

## Forest Roads - Information for the Merchant / Haulier

1. The forest road environment is generally very different to that of the public road, and considerable care should be exercised. Speed of travel should be kept low and commensurate with the prevailing conditions. Forest roads are, in the main, water bound macadam, and as such, the conditions of the road are not 'steady state'. Such roads are considerably more susceptible to the vagaries of weather, and the effects of use and abuse than the more usual blacktopped road. Potholes, ruts and other surface irregularities as well as the encroachment of vegetation are all common and normal consequences of the use of water bound roads. However, significant deterioration should be brought to the attention of the appropriate Natural Resources Body for Wales (Natural Resources Wales) manager before severe damage occurs. There is also the possibility of deterioration due to activity at other work sites. Where this occurs, and causes an impediment, it should also be brought to the attention of the appropriate Natural Resources Wales (NRW) manager.

2. The forest road network is essentially based on classification in terms of purpose. It is not reasonable for Natural Resources Wales to construct or upgrade all forest roads to a standard specification. The road(s) for use in this Contract are shown on the attached map(s). Where it is known that a hazard or limiting feature exists, that has also been shown on the map(s).

3. All reasonably practicable measures have been taken to note hazards / limiting features of the road(s) for use in this Contract. However, Natural Resources Wales cannot guarantee to have discovered all such hazards / limiting features and it is incumbent upon the haulier / merchant to carry out a risk assessment for their actual operation to ensure that the vehicles proposed are suitable for the conditions pertaining at the time. Such risk assessment would also have to take into account other road users and any changes which may occur over the period of the contract (e.g. damage to road, weather conditions, position of log stacks etc.).

4. The features and / or geometrical standards which have been considered when preparing the maps of hazards or limiting features (including any tolerances) are as follows (i.e. only sections outwith the tolerances will be noted):

<b>Feature</b>	<b>Comment</b>
Width	3.2m is the normal minimum width. The current construction width is 3.4m with a tolerance of -200mm. However, some older roads have pinch points where the width is less than that. Where this has presented no known problems, short lengths of down to 3.0m will be seen as acceptable. (See also under bends.)
Gradient	1 in 10 (i.e. 10%) is the normal maximum measured between tangent points. However, sections of up to 200m of as steep as 1 in 8 (i.e. 12 1/2%) will be seen as acceptable, provided that this can be accommodated safely within the prevailing geometry.
Bends	The minimum radius measured to the outside of the bend will be 15m. 3.2m is the normal minimum width (but see under Width above) increasing as required depending on the radius defined above. Short lengths having a width 200mm less than the normal minimum for the radius will be seen as acceptable.
Camber / Crossfall	The purpose of camber / crossfall is to facilitate movement of water across the surface of the road to the drain. It should normally be of the order of 75mm over a half width (i.e. 1.6m) of the road. It is not a defining feature of specification, and will rarely in itself represent a limiting feature. However, where adverse camber is noted, it will be included as a hazard / limiting feature.
Felled width	The purpose of felled width is to open up the road to sun and wind and to keep it free from dripping water. As such, it is not a defining feature of specification. At construction stage, it is usual to incorporate a felled width of 15-25 m. With passage of time, this will tend to diminish due to regeneration. Where it is noted that felled width has reduced to the extent that the drains cannot be maintained (thus threatening the strength of the road), or branches have reached the plane defining the edge of the running surface (thus representing an obstruction to the driver), the merchant / haulier will be informed.
Vegetation	Where growth on the running surface cannot be removed for the contract.
Surface	Where significant potholing or other damage cannot be repaired for the contract.
Bridges	Where a structure has a weight restriction