

WEST AREA PLANNING COMMITTEE

9th February 2016

Application Number: 15/03503/CND

Decision Due by: 28/01/2016

Proposals: Details submitted in compliance with condition 19(2) (Noise - Section I1) of TWA ref: TWA/10/APP/01 (The Chiltern Railways (Bicester to Oxford Improvements) Order - deemed planning permission granted under section 90(2A) of the Town and Country Planning Act 1990).

Site Address: Chiltern Railway From Oxford To Bicester **Appendix 1**

Ward: Summertown Ward and St Margaret's Ward

Agent: Sarah Goodall (ERM)

Applicant: Network Rail

Recommendation:

CONDITION 19 BE PARTIALLY DISCHARGED IN RELATION TO THE NOISE SCHEME OF ASSESSMENT FOR SECTION I1.

For the following reasons:

- 1 The Noise Scheme of Assessment for route section I1 is considered to be robust and has demonstrated that the required standards of noise mitigation set out in the Policy will be achieved subject to the installation of the specified mitigation measures. It is confirmed that prior to and in connection with the granting of this consent, the Council has taken the Environmental Statement and other relevant environmental information into account.
- 2 The Council considers that the proposal accords with the policies of the development plan as summarised below. It has taken into consideration all other material matters, including matters raised in response to consultation and publicity. Any material harm that the development would otherwise give rise to can be offset by the conditions imposed.

subject to the following conditions, which have been imposed for the reasons stated:-

- 1 The development is to be carried out strictly in accordance with the documents titled "Noise Scheme of Assessment for Route Section I/1, Main Report" and "Annexes A-E and G" (ref 0221083/11.I1-07) dated 2nd December 2015; "East-West Rail: Baseline Acoustic Survey, Network Rail" (ref 5114534 2015/May/06) dated 20th July 2015; the further details contained in the report (and Appendix 1 to the report) of the Independent Expert dated 1st December 2015; and Figures 1.1 (version A01, dated 04/08/2015) 5.1a (version A02 dated 06/08/2015) 5.1b (version A02 dated 28/09/2015) and 5.2 (version A01,

dated 06/08/2015). In the event of conflict between these drawings and other documents the four August/September 2015 drawings shall prevail; and as between the other documents, the later produced document shall prevail.

Reason: the Noise Scheme of Assessment has been prepared upon the basis of these details and deviation from them would not necessarily result in the standards of noise mitigation required by the Noise and Vibration Mitigation Policy (January 2011) being achieved.

- 2 Within three months of this partial approval under condition 19 of the deemed planning permission, proposals shall be submitted for the written approval of the local planning authority showing how at-source noise attenuation by rail dampening to at least the standard achievable by the use of Tata Silentrack can be incorporated into the scheme. The development to which this approval relates shall not be brought into operation EITHER without that written approval having been obtained and other than in accordance with such approved details OR without the Council having given written confirmation that it is satisfied that the provision of such rail dampening is not reasonably practicable.

Reason: The local planning authority is not satisfied that rail dampening as an at source mitigation measure has been shown to not be reasonably practicable in the absence of any attempt on the part of the applicant to secure approval for the use of such a measure.

- 3 Passenger train movements on Section I1 between 0700 hours and 2300 hours shall not be in excess of 8 movements per hour. Freight train movements between 2300 hours 0700 hours on the following day shall not exceed 8.

Reason - to ensure compliance with condition 19 of the planning permission deemed to have been granted (ref TWA/10/APP/01)

- 4 Section I1 shall not be made available for use by trains until provision for continuous monitoring of noise has been effected for noise sensitive properties throughout section I1 in accordance with a scheme previously approved in writing by the Council. The results of such monitoring shall be provided to the Council on each of six months, eighteen months, thirty months, forty-two months, fifty-four months, sixty-six months and seventy-eight months from the date on which Section I1 is first made available for use for trains. In the event that the monitoring results provided to the Council exceed the noise thresholds in the Noise and Vibration Mitigation Policy then additional mitigation measures shall be effected within six months in order to ensure that those levels are not again exceeded.

Reason: to ensure compliance with condition 19 of the planning permission deemed to have been granted (ref TWA/10/APP/01)

Officers are aware that Network Rail (NR) intends to make application to vary condition 2 above as it is written in respect of route section H to make alternative

proposals to progress Silentrack for this scheme; also to vary condition 4 above as it is written in respect of route section H to make alternative proposals for monitoring of this scheme. The relevant variation applications have not yet been submitted and so NR's alternative proposals have not been the subject of public consultation or formal Committee debate: discussion around these issues is not therefore included in this report. NR has not said that it intends to challenge condition 3 as it is written for route section H since it is not a pre-commencement condition and is not impeding the construction programme.

Conditions 2, 3 and 4 as they were applied to route section H are therefore repeated as recommendations for route section I1 unchanged except for the route section references.

Main Local Plan Policies:

Oxford Local Plan 2001-2016

CP6 - Efficient Use of Land & Density

CP10 - Siting Development to Meet Functional Needs

Core Strategy

CS13 - Supporting access to new development

CS27 - Sustainable economy

Other Main Material Considerations:

- National Planning Policy Framework
- National Planning Policy Guidance
- Environmental Information
- Other comments representations and submissions made in connection with the applications
- The deemed planning permission of 23 October 2012 and documents related to it including the Noise and Vibration Mitigation Policy (January 2011)

Purpose of the Report

1. The Committee is being asked to consider and determine the acceptability of the Noise Scheme of Assessment which has been submitted in respect of route section I1 in order to discharge the noise elements of Condition 19 (**Appendix 3**) to the deemed planning permission for East West Rail Phase 1.

Description of East West Rail Phase 1

2. East West Rail Phase 1 uses the exiting route of the Bicester/Oxford rail line, **Appendix 2**. This crosses from the north into the City administrative area just north of the Lakeside development, passes under the Wolvercote roundabout and continues south through Wolvercote village, over the Oxford Canal, past the west side of the Waterways developments (including Stone Meadow), the

Waterside developments (including Plater Drive, Rutherford Way and William Lucy Way) and the Rewley Road developments, and then into Oxford Station. Route section I1 is shown on the plan at **Appendix 1**.

3. East West Rail Phase 1 has been amended since the original permission and now involves:
 - i. replacing the existing Bicester/Oxford track for its length within the city up to a point opposite Stone Meadow where it deviates west of the existing line and joins the main line near the existing Aristotle Lane crossing; and,
 - ii. constructing a new line to the west of the existing line which joins the main line opposite Stone Meadow.
4. Some proposals which were in the original permission are not now being implemented, namely:
 - a new track from opposite Stone Meadow into the Oxford Station close to the eastern side of the exiting extent of railway land;
 - a new short spur from that track into the station (together with a new platform) which commenced just north of the Rewley Road Swing Bridge; and,
 - a shorter link which was to have joined the new line (ii above) to the main line in the vicinity of Stone Meadow.
5. The details relevant to this application are shown in the submitted documents:
 - a. "Noise Scheme of Assessment for Route Section I/1, Main Report" and "Annexes A-E and G" (ref 0221083/11.11-07) dated 2nd December 2015;
 - b. "East-West Rail: Baseline Acoustic Survey, Network Rail" (ref 5114534 2015/May/06) dated 20th July 2015;
 - c. the further details contained in the report (and Appendix 1 to the report) of the Independent Expert dated 1st December 2015; and,
 - d. Figures 1.1 (version A01, dated 04/08/2015) 5.1a (version A02 dated 06/08/2015) 5.1b (version A02 dated 28/09/2015) and 5.2 (version A01, dated 06/08/2015).

Background and Relevant Planning History

6. The Transport and Works Act application for the project, which was known at the time as 'Chiltern Evergreen 3', was submitted by Chiltern Railways to the Department for Transport on 6th January 2010.
7. A Public Inquiry into the scheme was held between 2nd November 2010 and 28th January 2011. The outcome was that the Secretary of State was minded not to make the Order (by letter dated 15th November 2011) because the likely

lack of a licence for works affecting the habitat of bats (in the Wolvercote Tunnel) would be an impediment to the implementation of the scheme.

8. Progress was made on this issue and the Secretary of State informed the respective parties (by letter dated 24th January 2012) that she was now minded to approve the scheme. Responses to that letter however were such that the Inquiry was re-opened between 29th May and 15th June 2012 to cover the proposed mitigation measures for bats, the planning conditions relating to operational noise and vibration, and the air quality impacts of the scheme.
9. By letter dated 17th October 2012 the Secretary of State approved the scheme and granted deemed planning permission subject to conditions. The deemed planning permission was issued in a letter dated 23 October 2012.
10. *Sustainability*: in granting deemed planning permission for the scheme, the Secretary of State concluded that there is a compelling case to increase rail capacity between Oxford and London, and that the scheme would bring substantial transport benefits in terms of reduced travel times, better public transport connectivity, and better rail network capability. In the decision, the Secretary of State weighed these sustainability benefits against the potential adverse impacts that the scheme might cause. Those considerations gave rise to several of the planning conditions dealing with the natural environment and to residential amenity, including Condition 19 (**Appendix 3**) which focusses on mitigating adverse impacts of noise and vibration on residential amenity. The assessment and mitigation of the predicted vibration impacts of East West Rail in accordance with Condition 19 are the subject of this report.
11. The City Council's jurisdiction in this matter relates only to the works within its administrative boundary. Cherwell DC has jurisdiction for the scheme within its area.
12. The full list of applications subsequent to the grant of deemed planning permission which have been received and determined to date are set out in **Appendix 4**. The applications dealing with operational noise and vibration in route section H and which therefore have a bearing on the Committee's consideration of these applications for route section I1 are as follows:

13/03202/CND – condition 19: operational vibration - plain line, route section H; PARTIALLY DISCHARGED 30th June 2015.

14/00232/CND – condition 19: operational vibration - switches and crossings, route section H; PARTIALLY DISCHARGED 30th June 2015.

15/00956/CND - condition 19: operational noise, route section H
PARTIALLY DISCHARGED 30th June 2015.

15/02673/CND - condition 2: rail dampening - route section H,
WITHDRAWN 12th November 2015.

The Requirements of Condition 19 – operational noise and vibration

13. Condition 19 is entitled “Operational noise and vibration monitoring and mitigation” and is a relatively complex condition with a number of components. Its core requirements are that:

- operational noise and vibration monitoring and mitigation are to be carried out in accordance with the Noise and Vibration Mitigation Policy, **Appendix 5**, which was approved by the Secretary of State; and,
- development within each section of the scheme is not to commence until noise and vibration schemes of assessment have been approved by the Council.

14. Schemes of Assessment are to be submitted to show how the standards set out in the Noise and Vibration Mitigation Policy will be achieved. The Schemes of Assessment are to be accompanied by a report prepared by an Independent Expert (who has been approved in advance by the Council under condition 3) commenting on their robustness. The appointment of the Independent Experts: one for noise (Brian Hemsworth) and one for vibration (Dr. Chris Jones), were agreed by Oxford City Council on 2nd May 2013 under planning application reference 13/00907/CND.

Operational noise and operational vibration being considered separately

15. Condition 19 requirements apply to both the operational noise and the operational vibration aspects of the scheme. There are similarities and links between these two aspects, since both are generated by the same rolling stock; and a person’s perception of railway noise might be affected by structure-borne vibration and vice versa¹.

16. However, the way in which sound and ground-borne vibration are generated, transmitted and perceived are different, as are the resulting methodologies for their measurement and prediction. These differences are reflected in the way that operational noise and vibration has been treated in the environmental impact assessment, application, public inquiry and resulting deemed permission. In effect condition 19 requires operational noise and operational vibration to be treated separately, though in the same context and using similar processes. For that reason this report deals with operational noise and the next report deals with operational vibration.

¹ British Standard BS6472-1:2008 “guide to evaluation of human exposure to vibration in buildings” includes advice on this interaction.

The Noise and Vibration Mitigation Policy – in relation to noise

17. The purpose of the Noise and Vibration Mitigation Policy (set out in part (v) of the summary on page 1) is to ensure that:

“(i) Noise will be reduced at source where it is reasonably practicable to do so.

“(ii) Where this is not reasonably practicable, noise barriers or noise insulation to properties will be provided, where necessary, in accordance with relevant standards.

“(iii) Where predicted noise levels exceed relevant levels set out in the Noise Insulation (Railways and Other Guided Systems) Regulations, noise insulation will be offered to the occupiers of eligible buildings to the standards required by those Regulations and provided at their request.

“(iv) At other locations, where statutory noise levels are not exceeded but where significant noise impacts are predicted, noise will be mitigated wherever reasonably practicable. Significant noise impacts include a significant increase in noise in an already noisy area, or the significant exceedence of stringent thresholds in an area where the ambient noise is currently low. Chiltern Railways has chosen to offer this high standard of mitigation. It is not a statutory requirement”.

18. The Noise and Vibration Mitigation Policy uses both absolute and relative change noise thresholds to determine acceptability or whether mitigation is needed. It also acknowledges the legal responsibilities for noise insulation of residential property under the Noise Insulation (Railways and Other Guided Transport Systems) Regulations 1998.

19. Absolute ‘Noise Impact Threshold’ levels of 55dB LAeq,Day (0700-2300 hours) and 45 dB LAeq, Night (2300-0700 hours) are adopted as levels below which noise impacts are not considered significant. The Statutory requirements apply where noise impact from the Order Scheme is predicted to be above the ‘Noise Insulation Trigger’ levels of (Day > LAeq, (0600-0000 hours) 66 dB; and Night > LAeq, (0000-0600 hours) 61 dB). Where the scheme is predicted to cause either an exceedence or an increase but lies between these two sets of threshold/trigger levels the Policy applies non statutory mitigation measures.

20. The way that these thresholds are to be applied, in combination if relevant, is as follows:

- exceedances of 3 dB or greater and increases of 3 dB or greater—mitigation at source through rail infrastructure solutions will be implemented where reasonably practicable;
- exceedances of greater than 5 and up to 7 dB and increases of greater than 5 dB and up to 7 dB -- at source and/or in the form of noise

- barriers if reasonably practicable and have no other negative effects;
- exceedances of greater than 7dB and increases of greater than 7dB – at source through rail infrastructure solutions and where these cannot be reasonably practicably achieved, noise barriers will be provided, where reasonably practicable.

21. The Noise and Vibration Mitigation Policy acknowledges that infrastructure and/or noise barrier mitigation might not prevent exceedance of the thresholds at all properties. Additional mitigation commitments are made, where “residual noise levels” (ie those after mitigation and/or statutory insulation has been applied) are 10dB above the existing levels. Finally, a further absolute threshold is adopted for the instantaneous peak noise from a train pass-by at night (82 dB LA_{max}).

22. The Noise and Vibration Mitigation Policy sets out the assumptions that are to be used in the Schemes of Assessment for the numbers and timing of train movements which are as follows (set out in full for ease of reference):

“1.8 The assessment of noise and vibration has been based on two operational patterns of new train services:

- After the implementation of the works in Phases 1 and 2A, operational services will consist of up to two Chiltern Railways passenger trains per hour each way. The passenger trains will replace the existing passenger service operated by First Great Western between Bicester Town and Oxford stations.*
- After the implementation of the East West Rail (EWR) link including works in Phase 2B, there are likely to be an additional two passenger trains per hour each way.*

Neither Chiltern Railways or EWR will be running passenger trains throughout the night, and services in late evening and early morning will be at a reduced frequency. A small number of passenger trains may arrive in Oxford after midnight or depart from Oxford before 0600.

1.9. In the operation of Phase 1 and 2A, there are likely to be no more freight trains than operate at present, as there will be no new freight destinations that can be served. When the East-West Rail (EWR) link is in operation, there may be more freight trains. For this reason, additional freight services were included in the noise assessment in the Environmental Statement, so that this reflects a reasonable planning scenario. The actual number of freight services will reflect national freight demand, but will be limited to the maximum number of available freight ‘paths’ (1 per hour in each direction). Experience shows that about half of the available freight train paths are likely to be used on a given day, which would suggest a reasonable planning scenario of 8 freight train movements between 11pm and 7am. Freight trains will not use the ‘new’ railway line between Oxford North Junction (where the Bicester to Oxford Line meets the Oxford-Banbury main line) and Oxford, but instead will use the existing main line, as at present.

1.10 The noise and vibration mitigation will be designed based on the assumptions in paragraph 1.8 and 1.9 regarding the numbers and timing of train movements.” [Underlining added]”

What is a Noise Scheme of Assessment and how is it judged?

23. The purpose of a Noise Scheme of Assessment is to predict the impact of noise on properties and, if pre-agreed thresholds are exceeded, set out mitigation measures and monitoring arrangements. A Scheme of Assessment would therefore be expected to comprise measurements, methodology, modelled predictions and resulting proposals (which might include mitigation and monitoring).
24. Considering this and the requirements of condition 19, the key tests for the submitted Noise Scheme of Assessment therefore are as follows:
- Is the Noise Scheme of Assessment sufficient – being a detailed scheme of assessment of vibration effects, with details of proposed monitoring and mitigation measures?
 - Does the Noise Scheme of Assessment contain measurements, methodology, modelled predictions and resulting proposals (which include mitigation and monitoring if applicable)?
 - Does the Noise Scheme of Assessment show how the standards of vibration mitigation set out in the Noise and Vibration Mitigation Policy will be achieved?
 - Does the Noise Scheme of Assessment contain supporting calculations or empirical data, or a combination of the two?
25. In each of these tests there is an implication that as well as the Noise Scheme of Assessment containing the relevant elements, these have been treated correctly. This leads to the overall test:
- Are the noise-related elements of the Noise Scheme of Assessment considered to be sufficiently robust?
26. If any of these tests were not met, the Noise Scheme of Assessment would need to be rejected. It is the role of the Independent Expert to comment on the robustness of the Scheme of Assessment.
27. However, it is the Local Planning Authority and not the Independent Expert which must decide upon the adequacy of the Noise Scheme of Assessment. Provided that the submitted Noise Scheme of Assessment is considered to be robust then its predictions may be relied upon, as may the mitigation and monitoring measures contained within it.

Monitoring

28. The Noise and Vibration Mitigation Policy does not require the monitoring of operational noise and vibration as a continuous exercise: it requires only the monitoring of any mitigation measures that are installed as a result of the findings of the Noise and Vibration Scheme of Assessment (see paragraph

2.11 of the Noise and Vibration Mitigation Policy, **Appendix 5**).

The Submitted Scheme of Assessment for route section I1

29. On 2nd December 2015 the Council received the noise Scheme of Assessment (dated 2nd December 2015) and the related report of the Independent Expert (dated 1st December 2015)(15/00956/CND). This meets the 'content' tests set out in paragraph 22 above.
30. The Scheme predicts that noise thresholds will be exceeded at a number of locations and goes on to propose mitigation measures.
31. The Noise Scheme of Assessment discusses possibilities for mitigation at source but dismisses these on grounds that they are not reasonably practicable. Noise barriers and, in some cases, property-based noise insulation measures, are proposed.
32. In September 2015, prior to submission of the Noise Scheme of Assessment, Network Rail circulated a draft document and carried out a consultation exercise with those likely to be affected by rail noise from the permitted to their agents, ERM. ERM replied to all correspondents and copied these to Council officers for their consideration. The Independent Expert for noise, Brian Hemsworth, was provided with the representations and responses as well as the draft document. He raised a number of questions which ERM responded to.
33. The finalised Noise Scheme of Assessment was submitted on 2nd December 2015. The overall position of Network Rail set out in this document is that: noise thresholds would be exceeded at a number of locations; that at-source mitigation measures are not reasonably practicable; and that noise barriers, together with additional property-specific insulation will enable the noise from the scheme to be mitigated in accordance with the principles of the Noise and Vibration Mitigation Policy.

Public consultation on noise

34. There is no requirement for public consultation in relation to the discharge of planning conditions. Extensive public consultation has however occurred in relation to conditions discharge for EWRP1 since the granting of the deemed permission by the Secretary of State for Transport in October 2012:
 - at the request of Members following a Member briefing in March 2014 two public meetings were arranged in Wolvercote Village Hall in April 2014 (the first convened by officers, the second by convened by Cllr Fooks) to inform local people about the process and progress towards discharge of the conditions, particularly focused on Condition 19, and to invite comments. Some 50 people attended each meeting;
 - Nicola Blackwood MP organized a further very well attended public meeting on 5th March 2015 in the North Oxford Community Centre,

covering noise and vibration at which the Rail Minister Claire Perry MP was present along with representatives from Network Rail, Chiltern Railways, consultants ERM, and city officers;

- Specifically in relation to route section I1 Consultants ERM on behalf of Network Rail organised public information exhibitions on 26th August, 2nd September and 9th September 2015, at the Waterways Community Room in Clearwater Place, where the draft Noise Scheme of Assessment for route section I1 was presented. Public comment was invited until 16th September 2015. In total 78 responses were received. ERM replied to all the responses on 13th October 2015 and copied those replies to Council officers for review by the Independent Expert;
- A Web-page on the City Council's website has been set up to help disseminate information between the Council and local people; and,
- Throughout, officers have maintained an 'open door' for the receipt of comments and the circulation of responses.

Public comments

35. The City Council invited public comment on the formally submitted noise Scheme of Assessment between 4th December 2015 and 7th January 2016. Some 40 'near-track' local residents submitted comments as summarised below:

- modelling is based on fundamentally inaccurate data - no account taken of increased train frequency in assessing noise impact and mitigation - need to reassess this
- suspect modelling didn't take account of Waterways because NR didn't know it existed
- mitigation proposed does not accurately reflect the level of rail traffic and that the eastern line will be heavily used
- the NSoA shows 7 Chiltern trains permitted at night but current timetable shows 9 movements – this should be challenged by the Council
- Need noise reduction at source - Tata "Silenttrack" should be installed in this section so that section I is treated fairly with Wolvercote – no need for trial – should be implemented – if not then should be reviewed by independent expert
- Council should take additional independent advice on height and placement of noise barriers
- Difference in noise between situation without mitigation and with mitigation is a mere 2db
- Noise mitigation in Stone Meadow and Cox's Ground beyond 82db contour should be installed
- Barriers should be installed further north at least to chainage 128400 to mitigate noise from cross-over 9180
- no indication of height of noise barriers relative to the track is given

- 2.5m noise barrier will not protect properties which are 3 storeys high – Cox's Ground and Compline's Close – or deal with the 4m high diesel engines - noise barriers need to be higher
- was assured at the public consultation that the barriers would be higher than the highest site-line from the track
- noise barrier proposed is a simple fence not a proper sound barrier
- Provision of mitigation if no other negative effects – this is open to interpretation – need information about this cost-benefit analysis
- Ensure installation of 2.5m barriers prior to commencement of services
- Residents need more information on proposed noise insulation, its benefits and restrictions and whether it should be offered more widely such as to all floors and all properties
- noise insulation means that people have to keep their windows shut – but they have been built with devices to keep the air entering and circulating – if the windows are kept shut the health of residents will be affected – concern about non-opening windows
- The need for noise remediation indicates that the sound barriers will be ineffective
- Noise insulation should be on every floor with extra on the ground floor; also to include conservatories which are integral living space
- Extra noise insulation for properties in Stone Meadow and Cox's Ground already identified as being at risk should be completed
- Need to re-assess the placement of Oxford North junction – move further north away from housing – this should be subject to independent review
- 75mph freight speed limit is inappropriate for a residential area - impose and enforce a 40mph speed limit on freight trains passing through residential areas
- Need separate in-situ noise monitoring as is proposed in Wolvercote – Council should ensure that second period of monitoring occurs when both tracks are operational and in the context of the final speed limit
- the predicted night-time noise is 88db which is intolerable.
- Difficult to assess the noise impact on the school because the playing field straddles 2 sections of the scheme; what is daytime impact on the school? The current acoustic fence helps but rail noise and vibration are still intrusive particularly on the playing field but also in the building when the windows are open. Excessive noise will impact on childrens' health and learning. Need independent air quality monitoring with requirements for mitigation if appropriate
- Impact of noise in garden not dealt with
- Need to take account of health impacts on local residents of rail noise and vibration, diesel pollution, sleep deprivation
- 2.5m barrier not the most effective – should be erected away from the Waterways boundary so that the trees and bushes that have been retained are not cleared or felled
- should keep as many of the trees and as much of the vegetation as possible
- NR has cut down trees which were not on their land – do not trust NR with plans for mitigation.

36. The County Council as education authority has commented that it would wish to be assured that an accurate assessment of the potential impact of the rail upgrade, upon the school, has been undertaken and that appropriate mitigation measures are to be put in place in respect of noise, vibration and pollution, in order that neither has a quantifiable negative impact upon the quality of education that the school can provide. It therefore endorses the recommendation that there be ongoing independent monitoring of noise levels during the daytime both in the school building and on the school playing field and that if acceptable levels are exceeded, further noise mitigation should be provided. Likewise the Council would support the implementation of independent monitoring of air quality, with a requirement for mitigation if it can be shown that air quality has been adversely affected by the operation of the railway.

Issues:

- Assessment methodology and data
- Mitigation at source – rail dampening
- Barrier design, performance, location and height
- Noise insulation – extent and keeping windows shut
- Location of Oxford North Junction
- Restricting the speed of trains
- Limiting the number of trains
- Monitoring to replicate that at Wolvercote
- Night-time noise levels
- Impact on school
- Noise impact in gardens
- Health impact
- Vegetation and trees

Officers Assessment:

Assessment methodology and data

37. Residents are concerned that the Noise Scheme of Assessment relies on theoretical models to predict impacts, and does not contain measured data of the operational rail noise and vibration currently experienced in homes in the area or at the school. One comment suggested that the input data was incorrect in that Waterways had not been considered.

38. The methodology used for this Noise Scheme of Assessment replicates that approved for route section H, and has been checked both by Council officers and the Independent Expert for Noise. Measured data is used but at sample points only so as to establish a baseline against which to compare and upon which to model the future impacts. The latter process does take account of a full operational timetable, including passenger and freight train movements which may only take place if East West Rail Phase II is permitted. These movements represent a “reasonable worst case” and modelled predictions using them are unlikely to underestimate actual future noise levels. Sample locations for baseline measurements were extended in 2015 to include

locations in Waterways and Waterside.

Mitigation at source – rail dampening using Tata Silenttrack

39. The Noise and Vibration Mitigation Policy states that “*Noise will be reduced at source where it is reasonably practicable to do so*”. It goes on to commit to mitigation at source through rail infrastructure solutions, where reasonably practicable. The term “reasonably practicable” is not defined in the policy nor in condition 19 but was raised at Public Inquiry. The Inspector advised that:

“the term is one that in the current context may be taken to have its everyday meaning and so no special definition is necessary. Independent review of circumstances said to be not reasonably practicable would be by the local planning authority through paragraph 12 of Condition 19”.

40. In the submitted Noise Scheme of Assessment a number of potential rail infrastructure measures for noise mitigation are discussed including the use of track and wheel-based measures. These are as follows:

- an acoustic plenum under the track and a low upstand, not considered appropriate for a high-speed or heavy haul railway;
- wheel dampers, which are discounted as not being a practicable mitigation measure;
- low noise designs for switches and crossings, stated to be not available for use on heavy rail schemes; and,
- rail dampers, which it considers are not a practicable mitigation measure, primarily because type approval for use on the relatively high speed track is not currently available.

41. In respect of route section H, Council officers took advice from the Independent Expert and noted correspondence from residents concerning the use of at source mitigation measures on other railways. These matters were also raised with Network Rail’s project team. Officers considered that the arguments put forward by NR were sound apart from those for rail dampers. Whilst it has to be accepted that type approval would be required for the use of this measure, it is understood that a noise reduction of 3 dB may be expected from its use, a significant, if hardly noticeable change.

42. In respect of route section H, NR submitted a letter (dated 2nd April 2015, **Appendix 7**) which referred to progress towards a trial certificate for use of “Silent Track” at Wolvercote cutting. Officers were of the opinion that it was reasonable for Network Rail to pursue that option and recommended a condition to secure this which was agreed by the Committee. That condition is therefore also recommended for Section I1, as condition 2, above.

Barrier design, performance, location and height

43. A number of correspondents have expressed concerns about the proposed noise barriers: that the 2.5m height of the barriers is too low to attenuate noise at a 3-story building; that the actual height of the barriers cannot be discerned

from the details given; and that barriers should extend further than proposed particularly at Stone Meadow and Cox's Ground. One correspondent questioned the "cost-benefit analysis" of noise barriers.

44. The Noise and Vibration Mitigation Policy sets out the criteria for where noise barriers are to be considered, the presumption being that they will be installed under the set criteria if reasonably practicable and provided there are no adverse effects. The submitted Scheme of Assessment contains details of the constraints which affect barrier design, including non-noise factors such as health and safety. These limit their height and, in some cases location. This is the same approach as taken by the applicant in Section H. There is no further cost-benefit assessment to be made, although local factors might come to light at the detailed design stage, such as unforeseen buried services, which could affect the precise location of barrier sections.
45. The Independent Expert advised on this matter in respect of route section H. He referred to the process envisaged in condition 19(13) which states that: *"Where noise barriers are promoted in an approved scheme of assessment, they shall be installed only once the local planning authority has given written approval of their size, appearance and location. Noise barriers shall be maintained in their approved form and may be removed only with the written approval of the local planning authority"*.
46. The Noise and Vibration Mitigation Policy also covers situations where noise barriers do not achieve sufficient mitigation and noise insulation is to be offered as a result. This could be the outcome for some rooms at 3rd floor level, subject to the Noise and Vibration Mitigation Policy.
47. As confirmed in his Report, the Independent Expert considered that the principles behind the proposals for noise barriers, and their proposed locations as shown in the Noise Scheme of Assessment are adequate, subject to the detailed design specification of the proposed barriers which would be part of the approval process under Condition 19(13) which follows approval of the Noise Scheme of Assessment.
48. Officers agree with this interpretation and advice.

Noise insulation – extent and keeping windows shut

49. Residents have asked for more information on proposed noise insulation, its benefits and restrictions and whether it should be offered more widely such as to all floors and all properties. They are concerned that noise insulation means that windows need to be kept shut – but the properties have been built with devices to keep the air entering and circulating – if the windows are kept shut the health of residents will be affected. They ask for noise insulation on every floor with extra on the ground floor, and to include conservatories which are integral living space.
50. The Noise and Vibration Mitigation Policy sets out how and when both Statutory and non-statutory noise insulation will be offered. The specification

for the former is set out in the Noise Insulation (Railways and Other Guided Systems) Regulations 1996 and the Noise and Vibration Mitigation Policy applies the same specifications for non-statutory insulation. The specifications usually include secondary glazing and mechanical ventilation, thereby addressing both noise and indoor air considerations.

51. Officers consider that the application deals appropriately with noise insulation and that the proposals meet the requirements of the Noise and Vibration Mitigation Policy.

Location of Oxford North Junction

52. East West Rail has been given planning permission with the Oxford North Junction as configured. There is no opportunity within the scope of conditions approval by the Council to request or require its relocation, particularly when the submitted Noise and Vibration Schemes of Assessment demonstrate that the requirements of the Noise and Vibration Mitigation Policy are met.

Restricting the speed of trains

53. Representations have been made requesting that restrictions be placed on the speed of trains in route section I1.
54. As it has been demonstrated that the required standards set out in the Noise and Vibration Mitigation Policy will be achieved, the possibility that train speed might be reduced to mitigate vibration impact does not arise. Had that not been the case, the issue might have arisen in the context of substitute mitigation.
55. ERM on behalf of Network Rail commented upon the practicality of such mitigation in their letter of 2nd April 2015 in respect to route section H (**Appendix 6**). Furthermore, the Inspector at the reconvened Public Inquiry in January 2011 stated as follows:

“Representations were made that, in order to reduce the noise and/or vibration they might otherwise cause, the speed of trains using the Scheme should in places be limited (by planning condition) to, variously, 30 mph, 40 mph or 50 mph [6.9.1, 6.12.2, 6.11.8]. I do not adopt such a course, for the following reasons:

a) No expert evidence was brought to support the views that any of the suggested speed limits would have the desired effect in the context of the Scheme, or that any one of them was necessary.

b) Such evidence as was brought about the relationship of train speed and resulting vibration was that the ground vibration spectra produced by passing railway trains depend strongly on factors other than train speed [6.19.10].

c) The planning conditions I propose would provide the surety I have described in respect of noise and in respect of vibration, without recourse to speed limits.

d) The suggested condition would therefore not be necessary.”

56. Officers note this position and that it would apply equally to Section I1 and advise that speed restrictions cannot be required as part of this application.

Limiting the number of trains

57. Residents have requested that limits be put on the numbers of trains using this line.

58. Recommended condition 3 above which was imposed on route section H gives effect to this.

Monitoring to replicate that at Wolvercote

59. Correspondents have requested separate in-situ noise monitoring as is required by condition 4 for route section H in Wolvercote; and that the Council should ensure that the second period of monitoring occurs when both tracks are operational and in the context of the final speed limit.

60. As with route section H, in the view of the Independent Expert the monitoring proposals in the Noise Scheme of Assessment are acceptable. Similarly, officers see no reason to disagree with this view.

61. However, in respect of route section H the Committee imposed a condition regarding monitoring which is now recommended for application to route section I1 as condition 4 above.

62. As with Section H the applicant proposes that, in accordance with the Noise and Vibration Mitigation Policy, the second period of monitoring is carried out 18 months from commencement, but that data from this may be used accurately to predict mitigation performance in the future, when the full train frequency may be in place. The methodology is described in Section 6.0 and has been approved by the Independent Expert.

Night-time noise levels

63. Representations have been made that the predicted night-time noise is 88db which is intolerable.

64. The Noise and Vibration Mitigation Policy extends the conventional use of periodic (“day-time” or “night-time”) overall noise levels to include assessment of the instantaneous or Maximum Noise Levels predicted at noise sensitive receptor locations. The submitted Noise Scheme of Assessment predicts that at a number of noise sensitive receptor locations the night time Maximum Noise Level will be as high as 87 decibels after barriers have been installed. As required by the Noise and Vibration Mitigation Policy, those properties affected in this way will also be offered noise insulation to reduce this impact significantly below that likely to disturb sleep.

Impact on school/classrooms

65. In addition to the County Council's comments (paragraph 36 above) representations in respect of the school suggest that it is difficult to assess the noise impact on the school because the playing field straddles 2 sections of the scheme. The question is asked: what is daytime impact on the school? It is said that the current acoustic fence helps but rail noise and vibration are still intrusive particularly on the playing field but also in the building when the windows are open. It is considered that excessive noise will impact on children's' health and learning and that there is a need for independent air quality monitoring with requirements for mitigation if appropriate.
66. The submitted Noise Scheme of Assessment predicts an increase in overall day time noise level of 2 decibels at the school buildings. 3 decibels is generally considered to be the smallest increase in noise level which can be perceived by most people, so this increase would not be considered as significant. The resulting noise level is lower than the trigger levels applied under the Noise and Vibration Mitigation Policy.

Noise impact in gardens/school playing field

67. Several residents have referred to failure of the Noise Scheme of Assessment to take account of the likely increase in noise levels within gardens. The school has commented about the likely increase in operational rail noise levels in the school playing field and the impact that that may have on the learning environment.
68. The standards contained in the Noise and Vibration Mitigation Policy are focused on "noise sensitive receptors" (including the school) and the noise thresholds which determine whether mitigation is required are specific to internal noise levels (paragraph 2.6 of the Noise and Vibration Mitigation Policy):

"the noise levels predicted at the most exposed windows to noise sensitive rooms in noise sensitive buildings"

69. There is, therefore, no means by which condition 19 may be used specifically to control noise levels in gardens or the school playing field, since this is not a matter which is covered by the Noise and Vibration Mitigation Policy. Although this is the case, the use of at-source mitigation and in some cases noise barriers will result in some reduced noise in gardens and open spaces.

Health impact

70. Residents refer to the need to take account of the health impacts of operational rail noise. With respect to noise impacts they refer to sleep deprivation. Air quality and diesel pollution are also referred to.
71. The health impacts of operational noise are taken into account by the Noise and Vibration Mitigation Policy, which sets the basis for noise mitigation

assessment, requirements and eligibility. The Policy utilizes noise levels based on absolute and relative change criteria. These in turn are based on widely adopted day and night time noise limits calculated to avoid sleep disturbance and other adverse health impacts from noise. There is no mechanism under condition 19 to consider air quality and diesel pollution and this matter lies outside the scope of this application.

Vegetation and trees

72. Several residents commented that the remaining vegetation and trees should be retained to help with noise attenuation. This is not a factor explicitly referred to in the Noise and Vibration Mitigation Policy. Nevertheless in respect of route section H the Independent Expert was asked to comment on the relevance of trees and vegetation to sound propagation.

73. He advised that a band of trees several hundred feet deep is required to achieve a significant attenuation. He has also pointed out that the propagation calculations used by ERM for the Noise Scheme of Assessment were appropriate. Taking these comments into account officers are of the opinion that loss of trees and other vegetation is not material to the determination of the noise impacts in the terms of Condition 19.

Conclusion:

74. The Noise Scheme of Assessment for route section I1 has been shown to meet the tests set out in paragraphs 24 and 25 of this report, including the overall test of whether it is sufficiently robust. It has been demonstrated that the required standards in the Noise and Vibration Mitigation Policy will be achieved. On that basis it is recommended that approval be given, subject to the conditions set out above.

Human Rights Act 1998

Officers have considered the Human Rights Act 1998 in reaching a recommendation to grant planning permission, subject to conditions. Officers have considered the potential interference with the rights of the owners/occupiers of surrounding properties under Article 8 and/or Article 1 of the First Protocol of the Act and consider that it is proportionate.

Officers have also considered the interference with the human rights of the applicant under Article 8 and/or Article 1 of the First Protocol caused by imposing conditions. Officers consider that the conditions are necessary to protect the rights and freedoms of others and to control the use of property in accordance with the general interest. The interference is therefore justifiable and proportionate.

Section 17 of the Crime and Disorder Act 1998

Officers have considered, with due regard, the likely effect of the proposal on the need to reduce crime and disorder as part of the determination of this application, in accordance with section 17 of the Crime and Disorder Act 1998. In reaching a

recommendation that the condition be partially discharged, officers consider that the proposal will not undermine crime prevention or the promotion of community safety.

Background Papers: 15/00956/CND; 15/03503/CND

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