Course Timeline Calculator

Quick Reference Guide · Race Director Resource

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The Course Timeline Calculator tells you when your first, typical and last athletes will reach every checkpoint on your course. Use it to plan road closures, set volunteer and officer call times, position safety resources, and print a one-page briefing sheet for each volunteer.

Three steps

1. **Configure.** Enter wave start times, transition time, distances, paces, and your checkpoints (label, distance into the leg, optional GPS and notes).
2. **Generate.** Click Generate Timeline. Results appear on the right. Change any input and click again.
3. **Print and brief.** Click Print. The timeline prints first, then one briefing sheet per checkpoint with GPS.

Reading the results

Color	What it means	What to do
● **Fastest**	First athlete arrives. First wave start + fastest paces.	Post staffed and road closed before this time.
● **Median**	Bulk of the field. A typical athlete from the first wave.	Your busiest stretch. Plan volunteer numbers and aid around it. Later waves arrive later.
● **Slowest**	Last athlete from the last wave. Last wave start + slowest paces.	Nobody leaves their post before this time. Reopen roads only after the sweep passes.

- **Summary cards:** Fastest Finish, Median Finish and Last Finish. Last Finish tells you how long your finish line, medical and course crews need to stay.
- **Elapsed note:** "+8m on bike" under a time is how long that athlete has been on that leg when they reach the checkpoint.

Example: Turn 1, 3.2 miles into the bike (sprint race, waves 7:00 to 7:40 AM)

Checkpoint	First (green)	Bulk (blue)	Last (red)
Turn 1 - Left on Main St	**7:21 AM**	**7:33 AM**	**8:30 AM**

The marshal and officer at Turn 1 need to be in place before 7:21 AM and stay until after 8:30 AM.

Turn the timeline into a plan

- **Road closures:** close before green, reopen after red once the sweep has passed.
- **Call times:** get volunteers to their post well ahead of the first athlete, with travel and setup time.
- **Safety resources:** cover the busiest windows with medical and bike support.
- **Buffer:** these are estimates. Wind, heat, hills and course changes shift real arrival times.

Volunteer navigation

Every checkpoint with GPS gets three ways to find it:

- **Navigate button** in the results table opens Google Maps directions.
- **QR code** on the printed sheet. Volunteers scan it with their phone camera.
- **GPS coordinates** printed on the sheet, for any map app or to read over the radio.

Each briefing sheet shows the leg, checkpoint name and distance, the QR code, a map, the GPS coordinates, the expected athlete window (first, bulk, last), your location notes, and blank lines for race-morning updates.

Avoid these common mistakes

- ✕ **Distance from the race start.** Checkpoint distance is from the start of that leg.
- ✕ **Kilometers with MPH.** Speed stays MPH and run pace stays min/mile even when distance is in km.
- ✕ **A slow pace that's too fast.** Use your slowest past finishers, or volunteers may leave early.
- ✕ **No GPS on a post that needs a sheet.** No GPS, no briefing sheet. Add coordinates.
- ✕ **Transition time of 0.** A blank or 0 is treated as 2 minutes. Enter 1 or more.
- ✕ **Handing out sheets without a briefing.** Walk each volunteer through their sheet, face-to-face.