THE HIGHWAYS ACT 1980 -andTHE ACQUISITION OF LAND ACT 1981

THE HIGHWAYS (INQUIRIES PROCEDURE) RULES 1994 COMPULSORY PURCHASE (INQUIRIES PROCEDURE) RULES 2007

REFERENCE: LAO/NW/SRO/2013/40 and LAO/NW/CPO/2013/41
REBUTTAL PROOF

-of-

James McMahon in relation to the Proof

of

Stephen Houston 218 Chester Road, Poynton, Cheshire SK12 1HP

The Metropolitan Borough Council of Stockport

acting on its behalf and on behalf of

-Manchester City Council -and
Cheshire East Borough Council

to be presented to a Local Public Inquiry on the 30th September 2014 to consider objections to

THE METROPOLITAN BOROUGH OF STOCKPORT (HAZEL GROVE (A6) TO MANCHESTER AIRPORT A555 CLASSIFIED ROAD) COMPULSORY PURCHASE ORDER 2013

THE METROPOLITAN BOROUGH OF STOCKPORT (HAZEL GROVE (A6) TO MANCHESTER AIRPORT A555 CLASSIFIED ROAD) (SIDE ROADS) ORDER 2013

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This rebuttal proof of evidence sets out the Council's response to the objector's proof in relation to their objection to the A6 to Manchester Airport Relief Road Compulsory Purchase Order and/ or Side Road Order that was submitted to the Department for Transport by Stephen Houston, 218 Chester Road, Poynton, Cheshire SK12 1HP

This rebuttal proof is presented by the Council's Project Director for the A6MARR scheme. James McMahon, however, contributions to this rebuttal have been made by the Council's Expert Witnesses as indicated alongside the responses.

The Expert Witnesses contributing to the responses to the objections submitted are as follows:

Expert Witness	Initials	Proof of Evidence Name and Reference Number
James McMahon	JMcM	Volume 1
Naz Huda	NH	Volume 2
Nasar Malik	NM	Volume 3
Paul Reid	PR	Volume 4
Paul Colclough	PC	Volume 5
Jamie Bardot	JB	Volume 6
Alan Houghton	AH	Volume 7
Sue Stevenson	SS	Volume 8
James McMahon	JMcM	Volume 9
Henry Church	HC	Volume 10

Element of objector proof	Objection	Response	Expert Witness
50/R01	One of the principal arguments for the scheme is that it improves air quality. Poor air quality in the UK is estimated to reduce life expectancy by 6 months. In the UK most of the exposure is caused by exhaust fumes from road traffic and in particular from heavy goods vehicles and public service vehicles. UK air quality law requires air pollution to be monitored, recorded and the results made publicly available. There are detailed rules to direct identifying sources of air pollution and subsequently monitoring it. The principle of making the results publicly available is important because any citizen is entitled to request an air quality management area is set up where there is a risk anticipated. Of course AQMAs are normally declared by local authorities but the open access to air quality data is a critical element of air quality law. UK air quality law is largely derived from the AQ Directive 2008 which consolidated previous Directives concerning air quality. The basic principles of monitoring and control plans have therefore been a requirement in the UK since the late 1990s. In 2011 the Government was challenged in the High Court that 16 of the 43 UK AQ zones had not submitted their air quality control plans to the European Commission referencing articles 22 and 23 of the Directive.	The air quality assessment undertaken for the scheme indicates that 79% of receptors in the study area will receive a reduction in annual mean NO2 concentrations with the scheme. 19% will experience an increase in NO2 concentrations with the scheme. In accordance with IAN174/14 for evaluating significant local air quality effects for users of DMRB, the scheme provides a twenty three fold improvement in air quality in properties already in exceedence or being removed from exceedence compared with those with a worsening air quality when in exceedence or the creation of new exceedences. Road transport contributes 20–30% of national emissions of air pollutants (National Atmospheric Emissions Inventory,	PC
	The Directive required compliance by 2010 or 1st January, 2015 provided corrective action plans acceptable to the Commission were put in place. The Government argued that they fully accepted pollution levels exceeded Directive limit levels but that the duration of the control plans was a matter for the UK Government and not the EU. The case went to appeal and then to the UK Supreme Court who in	UK environmental legislation requires sources of pollution to be identified and measured and the details of that monitoring to be made available on the public register.	

May 2013 made a judgement that the UK Government were not protecting their citizens from the harmful effects of air pollution and that fines from the UK courts and the EU were in order. In respect of the degree of non compliance in the UK they also requested the EU fast track the process. Since then the EC confirmed they had started the proceedings leading to fines against the UK and it is anticipated that the EU Court of Justice will shortly also confirm fines are in order. There is no reference in the application to the possibility of fines or the application's possible contribution such a liability. According to the Directive the fines have to be sufficiently severe to act as a deterrent. It has been estimated that London could be fined £300M for each continued year the non compliance

Section 83 (1) of the Environment Act 1995 states that a local authority must designate an Air Quality Management Area (AQMA) for those parts of its area where the National Air Quality Standards and Objectives for 7 key pollutants are unlikely to be met.

This involves measuring air pollution and trying to predict how it will change in the next few years. Once a review and assessment is concluded, and it is determined that the objectives are likely to be exceeded, the authority will need to declare by order an AQMA and then to prepare action plans to show what can be done to improve the air quality. This review is reported to DEFRA for approval.

`Any citizen' is not entitled to request that an air quality management area is set up. That responsibility rests with the local authority

"local authority", in relation to England and Wales, means—

- any unitary authority,
- any district council, so far as it is not a unitary authority,
- the Common Council of the City of London

Regarding the legal position following the court case, these matters are still with the European Court of Justice. No judgement has been made

		Regarding the outcome of the case and any potential fines this is speculation.	
50/R02	The Directive requires that pollution is reduced in an AQMA	The Directive defines and establishes	PC
	irrespective of whether particular locations are exceedences or not. Planned increases are very likely to be breaches in their own right.	"objectives for ambient air quality designed to avoid, prevent or reduce harmful effects on human health and the environment as a whole" The risk assessment related to compliance with the EU Directive on ambient air quality (IAN175/13) indicated that the scheme will be a low risk, it will not bring a zone into exceedence or delay its compliance.	
50/R03	This particular AQMA is within the UK0033 zone which is one of the 16 zones cited in the case put to the Supreme Court. IAN175/13 used by the applicants, advises that in this case, only a 'Viable, effective and quantifiable Scheme AQAP based on change in concentrations' would lead to an expectation of low risk of non-compliance with the Directive. It is obvious from Disley NO2 records approaching 60ug/m3 that the control plan will not achieve compliance by 2015 and has not therefore been a viable plan in terms of the Directive let alone been vetted by the EC for viability and effectiveness.	UK033 is currently not expected to achieve compliance by 2015. However, the risk assessment related to compliance with the EU Directive on ambient air quality undertake for the scheme was determined as low risk and would not result delaying compliance with the Directive and a scheme AQAP is not required.	PC
50/R04	The actual estimates of NO2 at the 3 exceedence locations are very low compared to the estimated increase in traffic through Disley. This may well indicate an error in the numeric analysis or the initial parameters underpinning it.	The impact of road transport emissions on receptors is dependent not only on traffic flows but also on traffic composition, speed, local atmospheric dispersion and the distance of those receptors from those emissions sources. The changes in predicted annual mean NO2 concentrations	PC

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		at the 3 new predicted exceedences in Disley (DM - 37.7 to DS - 40.1 µg/m3; DM - 37.8 to DS - 40.3 µg/m3; and DM - 38.4 to DS - 40.6 µg/m3) will reflect changes in traffic characteristics, atmospheric dispersion and the location of the receptors.	
50/R05	Despite the apparently very modest exceedances the applicants have promoted an 'enhanced mitigation' that halves the increase in traffic yet their recent calculations show a slight increase in NO2, not the expected reduction. This is a further indication that the Disley exceedences described in the Environmental Statement were gross underestimates.	The scheme produced a net reduction of 844 sensitive receptors in the study area exceeding the annual mean NO2 objective, with the scheme when compared to without the scheme. The proposed enhanced mitigation for the A6, requested by Cheshire East, reduced traffic flows and traffic speeds in Disley. The reduction in traffic speed increased emissions per vehicle which nullified the potential benefits of reduced traffic flows.	PC
50/R06	The applicant's assessment does not use this methodology. Instead 11,000 virtual locations or 'receptors' have been used, located at private residences selected as being close to the principal roads in the study area. The definition of principal roads is limited and selective. In Poynton where I live, three of the five most busy roads see an increase of traffic, the other two see a reduction. Only these two roads have receptors. The assessment not surprisingly shows an AQ improvement for Poynton.	Mr Houston seems to be describing the requirements for pollutant sampling points described in Annex III of the Directive. The air quality assessment undertaken, to current UK legislation and best practice guidance, requires projected assessments to be undertaken at potentially sensitive receptors to enable the determination of the significance of the scheme on local air quality objectives and hence public health. The receptors assessed were chosen based on their proximity to roads affected by the scheme as defined in the DMRB. Air quality impacts on receptors not in proximity to roads affected by the scheme would consequently be negligible.	PC

50/R07	On average the receptors will be further away from kerb than the Directive measurement locations and consequently the measurements recorded are lower. However an unfortunate consequence is that it fails to identify roads with very high levels of pollution if the nearby houses are not close to the road. Now that portable monitors are becoming available it is becoming apparent that exposure levels while travelling by road can be 4 times higher than even kerbside measurements and that the rush hour commute can represent a large proportion of the daily exposure.	The air quality assessment was undertaken to determine the impact on sensitive receptors, not monitoring positions, LAQM TG09 p1.29 states that "likely exceedences of the objectives should be assessed in relation to the quality of the air at locations which are situated outside of buildings or other natural or man-made structures, above or below ground, and where members of the public are regularly present"	PC
		All roads with the potential to be influenced by changes in traffic levels associated with the proposed scheme were identified as required by DMRB. The impact of the proposed scheme on local air quality at all potentially sensitive receptors within 200m of roads potentially affected by the proposed scheme were identified and assessed.	
		The Air Quality Directive Annex III states that compliance shall not be assessed at: I locations where members of the public do not have access and there is no fixed habitation; factory premises or at industrial installations; the carriageway of roads.	
50/R09	Another problem is that the Council will not identify accurate grid locations of receptors (see appendix 2); We believe the information you have requested could lead to the identification of individuals as to provide grid references will reveal individuals addresses.	Guidance does not require the identification of specific receptors. We are required to assess sensitive receptors within 200m of affected links to evaluate the significance of the impact of the scheme on local air	PC

50/R10	Although exceeden which location is location 4 type measures assessing.	the informative under the Fronal Data). Mathematical control in the Council had been been been been been been been bee	ave released hey refused instance they refused instance the NO erb which would specified in the number of the numb	the pollution dentify which identify identifies the more ribes this meaning and identifies identifies the identifies identifie	quality. The information on exceedences with and without the scheme and their relative changes are provided graphically in the ES to allow the reader to ascertain which areas are affected by the scheme. The Directive states that compliance shall not be assessed at: locations where members of the public do not have access and there is no fixed habitation. Our assessment has been undertaken at human and ecological receptors for comparison with Air Quality objectives. As identified in the Proof of Evidence of Mr Colclough, changes to predicted vehicle emission have been issued by Defra (July	PC		
		ent has been in models of vehicle same.			2014) after the issue of the ES. The ES traffic in Disley was assessed with the new emissions data for the benefit of the Inquiry.			
	Area	Tail pipe emissions model	DM receptors exceeding	DS receptors exceedin g	Change	% Change	Similarly, HA NO2 long term trends projections used in the ES were also re- issued (Nov 2013). following release of Euro VI HGV emissions data	
	Disley (ES)	Model A	85	88	3	3.5%	The ES traffic in Disley was assessed identifying the number of exceedences	
	Disley	Model B	32	55	23	71.9%	without HA long term trend projections, with the NO2 long term trends projections used	
	Disley	Model C	73	78	5	6.8%	in the ES and the new NO2 long term trends, for the benefit of the Inquiry.	
	Disley	Model D	40	64	24	60.0%	a chac, ich and content of the miquity.	

	Disley	Model E	66	77	11	16.7%		
	Whole Schem e (ES)	Model A	4566	3722	844	18.5%		
		showing the v s modelling (s						
50/R11	ranges from for the whole the same similarly worker perfectly for indicated, method of Statement which the regrettable	exercise had vide range of easible that a The potential receptors slated benige that these of the exercise that these of the exercise had be not exercise that the exercise that the exercise of the exercise that	1.9%. The I which 18.5% been carried results workening all for such whould have because of an result is ucalculations.	ast entry is to the implication of air quality vide variation been identified the promined seed to justify the present in the promined	he equival cation is the whole so n obtained y could ha n of results ed in the E ence with y the schel presented	ent change erefore that if heme a d and it is ve been	This assessment was undertaken to inform the Inquiry of changes in guidance since the publication of the ES and the potential influence of the new guidance in Disley given the objection raised due to disbenefits identified in air quality in this area due to the increased traffic levels associated with the proposed scheme. The Greater Manchester area is predicted to receive significant benefits in local air quality associated with the scheme. The new assessments indicate that the assessment undertaken in the ES has overestimated the impact of traffic emissions on local air quality in the schemes opening year. The number of predicted exceedences in Disley in the scheme, are predicted to be lower than that reported in the ES. This suggests a predicted air quality improvement compared with that reported in the ES.	PC

50/R12	Disley is expected to see an increase of 30% in traffic or half this if the enhanced mitigation is implemented. Although now the applicants have shown that the proposal has no beneficial effect on air quality it	The variations in the number of exceedences are a result of changes in UK guidance issued following the publication of the ES. This information has been made available to inform the Inquiry. The ES used best practice guidance at the time of its release. New guidance indicates an improvement in local air quality in the scheme opening year. Given that the results for Disley indicate an improvement in air quality in the scheme opening year, it would be expected that improvements in air quality would also be expected in all areas benefiting in air quality terms from the scheme. Enhanced mitigation proposals examined to date demonstrated a reduction in traffic flows with a consequent reduction in traffic	NH
	may be abandoned.	speeds. This reduction in speeds with its consequent increase in individual vehicle emissions has nullified the benefits of reduced traffic flows. However Planning Conditions require that mitigation measures are introduced. These mitigation measures will need to address not only a reduction in traffic flows, but also the air quality impacts of those measures.	
50/R13	However the largest increases in traffic are predicted on the existing A555 between the A34 and A5102. The applicants have produced NO2 contour maps that show extensive exceedences near the road including the cycleway that for its most part runs parallel to the road about 2.5m from the kerb (see appendix 1). It is almost certain that the exceedences are caused by the 100% increase in traffic. It is not clear	The contours presented in Mr Houstons proof represent predicted annual mean NO2 concentrations with a limit value of 40µg/m3. Short term exposure, such as that experienced by members of the public on the cycleway would need to be assessed against the short term (1-hour)	PC

	why this has not been explicitly described in the ES because in the applicant's analysis these exceedences are not covered by a corrective action plan and would therefore be straight forward breaches of the Directive.	objective for NO ₂ of 200µg/m ³ . The assessment of risk of compliance with the EU Directive undertaken and reported in the ES indicates that the risk of non compliance was low. No new zones or agglomerations were created and the date of compliance was not affected.	
50/R14	One factor is that the nearby houses are some way from the road. As a consequence the receptor data shows raised levels of NO2 but no exceedences. However the applicants should have made good the data by normalising the levels at 4m from the kerb by using the method described in IAN175/13 para. 4.2.	UK guidance requires the significance of the impact of a scheme on local air quality to be assessed in terms of its impact on public health and designated ecosystems. Consequently pollutant concentrations are determined at those receptors. Increased distances from a pollutant sources increase pollutant dispersion and reduces pollutant concentrations. IAN175/13 paragraph 4.2 refers to adjustments to the Compliance Risk Road Network for reporting to Defra to inform its national compliance reporting. The A555 does not form part of that reporting. The assessment of risk of compliance with the EU Directive was undertaken in accordance with IAN175/13 and is reported in the ES. The risk of non compliance was low. No new zones or agglomerations were created and the date of compliance was not affected.	PC
50/R15	Surprisingly, even though there are AQMAs on the A34 and A5102 where they cross the A555, the A555 itself is not within an AQMA. This may be because there were unfortunately no kerbside or roadside NO2 measurement locations set up to monitor NO2 contrary to requirements of the Directive.	UK air quality objectives and EU limit values are based on health studies. Exposure and hence the declaration of AQMAs are required to be undertaken "where members of the public are regularly	PC

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		present" -LAQM TG09. If a highway	
		junction has no local sentive receptors with	
		the potential to exceed air quality objectives	
		as a result of traffic traversing that junction	
		now or in the future, there is no justification	
		for an AQMA to be declared.	
		The Air Quality Directive Annex III states	
		that compliance shall not be assessed at	
		locations where members of the public do	
		not have access and there is no fixed	
		habitation.	
50/R16	The criticality of this section of the A555 will be even more apparent if	The SEMMMS Strategy recommendations	JMcM
30/1110	phase 2 goes ahead. Once the A6MARR is connected to the M60 at	led to the development of a proposed	OIVICIVI
		SEMMMS Relief Road for which the	
	Bredbury traffic will start to transfer onto the A555 whenever the M60		
	becomes the congested. It is therefore inevitable the pollution will	A6MARR is the first phase. The strategy	
	increase and exceedences will extend over a longer section of the	stated	
	road. Yet the current alignment of the A555 through Carr Wood		
	ancient woodland presupposes Phase 2 will be environmentally viable	"It is not recommended that the proposals	
	without any supporting argument in the current application.	as developed by the Highways Agency,	
		and removed from the Government's road	
		programme in July 1998, form part of the	
		strategy. Rather, it is recommended that	
		the study area local authorities develop	
		smaller and more appropriate scale road	
		proposals along the protected alignments.	
		These should be designed to provide relief	
		for the study area communities affected by	
		inappropriate through traffic, but not to	
		provide a new strategic route of regional	
		and potentially national significance. "	
		The A6MARR and any future continuation	
		of the scheme to Bredbury will be designed	
		with this principle in mind and any future	
		scheme will be assessed individually.	
		Furthermore, it is not appropriate or	

		possible to assess the air quality impacts of the present scheme in the context of another scheme which may or may not be built.	
50/R17	If Phase 2 is not a practical proposition the road would be better aligned south of Carr Wood to meet the A6 a few hundred metres further up the A6 towards High Lane. The ES refers to a minimal loss of 0.08 hectares of ancient woodland. This area is actually just the footprint of the carriageway and earthworks. Research indicates the zone of influence of a road extends 300m into woodland. Unfortunately this area of ancient woodland only extends 300m from the road and it will therefore be 100% affected.	Concentrations of pollutants fall exponentially with distance from their road traffic source. DfT guidance (Tag Unit A3) states "Beyond 200 m from the link centre, the contribution of vehicle emissions to local pollution levels is not significant". Monitoring experience indicates that roadside NO ₂ concentrations could reduce by up to 50% within 20m. The A6 to M60 section referenced as "phase 2" has not been ruled out as inappropriate and future proofing by building to a point where there could be an appropriate tie-in is therefore considered to be appropriate. Stockport Council still aspires to deliver this further section of the SEMMMS relief road proposals.	PR/PC
50/R18	There are several advantages to this alternative alignment in addition to providing a minimum 50~150m buffer zone advised by the Woodland Trust between woodland and road; • three junctions with the A6 are reduced to one, • the largest traffic flows are between High Lane and Poynton and follow a slightly shorter route • a bridge over the railway line is more practical than at Simpsons Corner. • a bridge causes less disruption during construction	The objector has raised various points regarding the alternative alignment submitted by PAULA as part of their Phase 2 consultation response. as indicated on the drawing 1007/2D/TR1/A6-MA/GA/161 Rev A- A6 Junction Alternative Location General Arrangement. The drawing was created by the A6MARR Project Team in response to the objector during the public consultation period.	NH
	an underpass below the line requires the line to be closed if there is a collision damage to the bridge abutments, an over bridge is	The objector requested that the horizontal alignment be investigated that completely avoided ancient woodland south of Old Mill	

preferable in

this respect.

- avoids blighting the rear of the properties on the A6
- there remains scope to extend the road beyond the A6 without demolition

of houses contrary to the Council's assertion, the gap between the houses

on the A6 being comparable to the gap the houses on the A5102.

Lane. The alternatives including either relocating the alignment further north or south. An alignment further north would require demolition of residential properties on Old Mill Lane and therefore was discounted. A potential alignment further south was created and provided to the Objector. It was later updated (to revision A) once further topographical data was obtained which did not alter the alignment.

Regarding the objector's points:

- The topography of the rail line and the proximity of the A6 at this location require the dual carriageway to be carried over the rail line in terms of the vertical alignment geometry and in accordance with the Design Manual for Roads and Bridges (DMRB). In general terms a road over rail bridge is simpler to construct by the contractor than a road under rail bridge.
- The safety implications of a potential collision at a bridge where a road and a rail line interact are difficult to summarise and would be site and incident specific. Disruption would inevitably occur to both the rail line and the road networks whether the road travels over or under the rail line. The safeguarding of errant vehicles exiting the highway including potentially entering Network Rail land (occupied by a live railway) has been assessed in accordance with the DMRB TD 19/06 Requirement for Restraint Systems and the Road Restraint Risk Assessment

Process (RRRAP). Generally bridge abutments are protected with Vehicle Restraint Systems (VRS) where there is live traffic travelling underneath and this would be determined using the design standard and methodology noted above. Where the road travels over a rail line or bridge the approaches are generally protected with VRS, again in accordance with relevant design standards.

Residential properties (Park View No.s 1-9) are likely to be required to be demolished when considering the layout indicated drawing 1007/2D/TR1/A6-MA/GA/161 Rev A. It is unknown whether an at-grade junction would provide suitable traffic capacity for the A6 to M60 extension therefore the likelihood of the footprint of the junction requiring property demolition increases again. It should be noted that the alignment would travel directly through the underground reservoir owned and managed by United Utilities which would incur substantial capital costs and disruption to the water supplier and its customers.

The Objector has cited various advantages to the alternative alignment:

- 1. Three junctions into one;
- 2. Traffic flows travelling on a shorter route to the A6MARR;
- 3. Avoids a bridge at Simpsons Corner.

Although the Council accepts these points,

there are several disadvantages to the alternative layout and they are as follows:

- The alignment would be located outside of the current local plan protected corridor (Unitary Development Plan);
- 2. The alignment would not provide future proofing for the A6 to M60 (Bredbury) phase of SEMMMS (as noted above);
- 3. The A6MARR / A6 junction would be located directly outside a number of residential properties on the A6, Buxton Road (as noted above);
- 4. The alignment would require construction of two structures over Norbury Brook thus impacting more so on this 'main' river;
- 5. The alignment would sever agricultural land in the vicinity;
- 6. The alignment would affect more Public Rights of Ways;
- 7. The vertical alignment would require the road to travel over the Hazel Grove to Buxton line thus increasing visual impact on residential properties.

It is regrettable that that the approved scheme requires a small proportion of ancient woodland but the alternative alignment suggested by the Objector provides several disbenefits and therefore the Council considers that the alternative

		alignment is not viable. It should be noted that no further traffic or environmental analysis has been carried out due to the lack of feasibility of the alternative.	
50/R19	The Woodland Trust are submitting a proof of evidence for Carr Wood ancient woodland. The applicants did not consult the Trust following their original letter of objection in 2013.	The Woodland Trust were consulted on the Environmental Impact Assessment Scoping Report in 2009 and a follow up email was sent requesting a response in September 2009 (none was received). Responses received to the Phase 1 and 2 consultations on the A6 to Manchester Airport Relief were considered and used to inform the development of the design for the scheme where appropriate. The Comments log from the Phase 1 consultation noted there was concern about the impact on ancient woodland and the project team response was - "Ancient woodland, as an irreplaceable resource, cannot be replicated through compensation and therefore its loss represents a significant negative residual effect on the local environment. However it should be noted that the area of loss is small (0.06ha) and the woodland at Norbury Brook SBI as a whole remains intact." The planning application of the preferred scheme was submitted on 1st November 2013 to the Local Planning Authorities of Stockport Council, Cheshire East Council and Manchester City Council. The Statement of Community Involvement included in the Planning Application identified there was concern about the	SS

		impact on the ancient woodland and also included a comments log identifying issues raised and the project team responses. Due statutory process was followed by the 3 Local Planning Authorities in advertising the Planning Applications for the scheme. The Local Planning Authorities undertook a public consultation. Any comments in relation to the application were considered by the relevant Local Planning Authority in determining the application and the associated Decision Notice and planning conditions.	
50/R20	It is apparent that applicant's assessment of air quality has employed the receptor method to the near exclusion of the methods promoted by the Air Quality Directive. Potential breaches of the Directive such as the exceedences along the existing A555 (see appendix 1) have not been properly identified and analysed. The calculated change in NO2 levels due to the 30% traffic increase in Disley are abnormally small which may indicate an error in the calculation or the underlying parameters. The 'enhanced mitigation' that halves the increase in traffic through Disley actually increases the pollution slightly rather than reducing it. The effect was checked using two different emission models. After the application further estimates were made of the pollution increases in Disley using different emission models. The results appear surprisingly inconsistent and cast doubt on the reliability of the conclusion that the overall scheme leads to a reduction in air pollution.	The ES has undertaken a local air quality assessment which considers pollutant concentrations at potentially sensitive receptors for comparison with UK Air Quality Objectives. A compliance risk assessment, using outputs from Defra national compliance assessment for the EU Air Quality Directive and Ian 175/13, determined the scheme to be a low risk with no new zones or agglomerations and no extension of the compliance deadline. No breach of the Directive was identified using outputs from Defra national compliance assessment for the EU Air Quality Directive and IAN 175/13. The calculated change in NO2 concentrations were undertaken using approved models and UK guidance.	PC

		Predicted changes in annual average NO2 concentrations at new exceedences reflect not only traffic flow, but also traffic characteristics, speed, atmospheric dispersion and distance from emissions sources.	
		Enhanced mitigation reduced traffic flows, but also reduced traffic speeds. Road vehicles travelling at slow speeds emit higher pollutant concentrations. Reductions in flow were nullified by increases in individual vehicle emissions.	
		Changes in UK air quality guidance post ES publication and Planning consent have been published. In order to inform the Inquiry, the impact on local air quality in Disley as a result of those changes has been provided. The findings of these studies suggest that the ES has overestimated pollutant concentrations at receptors (a worst Case assessment). Current guidance is likely to reduce pollutant levels in the study area. It is clear that changes in traffic movement have had a major impact in reducing pollutant levels in the Greater Manchester AQMA. It is accepted that the ES indicated that the scheme will increase pollutant levels in Disley. Consequently design changes are being assessed to limit that	
50/R21	The potential breaches of the Directive caused by the scheme make	potential impact. See response to 50/R18 with regards to	NH /
30/11/21	Phase 2 a less likely proposition. There is no advantage in aligning the	PAULA's suggested alignment to avoid	JMcM

road through Carr Wood without Phase 2. Rerouting the road to the south of the wood would protect the ancient woodland and have several additional advantages.	Carr Wood and response to 50/R20 with regards to the objector's comment regarding the EU Directive. The assertion that "phase 2" is less likely because of asserted potential breaches of the Directive	
	is not accepted.	