## ABSTRACT

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## EFFICIENCY AND ECONOMY IN HOUSING DESIGN AND RENOVATION: A CASE STUDY OF PROJECTS AT STUDIÉ

This professional work report is based on the intern's experiences during an internship at STUDIÉ, an architectural firm specializing in housing design and renovation with an emphasis on efficiency and economy. The purpose of this report is to examine how housing design and renovation can be carried out economically by leveraging existing building conditions and how efficiency can be achieved through appropriate material selection and budget management.

During the internship, the intern was involved in various projects, including PKJ House, JA House, and RESA House, each of which posed challenges related to material efficiency and design adjustments to fit client budgets. Assessing the feasibility of existing buildings was a key aspect in determining the most efficient renovation strategies that aligned with client needs.

This report also explores the relevance of these projects to the academic courses the intern has undertaken, such as Architectural Communication Techniques, Design, and Construction Management. The intern learned the importance of teamwork, effective communication, and data-driven decision-making at every stage of the project.

This report concludes that efficiency in housing design and renovation can be achieved through careful budgeting, optimal utilization of existing conditions, and good collaboration among the parties involved in the project. This experience provided valuable insights for the intern in addressing challenges in the professional architectural field.

Keywords: efficiency, economy, housing renovation, budget, existing buildings