

Planning Application Technical Response

Site:	Land To North Of Little Green Lane, Croxley Green, WD3 3SP
LPA Reference:	24/2073/OUT
Date Assessed:	05 February 2025

OUTLINE / Reserved Matters APPLICATION	Related Policy or Standard	Applicant Action Required	LLFA Specific Comment
All sources of flooding considered?	NPPF Paragraph 170, 181 PPG Paragraph 051 SDNSTS S10 Three Rivers SFRA Level 2	Provide updated information within an amended FRA on; ☐ Fluvial flooding from the ordinary watercourse ☐ Surface water flow path originating offsite ☐ Groundwater flooding ☐ Rainwater surcharged sewer flooding ☐ Historic flood information	Fluvial – Low Surface Water – Low Groundwater – Low Sewer – Low Historic – Low
		☐ Address concerns that there is not sufficient room within the development boundary to address flood risk mitigation and also achieved the suggested density of the development.	Included – Good abundance of above ground SuDS for this development. Low risk of flooding from all sources.
Mitigation not appropriate	NPPF Paragraph 170, 176 and 181 PPG Paragraph 004, 023, 037, 041, 042, 043 and 044 Three Rivers SFRA Level 2	☐ Use sequential approach with the following hierarchy. I. how can the development first avoid the risk of flooding II. how will it be mitigated (with evidence) III. how will flood resistance and resilience be employed	Development avoids the risk of flooding – all sources of flooding are considered to be low.
		☐ The proposal increases the risk of flooding to existing infrastructure, dwellings, or property. Mitigation should be re-assessed to show how flood risk can be reduced overall.	N/A – The proposal does not increase the risk of flooding to existing infrastructure.
		☐ Provide information on safe access and egress to show how the development will be safe for its lifetime. This may include assessment of how proposals will not increase the number of people living and working in areas of flood risk and if there is any additional burden placed on the emergency services. An emergency plan may also form part of this assessment (see www.adeptnet.org.uk).	Included – Safe access and egress has been covered.

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Long term sustainability of the development	NPPF Paragraph 176 and 181 PPG Paragraph 004, 036, 061, 068 and 069 Three Rivers SFRA Level 2	☐ Provide site specific ordinary watercourse or surface water flow path hydrological and hydraulic modelling.	Not required – Surface Water Modelling is not required.
		☐ Demonstrate that any residual risk is managed with appropriate flood resistance and resilience measures.	Informative: Despite the low flood risk, resilience and resistance measures need to be outlined clearly.
		☒ Include evidence of appropriate freeboard to finished floor levels from the design flood level.	Objection: Design flood level has not been calculated. We cannot be certain that the 150mm proposed levels are above the design flood level.
		☐ Include appropriate climate change allowance on modelling scenarios for assessment of the lifetime of the development (including the 3.33% AEP design flood event).	Not required – Surface Water Modelling is not required.
		☐ Use up to date FEH2013 or 2022 rainfall data for all design flood events.	Not required – Surface Water Modelling is not required.
		☐ Identification is required of those structures which require consent for works on an ordinary watercourse (from the LLFA), this extends to works required within 8m from the top of the bank (see HCC LLFA website).	Not required – No watercourse within RLB.
How does the site currently drain?	NPPF Paragraph 182 PPG Paragraph 059	☐ Evidence required on ground conditions / BRE365 or similar infiltration testing / dissolution potential / seasonally high groundwater levels.	Included – BRE365 testing has been undertaken on site.

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	SDNSTS S1, S2, S3, S4, S5, S6 Three Rivers SFRA Level 2	☐ Greenfield runoff rates and volumes are missing or need to be recalculated (incorrect input parameters).	Included – Rates and volumes have been provided.
		☐ Pre-development brownfield runoff rates are missing or need to be recalculated (incorrect input parameters).	N/A – Greenfield Site.
		☐ Drawing required to show where existing drainage network and outfall/s are, plus confirmation if will they be retained or removed.	Not required – Only foul sewer on site.
		☐ Drainage survey required to provide evidence of existing discharge rate and condition (may include detailed asset or CCTV survey and estimation of discharge from an existing pipe diameter/slope).	Included – Appendix 6.
Where will the site drain to?	NPPF Paragraph 182 PPG Paragraph 055, 056, 059, 060, 061, 062 and 063 SDNSTS S12, 13 and S14 Three Rivers SFRA Level 2	Drainage location hierarchy has not been followed, further information is required on;	Informative: Further information as to why rainwater harvesting has not been included or proposed.
		☐ Evidence why rainwater reuse can't be included.	
		☐ Source control and interception has not been provided by the provision of vegetated SuDS.	Included – Swales are vegetated SuDS.
		☐ Infiltration proposals – re Groundwater Source Protection Zone I restrictions (only clean roof water in a sealed system may be discharged).	Included – Infiltration is feasible on site.
		☐ Surface watercourse – does it connect to the wider network and is there permission and there are agreed access locations for proposed outfalls with the riparian owner?	Not required – Not proposed.
		☐ Surface water sewer – no in principle agreement from owner of the asset.	Not required – Not proposed.

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		☐ Combined sewer – no in principle agreement from owner of the asset.	Not required – Not proposed.
		☐ In principle objection - proposing to connect surface water runoff to foul sewer.	Not required – Not proposed.
		☐ Detailed justification required why the application cannot be drained via gravity and a pump is required.	Not required – Not proposed.
		☐ Full impact assessment of failure of a pumped system and emergency procedures to store 24 hours of water is required.	Not required – Not proposed.
		☐ Justification is required as to why a deep bore infiltration feature has been proposed prior to shallow infiltration or connection to a surface watercourse.	Not required – Not proposed.
Are the 4 pillars of SuDS provided and are they multifunctional?	NPPF Paragraph 182 PPG Paragraph 036, 055, 056, 059, 060, 061, 062 and 063 Three Rivers SFRA Level 2	☐ Overarching commitment to proposals of how application must provide water quantity benefits in open and above ground SuDS.	Included – Above ground SuDS use has been utilised.
		☐ Commitment to the use of SuDS and high-level assessment to include: ☐ water quality ☐ biodiversity ☐ amenity	Included – Simple Index Approach has been included. Biodiversity and Amenity has been covered.
How will the site drain without adversely effecting flood risk elsewhere?	NPPF Paragraph 181, 182 SDNSTS S2, S3, S4, S5, S6	☐ The most precautionary infiltration rate should be used in the design of the attenuation feature.	Included – Worst case scenario infiltration rate has been utilised.
		☐ Infiltration rates are shown to be favourable and should be used in the drainage design (where appropriate).	Included – Worst case scenario infiltration rate has been utilised.

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	Three Rivers SFRA Level 2	☒ Infiltration storage drainage design should be recalculated to either only discharge through the sides of the structure or apply the appropriate factor of safety.	Objection: Further calculations are required for infiltration. Half drain down time has not been provided.
		☒ Infiltration drainage storage has half drain down time greater than 24 hours and an alternative design or mitigation is required.	Objection: Further calculations are required for infiltration. Half drain down time has not been provided.
		☐ The post development 100% AEP (or 1 in 1 year) rainfall event runoff rate should also be controlled to the equivalent pre-development rate.	N/A – Site is infiltrating.
		☐ Proposed discharge rates and volumes are greater than greenfield with no justification.	N/A – Site is infiltrating.
		☐ Proposed discharge rates include future allowances for climate change and / or urban creep. These must be removed, and all calculations resubmitted.	N/A – Site is infiltrating.
		☐ Require justification and supporting calculations for brownfield % betterment and why this can't be closer to the predevelopment greenfield scenario.	N/A – Site is infiltrating.
		☐ Proposed discharge rates would increase flood risk elsewhere and need to be re-assessed.	N/A – Site is infiltrating.
		☐ A minimum runoff rate between 1 to 2 l/s/ha should be applied in groundwater dominated areas if infiltration cannot be undertaken.	N/A – Site is infiltrating.
		☐ How will the development not increase the volume of runoff as only pre and post	N/A – Site is infiltrating.

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		calculations of greenfield runoff rate have been provided?	
		☐ A complex control for runoff rates with long term storage provided, is required, if the drainage proposal is not limiting runoff to QBAR or 2 l/s/ha.	N/A – Site is infiltrating.
		☒ Include appropriate climate change allowance for the lifetime of the development (including 3.33% AEP design) for drainage modelling storage volumes.	Objection: Calculations have not been provided. Full network calculations should be supplied for review.
		☒ Outline drainage modelling calculations should be resubmitted and demonstrate how 10% urban creep has been included in the volume of SuDS storage required.	Objection: Calculations have not been provided. Full network calculations should be supplied for review.
		☒ Outline drainage modelling calculations should be resubmitted using a CV value of 1.	Objection: Calculations have not been provided. Full network calculations should be supplied for review.
Location of SuDS		☒ Use up to date FEH 2013 or FEH2022 rainfall parameters in any drainage modelling scenarios.	Objection: Calculations have not been provided. Full network calculations should be supplied for review.
		☒ Masterplan drawings need to show the high-level location of all SuDS and demonstrate that the volume of storage can be achieved in the layout. This includes the consideration for constraints (e.g., pipeline crossings and how gravity drainage can be achieved).	Objection: Whilst we acknowledge that the location of SuDS has been outlined (Appendix 11), it is unclear how the principles of drainage would operate. The connections between the features are unclear (i.e. swale does not connect to anything) and the outfall is unclear.

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		☐ Address concerns that there is not enough room within the masterplan for all SuDS features e.g. sufficient room for swales along main roads and still achieved the required density of the development.	Included – Good abundance of above ground SuDS for this development.
How will the drainage and watercourse features be managed and maintained?	NPPF Paragraph 182 PPG Paragraph 055, 057 and 058 SDNSTS S10, S11, S12, S13 and S14	☒ High level assessment of the maintenance of any SuDS features and structures and who will be adopting these features for the lifetime of the development.	Objection: The responsibility of maintenance has not been outlined.
		☐ Appropriate easements (to the adopting authority standard) to SuDS features should be shown on a the masterplan drawing, this will be a minimum of 3m.	Included – Easement has been included on the swales and the basin.
		☒ Indicative vehicular access route and off-road parking needs to be provided to ponds, basins and swales within the masterplan.	Objection: It is currently unclear where the off-road parking will be for the swales and basins.
		☐ Provide an easement of a minimum of 3 m from the top bank of any watercourse is required for maintenance. This should be on both banks, but justification should be provided if access is proposed from only one side of the bank or is less than 3m (e.g. 2.5 times the width of any plant likely to be used (from the top of bank with maintenance plant parallel to the watercourse)).	N/A – No watercourse within the RLB.
		☒ Due to the likely long duration build out time (including phased development proposals), supporting drainage calculations and drawings are required to show a timeline of how temporary measures will be put in place to protect the water environment and any newly built SuDS features. This will include any temporary water quality and water quantity flow control devices required.	Objection: This development is likely to be phased. There is no information on the phasing requirements.

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		☒ As it is a phased development, a surface water management and construction phasing plan is required. This must show how each phase can be provided independently (in terms of surface water drainage) and how any infrastructure which is relies on will be constructed prior to any housing or commercial development.	Objection: There is no water management and construction phasing plan.
		☒ A high-level assessment of how water quantity and water quality will be managed during the construction phase is required. Identifying high level assumptions of a construction management plan, such as the need to discharge to a sewer or watercourse with appropriate pollution measures.	Objection: There is no high-level assessment of how water quantity and quality will be managed during the construction phase.
Other		☐ Bespoke advice	N/A – Covered in checklist.