

**2008 Group Development Class outline:**  
**Revised 02/29/08**

**Open track and distribute bikes 15 minutes before class. All riders sign City of Frisco release & pay \$25 class fee.**

Required items: Helmet, cycling gloves (long-fingered preferred), water, sunscreen.

Recommended: Pedals (Mtn. bike pedals OK) & shoes, pedal wrenches, 7, 8 & 9 Allen keys, tire pump, camera.

**Set up track bike**

- Check that wheels are tightened
- Check air pressure (120 PSI)
- Check for proper position and height
- Check chain tension

**Review “classroom materials”**

- Introduction to Superdrome – history, facility features, dimensions
- Bikes and equipment
- Basic rules of track etiquette and safety
- Entering and Exiting the track
- Painted Lines
- Riding in a Pace Line
- Summary of basic track rules

**Get onto bikes**

- Practice getting on and off bikes
- Ride on warm-up track, and then apron, to get used to track bike handling characteristics – DO NOT GET ONTO TRACK YET!
- Riding drills on the warm-up track
  - Riding 2-3 abreast
  - Riding very close and in groups
- Play follow-the-leader around track

**First laps on track**

- Slowly work up onto track on front/back straights and gradually closer to the corners.
  - Riders make initial complete laps (2 laps, and then again for 4-5 laps)
  - Riders move up to blue line (2 laps, and then again for 4-5 laps)
  - Riders move up to the wall (2-3 laps)

**Open riding** - stay above blue line unless doing an a fast effort in the sprinters lane

**Look behind you while riding drill**

- Two rider teams practice looking over the shoulder at other rider in blind spot

**Pace line drill**

- Review pace line procedures
- Pace line ride - each rider takes a 2-lap pull

**Open riding**

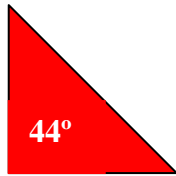
**Practice Races** (optional)

**Open riding until end of class**

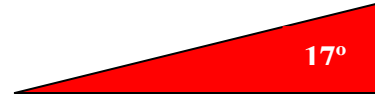
**Put away bikes** – riders are responsible for putting away their bikes and equipment

## Frequently Asked Questions about the Superdrome in Frisco

### *How steep are the corners?*



The most asked question is, “How steep are the corners?” The Superdrome has a circumference of 250 meters with banking of **44-degrees** in the corners. The front and back straights are banked at “only” 17-degrees.



This is the same design as found at Olympic-caliber velodromes throughout the world. It is now the standard for elite-level racing. There are only two other “Olympic” velodromes in the United States, located in Portland and Los Angeles. New tracks are on the drawing boards at other U.S. locations.

### *What keeps the riders from falling off the steep corners?*

The second most asked question! In a single word – “**inertia**” (no, not “luck”). The faster a cyclist travels the greater the inertia that pushes him/her outward against the track surface. Also, the faster the cyclist travels the more he/she will lean away from the track, which increases good tire contact. This outward force overcomes gravity that is pulling the rider down. As long as inertia is greater than the gravitational pull the rider/bicycle will safely stay upright on the track.

Plus, the new non-slip surface provides great traction for the wheels, which helps the rider to “stick” to the track. Prior to the application of the non-slip surface in 2004, most crashes occurred in the steep corners because the cyclist was riding too slow and the tires slipped off the slick surface. Today, riders need only maintain a minimum speed of approximately 10-miles an hour (or less for skilled riders) to safely ride on the Superdrome.

### *How can I ride on the track?*

Each new rider must attend a half-day Development Class to become certified\*. During this class students will become familiar with the velodrome, basic riding rules and etiquette, and safety considerations. Students spend most of the time riding on the track, which builds confidence and skill. The cost is \$25 and includes the use of a track bike. Visit Superdrome.com for class schedules and information or send an e-mail to Barry (link on superdrome website).

\*Licensed Cat. Pro/1/2 track racers may be exempt. Contact [info2@superdrome.com](mailto:info2@superdrome.com) for information.

### *Can I use my own road bike on the Superdrome?*

Not unless you already own a track bike. Only a single-speed track bike is allowed on the Superdrome. Track bikes are designed specifically for riding on a velodrome, with a very aggressive frame geometry and higher bottom bracket to allow the more pedal clearance in the corners. Track bikes also have no brakes, no gears and no freewheel so if the back wheel is turning, so are the pedals (in other words - you can’t “coast”). Speed is controlled by pedaling, by pushing back on the moving pedals and by going “up-track” which uses gravity to slow the bike as it travels uphill.

Riding on the Superdrome with a “regular” bike is unsafe and is not allowed. Rental bikes are available for \$5 per session.

### *How much does it cost to ride at the Superdrome?*

The fee to participate in the required Development Class is \$25 and includes the use of a track bike. After you take the class you can come back and ride during any Open Riding session. Visit [www.Superdrome.com](http://www.Superdrome.com) for the current track schedule. The track fee is \$5 per day and a track bike

(required) can be rented for \$5. Or, purchase a **Season Pass** for \$100 which provides unlimited riding during the season. Please make checks out to *SMG Superdrome Management Group*. The track monitor for each Open Riding session will be happy to assist you. Visit the website for additional racing fees. All money collected is used to keep the Superdrome open for the community.

***How fast can someone ride on the Superdrome?***

The Superdrome has global recognition as the **fastest outdoor low-altitude track in the world**. The track record is approximately 45 miles an hour, set during a sprint event by a member of the U.S.A Olympic team. You probably won't go that fast!

***When are races held at the Superdrome?***

Races are held April through September. Check the Superdrome website for the race schedule.

***What can I do to support the Superdrome?***

Funding is the most critical hurdle facing the club and track. Tax deductible contributions are gladly accepted. Or, perhaps you know other individuals or companies that may want to become Superdrome sponsors or supporters.

Another area of need is in publicizing the facility and events. Please help us spread the word to friends and the community. SMG can provide flyers and posters. We are happy to work with local organizations and groups to "get the word" out about this world-class facility.

And we always need volunteers to help in all aspects of the operation, maintenance, marketing and events. Please contact [info2@superdrome.com](mailto:info2@superdrome.com) so we may talk with you.

## Track Cycling Information

**Bikes:** Track bikes are minimalist. There are no brakes, no gears and no freewheel; if the back wheel is turning, so are the pedals – and visa versa. The point of this is to keep a smooth pace during races and pace lines because riders must keep pedaling and cannot slow down suddenly. Speed is controlled by (1) the speed of pedaling, (2) by pushing back on the moving pedals (back peddling), (3) by moving slightly out of the slipstream during a paceline, and (4) by moving the bike “up-track” so that gravity slows the bike.

Plus, the bottom bracket of a track frame is higher off the ground than a road bike, and pedal arms are normally shorter. This keeps the “up track” pedal from striking the surface when riding in the steep corners.

Match Sprint and Points Race bikes (most track bike you see) are usually made of simple steel tubes; they're strong and inexpensive and their poor aerodynamics doesn't really matter. Track frames must be extremely strong because of the forces created, especially during a sprint.

Specialized Pursuit bikes are often constructed with exotic materials such as carbon fiber and are extremely aerodynamic (and expensive). They resemble time-trial bikes and typically have “aero bars” to provide a more aerodynamic position for the rider.

**Wheels:** Track wheels are stronger than traditional road wheels to absorb the extreme forces created on a velodrome. Lightweight road wheels may collapse under the high G-Forces created through the corners at high speed. In addition, road wheels will not fit on a track frame. Some wheels can be converted for use on the track by using a special axle. In addition, wheels with Quick Release Skewers are not allowed on the track for safety reasons.

Disc wheels are used for aerodynamic reasons even though they are heavier, weaker and far more expensive than wire spoked wheels. Front discs are only used indoors as the slightest breeze can send a bike blowing across the track. Three and four spoke wheels have most of the aerodynamic advantages of discs without the problem of instability in a side wind and are therefore commonly used on front wheels.

Spoke wheels are most commonly used on the track. They are strong and are fine for general track riding.

**Tires:** High quality tubular or modern clincher style tires are acceptable for use on the Superdrome.

A ‘tubular’ is a combination tube/tire glued on to the rim, holds 160-220psi of pressure, and is commonly used by racers. The high pressure is required to keep the tire from “compacting” under the high G-forces of riding through the corners at high speed. Without adequate air pressure the tire may compress to the point where the rims will make contact with the track and/or the tire will fail.

“Clincher” tires are fine for general riding on the track if the tire pressure is high (maximum pressure as determined by the tire manufacturer – in the 110-120 psi range).

**Pedals:** Riders are firmly attached to the bikes using step-in pedal systems, or standard pedals with two sets of straps. It's vital that riders not accidentally pull out of the pedals and that power transfer be as efficient as possible. Most riders use cycling shoes with extremely stiff soles. Over the years many pedal and shoe systems have been tried, including ones that build the pedal axle and bearings into the sole, so the rider has to be laced into the bike.

It is recommended that riders who are renting a track bike at the Superdrome provide their own pedals and cycling shoes. Most road or mountain bike pedals are acceptable. “Old style” pedals with toe clips are available for cyclists who do not own their cycling pedals and shoes. These pedals may be used with sneakers or other soft-sole shoes.

**Clothing:** The same clothing worn for other types of cycling are acceptable on the track. Padded cycling shorts are recommended for comfort. Rear pockets are not necessary on track jerseys. One-piece Lycra skinsuits are standard dress for most track cyclist. They're skin-tight, aerodynamic and don't impede pedaling.

Hard helmets are required at all times when riding at the Superdrome, including riding on the track, warm up track, apron or in the parking lot. If you are on a bike you must wear a helmet.

Gloves are essential protection. Longer fingered gloves are preferred by many track cyclists.

### **Getting your track bike ready:**

Generally, a track bike frame can be the same size as your road bike. Your position on the bike will also be similar to your road bike. Sprinters tend to sit more forward than time-trailers or pursuiter. Depending upon your riding style, your set up shouldn't vary from what you are used to. Remember that a track bike geometry is set up differently than most road bikes, with frame angles a bit steeper, a tall bottom bracket height and a shorter wheelbase for quicker handling.

Gearing on the track is different than on the road, due to the fixed gear. Riding a road racing gear [53 x 12] on the track can be too big and leave you unable to quickly respond to attacks or tire you out quickly. Gear ratios are changed by different combinations of front chain rings and back cogs. To select the correct gearing take into account the steepness of banking, the track's distance and the weather conditions. Colder weather and windier conditions will indicate a need for smaller gearing. **On the Superdrome it is better (and safer) to spin a smaller gear than push a gear that is too big.**

**If you have your own track or single-speed bike, you are welcome to use it as long as the brake has been removed.**

### **Basic rules of track etiquette and safety:**

**Common Sense:** Safety is the first and highest priority! Always ride as if the other cyclists have the right-of-way. Be polite and friendly to others, and you can expect the same in return. Obey any special rules. Remember you represent not only yourself, but also your club and the sport every time you get on your bike.

**Correct hand position:** Remember that track bikes do not have brakes. Thus, there are no brake hoods on the handlebars to rest your hands on. Therefore, NEVER ride with your hands in a “brake hood” position, as you might on a road bike. Since there are no hoods to rest upon, your hands could easily slip off the front of the handle bars – with a crash guaranteed. Only ride “in the drops”, which is more stable and reduces wind resistance, or completely on top of the bars in a resting position.

In addition, riding “in the drops” will keep another rider from accidentally hooking your handlebars with their handlebars (another guaranteed crash). Thus, riding “in the drops” is the safest way to ride, particularly when racing or riding in groups.

Finally, keep your grip on the handle bars relaxed. Holding the handle bars in a “death grip” will reduce your bike handling ability. Stay relaxed and loose.

**Planning:** As you warm up prior to moving up to the apron, check out who's on the track and see what they are doing. For example, if riders are motoring you would not want to be practicing standing starts or ride in the Sprinters Lane. Wait until the other riders are finished. Never impede or surprise another rider. Always ask permission to join other riders in their training routine, such as a pace line.

**Passing:** Always pass on the right (uphill) side. Never attempt to pass on the blue band at the bottom of the track. The faster rider is always responsible for passing safely. Slower riders are responsible for riding straight and allowing faster riders passing predictably. Never "get out of the way" of the faster rider – it is their job to safely avoid and pass over the top of the slower rider. Always maintain a straight line around the track.

**“Stick”:** As you approach behind a slower rider sound off with the command of "stick" in order to make the slower rider aware that you are about to pass them. If you hear the "stick" command continue to ride straight (parallel to the pole line) – do not change your position or try to get out of the way of the rider coming up behind you. Wait until all riders have completely passed you before changing your track position.

**Track Flow:** Except for entering or exiting the track from the apron (the non-racing, flat cement portion at the bottom of the track) the lower part of the track, and in particular the Sprinters Lane, is reserved for fast riding, pace lines and training. The top half of the track above the blue line is for slower riders, for warming up or just riding laps.

**Use your head:** Turn your head in the direction you want to turn and glance back before you gradually move up or down the track. Your head movement acts as a “turn signal” to riders behind you to indicate your intention. It also prevents you from accidentally moving in front of a rider who is passing you. Always assume that there is a faster rider in your “blind spot” so look behind you before you move.

**Be Aware:** Always be aware of what is happening on and around the track. Scan the entire track to see what other riders are doing. The best place to scan the track is while you are riding through the corners – particularly if you are above the Blue Line. This position allows you to scan the entire track quickly. Also watch out for riders who may be entering the track or exiting the track. If you are in doubt about the intention of another rider, assume the worst and be prepared to react.

**Practice Standing Starts:** If you are going to practice standing starts in the Sprinters Lane, gain permission from everyone on the track before you begin so to not impede the training of another rider.

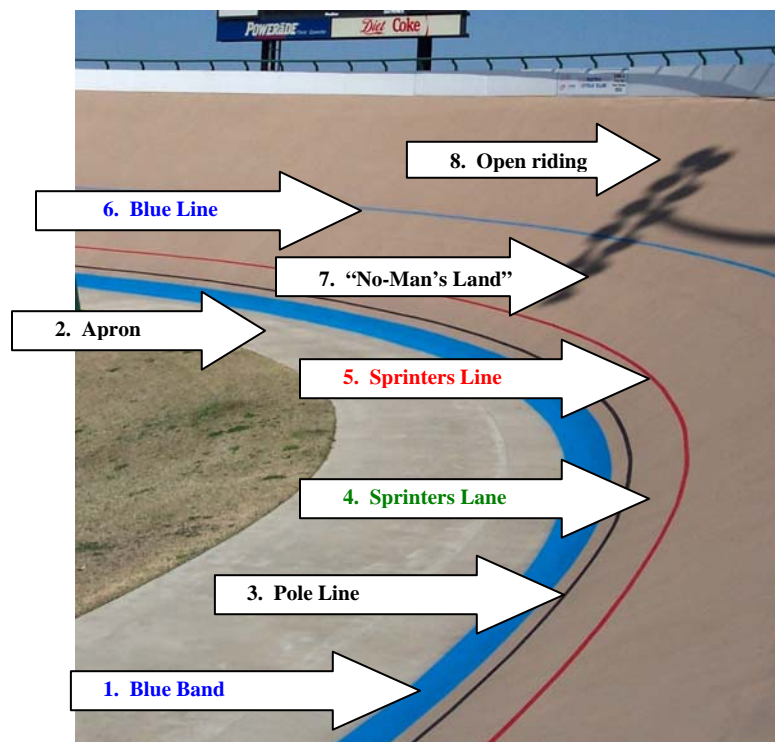
**Two abreast:** Riding two across is discouraged at the Superdrome as it may distract you and take your attention away from riding safely. If the top rider slips - both riders will fall. If you must talk to another rider come off the track first.

**Entering and Exiting the track:**

Always look twice to be certain that no fast riders are approaching in the Sprinters Lane behind you as you enter the track. Cyclists may be traveling at 40 MPH or faster as they come around the corners. If you pull onto the track in front of a fast moving rider it could cause a very serious crash. A rider in the Sprinters Lane should never have to steer around a person who is entering or exiting the track in front of them. Also, check that you are not entering the track as someone is exiting in the same area.

The same rules apply to exiting the track. Always look over your left shoulder to make sure that no one is coming up behind you, particularly if you are about to pass through the Sprinters Lane. Make sure that you are not exiting at the same point where another rider is entering. If you have a question about what another rider is about to do, maintain your position and speed - and come around the track again.

## The Painted Lines and Track Areas:



Several important colored lines are painted on the track to mark different areas.

**1. Blue Band:** The wide, blue band at the bottom of the track (and technically on the apron – **Arrow 2**) is called the Blue Band. Do not ride on the Blue Band unless you are forced down onto it --only cross it to get off or on the track. Never pass another rider on the Blue Band.

**3. Pole Line:** The Pole Line is the black line located a few inches above the Blue Band at the bottom of the track. This is the line on which the track length (250 meters around) and all time trials are measured. Obviously, in a timed effort, you should attempt to ride on or close to this black line so that you can travel the shortest possible distance around the track.

**4. Sprinters (or Pole) Lane:** This is the area between the black Pole Line at the

bottom of the track and the red (**Arrow 5.**) “Sprinters Line” less than one meter above it. The area between these two lines is called the Sprinters or Pole Lane and is the fastest part of the track. Most training efforts are conducted in this lane so only ride in the Sprinters Lane when you are doing an “effort”. Riders share or take turns in the Sprinters Lane to do different types of training.

The Sprinters Lane is a “right-of-way” area. A rider in the Sprinters Lane should never have to slow down or steer to avoid another rider. *Be very careful when entering or exiting the track because you cross through the lane, where riders will be traveling the fastest.*

**6. Blue (“Stayers”) Line:** Not to be confused with the Blue Band at the bottom of the track. The Blue or “Stayers” Line is the narrow blue line about half way up the track. Think of the area above the Blue/Stayers Line as a good place to “stay” when you are warming up or just riding laps on the track. When you are not riding in the Sprinters Lane you will ride above the Blue Line (**Arrow 8**) for general riding.

**7. “No Man’s Land”:** The area between the Sprinters Lane and the Stayers/Blue Line is a buffer zone commonly called the “No Man’s Land”. Do not ride here--it is too confusing and dangerous because the rider in the Sprinters Lane may not know whether a No Man's Land rider is going to drop down in front of him. This rule does not apply to racing or pulling off the front of a Pace Line.

**Finish Line:** The Finish Line is the big white band with black line through the middle located next to the official’s tower on the homestraight. Most track events end at this finish line. It is typically NOT used to start races at the Superdrome.

**200M Line:** The 200-meter line is the white line located midway through corners 1 and 2, under the track offices. This is the starting point for the 200m sprint. Typically, a 200M sprint starts with the racer riding 3-4 laps to pick up speed prior to the actual start of the effort. On each lap the racer will ride higher up on the track, and faster, until the final pre-race lap when the racer will be riding at the very top of the track. The racer will then sprint “down hill” on the homestraight, so that he/she crosses the 200 M Line at full speed. The racer will then continue to sprint for the remaining 200 meters (4/5 of a complete

lap), ending at the Finish Line. Speeds of 45 miles an hour have been recorded in this event at the Superdrome.

**Pursuit Lines:** Pursuit lines are the red, perpendicular lines in the middle of the home straight and back straight. These lines are the starting and finishing point for most pursuit races, including the 500m, 1000m, 2km, 3km and 4km time trials. Because Pursuit races are measured against the clock (a time trial race) they start with a standing start, either with a human holder or a mechanical release.

### **Riding in a Pace Line**

**Pace Line** - A line of cyclists taking orderly turns at the lead so that each rider will get maximum protection from the wind. Also called an "echelon." Riding in a pace line reduces the energy needed to ride in the line by 25% or more since only the lead rider is "breaking the wind" at the front. Warm up pace lines before a race typically go 30-40 laps. Always ask permission to join a pace line in progress.

**Within the Pace Line** - When riding in a "pace line" there are unwritten rules and traditions that all cyclists need to know. In a pace line, the echelon's purpose is to allow riders to work together to go further and faster than they could by themselves - it's all about working together.

**Maintain a steady and constant pace.** It's called a "pace" line, not a sprint line. Unless it's a racing situation, no one will be impressed by you ramping up the speed of the pace line 2 - 3+ mph every time you get your chance on the front. Maintain a steady and constant pace. Don't let the gap get too big between you and the next rider ahead. If you do fall back, or the rider in front of you accelerates quickly, avoid the temptation to "stomp on it". If you surge to catch up, this may cause annoying "yo-yo-ing" in the line. To slow down move to the right (uphill) of the rider in front of you. This will slightly slow your momentum and also give you an escape route up-track.

**Overlapping wheels** – Don't. Normally you want to ride as close to the rider in front of you as possible. A distance of about 12 inches is good, but you can fall back 3-4 feet and still get most of the drafting effect. Sometimes you will be moving slightly faster than the rider in front of you, which will force you to overlap wheels. Always overlap on the outside (right or "up track" side). **Never overlap wheels on the inside (left or "down track" side) of the wheel because of the high likelihood of crashing if the rider moves left.** Also, there is little room to maneuver your bike on the apron if you are forced off the track.

**Taking a "pull"** - Each rider rotates to the front of the pace line to lead for a designated number of laps. It is important that the new leader maintain a constant speed, even though the natural reaction is to pick up the tempo after the former leader pulls away. The easiest way to maintain a consistent speed is to count and maintain the pedal cadence.

At the Superdrome, it is most common for the leader to take a "2-lap pull", whereby the rider is at the front for two laps before pulling out of line and moving to the back. Often, the leader will take "1-lap pulls" for the final 9 laps of an effort, as the pace line picks up speed for a common sprint finish.

**Turn signals** - When you turn your head to look in your blind spot, you are signaling to the riders behind you of your intention to pull off the front. It warns the next (second) rider to be prepared to take the lead. Avoid looking over your shoulder if you do not intend to pull off.

**After your "pull"** - Time to relax, right? Wrong. Slowing down too soon after you pull off can be very dangerous because if you crash you will likely take down many of the pace line riders. Because the transition is made going into the corner 1, you must maintain your speed until you are safely through corner 2. Even if you maintain the exact speed, the pace line will still pass under you because you are traveling a farther distance than the pace line below you.

**Drifting to the back** - Unless you are racing in a team time trial, there is no hurry to rejoin the pace line at the back. It is safer to maintain a constant speed and let the pace line slowly pass under you than to make a dramatic up-track maneuver and quickly get back in line.

**Rejoining the line at the rear** - As you slide back towards the end, look to make sure that no other riders have unexpectedly joined the line. After the pace line completely passes you, smoothly slide back into place. Remember that you will be moving downhill to rejoin the line, so take the added speed into account.

**Joining a pace line** - If you join a pace line that is already in progress, announce your presence to the riders. In particular, let the rider who is sliding back know that you have joined the line. The lead rider may not know that you have joined the line. Announce “one more rider” or “last rider” so that he or she knows to continue to drift to the back before rejoining the pace line.

**Aero bars?** *Only experienced track cyclists may use aero bars at the Superdrome, and they are discouraged in most pace lines.* Why? It's all about control. Aero bars are unstable when compared to riding in a normal cycling position at the top of the bars or “down in the drops”. You can not react quickly or smoothly enough in critical situations to ensure safe riding. There is no acceptable reason to be on your aeros in the middle of a pace line unless you are training for team pursuit with other experienced cyclists.

**Look ahead** - Do not stare at the wheel front of you - you'll get fixated and possibly not know what is happening ahead of you. Look a head 20-30 feet, or more. When you ride, your bike will follow where you look. Your peripheral vision will allow you to look ahead and keep a consistent position behind the rider in front of you.

### **Racing - the Events:**

*Note: Racing is not part of the curriculum of the regular Development Class. However, optional Practice Races may be offered at the end of the class for riders who wish to participate and experience a controlled race. Racing Classes are offered at the Superdrome for interested cyclists.*

While this doesn't cover the complete variation of track disciplines, most can be broadly classified into "sprint" and "endurance" events. For the newcomer to the sport, or even experienced observers, certain track cycling events can be a complete mystery. The following is a basic description of the major races.

#### **Massed Starts – “ON THE RAIL”**

Because of the steepness of the corners at the Superdrome, massed start events start “on the rail”. Each participant slowly rides up to the top of the homestraight, grabs onto the green railing, stops and waits. After providing oral race instructions, the race official will tell the riders to “roll-off”, whereby the riders will slowly push away and ride down the homestraight to the apron to ride a neutral lap.

- ◆ IT IS RECOMMENDED (AND MAY BE REQUIRED) THAT RIDERS DO NOT ATTEMPT TO STAY ON THE TRACK AFTER “ROLLING OUT” DURING THE FIRST, NEUTRAL LAP OF A MASSED START EVENT. Most crashes at the Superdrome occur when riders do not have enough speed to stay on the track through corners 1 and 2 during the neutral lap. There is nothing to gain by attempting to ride through corners 1 and 2 since it is a neutral lap for all riders.

The racers will pick up speed while riding on the apron and enter onto the track on the backstraight. The riders must then bunch together to form a pack before the official will start the race. If the riders are not sufficiently in a pack when they get back around to the homestraight, the race official will call for another neutral lap(s) until the racers are sufficiently together. The official will then start the race.

### Common race events held at Superdrome:

- ◆ **Chariot Race:** A Chariot race is a 3-lap sprint race. Racers start from a standing start (with a holder keeping the racer upright) at the Pursuit Line. Lots are randomly drawn to select the position of each rider. The first three finishers of each Chariot Race advance to the next round.
- ◆ **Miss-n-Out:** The race can be of varying lengths. Typically, after a specified number of laps, the last rider across the finish line each proceeding lap is pulled out of the race, leaving the remaining field to continue. This pulling of last riders continues until there are 3 riders left. At that point there will be one non-pulling lap, then the bell lap to determine first, second and third place.
- ◆ **Danish:** A Danish race is essentially the opposite of a Miss-n-Out. After the specified number of laps, the first rider across the line will be declared the winner, and will exit the race. All other riders will continue. The next lap, the first rider across the line will be second place and exit. All other riders continue. Third lap, the first rider will be third. The fourth lap, the first rider will be fourth. On the fifth lap after the specified distance, all other riders will be placed.
- ◆ **Scratch Race:** This is the most basic race at a velodrome. After a mass start from the rail, riders race a predetermined number of laps. A bell signifies the final lap (bell lap). First racer across the line wins; second racer gets 2<sup>nd</sup>; third racer gets 3<sup>rd</sup>; and so on for the first five finishers.
- ◆ **Unknown Distance:** Typically 30-60 laps. Participants do not know how many laps the race will last. At a predetermined lap the race official will ring the bell signifying the final lap. Participants will then sprint to the finish. Some riders gamble that the bell will be rung early and therefore stay near the front. Other riders gamble that the bell will be rung later, and save their energy at the back.
- ◆ **Madison.** This race is named after Madison Square Garden in New York where the event was first held. Very experienced two man teams contest the event, which are typically 100+ laps at the Superdrome. After a mass start where all riders are on the track, only one rider from each team is allowed in the race at a given time, meaning that teams must take it in turn each lap (or more) to have a rider in the race. Changeovers are quite dangerous, but impressive to watch when done well - one rider circles around waiting for his teammate, who joins hands and imparts his momentum to the slower rider, similar to handing off a baton in a running race.

To win the Madison, the team must score points by sprinting every specified number of laps for bonuses (5, 3, 2, 1 points). The last lap counts for double points, but the winner of this does not necessarily win the event. Also, if a team can gain a lap on the field, then they are in the leading position of the race no matter how many points they have.

- ◆ **Points Race:** This is a mass start race, scored similarly to the Madison, but run like a Scratch Race. Again, a rider scores points in intermediate bonus sprints every 10th lap (5, 3, 2, 1). If a rider can lap the field, then they get 20 points, if lose a lap to the field minus 20 points.
- ◆ **Match Sprint:** Normally held over 3 laps at the Superdrome, this event captures the essence of track cycling, although it is the most mysterious. Although it is normally a one-on-one event, earlier rounds can feature three or more cyclists on the track at the same time. One rider is designated to lead for the first lap (usually by a coin toss), and can not relinquish it unless those behind take it from him/her. The competitors typically eye each other off for the first 2 laps, trying to maneuver each other into an unfavorable position, before launching an explosive sprint for the last 200 meters, which is the only part of the event that is timed. The first across the line wins the race.

Tactics are the key to this race, and many people wonder why it is so slow for the few laps. The main reason is that unless you can surprise your opponent early, you will waste too much precious energy in starting your sprint from lap one. If the other guy is on your wheel, it's all over.

An important rule is that of 'possession' underneath the sprinter's line, a line marked 80 cm from the pole line near the base of the track. A rider who positions themselves below this line in the final 200 meter's is not allowed to be forced out by another rider e.g. pushing in from the inside. This is one of the most often broken rules causing reversals in sprint results.

- ◆ **2000 m Keirin:** The keirin is a motorpaced event that is very popular in Japan. It is similar to the match sprint, but features 6-8 riders on the track. A motorbike paces the riders from 25 km/h up to 45 km/h for the first few laps. During this time, riders jostle each other for the best position and this is often the roughest part of the event. With two and a half laps to go, the motorbike pulls off and the sprint is on. Team tactics are important here, as the leadout is often quite long. If one team can get two of their riders in the final, then they are at a distinct advantage.

### Other Sprint Races

- ◆ **1,000 m Time Trial (Men):** Probably the most painful of track disciplines, the "kilo" as it is known commonly is raced as a time trial over 1000 meters. To do well in this event you have to have an explosive start, good top speed, and endurance to carry you through the last few hundred meters where the lactic acid buildup in your legs becomes almost intolerable.
- ◆ **500 m Time Trial (women):** The women's 500m time trial requires explosiveness as well as good top speed. Typically, the fastest 200m rider is also the best over 500, although this is not always the case. It is different to the men's race with respect to the endurance required.
- ◆ **Team Sprint:** A three-man time trial held over three laps of the velodrome, with teams starting on opposite sides of the track. After the end of each lap, the leading rider pulls off completely, leaving the next to fight the wind. Therefore, the first rider has to do one lap, the second, two laps, and the last rider three laps. Hence, rider number three typically has the best endurance.

### Other Endurance races:

- ◆ **Individual Pursuit:** Held over 4000 meters for elite men and 3000 meters for elite women (shorter for masters riders), this is considered an "endurance" track event, although the speeds are still extremely high. Two riders start on opposite sides of the track and try to set the fastest time over the allotted distance. Normally, a qualifying time trial is ridden that determines who is eligible for the semi finals and finals.

An explosive start is not critical (but it's handy to have), however the ability to ride at a consistently high speed is far more important. Many riders who go out too hard can look to be well up on their opponent, only to fade in the last 1000 meters. This has typically the greatest "cross-over" to the road. Good pursuiteders make good road riders and vice versa. Stuart O'Grady, Vjatcheslav Ekimov, and Chris Boardman are a few examples of top pursuiteders who have had successful road careers.

- ◆ **4000 m Team Pursuit:** (3000m for Women) held over 4000 m. Faster than the individual pursuit, although it is still an endurance event, the team pursuit is about clockwork precision as well as high speed. Two four man teams start on opposite sides of the track and try to set the fastest time over the distance as with the individual pursuit. The time taken is on the third rider to cross the line.

### Summary of Basic Track Rules:

1) **There is no middle ground on the track; you are either up or down.** If you are doing a quality effort - ride in the Sprinters Lane. If you are recovering or just riding - stay high on the track above the blue line. Stay out of the “no man’s land” in the middle.

2) **Hold your line.** Do not drift up and down, only change your line to overtake and to start or finish an effort. Look over your shoulder before you change your position.

3) **Talk.** Make people aware of where you are and what you are doing. Talking keeps other cyclists aware of your presence and your intentions. Use standard phrases like are “stay” to let riders know you are about to pass them (always on the right).

4) **Be aware of what everyone else on the track is doing.** Keep a constant eye on the other cyclists. How fast are other cyclists traveling? How many riders are on the track and how many are getting ready to come on or off? Ask others what “sets” they are doing because it could affect your safety. Be aware of how fast a cyclist is traveling before making any decisions on the track.

5) **When changing direction - look first!** Make certain that you are clear to do so before doing it. Remember there is a blind spot in your vision if a cyclist is right behind you, so check thoroughly. If you cannot safely pull up the track then stay down and wait until you are clear to move. Be particularly careful about shooting up track at the end of a race.

6) **Ride predictably.** This means keeping a smooth rhythm in pace lines and changing your line smoothly when necessary. **Never surprise another cyclist!**

7) **Never allow your front wheel to cross on the inside (left side) of the wheel in front of you while riding in a pace line.**

8) **Expect mistakes.**

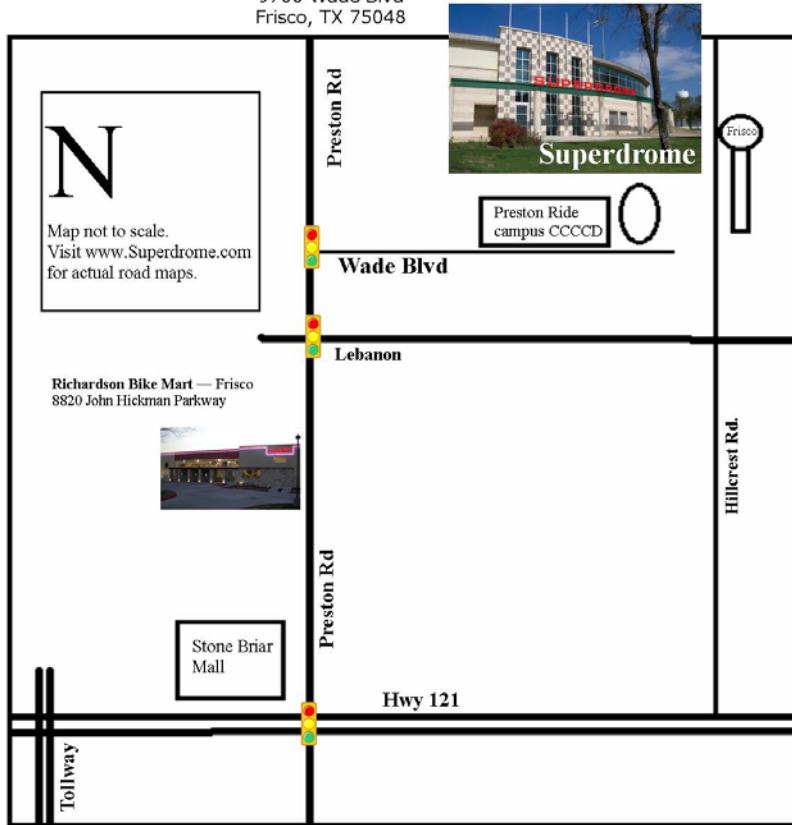
When cycling in a pack, the riders behind trust those in front to ride responsibly and not do anything stupid. Even so you should always be on guard for accidents that could occur.

9) **Have Fun!**

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## Superdrome in Frisco

9700 Wade Blvd  
Frisco, TX 75048



The Superdrome is located in Frisco Texas on the Preston Ridge campus of Collin County Community College District (CCCCD).

Visit [www.superdrome.com](http://www.superdrome.com) for Open Riding schedules, class schedules and additional information.

1. Go North on Preston Road from Hwy 121 4-5 miles, past new development.
2. Turn right (east) on Wade Blvd. There is a Collin County Community College sign at the intersection
3. Follow Wade to the college campus. Keep driving east through the campus parking lots, aiming at the Frisco water tower to the east.
4. The Superdrome is located on the far east side of campus next to the softball fields. Admission to Superdrome events are free.