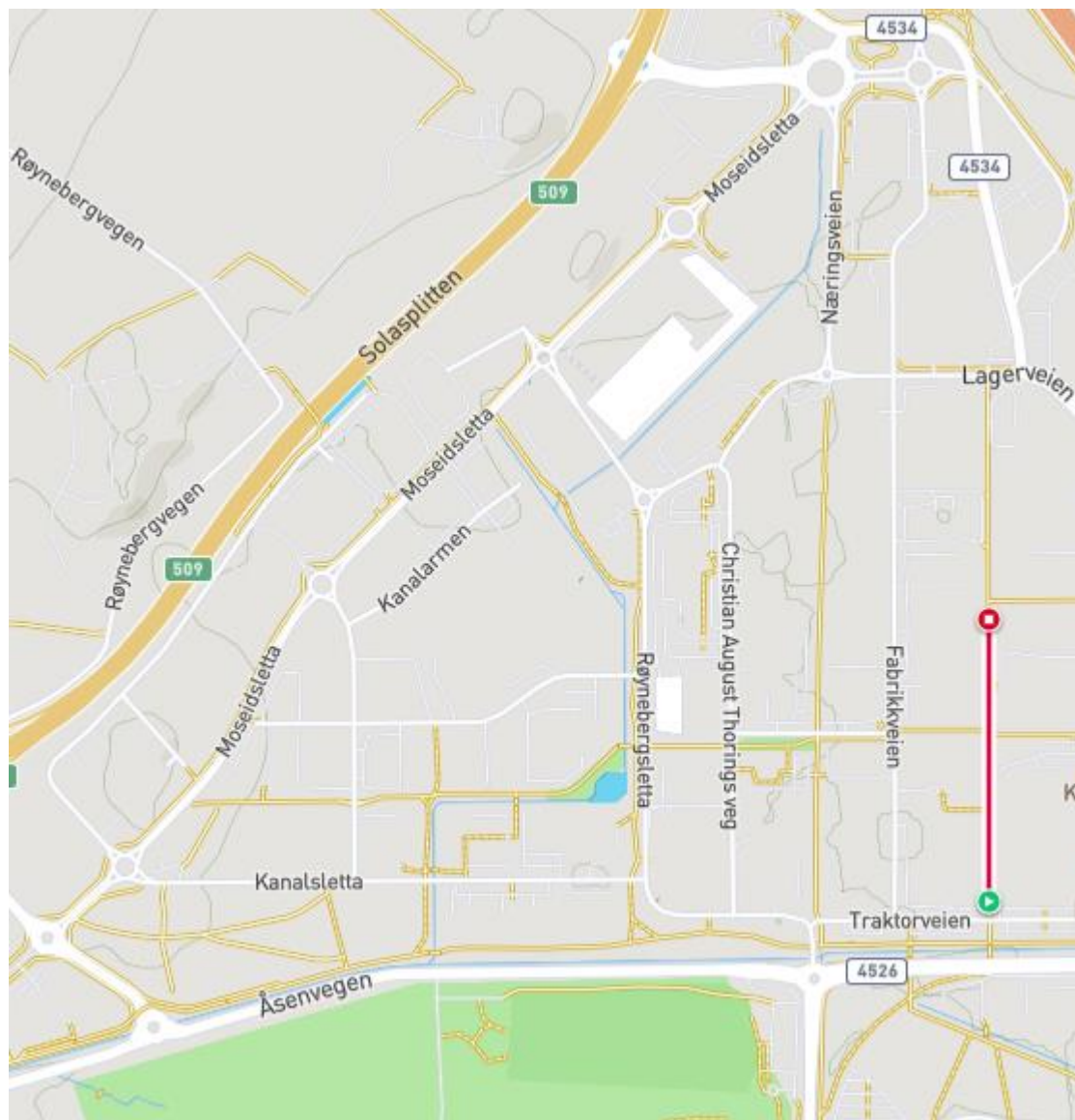
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CALIBRATION COURSE MAP



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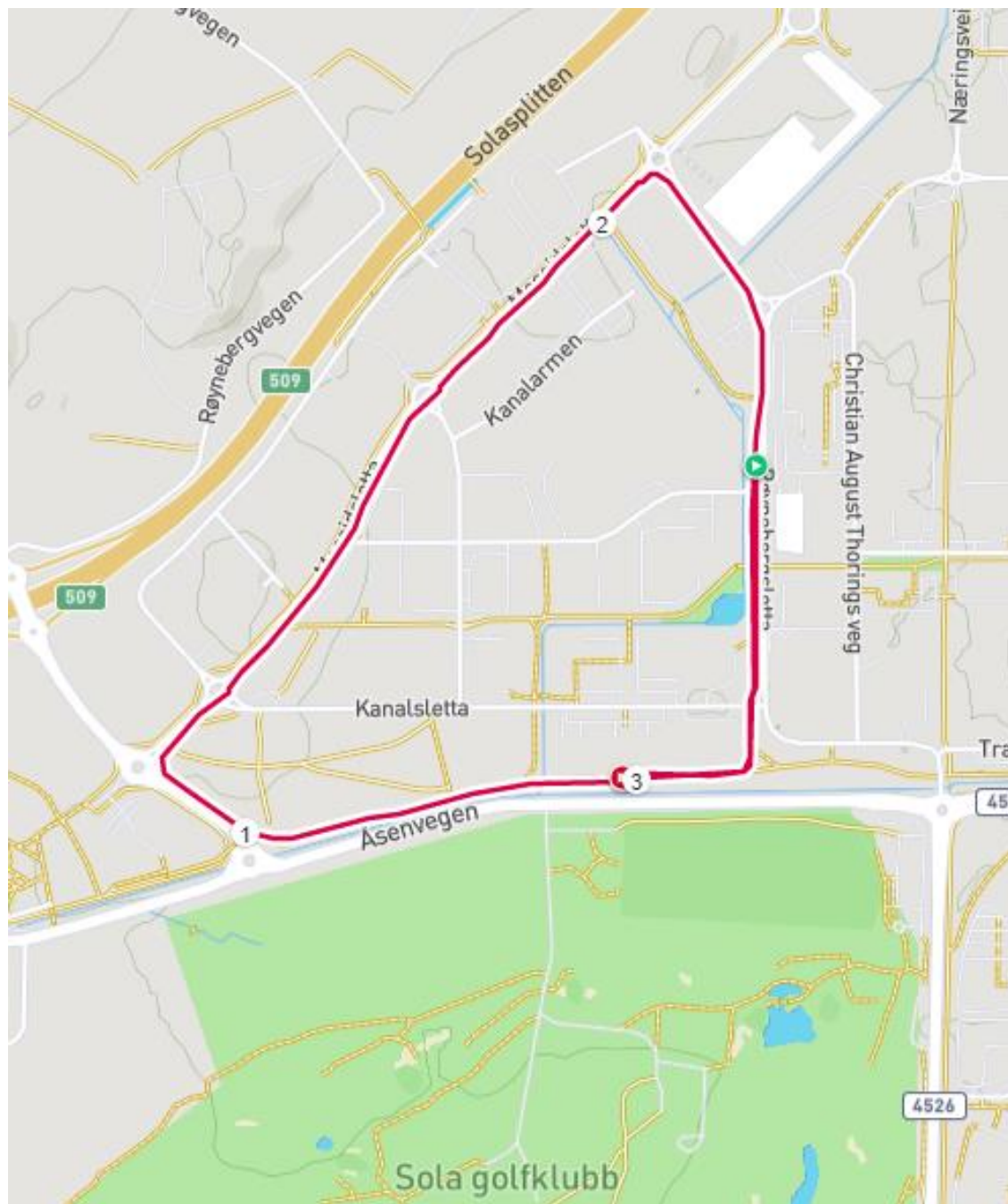
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COURSE MAP & DESCRIPTION



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Description of course

- 1 From Start – 500 m on cycle path past finish line and another 500 m to 1st roundabout. Cycle path is on the inside with no obstructions.
- 2 Cycle path to 2nd roundabout, turning 90 degree on cycle path
- 3 Leaving cycle path at pedestrian crossing into street and through 3rd roundabout on right hand side. Crossing marked on ground.
- 4 Follow right lane, then onto sidewalk at pedestrian crossing halfway before next round about. Crossing marked on ground.
- 5 Leaving sidewalk at pedestrian crossing out into right lane and through 4th roundabout on right hand side. Crossing marked on ground.
- 6 Follow right lane, then onto sidewalk before next (5th) roundabout. Crossing marked on ground. Follow sidewalk turning 90 degree.
- 7 6th roundabout – Two measures done (ref picture attached)
 - a. Straight line from sidewalk to sidewalk – as measured on 1st round
 - b. Out in right lane, through roundabout and back on sidewalk after 100 m. Crossings marked on ground. As measured on 2nd round.
 - c. This report is based on shortest route as per a)
- 8 Passing start line and same course back to finish line
- 9 Pictures attached on next page:
 - a. Start line
 - b. 3rd roundabout
 - c. Street Moseidsletta
 - d. 4th roundabout
 - e. 5th roundabout
 - f. 6th roundabout
 - g. Finish line

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Start



3rd roundabout



Street Moseidsletta



4th roundabout

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5th roundabout



6th roundabout



Finish line