

# High Plains Raceway Lap Description

High Plains Raceway is the new Colorado Amateur Motorsports Association (CAMA) road racing track in Last Chance, Colorado, 17 miles east of Byers on US36. The full track is 2.54 miles in length with two options for shortened circuits. The track is only approved to be driven in the clockwise direction. High Plains is an exciting and technically challenging circuit. Elevation changes, fast sweepers, decreasing radius turn 6, and blind entry turns provide plenty of fun and the opportunity to spend many years learning to drive the track well.

Funding limitations prevented CAMA from putting down the full 6 inches of asphalt that they desired. Consequently the only curbs are narrow ones at the apexes. There are no turn-in or track-out curbs. The apex curbs are designed to allow plastic poles to be inserted into holes. The intent of these poles is to keep drivers off the thin, temporary curbs. Watch your mirrors, as these poles can do serious damage at speed!

Because of the varying elevation, High Plains Raceway has a large number of corner worker stations. Be sure to pay particular attention to any flags as you approach the blind areas of the track, especially at turns 8, 11 and the Prairie Corkscrew.

**Front Straight:** The 1200 foot long front straight parallels the hot pits with the starter stand positioned on the pit wall just past the half-way point. There is a very slight elevation gain from the exit of turn 15. Depending upon gearing and exit speed from the Prairie Corkscrew, an up shift to 4<sup>th</sup> gear may be necessary. Some cars will remain in 3<sup>rd</sup> gear for the entire length of the front straight. Move to the far right edge in preparation for turn 1.

**Turn 1:** Brake briskly using the markers on the right for this 90° left hander with a slightly late apex. The track is very slightly off-camber to allow drainage away from the pit wall. You may not wish to track out all the way to the right, in order to move back left and accelerate up to the turn-in for turn 2.

**Turn 2:** If you reached 4<sup>th</sup> gear on the front straight, you will certainly want to downshift to 3<sup>rd</sup>, possibly even 2<sup>nd</sup> gear while braking up to the turn in point. Enter high and about ¾ of the way to the left for this 150° right-hand sweeper with a very late apex. You can trail brake well into this turn. Half way through the turn, start moving down toward the apex and accelerate smoothly to the track-out. Be sure to watch for traffic entering the track, as the pit-entry lane merges with the top of turn 2, outside of the apex point. Turn 2 is on-camber; however this camber flattens out as you approach the track-out point. Accelerate hard toward turn 3.

**Turn 3:** Although visually two turns on the track map, all of the action occurs in the first part of this turn. Most cars will require a brush of the brakes or throttle lift to settle the front end prior to turn-in to the right. Get back on the throttle after turn-in and prior to a neutral apex. Keep your eyes high and look far down the back straight, as there are few reference points here. The latter kink is driven as a continuous extension of the track-out arc at full throttle.

There is an interesting story about why turn 3 was designed with two parts aiming cars toward the southwest before the kink. The track designers realized that east-bound traffic coming down the hill on US36 might mistakenly believe track cars between turns 2 and 3

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where about to cross the highway in front of them. So turn 3 was designed to vector cars more southwest – a safety feature for the highway rather than the track!

**Back Straight:** The 2200 foot back straight is the fastest section of the track. An up shift to 4<sup>th</sup> gear will be required. The elevation drops about 25 feet before climbing again on the approach to turn 4. This is a good place to check your mirrors and gauges. Stay on the line, pointing faster cars by on which ever side is recommended by the club with which you are running. Keep your tires from straddling the ridges between the three asphalt lane pours, as these may affect traction under heavy braking. Look for the 5-4-3-2-1 brake markers on the left.

**Turn 4 – “Biker’s Berm”:** At only 45° to the right, turn 4 is faster than one might expect. Use the brake markers on your left to find a consistent braking point. Avoid the natural temptation to downshift here and save the shift until turn 5. This will let you focus all of your attention on the apex and being smooth. Trail braking can be applied here, but use caution because of the high speeds. Use a moderately late apex. Track out should not take you all of the way toward the left side of the track, perhaps only 2/3 of the way to the outside. You will need to quickly reposition your car to the right hand edge for turn 5.

**Turn 5 – “Niagara”:** Be sure to move all the way to the right edge of the track, brake and downshift to 3<sup>rd</sup> gear before the turn in point. Turn in smoothly to the left for a neutral to slightly late apex. There is significant positive camber on the inside of this turn that allows the apex point to be earlier than one would expect from the track map. The elevation begins to drop at the turn in point, and then begins a linear drop of 40 feet from the apex of turn 5 to turn 6. The elevation drop will cause your car to lose grip and drift more quickly to the track exit. As you can see, the “Niagara” name refers to the falling elevation. Fortunately the positive camber on the inside helps counteract this. Look far ahead to help judge throttle application during track out. Should you get too wide at the exit of turn 5 be absolutely certain that you leave the track going in a straight line and brake to a very slow speed before turning back toward the track. The downhill slope of this runoff area is not a place to be sliding sideways!

**Turn 6 – “Danny’s Lesson”:** At the bottom of the hill is a sharply decreasing radius right-hand turn. This turn is named after Danny Collins, a long time amateur racer in Colorado. Danny felt that every track should have a decreasing radius turn and this influence was imparted in the High Plains design after his untimely passing. Keep your car to the extreme left side of the track, braking well and downshifting to 2<sup>nd</sup> gear for this slow corner. There are no brake markers. Trail braking works well here to help rotate the car for a super late apex. If you can’t get back on the throttle hard just before the apex, then you need to move your apex later. Use high eyes and track out smoothly to the left in preparation for High Plains Drifter. Up shift as you approach red line. The track drops another 10 feet before the turn 7 turn in point.

**Turn 7 – “High Plains Drifter”:** High Plains Drifter is a 90° right-hand that climbs back uphill another 40 feet. Many will consider it the most fun section of this track. There are many different ways to drive this corner and one must gradually work up to speed after gaining experience with how your car handles here. Force yourself to look far ahead and up the hill. Initially, stay far to the left and drive deep before a smooth, but late turn in,

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then work back over to the inside curbing before the hill flattens out near the top. The apex here is a long follow-the-curb line rather than a point. As the hill flattens out, the added grip from the climb goes away and your car will nicely drift toward the left. Be very smooth on the controls and use only a light breath off the throttle if necessary to control the drift to the left. A full lift will almost certainly result in a spin. At the top of the hill, move quickly back to the right edge of the track and watch your brake markers for turn 8 – it's a blind entry!

**Turn 8:** Brake hard in a straight line and down shift to 2<sup>nd</sup> gear using the markers on the right for reference. Turn in briskly to the left for a very late apex. The track is slightly off camber here and this is an easy place to come in too hot. The turn 8 corner station blocks an early view of the apex. As soon as you find the apex, focus ahead in the direction of the turn 9 bunker. Gradually add throttle and straighten the steering wheel to use the entire track at the exit. It's possible to use part of the track extension for the short course to gain some additional track out room. Up shift again as you accelerate toward turn 9a.

**Turn 9a – “Bobsled to Hell”:** The track begins a steep downhill run here – hence the name. There is no time after the exit of turn 8 to move very far toward the left and you will be accelerating quickly. Consequently, take a slightly early to neutral apex for 9a, a very slight right hander and continue turning toward the right past the apex in order to setup for turn 9b.

**Turn 9b – “Bobsled to Hell”:** Turn 9b turn to the left and is a bit tighter than 9a. Use a moderately late apex to straighten out the curves through 9a/9b. Do not track out toward the right, as it is very important to keep your car to the far left after this turn in preparation for turn 10.

**Turn 10 – “Bobsled to Hell”:** Turn 10 comes up very quickly and requires significantly more turning (~55°) than either 9a or 9b. Brake smoothly in a straight line at the left edge of the track then turn in to the right for a late apex. Add throttle just before reaching the apex to keep the car planted and track out to the left edge. The downhill slope flattens a bit midway through this turn, providing increased grip at the apex and exit.

**Turn 11:** The track continues downhill to its lowest point in turn 11. Stay to the far left of the track, whether to stay in 3<sup>rd</sup> or downshift to 2<sup>nd</sup> gear is car dependent. Use a little trail braking on entry for this constant radius 180° right hand sweeper with a very late apex. The track begins to climb back up the hill just before the apex point. This allows hard acceleration through the apex and track out to the far left. Once again, keep your eyes high, looking far up the hill.

**Turn 12 – “Ladder to Heaven”:** The steep climb provides grip that allows one to continue the track out from turn 11 on the left edge of the track into an early apex for turn 12 which takes a kink to the left. It is not necessary to move to the right prior to this turn. After the apex, move to the right edge of the track. Note that the track levels out just past the apex. Short shift into 3<sup>rd</sup> gear before the track levels in order to avoid the unsettling lift to shift. Continue accelerating hard as the track climb again positioning your car on the extreme right side of the track.

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**Turn 13 – “Prairie Corkscrew”:** This is undoubtedly the single most important turn at HPR for multiple reasons: it has a blind apex, it’s at the crest of a hill causing your car to lose tire grip, and you must sacrifice speed at the entry of the corkscrew in order to carry a good line and faster speed through the exit. Turns 13, 14, and 15 form the left-right-left downhill corkscrew with each turn immediately following the prior one. The three corkscrew turns become less tight and faster as you progress through them.

Use the brake markers on the right as you approach to turn 13 to find a consistent braking point. Brake hard in a straight line. Smoothly but quickly release the brake pedal and rapidly turn in for an extremely late apex. You must have confidence that the apex will be in the same place as your last lap, because you can not see either the apex or the curbing before the turn in point! Be sure that you position the car on the apex. Even a few inches off the apex will slow you down through the corkscrew! Give up speed in turn 13 in order to keep your car to the left at the exit of turn 13. This is necessary in order to enter 14 & 15 on the fast line. Gradually begin adding throttle as you apex turn 13.

If you brake too late or insufficiently to safely complete turn 13, continue hard straight-line braking. If you caught it early enough, you will go far wide of the apex and be well off line through turns 14 & 15. If you don’t catch it in time, drive off into the dirt continuing that straight line and wait until it is safe to return to the track at a slow speed.

**Turn 14 – “Prairie Corkscrew”:** Quickly but smoothly turn right for a slightly late apex on turn 14 while continuing to accelerate out of the corkscrew. If you did not drive a tight late apex in turn 13, you will be too far to the right and will have no choice but to lose momentum through 13 and 14.

**Turn 15 – “Prairie Corkscrew”:** Now smoothly turn to the left for a neutral apex in turn 15, and track out all the way to right side of the track. The track levels out for turn 15 and then begins a slight climb on early part of the front straight. This provides good grip enabling lots of throttle. Wasn’t the corkscrew a blast to drive well!

**Front Straight:** You have now returned to the front straight. Stay on line to the right and point any faster cars by on your left. Note that the pit exit is on the left immediately after turn 15.

**Pit Out:** The pit exit lane is on the left shortly after the exit of turn 15. If you are planning to exit the track, it’s a good idea to signal your intention (via a fist held high out of the driver’s window) before you enter the Prairie Corkscrew. It will be necessary to slow through turns 14 & 15 before exiting and you don’t want to catch another car trying to pass you on the left as you turn toward the track exit! Signal your intent to exit the track again as you exit turn 15.

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**Cautionary Note:** *High performance driving is a complex skill that is learned through careful study, coaching and extensive “seat time”. The description provided here is targeted toward the advanced driver with significant experience in his or her car on multiple tracks. The novice or intermediate driver will not have the skills or knowledge to drive the track as described here and should pursue formal training through a high performance driving school before driving on track. Know your limits as a driver and the limits of your car! Safety is the #1 imperative!*