

Havant Thicket Reservoir Project

HTR NAR Stage 1 and 2 Response Report

Portsmouth Water Ltd.

23/11/22

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This document has 18 pages including the cover.

Document history

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Project Details

Report Title:	Stage 1 and 2 Road Safety Audit Response Report
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Prepared by:	Atkins on behalf of Portsmouth Water
On behalf of	Hampshire County Council

Authorisation

Project:	Havant Thicket Reservoir – Northern Access Road
Report Title:	Stage 1 & 2 Road Safety Audit – Response Report
Prepared by:	
Name	Andrew Hills
Position	Principal Engineer
Signed	
Organisation	Atkins
Date	18 th November 2022
Approved by:	
Name	Jonathan Clark
Position	Project Manager
Signed	Jonathan Clark
Organisation	Portsmouth Water
Date	22 nd November 2022

1. Introduction

This scheme, the Northern Access Road (NAR), covers the design of a single lane single carriageway with passing bays to provide the main access road into the reservoir site from the B2149 on the northern side.

A Combined Stage 1 and 2 Road Safety Audit (RSA) was undertaken 3rd of November 2022 by Atkins on behalf of Portsmouth Water. This audit report identified road safety problems and associated recommendations. It also considered the construction (2023-2030) and operational phases (2030 onwards).

The RSA was carried out in accordance with DMRB GG 119. The title of the report is “Northern Access Road, Havant Thicket Reservoir, Havant – RSA Combined Stage 1 and 2”. Dated November 2022.

This Combined Stage 1 & 2 Designer Response Report has been prepared by Andrew Hills on behalf of Atkins for Portsmouth Water.

2. Key Personnel

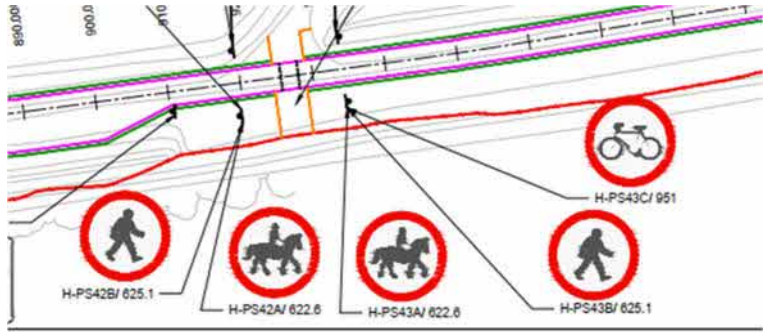
Key Personnel

Overseeing Organisation:	Jonathan Clark Portsmouth Water Jonathan.Clark@portsmouthwater.co.uk
RSA Team:	Rebecca Thomas Team Leader Rebecca.Thomas@atkinsglobal.com ;
	Roxanne Neufville Team Member
Design Organisation:	Andrew Hills Principal Engineer Atkins andrew.hills@atkinsglobal.com ;

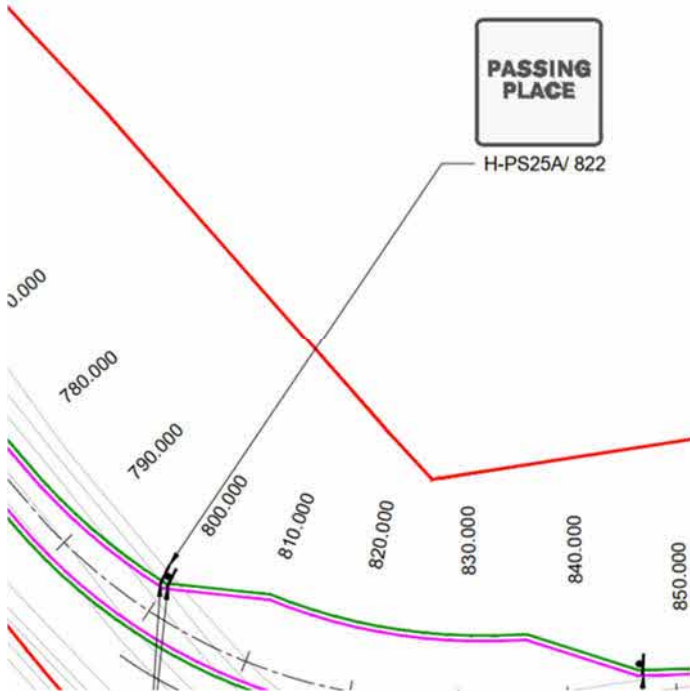
3. Road Safety Audit Decision Log

For location of problems refer to Appendix A

RSA Reference	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
A	Problem A Location: Northern access road Summary: Risk of parking in passing places The proposals include the provision of passing places at regular intervals along the single carriageway access track to accommodate two-way traffic. A car park will be available for use by visitors to the site. The RSA Team had concerns that during busy periods when the car park is full or to avoid payment of car park charges, the public may park in the passing places which would hinder the flow of two-way traffic and could lead to unsafe reversing manoeuvres along the track risking a collision with another vehicle.	Recommendation: It is recommended that measures are put in place to discourage parking in the passing places.	Accept problem A and the corresponding recommendation. There are two distinct phases the construction phase and the operation phase. The construction phase (2023-2030) is expected to last for approximately 7 years and the Northern Access Road (NAR) will be under the control of the contractor. The operation of the NAR will have been considered in the Construction Traffic Management Plan (CTMP) by the Contractor. It is not expected that staff parking, which will be controlled by the approved CTMP and worker travel plan, will be permitted in the bays during this time.' Public access will not be permitted during this phase. The operational phase will be when the NAR is open to the public in 2030. The following measures are proposed to discourage parking: 1. There is a continuous 1.2m stockproof fence with padlocked gates to the east preventing access to the Havant Thicket. This helps remove the incentive to park along the access road by virtue of users having to follow the access road into the car park area on foot rather than being able to directly access the reservoir grounds from the passing bays. 2. There is no pedestrian facility (footpath adjacent) to the NAR. In effect making the passing bays more remote and unconnected. 3. The NAR is approximately 1400 m in length so most bays are a significant distance from the visitor centre. 4. Passing bays will be signed that parking is prohibited. 5. A car parking study was carried out to determine the appropriate level of provision and considered peak summer scenarios. 6. A common pricing structure is being proposed between the three car parks (Havant Thicket Reservoir, Staughton Country Park and Forestry England) to encourage common attractiveness and usage. 7. The operation requirements of the car park will be developed at a later stage of the project but it is expected that some form of variable message at the access to the B2149 will advise motorists to the capacity available or possibility of on line tickets only. 8. Stakeholder engagement will be undertaken to inform the public visitor arrangements	I am in agreement with your responses in the 'Design Organisation Response' column to each of the Problems raised. Jonathan Clark 22/11/22	Refer to the corresponding Design Organisation Response
B	Problem B Location: Northern access road Summary: Risk of pedestrians and cyclists using track	Recommendation: Although supplementary plates are not prescribed by the TSRGD it is recommended that sub plates such as 'no pedestrians' etc are installed alongside the	Accept problem B and the agree in part to the corresponding recommendation During the construction phase (2023- 2030) the existing permissive path that allows the public use of the NAR corridor will be revoked. Thereby, removing access for the non-	I am in agreement with your responses in the 'Design Organisation Response' column to each of the Problems raised.	Refer to the corresponding Design Organisation Response

	The proposals include the erection of 'no pedestrians/cyclists/horse rider' signs at either end of the track and where footpaths cross the track as shown in figure 2-1. The RSA team had concerns that these signs are not always understood by members of the public which could lead to prohibited users entering the track and being involved in a collision with a vehicle. This problem could become more pertinent during construction where pedestrians and cyclists may not be seen by drivers of large construction vehicles and may be less aware of vehicular traffic due to the irregularity of traffic using the route. Existing cycle route signs mounted on timber posts along the track indicate that it is currently used by cyclists. 	prescribed signs to inform the public of the prohibitions. It is also recommended that existing cycle route signs on timber posts are removed.	motorised users (NMU). The corridor will be fenced off from the remainder of Havant Thicket through a 1.2m high stockproof fencing and padlocked gates. Access from the north end will also be controlled during this phase (as described within the approved CTMP). Similar controlled access will be in place at the southern end. During the operation phase approximately (currently planned for 2030 onwards); the eastern fence and padlocked gates will remain in place. From the north there is no pedestrian facility. NMUs users will benefit from a recreational strategy that has developed a range of access opportunities from various directions. They will not be directed to or along the NAR. The crossing point shown in the abstract represents a crossing point of the NAR from the potential development of Land East of Horndean. This is shown indicatively as details are not developed. Wayfinding signs will direct non-motorised users across the NAR and direct to the more attractive and safer route available. Additional signage can be provided as suggested during the operational phase and will be determined during future stakeholder engagement programme. The existing signs on posts will be removed during the construction of the NAR.	Jonathan Clark 22/11/22	
C	Problem C Location: Northern access road Summary: Pedestrian intervisibility obstructed A pedestrian crossing point is provided along the track where the footpath emerges from the wooded area. Tree planting is proposed on both sides of the track on either side of the crossing as illustrated in Figure 2-2. Trees with low hanging branches could obstruct intervisibility between pedestrians using the crossing and approaching drivers leading to a pedestrian stepping out into the path of a vehicle and collision occurring. 	Recommendation: It is recommended that pedestrian visibility splays at the crossing points are shown on drawings and that these are kept clear of vegetation and tree branches.	Accept problem C and the corresponding recommendation. With respect to pedestrian intervisibility the following should be noted: 1. No planting is planned or proposed along the NAR corridor. 2. The trees adjacent/impacting on the NAR corridor will have crown lifting where required prior to the construction of the NAR. 3. The location of the crossing is indicative only at this time and will need to be confirmed. 4. For the period just prior to the start of the operation phase the vegetation will be examined and measures taken if visibility is impacted. 5. Pedestrian or NMU crossing will not be permitted until the operation phase (2030 onwards).	I am in agreement with your responses in the 'Design Organisation Response' column to each of the Problems raised. Jonathan Clark 22/11/22	Refer to the corresponding Design Organisation Response
	Problem D Location: Northern access road Summary: Risk of inappropriate vehicle speeds The proposals include a single track with passing places to accommodate two-way traffic which will be subject to a 20mph speed limit. The vertical alignment of the track is such that there are relatively steep gradients at two locations. One of the steep	Recommendation: It is recommended that traffic calming measures are introduced to encourage speed limit compliance.	Accept problem D and highlight inherent traffic calming features. Recommendation is not feasible. From a background perspective the case study for TAL02/04 was used as a rat-run to avoid traffic delays. The introduction of the single lane with passing bays with a 20mph zone did reduce speeds and volumes of traffic use. The following are considered to be traffic calming measures inherent in the design:	I am in agreement with your responses in the 'Design Organisation Response' column to each of the Problems raised. Jonathan Clark 22/11/22	Refer to the corresponding Design Organisation Response

	gradients lies on the southbound approach to the proposed uncontrolled crossing as shown in Figure 2-3. The RSA team had concerns that downhill gradients may reduce speed limit compliance with vehicles travelling at higher speeds than 20mph and increase the risk of head-on collisions with oncoming traffic and collisions with pedestrians at the crossing points. It should be noted that TAL 02/04 which case studies a similar single track layout indicates that, although the track was subject to a 20mph speed limit, average vehicle speeds were at least 5mph above the posted speed limit. The RSA Team had further concerns that inappropriate speed on the bend in the track at Ch 820 could lead to loss of control collisions. 		1. Cross section layout of single lane 3.65m with timber bollards in the adjacent 0.5m verges will influence driver behaviour. This effectively presents a narrow corridor for the driver and in turn should encourage and limit speeds. 2. The carriageway surface will be constructed of sub-base for the majority of its length. This is an unbound surface and as such will influence driver behaviour to drive at lower/compliant speeds. 3. The single lane single carriageway with passing bays forms a link between the B2149 and the end destination of the visitor centre car park. It does not represent a link in a longer journey. Therefore, there should be less inclination to exceed the speed limit. 4. Overall impression of the NAR is a narrow unpaved forest track which should be conducive to lower traffic speeds. Due to the unbound nature of the road surface it is not feasible to put in surface features to act as traffic calming measures. It is not feasible to add further width restrictions to act as traffic calming measures to this single lane, single carriageway with passing bays design.		
	Problem E Location: Northern access road Summary: Risk of unsafe reversing manoeuvres between passing bays Passing bays are proposed at intervals along the access road to facilitate two-way traffic movements. A 150m stretch of single track has been identified with no passing places between Ch 660 and 810 as illustrated in Figure 2-4. TAL 02/04 recommends a distance of no more than 60m between passing places. This section also lies on a downhill gradient for southbound traffic. The RSA team had concerns that southbound drivers may be reluctant to wait in the passing bay at Ch 660 to allow for a northbound vehicle to travel 150m, particularly as they will be gathering momentum on the downhill gradient. This could result in northbound vehicles being forced to reverse back along the track to allow a southbound vehicle to enter the passing place at Ch 810. Reversing manoeuvres along the track would increase the risk of collisions with following vehicles.	Recommendation: It is recommended that an additional passing place is provided between Ch 660 and Ch 810.	Accept problem E and not accept the recommendation <i>As noted in TAL 02/04 it states that <u>ideally</u> there should be clear intervisibility between the bays and spacing no greater than 60m (research shows that this is sufficient for flows of up to 300 vehicles per hour).</i> The following is noted: 1. The space between the two bays in question is 140m. There is at least 150m visibility between the two bays. 2. The predicted volume of traffic using the access road is significantly less than 300 vph. This means that there will be less vehicle encounters and the shorter spacing interval is not so pressing. The location and spacing of the bays has been constrained by environmental factors. The objective was to limit the impact on ancient woodland and tree preservation. This led to some uneven spacing of the bays. At this particular location, the following options had been considered and discounted: 1. Extend to the north the passing bay at Ch 800. This was not practical due as it would lead to the loss of trees, require additional land take for earthworks and the extension of the bay. Deemed not acceptable. 2. Extend to the south the passing bay at Ch 660. This passing bay has already been extended from the standard 20m to 50m in length to compensate for the gap. Further extension deemed not acceptable as it would effectively lead to section of single carriageway which was contrary to the project objectives.	I am in agreement with your responses in the 'Design Organisation Response' column to each of the Problems raised. Jonathan Clark 22/11/22	Refer to the corresponding Design Organisation Response

			3. Creation of an intermediate passing bay between these locations was considered unnecessary due to the extension of the bay at Ch 660 and slight extension of the bay at Ch 800. Overall, there is clear intervisibility between these bays and additional queuing opportunities at each bay to accommodate any additional vehicles arriving whilst waiting for the oncoming to pass. It is not possible to completely eliminate the need for reversing caused by driver misbehaviour. However, the measures that are in place should reduce its probability to a very low level. During the construction phase (2023 to 2030) the traffic behaviour will be governed by the CTMP and the occurrences of reverse should be further reduced to the greater discipline imposed. We would not support the creation of an additional passing between these two locations. But would recommend that the above case for non-inclusion is reconsidered at the end of the construction phase prior to the operational phase.		
	Problem F Location: Northern access road Summary: Risk of sign strikes Passing bay signs are proposed at the change in kerb direction on the entry and exit tapers of the passing places. An example of this is provided in Figure 2-5. The swept path of an HGV is shown to pass very close to the signs at each passing place. Inadequate clearance between the signs and a large vehicle with lateral overhang could lead to sign strikes. 	Recommendation: It is recommended that sufficient clearance is provided between the signs and the edge of carriageway.	Accept problem F and the corresponding recommendation. The edge of the sign will be set back a minimum of 400mm from the edge of the carriageway and will be outside the area for vehicle strikes.	I am in agreement with your responses in the 'Design Organisation Response' column to each of the Problems raised. Jonathan Clark 22/11/22	Refer to the corresponding Design Organisation Response

4. Design Organisation and Overseeing Organisation Statements

Design organisation Statement

On behalf of the design organisation I certify that;	
1) The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation	
Name	Andrew Hills
Position	Principal Engineer
Signed	
Organisation	Atkins
Date	23/11/22

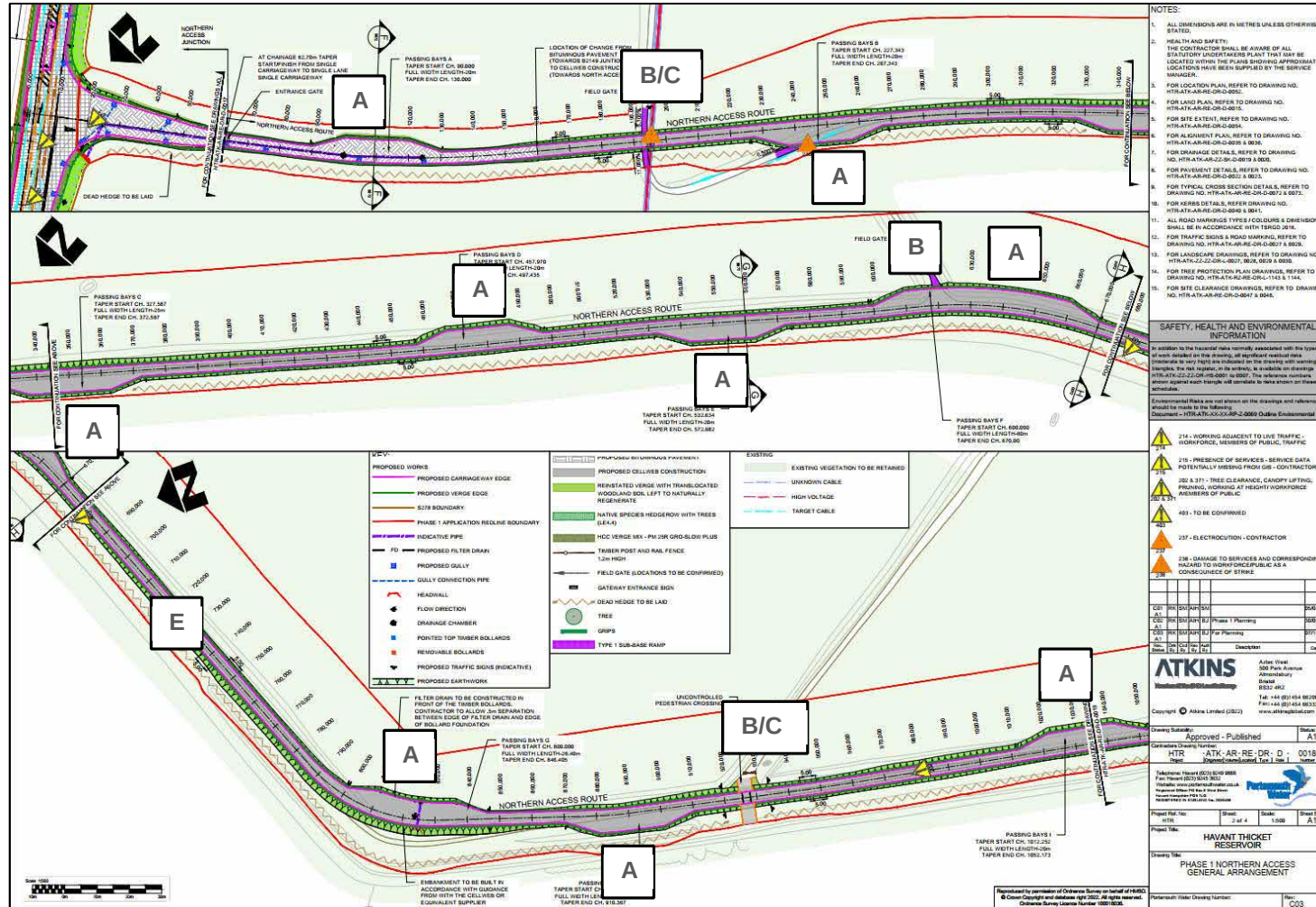
Overseeing Organisation Statement

On behalf of the Overseeing Organisation I certify that;	
1) The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design organisation and;	
2) The agreed RSA actions will be progress	
Name	Jonathan Clark
Position	Project Manager
Signed	Jonathan Clark
Organisation	Portsmouth Water
Date	23/11/22

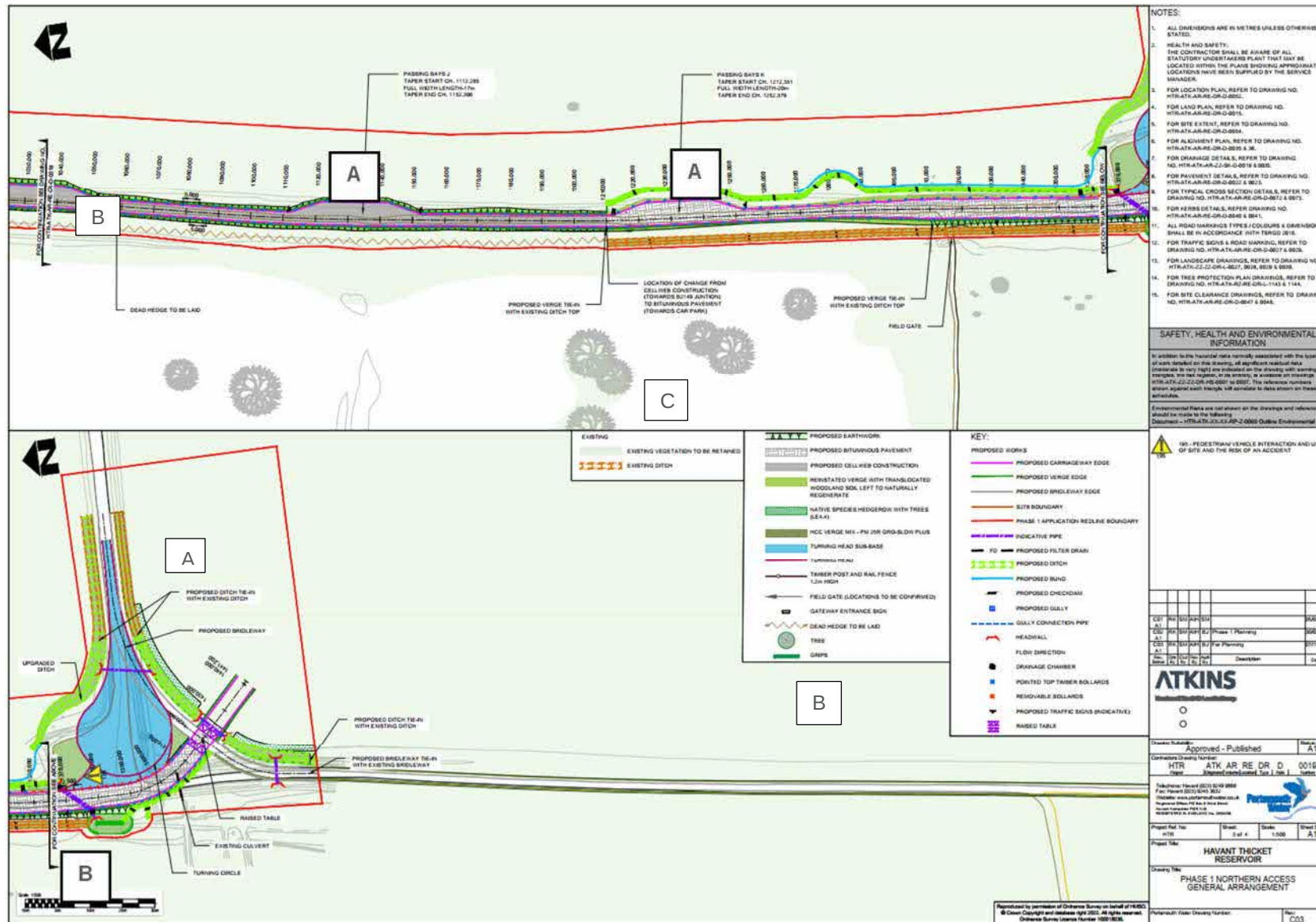
Appendices

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Appendix A Problem Location Plan



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Atkins Limited
The Hub
500 Park Avenue
Aztec West
Bristol
BS32 4RZ

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