



## Mixed Use Development, Greenhills

### Land Use Planning QRA of LPG Storage Facility

AWN Consulting Ltd. was engaged by Oppermann Associates to complete a Quantitative Risk Assessment (QRA) of the Flogas LPG Storage Facility (“Upper Tier” Seveso establishment) at Marsh Road, Drogheda Co. Louth in support of an application for permission to construct a Proposed Mixed Use Development at Greenhills, Drogheda, Co. Louth. The LPG storage facility is located approximately 300 m from the proposed development site.

The QRA was completed in accordance with the methodology described in the *“Policy and Approach of the Health and Safety Authority to COMAH Risk-Based Land-Use Planning”* (19 March 2010).

A site visit to the Flogas LPG Storage Facility at Marsh Road, Drogheda was conducted in order to review the Safety Report and to collate necessary information to complete the QRA. This included LPG storage tank capacities and conditions, identification of safety features and risk reduction measures that are in place, review of the site layout and identification of major accident hazards and scenarios.

Consequence modelling of LPG BLEVE scenarios was completed in order to determine blast overpressure and fireball thermal radiation consequences. The likelihood of major accident scenarios occurring was determined with reference to risk reduction measures in place at the Flogas site. The individual risk of fatality profile arising from the Flogas site was determined.

The distances to the boundaries of the inner, middle and outer land use planning zones were determined and the impacts on the proposed development site at Greenhills, Drogheda were assessed in accordance with Land Use Planning guidance published by Health and Safety Authority.