

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: Lierskogen 6 timers |
| Technical Organiser: Sportsklubben Kraft |
| City/Place: Lierskogen, Norway |
| Date of Arrangement: 25.05.2024 |
| Date and time for measurement: 28.04.2024 18:00 |
| Measured distance(s): 655m |
| Length of calibration course: 350m |
| Terrain: Flat <input type="checkbox"/> Slightly hilly <input checked="" 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: tarmac roads |
| Elevation Start - Finish: 197,3m MSL |
| Description of start: Closed loop, start by parking lot |
| Description of finish: Closed loop, finish after 6 hours run |
| Distance, in a straight line, between start & finish: 0m |
| Start and Finish marked: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Km-markings: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |
| Measurement direction: Running direction <input checked="" 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: | Samuel Hafsaahl | Gjermund Sørstad |
| Phone: | +47 970 46 905 | |
| Email: | samuel.hafsaahl@gmail.com | gjermund@lopeglede.no |

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

28.04.2024 Samuel Hafsaahl

Date

Signature by Course measurer

Date

Signature by NFIF



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| CALIBRATION COURSE AND PROCEDURE | |
|---|------------------|
| Length of measuring tape (steel measuring tape only) | 50m |
| Length of calibration course 1st measurement | 350m |
| Length of calibration course 2nd measurement | 350m |
| Possible 3rd measure (max. 1 cm diff per 100m 1 st and 2 nd) | |
| Date and time for measurement | 28.04.2024 18:00 |
| Average of measurements before adjustments | 350m |
| Temperature (road or measuring tape) | 6 |
| Adjustment cf. $D-(D*(1+(temp-20)*0,0000115))$ | 0,9998390 |
| Measured calibration distance after adjustment | 349,944m |
| Distance from start/finish to calibration distance | 1200m |

| 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: 28.04.2024 18:00 | | | Date and Time: 28.04.2024 18:30 | | |
| | Start | End | Diff. | Start | End | Diff. |
| 1st measure | 67716,0 | 71860,0 | 4144,0 | 465,0 | 4 608,0 | 4143,0 |
| 2nd measure | 71860,0 | 76004,0 | 4144,0 | 4608,0 | 8752,0 | 4144,0 |
| 3rd measure | 76004,0 | 80147,0 | 4143,0 | 8752,0 | 12895,0 | 4143,0 |
| 4th measure | 80147,0 | 84290,0 | 4143,0 | 12895,0 | 17039,0 | 4144,0 |

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| | Pre measurement | Post measurement | |
|---------------------------------------|-----------------|------------------|---|
| Average (1+2+3+4) / 4 | 4 143,5 | 4 143,5 | Today's constant. Either highest or average of before and after measurement |
| Working constant 1 km | 11 840,5 | 11 840,5 | |
| Addn. +1‰ | 11,8 | 11,8 | |
| Measurement constant (rounded) | 11 852 | 11 852 | 11 852 |

| MEASUREMENT PROCEDURE | | |
|-----------------------------|----------|--|
| Measurement constant | 11 852 | |
| Measured Distance | Counter | Description of place |
| 0m | 84 531,0 | Start, At first lamppost by the parking lot. Measured in running direction |
| 655m | 92 294,0 | Finish, same as start |
| | | |
| | 7 763,0 | |

Second measurement in opposite direction

| | | |
|------|-----------|---|
| 0m | 92 294,0 | Start, At first lamppost by the parking lot. Measured in opposite running direction |
| 655m | 100 056,0 | Finish, same as start |
| | | |
| | 7 762,0 | |

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CONCLUSION OF MEASUREMENT

1. Measurement method

Cook-Jones counter mounted on bicycle wheel

2. Measurement procedure

Stopp counter - Start counter = total counts

92 294 – 84 531 = 7 763

Total counts / measurement constant * 1000 = total distance in meter

7 763 / 11 8852 * 1000 = 655 meter

The course was measured in both directions with one tick in difference.

The race is a closed loop. Race will finish after 6 hours.

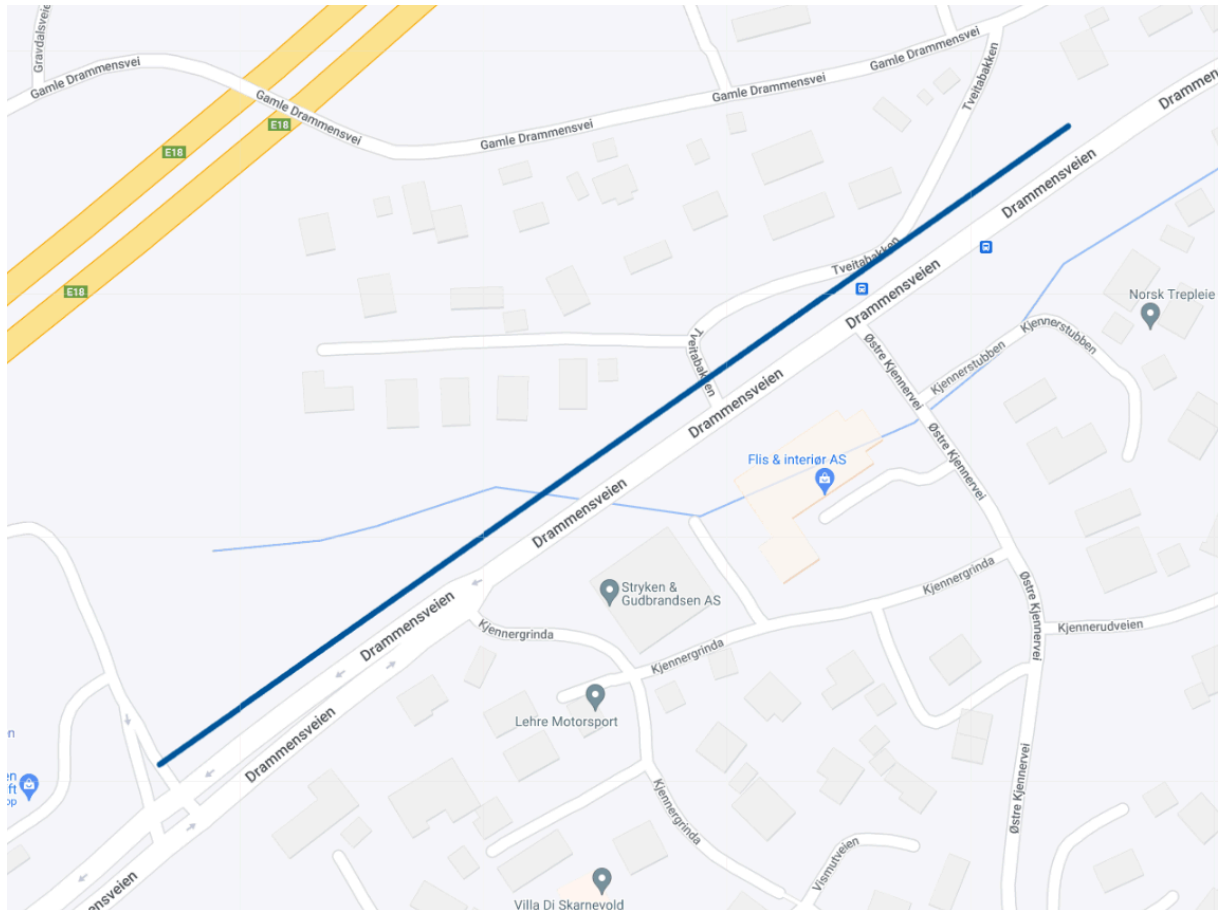
Rounds will be counted and the extra distance after 6 hours will be measured with a measuring-wheel.

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CALIBRATION COURSE MAP



https://www.google.com/maps/d/edit?mid=1M-YICQwGYiMPDSPXilrQao_biiBu9rA&usp=sharing

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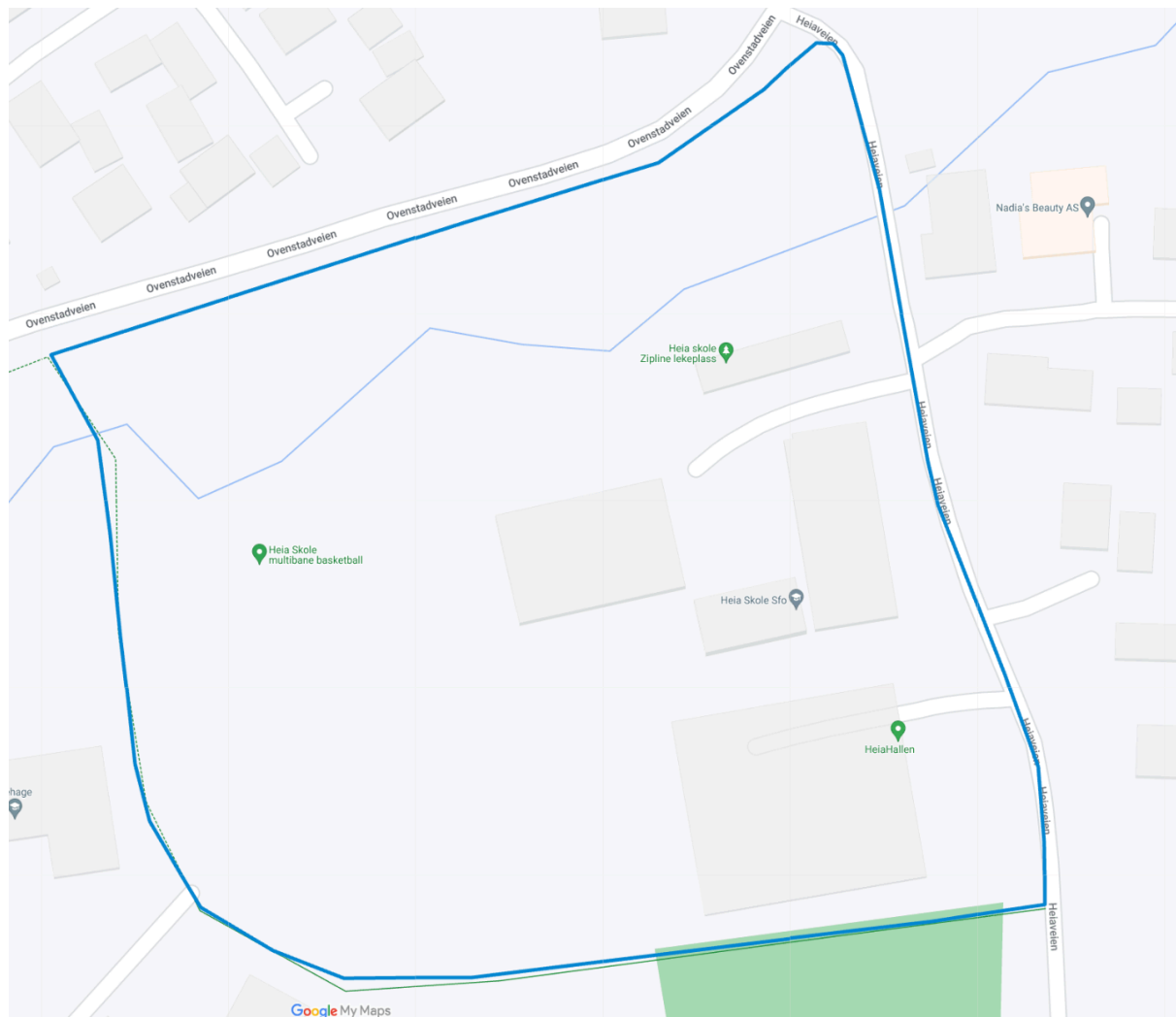
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COURSE MAP & DESCRIPTION



<https://www.google.com/maps/d/edit?mid=1NkNAsVSprs0iLzzlguMAcRrys8E-ZC0&usp=sharing>

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Alongside Heiahallen, in Heiveien the course was measured in the middle of the road, to make it easier to run the turn. The organizers must have a fence or ribbon in place as a guide.



When turning from Ovenstadveien down Heiveien, the track is measured half a meter from the edge of the grass, not on the asphalt. No extra fence or ribbon is needed.