

**Network Rail Infrastructure Limited**

**Examiner's Written Questions – Deadline 2**

<b>Question Ref</b>	<b>Question to</b>	<b>Question</b>	<b>Sizewell response 13th May unless stated otherwise</b>	<b>Network Rail Response</b>
G.1.46	The Applicant, Network Rail	<p>Green Rail Route and Land East of Eastlands Industrial Estate (LEEIE)</p> <p>(i) In the event the Saxmundham to Leiston branch line is modified as proposed and both the LEEIE and Green Rail Route are established could they both be operational at the same time?</p> <p>(ii) Please explain whether this is possible and if not what would be in place to prevent it?</p> <p>(iii) Has the ES assessed the possibility of both operating together?</p>	<p>(i) Based on the current designs, it would be technically possible to operate both the Green Rail Route and the LEEIE at the same time.</p> <p>(ii) The design is being optimised for sequential operation of the LEEIE, and then the Green Rail Route. For example, the signalling design is being developed to enable access to the LEEIE, and then the Green Rail Route. While both pieces of infrastructure could theoretically be operated simultaneously, this would require a specifically agreed operational process. Any simultaneous use of the infrastructure in the course of normal operation has not been identified as a design requirement.</p> <p>(iii) No</p>	<p>The applicant has entered into a BAPA arrangement with Network Rail. As part of this undertaking a full review of designs and interoperability will be undertaken. At this stage we are unable to provide comments on the designs proposed.</p> <p>N.B Green Rail Route and Land East of Eastlands Industrial Estate (LEEIE) is being developed by EDF.</p>
G.1.51	The Applicant, Network Rail	<p>Freight Trains</p> <p>(i) Please advise of the stages to go through to confirm that freight trains could begin to deliver materials to both Land East of the Eastlands Industrial Estate (LEEIE) and the Main Development Site (MDS) using the Green Rail Route.</p> <p>(ii) Please set out what you consider to be a realistic time frame for the delivery and facilitation of both options in the</p>	<p>(i) Project Stages (common to all railway projects):</p> <p>In addition to approvals necessary through the DCO process, the SZC rail projects are being developed and delivered in line with Network Rail (NWR) standards NR/L1/INI/PM/GRIP/100 (Governance for Railway Investment Projects) and NR/L2/INI/02009 (Engineering Management for Projects). This includes the Green Rail Route and LEEIE sections which, as temporary sections of track, will remain the responsibility of SZC Co. throughout the period of their operational use. As such there is no obligation on SZC Co. to comply with NWR standards; however, compliance with</p>	<p>The Applicant has responded outlining the Network Rail Governance for Railway Investment Projects and the necessary processes for access to the Network.</p> <p>An indicative programme has been provided by the applicant which will form the basis of discussion between the parties.</p>

		<p>event the DCO were to be granted.</p>	<p>these standards demonstrates the “best practice” approach being adopted by SZC Co. In summary, the steps are:</p>	
			<p>GRIP 3 – Single Option Selection</p>	
			<p>GRIP 4 – Single Option Development to achieve Approval in Principle (AiP) by NWR of the design. This confirms compliance with the appropriate technical standards.</p>	
			<p>GRIP 5 – Detailed Design, based on AiP design, with inter-disciplinary check and reviews and independent design checks carried out. Acceptance of the detailed design by suitably qualified and experienced NWR and SZC engineers. Designs progressed to “Approved for Construction” status.</p>	
			<p>GRIP 6 – Construction of the new and upgrade infrastructure works associated with the project, in line with the accepted design and specification for the work. Testing &amp; Commissioning activities to confirm operation to the operator and maintainer prior to bringing into use.</p>	
			<p>GRIP 7 – Handover, transferring responsibility for the new and upgraded assets to the operator and maintainer, likely to be NWR for the existing branch line; and the appointed Freight Operating Company (FOC) for the Green Rail Route and LEEIE.</p>	
			<p>Compliance with the NWR GRIP and Engineering Management standards will ensure that, once commissioned, the new and upgraded rail infrastructure will be capable of use for operating the rail services required for construction of SZC. There are, however, additional elements which</p>	

			<p>need to be in place prior to the commencement of these services. These include the following:</p>	
			<p>Freight Customer Track Access Contract, between NWR and SZC Co. This sets out the terms on which SZC Co. is entitled to operate services. Where SZC Co. requires services to be operated, it issues a "drawdown notice" to NWR and the FOC. NWR and the FOC then enter into an access contract as below. This contract requires the approval of the Office of Road and Rail (ORR).</p>	
			<p>Freight Track Access contract, between NWR and the FOC. This is required to secure the train paths to allow the proposed SZC freight trains to operate on the national railway network. SZC Co.'s access rights would be implemented through agreement of the railway timetable where the number and timing of train movements for SZC Co's freight trains across the railway network to and from SZC site. This contract requires ORR approval.</p>	
			<p>Connection Agreement, between NWR and SZC Co. to secure approval to make the proposed temporary rail connections between the Saxmundham to Leiston branch line and the development site. This agreement requires ORR approval</p>	
			<p>Asset Protection legal agreements or implementation agreements, between NWR and SZC Co., under which SZC Co. secure the services of NWR to support the development and / or delivery of the necessary infrastructure changes. A schedule of these agreements is set out in the NWR / SZC Co. Statement of Common Ground.</p>	
			<p>Framework Agreement / Protective Provisions between NWR and SZC Co, as described in SZC Co.'s response to question CA1.61</p>	

			<p>Land Access licences or agreements between NWR and SZC Co., to secure the necessary access to NWR property to enable the infrastructure work to be carried out.</p>	
			<p>Network Change. A formal process, led by NWR, under which all users of the railway infrastructure comment on the proposed changes, leading to ORR approval.</p>	
			<p>Level Crossing Order. A formal process, led by the crossing operator, generally NWR, to secure approval to changes to the layout or operation of level crossings, leading to ORR approval.</p>	
			<p>(ii) Realistic timeframe for these activities:</p>	
			<p>The summary timeframe for the proposed rail works is as shown below. The necessary agreements will be put in place in time to enable this timeframe to be maintained.</p>	

HW.1.19	The Applicant, Network Rail	<p><b>Rail Safety</b></p> <p>Network Rail [RR-006] identifies concerns, that by introducing any Freight Trains onto the East Suffolk line will (due to their slower running speeds), cause an increased risk and delay to users of level crossings.</p> <p>(i) Please respond to this concern and advise if any mitigation could be provided to address this issue.</p> <p>(ii) If this were appropriate, how would it be delivered through the DCO?</p>	<p>SZC answer shared 25th May Hugh Flanagan to do legal review</p> <p>SZC Co. and Network Rail are working together to identify level crossings on the East Suffolk line where there may be an increase in risk. If mitigations are required, these will be pursued by Network Rail as the asset owner and organisation with responsibility for the management of safety risks at the level crossings.</p>	<p>A high level review of impacts to level crossings users was undertaken on the East Suffolk Line between Ipswich and Saxmundham Junction. The key impacts are:</p> <p>Sectional Running times - An unacceptable increase in section running times would make it difficult for the signaller to inform members of public when it is safe to traverse a level crossing, this is purely as a result of the slower trains. Up to 5 locations have been identified and the introduction of new Miniature Stop lights are to be installed at these locations.</p> <p>Darsham Park &amp; Ride - Option to include Station Car Park in new Park &amp; Ride facility removing increased impact from station car park users who find it increasingly difficult to traverse the A12 to access the station. The only reasonable option is to traverse when the barriers are lowered, which means if they need to get an Ipswich bound train they have to cross the level crossing when the barriers are lowered and it is unsafe to do so.</p> <p>Middleton ABCL - Red Light Safety enforcement cameras should be installed ahead of any increase in traffic to Sizewell C, consideration should be given to installing lay-by's such that there is somewhere safe to park for those users required telephone to gain permission to cross the level crossing or confirm to the signaller they are safely over the level crossing.</p> <p>Operational freight pathing constraints will also be considered to eliminate issues at both Jetty and Bloss level crossings, trains must</p>
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				<p>not be stopped in Woodbridge station to allow the single line to from Saxmundham to Melton to clear, this would cause a freight train to block Jetty level crossing, which is unacceptable. Trains will only traverse Melton AOCL+B crossing in the down direction in between the hours of 07:00 and 21:00, it is unacceptable for trains to pass in the up direction as this would block Bloss level crossing which is an operational boat yard, this would be acceptable in-between the hours of 21:00 and 07:00 as the likelihood of anybody using the crossing in between these times would be slim.</p> <p>(ii) Including the protective provisions requested by Network Rail would ensure that before track access was granted to the Applicant appropriate agreements and mitigation would need to be in place with Network Rail. In addition it could be a requirement in the DCO for the Applicant to agree a programme of mitigation with Network Rail before running any additional trains to the proposed development</p>
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HW.1.27	The Applicant, Network Rail	<p><b>Change Request No. 2</b></p> <p>The Change Request could see an increase in the number of freight trains running along the line. Please advise how this could be safely delivered to ensure there would not be unacceptable risks to users of level crossings both for the branch line and the Ipswich to Lowestoft main line.</p>	<p>SZC answer shared 25th May</p> <p>Risk assessments have been completed on the level crossings on the Sizewell branch line which have identified that major interventions are not necessary from a risk perspective. Upgrades will however be made to level crossings to enhance the operational capability of the line, and avoiding the current requirement for trains to stop while the gates are manually operated. This will have the effect of also further reducing the already low risk at level crossings on the Saxmundham to Leiston branch line.</p> <p>SZC Co. and Network Rail are working together to identify level crossings on the East Suffolk line where there may be an increase in risk. If mitigations are required, these will be pursued by Network Rail as the asset owner and organisation with responsibility for the management of safety risk at the level crossings.</p>	<p>Network Rail and the Applicant undertook a high level review of impacts to Level Crossings on the East Suffolk Branch Line between Ipswich and Saxmundham Junction. The review covered all public level crossings, Passive footpaths and User Worked crossings. A systematic review of train lengths, anticipated barrier down times, signaller constraints, sightlines as well as impacts from additional HGV traffic over Level Crossings was undertaken, resulting in a list of impacted crossings. These crossings have mitigating actions identified and we are continuing to work together with SZc and the local authorities to ensure all appropriate actions are taken.</p> <p>For most Level crossings the mitigation interventions involve the installation of Miniature Stop Light and overlay systems. These works are not complex in nature and require relevant agreements to be put in place to ensure timely delivery.</p> <p>Some additional Level Crossings were identified as requiring some mitigation work to manage the risk so far as reasonably practicable. Network Rail will ensure these works have been delivered before any freight trains start to operate.</p> <p>Level Crossing impacts on the branch line from Ipswich to Lowestoft have not yet been reviewed.</p>
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HW.1.28	The Applicant, Network Rail, Suffolk Constabulary, East of England Ambulance Service, Suffolk Fire and Rescue, SCC, ESC	<p><b>Change Request No. 2</b></p> <p>In the event the number of trains were to be increased, please explain what implications this may have for the operation of level crossings on the branch line and the main Ipswich to Lowestoft line and the effect on severance of communities or impacts on emergency services.</p>	<p>SZC answer shared 25th May</p> <p>On the Ipswich to Lowestoft line and Sizewell branch the level crossing barriers would be down for approximately two to three minutes for the passage of each train, seven out of eight of which will operate overnight. This has been assessed in the ES [APP-198] to have a minor adverse effect on driver delay, which would not be significant.</p>	<p>For the East Suffolk Line between Ipswich and Saxmundham Junction Network Rail anticipate that barrier down time will be significant however we believe the Level Crossing risks created by this are tolerable, notwithstanding any separate impacts to Emergency Service operations. Level Crossing impacts on the branch line from Ipswich to Lowestoft have not yet been reviewed.</p>
NV.1.12	The Applicant, Network Rail (part iii only)	<p><b>Rail Noise</b></p> <p>(i) The mitigation proposed appears to rely upon welds not being within a certain distance of sensitive receptors. What distance is required between receptor and the track to achieve the LOAEL and SOAEL levels?</p> <p>(ii) Please clarify where the measurements are taken from and to.</p> <p>(iii) How would this be delivered through the DCO?</p>	<p>(i) The distance depends on train speed, rail and joint type.</p> <p>A range of values is set out in paragraph 4.3.26 in Volume 3, Appendix 9.3.A of the ES Addendum (Doc Ref 6.14) [AS-257], describing the appropriate distances to the LOAEL or SOAEL given specific combinations of speed, track type and rail joint type.</p> <p>(ii) the distances are measured from the track centreline to the façade of the receptor building, unless stated otherwise, for instance, some distances are quoted between the nearside rail and the receptor façade.</p> <p>(iii) The implementation of track renewal along sections of the line between Woodbridge and Saxmundham is the subject of active discussion with Network Rail. If those discussions demonstrate the benefit and deliverability of the improvements, they could be secured through the DCO. An obvious route might be to add them to the (draft) Rail Noise Mitigation Strategy, which is secured by Requirement 25</p>	<p>iii Network Rail are currently working with SZC on proposals for Track enhancements to SZC between Westerfield and Saxmundham Junction. In addition discussions includes status and potential alterations to sleepers, fasteners and welds to assist with noise mitigation. This work is ongoing and as such no further comments can be provided at this stage. However, we agree with the suggestion of the use of requirement 25 to secure any details agreed ahead of the close of the Examination, along with the inclusion of the Network Rail requested Protective Provisions.</p>



NV.1.13	The Applicant, Network Rail (part iii only)	<p><b>Rail</b></p> <p>(i) The placement of matting under the ballast would appear to be required for all locations where a sensitive receptor is within 20m of the centreline of the railway, and this matting should extend 10m beyond the end of the receptor building. How would this be delivered through the DCO?</p> <p>(ii) Does this require a specific standard of matting to be provided and method of laying of the matting and the ballast to meet the minimum noise absorption required and therefore is a specific minimum specification required? If so, how is this to be secured?</p> <p>(iii) Do Network Rail agree to this method of installation?</p>	<p><b>Noise</b></p> <p>(i) Works to the Saxmundham to Leiston branch line are secured in the dDCO as Works 4C and through Requirement 18. The particular characteristics referenced in the question, however, are specified in the draft Rail Noise Mitigation Strategy which forms Volume 3, Appendix 9.3E of the ES Addendum (Doc Ref 6.14) [APP-258]. Requirement 25 requires the detail of the Rail Noise Mitigation Strategy to be submitted to and approved by ESC before the operation of night-time trains.</p> <p>(ii) The under-ballast mat is required to achieve a specific standard, and an example of a product which has the required properties is included in Appendix A of the draft Rail Noise Mitigation Strategy, which is contained in Volume 3, Appendix 9.3.E of the ES Addendum (Doc Ref 6.14) [APP-258]. The principal requirement to be specified is the dynamic stiffness modulus. The proposed product must have achieved Network Rail “product acceptance” which will specify certain performance and installation requirements. The chosen product, with those performance and installation characteristics, will be part of the Track Approval In Principle documentation (the “Form A”) accepted by Network Rail at the end of the next design phase which secures their place in the design. (James Cullane / Peter Fagg)</p> <p>(iii) SZC Co. are engaging with Network Rail through a Basic Asset Protection Agreement (BAPA) to achieve successful Approval in Principle which will demonstrate their acceptance of this solution. (James Cullane / Peter Fagg)</p>	<p>iii NR have an active BAPA in place which facilitates the design approval process. At present Network Rail does not have sufficient information to confirm this.</p>
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NV.1.17	The Applicant, Network Rail	<p><b>Rail</b> [APP-558] makes reference to trains travelling at 25mph para 8.6.45, this would appear to conflict with the speed restriction of 20mph, please clarify the position.</p>	<p>The reference to train speed in paragraph 8.6.45 of Volume 9, Chapter 8 of the ES (Doc Ref 6.10) [APP-558] is to a 'maximum' of 25mph.</p> <p>The train speeds will be as set out in the draft Rail Noise Mitigation Strategy contained in Volume 3, Appendix 9.3E of the ES Addendum (Doc Ref 6.14) [APP-258].</p> <p><a href="https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010012/EN010012-002176-SZC_Bk6_ES_V9_Ch8_Amenity_and_Recreation.pdf">https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010012/EN010012-002176-SZC_Bk6_ES_V9_Ch8_Amenity_and_Recreation.pdf</a></p>	<p>Network Rail will be working with the Applicant as part of the ongoing project development.</p> <p>This will include the processes for Timetabling and Track Access.</p>
NV.1.20	The Applicant, Network Rail	<p><b>Rail Freight Option</b> What controls are there over when trains would run, what engines could be used, and therefore how realistic is the assessment that has been carried out?</p>	<p>The Applicant's response to Question NV.1.11 explains the controls that will be put in place both contractually and through the DCO to ensure that train operations accord with the description and assessment set out in the application.</p> <p>It is standard in Freight Access contracts to specify the type of rolling stock that are permitted to operate the relevant services. The contracts draw on a central asset management database (known as RSSB R2) which holds details of every vehicle registered to operate on the UK railway. The contracts also specify 'Timing load requirements', which commit to a combination of trailing weight and traction type for each service.</p>	<p>There is a standard process in place to manage these controls - Freight Track Access Contract</p>

NV.1.26	The Applicant, Network Rail, ESC, SCC	<p><b>Rail</b> In order to minimise disturbance to receptors in close proximity to the rail line, particularly at night, would a period excluding train operations be reasonable and or enforceable?</p>	<p><b>Noise</b> The timing of trains would be specified in the Freight access contracts, which are explained in response to Question NV.1.11 – and therefore enforceable. However, there is limited ability to ‘choose’ the timing of train operations. Night-time operations are necessary due to the absence of pathing capacity in the day. At night the scheduling of trains will be a function of the capacity available within the network timetable. The work undertaken on this has shown the ability to secure 7 train movements. Timing limitations would be very likely to reduce that number – especially as the slowed speed of the trains means that each one takes a considerable time to travel from the main line at Ipswich to site. Limiting train numbers would act against the policy imperative in the NPS to prefer train-borne freight where cost effective. The Applicant’s view is that the balance lies in favour of securing the available capacity at night but ensuring that impacts are appropriately mitigated.</p> <p>Question – would it be helpful to include more detail of the timing of the likely night time train movements?</p>	<p>Network Rail could only restrict train movements based on safety or capacity issues. However, if the Examiner felt it was necessary, we understand a restriction could be included in the DCO as a requirement. However, to optimise freight train movements overnight paths are necessary.</p> <p>The Applicant will need to comment on their impacts as a result of excluding train operations.</p>
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NV.1.30	The Applicant, Network Rail	<p><b>Saxmundham Points System</b></p> <p>(i) Has it been confirmed that the automatic points system at Saxmundham can be implemented to avoid trains stopping and starting?</p> <p>(ii) How is this to be secured?</p>	<p>(i) In the 2017 GRIP 2 report Network Rail identified the feasibility of installing automatic points at Saxmundham Junction. This has formed the basis of the next stage of design (GRIP 3/single option selection), which will be submitted to Network Rail for review and acceptance in their role as asset owner at GRIP 4 (approval in principle) prior to detailed design and construction.</p> <p>(ii) The automatic points system at Saxmundham prevents the need for trains to stop and start again to leave or join the branch line. The improvement would bring tangible noise benefits. Accordingly, the enhancement is specified in the draft Rail Noise Mitigation Strategy (at section 2.2), which is contained in Volume 3, Appendix 9.3.E of the ES Addendum (Doc Ref 6.14) [AS-258].</p> <p>The Rail Noise Mitigation Strategy would be secured in the manner explained in response to Question NV.1.11.</p>	<p>The 2017 GRIP 2 report identified the feasibility of installing automatic points at Saxmundham Junction. Network Rail expect the updated design will be submitted for review at GRIP 4 (approval in principle) prior to SZC's detailed design and construction.</p>
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NV.1.31	The Applicant, Network Rail	<p><b>Rail Noise Mitigation Scheme</b> [APP-545] – makes reference to mitigation that ‘could’ include selection of alternative plant, working methods, barrier screening and or stand off margins.</p> <p>(i) Are Network Rail satisfied that there is the space to accommodate barrier screening, or increase stand off margins?</p> <p>(ii) In the event neither of these are possible, what are the implications for receptors?</p>	<p>(i) The potential provision of “alternative plant or working methods, barrier screening and/or stand-off margins and/or alternative plant” is set out in paragraph 4.7.3 in Volume 9, Chapter 4 of the ES (Doc Ref 6.10) [APP-545] and relates to construction noise, not operational railway noise.</p> <p>These construction works would generally be taking place on the Saxmundham to Leiston branch line and green rail route, not on the main East Suffolk line, other than where the branch line joins the main line.</p> <p>It is expected that the need to accommodate the listed measures will not be a concern for Network Rail where the works are away from the East Suffolk line. Where the works affect the East Suffolk line, it is expected that they will be carried out by Network Rail and would be subject to their normal controls and practices.</p> <p>(ii) It is expected that it will be possible to implement the listed measures to some degree, where they are required, and the Code of Construction Practice (Doc Ref 8.11) [AS-273] will be the mechanism through which they would be implemented.</p>	<p>(i) Network Rail are committed to working with the applicant to provide mitigations throughout the construction periods. However, at this stage Network Rail cannot comment on the deliverability of specific mitigation measures, as detailed feasibility work would be required to determine what mitigation measures are possible, including details of the construction methodology. Network Rail have not been commissioned to carry out this detailed analysis. The cost of construction, maintenance and (if required) eventual removal of any such measures would need to be at the Applicant's cost.</p>
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NV.1.32	The Applicant, Network Rail	<p><b>Level Crossing Warning Alarms</b></p> <p>[APP-545] indicates that warning alarms would need to be limited to a maximum of 70dB at night measured at 1m. It is also indicated that alarms should be set a minimum of 4m from noise sensitive receptors. How are these two methods of mitigation to be delivered?</p>	<p>The volume of level crossing warning alarms is detailed in Network Rail standard NR/L2/SIG/11201/Mod X02 "Level Crossings: Common Design Requirements".</p> <p>In addition to the stating that the warning alarms shall be capable of producing a sound level of at least 80dB at a distance of 3m, it also states: "Default setting of the YO3 units is "high" during the day and "medium" during night, which equate to 80dB and 70dB sound levels. These may be adjusted as required by testing or maintenance staff in the light of any complaints received from local householders or similar."</p> <p>To inform the noise assessment set out in Volume 9, Chapter 4 of the ES (Doc Ref 6.10) [APP-545], a number of level crossing alarms were measured and they were found to generate sound levels, during the daytime, of 80dB at a distance of 1m.</p> <p>As stated in the Network Rail standard the level of the alarms can be adjusted to suit local circumstances, subject to the agreement of Network Rail and following appropriate risk assessment.</p> <p>The same standard states that "A minimum of two audible warning devices shall be provided. They shall normally be sited on the reverse side of the primary road traffic signals in diagonally opposite corners. However if only one side of the road has a recognised footpath, then they shall be both sited on the RTL's at the footpath side of the road."</p> <p>The design process is still ongoing but where designs cannot comply with both the standard and the siting requirements for the alarms specified in Volume 9, Chapter 4 of the ES (Doc Ref 6.10)</p>	<p>SZC have provided details on standards in response to the examiners questions which NR support. In addition Network rail would add that we would work with local residents to try and set volumes to an acceptable level.</p>
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			[APP-545], SZC Co. will work with Network Rail to identify other suitable locations for the warning alarms that do comply.	
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NV.1.89	The Applicant, Network Rail	<p><b>Additional Freight by Rail</b> A number of the responses received look to have no rail activities on a given night of the week over the weekend: (i) Is this likely to be achieved? (ii) How would it be secured?</p>	<p>The current import model assumes a rail capacity of 2 trains per day in 2023 and then 4 trains per day from 2024, 5 days a week (see Table 3.1 in the Freight Management Strategy (Doc Ref 8.1) [AS-280] and SZC Co.'s response to TT.1.6). This capacity, along with the BMIF, allows for a reduction of road haulage as bulk materials are primarily imported via rail and marine.</p> <p>Any further increase of rail movements, i.e. 6th day of operation, would allow greater rail import, contingency train paths, when the rail is at high utilisation and in case of rail disruption as well as improving the resilience for the project rail imports. The current import forecast indicates that between 2023 and 2028 the rail will be operating at or near full capacity, (see Table 3.1 in the Freight Management Strategy (Doc Ref 8.1) [AS-280]), therefore the probability of use on the 6th day will be higher during these years, circa 75%. Outside of these years when the rail import demand is lower the use of the 6th day would be much lower, circa 30%</p> <p>Engagement is ongoing with Network Rail regarding this additional day of operation, at this stage a 24hr period has been safeguarded to provide Network Rail maintenance paths when the project would not operate freight. The project assumption is that Monday to Friday nights are the core rail import periods with either Saturday or Sunday night being suitable for the 6th day. It is understood that the preference from SCC would be to operate the 6th day of operation on Sunday night, leaving Saturday nights / Sunday mornings generally clear of any rail traffic.</p>	<p>Network Rail has carried out an initial capacity analysis, this supports the application and we are supportive of ongoing liaisons on opportunities from the applicant. Network Rail could only restrict train movements based on safety or capacity issues. However, if the Examiner felt it was necessary, we understand a restriction could be included in the DCO as a requirement. However, to optimise freight train movements overnight paths are necessary.</p>
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NV.1.90	The Applicant, Network Rail	<p><b>Additional Freight by Rail</b> Please explain what effect if any this might have on passenger services on the Ipswich to Lowestoft line.</p>	<p>There is anticipated to be no effect on the passenger services on the Ipswich to Lowestoft line.</p>	<p>No analysis has yet been undertaken on the East Suffolk Line between Ipswich and Lowestoft however Network rail can comment on the section Between Ipswich and Saxmundham</p> <p>The night time paths support the approach to not impact on passenger services, however, the interaction of these trains with all the other traffic in the Ipswich area needs to be further managed as the concept matures as any late running could have a knock on affect to the morning passenger train services. It has been suggested that EDF looks at introducing an intermediate block signal on the single line between Saxmundham and Woodbridge. This would mitigate any late running. The proposed day time 'flask path' requires close monitoring as the scheme matures as the new freight movement would be slower resulting in a risk to operations. Network Rail will be continuing to work with SZC on how best to mitigate impacts. Network Rail have previously advised that there is additional benefits (More robust overnight operation) if additional block signals on the Single line were added.</p>
NV.1.91	The Applicant, Network Rail	<p><b>Level Crossing Sirens</b> (i) Will all level crossings on the route require sirens to meet the appropriate safety standards? (ii) If this is not the case, please explain the differing standards and what would be expected to be provided at each level crossing.</p>	<p>(i) At the public highway level crossings on the Saxmundham to Leiston branch line (Knodishall, West House, Saxmundham Road, Leiston) it will be necessary to add audible alarms/sirens to comply with Network Rail safety standards, as a result of the new addition of mechanical barriers with road traffic lights. The currently-installed manual gates increase the time it takes for trains to travel down the branch line, and will generate higher noise levels that could be reasonably avoided through design. (ii) Not applicable.</p>	<p>SZC have provided details in response to the examiners questions on locations required. In addition Network Rail would add that there are some crossings on the East Suffolk Line (Ipswich to Saxmundham) that will need MSL's installing which will have Yodel's fitted as standard. Network Rail will set the volume to suit the local environment and work with local neighbours however it should be noted that these also need to be of an effective volume.</p>

NV.1.94	The Applicant, Network Rail	<p><b>Night-time Rail Noise</b></p> <p>(i) Please explain the limiting factors for daytime deliveries.</p> <p>(ii) In understanding what these are, what alternatives have been considered that could overcome these limitations?</p> <p>(iii) How has the assessment of effects from night-time noise been assessed against these alternatives?</p>	<p>There is insufficient rail capacity available on the East Suffolk line during the day to provide more than one rail path. This is due to the extended length of single track south of Saxmundham and the hourly passenger timetable, which leaves insufficient running time for additional services. The length of single track could be split with a passing loop which would increase the capacity on the line. Such a proposal was consulted through to the Stage 4 consultation. In addition to a passing loop, it would also be required to operate freight trains at 40mph along the line rather than the current maximum speed of 20mph. In order to avoid disrupting the passenger service. The combination of adding the additional freight services to the line, and required speed increases, would result in increasing the risk to level crossings on the East Suffolk line. In order to mitigate the increased risk, 45 level crossings on the East Suffolk line would require interventions. At the Stage 3 consultation it was proposed to close 12 footpath crossings and upgrade a further 33 level crossings to mitigate the increase in risk. As a result of further work undertaken by Network Rail it was decided that this option was not deliverable within the timescales required for the SZC project. Following this decision, the focus was to maximise the utilisation of the East Suffolk line overnight, outside of the passenger service where trains could operate within the current speed restrictions along the line. As there is no viable alternative to operating trains overnight, it has not been possible to assess night-time noise against an alternative rail scenario.</p>	<p>Network Rail have been engaged in previous reviews with SZC on freight operations on the East Suffolk Line. Day time operations will not be possible without significant impacts on daytime passenger operations. The proposed Freight trains will operate at significantly lower speeds than the passenger services and the Flask Path Train. Network Rail have undertaken quality assurance on the Capacity Analysis Technical Note (Feb 2021) and commenced reviews (i.e. Level crossing review) on the basis of the proposed 4 trains (7 night time and 1 day paths).</p>
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NV.1.96	The Applicant, Network Rail	<p><b>Ipswich to Lowestoft Main Line</b></p> <p>(i) Please explain the current method of line construction for the main line between Ipswich and Saxmundham.</p> <p>(ii) Please confirm whether the joints between the sections of the track are located in a way as to minimise noise effects on receptors.</p> <p>(iii) It is understood from the assessment that the welds of joints for the Saxmundham to Leiston branch line are proposed to be undertaken in a certain way to minimise noise effects – please confirm whether this approach has been undertaken on the main line and if this is not the case please advise what the differences would be for receptors on the main line as opposed to those on the branch line.</p>	<p>The East Suffolk line has, for the most part, continuous welded rail (CWR), with some lengths of jointed track as well as switches and crossings (S&amp;C). Details such as the exact location of the kinds of welds and joints in CWR and S&amp;C that give rise to additional noise and vibration are not routinely held by Network Rail, and work is currently in progress to establish their exact locations and where necessary to plan appropriate mitigatory action.</p>	<p>The East Suffolk Line has, for the most part, continuous welded rail (CWR), with some lengths of jointed track as well as switches and crossings (S&amp;C).</p> <p>Network Rail are currently working with SZC on proposals for Track enhancements to SZC between Westerfield and Saxmundham Junction. In addition discussions includes status and potential alterations to sleepers, fasteners and welds to assist with noise mitigations. This work is ongoing and as such no further comments can be provided at this stage.</p>
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SE.1.43	The Applicant, Network Rail	<p><b>Rail Passenger Services</b></p> <p>(i) A number of RRs [Greater Anglia, Kelsale cum Carlton Parish Council, Framlingham Town Council, Sudbourne Parish Council in response to proposed changes AS-307] express concern about the potential loss of passenger rail services in the event the freight paths are created as suggested, please explain what effect the proposed freight strategy would have on passenger rail services.</p> <p>(ii) Has the alternative of dualling the Lowestoft to Ipswich line which could give significant legacy benefits including providing the opportunity to significantly increase passenger train services been considered as an option?</p> <p>(iii) Was any other form of expanding the network considered?</p>	<p><b>Response to (i)</b></p> <p>SZC Co.'s rail freight proposals for four freight trains per day would not have a detrimental impact on passenger train services on the East Suffolk line as seven of the train movements would operate overnight, after the last passenger train of the evening and before the first passenger train the following morning. The eighth train movement would take place in the existing daytime nuclear flask path, without disruption to the existing passenger train service.</p> <p><b>Response to (ii)</b></p> <p>Feasibility work undertaken by Network Rail established that in order to run freight trains during the day additional rail capacity was required due to the extended length of single track rail. The length of single track could be split with a passing loop which would increase the capacity on the line. Such a proposal was consulted through to the Stage 4 consultation for the rail-led freight strategy. In addition to a passing loop, it would also be required to operate freight trains at 40mph along the line rather than the current maximum speed of 20mph. In order to avoid disrupting the passenger service. The combination of adding the additional freight services to the line, and required speed increases, would result in increasing the risk to level crossings on the East Suffolk line. In order to mitigate the increased risk, 45 level crossings on the East Suffolk line between Ipswich and Saxmundham would require interventions. At the Stage 3 consultation it was proposed to close 12 footpath crossings and upgrade a further 33 level crossings to mitigate the increase in risk. As a result of further work undertaken by Network Rail it was decided that this option was not deliverable within the timescales required for the SZC project. Following this decision, the focus was to maximise the utilisation of the East Suffolk line overnight,</p>	<p>i. As SZC have commented seven of the eight services would operate overnight. The day time 'flask path' requires close monitoring as the scheme matures as the new freight movement would be slower resulting in a risk to operations. The night time paths support the approach to not impact on passenger services, however, the interaction of these trains with all the other traffic in the Ipswich area needs to be further managed as the concept matures as any late running could have a knock on affect to the morning passenger train services. It has been suggested that EDF looks at introducing an intermediate block signal on the single line between Saxmundham and Woodbridge. This would mitigate any late running. The proposed day time 'flask path' requires close monitoring as the scheme matures as the new freight movement would be slower resulting in a risk to operations. Network Rail will be continuing to work with SZC on how best to mitigate impacts.</p> <p>Network Rail have previously advised that there is additional benefits (more robust overnight operation) if additional block signals on the Single line were added.</p> <p>ii Network Rail agrees with the Applicant's response shown opposite. Dualling the Lowestoft to Ipswich line was not considered a feasible option</p> <p>iii No</p>
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			<p>outside of the passenger service where trains could operate within the current speed restrictions along the line.</p> <p>Sizewell C freight trains would only operate on the southern portion of the East Suffolk line between Ipswich and Saxmundham. For a freight train to operate from the Lowestoft each service would require a two locomotives, at the front and rear of the train, and two train drivers to access the Branch line from that direction.</p> <p><b>Response to (iii)</b></p> <p>Only those interventions which would be required to deliver Sizewell Co.'s freight strategy have been developed.</p>	
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SE.1.45	The Applicant, Network Rail	<p><b>Rail</b></p> <p>(i) In light of the comments from Associated British Ports (ABP) in response to the consultation on the proposed changes [AS-307] would rail paths be available from either Lowestoft or Ipswich ports?</p> <p>(ii) Have these alternatives been considered?</p>	<p><b>Freight</b></p> <p>It is possible to operate trains from ABP Ipswich although the existing rail head may need to be enhanced. Trains would be able to utilise the rail capacity available overnight on the East Suffolk line.</p> <p>Rail feasibility work undertaken by Network Rail concluded that the following interventions were required to operate trains from Lowestoft during the day:</p> <ul style="list-style-type: none"> <li>• A passing loop situated between Oulton Broad South and Beccles.</li> <li>• An increase in freight line speed between Saxmundham and Oulton Broad South from 20mph to 55 mph.</li> <li>• The alteration of all automatic level crossings between Halesworth and Oulton Broad South to allow a freight train to approach at 55mph.</li> <li>• Two locomotives are required, front and rear, providing power between Lowestoft and Halesworth in the 'Up direction service'.</li> <li>• Two drivers present in every freight train arriving at Saxmundham to enable turn back into the Sizewell branch line.</li> </ul> <p>As a result of these constraints the decision was made to focus on routing trains from the Ipswich direction only.</p>	<p>The "Northern Route" (Lowestoft to Leiston) was reviewed in the 2017 study. Discussions are ongoing in relation to the wider freight strategy, as referred to in the SoCG between the Applicant and Network Rail.</p>
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TT.1.3	The Applicant, Network Rail	<p><b>Provision of Additional Rail Capacity</b></p> <p>Explain whether the current additional rail proposals are based on ongoing development of the Network Rail Governance for Railway Investment Projects (GRIP) 2 report prepared when a Rail Led strategy was being considered at Stage 3 Consultation and if so:</p> <p>(i) Explain what GRIP stage proposals are currently at; and</p> <p>(ii) Set out the delivery timescale for the necessary improvement works.</p>	<p>The current additional rail proposals are based on ongoing development of the Network Rail (NWR) GRIP 2 report. The GRIP 2 report considered two scenarios: (i) operating 2 trains per day (tpd) overnight, outside of the passenger service, within the existing track capability and regulations (ii) operating 5 tpd during the day, taking into account the passenger service timetable and considering what additional infrastructure or operating requirements would be necessary. These led to two freight strategy options being consulted on at the Stage 3 DCO consultation:</p> <p>(i) Road-led strategy – based on 2tpd operating overnight on the East Suffolk line. This would include proposals on the Leiston branch line but not on the East Suffolk line.</p> <p>(ii) Rail-led strategy – based on 5tpd operating during the day. This would include proposals for a passing loop on the East Suffolk line and the required interventions at level crossings to reduce safety risks. The rail-led option was subsequently discarded, once it became clear that the scale and complexity of the upgrades required on the East Suffolk (ESK) line would have posed a significant risk to the required timescale for completing the development works.</p> <p>Further assessment of existing rail capacity identified the potential to achieve a third train per day without the need for upgrade works on the ESK line; so this additional path was incorporated into an integrated freight strategy proposed at Stage 4 DCO consultation. Further consultation and development of the Project logistics strategy identified that the infrastructure included within the DCO could enable the operation of up to four freight trains per day in</p>	<p>i) SZC have entered into a BAPA agreement for the Sizewell Branch Line and Saxmundham Junction workstreams which was agreed in March 2021. NR anticipate an Options Selection Report within the next 4 weeks to commence design review and engineering engagement, based on options SZC's designers has produced. Current status remains at GRIP 2.</p> <p>ii) SZC have provided an indicative timetable in response to question G.1.51</p>
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			<p>each direction.</p> <p>The current proposals are as described in Book 8.19 Part 1 of the Proposed Changes to the Application, dated January 2021, section 2.2, "Change 1: Potential to increase the frequency of freight train movements to facilitate bulk material imports by rail". This document describes the potential to increase the number of rail deliveries to the main development site, thus reducing the number of HGV movements on local roads. It is proposed to initially operate up to 2 trains in each direction to and from the LEEIE per 24-hour period (ie 4 train movements). Once the Green Rail Route is operational, the number of train movements will increase to up to 7 overnight movements and 1 daytime movement to and from the temporary construction area, with the potential to also run trains on a sixth night, assumed to be Sunday nights into Monday mornings. The proposals are currently being developed to GRIP 3 stage, in line with SZC Co.'s response to question G.1.51. SZC Co.'s response to question G.1.51 also provides a timeline for the delivery of the necessary rail infrastructure.</p>	
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TT.1.5	The Applicant, Network Rail	<p><b>Deliverability of Rail Capacity (Reference Table 4.1 [AS-280])</b> Provide comment on the deliverability and anticipated availability date of the following:</p> <p>(i) The early years rail provision – 2 trains /day to the Land East of Eastlands Industrial Estate (LEEIE):</p> <p>(ii) The DCO baseline rail provision – 3 trains / day;</p> <p>(iii) Enhanced rail provision – 4 trains / day;</p> <p>(iv) The potential to run trains 6 days a week rather than the 5 proposed; and</p> <p>(v) The potential to run 5 trains a day.</p>	<p>SZC Co.'s response to question G.1.51 provides a timeline for the delivery of the necessary rail infrastructure.</p> <p>The anticipated availability dates are as follows:</p> <p>(i) The early years rail provision – 2 trains /day to the Land East of Eastlands Industrial Estate (LEEIE): January 2024</p> <p>(ii) The DCO baseline rail provision – 3 trains / day: Not being progressed</p> <p>(iii) Enhanced rail provision – 4 trains / day: August 2024</p> <p>(iv) The potential to run trains 6 days a week rather than the 5 proposed: August 2024</p> <p>(v) The potential to run 5 trains a day: Not currently being progressed</p>	<p>Network Rail have been working on the following as the basis of proposed operations:</p> <ul style="list-style-type: none"> <li>- 2 Trains (4 paths) From January 2024. All paths at night</li> <li>- 4 Trains (8 paths) From August 2024. 7 paths at night and 1 path during the day (Flask Path)</li> </ul> <p>SZC have advised the following are not being progressed:</p> <ul style="list-style-type: none"> <li>(ii) The DCO baseline rail provision – 3 trains / day: Not being progressed</li> <li>(v) The potential to run 5 trains a day: Not currently being progressed</li> </ul>
TT.1.102	The Applicant, Network Rail	<p><b>Northern Park and Ride, Darsham</b></p> <p>Two RR's [RR-0244 and RR-0908] have raised the issue relating to the safety of the level crossing at the station. Their concern is based on Network Rail's classification of the crossing safety being exacerbated by the additional traffic.</p> <p>Has the impact of the proposed development on this level crossing safety been assessed and discussed with Network Rail?</p>	<p>The northern park and ride is located to the north of Darsham level crossing. The purpose of the park and ride is to intercept construction worker car trips and consolidate construction workers onto buses for the onward journey to the main development site. The majority of the Sizewell C traffic travelling through the level crossing would therefore be HGVs and buses. Drivers of HGVs and buses will undergo an induction and adhere to Driver Rules to ensure that they are fully aware of the potential dangers, prepared to stop at crossings and understand the warnings.</p> <p>Discussions are ongoing with Network Rail regarding the level of increased risk at this crossing and whether an intervention is required.</p>	<p>As part of the high level review of level crossing impacts and risk analysis Darsham Park &amp; Ride was identified as requiring intervention. This discussion is currently ongoing with options for mitigation including relocation of the station car park into the new facility or additional Full barrier installation. A Full barrier solution has interdependencies in terms of timeframe for delivery and cost of installation which need to be further reviewed and agreed between the parties.</p> <p>(See answer to Question HW.1.19 above)</p>

