Technical information

Client: Repubblica del Cantone Ticino – Dipartimento del Territorio
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Date: 2021 - 2023
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TThe gangway is in Taverne and connects the industrial area and the railway station with the right bank of the river. The footbridge is a cycle / pedestrian passage included in the national route of the N3 cycle paths (North-South axis), included at European level in the Eurovelo 5-via Romea Francigena route. The original structure consisted of two IPE 600 alveolar beams in metallic carpentry; the beams had a characteristic irregular octagonal shaped hole. The length of the gangway is 22.8m, its original width was 2.2m, the height of the original parapet (IPE beam) was out of standard.

As a temporary solution for the height of the parapet, a metal mesh was added fixed to uprights screwed to the beam. The original artifact had been built in the 1980s and had never been the subject of restoration except for some surface treatments on the carpentry around the year 2000. The renovation project involves the reuse of the original hollow core beams (very characteristic), the enlargement of the usable walkable width (from 1.98 to 2.62 m), the safety measures (plugging of the octagonal holes) and the height of parapet (1.30 cm). The character and rhythm of the octagonal openings defined the blueprint for the renovation project.

The original honeycomb beams were stiffened with the addition of vertical and longitudinal ribs. The octagonal holes (60 x 50) were filled with orange tempered laminated glass; to fix the plates inside

the octagonal holes, special glazing beads have been built. Those fixed to the internal sides of the bridge are flush with the core of the beam, while those on the outside have a 5 cm protrusion which forms a sort of frame that emphasizes the characteristic shape of the hole.

The useful height of 130 cm for the parapet was obtained by adding a C profile of 30 cm in height above the beam, the C beam has the flanges towards the outside the bridge to avoid creating dangerous horizontal edges.The web of the C profile has been lightened with circular holes of 18 cm in diameter. The rhythm of the circular holes is proportional to that of the octagonal holes. The walkway was painted in its original color.