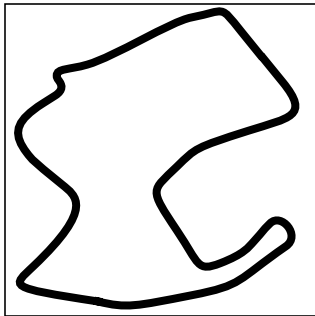

Nor Cal SAAC Course Maps - Laguna Seca

Scott Griffith



This booklet, and its companion text, the “Nor Cal SAAC Open Track Driver’s Primer”, were written in an effort to provide a head start to the first time driver at a Nor Cal SAAC open track event. Together, they should help the new driver come to their first event educated, prepared, and in a frame of mind that will allow the ground school portion of the first morning to be gotten through quickly and easily. The more of this information you can learn before the event, the less time we’ll have to spend on it at the event. This will immediately result in more track time for you. And that’s the point!

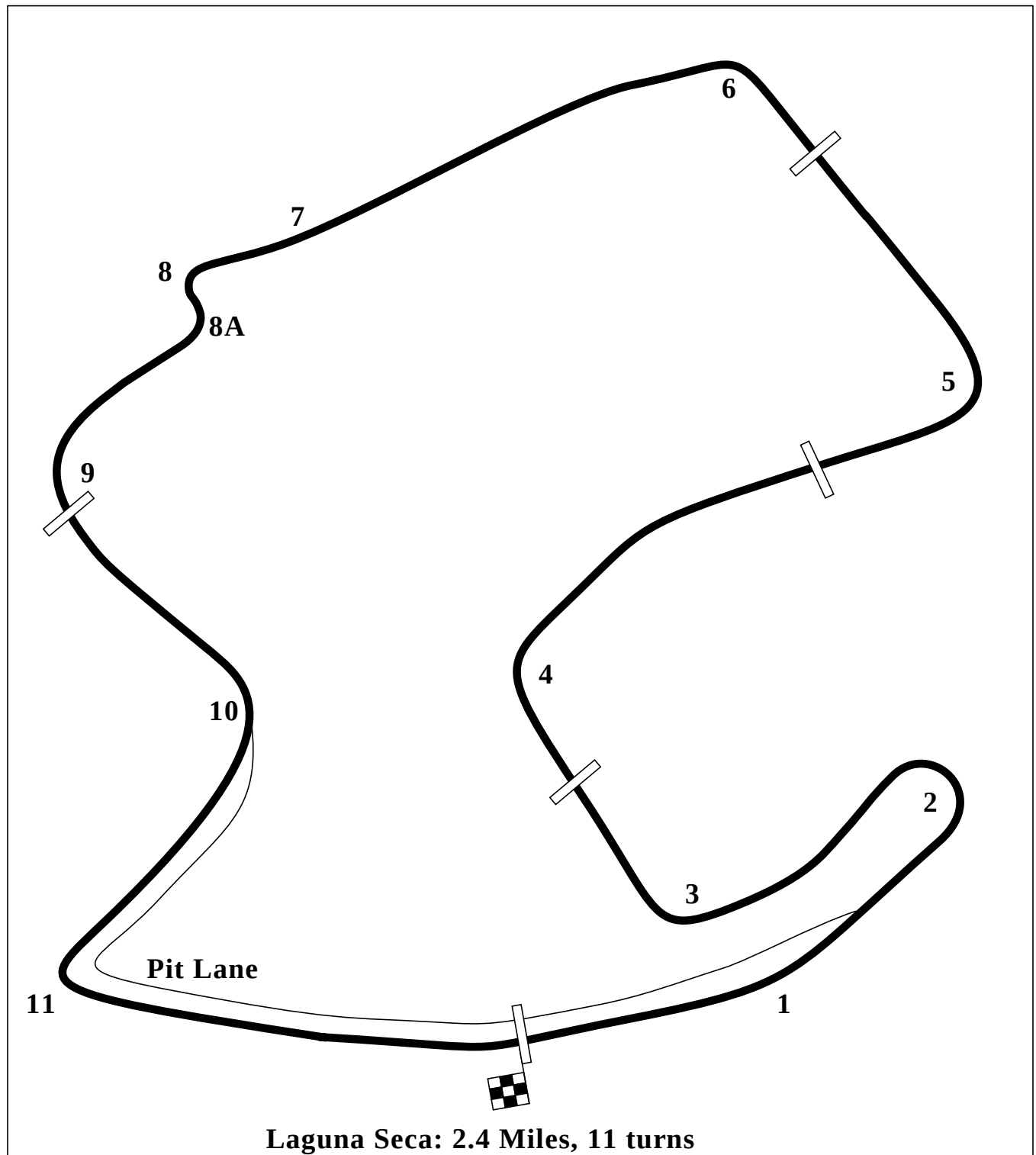
What’s Inside?

This book contains a map of Laguna Seca, and provides a corner-by-corner analysis of the racing line. The idealized line we’ll discuss is what we’ll call the “school line”, and it is the safest, easiest to learn, and most rewarding way around the track for a beginner. As you gain experience, you’ll come to find places that your own personal preferred line will differ from what we’ll describe here. That’s normal, and is a sign of experience. If you think about it, you’d expect that a Porsche 911 would need to take a little different corner entry or exit than a Shelby Mustang, for example. But when you’re starting out, the school line we’ll talk about will serve you well.

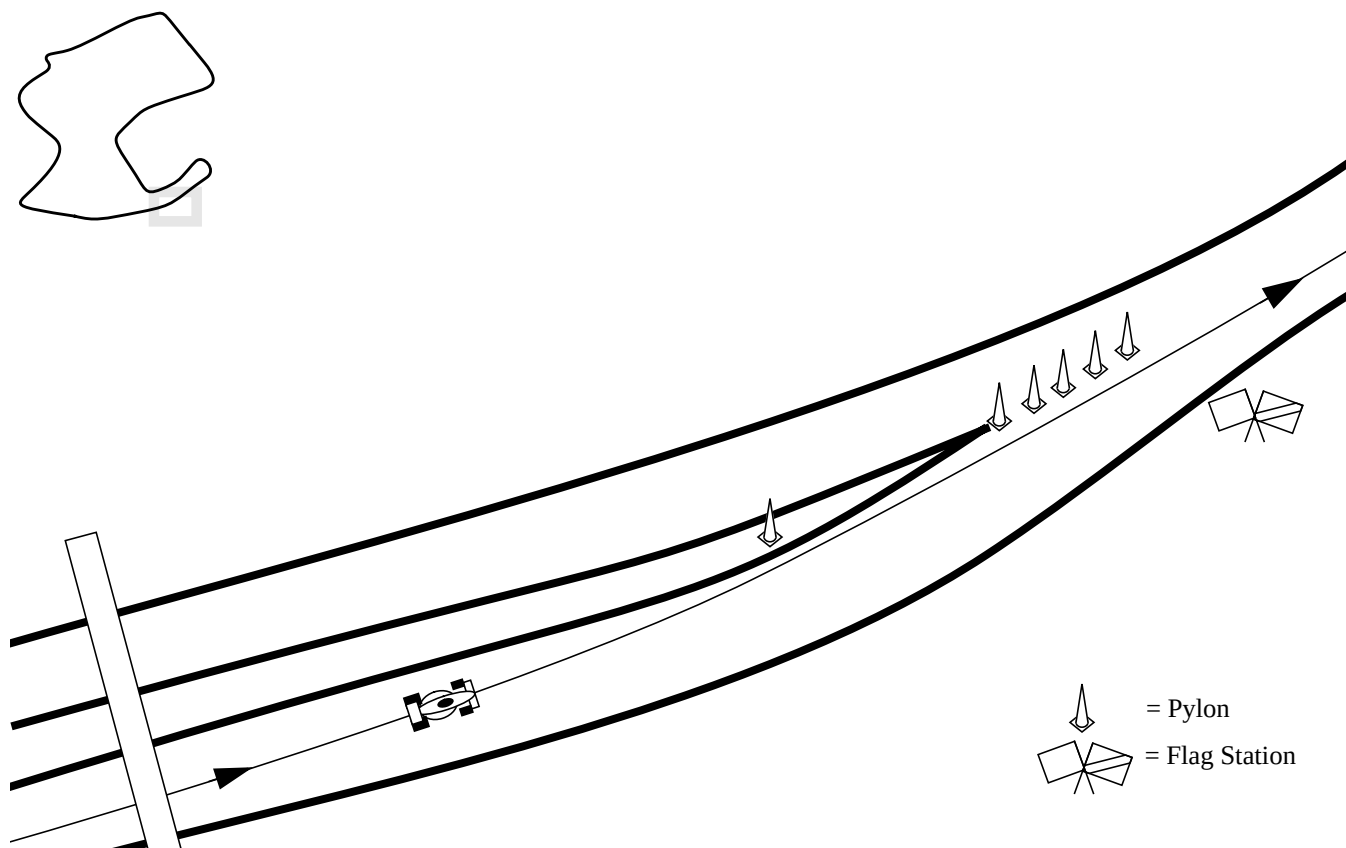
Additionally, in the description of each corner, you’ll find information about landmarks and important safety features, such as where the cornerworkers put their flags, and where there are escape roads and so on. There’s a lot of information in here, and we don’t expect you to have any of it memorized verbatim when you get the track. There won’t be a quiz! But it is very useful to have a good idea of which way the track goes, and the general feel of the terrain, before getting to the track. This will allow you to focus on the art of driving, rather than merely trying not to get lost.

Finally, in the descriptions of each corner, you’ll find that the location of the turn-in and apex points will be marked out. These points will be marked with cones set up beside the track surface for your first few sessions. They are a useful reference, but please make an effort to learn the track, not the cones. If they get knocked down, or if we decide not to set them up at all, you should still be able to feel the line and drive the course well. This is track driving, not paint-by-numbers!

Having said all that, let’s get on with the fun. Following this, you’ll find our description of Laguna Seca.



Laguna Seca



Turn 1

Turn 1 is a high-speed, fourth gear, sweeping lefthander of about 20 degrees. It is uphill at the entrance, and downhill at the exit, so it does feel a bit blind for just a moment as you crest the hill. It is really not much of a turn, but beginners often find it to be very daunting because of its blind nature. This is where you come to trust and depend upon the flaggers.

Set up: You can use the “Y” in the “TOYOTA” sign on the bridge at Start/Finish as a point to aim at for the entry as you drive up the front straight. The Start/Finish bridge also marks the end of the front straight passing zone.

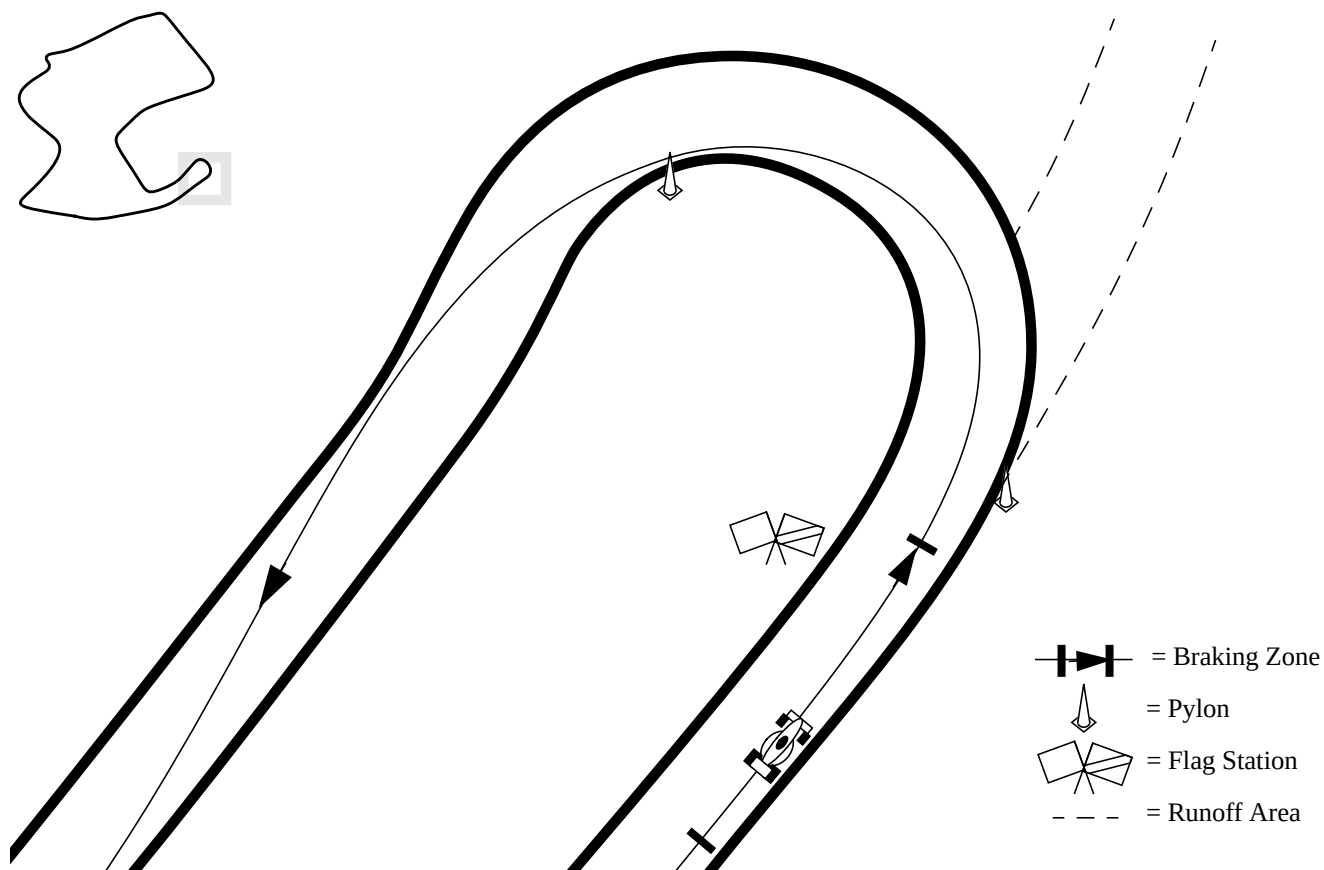
Braking Zone: None. Turn one is taken flat in most cars, or perhaps with a small confidence lift off the throttle well before the apex. Taking this corner hard on the throttle is something to work up to very slowly and gently, but it is a great confidence exercise.

Turn In: Roll on gentle steering lock just after the bridge.

Apex: The apex is right at the highest point, just before the track begins to fall away to head down towards 2. Apex at the white stripe driver's left, but no further over. You should stay out of the pit exit which merges with the track right there.

Exit: Unwind the wheel and track out all the way driver's right, leaving a 3-4 foot safety margin on the run down to Turn 2.

Landmarks: There is a flagger station high above the track driver's right after the bridge. You'll have to look up to see it, but it is ideally placed to give you advance warning of conditions in Turn 2. When reentering the track from the pit lane, please stay all the way left in the pit lane until well down the hill after the apex of 1. This keeps you from merging into the path of a car that's committed to an apex there.



Turn 2

Turn 2 is a slow, 190 degree hairpin turn. The entry is downhill, and the braking here is the heaviest that you'll experience, as you slow from 4th gear to third. The exit is level.

Set up: Track out all the way driver's right exiting Turn 1. Leave about a 3-foot safety margin to the edge of the pavement. Get the car straightened out, and prepare for the braking ahead.

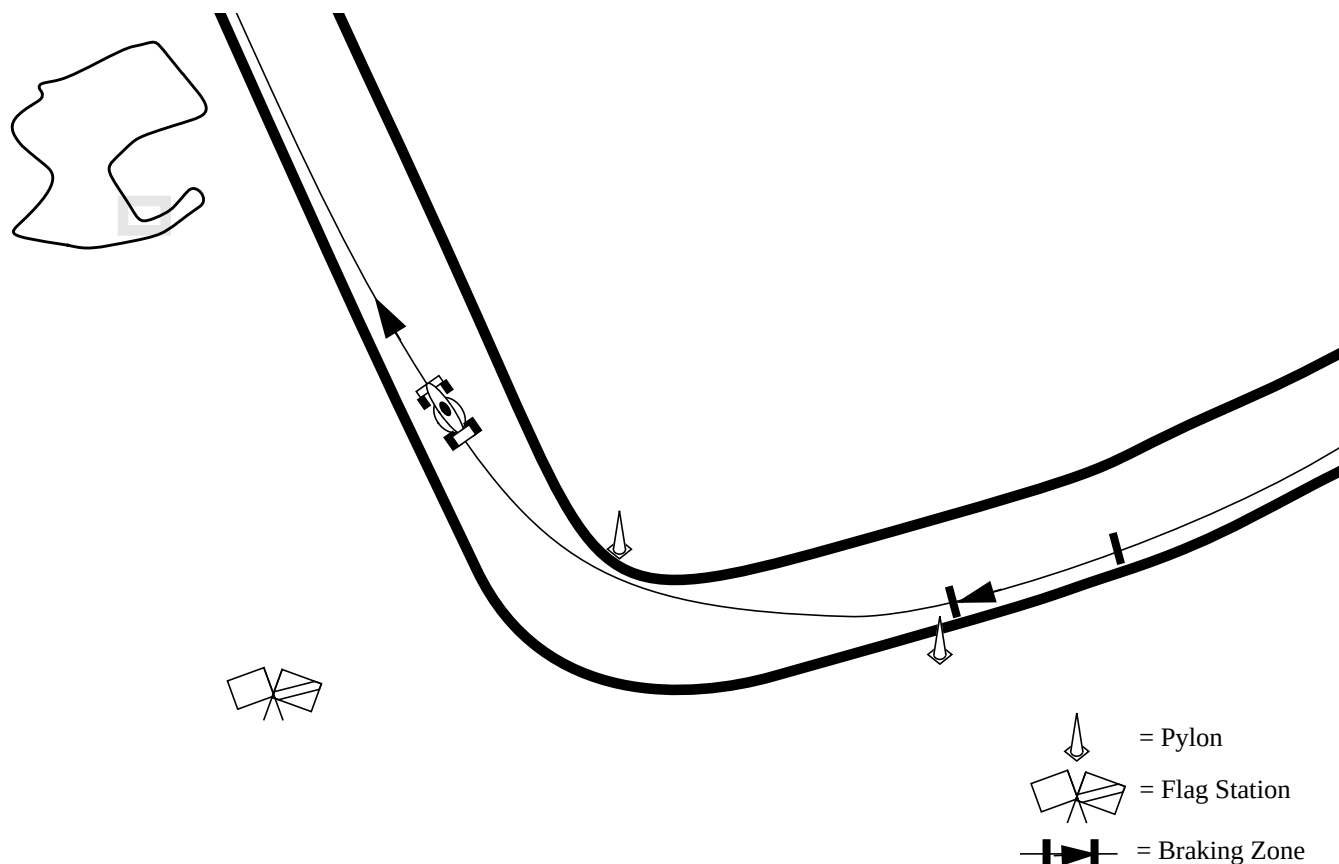
Braking Zone: Very early, very hard, straight line braking. Downshift into third in most cars, clear into second in some. Transition off the brakes and back onto an even throttle before the turn-in point.

Turn In: Stay straight and on the very outside edge of the pavement well into the turn, and then turn smoothly in. There will be a turn-in point marked out with a pylon to use as a reference during the morning sessions. After turn-in, stay out about 3/4 of the track width until fully halfway through the corner, then smoothly tighten in the steering to get to a single, very late apex. There is a tiny bit of banking out there at half-track, right in the middle of the corner. Use it.

Apex: The apex is way around by the painted curbing, almost 3/4 of the way through the turn. There will be an apex pylon to use as a reference. Once at the apex, begin to unwind the wheel and smoothly feed on the power.

Exit: Unwind the wheel, roll on the power, and track out all the way driver's right just as you reach the little kink at the exit. Then begin moving back to driver's left to set up for Turn 3. If you downshifted to second, you'll need to upshift right at the exit, and you may find this to be awkward. Try this corner in third.

Landmarks: There is a flagger's station driver's left just before the turn-in. There is lots of runoff area, and an escape road that exits straight out of the braking area just in case an adventurous driver leaves their braking too late.



Turn 3

Turn 3 is a medium-speed, third gear, flat turn. The track is a bit featureless in the Turn 3 area, with few reference points, and many people have a hard time getting their turn-in right. A popular error in Turn 3 is to turn in too early, which results in drivers dropping two wheels off the pavement at the exit.

Set up: Move smoothly back to the driver's left edge of the pavement after exiting Turn 2. Leave about a 3-foot safety margin to the edge of the pavement. Get the car straightened out by the #3 brake marker after the small unnamed kink, and prepare for the braking ahead. The safety margin is important here, as the edge of the track is sandy and there is little grip to be had.

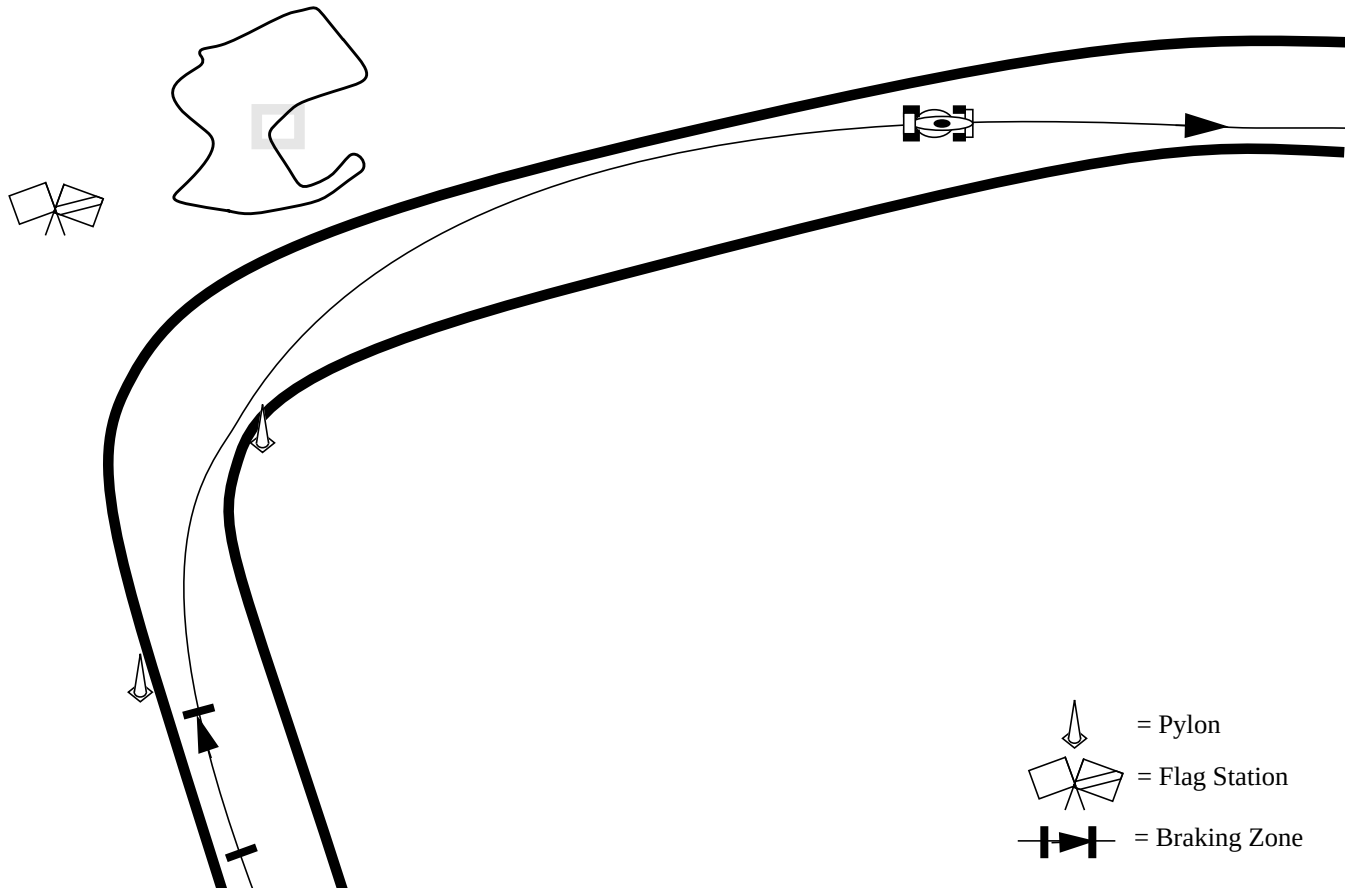
Braking Zone: Straight line braking. Stay in third in most cars. Transition off the brakes and back onto an even throttle before the turn-in point.

Turn In: Get the car settled in a straight line on the very outside edge of the pavement, and then turn smoothly in. There will be a turn-in point marked out with a pylon to use as a reference during the morning sessions. Smoothly wind in the steering to get to a late apex just past the geometric center of the turn.

Apex: The apex is just past the geometric middle of the turn. There will be an apex pylon to use as a reference. Once at the apex, begin to unwind the wheel. You should be at full power just after the apex. If you can't unwind the wheel, you know you turned in too early.

Exit: Unwind the wheel, roll on the power, and track out all the way driver's left. Some cars will upshift 3-4 at the exit.

Landmarks: The Turn 3 flagger's station is well back from the edge of the track, behind the catch fencing. There is a good amount of runoff area here, and people do seem to use it rather often.



Turn 4

Turn 4 is a high-speed third gear, flat turn. It increases in radius as you go through it, so this makes it a very fast section, and a very good place to unwind the wheel and accelerate hard from the apex on. The straight following Turn 4 is also one of the normal designated passing zones.

Set up: Stay on the driver's left edge of the pavement after exiting Turn 3. Leave about a 3-foot safety margin to the edge of the pavement.

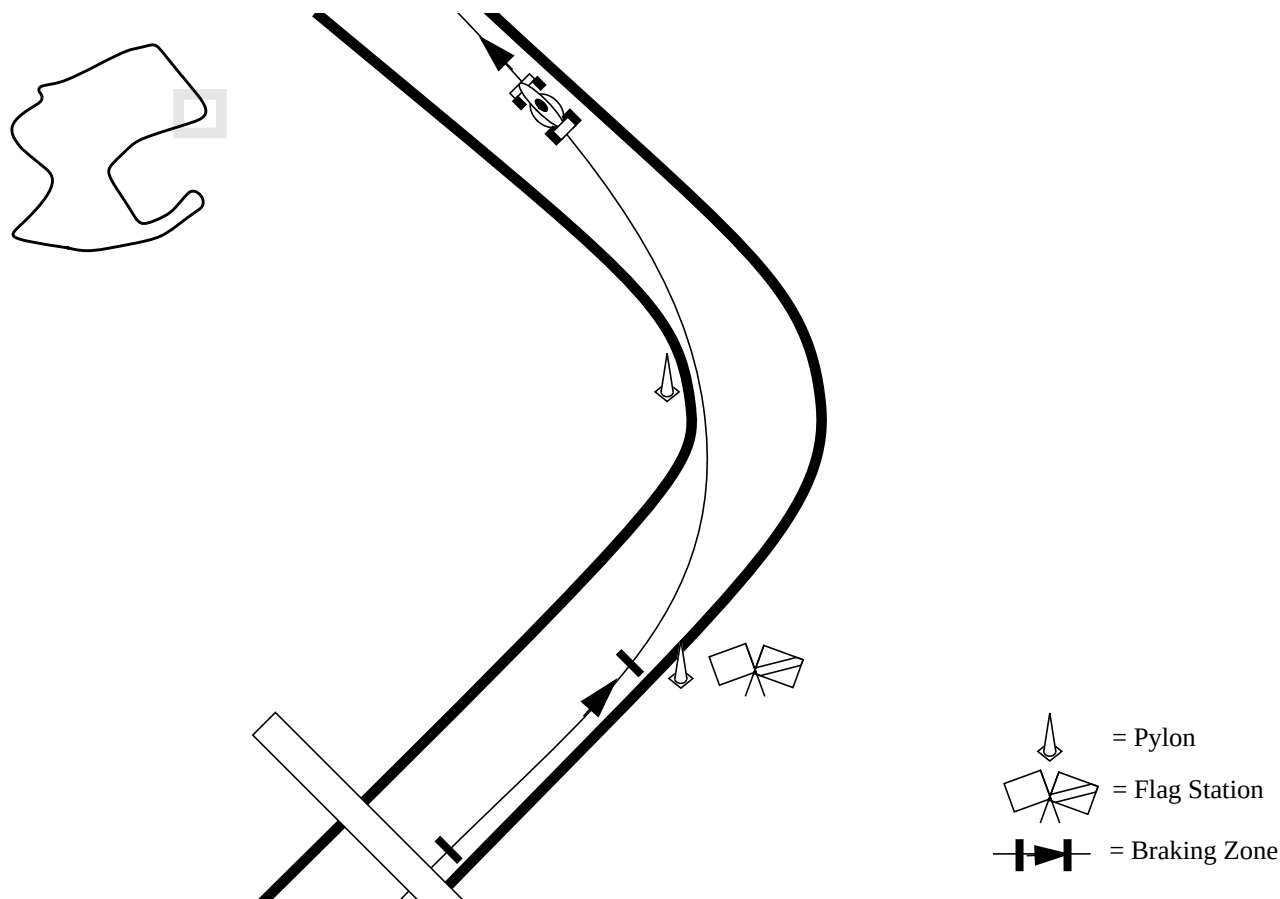
Braking Zone: Very short straight line braking just to settle the car. Transition off the brakes and back onto an even throttle at the turn-in point.

Turn In: Turn smoothly in from the turn-in point, which is right about at the #1 braking marker. There will be a turn-in point marked out with a pylon to use as a reference during the morning sessions.

Apex: The apex is just past the geometric middle of the turn. There will be an apex pylon to use as a reference. Roll on the power from right at the apex, because this corner increases in radius. Unwind the wheel and feed on the power. If you can't unwind the wheel, you know you turned in too early.

Exit: Track out all the way driver's left, but leave about a 3-foot safety margin. If you hold on just a tiny bit of right steering lock after the exit, the car will naturally sweep back to the driver's right edge of the track just at the little unnamed kink on the straight up to Turn 5. Most drivers will need to upshift from third to fourth just before the kink.

Landmarks: The Turn 4 flagger's station is also well back from the edge of the track, behind the catch fencing.



Turn 5

Turn 5 is a medium speed, third gear, banked turn. It turns uphill and becomes banked after about halfway through the turn, which makes it a faster corner than it first appears.

Set up: Stay on the driver's right edge of the pavement after exiting the kink. Leave about a 3-foot safety margin to the edge of the pavement. The bridge marks the end of the passing zone.

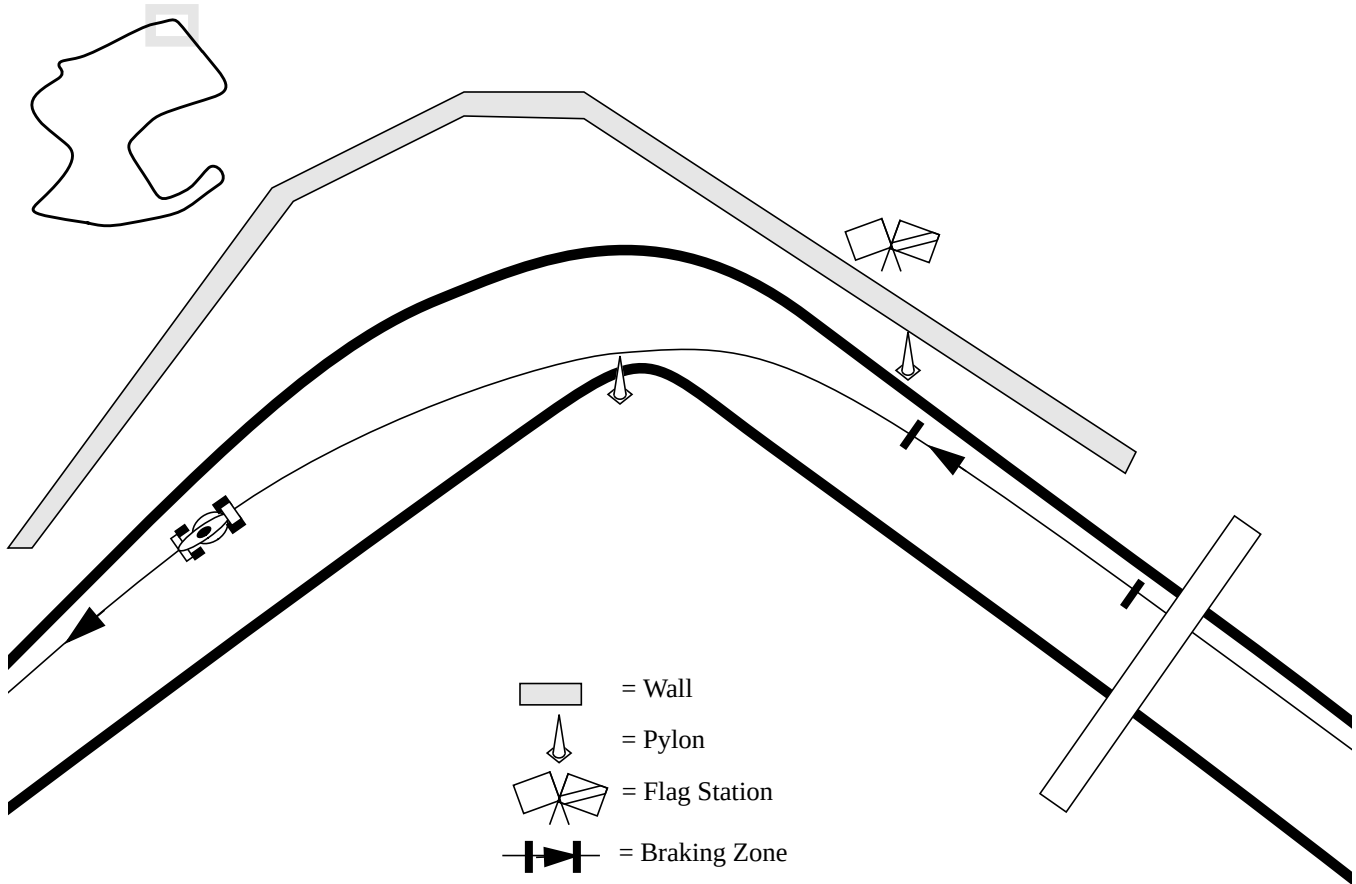
Braking Zone: Very hard, straight line braking, just after the bridge. Downshift 4-3, if necessary. Transition off the brakes and back onto an even throttle at the turn-in point.

Turn In: Turn smoothly in from the turn-in point, which is right about at the #1 braking marker. There will be a turn-in point marked out with a pylon to use as a reference during the morning sessions.

Apex: The apex is just past the geometric middle of the turn. There will be an apex pylon to use as a reference. Roll on the power from right at the apex. The banking in the exit of the corner will provide extra grip. Unwind the wheel and feed on the power. If you can't unwind the wheel, you know you turned in too early.

Exit: Unwind the wheel and let the car track out all the way driver's right for the uphill straight to Turn 6, but leave about a 3-foot safety margin. Some drivers will need to upshift from third to fourth just after the exit, but this section can be done in third in most cars.

Landmarks: The Turn 5 flagger's station is right at the edge of the track after the turn-in. There is also an escape road there, and a great deal of runoff area. Use the banking to your advantage, and don't lift!



Turn 6

Turn 6 is a medium speed, third gear, steeply banked 80 degree turn. It turns even steeper uphill and becomes even more banked right at the apex, which makes it a much faster corner than its short radius would indicate.

Set up: Stay on the driver's right edge of the pavement after exiting Turn 5. Leave about a 3-foot safety margin to the edge of the pavement.

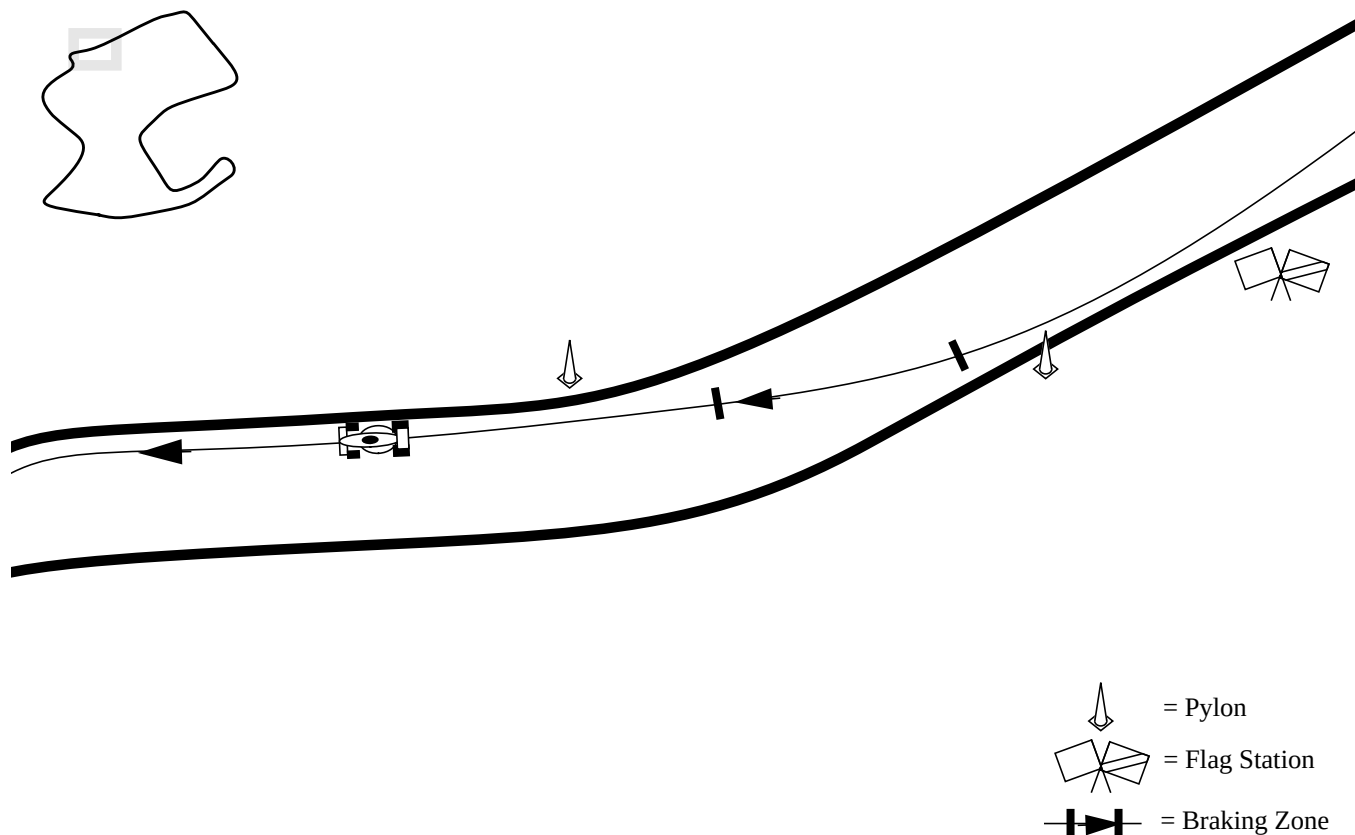
Braking Zone: A short burst of hard, straight line braking, just after the bridge. Downshift 4-3, if necessary. Transition off the brakes and back onto an even throttle at the turn-in point.

Turn In: Turn smoothly in from the turn-in point, which is right about at the #1 braking marker. There will be a turn-in point marked out with a pylon to use as a reference during the morning sessions.

Apex: The apex is just past the geometric middle of the turn. There will be an apex pylon to use as a reference. Roll on the power from well before the apex. The banking in the apex area will provide extra grip. Unwind the wheel and feed on the power. If you can't unwind the wheel, you know you turned in too early.

Exit: Unwind the wheel, hard on the power, and let the car track out all the way driver's right for the uphill straight to Turn 7, but leave about a 3-foot safety margin. Use the added pavement driver's right for a little extra exit room. You want to finish your track-out right at the end of the added pavement. Most drivers will upshift from third to fourth just after the exit.

Landmarks: The Turn 6 flagger's station is right at the edge of the track after the turn-in. Once again, use the banking to your advantage, and don't lift! You can use a pavement seam 10 feet in from the driver's right edge to aim you at Turn 7.



Turn 7

Turn 7 is a medium speed, third gear, steeply uphill 20 degree right turn, with a crest in the pavement right at the apex. It really isn't much of a turn, but it is technically challenging. It is also critical since it sets you up for Turn 8, and the braking is very heavy since it is at the end of the uphill straight. It is also very daunting for the beginning track driver because it is blind, and the car gets very light as it crests the hill.

Set up: Driving a straight line up the uphill straight will leave you aimed at the turn-in marker pylon, which is just before the steepest part of the hill. Move smoothly over to the driver's left edge of the track, aim at the turn-in point.

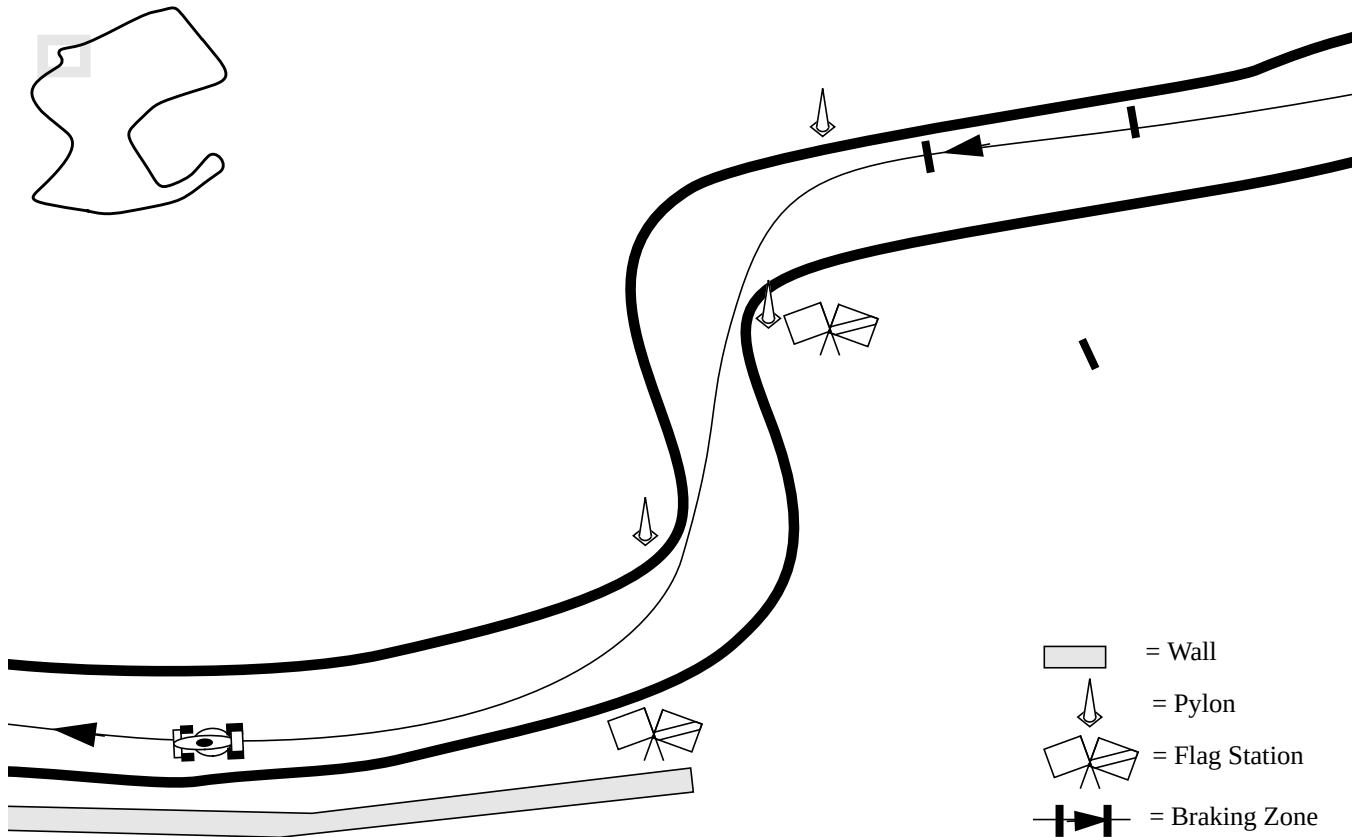
Turn In: Turn smoothly in from the turn-in point, which is just before the hill turns steeply up. There will be a turn-in point marked out with a pylon to use as a reference during the morning sessions. Aim to pass just to the left of the painted berm at the very top of the hill.

Braking Zone: There is hard braking here, but it is all done after the turn-in, when the car is going in a straight line up the hill aimed at the apex. You want to get essentially all of your braking done on the uphill, before the crest.

Apex: The apex is right at the top of the hill, and if done correctly, it will be at the end of the painted berm. The car should be going quite straight by the apex, right on the right edge of the track, and parallel to it.

Exit: We compromise the exit of Turn 7, and stay all the way driver's right hugging the edge of the pavement. This leaves us in a straight line for the setup for Turn 8 ahead.

Landmarks: The Turn 7 flagger's station is right at the edge of the track, on the left, well before the turn. It is also the black flag station. The wall is very close on driver's left at the turn-in, with no runoff. This is an easy turn, so none is necessary.



Turns 8 and 8A: The Corkscrew

The Corkscrew, or the Turn 8-8A complex, is a low-speed but very abrupt pair of turns. This area is really the crown jewel of Laguna Seca. It is also the least important pair of turns on the track, in terms of lap times. There is no time to be made up here, you can only lose time. On the other hand, it is blind at the entrance and a real roller coaster ride. People always have difficulty here, so I'll include a lot of description.

Set up: Your compromised exit from Turn 7 will leave you within 3-6 feet of the right edge of the track. Aim parallel to the centerline of the track, and get the car straight and settled for the braking zone.

Braking Zone: This is a moderate straight line braking zone. Downshift 4-3, and take this whole complex in third gear. Some drivers like to downshift to second because of the slow speed here, but the track falls away so steeply downhill that you have to immediately shift back to third in 8A, which is a very awkward place to be shifting gears. Save the effort, and take this whole section in third. Transition off the brakes and onto an even throttle before the turn-in.

Turn In, Turn 8: Turn in smoothly but strongly from the turn-in point, which is just at the #1 brake marker. There will be a turn-in point marked out with a pylon to use as a reference during the morning sessions. Aim to pass just to the right of the painted berm at the flag station at the apex of 8. If you can't get to the apex at 8, you very likely didn't brake enough. Remember, this is a slow, slow corner, and you can only lose time by carrying too much speed at the entrance. Slow in, fast out.

Apex, Turn 8: The apex is just before the track falls steeply away, and will be marked with a pylon.

Exit, Turn 8/Turn In, Turn 8A: There is no exit per se from the first part of the Corkscrew. As soon as the car has reached the apex of 8, the steering lock is unwound, paused for just a beat aimed straight ahead, and then immediately turned the other way

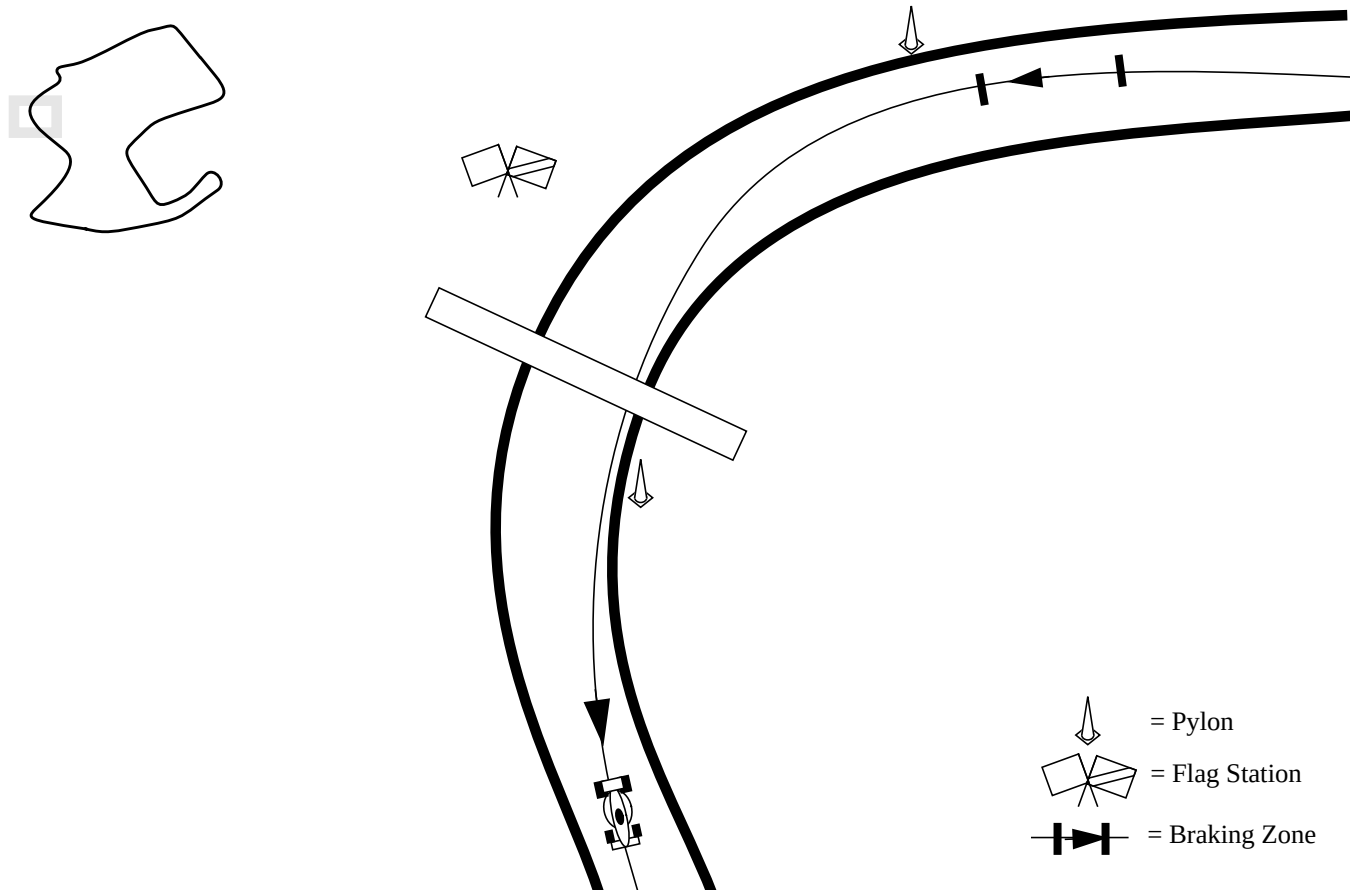
at the turn-in for 8A. This section is done on rhythm, and mastery can only be achieved by practice. Smoothness in going from left lock to right lock (to keep from unsettling the suspension) is the key to this section.

A very important visual cue to use is the large oak tree that is immediately behind the downhill (8A) flagger's station. When you are just getting to the apex at 8, you will be rotating the car to the left. You want to unwind the steering and aim directly at that oak tree for just a beat before turning in for 8A. You cannot see the apex of 8A from the approach to 8, so practice will make perfect here. You drive a nearly straight line from the apex of 8 to the apex of 8A, as the track falls away beneath you. The car is very light in this section as the track falls away and the suspension unloads, so sudden changes of directional control will make the car behave very uncomfortably.

Apex, Turn 8A: As you reach the apex of 8A, the steepest part of the hill flattens out. This loads the suspension back up, generating additional grip, and allowing you to roll on more steering lock, rotate the car, and complete the turn. Much of the actual rotation of the car for Turn 8A actually takes place after the apex, in the compression area as the track flattens out. You can and should apply full power from the apex of 8A onwards as the car squats down from the G-loading created by the hill flattening out. Unwind the wheel through this section, and carve a sweeping arc out towards the driver's left edge of the track.

Exit: Continue to track smoothly out driver's left, and unwind the wheel, but leave a little lock on. You want to track out to within about 6 feet of the driver's left edge of the track, leaving a wide safety margin, and then use that little steering lock to sweep you smoothly over towards the driver's right edge of the track to set up for Turn 9. The 6-foot safety margin at the track-out point is very critical, because there is very, very little runoff area before the cement wall there. Treat it with respect.

Landmarks: The two flagger's stations are right at the edge of the track, and they are very important to recognize in this blind area of the track. Entering the top of the Corkscrew, you have no visibility as to what lies ahead, and you must rely on the flaggers for early warning of trouble. Remember the oak tree!



Turn 9

Turn 9 is a very long, sweeping, medium-high speed, third gear, 100 degree left turn.

Set up: After exiting 8A, sweep smoothly over towards the driver's right edge of the track, and aim at the turn-in point. You do not need to go all the way driver's right, and in fact you should leave about a 6 foot safety margin at the turn-in.

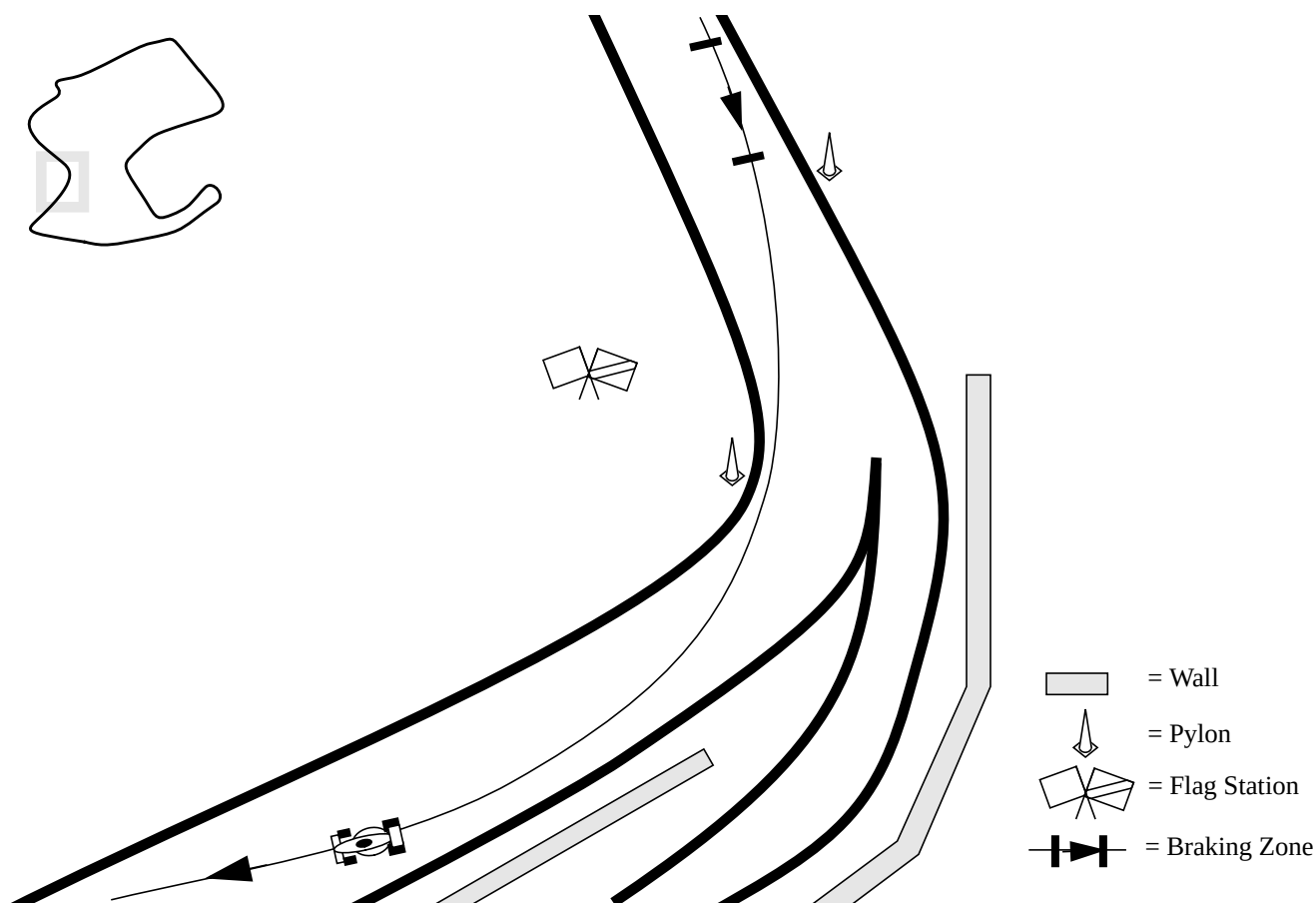
Braking Zone: There is a bit of braking here, done just as you get the car in a straight line. Its primary purpose is to settle the car, but higher powered cars will need to do significant braking to be able to make it down to the apex. After the braking zone, transition back onto an even throttle for the turn-in.

Turn In: The turn-in for Turn 9 is very gradual. The pylon marks the end of the turn in region. The actual turn-in will vary from car to car, as you will be working to manage understeer due to the steep downhill. As you enter the corner, you will be progressively winding on more lock, aiming for the very late apex.

Apex: The apex is very late, and just after the bridge. This turn varies from non-banked and downhill at the entrance, to banked at the apex, to off-camber at the exit. We'll do a lot of the rotation of the car on the banked portion in the vicinity of the apex, because there is more grip to be had there. Full power and unwind the wheel to track out.

Exit: The track goes very off-camber at the exit, but only in the outer 6 feet of the pavement due to the crown in the road. To compensate for this, we've taken a very late apex, and we'll leave a good 6 foot safety margin to the edge of the pavement. After track out, begin to sweep back to the driver's left edge of the track to set up for 10. High powered cars might get into 4th gear for just a moment on the run down to 10.

Landmarks: The Turn 9 flagger's station is well back from the edge of the track, on the outside of the sand trap. There is a sizeable amount of runoff, but be careful of that off-camber exit. This is a fast corner, so treat it with respect.



Turn 10

Turn 10 is a hard, sweeping, medium speed, third gear, 90 degree right turn.

Set up: After exiting 9, sweep smoothly over towards the driver's left edge of the track, and aim at the turn-in point.

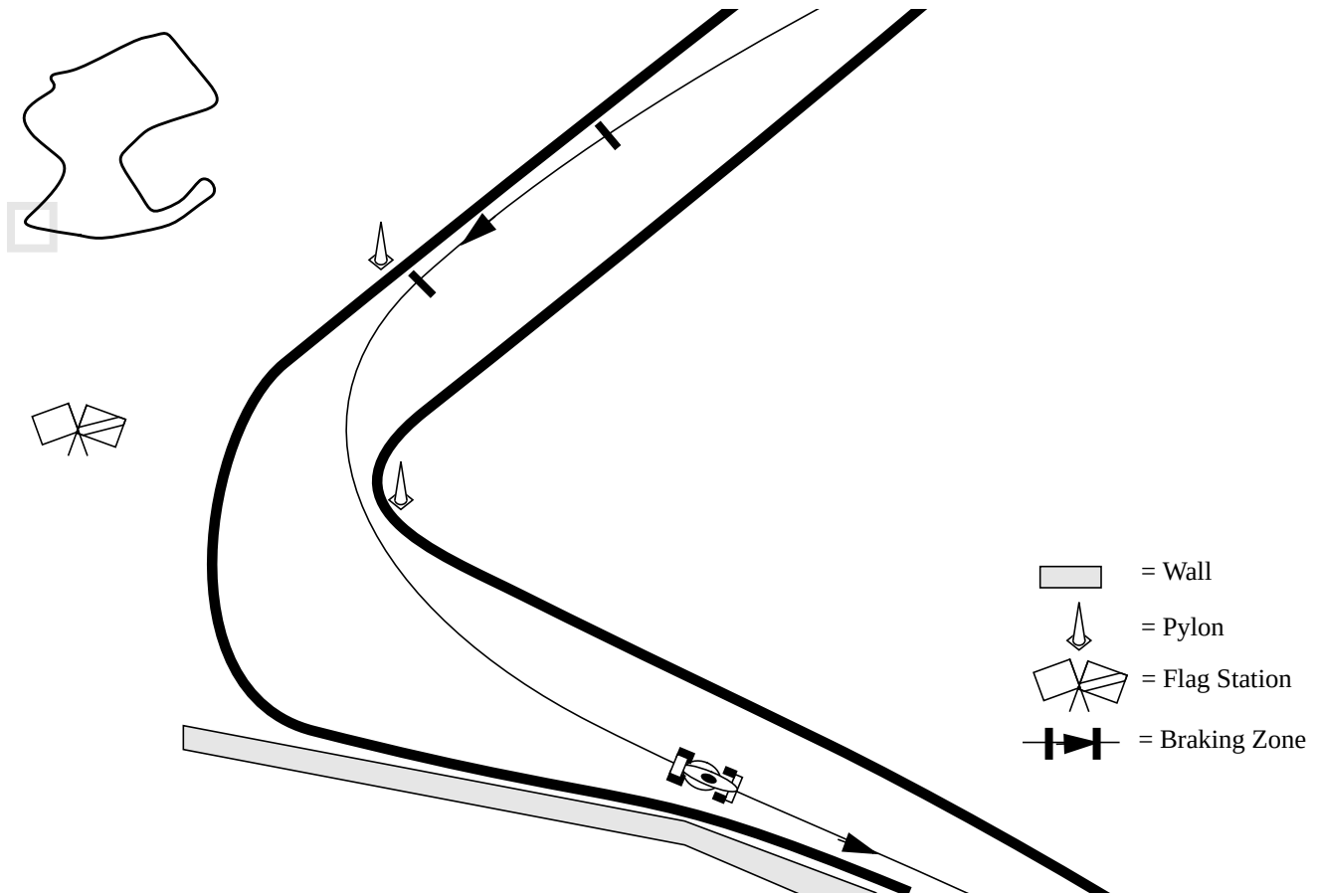
Braking Zone: This is a short but heavy braking zone, as the car will accelerate quickly on the downhill. After the braking zone, transition back onto an even throttle for the turn-in.

Turn In: The turn-in for Turn 10 is very positive. Wind on the steering lock and rotate the car to point down at the apex, which will be on the added pavement driver's left. The corner becomes very steeply banked as you approach the apex, so much of the rotation will be done using the banking for additional grip.

Apex: The apex is very late, and just at the end of the added pavement. This turn also varies from banked at the apex to off-camber at the exit. You need to have your rotation done by the apex, because the banking ends and the car will feel very unstable on the flat part. Roll on full power at the apex, and unwind the wheel to track out.

Exit: The track goes very off-camber at the exit. To compensate for this, we've taken a very late apex, and we'll leave a good 6 foot safety margin to the driver's-left edge of the pavement. After track out, hold on some steering lock and begin to sweep back to the driver's right edge of the track on the short straight to set up for Turn 11.

Landmarks: The Turn 10 flagger's station is well back from the edge of the track, on the driver's right. There is little runoff area in Turn 10, and the walls are very close indeed. The exit from the track to pit lane exits driver's left, after the normal turn in. The pit entry lane is often sandy, and the walls are right there. Slow well down before entering the pits!



Turn 11

Turn 11 is a hard, low speed, second gear, 110 degree hairpin turn.

Set up: After exiting 10, sweep smoothly back over towards and parallel with the driver's right edge of the track, and aim at the turn-in point.

Braking Zone: This is a short but very heavy straight-line braking zone. Downshift to second. After the braking zone, transition back onto an even throttle for the turn-in. The most common mistake here is to not brake enough.

Turn In: The turn-in for Turn 11 is extremely positive. Wind on the steering lock and rotate the car to point down at the apex. There is no banking here, so the corner will feel as if there is no grip at all. If you can't get to the apex, you didn't brake enough.

Apex: The apex is late, and just at the end of the painted berm. This is a good corner to work on your patience in, because you cannot accelerate out of a hairpin until after you have begun to unwind the wheel. The pavement is flat, and very low grip, so excessive throttle will just break the rear end loose. Unwind first, power second.

Exit: There is significant added pavement right at the apex, but it closes down towards the exit. The wall is right there, and that is very intimidating for some drivers. However, you must unwind the wheel, and let the car release and begin to track out towards the wall before adding power. Track out to the white stripe, and accelerate up the front straight, which is also a passing zone.

Landmarks: The Turn 11 flagger's station is well back from the edge of the track, straight ahead in the braking zone. There is good runoff area in the braking zone and apex. But at the exit, the walls are very close indeed. Don't let the walls intimidate you into suddenly lifting off the throttle at the exit. Smoothness is the key to this track!