

Information within this drawing is not necessarily produced to scale. Always use figured dimensions and co-ordinates - if in doubt, ask.

NOTES

SURFACE WATER DRAINAGE PHILOSOPHY

The existing surface water drainage incorporates a series of manholes containing partial height weir walls and flow control devices to provide a "cascade" storage system. In the area of the proposed development a pond currently exists to provide "off-line" storage for flows which are restricted by one of these flow control devices. The pond is to be infilled and the flow control chamber abandoned as they both lie within the footprint of the proposed building. The main drainage runs will be diverted around the proposed building.

As the original design parameters used for the overall site surface water drainage system are not known, it is therefore proposed to replicate the flow control and "off-line" storage as part of the proposed development. This will result in the performance of the surface water system for the overall site remaining unchanged.

In order to calculate the volume of storage required to replicate that provided by the pond, it has been assumed that the level of the existing weir wall within the existing flow control chamber is 152.20. This gives a maximum storage depth within the existing pond of approximately 0.5m, which equates to approximately 100 cubic metres of storage. The level of the weir wall is to be checked on site before construction commences to ensure that this volume is adequate.

It is assumed that a 30% reduction in peak flow will be required as a condition within the Planning Approval. In order to achieve this, two new flow control devices and below ground storage systems have been incorporated as described below :-

Roof System - Part of the proposed building is over an area of existing hardstanding (approx. 2900 m²) which previously discharged into the flow control chamber which is to be abandoned. Assuming a rainfall intensity of 50mm/hour, this gives an existing peak discharge rate of 40 litres/second. A reduction of 30% gives a permitted peak discharge rate of say 28 litres/second. The calculated storage volume required for the run off from the proposed building area (approx. 9700 m²) for the 1 in 30 year return period storm is in the order of 175 cubic metres.

Car Park System - Part of the proposed car park is over an area of existing hardstanding (approx. 4100 m²) which previously discharged into the existing surface water system downstream of the flow control chamber which is to be abandoned. Assuming a rainfall intensity of 50mm/hour, this gives an existing peak discharge rate of 57 litres/second. A reduction of 30% gives a permitted peak discharge rate of say 40 litres/second. The calculated storage volume required for the run off from the proposed car park area (approx. 5100 m²) for the 1 in 30 year return period storm is in the order of 50 cubic metres.

- — Ex. surface water drainage.
- — Ex. foul drainage.
- Surface water drainage abandoned.
- Foul drainage abandoned.
- — New surface water drainage.
- — New foul drainage.
- New land drainage.
- New drainage channel.

A	First Issue.			
REV	DESCRIPTION	SIC	CHK	DATE

THE COMPANY SHOP

WENTWORTH WAY, TANKERSLEY

PRELIMINARY DRAINAGE STRATEGY

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SCALE WHEN PLOTTED AT 1:500			DRAWING STATUS	
			PRELIMINARY	
DRAWN	CHECKED	DATE	DRAWING NUMBER	REV
MW	GMS	10-11-10	32023/002	A

