Concrete Repair and Protection

Sevigne Apartment Building, Caen

Project
A reinforced concrete framed, multi storey, residential apartment building near the River Orme in the centre of the City of Caen. This was originally built in the late 1960’s, and now the externally exposed concrete was cracking and spalling over corroding steel reinforcement.

Requirements
In 2001 the City of Caen was undertaking a major refurbishment of its centre. The Sevigne Residents Association wanted a cost effective and durable repair system, that would also restore the original features and appearance of the façade, which consisted of white, fair faced and textured precast concrete panels.

Sika Solution
Following thorough surface cleaning and preparation, a complete Sika concrete repair and protection system that was devised together with the building’s consultants was applied. This consisted of Sika® MonoTop® anti corrosion primer, SikaTop® and Sikalatex® improved repair mortars, followed by a Sikagard® translucent anti carbonation protective coating.

Sevigne Apartment Building, Caen

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Saint Joseph’s Church, Le Havre

Project
Saint Joseph’s church is an important landmark in Le Havre; it was originally designed by the famous architect Auguste Perret, as part of the rebuilding of the City Centre after the Second World War. The church was completed in 1957, and has four major reinforced concrete columns, that support an impressive 107 metre high tower which was completely decorated with coloured glass by Margueritte Hure. Unfortunately the concrete surfaces had become stained, cracked and started to spall.

Requirements
In 2003 the City Council applied to UNESCO for support in preserving the historical city centre, much of which had also been rebuilt by Perret, and including the refurbishment of this Church. In conjunction with the LHMM (Historical Monument Research Laboratory), a detailed specification for a durable repair and protection strategy was produced for the structure; that also allowed it to be restored to its original appearance.

Sika Solution
After the necessary preparation work, a complete Sika Repair and Protection System was applied; consisting of Sika® MonoTop® anti corrosion primer, SikaTop® and SikaLatex® modified repair mortars, Sika® FerroGard® corrosion inhibitor with Sikagard® hydrophobic impregnations.

"Theatre Des Arts", Rouen

Project
The Rouen “Theatre Des Arts” had been completed in 1960, as part of the City’s post war redevelopment, and in the “massive concrete” architectural style of the period. In common with many of its contemporary structures it was now showing signs of surface deterioration including staining, cracking and spalling over corroding steel reinforcement.

Requirements
In the year 2000 the City Council decided to refurbish the building, and to restore its originally intended aesthetic aspect and undoubted visual impact. A detailed specification was drawn up to provide a cost effective and durable repair solution.

Sika Solution
The Sika system approach using approved and complimentary products was selected. This included:

- Sika® MonoTop® anti corrosion primer,
- SikaTop® and SikaLatex® modified repair mortars,
- Sika® FerroGard® corrosion inhibitor with Sikagard® translucent anti carbonation protective coating and Sika Anti-Graffiti coating on the lower levels.

Champagne Building, Les Garibaldi Development, Rouen

Project
The Champagne Building provides 210 apartments within the the 3 building development known as “Les Garibaldi” in Rouen, which was designed by renowned architect Marcel Lods, and completed in 1954 as part of the post war reconstruction programme. The exposed aggregate precast concrete facades are of particular note, their being 7cm thick and faced with Seine river stones. For some year the buildings entrances had already required protection against falling stones and spalling concrete - there had also been some water infiltration to the apartments.

Requirements
The first option for 6,000m2 of an external wall cladding system was rejected due to its high cost and non-compliance with the clients historical and architectural needs. The City Architects required a cost effective and durable solution that also restored the original integrity and aesthetic features of the building.

Sika Solution
A complete Sika System approach was selected which met all of the requirements - durability, cost effective and restoration of the historical appearance. The system included SikaTop® and SikaLatex® repair mortars, Sika® FerroGard® corrosion inhibitor and Sikagard® translucent anti carbonation protective coating.

Saint Joseph’s Church, Le Havre

SCJ Java Building, Le Havre

Project
The SCI Java building, originally designed by August Perret as part of the reconstruction of Le Havre in the 1950’s, is located in the centre of the city near to the City Council offices. Some years ago the original concrete surfaces had been covered with a thick “plastic” coating that spoil the original textured concrete finish that was typical of Perret’s style. Unfortunately the concrete had also started to crack and spall due to reinforcement corrosion.

Requirements
In 2002 the building owner decided to refurbish the building, and in agreement with the City Council and their Architects, also to restore the original finish and appearance intended by Perret.

Sika Solution
The selected repair and protection system from Sika was fully approved by the authorities, and included Sika® MonoTop® anti corrosion primer, SikaTop® and SikaLatex® modified repair mortars, Sika® FerroGard® corrosion inhibitor and a Sikagard® translucent anti carbonation protective coating.
Concrete Repair and Protection

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