

PROJECT DETAILS

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DOCUMENT CONTROL

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For and on behalf of Stantec UK Limited				

INTRODUCTION

This road safety Audit Decision Log has been prepared in response to a combined Stage 1 and 2 Road Safety Audit carried out on the Eastern and Western Access Junctions (on 13<sup>th</sup> June at 12.50pm). The proposed junctions will provide access into the proposed Afan Valley site from the A4107 and A4063.

# ROAD SAFETY AUDIT – DECISION LOG

## ROAD SAFETY AUDIT DECISION LOG

Prepared By: Laurie Blacklock  
Date: July 2022

RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action	
<b>ITEMS RAISED IN THE HISTORIC STAGE 1 AUDIT</b>					
<b>2.1 Problem (Item 2.1.2 in Stage 1 Audit)</b> Location – At both junctions  Summary: Lack of details regarding the adequacy of the surface water drainage  The Audit Team has not been provided with any details to determine whether the proposed surface water drainage is sufficient to drain the anticipated surface water run-off.	It is recommended that the surface water drainage is reviewed at the detailed design stage in order that adequate drainage is provided to avoid excess surface water.	A full detailed design of the surface water drainage system, in accordance with the DMRB and Neath Port Talbot County Borough Council standards, will be undertaken at the detailed design stage.			
<b>2.2 Problem (Item 2.1.4 in Stage 1 Audit)</b> Location – Proposed staff and service vehicle access on to the A4069 Pen Y Bryn  Summary: Lack of details regarding the proposed landscaping  The Audit Team has not been provided with any specific details to determine whether the existing/proposed landscaping could obscure the required visibility splays at the proposed site access.	It is recommended that the required visibility splays are determined, based on the 85th percentile speed of vehicles along the main road, and that the required visibility splays are kept clear of obstructions.	Agreed – Recent speed survey data has demonstrated the 85 <sup>th</sup> percentile speed at this junction is as follows: <ul style="list-style-type: none"> <li>Northeast bound – 35.6mph</li> <li>Southwest bound – 36.7mph</li> </ul> Visibility splays of 56m have been calculated using manual for streets using a speed of 37mph. 56m splays have been drawn on the GA drawing and are free of obstruction.  Further to this, a TRO will be implemented at the location to extend the existing 30mph speed limit to the south, northwards through and beyond the junction. The existing speeds taken from the speed survey data are based on the existing national speed limit in the area. Subsequently, once the new enforced speed limit of 30mph is implemented, vehicle speeds are likely to be lower.			
<b>2.3 Problem (Item 2.1.5 in Stage 1 Audit)</b> Location – A4107 (n) approach to the guest access  Summary: Existing stats cover sits within the path of on-coming vehicles  The Audit Team notes from the plans provided that there is an existing statutory undertaker's cover on the off-side edge of the approach to the junction, which is in the path of the majority of vehicles travelling southbound through the junction. The cover is likely to become slippery during wet weather and could increase the potential for drivers to lose control of their vehicle. This could lead to vehicles conflicting with on-coming vehicles, or drivers undertaking sudden braking manoeuvres, increasing the potential for rear-end shunt type accidents.	It is recommended that the statutory undertaker's cover is treated with an appropriate anti-skid surfacing.	Agreed – Stantec will liaise with the SU asset owner to confirm acceptance of treating the cover with anti-skid surfacing.			
<b>2.4 Problem (Item 2.1.6 in Stage 1 Audit)</b> Location – A4107 (s) exit from the guest access	It is recommended that the statutory undertaker's cover is treated with an appropriate anti-skid surfacing	Agreed – Stantec will liaise with the SU asset owner to confirm acceptance of treating the cover with anti-skid surfacing.			

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<p>Summary: Existing stats cover sits within the path of on-coming vehicles</p> <p>The Audit Team notes from the plans provided that there is an existing statutory undertaker's cover on the off-side edge of the approach to the junction, which is in the path of the majority of vehicles travelling southbound through the junction. The cover is likely to become slippery during wet weather and could increase the potential for drivers to lose control of their vehicle. This could lead to vehicles conflicting with on-coming vehicles, or drivers undertaking sudden braking manoeuvres, increasing the potential for rear-end shunt type accidents.</p>					
<p><b>2.5 Problem (Item 2.2.1 in Stage 1 Audit)</b> Location – Proposed guest access on to the A4107 Brytwn Road</p> <p>Summary: Lack of details regarding levels throughout the junction</p> <p>The Audit Team has not been provided with sufficient information regarding levels throughout the junction to determine whether there is a sufficient flat section of carriageway on each approach to the junction. Insufficient flat-sections of carriageway on the approach to the stop-lines, could increase the potential for vehicles to overshoot the junction and conflict with vehicles travelling along the A4107 Brytwn Road, or could lead to drivers undertaking sudden braking manoeuvres, increasing the potential for rear-end shunt type accidents.</p>	<p>It is recommended that a flat section of carriageway is provided on each approach to the junction, in accordance with the appropriate design guide.</p>	<p>The existing A4017 carriageway is relatively flat. The approximate gradient for the northbound is 1:60 and for the southbound is 1:70.</p> <p>Furthermore, as per the NPT planning requirement, the first 25m of the proposed site arm has a gradient of 1:20.</p>			
<p><b>2.6 Problem (Item 2.2.2 in Stage 1 Audit)</b> Location – Proposed staff and service access on to the A4069 Pen Y Bryn</p> <p>Summary: Swept path of large vehicle conflicts with vehicles parked in existing layby</p> <p>The Audit Team notes from the plans provided that the swept path of a large vehicle turning right into the site from the A4069 Pen Y Bryn conflicts with vehicles parked in the existing layby on the eastern side of the carriageway.</p>	<p>It is recommended that the swept-path analysis is re-run to determine whether large vehicles can access to the site without conflicting with vehicles in the layby, and if necessary, that the junction is remodelled to accommodate the range of vehicles likely to access the site.</p>	<p>Agreed – The swept path analysis drawing has been updated to show this manoeuvre which can be completed under the current proposed junction layout.</p>			
<p><b>2.7 Problem (Item 2.2.3 in Stage 1 Audit)</b> Location – Proposed staff and service access on to the A4069 Pen Y Bryn</p> <p>Summary: Visibility splays cross land in unknown ownership to the north and south of the junction</p> <p>The Audit Team notes from the plans provided that the required visibility splay to the north and south of the junction crosses land in unknown ownership. Inadequate visibility splays can lead to vehicles entering the carriageway injudiciously, increasing the potential for vehicle conflicts lead to drivers undertaking sudden braking manoeuvres, increasing the potential for rear-end shunt type accidents.</p>	<p>It is recommended that the required visibility splays at the junction are provided.</p>	<p>Agreed – refer to response to problem 2.2.</p>			

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<b>2.8 Problem (Item 2.3.4 in Stage 1 Audit)</b> Location – Proposed staff and service access on to the A4069 Pen Y Bryn  Summary: Lack of details regarding the location of the relocated telegraph pole  The Audit Team notes from the plans provided that it is proposed to relocate the existing telegraph pole, in order to widen the existing junction bell-mouth. In the absence of any specific details, it is difficult to determine whether the pole will be relocated to a safe position, away from a position where it is at increased risk of strike by errant vehicles	It is recommended that the telegraph pole is relocated away from the junction bell-mouth, to avoid the risk of strike by errant vehicle.	Agreed – Stantec will liaise with the SU asset owner to confirm acceptance of relocating the existing telegraph pole.			
<b>ITEMS RAISED IN TMS COMBINED STAGE 1&amp;2 AUDIT</b>					
<b>3.1 Problem (Eastern Access)</b> Location – Service cover located in new junction bellmouth  Summary: Ironwork could present a skid and loss of control hazard to vehicles.  There is a metal service cover that will be located in the junction bellmouth. Where metal covers are located in critical braking and turning areas, they may pose a potential skid hazard to vehicles, particularly to two wheeled vehicles. This issue may be exacerbated during wet or icy conditions.	Non-slip covers should be provided on any access chambers in turning or braking areas in the carriageway.	Agreed – Stantec will liaise with the SU asset owner to confirm acceptance of treating the cover with anti-skid surfacing. (As per item 2.3 above)			
<b>3.2 Problem (Eastern Access)</b> Location – A4063 Pen-Y-Bryn southbound approach to new access  Summary: Risk of collisions involving turning manoeuvres at the new junction access.  Parked vehicles along the east side of the A4063 could obstruct inter-visibility between southbound drivers approaching the new junction and drivers pulling out of the development access road, which could lead to failure to give way, late and sudden braking and collisions.	An adequate unobstructed junction visibility splay should be provided	Refer to response to Problem 2.2 above  Further to the response to problem 2.2, we have included junction warning signage for westbound traffic to help raise awareness of the junction ahead and mitigate against potential collisions.  It is not possible to remove or relocate the parking areas due to limited space and negative impact on the residents			
<b>3.3 Problem (Eastern Access)</b> Location – Eastern access  Summary: Disassociated Give Way sign  The proposed location of the Give Way sign in the minor road is too far back from the junction and may not be associated with the junction by an approaching driver, which could result in a collision involving a failure to give way.	The Give Way sign should be relocated closer to the junction. Chapter 3 of the Traffic Signs Manual recommends that the 'sign should be sited as close as possible to the Give Way line ...Normally the sign will be about 1.5 m before the marking.'	Agreed – the give way sign has been relocated to satisfy the TSM requirement.			
<b>3.4 Problem (Western Access)</b> Location – New junction arm  Summary: Increased risk of loss of control type collisions  The new junction arm approach to the traffic signals has a 1:20 gradient, which will extend stopping distance and increase the	A high PSV carriageway surface should be provided and a level dwell area should be provided on the approach to the stop line.	The current design satisfies a Planning Condition in which the first 25m of the access road into the site must be 1:20. We therefore propose to maintain this 1:20 gradient.			

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risk of skidding in wet or icy weather, which could result in overshoot or shunt collisions.		It is agreed that a high PSV will be required due to the steepness of the access road. The PSV used will be agreed with NPT.			
<b>3.5 Problem (Western Access)</b> Location – Traffic signals on new junction arm approach  Summary: Increased risk of loss of control type collisions  The primary signal head, on the new access arm approach is misaligned and may not be visible to approaching drivers from the full stopping sight distance. This could result in late braking and overshoot or shunt collisions.	The primary signal head should be realigned to face approaching traffic at the full SSD.	Agreed – this signal head shall be rotated to face approaching traffic			