



Use of Speed and Limit Points





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Speed Kills! Or does it?

I'm going to be controversial here; we've all been told that speed kills but I think that it should be phrased that inappropriate speed kills.

The issue is not about speed itself; it's about the amount of speed you use in your current situation.

If speed itself was a problem, then skydivers would die on the way down. With the exception of a heart attack, the only time a skydiver dies is when he connects with the floor. There is a sudden deceleration from high speed to stationary and it is that sudden slowing that causes death.

It's differences in speed that is the issue, a 1mph collision is a 1mph collision. The same amount of damage will occur when:

- a car travelling at 1mph hits a stationary car or
- a 100mph car drives into the back of a 99mph car.

The bigger the speed difference, the bigger the damage.



The three considerations

When it comes to driving, you have to consider the speed limit, make progress where you can, and drive at an appropriate speed; let's investigate further.

The Speed Limit

The speed limit is the maximum allowed speed on that road at that point; it is not the speed you have to drive at!

The road itself could be 30 miles long with multiple bends and hazards. Some days it's sunny other days it's raining. At various points on that road you might get a very good view ahead or maybe you can only see 10 metres in front of the car.



Let's say the speed limit is 50mph for example.



On a road that is long, straight, good visibility, 2 lanes wide like a dual carriageway, you might feel that 50 is too slow.



Approach a tight corner in the countryside where you can only see 3 car lengths ahead, you would feel that driving at 50mph is too fast.



There's a road near my house where the speed limit is 60mph, but it is a country lane that hasn't even got tarmac. If I go down that road any faster than about 10mph, it knocks my fillings out and I feel like I need to wear a sports bra!

A speed limit is the maximum permissible speed on that road. It doesn't mean you have to drive at that speed but it does state the highest speed allowed at any one time.

So, when it comes to driving on our roads, you must be aware of the speed limit for your current road and make sure that you do not break it. All things being equal, I recommend that you try to drive within 10% of the limit, i.e. between 27mph and 30mph in a 30mph limit.

It is often a good idea to drive slightly under a speed limit so that it doesn't matter if your car picks up a bit of speed going downhill, this is because you still won't have broken the law. Additionally, if you drive at the speed limit, you have to keep checking the speedo to ensure you don't break the law; drive slightly under the limit and you can spend more time looking around – much safer!

Red Circles are giving orders and are mostly prohibitive



You must not exceed 40mph from this sign onwards until advised otherwise. That's an order soldier!!!

Size Matters

A larger sign indicates the start of a speed limit. Smaller repeater signs act as reminders. Repeater signs for a 30mph limit are used only on roads with no street lighting. Repeater signs for the national speed limit are used only on roads with street lighting (other than motorways).

No circle means recommendation of speed



Maximum speed
advised, in miles
per hour, through
road works



Maximum speed
advised, in miles per
hour, on a road that
has loose chippings

You will often see this second road sign when they have been resurfacing. If you don't have a red circle then it isn't a new speed limit – use your judgement on what would be an appropriate speed (subject to the actual speed limit of course).

National speed limit applies



The national speed limit for the type of road and class of traffic applies.

I felt that this needed its own mention as most people driving on our roads misunderstand what it means. Most people think that it's the number of lanes on each road but this is RUBBISH!!!! It's the number of carriageways (i.e. strips of tarmac), not number of lanes.

There are 2 national speed limits and 3 speeds in England.

You have in-town and out-of-town and the distinction is street lighting.

Remember that in areas of street lighting (other than on motorways) a 30mph limit applies **unless** another limit is specifically signed.

Outside of town where there are no street lights, the speed limit varies based on road layout.

IMPORTANT BIT PEOPLE!!!! A dual carriageway is a road which has a central reservation to separate the carriageways.

This means that any road that separates oncoming traffic with just paint is a single carriageway i.e. one road but two way traffic. It can have any number of lanes on it going in either direction but paint won't stop you hitting oncoming traffic therefore you have a reduced speed limit (60mph for a car).

A road that has two physical strips of tarmac (like a grass verge or kerb between roads) is a dual carriageway. It does not matter how many lanes there are on each carriageway. Because of the reduced chance of death, the speed limit can be higher (70mph for cars).

Rule 123

Speed limits

Speed Limits	Built-up areas*	Single carriageways	Dual carriageways	Motorways
Type of vehicle	mph (km/h)	mph (km/h)	mph (km/h)	mph (km/h)
Cars & motorcycles (including car derived vans up to 2 tonnes maximum laden weight)	30 (48)	60 (96)	70 (112)	70 (112)
Cars towing caravans or trailers (including car derived vans and motorcycles)	30 (48)	50 (80)	60 (96)	60 (96)
Buses, coaches and minibuses (not exceeding 12 metres in overall length)	30 (48)	50 (80)	60 (96)	70 (112)
Goods vehicles (not exceeding 7.5 tonnes maximum laden weight)	30 (48)	50 (80)	60 (96)	70† (112)
Goods vehicles (exceeding 7.5 tonnes maximum laden weight) in England and Wales	30 (48)	50 (80)	60 (96)	60 (96)
Goods vehicles (exceeding 7.5 tonnes maximum laden weight) in Scotland	30 (48)	40 (64)	50 (80)	60 (96)

*The 30 mph limit usually applies to all traffic on all roads with street lighting unless signs show otherwise.

†60 mph (96 km/h) if articulated or towing a trailer.

Now we all know that the public at large are generally stupid. If we put the national speed limit sign up in the town centre, everyone would drive around at 60mph. We therefore use the 30mph sign to remind people of the limit but because it's the default speed limit in town, they don't repeat the sign unless you leave a different speed limit or there are no street lights.

ASSUME : IN TOWN

30

OUT OF TOWN

60 if sharing the road with oncoming traffic

70 if separated from oncoming traffic

Single Carriageway examples = 60mph for cars

One strip of tarmac, only paint separating oncoming traffic.

Doesn't matter how many lanes there are in each direction, it's the number of roads.



Dual Carriageway examples = 70mph for cars

Two strips of tarmac separated by a central island.

Doesn't matter how many lanes there are in each direction, it's the number of roads.



Zones

I'll just point out another thing regarding speed limits and that is 'zones':



There are quite a few Zones near test centres and these behave like national speeds in that they don't appear to repeat speed limit signs. They do often draw the speed limit on the road to remind you so keep an eye out for those.

You should assume that once you're in a zone, that speed limit applies until you see another sign, but it won't always be repeated.

Make progress where you can

On the driving test, among other things, you are marked on your consideration for other people.

If you think about your experience of being in a car, we generally consider bad drivers to be those people who affect others. The driving test is no different, and if you drive in a manner that affects people when you don't have to, you will be marked down.

You could be on a road with good visibility that is flowing at 30mph but if you were driving at 15mph just because you thought that 'speed kills', then you would be holding people up and being a rolling road block.

You often hear people complain about 'learners', 'old people', 'Sunday drivers'.

Learning to drive is scary and initially, most learners are frightened to drive at any sort of speed, they tend to drive at 20 mph or take ages to get up to speed.

Old people tend to drive slower to compensate for their poor vision and slower reaction times.

Sunday drivers are people who are just going for a drive into the countryside; they haven't got anywhere to be particularly so they're not in a rush. They drive slower so they can look at the scenery.

All of these people are doing their own thing and are not considering the people behind them. Imagine you're in a shop and there's someone blocking the aisle or dawdling around in front of you when all you want to do is get to the deli counter. You're trying to get somewhere and this person is affecting your ability to get there, it's frustrating.

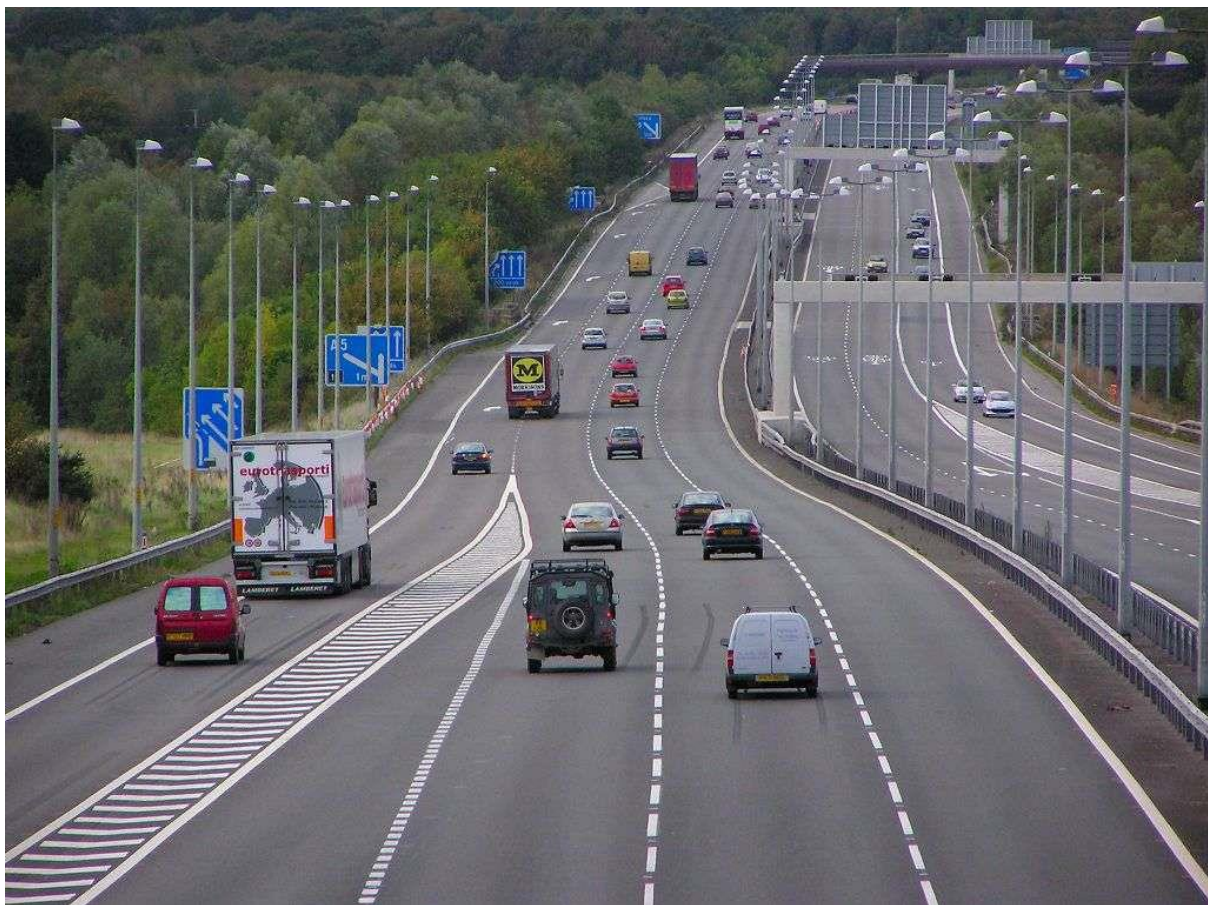
In a car, people tend to get frustrated and angry quickly. People will be happy when you make safe progress; this cuts down on road rage and makes for an easier, less stressful drive for yourself.

Appropriate speed

Don't just drive a car, you want to drive at a speed that matches or is appropriate for the surrounding environment.

If I entered a motorway for example, traffic could be coming up behind me doing 70 or 80mph. If I enter the motorway at 30mph then there is a 40 or 50mph difference in speeds and it's just a matter of time before someone crashes into me.

If I enter a motorway at the same speed as the cars behind me, they physically cannot catch me and therefore cannot hit me. In this instance, it is far safer to enter a motorway at the speed of the traffic on the motorway (subject to speed limit).



Driving passed a school on a Sunday at 30mph might be fine as no one is a round. Driving at 10mph would be too slow if you were holding up traffic for no reason.

Same school but this time it's during the week and everyone is being dropped at school. 10mph might be better because of the abundance of children and parents, 30mph would be too fast and potentially dangerous.

Is it foggy? Raining? Snow falling? You could still fail your test for driving inappropriately. You could be under the speed limit but still too fast or slow for your situation and still fail the test.



What we're looking for is someone who makes progress where they can but at an appropriate speed whilst paying attention to the speed limits, conditions and risk levels.

There is a road that goes around Farnborough airfield which is a 60mph road. In the summertime, there are sections of that road where we would expect you to be near 60mph. Same bit of road, but this time in torrential rain, 40mph may be better. 40mph on a summers day with cars behind you would be too slow.

Examiners thoughts

Please be aware:

Examiners are assessing your drive from two angles,

- generally speaking and
- here and now

Examiners are observers and will not ask you why you are doing something. They will look at your situation and assess whether or not your actions are prudent.

Obviously, if your current situation needs a certain speed (like 10mph near a busy school) then you should do it.

A problem often arises on faster flowing roads. The speed limit you're in could be 60mph, but you decide that you would rather drive at 40mph. There is no one behind you and you aren't affecting anyone.

Generally, if you were to ask someone whether or not it is safe to drive 20mph under a limit, most people would agree that it is potentially dangerous. An examiner looks at this and says, 'this person drives at 40mph in a 60mph road, it's just a matter of time before we get hit – fail'.

However, if you were to tell the examiner 'I know it's a 60mph, but I'm not holding anyone up and I'd rather drive at 40', the examiner will be happy with this because you have demonstrated that you are considering how your actions affect others.

If a car were to turn up behind you though, do increase your speed where you can to reduce how you affect them.



Limit Points – Oncoming traffic passing

A limit point is the furthest point that you can see around a corner, the limit of your vision.



In this picture the limit of vision is here.

YOU MUST BE ABLE TO STOP WITHIN THE DISTANCE YOU CAN SEE TO BE CLEAR!

So, if you can see 10 metres ahead, you must be driving at a speed that means you can stop within 10 metres.

You can stop in 5 metres or 8; I don't care. As long as you don't need more than 10 metres to stop, you are at the correct speed.

The countryside normally uses the national speed limit, that means that you can't go faster than 60mph at any point in a single carriageway. The road will undulate and turn and as long as you can stop within the distance you can see to be clear, you should be fine.

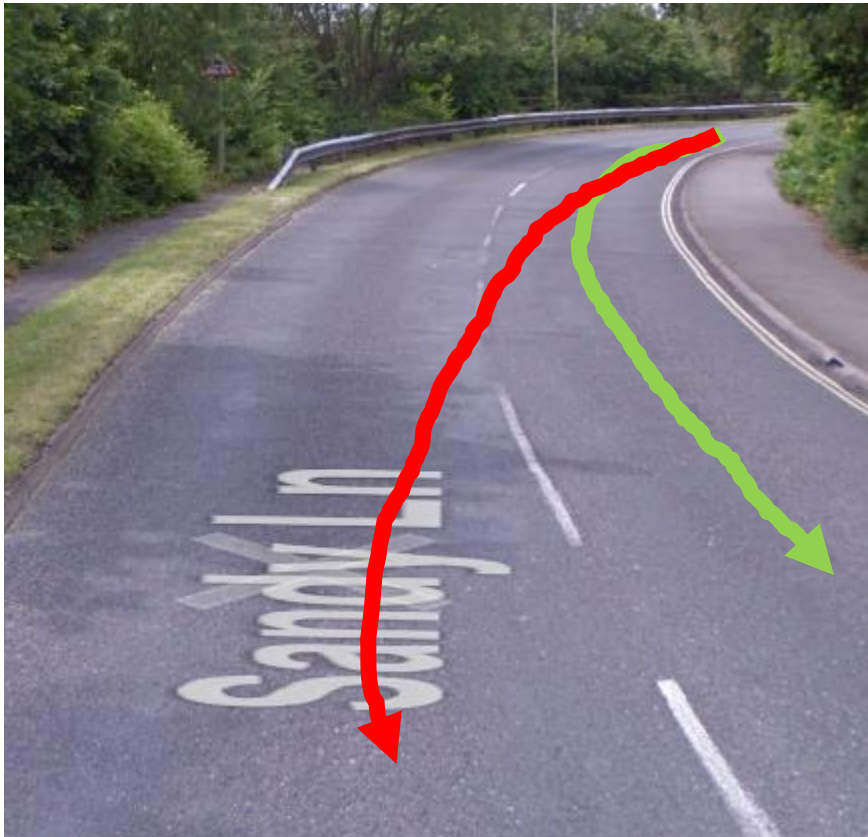
You always have to assume that there is something in the road just around the corner. In the picture above, there could be a tree lying in the road just out of sight, or a motorbike lying in the middle of the road, or a horse being ridden somewhere.

The point is that I don't know what is around the corner. Yes, I know the layout of the road but I don't know what's on the road.

Familiarity kills

Most accidents happen within 5 miles of your home and the reason for this is because people know the immediately surrounding roads. People get used to the fact that historically there hasn't been anything around a corner and so they assume that there will be nothing around the corner today. Then one day, they come around a corner and find a removals van in their estate entrance.

More commonly, people drive a certain route to and from work. They 'know the roads' as they've been driving on them almost every day for the last 5 years. Today though, a lorry has spilled diesel all over the road and it's like an ice rink.



Suddenly, the corner they normally take at 50 should be taken at 30 and they slide wide. The reason they normally take it at 50 is because they're pushing the limit of adhesion and relying on the tyres to stick them to the road; those tyres only have a fraction of the grip today.

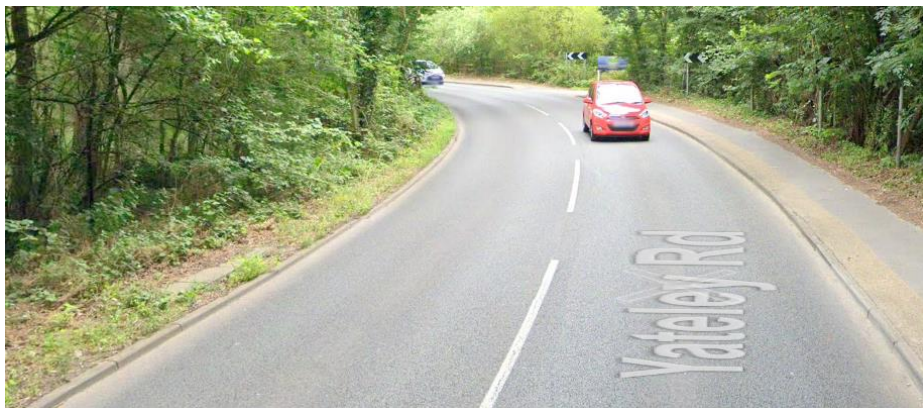
What if the council decides to dig up the road and put temporary traffic lights in?



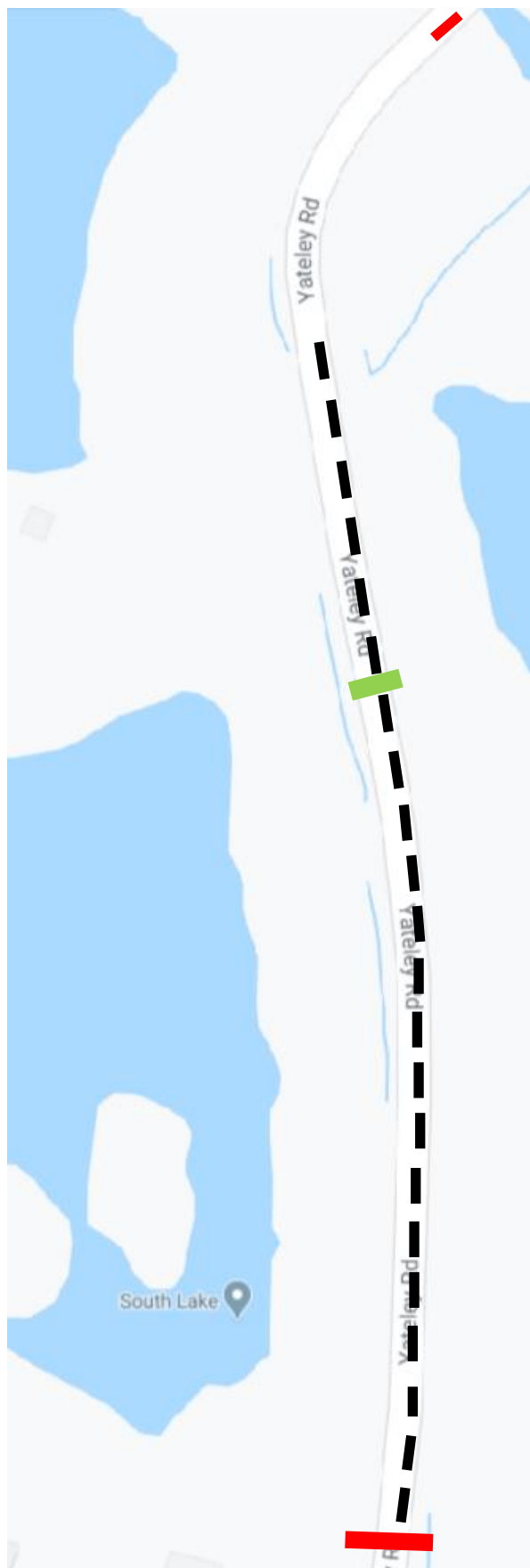
This corner doesn't look particularly tight.

It's a 60 limit.

Why not go round the corner at 60?



Because this is what you see as you approach the corner, trees.



Yes, roadworks have warning signs, but what if the queue of traffic starts before the warning signs but just after the corner?

The large red line is roadworks.

The green line is the start of warning signage.

The black lines are cars in a queue.

You are the red line at the top.

If you drive at 50mph, you need 53 metres to stop in an emergency. That's on a good road with good tyres and an alert driver. The queue of cars is 30 metres ahead though and you can't see them because of the corner.

You've driven this road for years and 50mph has been fine, yes, you've been driving too fast but there's nothing ever around the corner.

Yeah, right!

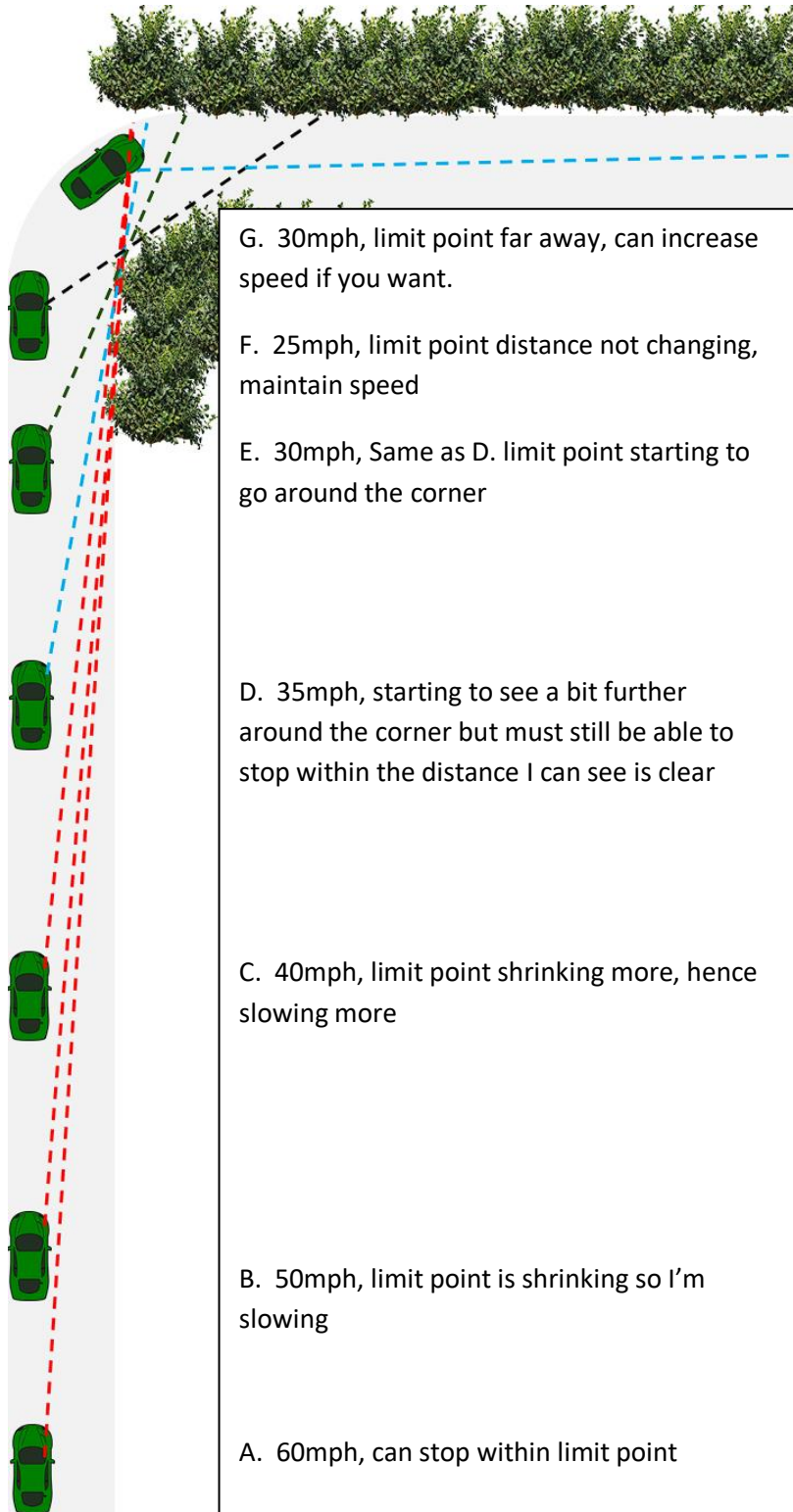
Night time is a classic time for teenagers to die on the roads, especially boys, usually showing off or their perception of skill exceeds their actual talent.

They work on the principle that they would see headlights of cars coming. They fly down a road like it's a rally route (I certainly did when I was 17 and stupid).

Then one night some deer are standing in the middle of the road. You brake, swerve and end up hitting a tree or rolling the car in a field.

I managed to swerve, missed the baby deer, and narrowly missed smacking into a parked car at high speed. Scared the life out of me I can tell you. I drove home much more sensibly after that. The folly of youth!

I've never seen a deer with headlights and a high viz jacket. Generally, they're brown, hard to see and **kill you** when they come smashing through your windscreen at head height.



G. 30mph, limit point far away, can increase speed if you want.

F. 25mph, limit point distance not changing, maintain speed

E. 30mph, Same as D. limit point starting to go around the corner

D. 35mph, starting to see a bit further around the corner but must still be able to stop within the distance I can see is clear

C. 40mph, limit point shrinking more, hence slowing more

B. 50mph, limit point is shrinking so I'm slowing

A. 60mph, can stop within limit point

You must be able to stop within the distance you can see to be clear!

A, B and C can see to pretty much the same point, therefore the nearer we are to that point, the slower we need to go.

At D, the distance I can see is still shrinking so we are slowing, but we are starting to see a little bit around the corner.

At E, the distance to the limit point is still shrinking, hence slowing more, but I am seeing further around the corner.

At F, yes I can see further around the corner, but the distance I can see ahead is pretty constant so I maintain speed.

At G, I can see a long way ahead so I can pick up speed! Hurrah!!

This is how you should behave when oncoming traffic is using a different bit of road to you, but what about situations where we are using the same bit of road?

Limit points – Oncoming traffic sharing the same bit of road

Most existing drivers will remember the phrase 'be able to stop within the distance you can see to be clear'. It was drummed into them when they learnt to drive.

However, hardly anyone remembers 'be able to stop with half the distance you can see to be clear' and I think it's because I may have made it up, but stay with me on this....

Let's pretend that, at its current speed, a car needs 40 metres to stop in.



Coming the other way is another car who also needs 40 metres to stop in.



If they are driving directly at each other, they will need to brake at least 80 metres apart to avoid a collision.



We can therefore safely say that when you are driving directly at an oncoming vehicle such as a country lane, you must be able to stop within half the distance you can see to be clear.

The problem is that most people don't know this phrase so they drive needing the whole distance. Thankfully, because of physics, we can do something about this.

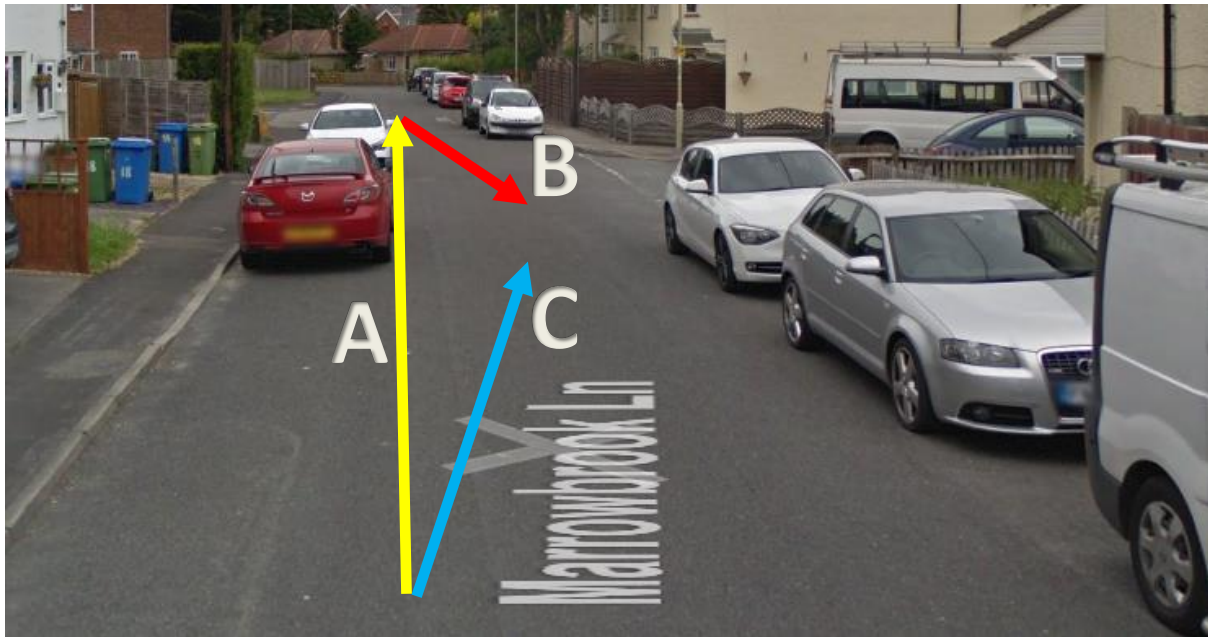
If you drive being able to stop within a third or quarter of the distance you can see, if you're quick, you are able to stop and reverse back to the point you originally saw the oncoming car. So whilst they are sliding down the road towards you, you can reverse back and save the day – LIKE A DRIVING GOD!!



I spend a fair bit of time driving on country lanes and I have met many people driving too fast at me. There have been many instances where I have avoided an accident by reversing out of harms way. I am saying this from experience, not just theory. You have to be quick getting into gear mind you, but it works and that's the important thing.

But that's the countryside, you don't go there very often. There's a far more common situation where the same danger exists, passing parked cars.

Take this as an example.



This picture is from Google Maps and the camera is on top of their car, the camera is therefore much higher than the eyesight of the driver.

From a usual driving height, you might not be able to see around the red and white car ahead (A). You must therefore assume that there is a car, just out of sight, driving directly at you (B). You must be able to stop within a maximum of half the distance you can see (C).

Approaching a corner, it can look fine but then just around the corner, you might have to immediately reduce your speed.



This is fine, stop within the distance you can see to be clear.



As we go around the corner, there are cars on both sides of the road (A).

We will have to move to the middle, but it is easy to anticipate that there could be someone already in the middle of the road driving directly at us. We need to be able to stop short (B).

Summary

We are always anticipating where people are and how our actions are affecting others. We drive being considerate and always with a backup plan, not because we are second class citizens who have to give way to others, but because it makes our lives easier.