



Proposed Estates Yard & Exhibition Centre, Ramsbury Manor, Wiltshire

Surface Water Drainage Strategy
November 2025

Project No. 2080

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Revision History

Rev	Date	Purpose/Status	Comments
-	August 2025	Information	First Issue
A	November 2025	Information	Updated to suit comments

INTRODUCTION

- 1.1. AFA Consulting Engineers Ltd have been commissioned by The Ramsbury Manor Foundation to prepare a Surface Water Drainage Strategy report for the proposed Estates Yard and Exhibition Centre at Ramsbury Manor, Wiltshire.
- 1.2. This report will provide detailed layout and details for disposal of surface water from the development.
- 1.3. This report has been prepared for the use of The Ramsbury Manor Foundation. No other third party may rely upon or reproduce the contents of this report without the written approval of AFA Consulting Engineers Ltd. If any unauthorised third party comes into the possession of this report, they rely on it entirely at their own risk and AFA do not owe them any Duty of Care or Skill.

2. EXISTING SITE

- 2.1. The site is located 850m west of Ramsbury within Marlborough, SN8 2RG. It has an approximate grid reference of SU 25983 71390 with an approximate area of 1.7 hectares. The site was accessed via White's Hill Road from the southeast.
- 2.2. The River Kennet runs east to west and has formed a small natural lake approximately 280m to the south of the site. The Site Plan is presented within Figure 1 and Appendix A.

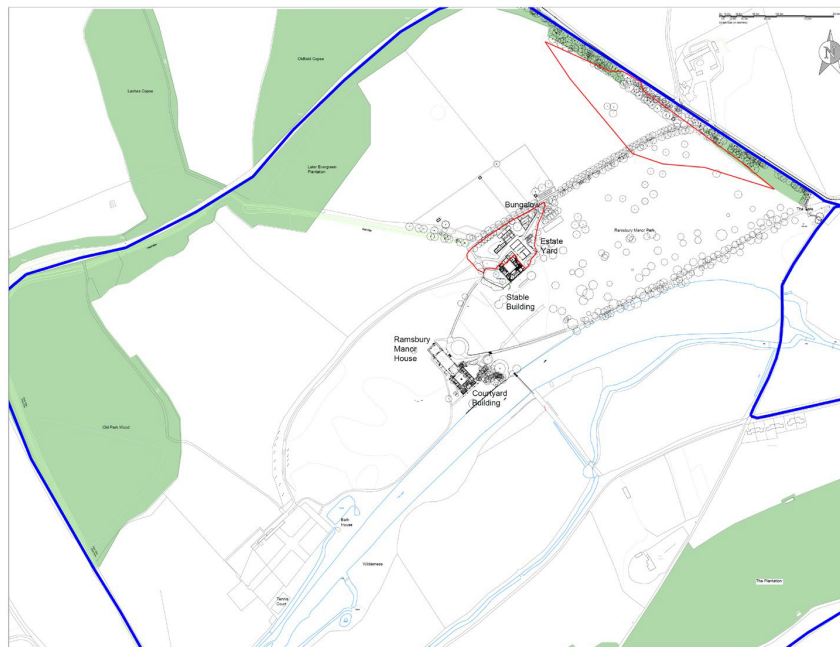


Figure 1 – Site Plan

- 2.3. The proposed Estate yard is to be located in the North East of the site adjacent Whites Hill Road.
- 2.4. The site area occupies the southeast corner of an approximately rhombus-shaped grass covered field. The site slopes south-eastward from approximately 134m AOD to 123m AOD resulting in a gradient of approximately 4.5 degrees.
- 2.5. The majority of the site is covered by grass except for a private drive passing east to southwest within the nearside of the southern boundary, the road comprises blacktop and is bordered by a row of trees along both sides along its length. The trees noted are of mature deciduous nature, but the species were unknown
- 2.6. The Exhibition Centre replaces the existing Estates Yard and is located North of the retained Stables Building. The existing stables building is drained via soakaways as indicated on the layout in Appendix G.

3. SURFACE WATER DRAINAGE STRATEGY

3.1. The proposed development is for the construction of an Estates Yard and Exhibition Centre. Refer to Appendix A for the proposed site plans.

3.2. SUDS mimic the natural drainage system and provide a method of surface water drainage which can decrease the quantity of water discharged, and hence reduce the risk of flooding. In addition to reducing flood risk, these features can improve water quality and provide biodiversity and amenity benefits.

3.3. The SUDS management train incorporates a hierarchy of techniques and considers all three SUDS criteria of flood reduction, pollution reduction, and landscape and wildlife benefit. In decreasing order of preference, the preferred means of disposal of surface water runoff is:

- Discharge to ground / infiltration
- Discharge to a surface water body.
- Discharge to a surface water sewer.
- Discharge to a combined sewer.

3.4. The philosophy of SUDS is to replicate as closely as possible the natural drainage from a site predevelopment and to treat runoff to remove pollutants, resulting in a reduced impact on the receiving watercourses. The benefits of this approach are as follows:

- Reducing runoff rates, thus reducing the flood risk downstream.
- Reducing pollutant concentrations, thus protecting the quality of the receiving water body.
- Groundwater recharge.
- Contributing to the enhanced amenity and aesthetic value of development areas.
- Providing habitats for wildlife in developed areas, and opportunity for biodiversity enhancement.

3.5. An intrusive site investigation was undertaken to the new Estates Yard area in November 2024 by Constructive Evaluation. A copy of the report is contained within Appendix B. Groundwater was not recorded during the investigation. Given the gradient of the site it is likely that groundwater will be at depth.

- 3.6. Soil infiltration testing to BRE365 was completed in the chalk found within TP1 and TP2 between 1.1mbgl and 2.0mbgl. Of the two positions tested, the lowest infiltration rates recorded were 1.48E-05 and 1.51E-05 m/s. A copy of the results is contained within the report in Appendix B.
- 3.7. No infiltration testing has yet been complete to the Exhibition Centre. The existing building including the retained Stables Building are drained via soakaways. When access is available testing will be undertaken at any proposed soakaway location to verify rates and design updated accordingly.
- 3.8. The recorded infiltration rates confirm the use of soakaways would be suitable for discharge of surface water runoff. The rates recorded within the Estates Yard have been utilised in the design of soakaways for both site areas
- 3.9. Soakaways have been designed in line with Wiltshire Council's Surface Water Soakaway Developers Guide Note and the SuDS Manual.
- 3.10. The proposed Estates Yard development comprises the following drained areas. These are identified on the drawings within Appendix F.

Main Access and disabled Car Parking	1327m ²
Courtyard	891 m ²
Workshops and Stores	70+734+145 = 949m ²
Office Building	60m ²
Access Road Widening	141m ²
Main Car Park	987m ²
TOTAL	4355m²

- 3.11. The proposed Exhibition development comprises the following drainage areas. These are identified on the drawings within Appendix F.

Staff Building	271m ²
East Access Road and Car Parking	576+65 = 641 m ²
West Access Road and Car Parking	742m ²
Exhibition Centre	2232+56 = 2288m ²
TOTAL	3942m²

- 3.12. Soakaways have been designed to manage run off from the buildings. These have been designed to accommodate rainfall events up to 1 in 100 years with 40% climate change allowance within the drainage network with no surface flooding.
- 3.13. For the Estates Yard access road due to the site gradients this area has been designed to discharge via a soakaway. The new Estates Yard buildings and courtyard have been designed to drain via a soakaway.
- 3.14. For the new car park area adjacent the Estates Yard this area largely follows the profile of the existing site and so formation is not likely to be within the chalk strata. This area has therefore been designed to discharge via a series of infiltration trenches to accommodate the gradient. The car parking bays and road are designed to be grasscrete permeable surfaces with attenuation storage provided within the subbase.
- 3.15. Soakaways have been designed to manage run off from the Exhibition Centre and Staff buildings. The access road and car parking areas to the Exhibition Centre have been designed as permeable surfaces with infiltration to the ground.
- 3.16. The full drainage network has been designed to accommodate rainfall events up to 1 in 100 years with 40% climate change allowance within the drainage network with no surface flooding. Supporting calculations are attached for 1 in 2, 1 in 30 and 1 in 100 year events within Appendix E.
- 3.17. To deal with the residual risk of blockage to all onsite drainage features, the operator will ensure maintenance of all drainage systems in line with the requirements in Ciria C753 the SuDS Manual.
- 3.18. A copy of the detailed Maintenance Management Plan is shown in Appendix D. This will ensure that over the lifetime of the proposed development the drainage system will be properly maintained to ensure proper functionality. A summary schedule of proposed maintenance is shown below:

Maintenance Schedule					
Item	Visual Inspection	Cleanse / De-sludge	CCTV Survey	Responsibility	Comments
Surface Water Drainage System (pipework, chambers etc.)	1 years	10 years	10 years	Building Owner	Cleansing to be carried as necessary
Gullies / Channels / Rainwater Stacks	Monthly	1 years	N/A	Building Owner	Cleansing to be carried as necessary
Soakaway	Yearly	As Required	5 years	Building Owner	Cleansing to be carried as necessary in line with manufacturers recommendations
Catch Pit	Monthly	As Required	N/A	Building Owner	Cleansing to be carried as necessary
Permeable surfaces	1 years	N/A	N/A	Building Owner	Jet wash surface as required to ensure surface not being silted
Permeable Block Paving	1 years	Swept' clean of debris every 2 years	N/A	Building Owner	Lift blocks and removed sand bedding and replace and re-bed paving- refer to individual manufacturers recommendations.

Table 3.2 – Maintenance Schedule

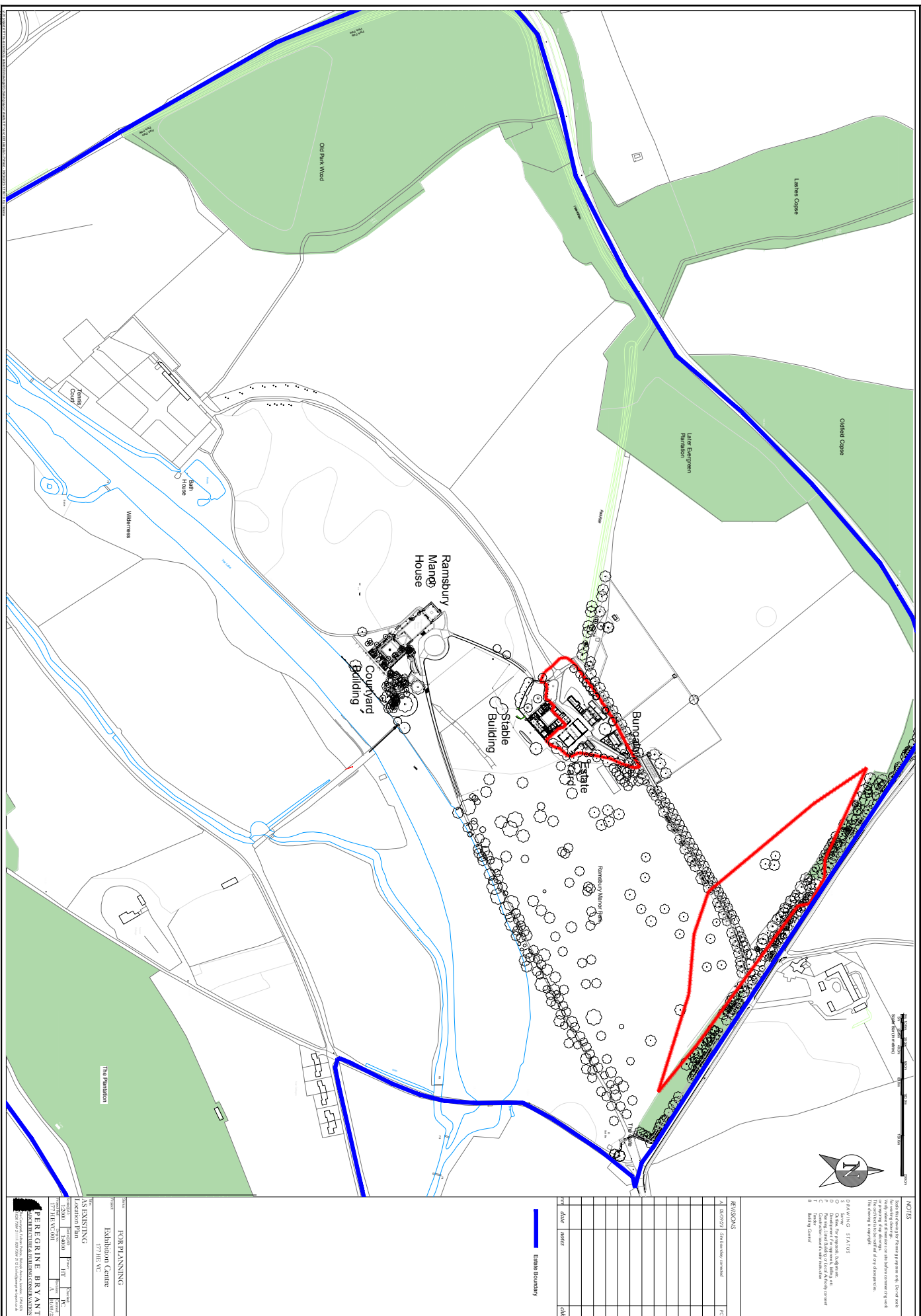
4. EFFECTS OF DEVELOPMENT ON OTHER SITES

4.1. The system has been designed to ensure that there is no risk of flooding over a range of storm durations for up to 1 in 100 years plus a 40% allowance for climate change. This will ensure that the risk of flooding to adjacent sites will not be increased.

5. CONCLUSIONS AND RECOMMENDATIONS

- 5.1. The development includes two areas an Estates Yard to the East of the site and Exhibition Centre North of the Stables building in the location of the existing Estates Yard.
- 5.2. An intrusive site investigation was undertaken in November 2024 to the Estates Yard Area. A copy of the report is contained within Appendix B. Groundwater was not recorded during the investigation and infiltration testing verify that soakaways would be feasible.
- 5.3. Drainage of the existing retained stables building has been recorded as being via soakaways to the South. A copy of the existing drainage is shown in Appendix G.
- 5.4. Soakaways have been designed to manage run off from the buildings.
- 5.5. Due to the site gradients the new access road to the Estates yard has been designed to discharge via a soakaway.
- 5.6. For the new car park area adjacent the Estates Yard this area largely follows the profile of the existing site and so formation is not likely to be within the chalk strata. This area has therefore been designed to discharge via a series of infiltration trenches to accommodate the gradient. The car parking bays and road are designed to be grasscrete permeable surfaces with attenuation storage provided within the subbase.
- 5.7. For the access road and car parking areas to the Exhibition Centre these have been designed as permeable surfaces with infiltration to the ground.
- 5.8. No infiltration testing has yet been complete to the Exhibition Centre. When access is available testing will be undertaken at proposed soakaway locations to verify rates and design updated accordingly.
- 5.9. The full drainage network has been designed to accommodate rainfall events up to 1 in 100 years with 40% climate change allowance within the drainage network with no surface flooding.
- 5.10. A copy of the proposed surface water drainage layout is shown in Appendix F.
- 5.11. The proposed surface drainage solution should be approved by the local authority prior to commencing any drainage works on site.

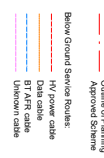
APPENDIX A
EXISTING AND PROPOSED SITE PLAN





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Height:	Weight:	Age:	Gender:
1.20	1.60	HT	PC
94 HIRP 101		C	SAW2

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 Site Boundary

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