

# The conservation and essential repair of the Roman Arch

## Summary report

1st November 2010



A view of the north-eastern façade (photographed September 2009)



This project was assisted by the Department of the Environment, Heritage and Local Government under the 2009 & 2010 Civic Structures Conservation Grant Schemes

In January 2009 the Architectural Services Department of South Dublin County Council was commissioned to inspect and advise on any necessary conservation works to the Roman Arch after a piece of stone fell from the entablature high on the north-eastern façade. The Arch is situated in a public park so there was a risk to the safety of members of the public should further pieces of stone fall. This report is a summary for the members of South Dublin County Council of the conservation works carried out during the summer of 2010. These works have been completed recently. A more detailed building dossier which includes historical background research, a detailed record of works carried out and as built drawings has been issued separately to the client department, to South Dublin County Council's Conservation Officer, the Irish Architectural Archive and the Local Studies Section of South Dublin Libraries in the Tallaght branch.

The Roman Arch, also known as Lord Ely's Gate, the Loftus Gate, the Loftus Arch, the Castle Lodge and the Dodder Lodge is situated just to the south of a bend in the river Dodder, at the junction of Dodder Road Lower, Dodder Park Road and Braemor Road, to the east of the villages of Terenure and Rathfarnham. The Arch is situated at the junction of these three heavily trafficked roads. To the north is a park which straddles the river Dodder and a footbridge which crosses over the river and to the south and west are the suburbs of Rathfarnham. The Arch is part of the village and town land of Rathfarnham and the former Barony of Rathdown. It is now part of South County Dublin and is beside the border with Dun Laoghaire Rathdown County Council to the east, and Dublin City Council to the north across the Dodder. The ordnance survey grid reference is 315321, 229509 and the sheet number is 3328-25.

The Arch is referred to in the Council's Record of Protected Structures, RPS (Map Ref. 201) under the County Development Plan 2004-2010-Schedule 2 Record of Protected Structures, referred to as "The Roman Arch, Dodder Road Lower". The structure is also listed under the National Inventory of Architectural Heritage as being of Regional Interest, Registry Number 11211012. The structure is not protected under the National Monuments Acts.

The Roman Arch was built shortly after 1771 in the form of a Roman triumphal arch with flanking screen walls of calp limestone, which are faced with ashlar granite on one side. The central part of the structure is entirely faced with ashlar granite and decorated with engaged Doric columns, corner pilasters, engaged square columns, niches, full classical entablature and balustraded parapet surmounted by urns. The entablature is more enriched on the south-western façade than on the others. The central part of the north-eastern façade projects slightly beyond the main face and is framed by the engaged Doric columns. The entrance arch or vault under the structure is closed by decorative wrought iron gates. Between each set of

pilasters to either side of the central vault are round headed niches with circular recessed panels over. The keystone above the central vault of the south-western facade is decorated with an artificial stone mix known as "Coade" stone and bears an antique style head. Two former doorways on opposite sides under the central vault once led to the lodge keeper's accommodation; these have since been blocked up. The 4 windows, 2 on each of the short façades have similarly been blocked up. Excluding the flanking wings, the central block of the Arch is approximately 10 metres high, 12 metres wide and 5 metres deep.



The role of the arch in the Rathfarnham demesne: An extract from the second edition Ordnance Survey. "Ordnance Survey. Parish of Rathfarnham Co. Dublin" (surveyed in 1864 by Captain Martin R.E. and zincographed in 1865 under the direction of Captain Wilkinson R.E. at the Ordnance Survey office). The Roman Arch is at the top of the map, marked in red, and just to the west of the stream flowing toward the Dodder. The castle is at the bottom left of the map.



The Roman Arch, late 19<sup>th</sup> century or early 20<sup>th</sup> century (reproduced courtesy of South Dublin Libraries)

The Arch was one of two entrances to the Rathfarnham estate. The history of the castle and its estate have been thoroughly researched and documented elsewhere and its importance is well known; Rathfarnham castle is the only surviving, continuously roofed example of its type in Ireland. The quality of its internal decoration and the employment of architects such as Sir William Chambers and James (Athenian) Stuart during the eighteenth century give it an international context and relevance which is rare in Irish historical buildings. The Roman Arch as a piece of garden sculpture and as a gate lodge is considered to be one of the finest of its type in Ireland and is also remarkable for its very early use of structural iron.

The Arch has been unoccupied and unused for over 30 years and in that time its ownership has changed several times. Consequently its importance has declined and this has negatively affected its physical condition. Before the works were undertaken, the following defects were identified.

1. The roof and rainwater goods had deteriorated to such an extent that rainwater was no longer being drained to the ground through the rainwater outlets as originally intended.
2. The masonry in the walls had been saturated and damaged by a combination of freeze-thaw action, salt mobilisation, organic colonisation and structural damage – the latter caused by corrosion of irons embedded in the façade.
3. The deterioration of its physical condition had devalued of the Arch to such an extent that it was no longer properly maintained, was being vandalised and was considered dangerous.



A general view of the roof taken from the north-western corner of the roof before works began



The architrave of the north-eastern entablature before the works began



Part of the damaged dentil course of the south-western façade before works began

In summary the following conservation works were carried out to address the deterioration in its physical condition.

1. The roof was carefully stripped of its slate roof covering, most of the existing timbers were retained and were reinforced with new timber, the timber gutter boards and lead lining were replaced, the roof was recovered with most of the existing salvaged slate and some new slate, the rainwater down pipes were partly repaired and replaced, and a new soakaway was built in the ground beside the Arch.
2. The upper surfaces of the parapet walls, cornices and the sides of the blocking courses were dressed with lead set onto a new lime mortar fillet flaunching on the cornice. The creepers, ivy, mosses, algae, and some lichens were removed from the facades. Defective mortar joints were re-pointed. New stone indents were fixed into the building where sections had previously spalled or cleaved from the façade as a result of corrosion and expansion of corroded irons. Smaller isolated iron cramps which could be easily accessed were removed and replaced with new stainless steel cramps. Other localised ferrous pins and fixtures were removed from the more vulnerable parts of the façade. Embedded irons which were too inaccessible, too costly to remove and which removal would result in unnecessary loss of original material and reduce the authenticity of the technical design and artistic significance of the building, were protected from further corrosion by the installation of a cathodic protection system.



The south-eastern corner of the balustrade during the works. New granite jointed with new stainless steel cramps.



The repaired roof, viewed from the north-west, on completion of the works



The north-eastern entablature: the completed repair (photographed September 2010)



The south-western entablature: the completed repairs (photographed September 2010)





The lower frieze of the south-western façade: the completed new granite lintel.

The essential repair and conservation works to the Roman Arch were completed in September 2010. The works have secured and stabilised the masonry and have remedied the primary physical causes of the damage. The roof, rainwater goods and ashlar granite have been conserved. The cathodic protection system is a proven, effective, economic long term intervention which will protect the embedded irons from further corrosion. Grant assistance was gratefully received from the Department of the Environment, Heritage and Local Government under the Civic Structures Conservation Scheme for the project; €7957 was received in 2009 for the enabling works and professional fees and €20,000 in 2010 for the conservation works.

The Arch is situated at a prominent corner and road junction in south county Dublin. It is at the entrance to a major public park which adjoins the River Dodder and three local authority districts. The recent works to repair and to conserve are an important part of the solution and will facilitate the Roman Arch taking on a new role in its modern environment. In the longer term it is desirable that a sustainable use be found for the structure within the context of the park and the open space that it addresses. A viable use is the most effective way to ensure its survival in the future.

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