

From: Matthew Phillips
Sent: 22 March 2016 10:23
To: planning_admin
Subject: FW: Wrexham ref P-2016-0189 Land East of Tan Y Bont Main Rd Rhosrobin 189 dwellings outline

Consultation response

From: TownPlanning LNW [mailto:TownPlanningLNW@networkrail.co.uk]
Sent: 22 March 2016 09:18
To: Matthew Phillips
Subject: Wrexham ref P-2016-0189 Land East of Tan Y Bont Main Rd Rhosrobin 189 dwellings outline

P/2016 /0189
LAND EAST OF TAN Y BONT MAIN ROAD RHOSROBIN WREXHAM
OUTLINE APPLICATION FOR RESIDENTIAL DEVELOPMENT (UP TO 189 DWELLINGS) WITH ALL MATTERS RESERVED EXCEPT FOR ACCESS
Agent – Cassidy and Ashton
(our ref WSJ2 203.0577 to WSJ2 202.1645)
333126 / 352617

FAO Matthew Phillips

Network Rail has no objection in principle to the above – but due to the proposal being next to Network Rail land and critical railway infrastructure we would comment as follows.

Network Rail would wish to see specific reference made to the topics covered by our consultation response in the decision notice. The associated conditions should be worded to require the express agreement of Network Rail prior to the commencement of the development.

Network Rail has a statutory obligation of ensure the availability of safe train paths and as such we are required to take an active interest in any development adjacent to our infrastructure that potentially could affect the safe operation of the railway.

When designing proposals, the developer is advised, that any measurements must be taken from the operational railway / Network Rail boundary and not from the railway tracks themselves. Network Rail land, from the railway tracks themselves to the Network Rail boundary fence, will include critical infrastructure (e.g. cables, signals, overhead lines, communication equipment etc) and boundary treatments which could be adversely impacted by third party proposals unless the necessary asset protection measures are undertaken. No proposal should increase Network Rail's liability.

(1) Noise and Vibration

The Noise Assessment states:

"The vibration measurements conducted found that the highest weighted daytime and night-time groundborne VDV's measured at the application site were 0.049 ms^{-1.75} and 0.038 ms^{-1.75} respectively by train pass-by's at the nearest site boundary. These levels are below the range in which BS6472 considers there to be a low probability of adverse comment. Consequently this concludes that 'there would appear to be no implication due to vibrations on the proposed development' during a full 16 hour daytime and 8 hour night-time period even if we considered all train movements generated this worst case vibration level measured on site."

The railway adjacent to the site is the Stafford Road Junction to Saltney Junction line.

Consideration might be given by the developer and the LPA to existing British Standards, Regulatory Services guidance, e.g. Significant Observed Adverse Effect Level (SOAEL), the Noise Policy Statement for England and the World Health Organisation (WHO) recommendations when considering noise and vibration mitigation measures for third party proposals in proximity to the railway.

Network Rail is aware that residents of dwellings adjacent to the railway have in the past discovered issues upon occupation of dwellings with noise and vibration from the existing operational railway, as a consequence of inadequate mitigation measures for the site, and therefore it is a matter for the developer and the LPA via mitigation measures and conditions to ensure that these issues are mitigated appropriately prior to construction.

- The current level of railway usage may be subject to change at any time without prior notification including increased frequency of trains, night time train running and heavy freight trains.
- Network Rail also often carry out works at night on the operational railway when normal rail traffic is suspended and often these works can be noisy and cause vibration.
- Network Rail may need to conduct emergency works on the railway line and equipment and these would not be notified to residents in advance due to their safety critical nature.
- The proposal should not prevent Network Rail from its statutory undertaking. Network Rail is a track authority. It may authorise the use of the track by train operating companies or independent railway operators, and may be compelled to give such authorisation. Its ability to respond to any enquiries regarding intended future use is therefore limited.

(2) Fencing

The proposal includes a residential area to the southern section and to the north section a permanent green space which includes a public right of way. The green space will be open to members of the public, including minors and the development area has dwellings proposed for adjacent to the railway line.

In light of this Network Rail would request, if not already in place, the Developer must provide, at their own expense, a suitable trespass proof steel palisade fence **of at least 1.8m in height** adjacent to Network Rail's boundary and make provision for its future maintenance and renewal without encroachment upon or over-sailing of Network Rail land. Network Rail's existing fencing / wall must not be removed or damaged and at no point either during construction or after works are completed on site should the foundations of the fencing or wall or any embankment therein be damaged, undermined or compromised in any way. Any vegetation on Network Rail land and within Network Rail's boundary must not be disturbed. Any fencing installed by the applicant must not prevent Network Rail from maintaining its own fencing/boundary treatment.

Any existing Network Rail fencing at the site has been erected to take account of the risk posed at the time the fencing was erected and not to take into account any presumed future use of the site, where increased numbers of people and minors may be using the areas adjacent to the operational railway. Therefore, any proposed residential development imports a risk of trespass onto the railway, which we would remind the council, is a criminal offence (**s55 British Transport Commission Act 1949**). As the applicant has chosen to develop a proposal next to the railway, they are requested to provide a suitable trespass proof fence to mitigate any risks imported by the proposal.

Network Rail is a publicly funded organisation; it would not be reasonable to require Network Rail to fund boundary works, fencing and boundary enhancements necessitated by third party commercial development adjacent to the railway.

Network Rail's Asset Protection Engineer will need to review the fencing to ensure that no works to the foundations undermine or destabilise Network Rail land, or encroach onto Network Rail land.

We would request a condition is included in the planning consent as follows:

"Prior to occupation of the dwellings the developer is to provide a suitable trespass proof fence adjacent to the boundary with the railway. Details of the fencing to be submitted to the LPA and Network Rail."

Reason: To protect the adjacent railway from unauthorised access from the dwellings and the green space.

Network Rail would not support a proposal that includes open spaces, where the developer has not provided boundary protection for the area from the possibility of encroachment.

(3) Excavations and Earthworks

Network Rail will need to review all excavation and earthworks within 10m of the railway boundary to determine if the works might impact upon the support zone of our land and infrastructure as well as determining relative levels in relation to the railway. Network Rail would need to be informed of any alterations to ground levels, de-watering or ground stabilisation and we would need to agree the works on site to ensure that there is no impact upon critical railway infrastructure. When under-taking ground works, developers should take all necessary measurements from the boundary with Network Rail land and not the distance from their works to the nearest railway tracks.

We would request a condition is included in the planning consent as follows:

Condition:

"Prior to the commencement of the development full details of ground levels, earthworks and excavations to be carried out near to the railway boundary shall be submitted to the Local Planning Authority and Network Rail."

Reason: To protect the adjacent railway.

(4) Drainage

The Flood Risk Assessment states:

"9.1 The flooding sources have been mitigated on the site by using a number of techniques, and mitigation strategies to manage and reduce the overall flood risk at the site. This will ensure the development will be safe and there is: • Minimal risk to life; • Minimal disruption to people living and working in the area; • Minimal potential damage to

property; • Minimal impact of the proposed development on flood risk generally; and • Minimal disruption to natural heritage.”

Consideration in any flood risk assessment and sustainable drainage layouts and design should also give weight to the impact upon the existing operational railway of the proposal and its drainage strategies which have not been included in point 9.1.

Point 10.5 states, “At this stage it is anticipated that the attenuation storage will be located in: Soakaways, Filter Strips, Infiltration Trenches, Swales, Storage Tanks, Oversized Drainage Networks, Cellular Storage, Surface Storage and Permeable Paving. In order to limit the rate and volume of surface water runoff that is discharged, it will be necessary to include a flow control device. The surface water runoff from the site will be attenuated to 5.00l/s for all events up to and including the 1 in 100 year (+ 30%) rainfall event....At this stage of the planning process it is proposed that a planning condition can be adopted to cover the detailed design of the surface water runoff from the site. It is proposed that the detailed drainage design of the final scheme would be secured by a planning condition attached to any planning permission granted and agreed with the Environment Agency, Welsh Water/Dŵr Cymru and the LPA prior to works commencing.”

Network Rail should also be included in those bodies who will need to agree the drainage strategy for the site. We would advise the LPA and the developer that All surface water is to be directed away from the direction of the railway. Soakaways, as a means of storm/surface water disposal must not be constructed near / within 20 metres of Network Rail's boundary or at any point which could adversely affect the stability of Network Rail's property. Once water enters a pipe it becomes a controlled source and as such no water should be discharged in the direction of the railway.

- Storm/surface water must not be discharged onto Network Rail's property or into Network Rail's culverts or drains.
- Suitable drainage or other works must be provided and maintained by the developer to prevent surface water flows or run-off onto Network Rail's property.
- Proper provision must be made to accept and continue drainage discharging from Network Rail's property.
- Suitable foul drainage must be provided separate from Network Rail's existing drainage.
- Drainage works could also impact upon culverts on developers land.

Water discharged into the soil from the applicant's drainage system and land could seep onto Network Rail land causing flooding, water and soil run off onto lineside safety critical equipment / infrastructure; or lead to de-stabilisation of land through water saturation.

We would request that a condition is included in the planning consent as follows:

Condition:

“Prior to the commencement of the development details of the disposal of both surface water and foul water drainage directed away from the railway shall be submitted to the Local Planning Authority and Network Rail.”

Reason: To protect the adjacent railway from the risk of flooding and pollution.

(5) 2m Gap

Network Rail requests that the developer ensures there is a minimum 2 metres gap between the **buildings and structures on site** and our boundary fencing.

- To allow for all construction works on site and any future maintenance to be carried out wholly within the applicant's own land ownership and without encroachment onto Network Rail land and air-space. Any unauthorised access to Network Rail land or air-space is an act of trespass and we would remind the council that this is a criminal offence (**s55 British Transport Commission Act 1949**).
- To ensure that should the **buildings and structures on site** fail or collapse that it will do so without damaging Network Rail's boundary treatment or causing damage to the railway (e.g. any embankments, cuttings, any lineside equipment, signals, overhead lines) and to prevent the materials from the **buildings and structures on site** falling into the path of trains.
- To ensure that the **buildings and structures on site** cannot be scaled and thus used as a means of accessing Network Rail land without authorisation.
- To ensure that Network Rail can maintain and renew its boundary treatment, fencing, walls.
- That the proposal will not be impacted by overhead electrified lines. Induced voltage can affect structures or individuals up to 20m from the overhead line. AC lines have overhead cables, DC lines are third rail.
- There are no Party Wall issues for which the applicant would be liable for all costs.
- To ensure that the applicant does not construct their proposal so that any foundations (for walls, buildings etc) do not end up encroaching onto Network Rail land. Any foundations that encroach onto Network Rail land could undermine, de-stabilise or other impact upon the operational railway land, including embankments, cuttings etc. Under Building Regulations the depth and width of foundations will be dependant upon the size of the structure, therefore foundations may impact upon Network Rail land by undermining or de-stabilising soil or boundary treatments.

(6) Lighting

The lighting associated with the development (including vehicle lights) must not interfere with the sighting of signalling apparatus and/or train drivers vision on approaching trains. The location and colour of lights must not give rise to the

potential for confusion with the signalling arrangements on the railway. The developer should obtain agreement from the Network Rail Asset Protection Engineer for their detailed proposals regarding lighting. Following occupation of the development, if within three months Network Rail or a Train Operating Company has identified that lighting from the development is interfering with driver's vision, signal sighting, alteration/mitigation will be required to remove the conflict at the applicant's expense e.g. a sodium light on third party land can 'wash-out' a driver's ability to perceive a signal set at red: to the train driver the signal would be perceived as yellow and the driver would proceed even though a red signal indicates danger and to stop.

(7) Landscaping

We would draw the council's and developer's attention to the Department of Transport's 'Transport Resilience Review: A Review of the Resilience of the Transport Network to Extreme Weather Events' July 2014, which states, *"On the railways, trees blown over in the storms caused severe disruption and damage on a number of routes and a number of days, particularly after the St Jude's storm on 28th October, and embankment slips triggered by the intense rainfall resulted in several lines being closed or disrupted for many days..... 6.29 Finally the problem of trees being blown over onto the railway is not confined to those on Network Rail land. Network Rail estimate that over 60% of the trees blown over last winter were from outside Network Rail's boundary. This is a much bigger problem for railways than it is for the strategic highway network, because most railway lines have a narrow footprint as a result of the original constructors wishing to minimise land take and keep the costs of land acquisition at a minimum."*

In light of the above, Network Rail would request that no trees are planted next to the boundary with our land and the operational railway. Network Rail would request that only evergreen shrubs are planted and we would request that they should be planted a minimum distance from the Network Rail boundary that is equal to their expected mature growth height.

- Trees can be blown over in high winds resulting in damage to Network Rail's boundary treatments / fencing as well as any lineside equipment (e.g. telecoms cabinets, signals) which has both safety and performance issues.
- Trees toppling over onto the operational railway could also bring down 25kv overhead lines, resulting in serious safety issues for any lineside workers or trains.
- Trees toppling over can also destabilise soil on Network Rail land and the applicant's land which could result in landslides or slippage of soil onto the operational railway.
- Deciduous trees shed their leaves which fall onto the rail track, any passing train therefore loses its grip on the rails due to leaf fall adhering to the rails, and there are issues with trains being unable to break correctly for signals set at danger.

The Network Rail Asset Protection Engineer is to review the landscaping plans.

Network Rail has a duty to provide, as far as is reasonably practical, a railway free from danger or obstruction from fallen trees. Trees growing within the railway corridor (i.e. between the railway boundary fences) are the responsibility of Network Rail. Trees growing alongside the railway boundary on adjacent land are the primary responsibility of the adjoining landowner or occupier.

All owners of trees have an obligation in law to manage trees on their property so that they do not cause a danger or a nuisance to their neighbours. This Duty of Care arises from the Occupiers Liability Acts of 1957 and 1984. A landowner or occupier must make sure that their trees are in a safe condition and mitigate any risk to a third party. Larger landowners should also have a tree policy to assess and manage the risk and to mitigate their liability.

(8) Vibro-Impact Machinery

If vibro-compaction machinery / piling machinery or piling and ground treatment works are to be undertaken as part of the development, details of the use of such machinery and a method statement must be submitted to the Network Rail Asset Protection Engineer.

- All works shall only be carried out in accordance with the method statement and the works will be reviewed by Network Rail. The Network Rail Asset Protection Engineer will need to review such works in order to determine the type of soil (e.g. sand, rock) that the works are being carried out upon and also to determine the level of vibration that will occur as a result of the piling.
- The impact upon the railway is dependent upon the distance from the railway boundary of the piling equipment, the type of soil the development is being constructed upon and the level of vibration. Each proposal is therefore different and thence the need for Network Rail to review the piling details / method statement.

Maximum allowable levels of vibration - CFA piling is preferred as this tends to give rise to less vibration. Excessive vibration caused by piling can damage railway structures and cause movement to the railway track as a result of the consolidation of track ballast. The developer must demonstrate that the vibration does not exceed a peak particle velocity of 5mm/s at any structure or with respect to the rail track.

If vibro-impact equipment is to be used we would request a condition is added to the planning consent as follows:

"Prior to any vibro-impact works on site, a risk assessment and method statement shall be submitted to the LPA and Network Rail."

Reason – to prevent any piling works and vibration from de-stabilising or impacting the railway.

(9) RAMS

Network Rail requests that the developer submit a risk assessment and method statement (RAMS) for the proposal to the Network Rail Asset Protection Engineer once the proposal has entered the development and construction phase. The RAMS should consider all works to be undertaken within 10m of the operational railway. We require reviewing the RAMS to ensure that works on site follow safe methods of working and have taken into consideration any potential impact on Network Rail land and the operational railway. The developer should contact Network Rail Asset Protection prior to works commencing at AssetProtectionWales@networkrail.co.uk to discuss the proposal and RAMS requirements in more detail.

Due to the proximity of the proposed works to the railway the developer will need to enter into a BAPA (Basic Asset Protection Agreement) with Network Rail to facilitate all the works on site, and the developer will be required to reimburse Network Rail for all asset protection costs (including site safety, asset protection presence, possession costs, review of documentation).

All works should be undertaken on site from the applicant's land ownership footprint and without encroachment onto Network Rail land or over-sailing our air-space. It is difficult to determine from a desktop study only if the proposed demolition works and construction works can be undertaken from wholly within the developer's land. If access to Network Rail land is required to facilitate the works then this must be approved by the Network Rail asset protection team, with all costs incurred by Network Rail being reimbursed by the developer. The developer will need to submit details of plans at least 20 weeks before any works commence on site. It should be noted that Network Rail reserves the right to refuse access to our land and air-space to third parties if this would increase our liability. Any unauthorised access to Network Rail land would be deemed an act of trespass.

Network Rail would need to be reassured that any works in close proximity to the railway boundary will not impact our existing boundary treatments.

Regards

Diane Clarke TechRTPI

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Network Rail

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