

Driving on a Wet Track

Seat time is seat time



Why drive on a wet track?

- You will learn how to drive in compromised conditions
- You'll have plenty of free track
- Things you learn on a wet track will help you when driving on a dry one
- Wet track driving is a challenge verging on fun



Or not

(Things to consider...)

- Risk ratio: “The wetter the track, the greater the risk”
- The more your car is set up for a dry track; the less effective it will be on a wet one
- ABS and PSM are only half the answer
- Wet grass will not slow down your car
- Wet guardrails are just as hard as dry ones
- AWD is a plus —but does not make you Ayrton Senna

Fun Facts

In wet conditions, F 1 tires channel almost 250 liters (66 gallons) of water per second...

Which is more than enough to fill a large bath



Know before you go

- What is your car set up?
- How compromised is the visibility?
- How wet is the track? (and how can you tell)
- Where can I expect standing water?
- How much “grip” can I expect?

Car setup

- **PSM settings**



- **Normal or winter mode**

- **Tires**



- **Treaded tires**

- **Tire pressure**



- **“Normal” - Street**

- **Shocks**



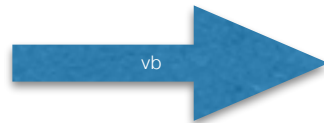
- **Soft**

- **Sways bars**



- **Soft**

- **Vision**



- **Defrost ON**



Compromised Vision (Can you see the lead car?)



Know your conditions



Damp track — cold
Wet track — light rain
Very wet track — heavy rain
Standing water
Dry lines and drying track



How wet is it?

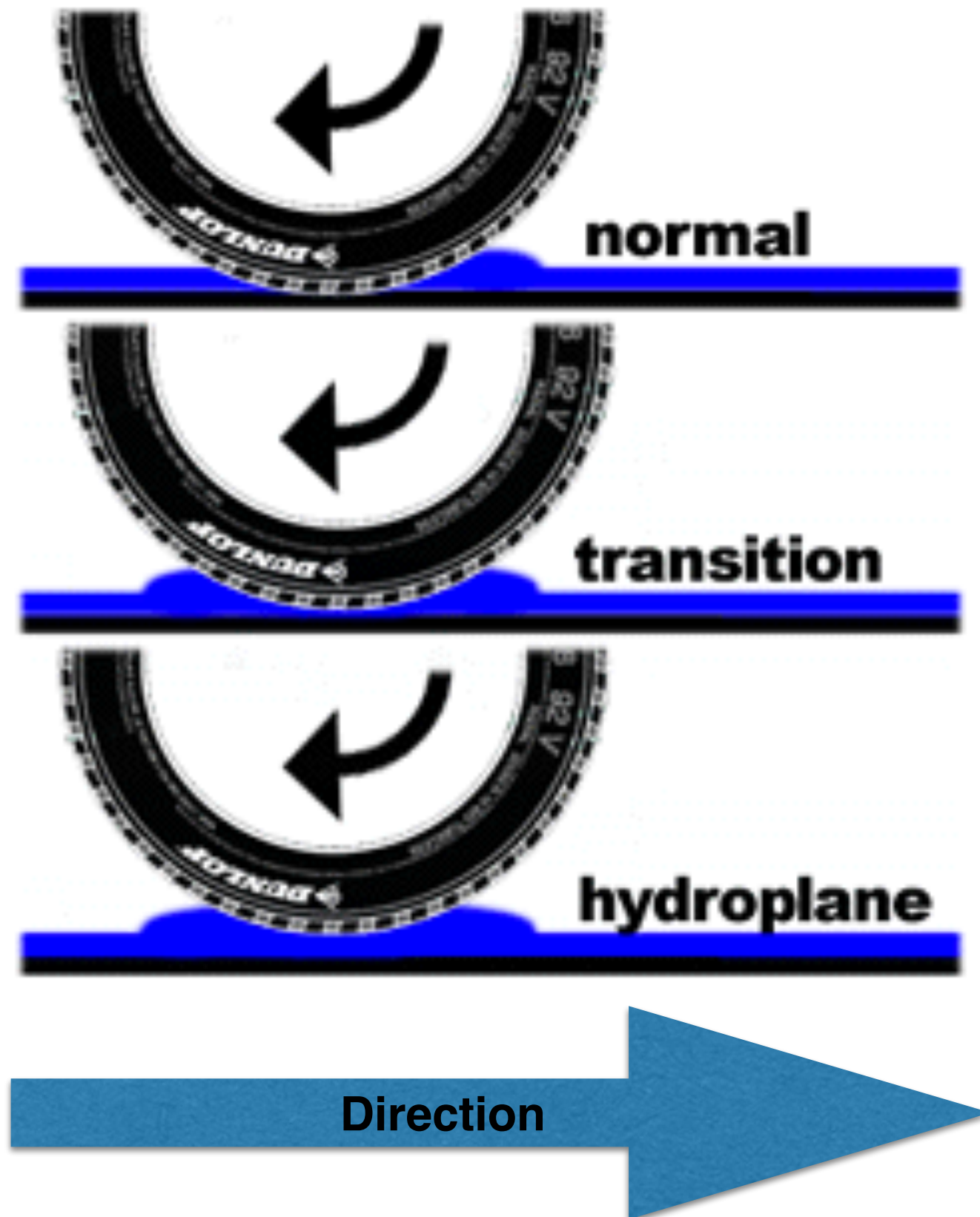
Now to read the lead car

Look for water channeling from rear tires of the car in front of you

- If it is a mist, it's a damp track
- If you see water channeling from the center of the tire, it is a wet track
- If water is channeling from the center and spraying from outside of the tires, there is standing water
- The conditions will change from straight to straight — corner to corner



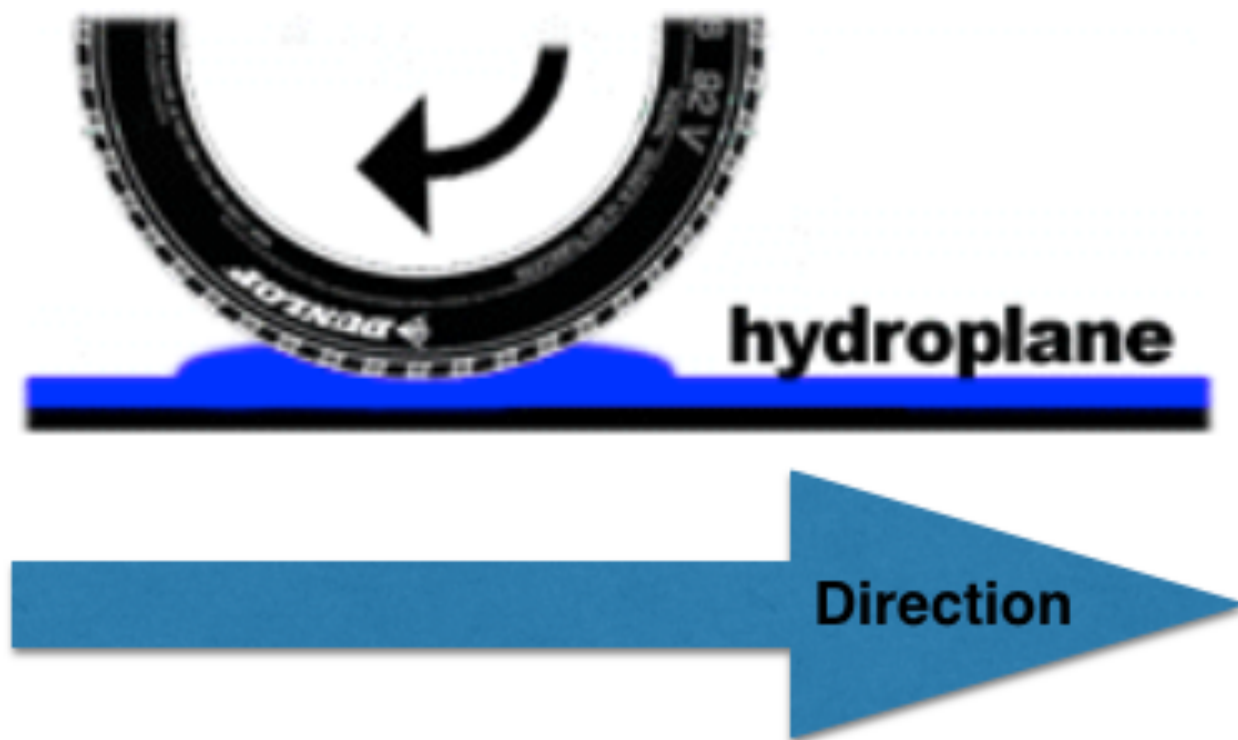
Damp-Wet-Hydroplaning



- **Damp Track**
(tire contacts pavement)
Misty spray from tires
No “Rooster Tail”
- **Wet Track**
(smaller contact patch)
“Rooster Tail” streams from center of tires.
You can feel grip — but it is significantly reduced
- **Hydroplane**
(No contact to pavement)
Feels like “ice”
Engine may “race” on straight
No directional steering control
Lead car shows significant splashing water to Left and Right

Aquaplaning / Hydroplaning

What do you do?



- Do as little as possible!
- Wait - Pause - Try not to brake, accelerate or add major steering adjustment until you “feel” grip returning — then....
- Gently reduce speed
Minimize steering or braking to reduce weight transfer
- Look for “dry” track to make corrections
- If in a turn, *consider* reducing steering angle but not enough to dramatically change direction

Where to look for standing water



- *Center of turns (Apex)*
- *Next to curbing*
- *Worn “grooves” on straights*
- *Bottom of, or running downhill*
- *Base of uphills*
- *“Dips” in the track*
- *Low elevation points*
- *On the side of a hill promoting cross track “streams”*
- *Track “connectors”*

On a wet track...

Be a Smooth Operator

- Gently squeeze and release pedals
- Brake in a straight line — avoid trail braking
- Do not go to 100% brake or throttle unless the car is “arrow straight”
- Learn slower and later turn-in points (squaring off corners)
- Find new sight lines and use peripheral reference points — i.e., side of the track for braking and turn-in

Smooth Operator



Driving techniques - Straights and braking zones

- Stay off the “Polished” dry line
- Move your brake points WAY back
- Squeeze the brake pedal “on”
- Let ABS do it’s job
- No ABS? - Pulse the brake pedal on “lockup”
- When crossing the “dry line” anticipate less grip
- Avoid - track sealer, painted surfaces, curbing
- Avoid passing at the end of the straight
- Grip will reduce with speed



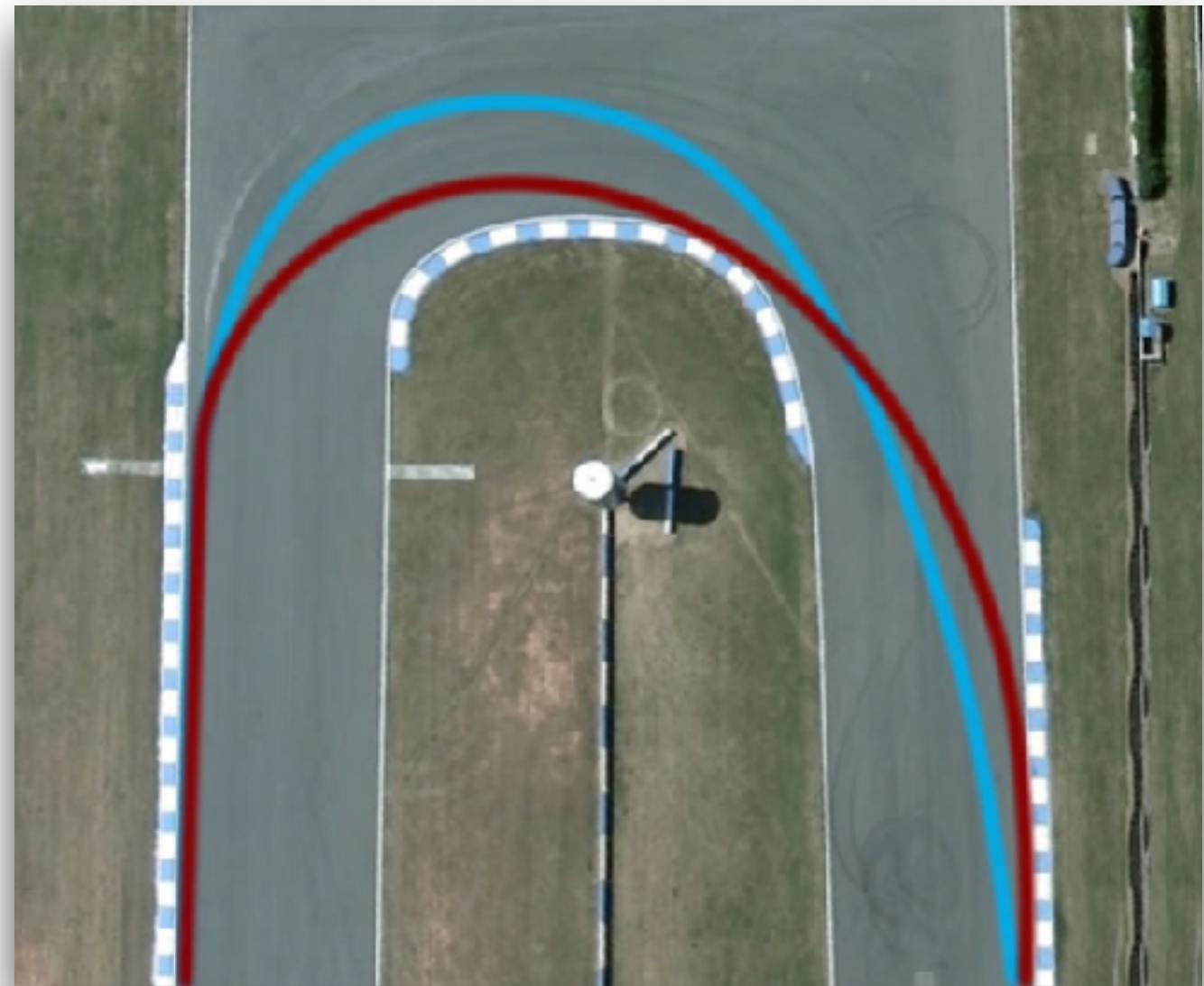
Driving technique - Turns

- Conditions will vary turn to turn
- Avoid - curbing and all painted surfaces
- Look for grip vs. maximizing turn circumference
- Shiny surface = Slippery surface
- Test grip off line
- “Over slow”, with later turn-in point
aka “Square off” the corner
- When crossing the “dry line” anticipate less grip
- Allow extra track for track out



Where do I find Grip?

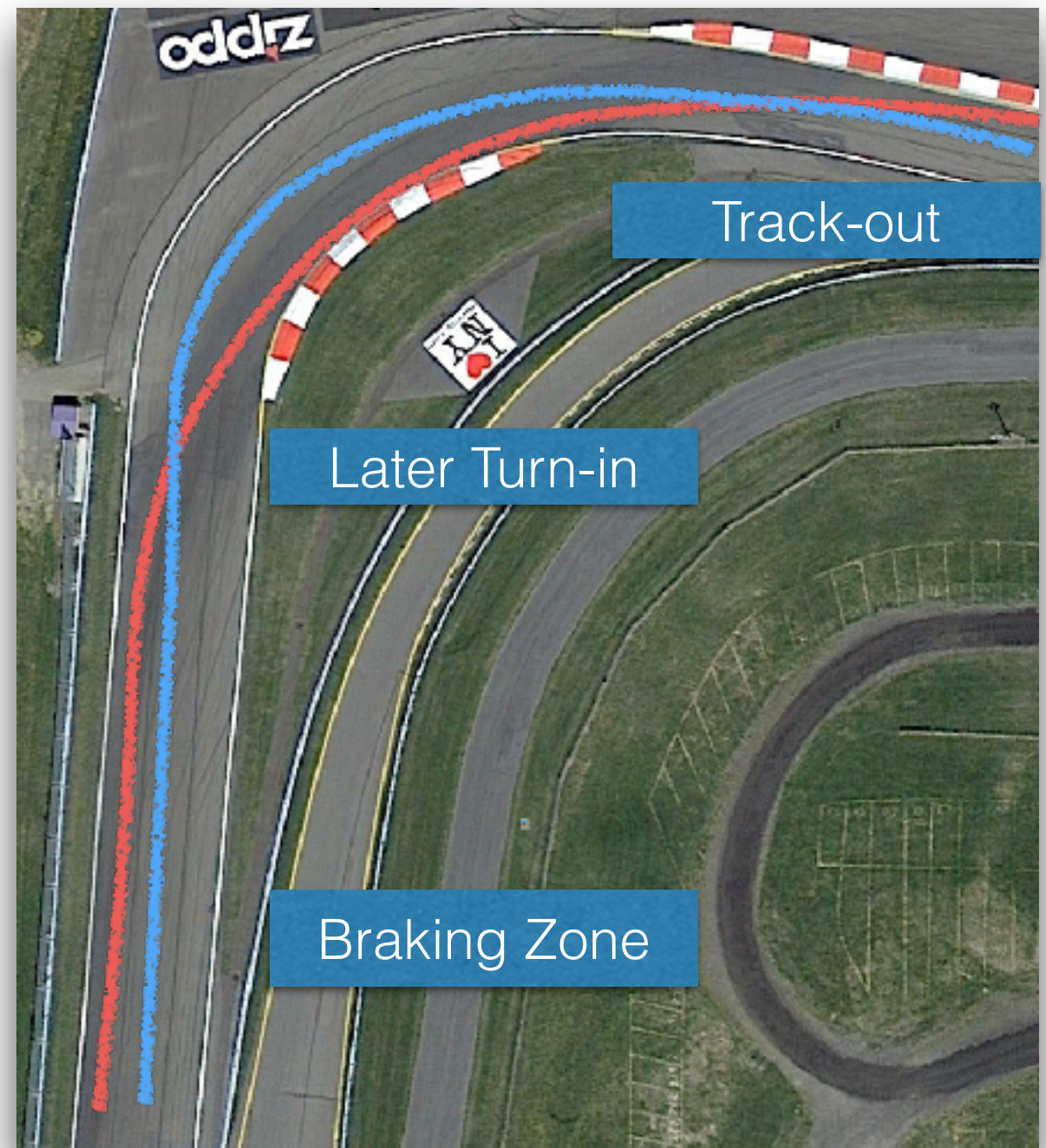
- Test “grip” in braking zones
- “Test” turn in grip on slow corners
- Turn-in “later” in the turn
- Look for grip “Off” the racing “line”
- Accelerate when you can “unwind” the steering wheel



Blue line is a “wet line”

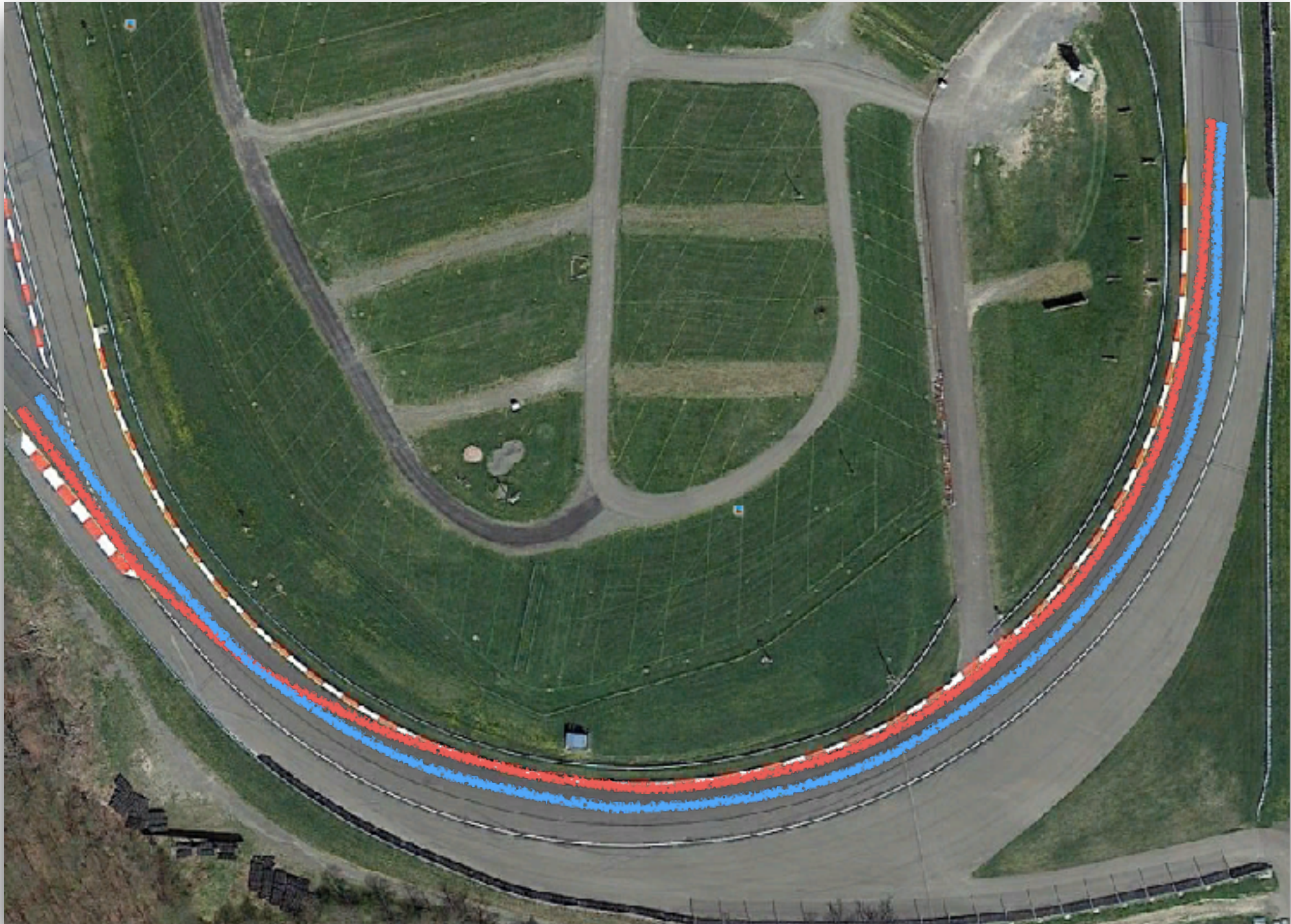
Examples: Watkins Glen

- Braking - Center Right for more “grip”
- Drive across “dry line”
- Square off “turn in”
- Drive to the “outside”-off the polished apex
- Cross the “dry line” then accelerate in a straight line out



Turn 1 Watkins Glen

Carrousel Watkins Glen



Drive off the inside line — and do not fully track out at exit

Advanced Techniques

- Induce oversteer at turn in and maintain the drift through center of the turn to exit - Objective is to manage the slide instead of being surprised by it
- Fish Tailing - let the steering wheel “slip” through your hands until the car tracks straight - then, grip the wheel when car “straightens”.

Video of a driver doing it
right...and wrong

<https://youtu.be/WDgMkvK-IHY>