Appeal by Ministry of Justice Land adjacent to HMP Garth and HMP Wymott, Leyland Appeal Ref: APP/D2320/W/22/3295556

Rebuttal of Proof of Evidence

on behalf of Chorley Council

Contents

1 INTRODUCTION

1.1 BACKGROUND

1.1.1 This rebuttal relates to issues raised in the Proof of Evidence of Mr Stephen Yeates (on behalf of the Ministry of Justice), in relation to the appeal associated with planning application 21/01028/OUTMAJ, for a new prison adjacent to HMP Wymott and HMP Garth.

1.1.2 The site is located off Moss Lane, Ulnes Walton, Leyland. It is a Hybrid application, with outline planning permission being sought for a new prison (with all matters reserved except for means of access, parking and landscaping), outline planning permission being sought for a new boiler house (with all matters reserved except for access), and full planning permission being sought for a replacement bowling green and club house.

1.1.3 This rebuttal is focussed on matters where I consider rebuttal evidence necessary to assist the Inquiry. This equates to the Addendum Proof of Evidence (CD M10 and CD M10a) submitted by Mr Yeates putting forward a further alternative scheme for the A581/Ulnes Walton Lane junction. However, it does not mean that I accept the other evidence submitted by Mr Yeates, that I do not comment on here.

2 A581 ROUNDABOUT – ALTERNATIVE SCHEME

2.1.1 Since the original evidence was submitted, the Appellant has developed an alternative junction scheme for the A581/Ulnes Walton Lane junction (CD M10a – Appendix A. DWG: GARTH_ATK_HGN_A581_DR_D_0016_P6, pdf page 4).

2.1.2 It is understood that this has been made possible through the agreement for the Ministry of Justice to secure 3rd party land outside of the highway boundary (comprising 352 m^2 east and 574m^2 west of Ulnes Walton Lane).

2.2 Visibility

2.2.1 It is noted that the additional land enables an increase in the measured visibility compared to the previous design as effectively it is proposed to alter the fenceline and remove hedgerows.

2.2.2 However, given that the existing hedgerows along the A581 and Ulnes Walton Lane are not regularly maintained (as I highlighted in my Proof), regardless of whether the fence line is set back to achieve visibility on a plan, I question whether in reality visibility will be maintained. There is no detail on whether the land will be under the ownership of the Ministry of Justice, the Highway Authority or a third party, and therefore it is unclear who will be responsible for the maintenance.

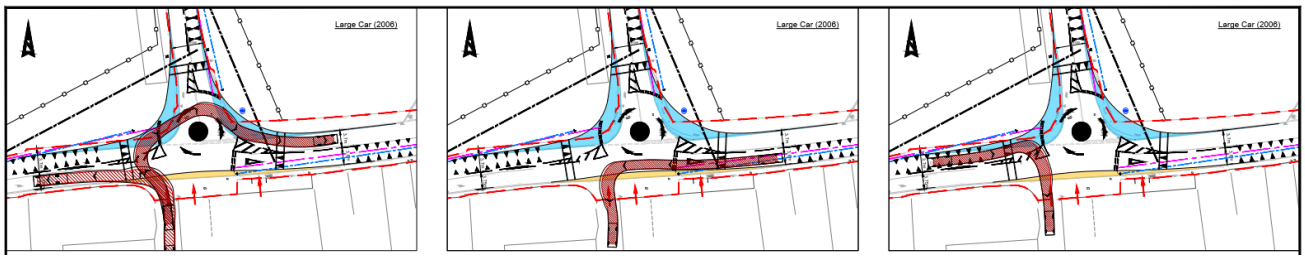
2.3 Stopping Sight Distance (SSD)

2.3.1 Upon review of the design (CD M10a – Appendix A. DWG: GARTH_ATK_HGN_A581_DR_D_0016_P6, pdf page 4), it is noted that since the previous mini-roundabout scheme, the visibility calculations have been updated based on 85th percentile speeds of 33.4 mph (on the Ulnes Walton Lane approach) and 28.2 mph (on the A581), however, I am unclear as to why the stopping sight distance (SSD) calculations have not been updated and have been based on 30 mph.

2.3.2 Whilst assuming a speed of 30 mph is more robust on the approach with a 28.2 mph recorded 85th percentile speed, on the approach with the 33.4 mph recorded 85th percentile speed, the required SSD would be greater than 70 m and there is no evidence that can be achieved.

2.4 Private Driveways

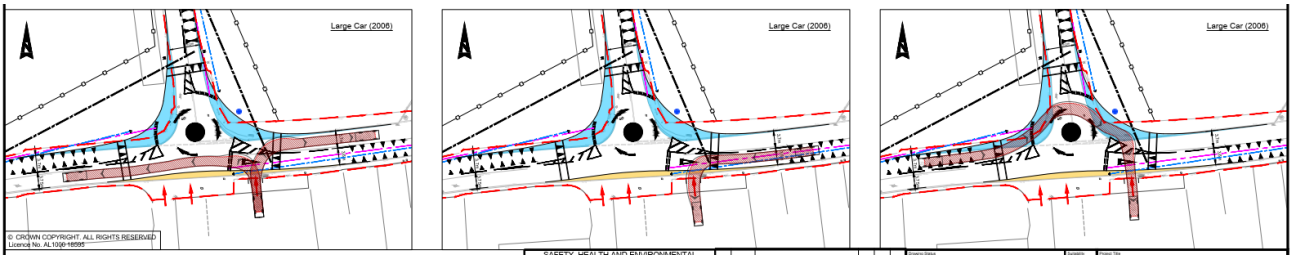
2.4.1 The proposed roundabout scheme does not address the issues I noted in my Proof regarding the presence of three private driveways on the southern side of the A581. The manoeuvres to and from these driveways are still unsafe and are a fundamental issue with delivering a mini-roundabout scheme at this junction. I refer to the swept path analysis in Appendix G DWG: GARTH_ATK_SPA_A581_DR_D_0016_P5 A (CD M10a – pdf page 18), a screenshot of which I have included below:



2.4.2 As shown in the left-hand image, a right-turning car would need to position itself at 90 degrees to the flow of the traffic to enter the roundabout before the giveway entry to the roundabout. A vehicle waiting in this position is both unsafe and will have an impact on the capacity of the junction as it will block the flow of vehicles exiting the roundabout to travel west on the A581. The alternative is for a vehicle to cut through the roundabout itself, which is also unsafe.

2.4.3 Similarly, the right-hand image shows a right-turn being made into the driveway before the roundabout across the hatched markings, which could cause confusion given the close proximity to the give-way, with drivers on Ulnes Walton Lane or the A581 east potentially expecting to give-way to a driver using the roundabout rather than accessing their driveway. These interactions within the junction could lead to accidents.

2.4.4 This also applies to the other drive-way to the far right:



2.4.5 The left-hand image shows a right-turning vehicle cutting across the entry and exit of the junction to turn right. This manoeuvre is unlikely to be expected by other vehicles using the roundabout and could lead to accidents.

2.4.6 It is also worth noting that these swept paths are only based on a large car and occasionally this could be larger delivery vehicles for which the turning circle is much larger and the issues more pronounced.

2.4.7 I acknowledge that the Appellant has provided additional analysis of other junctions across Lancashire in Mr Yeates' original Proof of Evidence (CD M7 – Appendix C – pdf page 223-245), however none of the roundabouts replicate the design at this junction. Whilst they may have a single driveway or infrequent access onto a mini roundabout, that is not the same as having three accesses in addition to a three-arm junction (effectively acting as a 6-arm mini-roundabout).

Southern Kerb Design

2.4.8 There has also been no consideration for how, in practice, a continuous kerb build-out can be used to provide deflection and prevent vehicles travelling straight through the roundabout and to prevent vehicles overrunning the footway, whilst simultaneously providing dropped kerbs for access to the three properties along this kerbline.

2.4.9 The lack of kerb definition could lead to overrunning of private driveway/footway was noted in the original RSA undertaken by Hydrock (CD M3a – Appendix C – pdf page 18 – problem 2.4). Notably, we do not have an updated RSA undertaken by Hydrock but given there has been no change to the kerb on the southern side of the roundabout in the alternative scheme, we can assume this issue remains.

2.4.10 The RSA recommended "*an appropriate kerb upstand is provided, and other measures introduced to ensure the kerb is conspicuous to road users entering the roundabout*."

2.4.11 In addition, the RSA states:

"*Under the proposals the roundabout will be raised there are private driveways incorporating dropped kerbs on the south side of the junction and it is unclear how these could tie in with a raised surface. If the carriageway is at the same level, there is a risk that drivers may inadvertently overrun the footway or driveway*."

2.4.12 This has not been considered in the original mini roundabout design not the updated design that has been submitted by the Appellant.

2.4.13 Providing a raised table at the junction itself will increase the ground height above the existing level, and it is unclear how an upstand be provided to enable drainage if there are also dropped kerbs required for driveway access. As noted on the drawing (CD M10a – Appendix A. DWG: GARTH_ATK_HGN_A581_DR_D_0016_P6, pdf page 4) "*extents are indicative only…drainage requirements including additional or relocated road gullies to be confirmed at detail design stage*."

2.4.14 As I stated previously, it is simply not possible to provide a continuous upstand within the current highway extents because access needs to be maintained for the three driveway entrances, which require a flush surface to access their properties either requiring dropped kerbs if the road remains at the same level, or at the same height as the raised table that is being proposed at the mini roundabout. This will not resolve the issue of vehicles potentially driving on the footway.

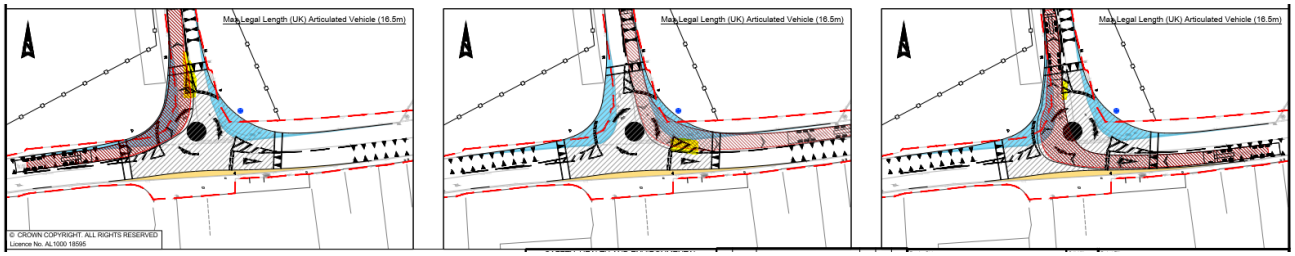
2.5 Vehicle Swept Path Analysis

2.5.1 Whilst the Appellant has provided updated swept path analysis at Appendix F, G, H and I (pdf page 15 onwards), it clearly shows that some vehicles will overrun the centre of the junction, resulting in potential conflicts. Furthermore, if vehicles need to slow to make these turns, this will also interrupt the flow of traffic that hasn't been considered in the capacity modelling of the junction.

2.5.2 Notably, the enlarged junction does not resolve the issues that I identified in my proof and there are still vehicles that will overrun onto the opposite side of the carriageway – resulting in potential conflicts with oncoming traffic.

2.5.3 This was highlighted in the updated RSA undertaken by VIA provided in Appendix M (CD M10a – pdf page 74 onwards), which recommends that "*splitter islands are incorporated into the design within the proposed hatched areas*" (pdf page 81).

2.5.4 This has not been incorporated into the alternative design, therefore the potential for conflict remains. This is presumably because the private driveway swept path analysis illustrates vehicles overrunning the hatched areas to make turning movements (as I set out in the previous section), as well as larger vehicles exiting the roundabout also overrunning the hatched areas (as I have highlighted in yellow on the screenshots below taken from Appendix F DWG: GARTH_ATK_SPA_a581_DR_D_0016_P5 – pdf page 16):



2.5.5 As the swept path analysis shows, if physical measures were implemented in the original or updated roundabout design, it is likely that a vehicle would come into contact with them.

2.5.6 These issues would only be resolved by further increasing the size of the junction to facilitate safe exit manoeuvres through the junction for all vehicles which has not been done (and would lead to further land ownership issues).

2.6 Traffic calming

2.6.1 Upon review of the design (CD M10a – Appendix A. DWG: GARTH_ATK_HGN_A581_DR_D_0016_P6, pdf page 4), it is evident that the Appellant has also removed two sets of speed cushions on the approach to the mini roundabout, including those that were located at the Barlow Moor Trailers access on the previous design iteration. I consider this acknowledgement of the comments in my Proof (CD N3 – paragraph 5.3.5) that their previous location was not appropriate.

2.6.2 However, I am unclear as to how a reduction in speeds will be encouraged with effectively one less set of deterrents in this alternative scheme design.

2.6.3 The mini-roundabout is also on a raised table, and as set out in my Proof, the Hydrock RSA (CD M3a – Appendix C – pdf page 18) highlighted issues with this:

Long vehicles could become unbalanced when turning left from Ulnes Walton Road (2.3)

2.6.4 The RSA recommended "*an appropriate ramp profile is chosen, and the ramp set back far enough from the roundabout to fully accommodate a large vehicle*."

2.6.5 This still has not been taken into account.

2.7 Exposure to risk for non-motorised users

2.7.1 The new roundabout scheme still does not provide improved safety for existing non-motorised users of the junction including pedestrians, cyclists or equestrians, despite acquiring additional land that could improve footway provision or crossing facilities.

2.8 Capacity Analysis

2.8.1 The Appellant has presented updated results of the capacity assessment based on the new design.

2.8.2 I note there are still warnings in the software highlighting that the flows are unbalanced and therefore the junction may actually behave like a priority junction. The new junction design does not resolve this issue and unbalanced flows at the roundabout could lead to unsafe behaviour, with the main A581 approaches continuing to operate as they do in the existing situation (i.e. with priority over Ulnes Walton Lane traffic), which would be unsafe.

2.8.3 In terms of the capacity assessments, the Appellant has provided updated results for the 2025 and 2026 opening years for the operational assessment, and 2027 for the construction scenarios. The discrepancy between the years is still unclear, and it seems counterintuitive that there is an opening year assessment of 2025 or 2026, but a later year for construction of 2027.

Opening Year 2025 Results

2.8.4 For ease I have provided the relevant tables below (Table 5-1 taken from CD M3 – pdf page 20, and Table 2-1 taken from CD M10 – pdf page 12):

Table 5-1 - Model Outputs – A581/Ulnes Walton Road Junction – Mini Roundabout

Approach Arm	AM Peak (07:00-08:00)			PM Peak (17:00-18:00)		
	Queue (PCU)	Delay (S)	RFC	Queue (PCU)	Delay (S)	RFC
2025 Opening Year with Development						
A581 Southport Road (W)	6.1	39.56	0.87	1.1	8.80	0.51
Ulnes Walton Lane	0.3	8.08	0.21	2.2	18.59	0.69
A581 Southport Road (E)	3.8	17.87	0.79	2.7	14.52	0.73
2026 with Development						
A581 Southport Road (W)	6.6	42.38	0.88	1.1	8.88	0.52
Ulnes Walton Lane	0.3	8.14	0.21	2.3	18.99	0.70
A581 Southport Road (E)	3.9	18.34	0.80	2.7	14.88	0.73

Table 2-1 - Model Outputs – A581/Ulnes Walton Road Junction – Alternative Mini Roundabout

Approach Arm	AM Peak (07:00-08:00)			PM Peak (17:00-18:00)		
	Queue (PCU)	Delay (S)	RFC	Queue (PCU)	Delay (S)	RFC
2025 Opening Year with Development						
A581 Southport Road (W)	6.0	39.03	0.87	1.1	8.63	0.51
Ulnes Walton Lane	0.3	8.17	0.21	2.3	18.99	0.70
A581 Southport Road (E)	4.6	22.05	0.83	3.2	17.30	0.76
2026 with Development						
A581 Southport Road (W)	6.5	41.80	0.88	1.1	8.71	0.51
Ulnes Walton Lane	0.3	8.23	0.21	2.3	19.42	0.70
A581 Southport Road (E)	4.8	22.75	0.83	3.3	17.81	0.77

2.8.5 As set out in my Proof, I will consider the 2025 assessments in this section. The existing T-junction operates over capacity and the proposed mini-roundabouts both reduce the RFC to below the 2025 without development scenario.

2.8.6 In the AM peak, the maximum RFC for the junction has reduced from 1.1 (at the priority junction with development) to 0.87 (which is below the 2025 without development scenario), which would appear to mitigate for the increases in traffic.

2.8.7 In the alternative junction layout, the maximum RFC in the AM peak is also 0.87.

2.8.8 As set out in my Proof, by changing the priority at the junction, the queuing and delay has been redistributed across the junction and the impact with the mini roundabout is on the A581 west (rather than the A581 east). However, the alternative junction design has a higher RFC on the A581 east compared to the original mini-roundabout layout, increasing from 0.79 to 0.83 and closer to the 0.85 capacity threshold.

2.8.9 In the PM peak the opening year with development is within capacity in both the previous mini-roundabout layout and the alternative design, however the maximum RFC has increased from 0.73 for A581 east to 0.76.

2.8.10 Whilst the results appear to demonstrate that both options for the proposed mini roundabout will mitigate the operational traffic impacts, the AM peak is still above the RFC threshold of 0.85. Above the 0.85 threshold, the junction will become sensitive to changes in flows and given my concerns regarding the safe operation of the junction, specifically because of larger vehicles turning who would interrupt the standard operation of the roundabout and affect who is giving way to who, it is still possible that the Junctions 10 capacity analysis could be over-estimating the capacity of the proposed junction.

Construction Year 2027 Results

2.8.11 For ease I have provided the relevant tables below (Table 6-5 taken from CD M3 – pdf page 34, and Table 2-3 taken from CD M10 – pdf page 15):

Table 6-5 - Model Outputs – Moss Lane/Ulnes Walton Road Junction – Combined Construction Peak

Approach Arm	AM Construction Peak (06:00-07:00)			AM Network Peak (07:00-08:00)			PM Construction/Network Peak (17:00-18:00)		
	Queue (PCU)	Delay (S)	RFC	Queue (PCU)	Delay (S)	RFC	Queue (PCU)	Delay (S)	RFC
2027 Baseline									
Moss Lane to Ulnes Walton Lane (N)	0.0	5.36	0.04	0.1	6.01	0.06	0.2	7.14	0.17
Moss Lane to Ulnes Walton Lane (S)	0.0	8.14	0.04	0.1	10.71	0.07	0.3	9.79	0.22
Ulnes Walton Lane (N)	0.1	6.68	0.09	1.5	15.08	0.57	0.1	6.04	0.05
2027 Baseline + Combined Construction Peak									
Moss Lane to Ulnes Walton Lane (N)	0.0	5.68	0.05	0.1	6.27	0.06	2.0	29.24	0.68
Moss Lane to Ulnes Walton Lane (S)	0.1	10.88	0.06	0.1	13.04	0.09	2.9	35.98	0.76
Ulnes Walton Lane (N)	1.7	18.52	0.63	2.5	22.18	0.70	0.1	6.05	0.05

Table 2-3 - Model Outputs – A581/UWL Junction – Combined Construction Peak – Proposed

Approach Arm	AM Construction Peak (06:00-07:00)			AM Network Peak (07:00-08:00)			PM Construction/Network Peak (17:00-18:00)		
	Queue (PCU)	Delay (S)	RFC	Queue (PCU)	Delay (S)	RFC	Queue (PCU)	Delay (S)	RFC
2027 Baseline + Combined Construction Peak									
A581 Southport Road (W)	0.8	8.67	0.44	4.7	30.87	0.83	1.1	8.90	0.52
Ulnes Walton Lane	0.1	5.56	0.07	0.3	8.48	0.21	3.6	27.61	0.79
A581 Southport Road (E)	0.7	6.41	0.40	4.0	19.44	0.80	3.7	19.74	0.79

2.8.12 In the first construction scenario, AM construction peak (06:00-07:00), the maximum RFC for the junction has reduced from 0.63 in the previous design to 0.44 for the alternative scheme, implying that the alternative design provides a betterment compared to the previous design. However, this does not seem logical given that for both the AM network peak (07:00-08:00) and PM construction/network peak (17:00-18:00), the alternative design provides a poorer level of operation compared to the previous design – the maximum RFC has increased from 0.70 (AM) and 0.76 (PM) in the previous design to 0.83 (AM) and 0.79 (PM). I therefore question the validity of the first construction scenario assessment, AM construction peak (06:00-07:00).

2.8.13 Even if I were to accept the modelling results in terms of capacity operation, it is my view that the proposals do not mitigate the safety impacts of the scheme. Ultimately, the mini roundabout design is still not safe for the reasons I have set out in the previous sections.

2.8.14 Whilst all construction scenarios are below the capacity threshold of 0.85 on the previous and alternative design assessments, the alternative design is approaching capacity with maximum RFCs of 0.83 and is affecting multiple approaches.

2.8.15 Furthermore, the modelling results are likely to overestimate the spare capacity in the junction because the model cannot reflect the issues set out in the previous sections, particularly with regard to larger vehicles overrunning onto the other side of the carriageway into the hatched areas, which is likely to be a frequent occurrence during construction. This is not only a safety issue, but vehicles slowing to make the turn or encroaching into opposing traffic are likely to cause a disruption in traffic flow that cannot be accounted for in the modelling.

3 SUMMARY AND CONCLUSIONS

3.1.1 This rebuttal has set out why the Appellant's alternative junction scheme also does not mitigate the impact of the proposals and does not address the Council's safety concerns.

3.1.2 On that basis, it is still my view that whether the original mini-roundabout scheme or the alternative scheme is taken forward, the proposed mitigation put forward by the Appellant does not fully mitigate the safety impact of the proposals.

3.1.3 It is therefore my overall conclusion that the appellant is still yet to demonstrate that the proposals will avoid problems of safety across the study network and is therefore contrary to paragraph 114 and 115 of the National Planning Policy Framework (December 2023), policy BNE1 and policy ST1 of the Chorley Local Plan 2012 - 2026.

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