



NEWCASTLE RESERVOIR and WATER TOWER

50,000m³ Pre-stressed Concrete Reservoir and 900m³ Water Tower

Client: Limerick Corporation

SUMMARY:

Value: €6 million

Status: Complete

Services Provided:

Preliminary Report
Detailed Design
Project Management

This Award winning project includes a 50,000m³ post tensioned reservoir with adjacent 900m³ high level water tower and associated structures. The reservoir acts as the main storage hub for Limerick City and environs and won the Irish Concrete Society Award for excellence in design and construction in concrete. The Project was completed in 1996 at a cost of €6 million.

The main components of the works were:

Reservoir: 12m high walls, 300m thick with vertical and horizontal post-tensioning cables.

1.5m high Pre-cast Edge Beams.

Pre-cast roof system comprising 700m square columns, spine beams and double tee roof beams.

Water proofing to roof comprising 2mm thick HDPE liner with stone Ballast drainage layer.

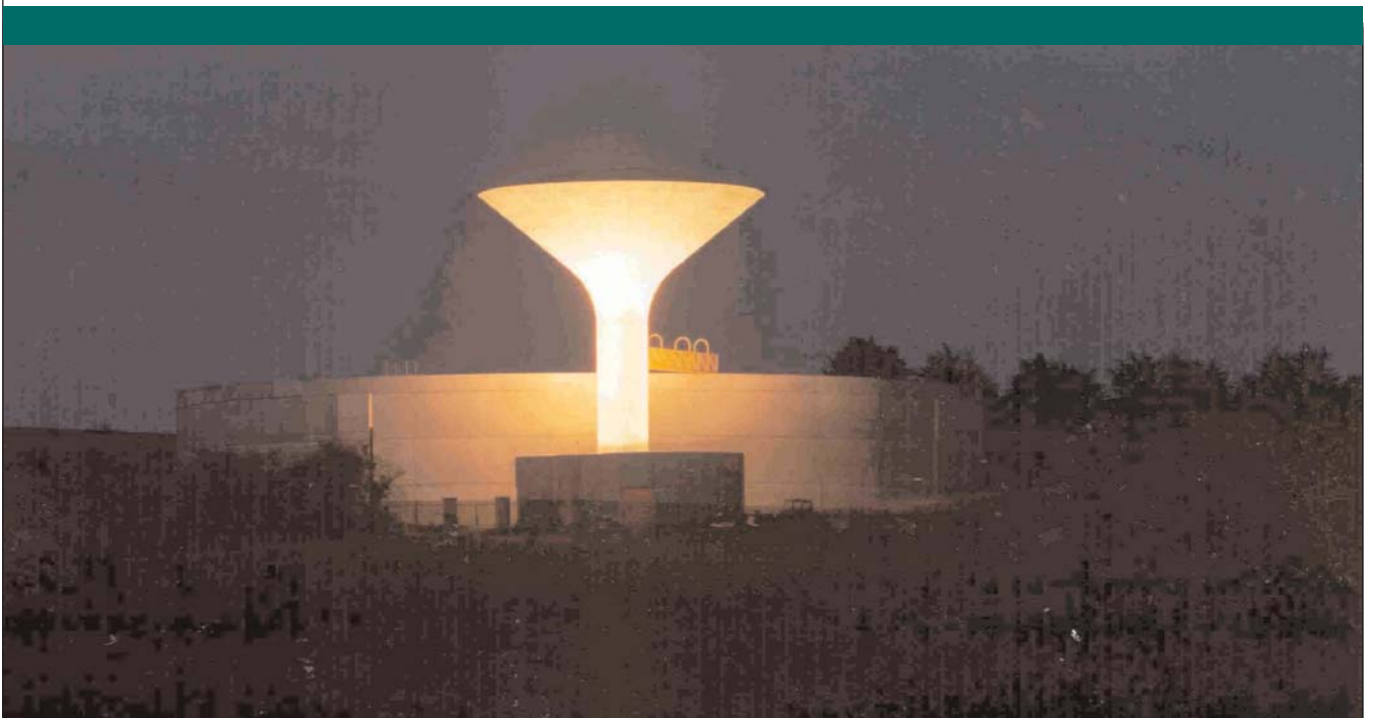
Water tower: Approximately 30m high, Patented RSB Construction System

Bowl section poured continuously over 22hrs, Capacity 900m³

Associated Works:

2 No. Control Buildings for valving control, pumps to water tower and chlorine dosing boosting.

600 – 900mm diameter pipework, access roads and security fencing.



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