

Every drop counts...

Harlequin®
HydroClear®
SEWAGE TREATMENT PLANT



Top Notch install of Harlequin HydroClear by Lincolnshire Drainage Solutions

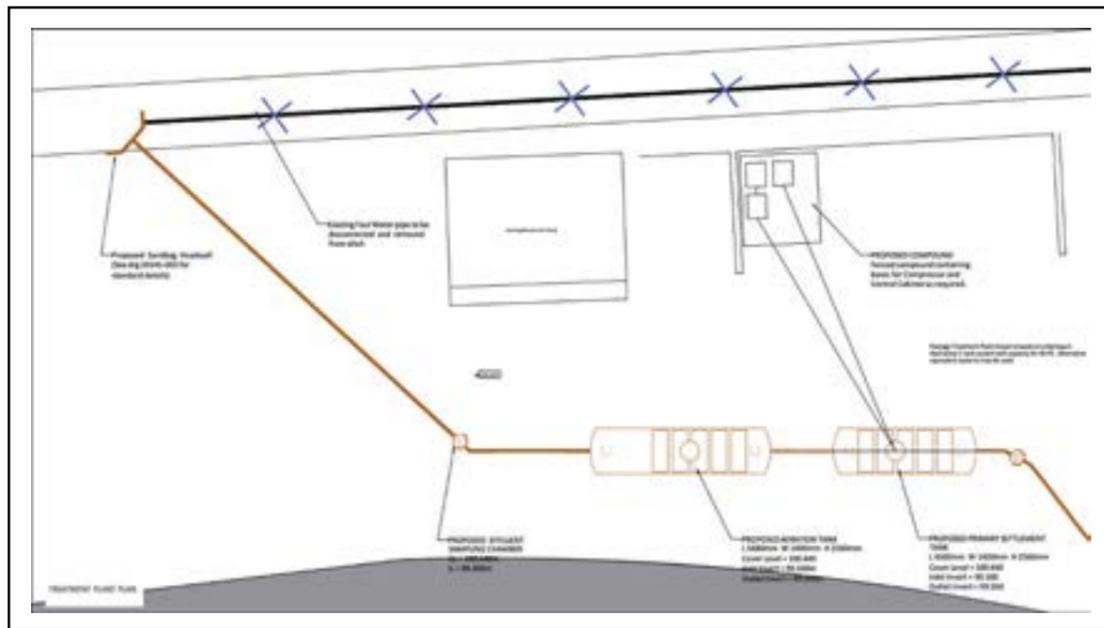
Site Reference: Fair Gardens Plant Centre, Cleatham Road, Kirton Lindsey, Lincolnshire

Site Details: Retail park with a garden centre, restaurant, furniture retail business, bicycle business, small scale brewer and small residential units.

Did you know that 55% of rivers are polluted by wastewater? Due to growing concern regarding pollution of watercourses, the UK Government produced General Binding Rules for wastewater discharge to a watercourse which bans untreated sewage discharge into a watercourse. Keeping this in mind, Fair Gardens Plant Centre decided to install a fully compliant sewage treatment plant at their premises as their septic tanks were illegally discharging into a watercourse. The Fair Gardens Plant Centre is small retail park with a substantial garden centre with its own restaurant, a furniture retail business, bicycle business, small scale brewery and small residential units. The site is in a semi-rural location with no access to the mains sewer. It was previously served by 5 septic tanks. Our Installer 'PARTNER' [Lincolnshire Drainage Solutions \(LDS\)](http://www.lincolndrainage.co.uk) based in Lincolnshire took it upon themselves to replace the existing systems with one that is compliant with the

General Binding Rules. LDS have over 30 plus years' experience installing sewage treatment plants, soakaway fields, fat traps, interceptors, surface water attenuation systems, pipe work design and installation for domestic properties, large national companies, local authorities, and businesses across Lincolnshire.

The team worked with our Area Sales Manager to put together an initial scheme combining the drainage systems on site to discharge to two UK-manufactured Harlequin sewage treatment plants – [HydroClear 20](#) and [HydroClear 40](#), one on each side of the site and sized to suit the relevant inflows. A Harlequin [1100L Pump Station](#) was added to resolve invert issues, preferred to integral pump. Following the clients in principle acceptance of the proposal their engineer worked with the Environment Authority (EA) to prepare a drawing as per the building regulations. Potential flows and loads were looked at and the specification of the sewage treatment plants was agreed.



LDS further undertook supplier sizing fat traps to be fitted in the restaurant kitchen to ensure the new system is kept clear of fat contamination. Surface water systems were checked, and minor works noted to be carried out to prevent roof water entering the foul water system. Once all works were confirmed and costs agreed a start date of early March 2021 was set. Harlequin [HC40](#) with gravity outlet, a [HC20](#) and a [1100L Pump Station](#) were delivered on site along with all the accessories. Full schedule of health and safety planning, risk assessments, method statements and proof of our comprehensive Public Liability and Contractors all risk insurance were lodged in advance with the client.



Extensive spade work had to be undertaken which included decommissioning of the existing septic tanks. Mark Grantham, Technical Director, Lincolnshire Drainage Solutions, said, “Our works are normally carried out by our own plant but on this project, we brought in extra help, an owner operator with an 8-ton 360 excavator to work with our 6.5 ton and 2.7-ton excavators to keep the project on schedule with substantial preliminary works, excavation, and drainage.”



Preliminary work included maintenance to the flowing watercourse that would take the outflow from the 40-pop installation. It was heavily silted up and overgrown with substantial tree trimming needed and the ditch excavated by over half a meter and the banks re-formed. (Image A)

Excavations for the **Sewage Treatment Plants (STPs)** were undertaken without steel shutters, the sides were battered to approx. 2.2 m which was possible due to the relatively shallow depth of the HydroClear units. "Wet Pour" bases of 200mm were cast over a gravel base and the installation of perforated "well points" to allow easy pumping of ground water if needed. Tanks were fully encased in concrete. Inflow and outflow drainage of 110mm and 160mm respectively were installed as required to redirect existing systems to position of new STPs as needed. (Image B)



Image A

Image B

All on site works were carried out under a Building Notice with site inspections undertaken by officers from the building control department at North Lincolnshire Council. The site was fully operational throughout the works and during earth moving operations a sweeper mounted on a Bobcat Skid Steer were used to keep the car park and roadways clear of mud.

Both sewage treatment plants were in the ground, connected to the relevant pipework and put into service in quick time.



Concrete covers were added apart from the Halifax Drain (HD) cast iron lids included to the Sewage Treatment Plants. Cast iron covers and concrete surrounds were added to all manholes on the new drainage runs.



“The entire project was carried out safely and carefully by a high standard of workmanship on a busy working site to in less than 3 weeks. Great effort by all parties involved. It was a great experience working with Harlequin on this important project. We sure will recommend Harlequin range of [Sewage Treatment Plants](#) in the future,” said Mark.



If you are looking for a trusted installer to replace your failed septic tank or install a new sewage treatment plant, get in touch today. And, we can put you in touch with one of our official installer partners in your area.

For more information, contact:

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