## COURSE MEASUREMENT REPORT

- REPORT FOR NATIONAL CERTIFIED COURSE -


CONTACT INFORMATION

|  | Measured by: | Organizer: |
| :--- | :--- | :--- |
| Contact person: | Ivar Andreas Sand $\varnothing$ | Dagfinn Nyhammer |
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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.

| 21.08.2022 | IVAR A. SAND $\varnothing$ | 5.9.2022 | Peer Zensen |
| :--- | :--- | :--- | :--- |
| 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) | 50 m |
| Length of calibration course 1st measurement | 350.00 m |
| Length of calibration course 2nd measurement | 350.02 m |
| Possible 3rd measure (max. 1 cm diff per 100m $1^{\text {st }}$ and $2^{\text {nd }}$ ) |  |
| Average of measurements before adjustments | 350.01 m |
| Temperature (road or measuring tape) | $+21.1^{\circ} \mathrm{C}$ on asphalt |
| Adjustment : Dcorr= Dmeas*0,0000115*(temp-20) | $0,4 \mathrm{~cm}$ |
| Measured calibration distance after adjustment | $350,00 \mathrm{~m}$ |
| Distance from start/finish to calibration distance | 11 k |


| CALIBRATION INFORMATION - (max 8 counts difference of 1000 m between 4 measurements, ie <br> 2 counts of 300m and 3 count of 400m) |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pre-measurement: |  |  |  |  |  |  | Post measurement: |
|  | Date and Time: 10.00 AM, 18.08.22 | Date and Time: 1.00 PM, 18.08.22 |  |  |  |  |  |  |
|  | Start | End | Diff. | Start | End | Diff. |  |  |
| 1st measure | 845228 | 840372 | 4856 | 655321 | 650465 | 4856 |  |  |
| 2nd measure | 840372 | 835517 | 4855 | 650465 | 645608 | 4857 |  |  |
| 3rd measure | 835517 | 830662 | 4955 | 645608 | 640752 | 4856 |  |  |
| 4th measure | 830662 | 825806 | 4856 | 640752 | 635897 | 4855 |  |  |

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|  | Pre <br> measurement | Post <br> measurement | Today's constant. Either <br> highest or average of before <br> and after measurement |
| :--- | :--- | :--- | :--- |
| Average <br> $\mathbf{( 1 + 2 + 3 + 4 ) ~ / 4}$ | 4855,5 | 4856,0 | 13874,28 <br> Constant 1 km 13872,85 |
| Addn. +1\%o | 13,87 | 13,87 | 13887,5 |
| Measurement constant <br> (rounded) | 13887 | 13888 |  |


| MEASUREMENT PROCEDURE |  |  |
| :---: | :---: | :---: |
| Measurement constant | 13887 |  |
| Measured Distance | Counter | Description of place |
| 0 | 811646 | Turning point ( 10549 m from start/finish) |
| 451m | 805383 | 11 K marked with spray on asphalt |
| 1451m | 791496 | 12K marked with spray on asphalt |
| 2451m | 777609 | 13K marked with spray on asphalt |
| 3451m | 763722 | 14 K marked with spray on asphalt |
| 4451m | 749835 | 15K marked with spray on asphalt |
| 5451m | 735948 | 16K marked with spray on asphalt |
| 6451m | 722061 | 17K marked with spray on asphalt |
| 7451m | 708174 | 18K marked with spray on asphalt |
| 8451m | 694287 | 19K marked with spray on asphalt |
| 9451m | 680400 | 20K marked with spray on asphalt |
| 10451m | 666513 | 21 K marked with spray on asphalt |
| 10549m | 665159 | Start/finish line |

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## CONCLUSION OF MEASUREMENT

1. Measurement method

The measurement was done in the running direction, from turning point for the half marathon to the (common) finish/start line.

## 2. Measurement procedure

The organizer has pre-determined a fixed turning point for the course due to practical issues. Also, the start/finish lines are identical. Figures 1 and 2 shows the details associated with these critical points in the course. In the measurement, we measured the distance from the fixed turning point and marked the start/finish line when the quarter marathon distance was reached.
The running course, apart from the first and last 200m follows the main road Sørstrandsvegen westward from Sandane. Along Sørstrandsvegen, the whole width of the road is available for the runners, with no deviations from the shortest possible path. From the start/finish line to Sørstrandsvegen, the course follows Firdavegen. At the crossing, the runners shall follow the street and not use the sidewalk, details in Figure 3.
The start/finish line was marked 15 m inside the stadium measured from the flagpole at the entrance to the stadium ( Figure 1)

## 3. Course adjustment

The average constant is 13887,5 which is 0,5 count larger than the pre measurement constant. This would give a minor post measurement adjustment of 0.36 m of the start/finish line further into the stadium. However, in the measurement we rounded the quarter half marathon distance from $10548,75 \mathrm{~m}$ to 10459 m . Thus, the adjustment would then be insignificant $=0,11 \mathrm{~m}$. We therefore kept the start/finish line at 15 m from the flagpole.

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## CALIBRATION COURSE MAP



The calibration course is a 350 m straight, flat stretch along Sørstrandvegen approximately 1 K north of the half marathon turning point.

Strava link

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COURSE MAP \& DESCRIPTION


The start/finish is in Sandane stadium, details given in figure 1. The course follows Firdavegen to the crossing with Sørstrandsvegen. The course continues on Sørstrandsvegen to the turning point. The runners follow the same route back

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to the finish. |

Figure 1: Overview Start/ Finish area.


## LDP INDRGE

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Figure 2: Turning point


The turning point is predetermined at the end of the safety rail. The measurement started at this point towards start/finish line.

## LDP I NDRGE

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Figure 3 : Deviation from shortest path


The only location along the course where the shortest path is not allowed to use by the runners is at the crossing Firdavegen/Sørstrandvegen approx. 200m from start/finish.

