

# Passive House em St<sup>a</sup> M<sup>a</sup> da Feira

Mozelos, Santa Maria da Feira

Construção nova – new construction

Em certificação



Este projecto refere-se à construção duma habitação unifamiliar que terá um desempenho Passive House. O edifício localizado em Santa Maria da Feira está em construção estando prevista a sua conclusão até ao final de 2022. No projecto foram integradas soluções da arquitectura solar passiva, mostrando o seu potencial na integração com o padrão Passive House.

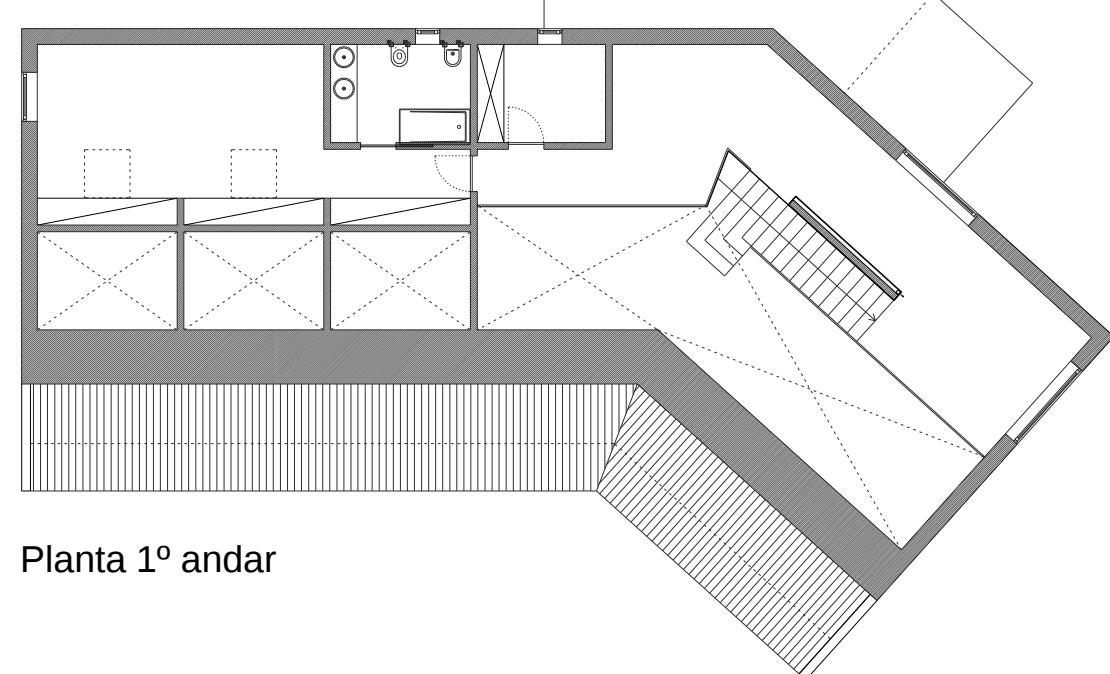
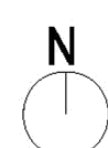
As necessidades de energia previstas são tão reduzidas que este projecto após a conclusão será um dos edifícios de melhor desempenho a nível nacional e internacional.

This project refers to the construction of a single-family dwelling that will have a Passive House performance. The building located in Santa Maria da Feira is under construction and is expected to be completed by the end of 2022. Solar passive architecture solutions were integrated in the project, showing their potential in integration with Passive House performance. The energy needs are so low that this project will be one of the best performing buildings nationally and internationally.

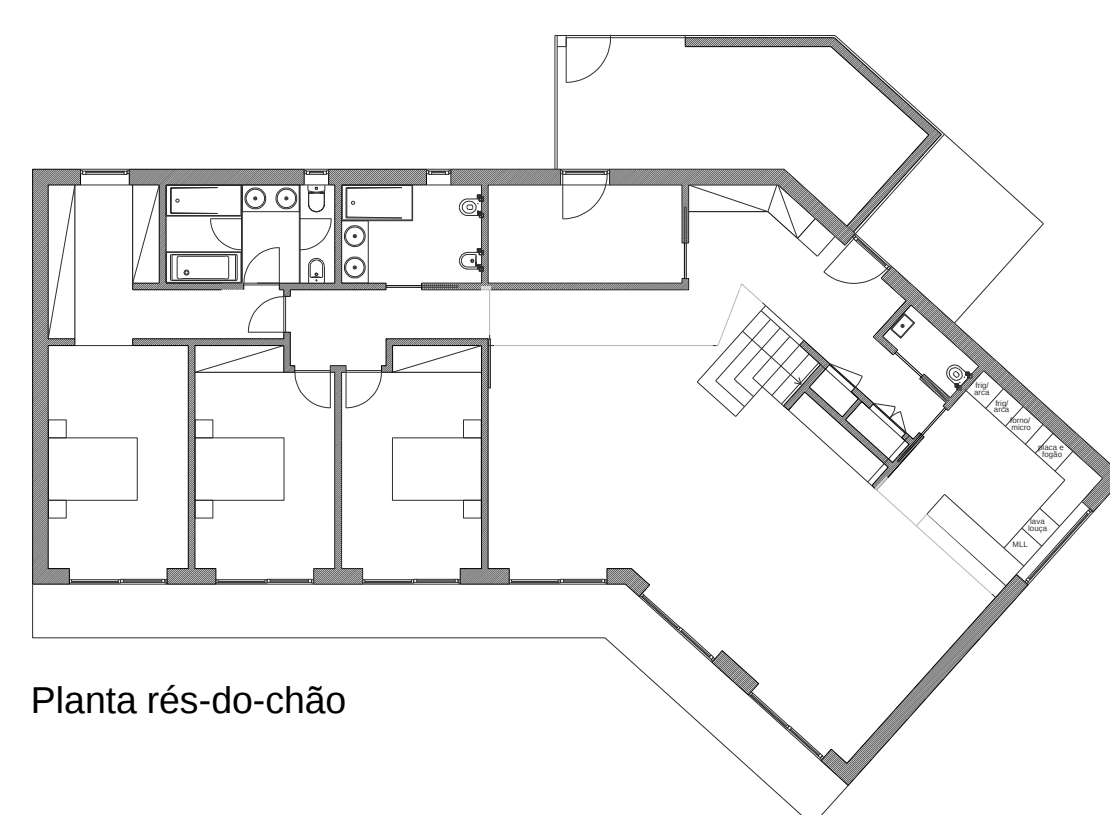


| Specific building characteristics with reference to the treated floor area |                                                                                                          |       |   |                |                           |
|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------|---|----------------|---------------------------|
|                                                                            | Treated floor area m <sup>2</sup>                                                                        | 273,4 |   |                |                           |
| Space heating                                                              | Heating demand kWh/(m <sup>2</sup> a)                                                                    | 4     | ≤ | Criteria<br>15 | Alternative criteria<br>- |
|                                                                            | Heating load W/m <sup>2</sup>                                                                            | 8     | ≤ | -              | 10                        |
| Space cooling                                                              | Cooling & dehum. demand kWh/(m <sup>2</sup> a)                                                           | 1     | ≤ | 15             | 15                        |
|                                                                            | Cooling load W/m <sup>2</sup>                                                                            | 5     | ≤ | -              | 10                        |
|                                                                            | Frequency of overheating (> 25 °C) %                                                                     | -     | ≤ | -              | -                         |
|                                                                            | Frequency of excessively high humidity (> 12 g/kg) %                                                     | 8     | ≤ | 10             | -                         |
| Airtightness                                                               | Pressurization test result n <sub>50</sub> 1/h                                                           | 0,6   | ≤ | 0,6            | -                         |
| Non-renewable Primary Energy (PE)                                          | PE demand kWh/(m <sup>2</sup> a)                                                                         | 54    | ≤ | 120            | -                         |
| Primary Energy Renewable (PER)                                             | PER demand kWh/(m <sup>2</sup> a)                                                                        | 25    | ≤ | -              | -                         |
|                                                                            | Generation of renewable energy (in relation to projected building footprint area) kWh/(m <sup>2</sup> a) | 0     | ≥ | -              | -                         |

<sup>2</sup> Empty field; Data missing; -: No requirement

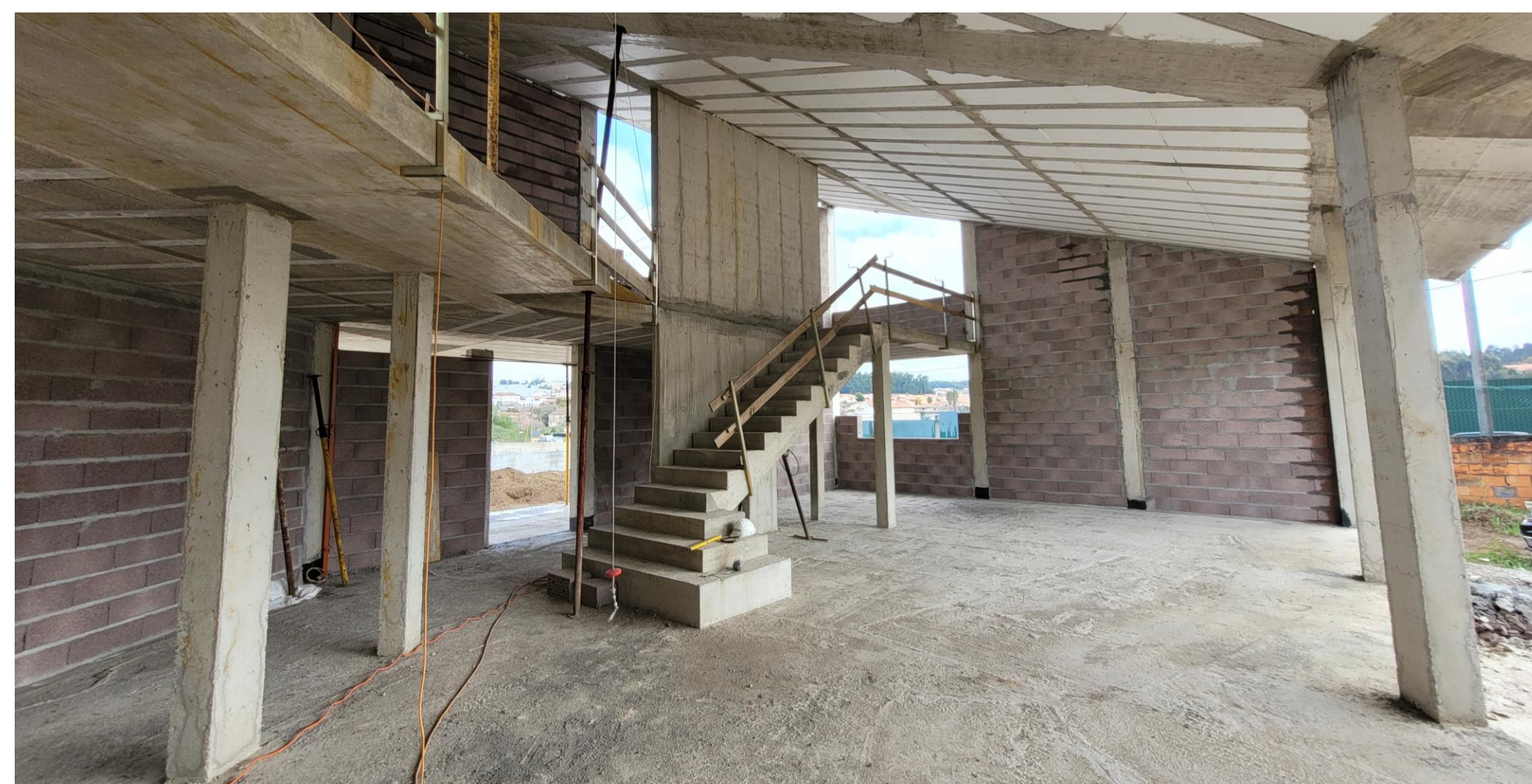
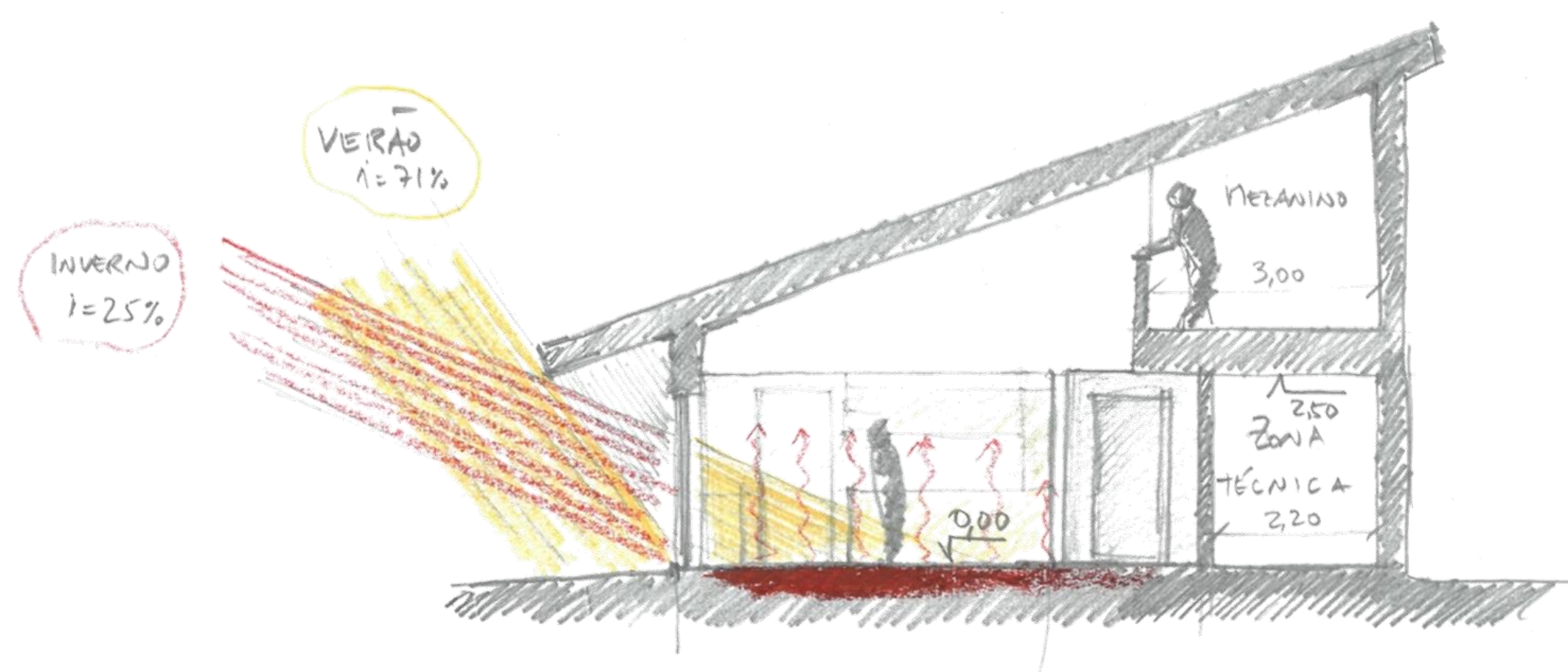


Planta 1º andar



Planta rés-do-chão

0 1 2 3 4 5



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