

PROJECT CASE STUDY

The Restoration of Bawdsey
Transmitter Block





RESTORATION OF BAWDSEY TRANSMITTER BLOCK

Project Background

Concrete Renovations Ltd was entrusted with the restoration of the esteemed Bawdsey Radar Station in Suffolk, home to the world's first pioneering operational radar playing a crucial role during the Battle of Britain—an instrument that undeniably shaped world history.

The remarkable efforts invested at Bawdsey garnered well-deserved recognition, earning us a distinguished accolade in the Historic Repair category at the International Concrete Repairs Institute Project of the Year Awards.

Techniques Used When Restoring

The project commenced with a thorough DOFF cleaning of all concrete surfaces, we meticulously executed a hammer test to identify and subsequently address any concrete defects using a lightweight breaker. The steel reinforcements undergone a meticulous treatment involving grit blasting, with any eroded steel being promptly reinforced with new rebar. To ensure lasting protection, both new and existing reinforcements receive a coating of Remmers Betofix Rust Inhibitor M.

The concrete blast is meticulously repaired with Remmers Betofix R2 and then finely finished using Remmers Restoration Mortar. A comprehensive approach is taken to safeguard the longevity of the structure by treating all concrete surfaces with a Migrating Corrosion Inhibitor (MCI) and concluding with the application of a specialist protective coating, Remmers Funcosil C40 Impregnation Cream.

To further fortify the structure, we have implemented a 25-year service plan. At intervals of 8 and 16 years, a detailed inspection of the exposed concrete structure is conducted. The DOFF cleaning system, previously mentioned, is employed to cleanse the concrete surfaces, followed by the re-application of Remmers MCI and Remmers C40 impregnation cream, adhering strictly to the specified requirements.

History of Bawdsey Transmitter Block

On September 24, 1937, RAF Bawdsey achieved a historic milestone as the world's first fully operational radar station, a mere eighteen months after Robert Watson-Watt and Arnold Wilkins' ground-breaking experiment demonstrated the feasibility of detecting aircraft using transmitted radio waves.

Following World War I, concerns about the UK's defence led to a decade-long delay before air-defence exercises were conducted. The less-than-ideal outcomes prompted the Air Ministry to explore radio 'death rays,' a notion dismissed by Watson-Watt, who proposed radio beams for aircraft detection.

Successful demonstrations in 1935 paved the way for Bawdsey to become the first Chain Home Radar Station by February 1936. During WWII, it played a crucial role in intelligence, surviving multiple Luftwaffe bombings. Post-war, Bawdsey continued its military service until the 1990s, witnessing the Bloodhound Missile era before closing in March 1991



Before

The before restoration image of the Bawdsey Transmitter Block showcases a weathered wall in dire need of repair. Cracks, crumbling mortar, and structural wear emphasised the urgent restoration required to revive this historic structure and preserve its significance.



After

The after restoration image of the Bawdsey Transmitter Block radiates transformation. With meticulous repairs, the once-deteriorated wall now stands renewed, boasting a pristine facade. The restoration effort successfully revived the historical charm, ensuring the structure's enduring beauty for future generations to appreciate.

PROJECT VALUE: £250,000.00

RESTORATION OF BAWDSEY TRANSMITTER BLOCK

Before/ During Restoration



Bawdsey Transmitter Block Before & After

Concrete Renovations Ltd takes immense pride in the comprehensive restoration of the Bawdsey Transmitter Block. Our dedicated team's meticulous workmanship and attention to detail revitalised the historical structure, transforming it from dilapidation to a visually stunning showcase of architectural resilience. The successful repair of the deteriorated walls and overall restoration not only preserves the site's heritage but also reflects our commitment to excellence. The satisfaction of contributing to the preservation of such a significant piece of history fuels our pride, underscoring Concrete Renovations Ltd's dedication to restoring and enhancing iconic landmarks with skill and passion.



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