

## 100 Meter Race Strategy

| DRIVE<br>(up to 30m) | TRANSITION<br>(30-35m) | ACCELERATION<br>(35-70m) | MAINTENANCE<br>(70-95m) | DECEL<br>(95m-100m) |
|----------------------|------------------------|--------------------------|-------------------------|---------------------|
|                      |                        |                          |                         |                     |
|                      |                        |                          |                         |                     |

### 1) REACTION

How fast the sprinter response to the gun. Goal is to react as quickly as possible; a good reaction time is below 0.130. Range of 0.130 to 0.160 are acceptable in the 100m. Reaction time of 0.170 is too late!

### 2) CLEARANCE (First step)

First step must be correct and explosive. First step is crucial to make sure a clean execution in the drive phase.

### 3) DRIVE (up to 30m)

In the drive phase, "use the power as much as possible but less energy". One of the techniques is to control the breathing. Body position in here is lower to the ground, head down to build speed more efficiently.

### 4) TRANSITION (30-35m)

Transition involves only to lifting the head.

### 5) ACCELERATION (35-70m)

A high gear phase. Pump the arms and legs to reach the top speed at 65-70m. Reach a perfect running mechanics. In order to maximize the potential of your top-end race velocity, you'll need to have a well-executed acceleration out of the starting blocks. If your acceleration phase is too short, you will reach a false maximum velocity early in the race, and when this happens, it will cause unnecessary deceleration early in the 100m dash.

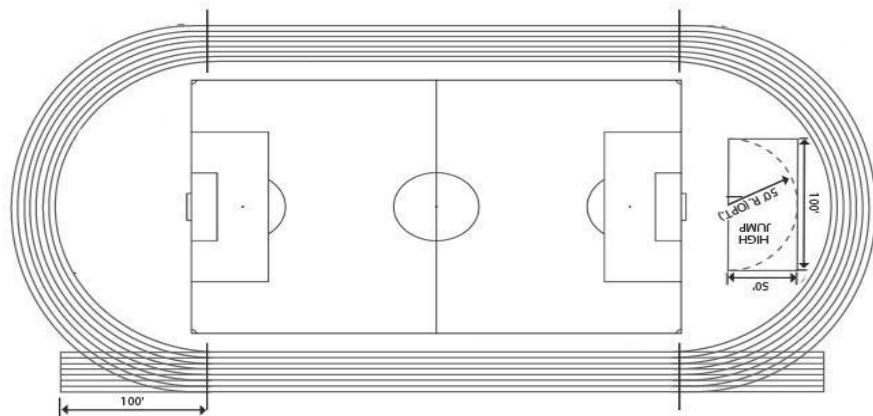
### 6) MAINTENANCE (70-95m)

Maintain the velocity for as long as possible. Body and muscles must relax and also control the breathing.

### 7) DECELERATION (95m-100m)

Head a little bit down. Goal is to eliminate or lessen the degree of deceleration.

## 200 Meter Race Plan



**Phase 1 – 0-40m (or first 5-6 seconds):** Go all out

**Phase 2 – 40m – 110-120m:** (around the end of the 4x1 exchange zone, depending on skill and strength of the athlete):

Float You have to teach athletes they must float during this time no matter what is going on around them. It's tough when the other athletes are burning the turn, but that just gives your athletes someone to run down when they start tying up at the same spot yours start to bare down. This is a learned skill and we practice it specifically starting late week 6 or early week 7 through the rest of the season (see below).

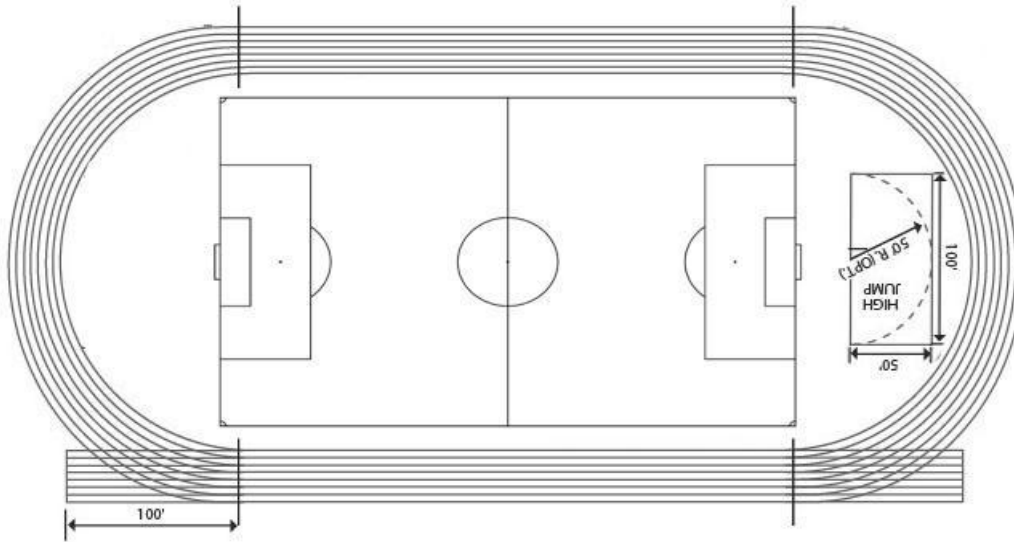
**Phase 3 – 110-120m – 130-140m:** "Re-accelerate"

We know that's not what's actually taking place, but that is what it should feel like. "Re-accelerate" to full speed over a distance of about 20m. Focus on driving the arms down and back and applying force to the ground like you were starting from a dead stop.

**Phase 4 – 130-140m – 200m:** Relax, Relax, Relax

Relax the face, Relax the hands, Relax the shoulders. They want to try and outrun themselves over the last part of the race. But straining is the kiss of death. They have to run here with maximum speed, but minimum effort. Sounds like an oxymoron, but it's the key to the finish.

## 400 Meter Race Plan



### Performance

#### Prediction

First 200:  $200PR + 1.0 - 1.2$

Second 200:  $1st\ 200 + 3$

**Phase 1 – 0-50m (or first 5-6 seconds):** Get out hard. Get up to race pace

**Phase 2 – 50-200m:** Float (Run tall, smooth, relaxed)

Around the 100m mark read where you are. If you have made up the stagger you can float but if you are behind you may need to be more aggressive on the next 100m.

**Phase 3 – 200-280m:** Break opponent's spirit

The race can be won in this part of the race if you can break the spirit of your opponent. If you shut down someone trying to pass you once they may not try again. If they do try again and fail they will not try again.

From 200 – 220 force yourself to reaccelerate.

220 – 310 "run up hill" Drive your arms and legs down applying force.

**Phase 4 – 280 – 400:** Finish

This part of the race is determined by mental toughness and who set themselves up best over the first 3 quarters of the race. The tougher athlete will finish the race. If you are too far behind after 3 quarters because you didn't set the first 3 quarters well it makes it difficult to come back. Stay relaxed and focus on an over exaggerated arm swing while stepping over and driving the knees down.

## Starting Blocks

**Set up:** Establish "quick side" (back block) vs "power side" (front block). Cross arms. The hand that's tucked underneath is the "quick side". Back block is roughly 3 foot lengths from the starting line. Front block roughly 2 foot lengths from the starting line. Front and back pedals should be at the lowest setting or the back block can be up one setting. Front block is always at the lowest setting.

**Prep:** Establish a consistent routine for entering the block. Be the second slowest to get set. 2-3 explosive, in-place vertical jumps (tuck jumps are common). Do a few practice starts 10 to 20 meters.

**"On Your Mark":** Top/front spike should touch track and balls of feet should press against the pedals. Thumbs directly beneath the shoulders and evenly spaced from your body's mid line. Don't use the entire lane. Shoulders directly above the hands. Don't lean over the start line or you may stumble out of the blocks. Hands and fingers should form a bridge. Back block knee is on the ground and four to six inches ahead of front block foot. Back leg thigh very close to vertical. Front block knee gently touches inside of forearm of front block arm. Front block shin is parallel to the track. Head is neutral.

**"Set":** Front block knee is between 90 to 110 degrees. Back block knee is approximately 120 to 135 degrees. Pre-tension in glutes and hamstrings applying force in the blocks. Think "wrap the heels around the pedals." Shoulders above hands. Shins parallel. Hips above or slightly in front of front leg toe. Shins parallel. Focus only on the splitting arms and pushing down and back.

**"Go":** Push, Push, Push. Hips move before the feet come off the pedals.