

# **SURVEY OF LAND DRAINS**

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**Jet-flushing carried out by All Hours on 16/8/2013**

## **House numbers 1-6**

Believed to be using soak-aways.

## **House numbers 7-15**

Two manholes adjacent to 15 both clear. This is also the collection point for the rear drains of 16 upwards. Outlet to surface water system in road.

## **House numbers 16-25**

Manhole access at 19, 21,25. Broken pipe east of 19. Manhole badly blocked with soil. Falls from 19 and 25 to 21 with outfall to road surface system at this point. This run is now clean and flowing up to suspected break adjacent to 19. Repair work not essential at this stage but needs to be monitored to avoid further blockages.

## **House numbers 26-32**

Previously flushed and still running clear to manhole adjacent to 32.

This drain runs constantly even during long dry periods. Source of water is suspected to be from an underground stream. For this reason this run and the manhole must be inspected regularly. Any blockage would cause a rapid build-up of the water level endangering the foundations of the adjacent houses; as occurred

earlier this year. The outfall from the 32 manhole to the stream was jet flushed again and found to contain a quantity of gravel. This is being created by the lack of free flow at the stream. The outlet at the stream is restricted by a concrete retaining slab covering the outlet pipe. This will cause a back up of debris in the pipeline and eventually block the manhole above. Urgent attention should be given to the modification of this retaining slab to allow free flow at the outlet to the stream.

### **House numbers 33-39**

Manhole adjacent to 33 was used to flush the full length to 39. No manhole can be found at that end but the full length of the drain is now running clear.

### **House number 40-45 and 46-48**

The manhole at 42, which was blocked, is the North end of the run and was used to flush to 45 and to clear gullies to numbers 40 and 41. The gullies in front of these houses must be kept cleaned out since they take a considerable amount of run off in heavy rain. Unfortunately number 40 has no gully and the outlet from the grid is too small to take any heavy flow. This outlet should be opened up and reconnected to the underground pipe work.

The 40-45 group of properties is very vulnerable to foundation damage in prolonged heavy downpours. The foundation levels in relation to the road and the gradient of the front gardens means that good drainage is needed close to the house. This problem is possibly more one of run-off rather than ground water levels. The existing land drain which does not stretch the full length of the terrace will not absorb the surface water fast enough to protect these houses.

One solution to this terrace would be to extend the land drain northwards across 41 and 40. In addition a channel across each drive on the line of the land drain would enable the collection to be connected directly to the land drain below. The same channel modification to houses 42 to 45 would ensure that the bulk of their surface run-off would be captured before it reached the house foundations. The first step should be a study of water flow during heavy rain which would enable us to work out a solution to match the problem.

The 40-45 run continues into the rear gardens and roof rainwater down pipe collectors from 46,47 and 48 to a manhole at 48 which was used to backflush to 45 and west down to the stream outfall. All is now clear and running free.

### **Houses numbers 49-52**

The roof collection goes into the road storm water system and thence to outfall through the dinghy park.

The beach side gardens appear to have a land drain system with outfall through the beach retaining wall.

### **House numbers 53-69**

Manholes access at numbers 60, 63 and between 65 and 66 were used to jet flush in all directions. Blockages found were cleared and the system was seen to run clear. The manhole at 63 was connected to the surface water system in the road. There were no manholes found below number 62 but the jet flush reached down to 53 where it is believed the run joins the road surface water system with outfall through the dinghy park.

### **Rear garden land drains**

With some exceptions the rear garden land drains have not been surveyed or jet flushed. Access to these drains is obviously more difficult and I suggest we leave these for individual owners to report any problems when seen.

They generally are collecting rainwater via downpipes from the roof and in a number of cases runs are seen to be connected with the front garden runs and have seen cleared to outfall as above.