Leakage Investigation Survey

Client: Caravan Park, Stratford on Avon

Mains water meter information

Size (mm)	15-28	✓	32-50		75-100		125-200		Above 200mm	
Serial number	12KC122676									
Readings (1)	66322.143				Time:		08:53 1st May 2019			
Readings (2)	66322.343				Time:		08:58 1st May 2019			
Location	Meter located top of drive on left hand side.									

Leakage Activities

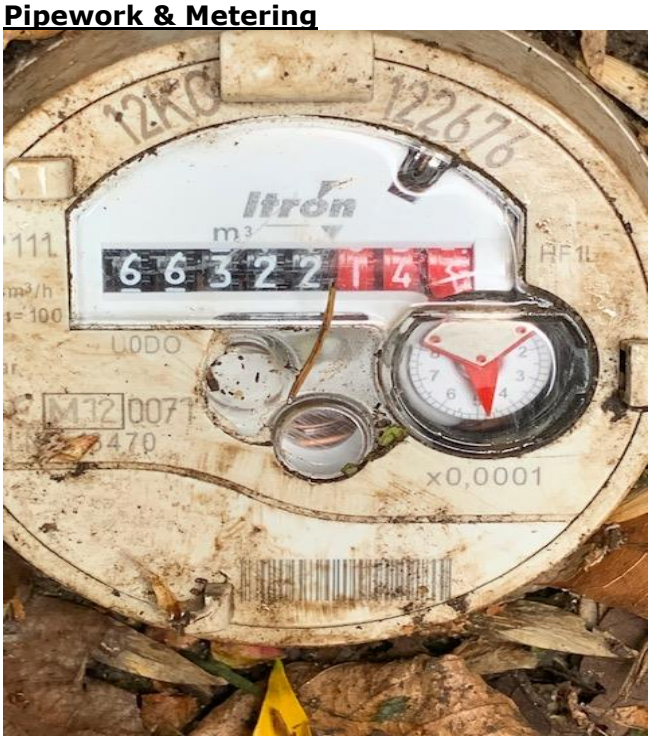
Acoustic sounding	✓	Correlation		Ground microphone	✓	Environmental Inspection	
Other	Isolation test not carried out						
Pipe traced		CAT & Genny			Distance		
Pipe correlated	Accelerometer		Hydrophones		Distance		

Background Information

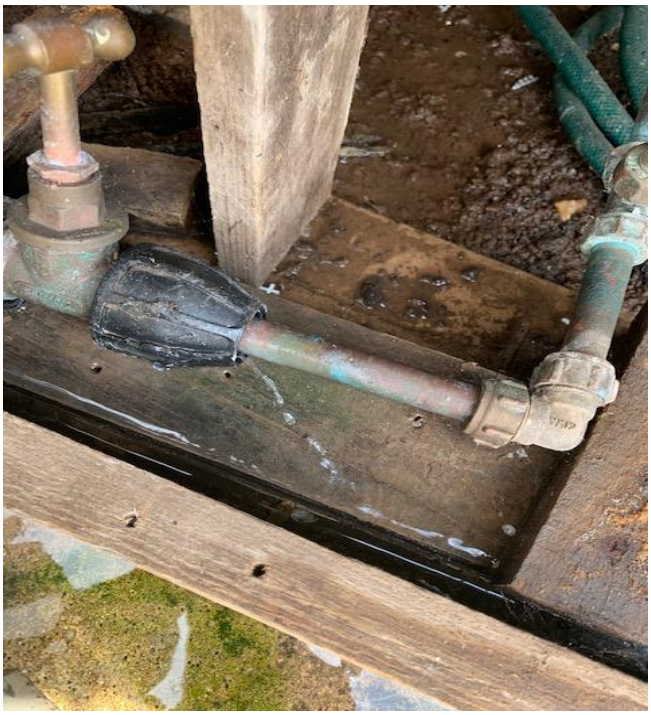
Several leak repairs carried out at this site in the past, we have been called out as the water company have stated there is a water leak at site and this needs to be addressed.

Activity Summary

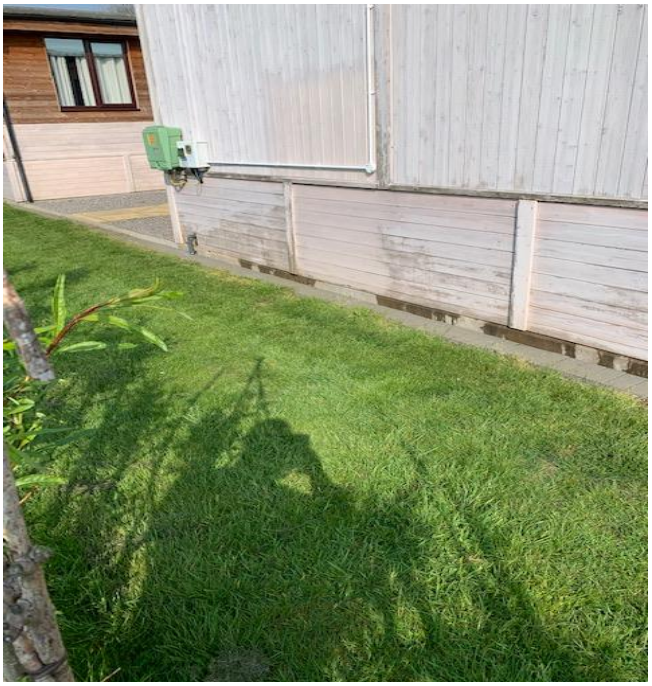
Pipework & Metering



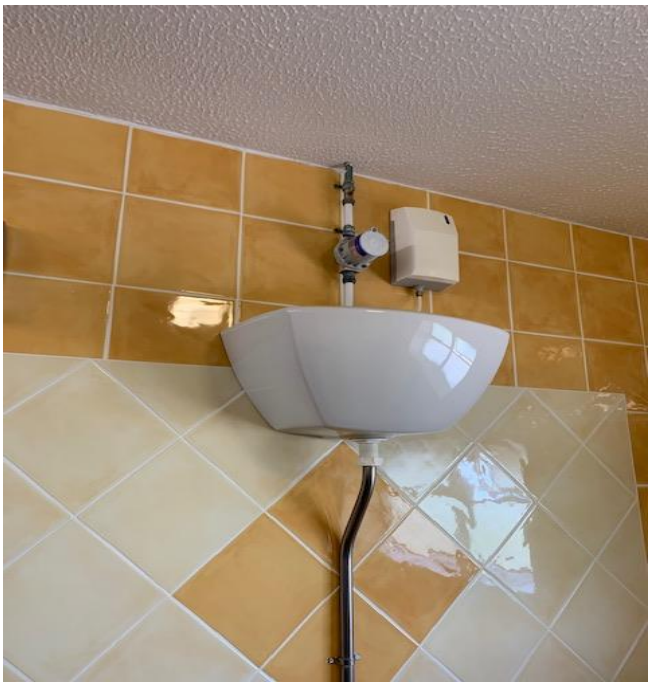
Pic 1



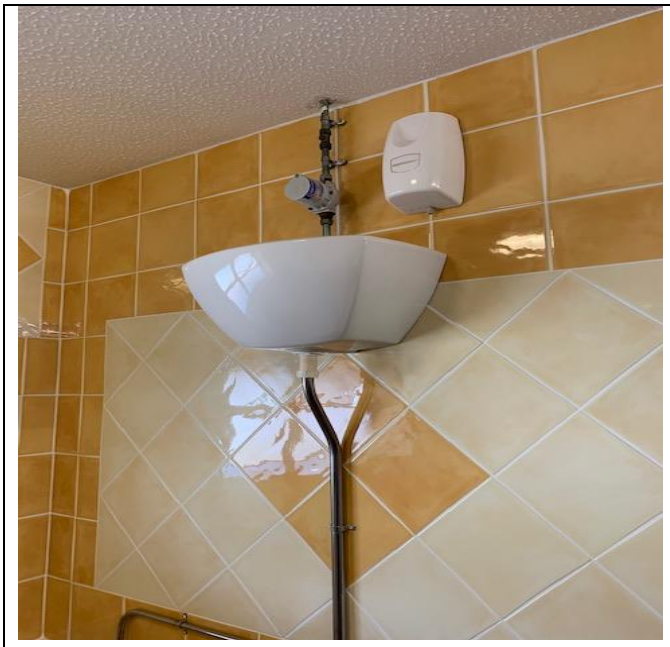
Pic 2



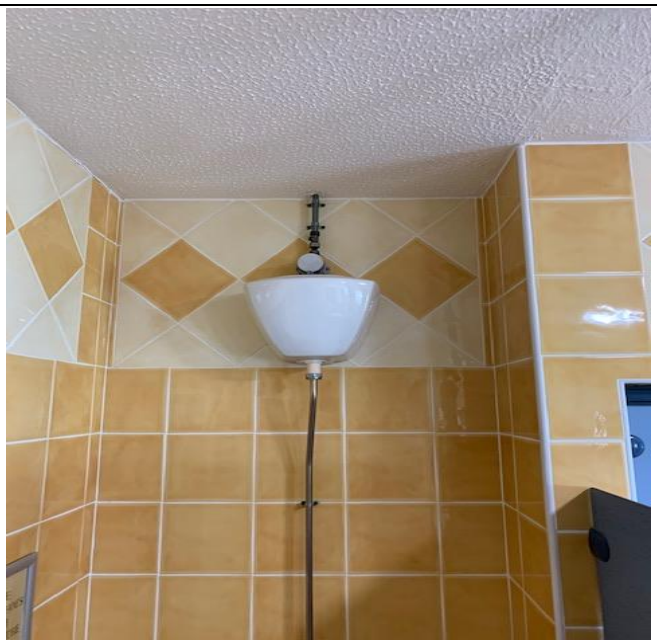
Pic 3



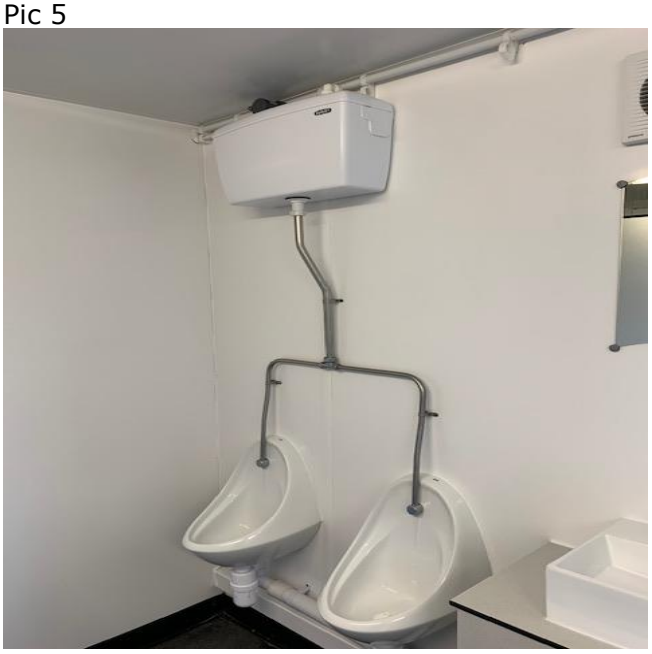
Pic 4



Pic 5



Pic 6



Pic 7

Leakage Survey Activities

On arriving at site a meter reading (pic 1) was taken and a flow rate estimated based on three separate reads over one minute each, the flow rate was approx. 2.5m3 per hour some 1700 litres per hour more than what the local water company were saying at 03.00am.

The whole of Riverside Park was surveyed and only a small number of minor issues were located.

A small leak was found at unit 212 (pic 2) and was isolated by site staff.

A further leak was located under lodge No 11, this was not accesable and will need to be investigated by site staff later on.

All stand pipes for the touring field areas were checked but nothing was found.

After all the units on site and all stop taps and stand pipes were checked the 800 litres per hour

reported by the local water company had not been found and no signs pointing in the general direction of a lead had been encountered

The main toilet block and laundry were then checked only to find three separate urinal cisterns (pic 4,5 & 6) where the inline timed controls had failed.

The estimated losses at all three urinal cisterns were approx. 5 litres per minute = 300 litres per hour.

The toilets adjacent to the rally fields (pic 7) were then checked and the urinals were filling flushing constantly with approx. losses of 3 litres per minute = 180 litres per hour.

The combined losses of all urinals on the site was in excess of 480 litres per hour.

This equates to over half of what the water company have pointed out in the early hours of the morning.

It is recommended that all urinals have new PIR controls installed at the earliest opportunity, just the failed urinals are costing a small fortune in losses.

Summary & Recommendations

Summary:

Install PIR urinal controls to all urinal cisterns ASAP to prevent out of occupancy flushing

Once the PIR controls are installed, it is recommended that an isolation test is carried on the supply pipe during the night. Imposible to carry out in day time due to high demand.

To supply Passive Infra Red urinal controls with a 5 year battery life at a cost of £XXX + VAT per unit plus postage and packing to be installed by your onsite maintance manager with full installation instructions supplied.

Survey carried out by

Engineer	H2O Building Services	Date	1st May 2019.