

Handbook of Building Details. The integration of the aluminium windows in the exterior walls

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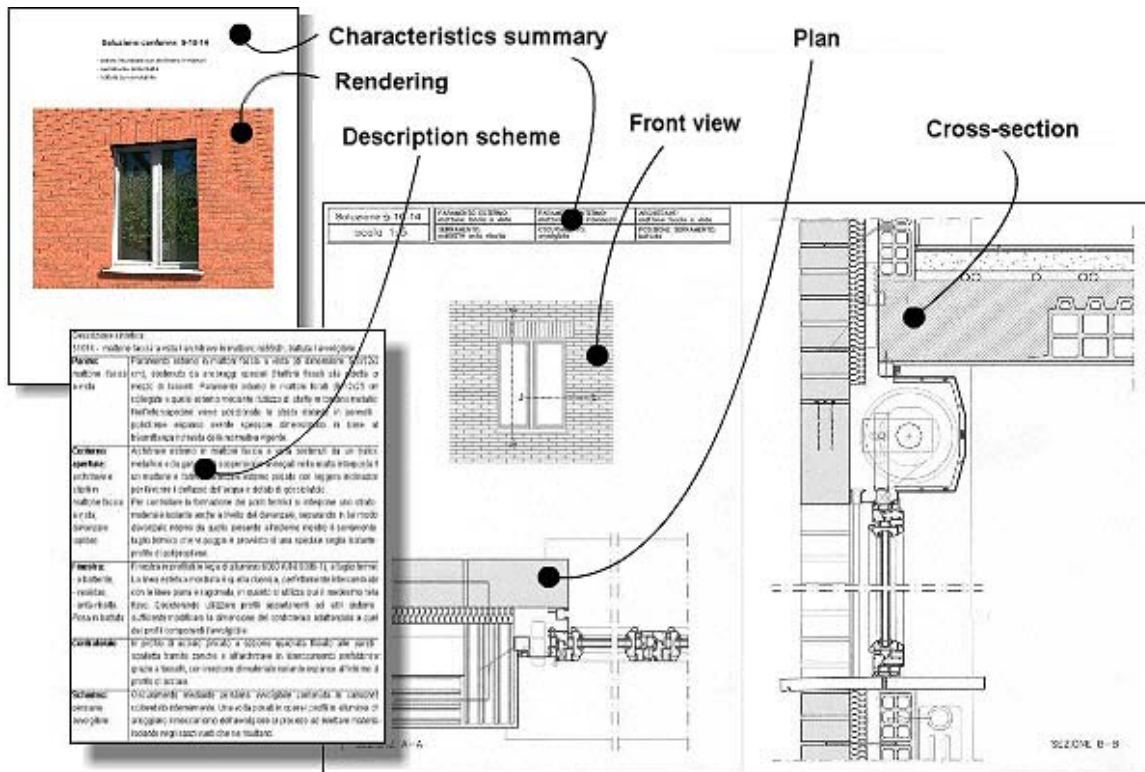
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The choice to redact a handbook of building details is due to the intention of producing a reference tool to ease some of the steps of the planning process. By the analysis of the existing handbooks it's easy to notice the tendency to consider architectural products according to a sectorial outlook, preferring particular points of view, aimed at giving information about a single aspect of planning. For this reason the purpose of the handbook is to integrate the know-how available within the different fields, using also the practical directions given by the firms. According to the aim of concentrating a large number of salient aspects in a not too wide manual, avoiding to make it unsystematic or difficult to consult, we decided to analyse the joining of the wall with the window: this is a choice that offers the opportunity to examine the masonry, allowing at the same time to solve problems of acoustic and thermal insulation, strongly perceivable around a window fixing. That's why the window is the place where the lack of comprehension between the subjects involved would be more dangerous and where a strong collaboration between designer, firms and labour is highly recommended. We also decided to analyse the aluminium window because of its important peculiarities such as lightness, high corrosion strength and versatility in being used in different building typology.

The proper solution derives by the integration between various elements and it's meant to be a solution able to satisfy the main standards of formal and functional accuracy, following a qualitative logic. The technological scenery explicative of the notions transpired during the handbook realization process leads to 95 solutions, number that can be increased through the concept of building affinity.

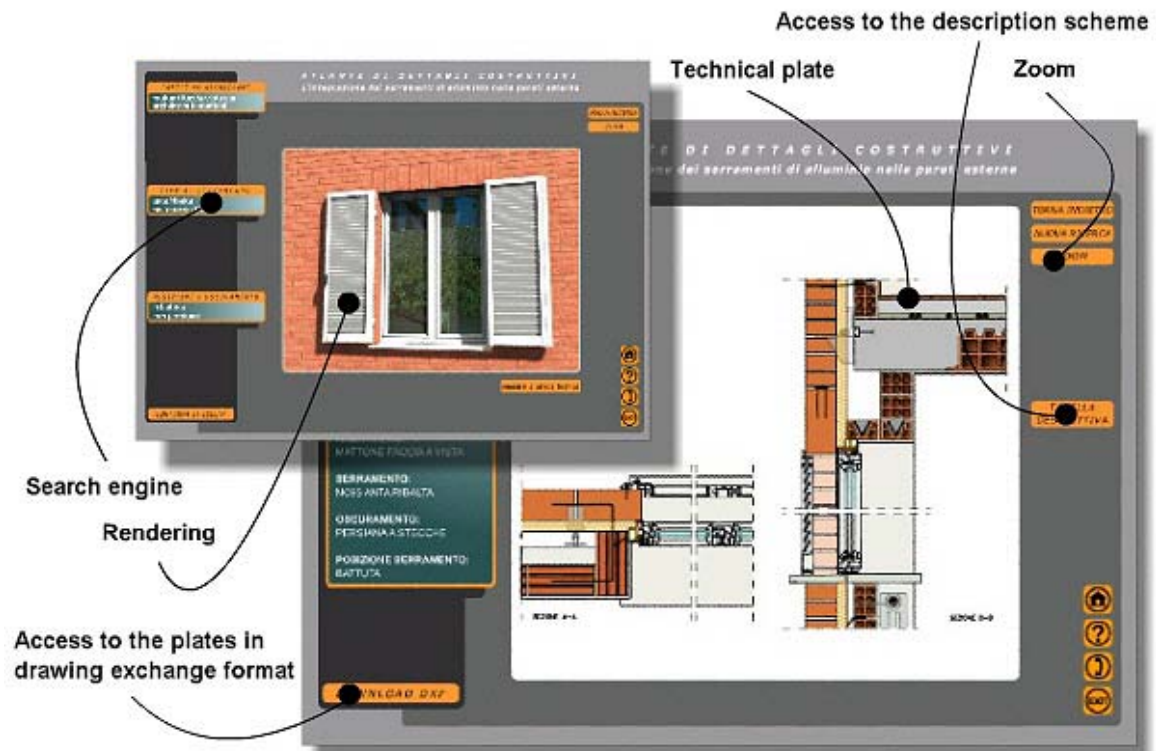
Every resultant solution consists of:

1. the rendering: to easily clear up the effect that the chosen solution will have on the facade it's been used the tridimensional graphic by creating a 3D model with a realistic surface provided with lights, shadows, reflections and different materials;
2. a scheme describing the various building techniques and devices used in each single case;
3. a technical plate including front view, plan and cross-section on a scale of 1:5 showing the chosen solution in all its technological aspects.



A CD ROM is attached to the handbook because of the benefits it offers if compared to the printed version:

- a quicker access to the chosen solution allowed by a search engine that can easily extract it from the database;
- the chance of making high definition magnified views to see the detail even to 1:1 scale;
- the possibility of downloading the plates on one's own computer in drawing exchange format;
- fastness in getting in touch with the manufacturing companies consulted during the handbook redaction through a link-list of web pages so that the user can easily reach the web site required.



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