

Rehabilitation and extension of bridges in las Gabias and la Malahá (A-338)

The extension of the structures on the A-338 have allowed the correction of the functional deficiencies, associated to the narrowness of the roadway, deficiencies in the vehicle restraint systems and the inexistence of surface drainage.

The rehabilitation Works have centered on the leachate fills, given the importance the soakways have on the structural integrity of the vaults. The consolidation works have extended to the interior of the piers and the foundations.

The rehabilitation Works regarding the stonework have been fulfilled after a petrological study carried out by the Department of Petrology from the ETS of Minas de Madrid, in which the stone, the mortars, the bricks,

analyzing also the salt content, damp and diverse altering products associated to the aforementioned, were characterized.

Pathologies associated to the presence of water in the stonework were detected, originating from either the water run-off or the capillarity. On the other hand, the loss of original cladding could be observed, separations between barrels and arches, pointing with Portland cement mortar, honeycombing of the brick vaults, etc.

The rehabilitation Works have centered on the cleaning of the face with high-pressure water, sealing of cracks, salt extraction, unit recomposition, general re-pointing, stonework consolidation with silicic acid esters and waterproofing with acrylic silicon.



Spain /2010
Project data

Structural Type:
Brick arches upon Stone-clad
piers and abutments
Location:
The Province of Granada
Opening Date:
2010
Proprietor:
Autonomous Government of Andalucía
Construction:
In Project Phase
Scope of Works:
Rehabilitation and Extension Project