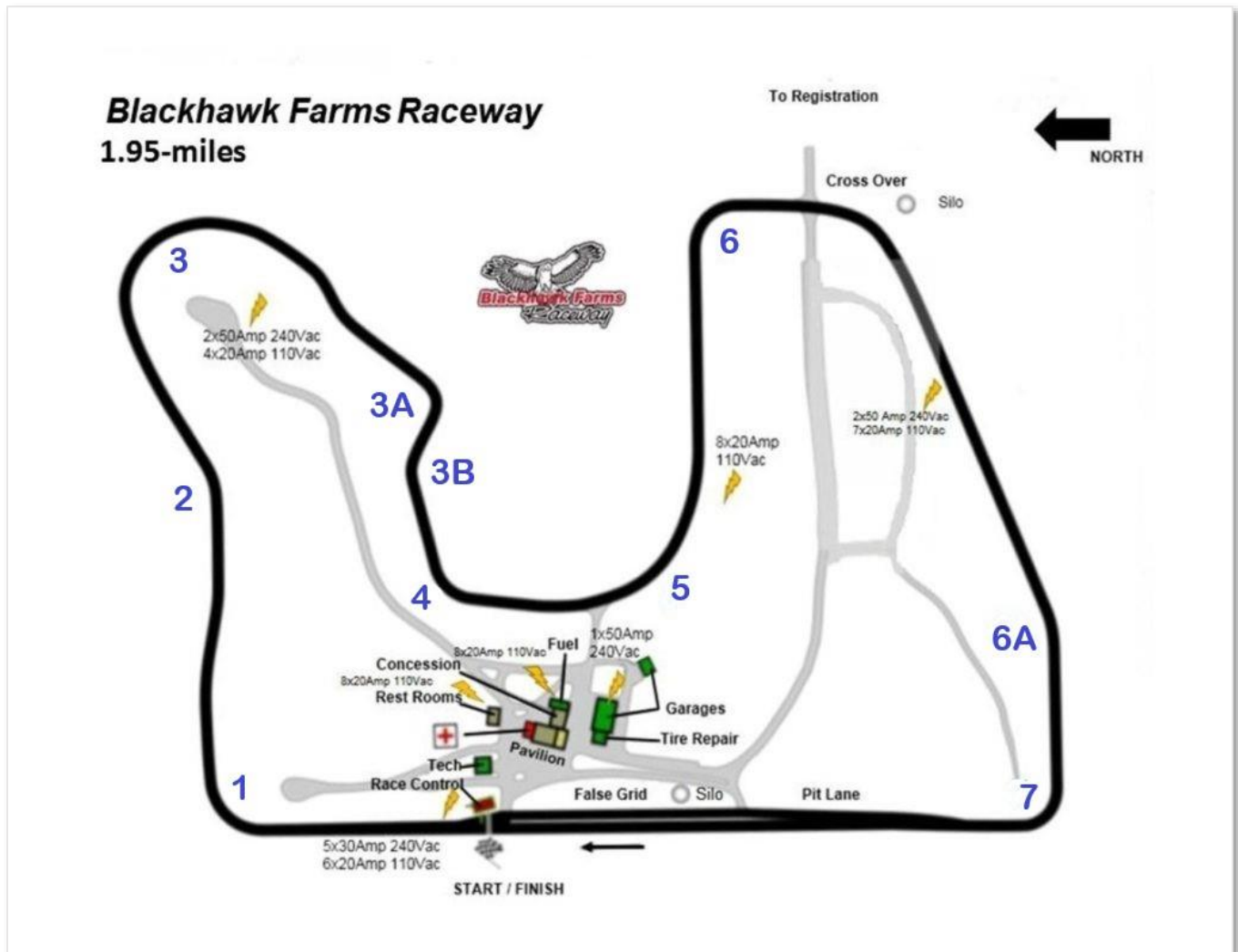


A Hot Lap at Blackhawk Farms Raceway

by Ed Leed, John Ruther, and Dana Comolli

This lap description is intended as an instructional aid for both novice and intermediate drivers. This guide has been produced to augment the Chicago Region of the Porsche Club of America HPDE program.



There is a link to a video of the lap that was used to produce this guide at the end of the document. It is suggested you watch the video before reading the guide to provide context for how this track should be driven. Once you have gone through the guide, you should re-watch the video to help re-enforce what you have learned.

There is an on-line version of this guide which includes slow-motion video of each corner to enhance the learning experience. It is available at <https://pca-chicago.org/a-hot-lap-at-blackhawk-farms/>.

Turn 1



Turn 1 is a 90 degree right turn. As you approach Turn 1, you will be in 4th or 5th gear and approaching from the end of the fastest part of the track.

Move to the left edge of the track and begin braking using a brake marker as a reference point.

After braking and downshifting to 2nd gear, turn in at a late turn in point, using a late apex and then start adding throttle as you clip a very late apex.



Your speed will carry you to the left edge of the track. You can track out onto the curbing, but avoid going all the way out to the secondary curb as it is quite rough.

If your track out is not at the edge of the track, you probably haven't carried enough speed through the corner and can move your brake point down track, a little closer to the next brake marker, in order to enter the turn faster.

If you must back out of the throttle in order to avoid running off the track, you have:

- turned in too soon,
- carried too much speed,
- hit an early apex,
- run wide of the apex,
- or a combination of these.

Turn 2



Accelerate hard while moving quickly to the right side of the track to set up for Turn 2, a sweeping left that exits into the entrance of the carousel.

After Turn 1, move to the right edge of the track next to the hole on the right created by cars using that patch of dirt as extra track.

Avoid dropping your wheel into the hole, especially on wet days.

Stay to the right until you are about a car length before the seam that goes across the track ahead of Turn 2 and start a slow turn in toward the curbing.



Using full throttle, aim for a late apex on the curbing on your left.

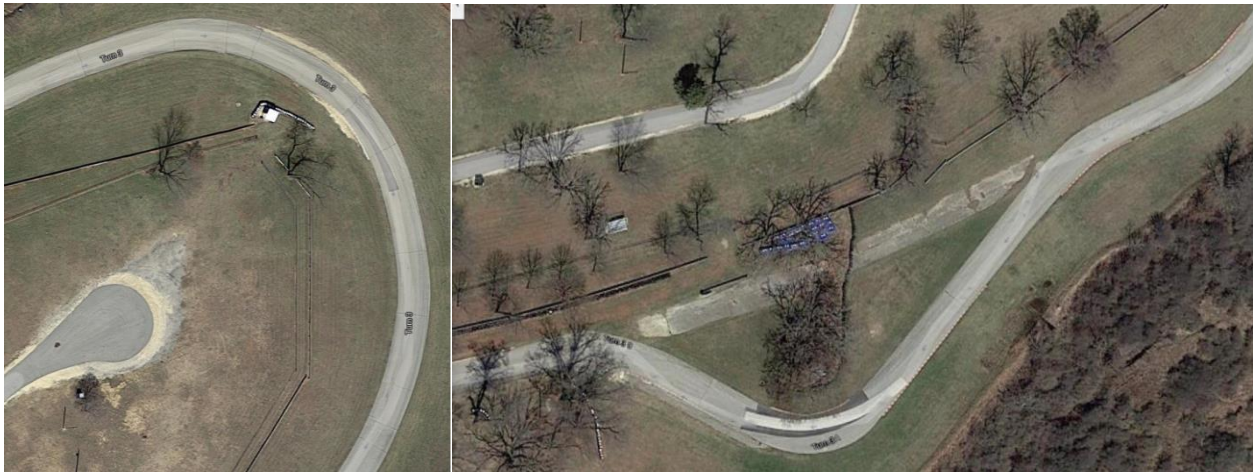
Run over the entire curbing with your left wheels. It is smooth and will not upset your car, since there is very little weight on the left side of the car.



If done properly, your speed out of Turn 2 will cause your car to move toward the center of the track.

When the car settles, steer to the left side of the track preparing for the brake zone heading into Turn 3.

Turn 3



Turn 3 is made up of several pieces. The first is a right hand, double apex sweeper, known as the carousel.

You will enter the braking zone for the carousel in 4th gear. Downshift to 3rd while braking in a straight line enough to settle the car.

Brake to about half way to the apex and then smoothly accelerate toward the first apex.

Accelerating to moderate throttle, your car will drift to the center of the track as you aim for a late second apex.

Continuing to add throttle, your car will drift to the track-out-point setting you up for the entrance to the chicane.



At the end of the Carousel (Turn 3) there is a slight right followed by a slight left which leads to the hard right (Turn 3A).

When you see the curbing for the slight right, it is time for a very light lift. This will help the rear of the car to rotate ever so slightly, placing you in the perfect position for moderate throttle through this section.

As you approach this section stay to the right, very close to the apex curbing of the slight right, but not on it.

Then drive a straight line to the apex curbing for the slight left.



Continue to accelerate toward the left turn for another slightly late apex and stay to the left side of the track as you approach the turn in for 3A.

After you go thru the slight left keep the car to the far left to set up for the hard right (Turn 3A).

Brake hard and downshift to 2nd gear and use a very late turn in into 3A (just before the concrete patch), start accelerating as soon as you get to the apex, and stay to the right side of the track to set up for the left hand Turn 3B.

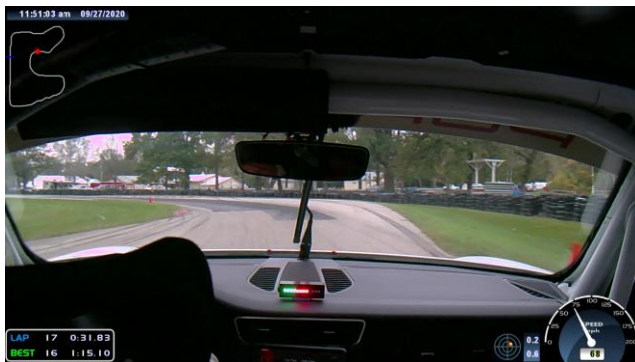


The first part of this complex (Turn 3A) is really a "throw-away" corner in that it doesn't really matter how fast you go thru it, it only matters that you set up properly for the left hand Turn 3B since that leads onto the fast straight to Turn 4.



Turn 3B should be handled as a very late apex and you should be on the accelerator from the apex of 3A all the way to your braking point for Turn 4.

Turn 4



Turn 4 is a less than 90 degree left turn that can be driven in either 2nd or 3rd gear.

You should be on the throttle from the turn-in to Turn 4 to the braking zone at Turn 6.

As you approach Turn 4, tap the brakes or lift to settle the car and set the tires for the turn-in, then aim for a late apex accelerating through the turn.

There is a dip in the pavement at the apex, so there is more grip here than you expect.

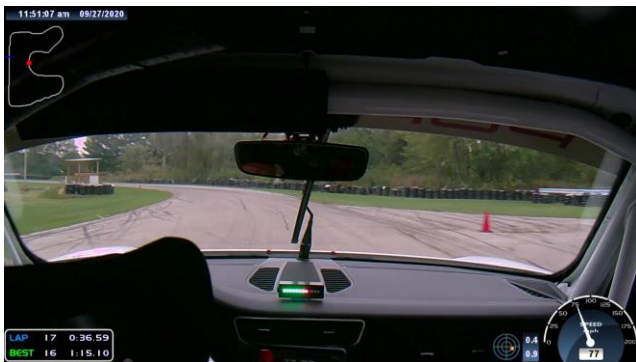


Continue to accelerate and stay along the right side of the track to set up for Turn 5.

Avoid tracking out onto the curbing as it is very rough and will unsettle the car.

Avoid staying to the left or middle of the track which reduces the radius of Turn 5 and will force you to slow to navigate the turn.

Turn 5



Turn 5 is a sweeping left turn that does not require braking, but you may need a lift to add weight on the front of the car to help the car turn.

Your turn in point is the pit access road on the right.

Turn in and aim toward an apex at the far end of the apex curbing on your left, nearly into the sand at the end of the curbing. Avoid going into that hole as it can get deep and really upset the car.

Avoid an early apex in Turn 5, which will put you at the right edge of the track heading toward the swamp.

A late turn in and late apex at Turn 4 and 5 is the only fast and safe way to be aggressive with on the throttle through this series of left turns.



Allow your car to drift to the right, but not all the way as you will need to quickly get back to the left for Turn 6.

As soon as the car settles, move to the left to set up for Turn 6.

Turn 6



Turn 6 is a 180 degree double apex right hander and is absolutely critical for a fast lap because it is the entrance to one of the fastest portion of the track.

You will enter the braking zone in 4th or 5th gear and hard braking and downshifting is required.

From the left edge of the track, turn in where the pavement changes and aim for a late apex at the far end of the curbing.



The newer pavement through the first part of the turn can be slick. Hugging tight to the apex curbing without actually going onto it can provide additional grip.

Do not get your wheels on the apex curbing as it will severely upset your car.



Accelerate as the car moves to the track out point on the left side of the track, avoiding the curbing as it is very rough.

Settle the car and without lifting, stay along the extreme left edge of the track as you pass the entrance road.



The second part of Turn 6 is a fast sweeping right turn leading onto the back straight.

Under full throttle along the left side of the track, your turn in point will be just beyond the far end of the entrance road on your left.

Aim for a late apex at the far end of the curbing on your right, just missing the sand beyond the edge of the curbing.



Your car will move all the way to the left at the track out point.

If you have to back off the throttle while in or after Turn 6 or if you run off the edge of the track at the track out point of either parts of Turn 6, you should take a look at how you are driving through this critical section.

You may have either:

- a) turned in too early,
- b) carried too much speed,
- c) hit an early apex,
- d) run wide of the apex,
- e) a combination of these

Correct car position for the second part of the turn is dependent on the correct handling of the first part.

Again, late turn-in and late apex techniques plus carrying the correct amount of speed are important in this series of turns if you want low lap times.

The Kink (aka Turn 6A)



Under full acceleration, take a deep breath, check your gauges and stay along the left side of the track.

This turn is a high speed kink that can be taken flat out. It can also be the most nerve-wracking corner on the track because it can unsettle the car when you are carrying a lot of speed into a very hard braking zone while straightening out the car for the entrance to Turn 7.

Approaching the kink, stay at the extreme left edge of the track and turn in across a late apex toward the markers in the braking zone. Stay 1 to 2 feet from the apex curbing to make your approach into the braking zone straighter. This will reduce the tendency for the car to become unsettled in the braking zone.



Immediately stabilize your car and brake very hard for Turn 7.

Turn 7



Turn 7 is the last turn before the slightly uphill front straightaway. This is a tight right turn with a run off area that sees a lot of errant cars.

Under hard braking after the kink, you will be very busy over a very short distance.

Downshift to 2nd gear, stay to the left and turn in late, right before the pavement changes.

Accelerate toward a late apex at the far end of the apex curb.



Your car will move to the track out point on the left. Try to stay off the track out curbing as it is very bumpy.

Another deep breath, relax for a few seconds and get ready for your next lap.

Ready for Another Lap



The video of the complete lap is available below:

