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August 2014

FOUL DRAINAGE REPORT

PROPOSED RESIDENTIAL DEVELOPMENT, BARTONS ROAD, HAVANT

Southern Water had originally advised that the existing foul sewer running from east to west across the northern end of the proposed development did not have sufficient capacity to serve the proposed development. To resolve this issue a survey of the existing drainage system has been carried out, which confirmed that the surface water run-off from the existing premises discharged to the foul sewer.

Details of this survey were provided to Southern Water, who confirmed that if all existing surface water flows are removed from the foul sewerage system, there will be sufficient capacity for foul flows from the proposed development.

Details of the drainage survey, foul drainage strategy and correspondence with Southern Water are attached to this report.





AMA
15 Wild Rose Crescent
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Southampton
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SO31 6TG

Developer Services
Southern Water
Southern House
Sparrowgrove
Otterbourne
Hampshire
SO21 2SW

Tel: 0330 303 0119

Email: developerservices@southernwater.co.uk

Your Ref

Our Ref

Plan-Gen-0012

Date

11/11/2013

Dear Sir

Proposal: Erection of 51 dwellings

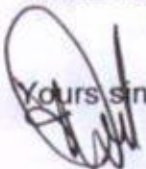
Site: Land to the rear of Eastleigh Cottages, Bartons Road, Havant, Hampshire, PO9 5NA

Further to your letter regarding the above development site and the recent capacity assessment.

As indicated in the capacity assessment there is no spare capacity within the existing sewerage system to accommodate any additional flows. However, the proposed foul flow from the development could be accommodated if all the existing surface water flows currently discharging to the foul sewerage system are removed as part of the redevelopment of the site.

Therefore, in principle Southern Water will accept the proposed foul flows from this development on condition all existing surface water flows are removed from the existing foul sewerage system. To obtain approval for the connection you will be required to submit a section 106 connection application and provide all the information and calculations of the existing connection points and flow rates demonstrating that there will be no increase in flows.

If you require any additional information please do not hesitate to contact this office on the numbers below.


Yours sincerely

Stuart Ward
Developer Services

DRAINAGE CALCULATIONS

Existing Discharge to Foul Sewer

Surface Water Run-off from Buildings discharging to existing foul sewer. Area = 337 sq.metres
At rainfall rate of 50mm/hr, discharge = 4.68 litres/sec

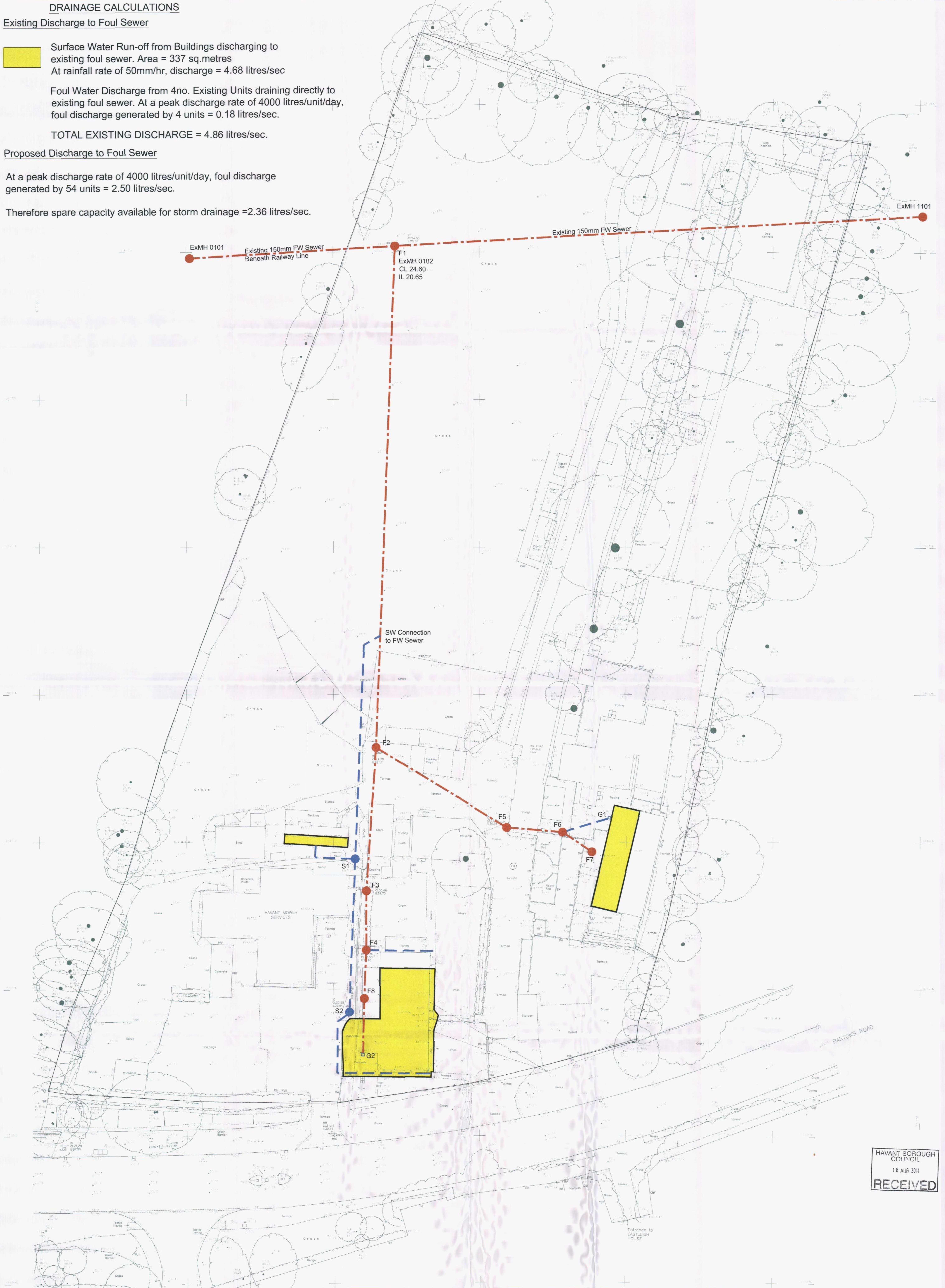
Foul Water Discharge from 4no. Existing Units draining directly to existing foul sewer. At a peak discharge rate of 4000 litres/unit/day, foul discharge generated by 4 units = 0.18 litres/sec.

TOTAL EXISTING DISCHARGE = 4.86 litres/sec.

Proposed Discharge to Foul Sewer

At a peak discharge rate of 4000 litres/unit/day, foul discharge generated by 54 units = 2.50 litres/sec.

Therefore spare capacity available for storm drainage = 2.36 litres/sec.



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ExMH 0101
CL 18.63
IL 16.78

ExMH 0102
CL 24.60
IL 20.65

MH S1
CL 24.00
BD 21.122
IL To be confirmed

ExMH 1101
CL 31.26
IL 29.86

SURFACE WATER CALCULATIONS

GROSS AREA(Excluding Ancient Woodland) = 1.300ha
EXISTING IMPERMEABLE AREA = 0.375ha (29%)
PROPOSED IMPERMEABLE AREA = 0.711ha (54%)
Using IH 124 Method of calculating the Mean Annual Peak Flow Rate,
Existing rates of surface water run-off for Greenfield Site are as follows:
Qbar = 10.6litres/sec
1in1yr storm = 9.0 litres/sec
1in30yr storm = 23.9 litres/sec
1in100yr storm = 33.7 litres/sec

So that existing run-off rates are not exceeded and to cater for 1in100 year storm + 30% allowance for climate change, storage to be provided in Cellular Tank and 1200mm dia. Pipework, with discharge limited by hydrobrake manholes as follows:
MH S10 - 14 litres/sec (2.0m head)
MH S7 - 16 litres/sec (2.0m head)
MH S2 - 9 litres/sec (0.8m head)
Actual peak rates of discharge from site will be:
1in1yr storm = 9.0 litres/sec
1in30yr storm = 11.4 litres/sec
1in100yr storm +30% = 14.6 litres/sec

FOUL WATER CALCULATIONS

No. of units = 55
At peak discharge rate of 4000 litres/unit/day,
Total discharge = 2.54 litres/sec

No. of existing units to be demolished = 5
Total discharge = 0.23 litres/sec

Total additional discharge = 2.31 litres/sec

LEGEND

450 RETAINING WALLS
(HEIGHT IN mm SHOWN ON HIGH SIDE)

450 UNDERBUILD/TANKING
(HEIGHT IN mm SHOWN ON HIGH SIDE)

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PRELIMINARY