

Case Study: Mullinahinch Nursing Home Drip Distribution System







Site Address: Mullinahinch House Nursing Home, Co Monaghan.
Design Flow: 15,000 litres/day
Wastewater quality: Secondary treated domestic strength wastewater.
Infiltration rate: 7.5 l/m²/day
Area: 2,000m²
Nominal dimensions: 5 approximately equal zones
Pump capacity: 55 litres/min
Head (TDH): 30m TDH metres

The Drip system is replacing a percolation area that had become saturated causing run-off onto the roadway and nearby drains. The Drip system was installed in December 2015 and commissioned by Ashtecs and is maintained twice annually by Ashtecs. The wastewater from the nursing home is treated onsite and recycled by irrigating the landscaped lawn areas around the nursing home resulting in a saving in water and fertiliser. The grounds are beautifully maintained by the nursing home. Regular grass cutting maximises the evapotranspiration by wind and sunshine. Nutrients in the wastewater feed the grass growth. A slightly chequered effect is evident over each drip emitter in well operating systems like this one as the wastewater nutrients released at root level stimulate the grass growth. The driplines can be laid around trees and shrubs unlike other systems.

Emitters or discharge points are spaced at 600mm in the specially adapted wastewater drip tubing. Driplines are inserted below ground parallel at 600mm spacings close to the surface at the grass root zone (200mm BGL) and connected to a PVC pipe manifold. The Geoflow manufactured drip tubing is pre-treated with tree root repellent and anti-bacterial coating specifically for use with wastewater. System flushing is part of regular servicing. The system is expected to last for well over 30 years.