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Nether Poppleton (Automatic Half Barrier) review of risk at crossing for proposed modelled increase in vehicular traffic Millfield Lane

Level Crossing Risk Options

Table below is the output of the risk scores from ALCRM (All Level Crossing Risk Model) for the proposed increases in traffic from the data provided by York City Council. Highest risk crossings scored A1 and lowest risk crossing is scored M13.

ALCRM provides an estimate of both the individual and collective risks at a level crossing.

The individual and collective risk is expressed in Fatalities and Weighted Injuries (FWI). The following values help to explain this:

- **1** = 1 fatality per year or 10 major injuries or 200 minor RIDDOR events or 1000 minor non-RIDDOR events
- **0.1** = 20 minor RIDDOR events or 100 minor non-RIDDOR events
- **0.005** = 5 minor non-RIDDOR events

Option	Risk Score	FWI	FWI Increase	FWI % Increase	Rank on route
Current	E2	0.019413	-	-	23
1000+ Cars	E2	0.020175	0.000762	4%	22
5000+ Cars	F2	0.022765	0.002591	17%	18

It needs to be noted that the output from ALCRM is one of the tools available to Network Rail in quantifying the risks at the level crossing. These outputs need to be considered in conjunction with the narrative risk assessment which summaries the risks and hazards for the site which is compiled from ALCRM outputs and incorporating expert judgement.

Overview of the risks

- The current Automatic Half Barrier (AHB) crossing is ranked at number 23 out of 2139 safety risk crossings across the London North East & East Midlands Route.
- The key risk drivers for this crossing are the high number of users including usage by children from the school and cyclists, sun glare is a concern on the approaches.
- The road width also narrows over the crossing including the pathway which cannot accommodate the cycle path as a result the crossing area becomes crowded in the school and am/pm peak periods with school children, cyclists, road vehicles which in itself carries a risk of pedestrian/cycle/vehicle RTA collision, any increase on this would make this an unacceptable risk of an RTA collision with the crossing becoming blocked causing additional risk of train collision.

- The proposed significant increase in traffic could lead to issues of blocking back by vehicles over the level crossing, for an AHB asset this is a significant concern and again supports that the crossing would need to be upgraded to a full barrier asset if this increase in road traffic was approved.
- Observations from other sites on driver behaviour show that any engineering methods to slow things down on Millfield Lane will not be sufficient to discourage the main flow of vehicles to take the new route as it would still be favourable than meeting the congestion at the A59 roundabout junction.
- Currently the crossing sees 2489 vehicle movements per day and as detailed in the current risk assessment the risk of blocking back is currently low but it does happen occasionally in the AM/PM peak if the A1237 is experiencing exceptional congestion. It is this reason that Millfield Lane is not accessible to through traffic that we have low risk of blocking back.
- Blocking back aside it is the risk of deliberate misuse that will also significantly increase too and the risk of vehicle/cycle/pedestrian collisions on the crossing that also worries me from the increased traffic.

- Modelling of the traffic flow and queuing from the Great North Way roundabout is also essential as it does have a direct impact upon the crossing and is required for a more accurate traffic assessment.

Conclusion

We consider that the proposal to increase the traffic over the crossing by the local highway authority will significantly increase the public risk at the level crossing. We do not support the implementation of the trial of the temporarily removal of the bollards to allow through traffic due to the risks outlined above.