APPENDIX L: OVERLAND FLOOD FLOW ROUTING PLANS

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MOSS LANE, SOUTHPORT

EXISTING DRAINAGE SITUATION PLAN

OUR REF. HYDO08

LEGEND

- Site Extents
- Topographic Fall
- Main River
- Ordinary Watercourse

Existing Drainage Infrastructure

- Foul Water (Gravity)
- Foul Water (Rising Main)
- Foul Water Pumping Station
- Surface Water (Gravity)
- Surface Water (Rising Main)
- Surface Water Pumping Station
- Combined Sewer (Gravity)
- Combined Sewer (Rising Main)
- Combined Pumping Station

Notes:

THIS DRAWING IS NOT A DRAINAGE 'DESIGN' IT IS A PRELIMINARY DRAINAGE STRATEGY SHOWING INDICATIVE SEWER LOCATIONS.

NO HYDRAULIC SIMULATION OR ASSESSMENT OF THESE PROPOSALS HAS BEEN UNDERTAKEN.

PROPOSED POINTS OF CONNECTION TO THE EXISTING CULVERTS REQUIRE INVERT LEVELS TO BE ACCURATELY ESTABLISHED.

SURCHARGING OF THE PROPOSED OUTFALL WILL REQUIRE MODELLING TO SATISFY THE REQUIREMENTS OF UNITED UTILITIES ALONG WITH FULL HYDRAULIC ANALYSIS.

BETTS HYDRO
CONSULTING ENGINEERS

Date: 23rd September 2015
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The foul water flows generated by the development site are proposed to outfall to the public foul water gravity sewer (225mm dia.) to the north-west of site. The proposed point of connection from site would be at UU Manhole Ref. 9801 (or alternative downstream location).

It is assumed that a pumped solution will be likely, based on the existing ground levels; however, further investigation during detailed design will be required to confirm whether discharging the whole of site under gravity is feasible.

Consents to discharge to the public sewer network will be required from United Utilities prior to approval, furthermore any downstream capacity constraints on the system should be established through early consultations. The preferred point(s) of connection and discharge rates should be discussed and agreed at an early stage.

Should infiltration not be fully or partly feasible for the management of surface water run-off generated by the site, then the proposed strategy is to discharge surface water flows to the watercourse neighbouring the eastern boundary (Three Pools Waterway). Detailed design will be required to confirm the strategy following more detailed levels and layout review; further discussion with Sefton Council and the Environment Agency will be required.

Discharge to the watercourse will be required to be restricted to mimic the pre-development situation with a minimum of 20% betterment in line with Sefton Council’s drainage requirements – further restriction may be required following subsequent discussion with the UPA.

Three Pools Waterway is designated Main River therefore any design proposals will need to consider the requirement to provide a maintenance easement from the watercourse into site; clear and unimpeded access must be provided typically 8m from Top of Bank, such should be confirmed with the EA.

Guidance indicates that for residential development at least two stages of water treatment, are advised prior to discharge to the watercourse. It is recommended that SuDS techniques are considered as part of the proposals; based on the nature and scale there would likely be the opportunity to implement multiple techniques such as ponds, swales, channels, rills and permeable paving; any SuDS proposed should be discussed with the LPA at an early stage.

Three Pools Waterway is designated Main River therefore any design proposals will need to consider the requirement to provide a maintenance easement from the watercourse into site; clear and unimpeded access must be provided typically 8m from Top of Bank, such should be confirmed with the EA.

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