MARKS HEELEY LTD

SURFACE WATER DRAINAGE STRATEGY FOR PROPOSED DEVELOPMENT AT:

PROCESSING PLANT,
BÉVAN CLOSE, WELLINGBOROUGH, NN8 4BL

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1.0 EXISTING SITE

1.1 The existing site is located off Bevan Close, Wellingborough.

1.2 Existing ground levels are in the region of 99.20 with no significant falls across the site. The site is predominantly laid to hardstanding.

1.3 From records the site is shown as being used as a precast concrete works from the around the 1970’s into the 1990’s.

1.4 In more recent years the site has been used for storage of materials.

1.5 There are gullies and manholes in Rixon Road, which are believed to serve the local area.

1.6 To the north of the site, the Swanspool Brook is present. The Swanspool Brook is classified as a ‘main river’ and is maintained by the Environment Agency.

2.0 SITE GEOLOGY/INVESTIGATIONS

2.1 BGS mapping shows the site geology to consist of Whitby Mudstone Formation.

2.2 Soil investigations have been undertaken to determine the nature of the site’s geology. The most recent investigation was prepared by J.Pamment Site Investigations dated September 2015.

2.3 The intrusive investigations consisted of 5 No. boreholes. The results of the borehole logs showed made ground across the site, varying in depth from 1-3m. The boreholes were abandoned at these levels due to the ground becoming to hard to drill.
3.0 PROPOSED DEVELOPMENT

3.1 The proposed development on this site consists of the construction of 2 No. industrial storage buildings.

3.2 Externally of these will be storage bays allowing the stacking of materials.

3.3 New surface water drainage will be required to serve the new buildings and yard areas. The purpose of this document is to discuss these proposals.

4.0 PROPOSED DRAINAGE STRATEGY

4.1 From our investigations, it is assumed that surface water currently discharges from the areas of hard standing on the site to a combination of permeable areas, the gullies in the main road and the brook to the north of the site.

4.2 Following the SUDS hierarchy, we have determined the most suitable method of providing surface water drainage to the site.

<table>
<thead>
<tr>
<th>METHOD</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge into ground</td>
<td>Geology expected to be inappropriate</td>
</tr>
<tr>
<td>Discharge into a surface water body</td>
<td>Proposed (Swanspool Brook)</td>
</tr>
<tr>
<td>Discharge into a surface water sewer</td>
<td>Not required</td>
</tr>
<tr>
<td>Discharge into a combined sewer</td>
<td>Not required</td>
</tr>
</tbody>
</table>

4.2 The site geology is expected to be unsuitable for infiltration.

4.3 The next best option available to us is to allow a controlled discharge to the Swanspool Brook to the north of the site. We would propose a discharge of 5 l/sec as an allowable rate.

4.4 A volume of surface water attenuation will need to be provided due to the restricted outfall into the brook. This will be designed for a 1:100yr +20% peak storm event.
5.0  **DETAILED DESIGNS/PROPOSALS – SURFACE WATER**

5.1 The building roofs will be served by downpipes and the yard areas will be laid to falls to a number of gullies.

5.2 With consideration of the proposed scheme for this site, the attached drawing H10853/D1 within Appendix A has been prepared to define the drainage strategy discussed in 4.0.

5.3 This scheme details the proposed location and volume of surface water attenuation and the proposed location of the outfall into the brook.

5.4 A Class 1 petrol interceptor will be installed before the drainage enters the attenuation, insuring there is no risk of pollutants potentially entering the watercourse.

5.5 Non-return valves will be fitted to both the Class 1 petrol interceptor and the outfall from the attenuation tank.

6.0  **Conclusion**

6.1 Considering the SUDS hierarchy, the best option available to us is discharging to the watercourse north of the site.

6.2 The proposals are to deal with surface water by controlled discharge of 5 l/sec to the Swanspool Brook north of the site.

6.3 Therefore we consider the proposals acceptable from a SUDS point of view.

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Appendix A

Proposed surface water drainage strategy.