INNOFLOW TECHNOLOGIES
INNOVATIVE WASTEWATER MANAGEMENT

WASTEWATER MANAGEMENT – FACT SHEET

Ararimu School – Franklin District

The Ararimu School is a small rural school south of Auckland City. The entire existing wastewater system had completely failed, including the drainage. The Ministry of Education required a new robust collection and treatment system that would met the requirements of the current and future school role. The engineer to the project decided that the recirculating textile packed bed reactor technology was most suited to this situation.

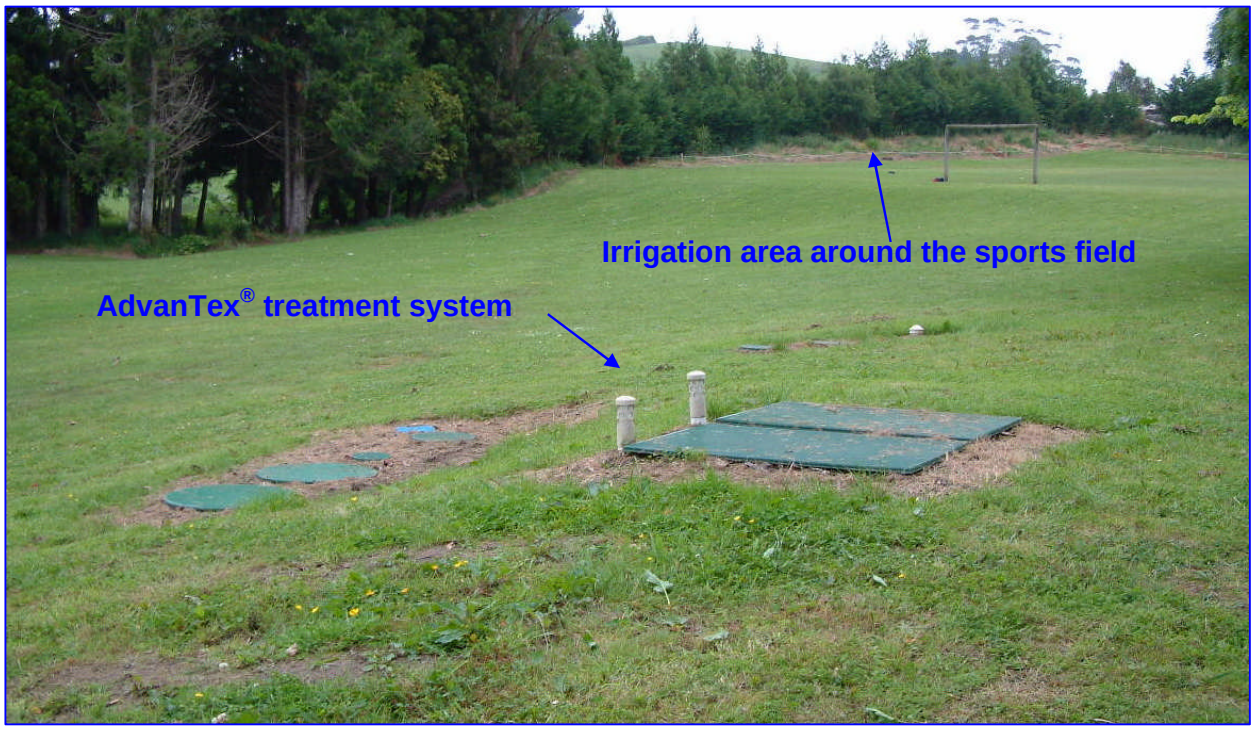

Figure 1. Ararimu School – Advantex rtPBR in foreground and irrigation field in background.

Being a relatively small school the recreational areas are at a premium. So the Advantex rtPBR was chosen because it met the requirements of the school for a high performance treatment plant that could deal with the fluctuating loads expected during the holidays whilst having the added benefit of a very small footprint. The treatment plant has not taken any of the established play area.

In addition, the Advantex treatment plant has hard wearing, lockable covers. This means there is no likelihood of damage to the plant or possible contamination through contact. Similarly, the irrigation field is located relatively close to the main recreational area. Yet there is no possible health risk as a very low loading rate (4 mm/day) has been used and a high quality of effluent is being dosed to subsurface drip irrigation lines.

Table 1. System Summary

System Component	Specification	Comment
Design Flow	2 m^3/day	Fluctuating load through school holidays
Primary treatment	1 x 4.5 m^3	Single septic chamber with Biotube filter
Recirculation Tank Size	3 m^3	Single chamber with Orenco screened pump
Packed Bed Reactor Area	2 m^2	2 x lockable PODS
Treated Effluent Tank Size	2 m^3	Single chamber
Disposal Field	500 m^2	Pressure compensating dripline irrigation to planted area

Since the entire sewer and drainage system including the treatment plant had to be replaced an accelerated installation schedule was adopted during the holiday period. The treatment plant and primary drainage system was installed in one week.

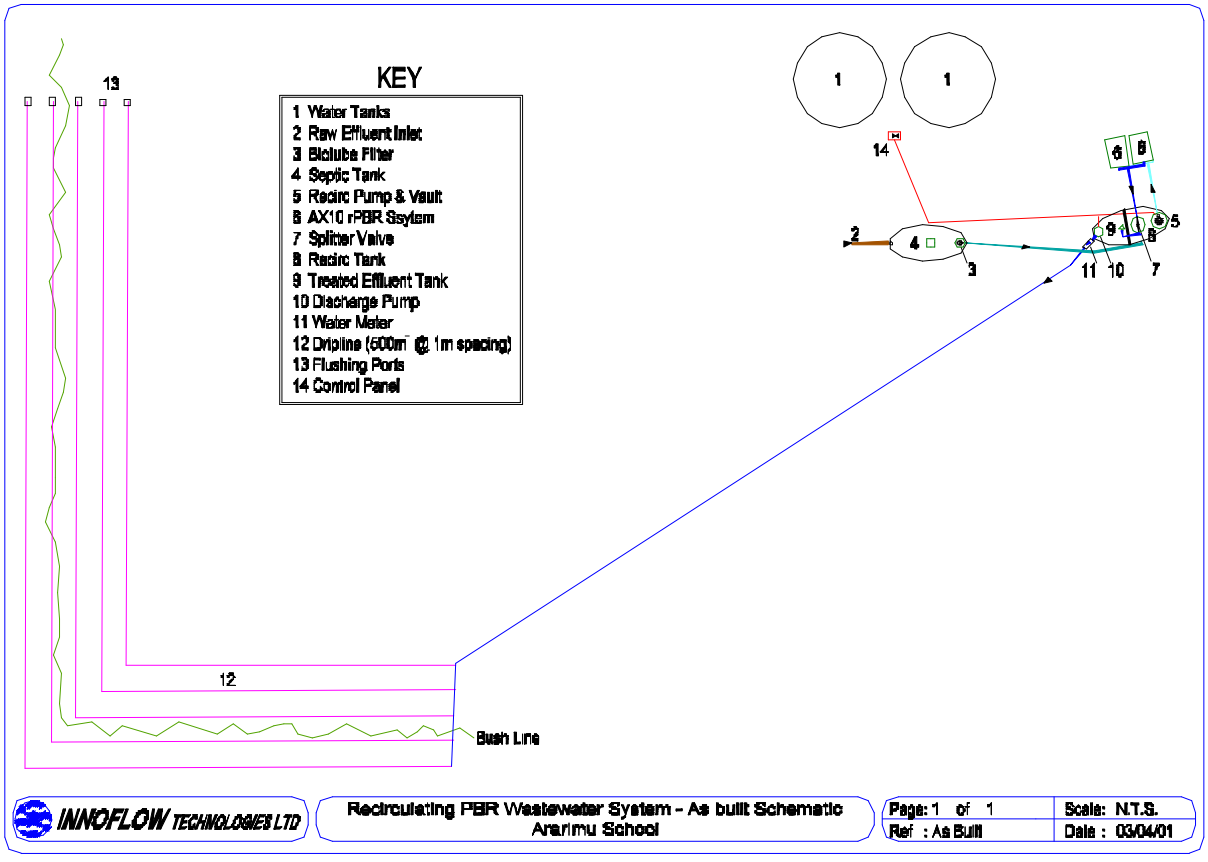

Figure 2. Schematic as built of the wastewater treatment system.