



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive



University Hospital Kerry

Flue Chimney Demolition (CapRef 22014)

Outline Design Brief

June 2023



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1.0 Introduction to the Works



Recent boiler upgrade works at University Hospital Kerry has given rise to the redundancy of the existing flue stacks.

The existing flues are wrapped with a fibre rockwool type insulation and externally cladded in stainless steel cladding. Small sections of external cladding and insulation have blown off from some of the vertical flue stacks which is a major concern and pose a significant health and safety hazard in the vicinity of the chimney stacks.

The concrete chimney structure, which is circa fifty years old, has evidence of significant concrete spalling and steel reinforcement can be seen protruding from the structural elements.

The works objective is to demolish and dispose of the existing redundant flues and concrete chimney structure to remove the risk of falling objects and debris, which have the potential to cause injury or damage.

2.0 General Description of the Flue Chimney

2.1 Mechanical

There are four number vertical boiler flue stacks supported by a primary concrete structure and secondary steel structure. Three number 600mm diameter flue stacks served diesel fuel oil boilers which have been recently removed. The fourth flue stack, which appears to be 500mm in diameter, served an old incinerator which was removed a few years ago. All four flues appear to consist of flanged steelwork pipework which are wrapped with a fibre mineral wool insulation and externally cladded in stainless steel cladding. The internal of the incinerator flue appears to be lined with a type of cement coating. The indoor sections of these four flues in the boiler house have been previously removed to the outside façade cladding. It is unknown if ACMs are present in the flues and gaskets.

2.2 Electrical

An existing power cable can be identified exiting the adjacent electrical room which is tied onto a section of the steel handrail of the concrete structure. This electrical element will need to be isolated, removed and rerouted to allow the demolition works to take place.

There is an existing security camera and TV antenna mounted on the side of the concrete structure, which will need to be isolated, removed and relocated on site including any associated cabling.

2.3 Structure

The primary structure comprises of in-situ reinforced concrete elements extending to 31.2m above ground level. There are concrete tie beams at 5m intervals in height to the east and west elevations.

A secondary steel framework exists between the concrete tie beams, thus creating support to the flues and a platform for access.

There is a steel stairs access to the first landing platform and ladder access to the upper levels, the condition of which is unknown.

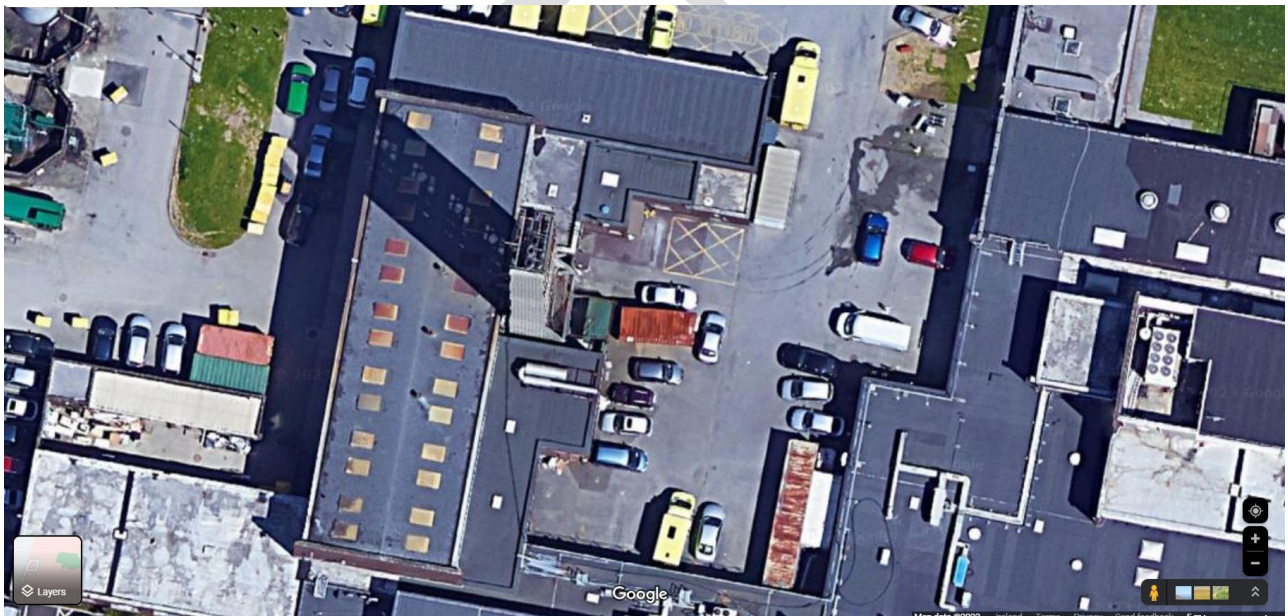
The foundation details are unknown but it is assumed that the structure is supported by piled foundations.

3.0 General Description of the Site

The flue chimney is closely bounded on all four sides by existing buildings, plant and occupied areas that require on-going access.

The ambulance dispatch base is situated north of the chimney structure, the boiler house is located to the west, the generator building is sited to the south and the generator diesel tank to the east.

The Maintenance department and campus kitchen backs onto the service yard in which the chimney is located.



4.0 Site Restrictions

All design and demolition works shall be completed in a manner that minimises interference with the operation of the hospital with particular emphasis on noise control, dust control and minimising the risk of aspergillus.

Specific consideration shall also be given to maintaining free access from ambulance base to ring road at all times.

An extension project is proposed within the service yard in close proximity to the chimney. It is desired that the chimney demolition works are fully completed before the commencement of the extension project, and so minimising the timeline is important.

5.0 Outline Design Requirements

A lead consultant is expected to manage, co-ordinate and supervise all the design and demolition disciplines and processes for the project timeline.

It is expected that a refurbishment and demolition asbestos survey will be required for this scope of works.

It is expected that an appropriate Demolition Strategy and Plan is compiled for client review.

Specific consideration should be given to the Particular Risks associated with the project.

It is expected that a methodology is adopted which minimises, controls and manages the risk of noise, dust and Aspergillus.

It is expected that a Waste Management Plan is presented for Client review.

It is envisaged that substantial temporary works would be required including access, protection decks and lifting operations and these will need to be co-ordinated and supervised by the lead consultant.