

TECHNICAL NOTE: PLANNING CONDITIONS REVIEW

Job 1620003433 - Midland Crescent

Client

Memo no. RUK-30030-02

Date

To Richard Miller

From Anna Sammarco, Jeremy Sinclair

Copy to Mona Martin

1. Introduction

1.1 This report has been prepared to review the surface water drainage proposals for Midland Crescent Housing Scheme SW3. A technical design note (Ref. No. RUK-30030-01 dated 20 August 2014) outlining all surface water drainage design information was submitted for LPA's review as part of application no. 2013/4575/P.

- The Site is located on the west side of Finchley Road, south of Rosemont Road, nearest post code NW6 2AZ. Following the demolition of a single storey crescent shaped building comprising Class A1 and A3 uses the site is currently vacant.
- 1.3 The site is classified as a brownfield site by the London Borough of Camden. As detailed in the site location plan, refer to figure 1, the site is bounded on by railway lines on the north and south sides.

Date

28.11.17

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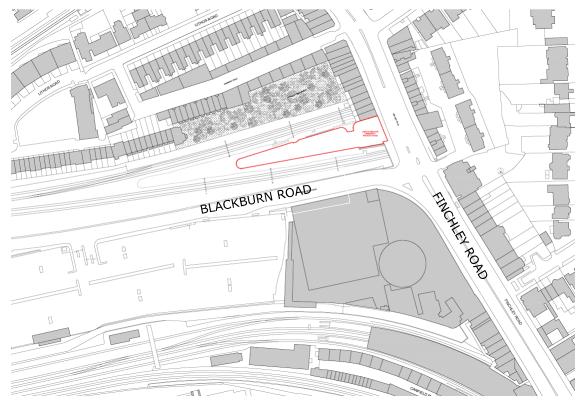


Figure 1: Site Location Plan



2. Planning Specifications for Surface Water Drainage

- 2.1 The London Plan stipulated that surface water discharge rates from Brownfield sites should be limited to 50% of the existing surface water discharge rates.
- The CIRIA SuDS Manual (C753) outlines the four main categories of benefits that can be achieved by adoption of SuDS:
 - Water quantity
 - Water quality
 - Amenity, and
 - Biodiversity

These are detailed in the table attached in Appendix A.

As detailed in the architectural plans attached in Appendix C, green areas are proposed adjacent to footpaths throughout the Site. This landscaping will help to achieve the objectives of water quantity and quality, amenity and biodiversity as detailed in the SuDS manual.

3. Site Investigation

- **3.1** Phase 1 geo environmental report by Capita Symonds identified:
 - Site strata consists of Made Ground, London clay, Lambeth Group, Thanet Sand Formation and Upper Chalk in descending sequence
 - The underlying geology of the site is London Clay, which is not classified as a water bearing strata.

No significant site wide concentrations of contaminants were identified in soil that pose a risk to future site users for the proposed development.

4. Correspondence Record

4.1 Network Rail

Network Rail advised that all drainage shall be directed away from the railway and into local authority sewers. Soakaways, if feasible shall be installed at a minimum distance of two metres from the railway boundary.

One set of detailed and fully dimensional drawings needs to be submitted for approval prior to commencement of work showing full drainage details and a location plan at 1:1250 scale showing that the recommended minimum distance of the scheme from the railway boundary has been met

No surface water discharge into a NRIL maintained drain or culvert is permissible for this scheme.

4.2 London Borough of Camden

Camden Council have acknowledged within their Reserved Matters Decision Notice, dated February 2010 that the green roofs shall provide biodiversity at the site in compliance with



policy N5 (Biodiversity) of the London Borough of Camden Unitary Development Plan 2006 and Camden Planning Guidance 2006.

In order to demonstrate the long term viability of this proposal, full details for the green rooves including species, substrate and access details together with a trial shall be submitted for approval before the development commences.

4.3 Thames Water

No consultation has been undertaken with Thames Water during the design phase. However, comments were received from Thames Water in response to planning application 2013/4575/P. The following list of items demonstrates how these have been covered.

The use of soakaways has not been considered for this scheme due to soil conditions (underlying clay) and to avoid any detrimental effect on NRIL's land. It is proposed that the Site drains via a deep TW manhole located to the west within the area of the previous train station. The current proposal is to have a separate foul and surface water drainage system up to the outfall to the combined sewer.

Surface water is attenuated within the site at roof level through use of blue and green roofs. Drainage strategy for external paving has not been considered and needs to be completed during the detailed design phase of the project; there is potential of further attenuation storage across the paved areas through use of porous paving.

The final surface water manhole within the site boundary contains a hydrobrake which will control the discharge rate to permissible flow rates. The proposed discharge rate from the site has been established based on the current limitations outlaid by the Major's London Plan as mentioned in Section 2.1. A capacity check should be undertaken requested from Thames Water for the proposed foul and surface water discharge rates.

Since only pedestrian access is allowed within the Site as mentioned in the Design and Access Statement (ref. no. 2004-00-BR-1000-P01) prepared by CZWG Architects LLP. This means that there is no risk of oil-polluted discharges entering the public sewer and therefore a petrol/oil interceptor is not required.

Thames Water recommends the installation of a properly maintained fat trap on all catering establishments to avoid blockage of drains, sewage flooding and pollution to public sewer. Locations of these traps, together with specifications for them, will be provided on the detailed drainage plans.

4.4 Environment Agency

No consultation has been undertaken with Environment Agency.



5. Surface Water Drainage Review

5.1 Existing Situation

The existing drainage network has been assumed based on topographical survey information available and asset plans available from Thames Water (produced on 19 October 2012). A drainage survey is required to verify current assumptions before the development commences.

5.2 Proposed Drainage Plan

Feedback from the consultation process has been used to develop the surface water drainage proposals detailed in the technical design notes (ref. no. RUK-30030-01). The network has been designed for 1:100 years storm return period with an additional 20% allowance in rainfall intensity to allow for climate change. This is based on the proposed design life of 70 years for the building.

The allowance for climate change shall be reviewed during the detailed design phase to reflect the most up to date regulations.

The SuDS matrix attached in Appendix B provides an explanation on the suitability of various types of sustainable urban drainage features for the Site.

5.3 Contamination control

There is no requirement for a petrol/oil interceptor as detailed in Section 4.3.



6. Summary

- **6.1** Within the Stage 4 design phase, details for the proposed surface water arrangement are required for planning purposes including the maintenance arrangement for the sustainable drainage proposals.
- Based on advice received from London Borough of Camden on planning application no. 2013/4575/P and correspondence received from Seonaid Carr (Senior Planning Officer at the Council) on 4 September 2014, consent to the proposed drainage strategy has been given.
- **6.3** Consultation with Thames Water is required for approval of the proposed discharge rates.



APPENDIX A: DESIGN CRITERIA FOR SUDS

Extract from the SuDS Manual – CIRIA C753

	Design criteria for SuDS			
2.1		Design criteria		
	Water quantity	1 Use surface water runoff as a resource 2 Support the management of flood risk in the receiving catchment 3 Protect morphology and ecology in receiving surface waters 4 Preserve and protect natural hydrological systems on the site 5 Drain the site effectively 6 Manage on-site flood risk 7 Design system flexibility/adaptability to cope with future change		
	Water quality	Support the management of water quality in the receiving surface waters and groundwaters Design system resilience to cope with future change		
	Amenity	1 Maximise multi-functionality 2 Enhance visual character 3 Deliver safe surface water management systems 4 Support development resilience/adaptability to future change 5 Maximise legibility 6 Support community environmental learning		
•	Biodiversity	Support and protect natural local habitats and species Contribute to the delivery of local biodiversity objectives Contribute to habitat connectivity Create diverse, self-sustaining and resilient ecosystems		



APPENDIX B: SuDS MATRIX

SuDS option	Appropriate to the site	Comments		
Soakaways	Х	Excluded from the design due to expectation of poor infiltration rates, adjacent railway tracks and proposed basement. To be confirmed upon the completion of a full site investigation.		
Porous paving (storage)	*	There may be potential for porous paving to be installed in the hardstanding areas surrounding the building. These porous pavements could be used to store water and reduce the overall discharge rates from the site into the public sewer.		
Porous paving (infiltration)	x	Poor infiltration rates are expected within the area and not deemed suitable adjacent to the railway tracks.		
Attenuation ponds/ detention basins	Х	There is little available area across the proposed site to accommodate a detention basin or attenuation pond. Therefore this option is not deemed to be appropriate for this site.		
Rain water harvesting	x	A rainwater harvesting system could be included to reduce the potable water consumption and further reduce the total volume of water entering the public sewer. Rainwater harvesting tanks are not currently considered for inclusion due to the extra treatment required to the rainwater from the green roofs.		
Flow control devices.	✓	A hydrobrake has been proposed at the site to restrict the surface water outflow rates to 50% of the existing surface water flow rates into the Thames Water public sewer.		
Swales	Х	There is insufficient space available at the site for the inclusion of swales around the building within the red line boundary.		
Green/blue roofs	✓	Green Roofs and Blue Roofs are currently being considered within the design by the Client and Architect. Green Roofs have been included within the proposed hydraulic design for the site, attenuating the water at roof level. The Green Roof area proposed is 295 m². Blue Roofs are included within the hydraulic model which will result in a reduction of final outfall flow rates and reduce the requirement for other attenuation methods at the site. The Blue Roof area is 419m² and the stored volume 35.8 m³.		
Attenuation tanks	Х	There is little space available inside the red line boundary of the site for the inclusion of an attenuation tank.		
Kev:				

Key:

X Not Suitable

 $[\]checkmark$ Suitable for use and included in the scheme

st Possibly suitable for use – not included with the initial hydraulic modeling calculations



APPENDIX C: ARCHITECTURAL PLANS

