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DESIGNER'S RESPONSE TO LLFA COMMENTS

NOVARTIS – PHASE 3
HORSHAM, WEST SUSSEX

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for

NOVARTIS – PHASE 3
HORSHAM, WEST SUSSEX

Client:
Lovell
Suite B,
Broadmeade House,
Farnham Business Park,
Farnham
GU9 8GT

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1.0 Introduction

This report has been prepared in response to the comment raised by the Lead Local Flood Authority in their consultation responses to the discharge of conditions 7 and 18 for the Planning Application referenced DISC/26/0259 for Novartis, Horsham made on 23/10/2026.

2.0 Designer's Response

2.1 LLFA Comment

"We note the updated information submitted, however there appear to be numerous discrepancies between the revised drawings of 12/10/2026 compared to the updated (1:100 plus 45% climate change) calculations of the same date.

In particular there are notable storage volume differences for tanks 2, 3 and 6 and the permeable paving areas."

2.2 Response

Refer to the table below, which has been created to compare the attenuation features as detailed in the hydraulic model and shown on the drainage drawings issued on 12/10/2026:

	Hydraulic Model				Drainage Drawings			
	Area (m^2)	Depth (m)	Void Ratio	Volume (m^3)	Area (m^2)	Depth (m)	Void Ratio	Volume (m^3)
Att. Tank 1	48.000	0.630	0.95	28.728	48.000	0.630	0.95	28.728
Att. Tank 2	282.240	1.350	0.95	361.973	286.080	1.350	0.95	366.898
Att. Tank 3	225.000	1.470	0.95	314.213	229.120	1.470	0.95	319.966
Att. Tank 4	73.600	1.320	0.95	92.294	73.600	1.320	0.95	92.294
Att. Tank 5	57.600	0.690	0.95	37.757	57.600	0.690	0.95	37.757

Att. Tank 6	135.000	1.050	0.95	134.663	135.000	1.050	0.95	134.663
PP1	269.000	0.950	0.30	76.665	269.900	0.750	0.30	60.728
PP2	266.000	1.000	0.30	79.800	266.770	1.000	0.30	80.031
PP3	307.000	0.600	0.30	55.260	307.300	0.600	0.30	55.314
PP4	398.000	0.800	0.30	95.520	398.000	0.800	0.30	95.520
PP5	467.000	0.700	0.30	98.070	467.010	0.700	0.30	98.072
PP6	322.000	0.600	0.30	57.960	322.450	0.600	0.30	58.041
PP7	213.000	0.600	0.30	38.340	213.120	0.600	0.30	38.362
PP8	261.000	0.800	0.30	62.640	261.640	0.800	0.30	62.794

The attenuation tank cells that have been highlighted above show that the volume of attenuation provided on the drainage drawings is in excess of what is required within the hydraulic model, approximately 5m^3 in both cases. These differences are negligible (less than 2%) and are a result of arranging the tanks in accordance with the standard crate sizes from the manufacturer and considering site constraints. For completeness, the hydraulic model has been updated accordingly.

The permeable paving cell highlighted above shows the depth was incorrectly stated on the drainage drawing, which has been revised accordingly. Please note that the area of each permeable paving storage feature within the hydraulic model is fractionally less than stated on the drainage drawing, so the actual storage provided is negligibly greater than required.

Refer to Appendix 1 for the revised drainage drawings 1. Refer to Appendix 2 for the revised surface water drainage calculations.

2.3 LLFA Comment

"There is also a discrepancy in orifice plate sizes noted between manhole schedule sheet 2 17100-AAL-XX-XX-D-C-5114 Rev P02 (27mm for each orifice plate) and the model (23-25mm over PP1 through to PP8 as shown on pages 13-14)

2.4 Response

17100-AAL-XX-XX-D-C-5111 (Surface Water Manhole Schedule – Sheet 2) has been revised to ensure that the orifice plate sizes for the permeable paving outlets are in accordance with the hydraulic model. Refer to Appendix 1.