

Adamstown Apartments, Dublin - O'Reilly Concrete Ltd



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O'Reilly Concrete Ltd.*

Adamstown is a substantial new urban development, currently under construction on a greenfield site ten miles west of Dublin city centre. The site which runs adjacent to the main Dublin / Kildare railway line has been designated as a strategic development zone. When completed, it will be serviced by an impressive range of facilities, including a railway station, bus corridor, roads, schools, parks, and childcare facilities. The developer, Castlethorn Construction, has substantial experience in this type of project and is also currently involved in a similar mixed development in 'Royal Canal Park', Pelletstown Co. Dublin.

The first phase of the development is arranged around well constructed and attractively designed precast concrete apartment buildings. The entire framework, including all wall, floor and stair units are being supplied by O' Reilly Concrete Ltd, based in Kingscourt Co. Cavan. Long established in the precast business, O'Reilly Concrete have made substantial investment in new production capacity in recent years and are now one of the leading precast companies on the Island of Ireland.



**Precast Stairs
O'Reilly Concrete**

The Adamstown apartments feature two different construction types – one a full precast solution and the other a mixed construction of precast spine walls, braced with steel frames in the stair cores. All walls, floors and stair units are fully tied-in and conform to the robustness requirements stipulated in BS 8110.

Load bearing wall panels are seated one on top of the other and are connected by means of vertical steel reinforcement bars cast into the bottom panel. The reinforcement bars protrude into special sleeves which are cast into the top panel. The sleeve is subsequently filled with a non-shrink grout (through a grouting tube), which joins the panels while simultaneously providing vertical anchorage. Panels placed side by side are connected by 'scarf jointing'.

Precast Advantages

Precast has considerable advantages over alternative construction methods. Panels are constructed off-site regardless of weather conditions and are rapidly assembled on site. As a result projects are



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Precast Walls & Floors
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precast properties will continue to offer and attractive investment to purchasers and investors. As supply meets demand in the housing market, the 'quality' factor will increasingly come into play and this would suggest that precast construction will secure even greater market share going forward.

Adamstown Project Team:

Project Management:
 Castlethorn Construction, Ltd.

Architects:
 O' Mahony Pike

Consulting Engineers:
 O' Connor Sutton Cronin and Associates

Precast Suppliers:
 O' Reilly Concrete, Kingscourt, Co. Cavan

completed sooner, leading to earlier occupancy and faster revenue returns.

Precast concrete has unsurpassed fire ratings, readily achieving up to 4 hours fire resistance. Concrete will not burn or give off lethal fumes, and will retain its structural integrity for safe evacuation and fire fighting. In real fire situations, in temperatures above 1100° C, concrete and has retained its structural stability even in complete burn out situations.

Because it is impervious to wet and dry rot, the structure will not weaken over time. The density of the concrete provides excellent sound attenuation, thus reducing sound transmission. Wall panels reduce vibration and have fewer joints through which sound can potentially travel.

Lower maintenance costs and insurance premiums, together with greater occupant satisfaction and re-sale value all suggest that



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