



STUDY INTO THE OPTIONS FOR
FOUL AND SURFACE WATER DRAINAGE
PROVISION AT
DUNSBURY HILL FARM, EAST OF A3(M) JUNCTION 3
BETWEEN WATERLOOVILLE
LEIGH PARK
HAVANT
HAMPSHIRE
PO9 4HT

02 February 2015

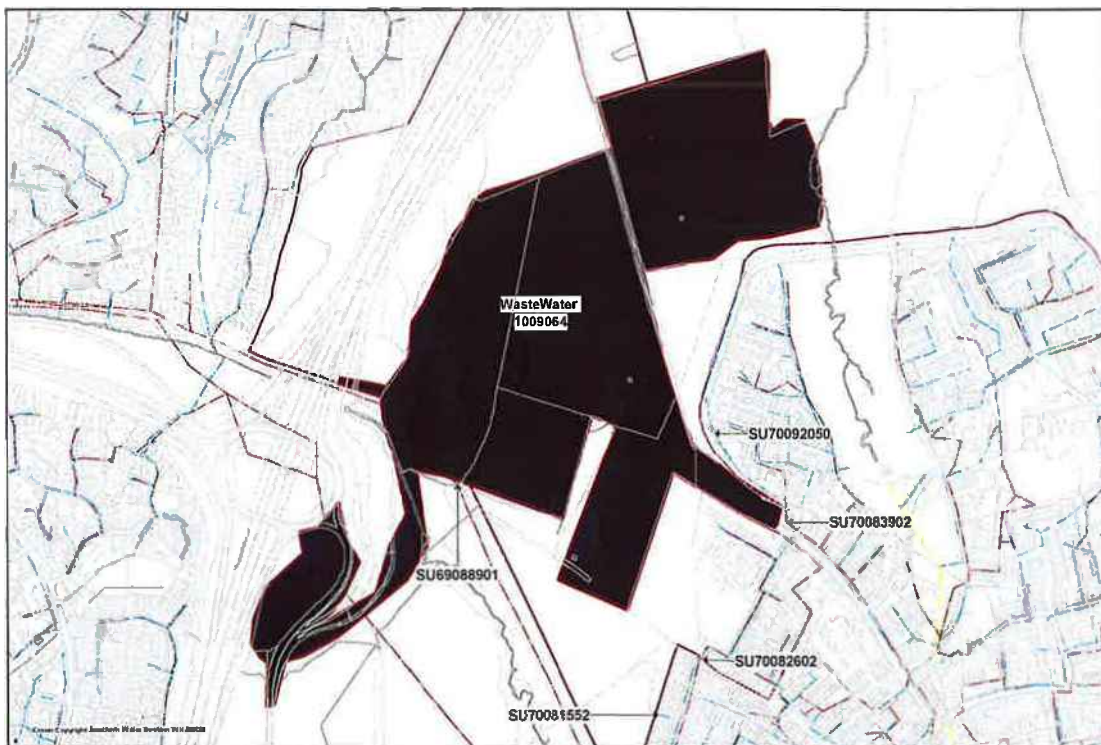
REQUESTED:
BAM DESIGN

Study into the Options for Foul Drainage Provision along Woolston Road, adjacent to Hulbert Road/ Ramsdale Avenue and Surface Water Provision along Calshot Road/Ramsdale Avenue, Havant

I. Development Details:

The proposal is to discharge 12 l/s of foul flow to the local foul sewerage system at manhole references SU69088901 or SU70082602 or SU70083902 which are located adjacent to Hulbert Road, Ramsdale Avenue and Woolston Road respectively and 23 l/s of surface water flow to the local surface water drainage system at manhole references SU70092050 or SU70081552 which are located in Calshot Road and Ramsdale Avenue respectively.

Figure 1 - Proposed Development



II. Results and Conclusions:

Foul Water:

There is currently sufficient capacity within the local foul sewerage network to accommodate a foul flow of 12 l/s at manhole reference SU69088901 or SU70082602.

However, there is inadequate capacity within the local foul sewerage network at manhole reference SU70083902 to accommodate a foul flow of 12 l/s. The proposed development would increase flows to the local network and as a result existing properties and land may be subject to a greater risk of flooding.

Additional off-site sewers or improvements to existing sewers will be required to provide sufficient capacity to service the proposed development as indicated in Figure 2, 3, 4, 5 & 6 and Table 1.

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Note –

There is insufficient capacity in the local sewerage network to accommodate any flow at manhole reference SU70083902.

At manhole reference SU70083902

Figure 2- Proposed Improvements – Foul system

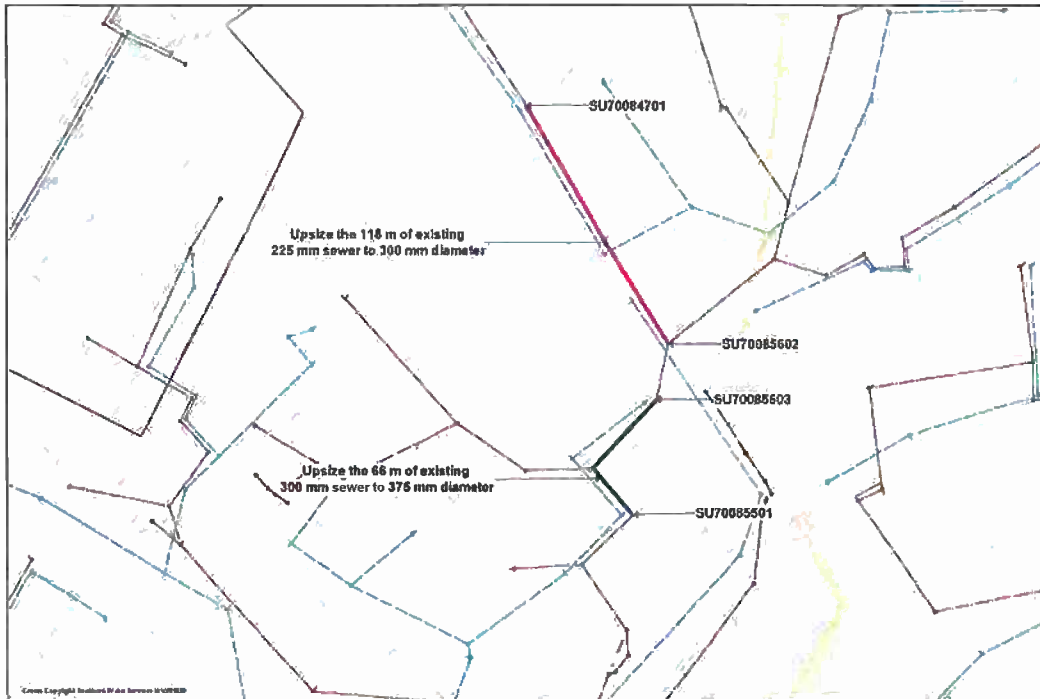
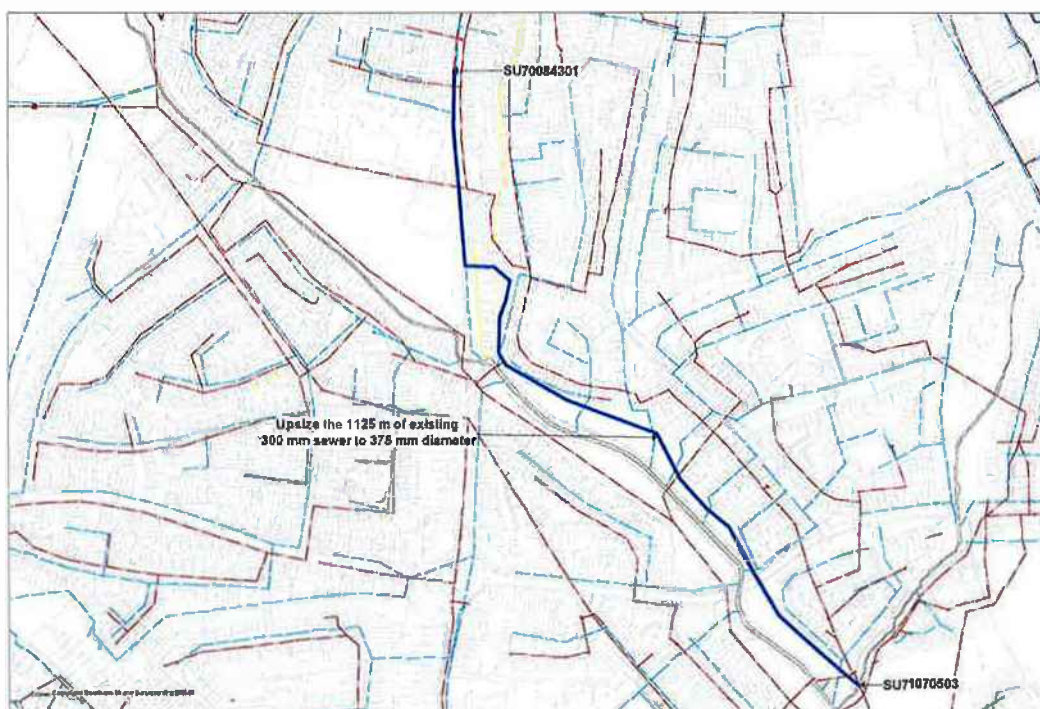


Figure 3 - Proposed Improvements – Foul system



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Figure 4 - Proposed Improvements – Foul system

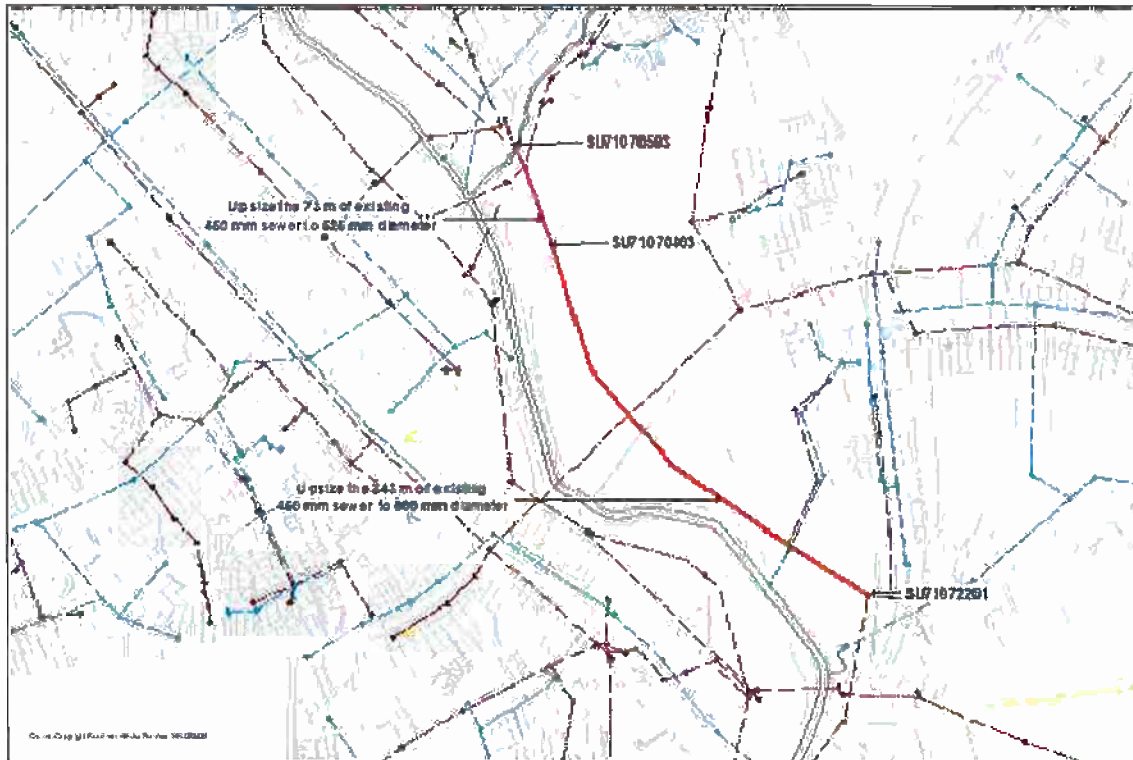
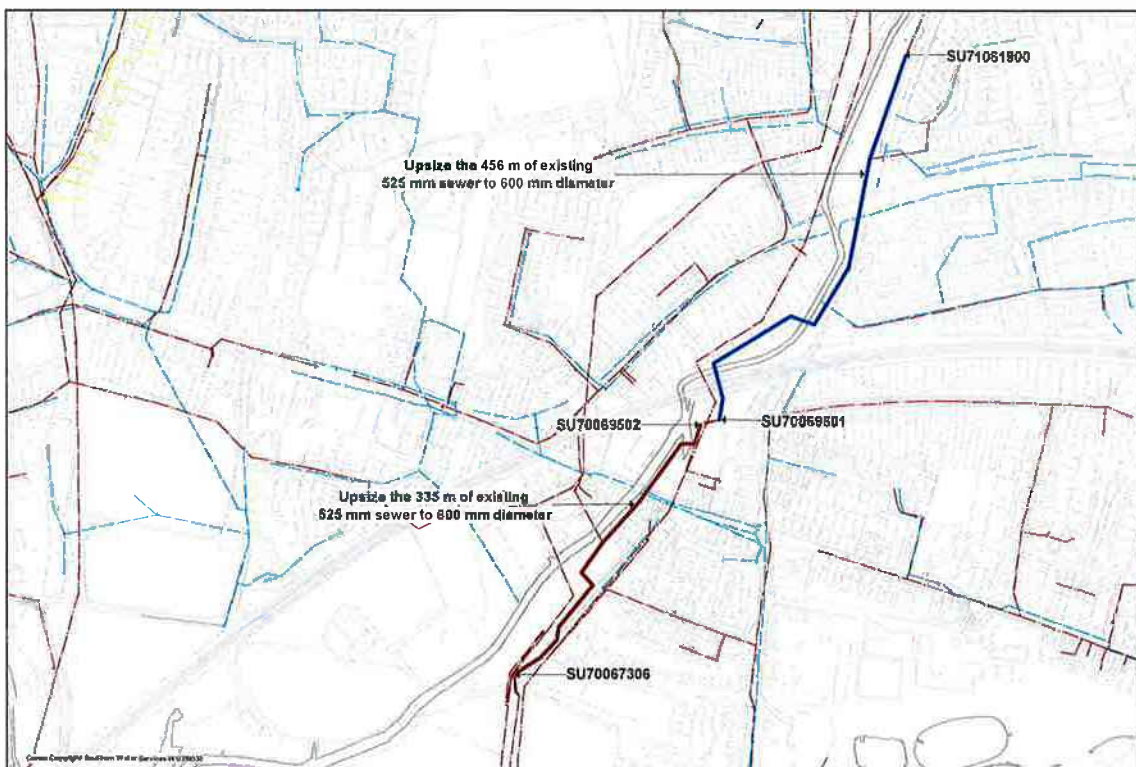


Figure 5 - Proposed Improvements – Foul system



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Figure 6 - Proposed Improvements – Foul system

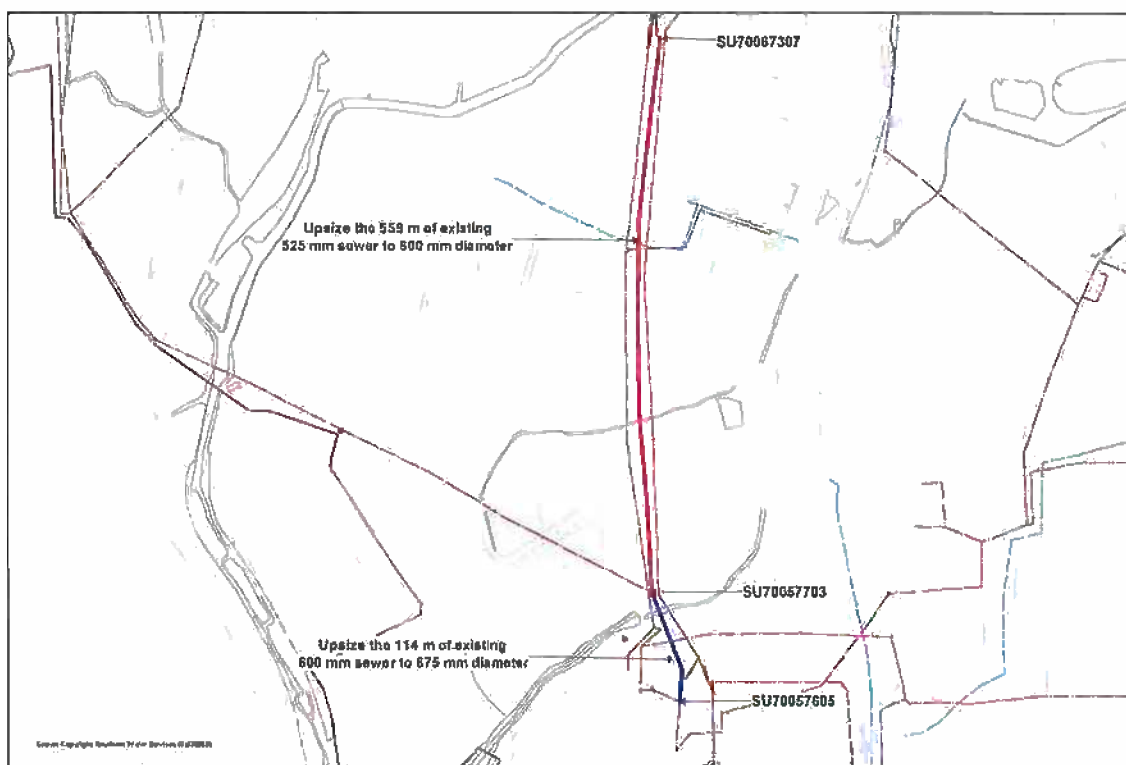


Table 1 Proposed Improvements Schedule

U/S Manhole	D/S Manhole	Sewer Diameter (mm)		Avg. Depth (m)	Length (m)
		Existing	Proposed		
SU70084701	SU70085602	225	300	2.4	118
SU70085603	SU70085501	300	375	2.4	66
SU70084301	SU71070503	300	375	2.1	1125
SU71070503	SU71070403	450	525	2.6	73
SU71070403	SU71072201	450	600	2.9	343
SU71061900	SU70069501	525	600	2.6	456
SU70069502	SU70067306	525	600	3.3	335
SU70067307	SU70057703	525	600	3.2	559
SU70057703	SU70057605	600	675	4.6	114

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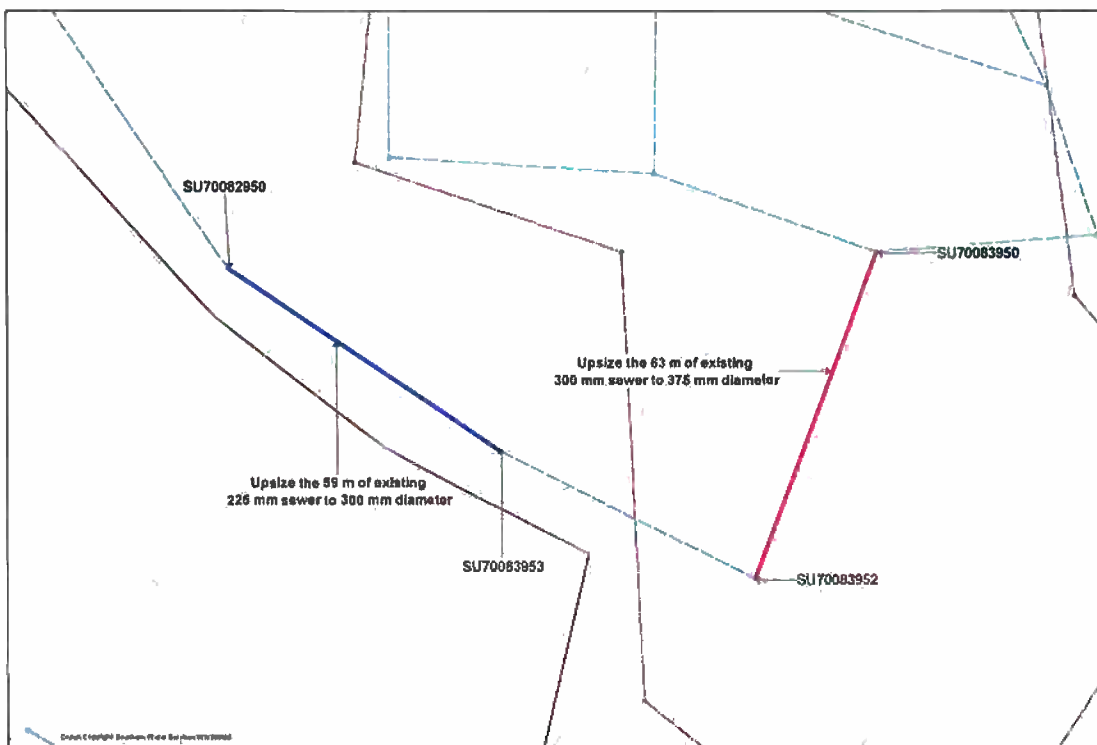
Surface Water System:

There is currently inadequate capacity within the local surface water network to accommodate a total flow of 23 l/s, split as 5 l/s at manhole reference SU70092050 and 18 l/s at manhole reference SU70081552. The proposed development would increase flows to the local network and as a result existing properties and land may be subject to a greater risk of flooding.

Additional off-site sewers or improvements to existing sewers will be required to provide sufficient capacity to service the proposed development as indicated in Figures 7 & 8 and Table 2.

Alternatively, the nearest point where capacity is currently available is at manhole reference SU70083950 located approximately 75 m north east of the proposed development site.

Figure 7- Proposed Improvements – Surface Water System



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Figure 8- Proposed Improvements – Surface Water System

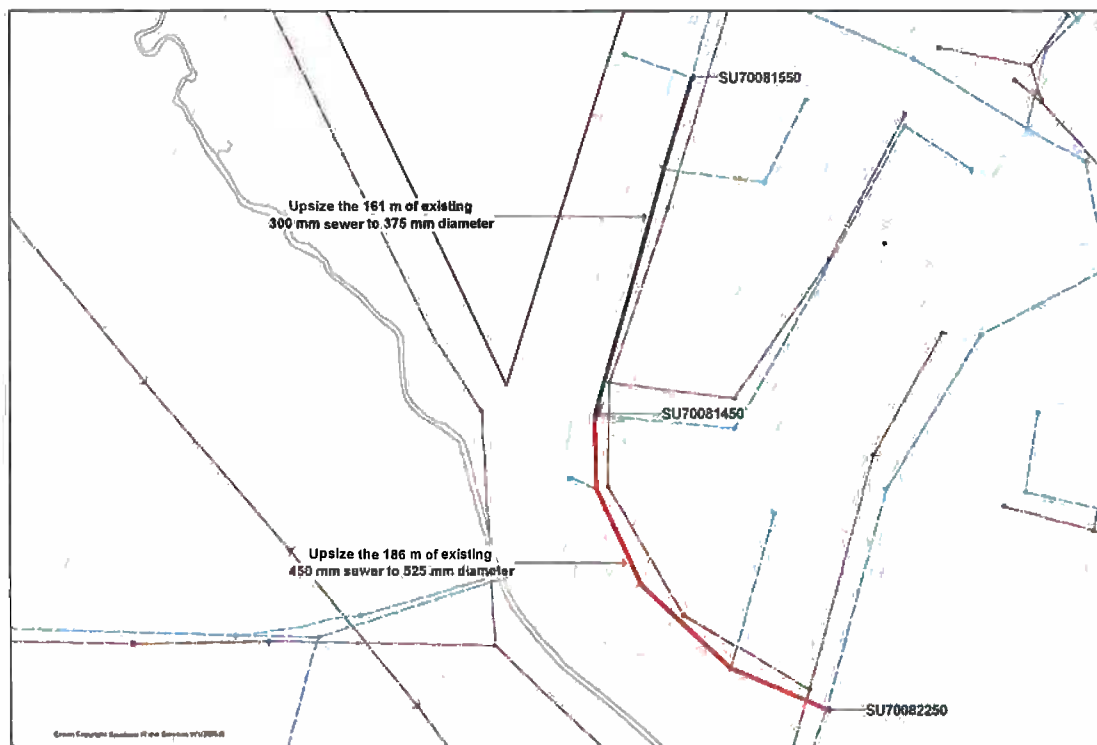


Table 2 Proposed Improvements Schedule

U/S Manhole	D/S Manhole	Sewer Diameter (mm)		Avg. Depth (m)	Length (m)
		Existing	Proposed		
SU70082950	SU70083953	225	300	1.4	59
SU70083952	SU70083950	300	375	2.6	63
SU70081550	SU70081450	300	375	1.7	161
SU70081450	SU70082250	450	525	1.4	186

Before any connections are made, an application form needs to be completed and approved by Southern Water Services.

Please note: - The information provided above does not grant approval for any designs /drawings submitted for the capacity analysis. The results quoted above are only valid for 12 months from the date of issue of this letter.