

DESIGN STATEMENT  
FOR  
THE CONSTRUCTION A NEW FIRE STATION



FOR  
**WICKLOW COUNTY FIRE & RESCUE SERVICE**  
AT  
DUNLAVIN

## 1. SITE APPRAISAL

The sites for the proposed new fire stations for Dunlavin was selected by Wicklow Fire Service based on land available to the Local Authority, proximity to the existing towns and accessibility for fire tenders.

The proposed new fire station site, owned by WCC, is located at:

- Close to the Dunlavin Waste Water Treatment Plant

The area of the site being developed is approximately 2,781m<sup>2</sup>. The proposed site is sufficient to satisfy the design needs for the project and are capable of being serviced with electricity, water and drainage.

The intention is to optimise access arrangements in the designs to ensure the effective and safe operation of the fire station and to ensure, as far as is reasonably practicable, the safety of other road users.



Figure 1: Aerial View of Dunlavin site



Figure 3: Aerial View of front of Fire Station



Figure 4: Aerial View of rear of Fire Station

## 2. DESIGN PRINCIPLES

The primary function of a fire station is to facilitate the safe and efficient emergency response of a fire brigade to incidents. The completed project must satisfy the functional requirements for the members of Dunlavin Fire and rescue Service summarised as follows:

- To facilitate the safe and efficient emergency turn-out of the fire brigade
- To accommodate fire brigade appliances and equipment, in a state of permanent readiness for use
- To provide appropriate facilities for fire brigade personnel, commensurate with the level of fire brigade activity
- To facilitate routine testing and maintenance of appliances and equipment
- To facilitate ongoing training of fire brigade personnel
- To maximise environmentally sustainable technologies as a means to minimise building running and maintenance costs in terms of heating, lighting, water usage and CO2 emissions
- To provide a facility with an expected functional life of 60 years and to facilitate future expansion

The minimum schedule of accommodation and facilities required, in accordance with the *Planning and Financial Procedures for New Fire Station Projects, Draft Guidelines, June 2000*, issued by the Department of Environment, Heritage and Local Government, and subject to approval by the NDFEM / DHPLG has been incorporated in the design of the new fire stations.

### 3. BUILDING DESIGN

The layout for the proposed fire stations is based on the accommodation requirements of Wicklow Fire Service.

There is also a strong desire to develop something that is eco-friendly, sustainable and innovative, while also keeping building costs to a minimum.

The design of the buildings is based on the following criteria:

- **Efficiency:** The layout and design should be as efficient as possible with little or no wasted space. Individual rooms should be sized to adequately accommodate their function but shouldn't be any bigger than required.
- **Materiality:** Incorporating materials that are durable and robust, but also inexpensive to purchase and fix by a Main Contractor. A variety of materials is used to add interest and variety to the design.
- **Duplicatable:** The same building design should be capable of being duplicated on both sites.
- **Attractive:** Despite being constructed from inexpensive materials and only providing what is absolutely necessary in terms of accommodation, the finished building should be aesthetically pleasing to look at and appropriate in the context of both sites.
- **Eco-friendly:** Wherever possible, green building technology will be incorporated in the buildings, in the materials, services and ultimately in their use.

This project presents a unique opportunity to provide a template for future two-bay fire station design in Ireland and how this can be done with a forward-thinking and innovative approach.



Figure 5: Elevation to Main Road



Figure 6: Rear Elevation

4. DESIGN VISUALISATION



Figure 7: Main Front Elevation



Figure 8: Main Front Elevation



Figure 9:



Figure 10: View of Main Stair Tower and Training Tower to rear



Figure 11: View from Training Compound to rear



Figure 12: Overall View from Main Road



Figure 13: Aerial View





Figure 13: Design Visualisation