

**12th Lock Studios
Lucan
Co. Dublin**

**Water Supply and Wastewater
Management Report**

February 2024

2342

Issue No. 1

CORA Consulting Engineers
Behan House, 10 Mount St. Lower
Dublin D02HT71
Tel: 01- 6611100

E: info@cora.ie



Table of Contents

1	Introduction	2
1.1	General	2
1.2	Proposed Water Services Summary	2
1.3	Reference Publications used in the production of this Report	2
2	Wastewater Discharge	2
3	Water Supply	3
	Appendix A – Wastewater Calculations	3

1 Introduction

1.1 General

This report addresses the water supply and wastewater discharge from the proposed domestic development next to Adamstown Road, Lucan, Dublin.

A description of the proposed development is as follows:

- The demolition of the existing buildings to the south of the Main Industrial Units (refer to Architect's Demolition Plans)
- The internal fit out of the existing Industrial Unit as a Studio Facility.
- External site works including soft landscaping, permeable paving and improving the overall site area.

1.2 Proposed Water Services Summary

The site is currently occupied by warehouse units and an old building. It is currently connected to the Uisce Eireann water and wastewater Network.

As the proposed internal fit out is substantially different from the existing function of the industrial unit new water supply and wastewater connections are proposed.

1.3 Reference Publications used in the production of this Report

Greater Dublin Strategic Drainage Study – Volumes 1 to 6
Greater Dublin Regional Code of Practice for Drainage Works – Version 6.0
Technical Guidance Documents – Part C and H
OPW National Flood Hazard Mapping
Irish Water Codes of Practice for Wastewater
Irish Water Codes of Practice for Water services.
South Dublin County Council Development Plan 2022-2028

2 Wastewater Discharge

The total wastewater discharge from the residential site is calculated using the Irish Water Codes of Practice for Waste Water based on a maximum occupancy of 200 persons.

Details of the proposed wastewater system are detailed on CORA Drawing no. 23764/C002.

3 Water Supply

The proposed new water supply will be taken from the Uisce Eireann network on Herbert Place and connected to the new buildings.

The water supply layout is shown on CORA drawing 23764/C002.

Appendix A – Wastewater Calculations

Maximum occupancy of 200 persons

Wastewater Loading = 100 litres per person per day (Office/ Factory with Canteen)

Average Discharge = $100 \times 200 = 20,000$ litres per day

Dry weather flow (DWF) = $20,000 / (24 \times 60 \times 60) = 0.23 \text{ l/s}$ (DWF)

Peak discharge = 6 DWF Peak = $6 \times 0.23 = 1.38 \text{ l/s}$