Date: 30th September 2021

Applicant Name: Brian Dunne

Site Address: Lynbrook, Whitechurch Rd, Rathfarnham,Dublin 16

Design Capacity: Maximum number of residents: 06
No. of single bedrooms: 00
No. of double bedrooms: 04

A representative of *O'Reilly Oakstown Ltd* has assessed the Soil Test Report and confirms the suitability of their Oakstown BAF 8PE Wastewater Treatment System to treat effluent being discharged from the above proposed dwelling based on the residential demands submitted to us above.

1. Waste Water Treatment System Design Details:

- Maximum Daily Design Loadings as per client

Max No. of users	Flow Litres/day/person	Total Hydraulic Load	B0D5 (grams/day/person)	Total Organic Loading (grams/day)
6	150	900 litres	60	360

Total Organic Loading	0.36kg BOD/day
Total Hydraulic loading	0.90m³ /day

- Average treated effluent standard - see performance results on **EN-12566-3 certification** attached

BOD	8mg/litre
TSS	12mg/litre
Ammonia	13mg/litre

- Proposed system details: ► Oakstown BAF 8 P.E.

Volume of Total Plant	8m³
Volume of Primary Sedimentation Chambers	4m³
Volume of Secondary Aeration Chamber	2m³
Volume of Biomedia	1.0m³

2. Wastewater Treatment system description:

The Oakstown BAF 8 PE is designed to provide proven, cost effective primary and secondary wastewater treatment in robust steel reinforced concrete tanks.
The primary sedimentation chamber has substantial capacity (4m³) to allow anaerobic digestion to occur naturally while letting sludge settle on the tank floor.
Once primary treatment has taken place the effluent is further degraded in the aeration chamber where oxygen enriched wastewater provides ideal conditions for aerobic bacteria to thrive.
Before pumping to the percolation area the clear water is left to further settle in the clarifier chamber to eliminate any remaining settle able solids.

3. Guarantee and warrantees:

O'Reilly Oakstown provide a 12 month maintenance service contract on all systems from date of first occupation. We provide a 24 month warranty on all parts.

4. Percolation:

The percolation area designed must conform to the requirements of Table 10.1 of EPA Code of Practice 2021 Wastewater Treatment and Disposal System serving single houses.

The percolation area requirements are as follows:
Sub Surface value 30.36 as per Site Characterisation Form.
Surface value: 22.97 as per Site Characterisation Form.
Depth from ground surface to water table: 1.30m BGL
Depth from ground surface to winter groundwater level: 1.10m BGL
Depth from ground surface to bed rock: None Encountered.
Sand Polishing Filter & Gravel Base: As per Traynor Env Report
Sand Polishing Filter & Gravel Base must be covered in 25-40mm drainage stone.
Sand Polishing Filter & Gravel Base must be covered in geo-textile cover then in topsoil.
►See Site Characterisation report for percolation area details.

5. Client Responsibilities unless included in our quotation:

- Excavation and backfill.
- Construction of the percolation / polishing filter as recommended by the site engineer on the Site Characterisation report and/or drawing.
- Provision of access for delivery by hi-ab truck to within 3 metres of the excavation.
- Provision of a power ducting from the tanks to the house/garage.
- Mounting and connection of control panel to mains power in the house/garage.

6. Operation and Maintenance:

The client is responsible for the operation and maintenance of the wastewater treatment system in accordance with the owner's manual supplied by O'Reilly Oakstown.

Please do not hesitate to contact us if there are any further queries.

Yours sincerely,