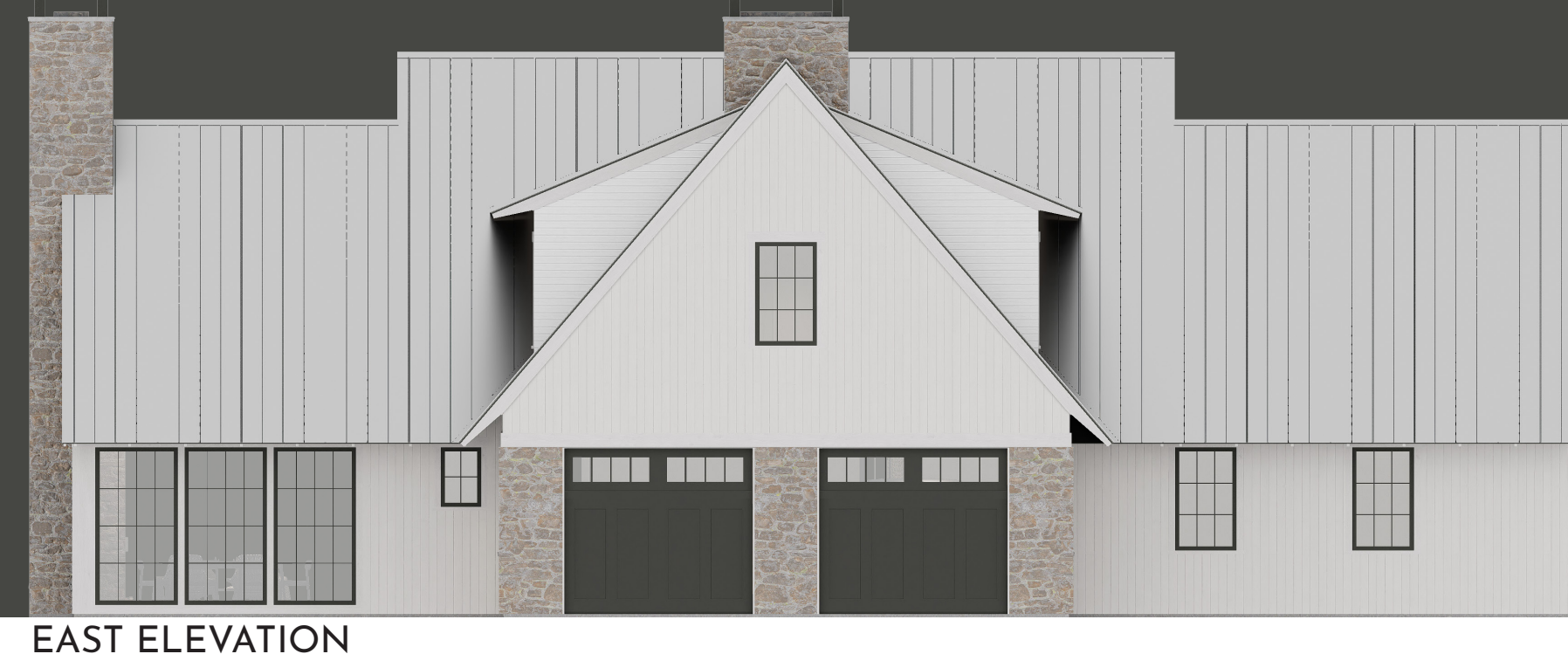


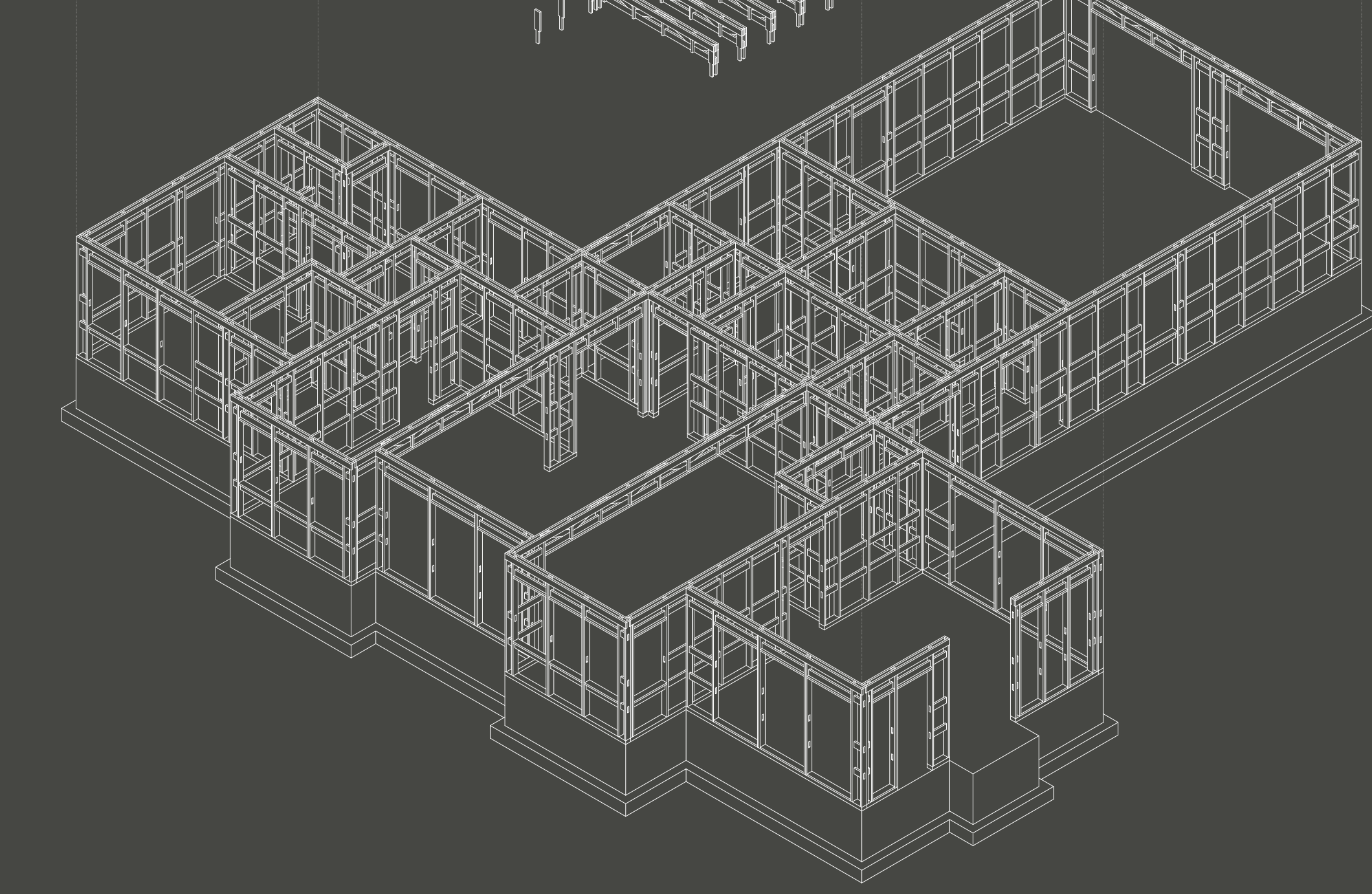
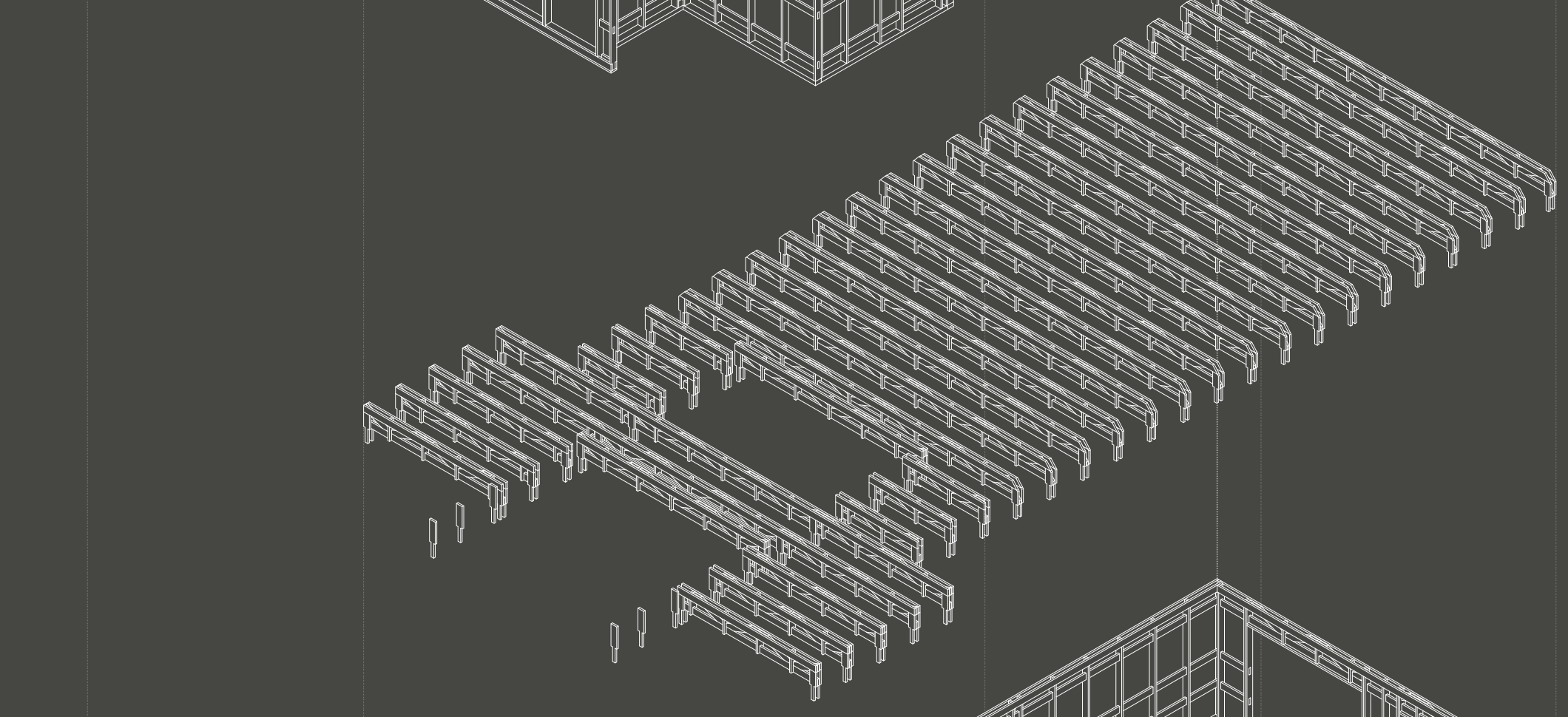
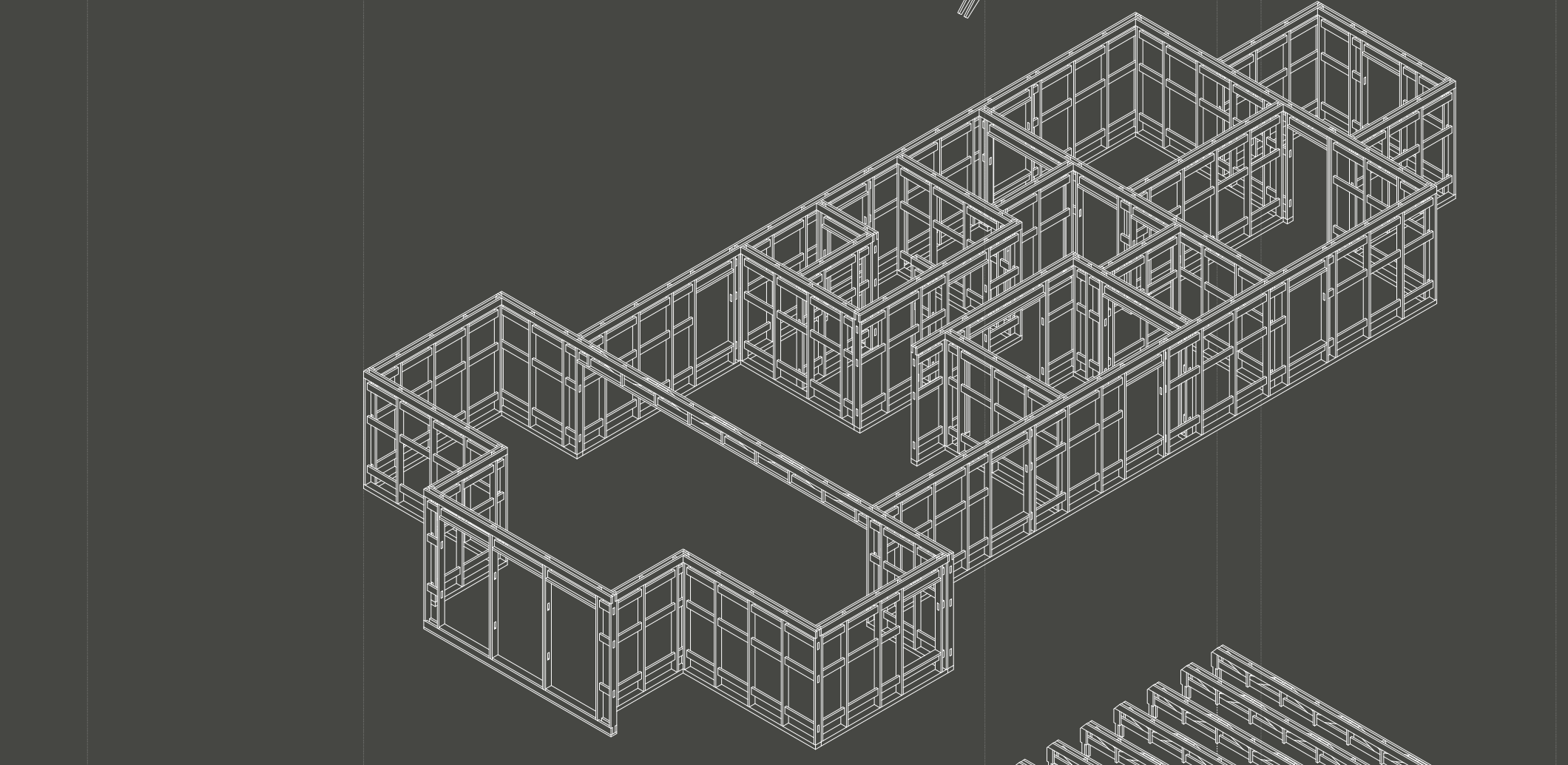
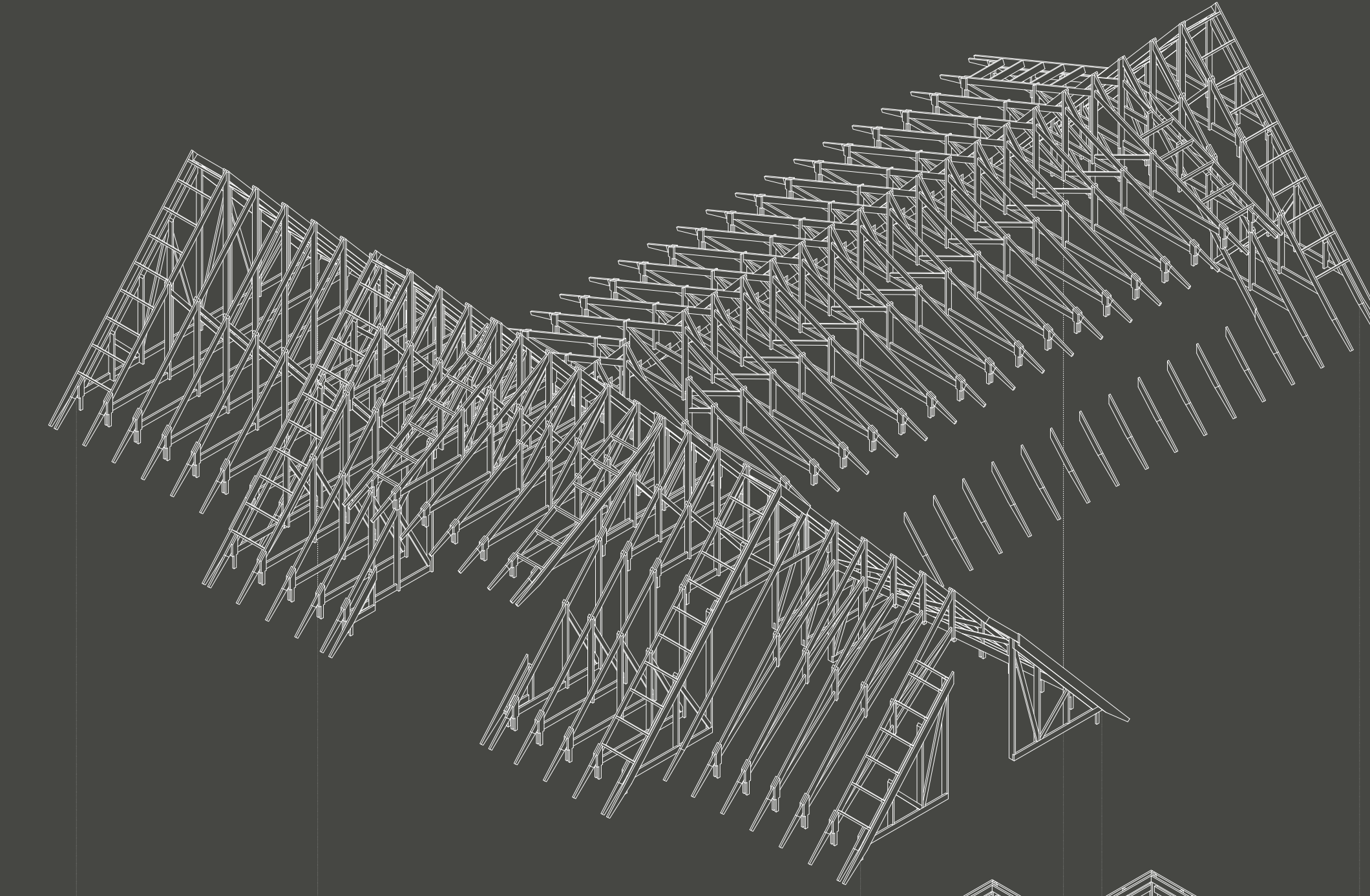
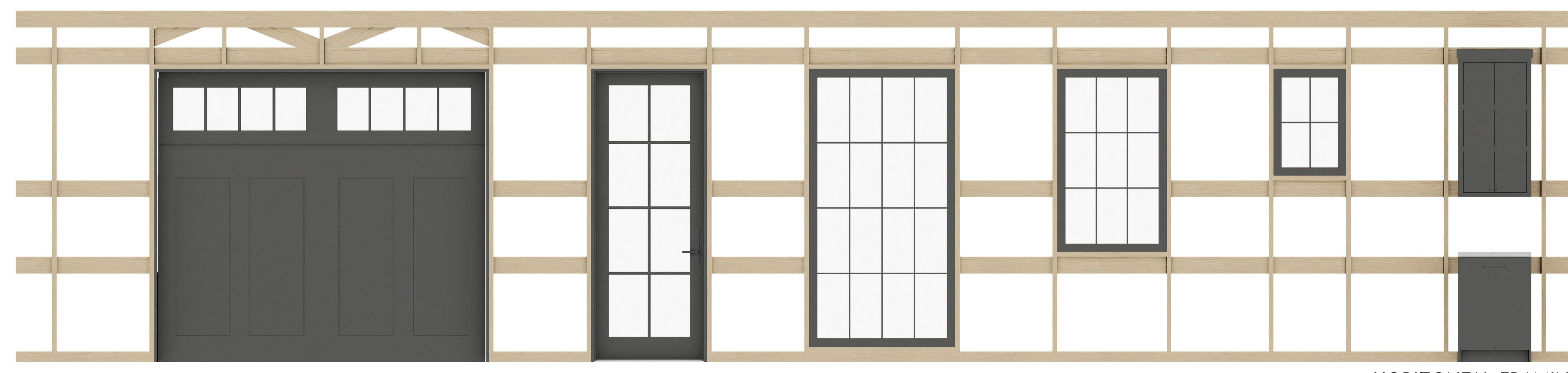
CROSS-CULTURAL CARPENTRY

REVISING LIGHT-FRAME CONSTRUCTION



Light-frame wood construction is one of the most common types of construction among single-family homes today. This can be attributed to its accessibility, efficiency, and cost. Light-frame wood construction has not seen major changes in its history besides transitioning from balloon framing to platform framing. This should make us question if there could be any further advancements in this construction type or if it has already been perfected.

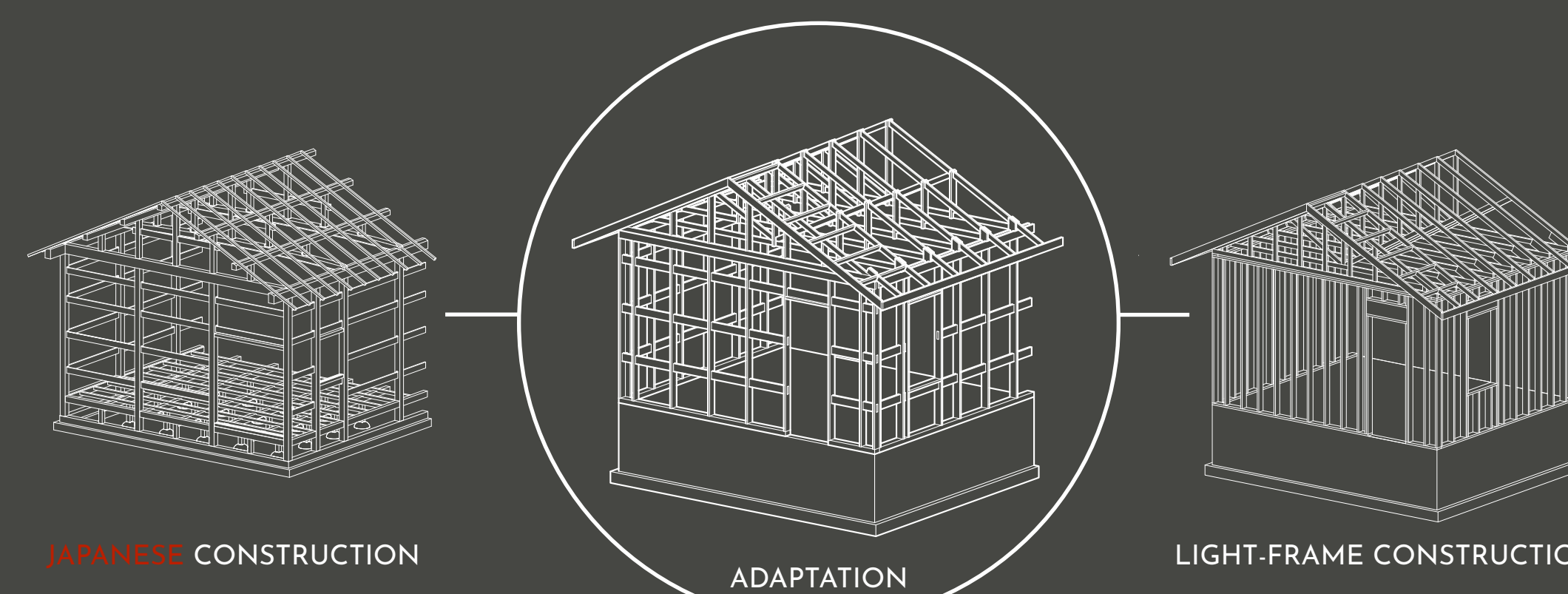
This thesis analyzes the proficiencies of light-frame wood construction and compares it to the craftsmanship of traditional Japanese carpentry. The goal of this research was to bridge the gap between these two construction styles and create an adaptation in search of a new solution to light-frame wood construction. That adaptation is then applied to a single-family residential project to refine its process and analyze its strengths and weaknesses.



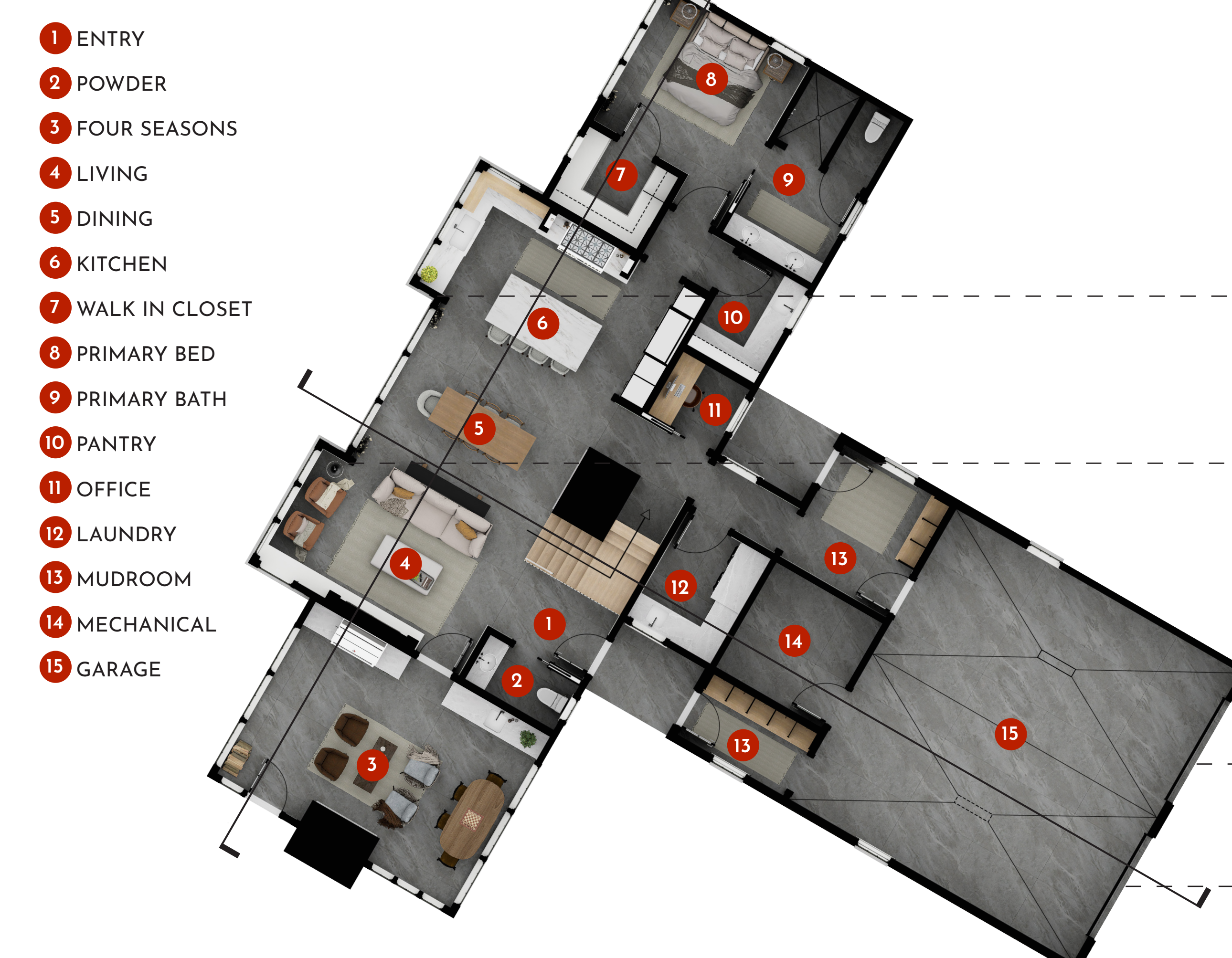
EXPLODED ISOMETRIC



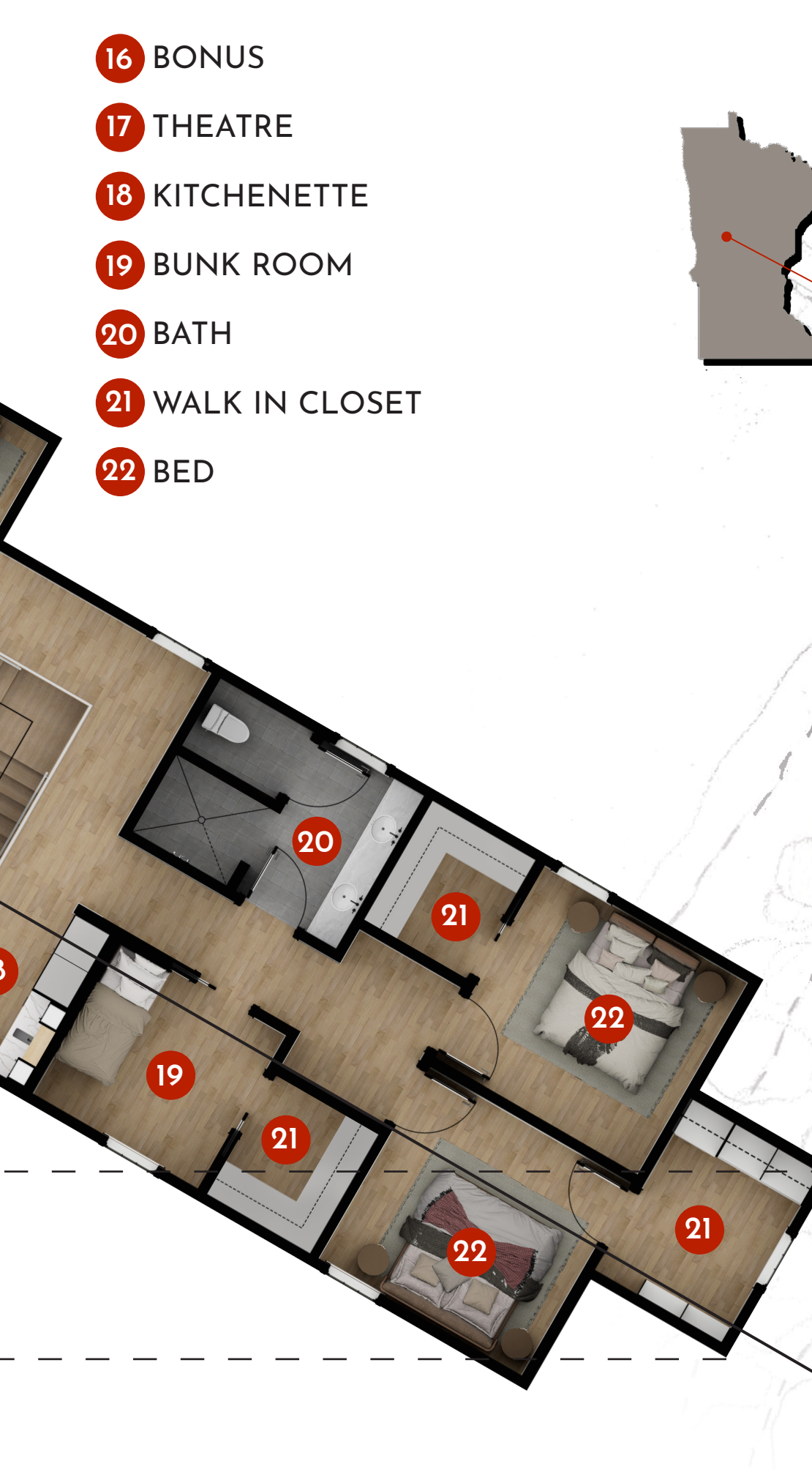
EXTERIOR



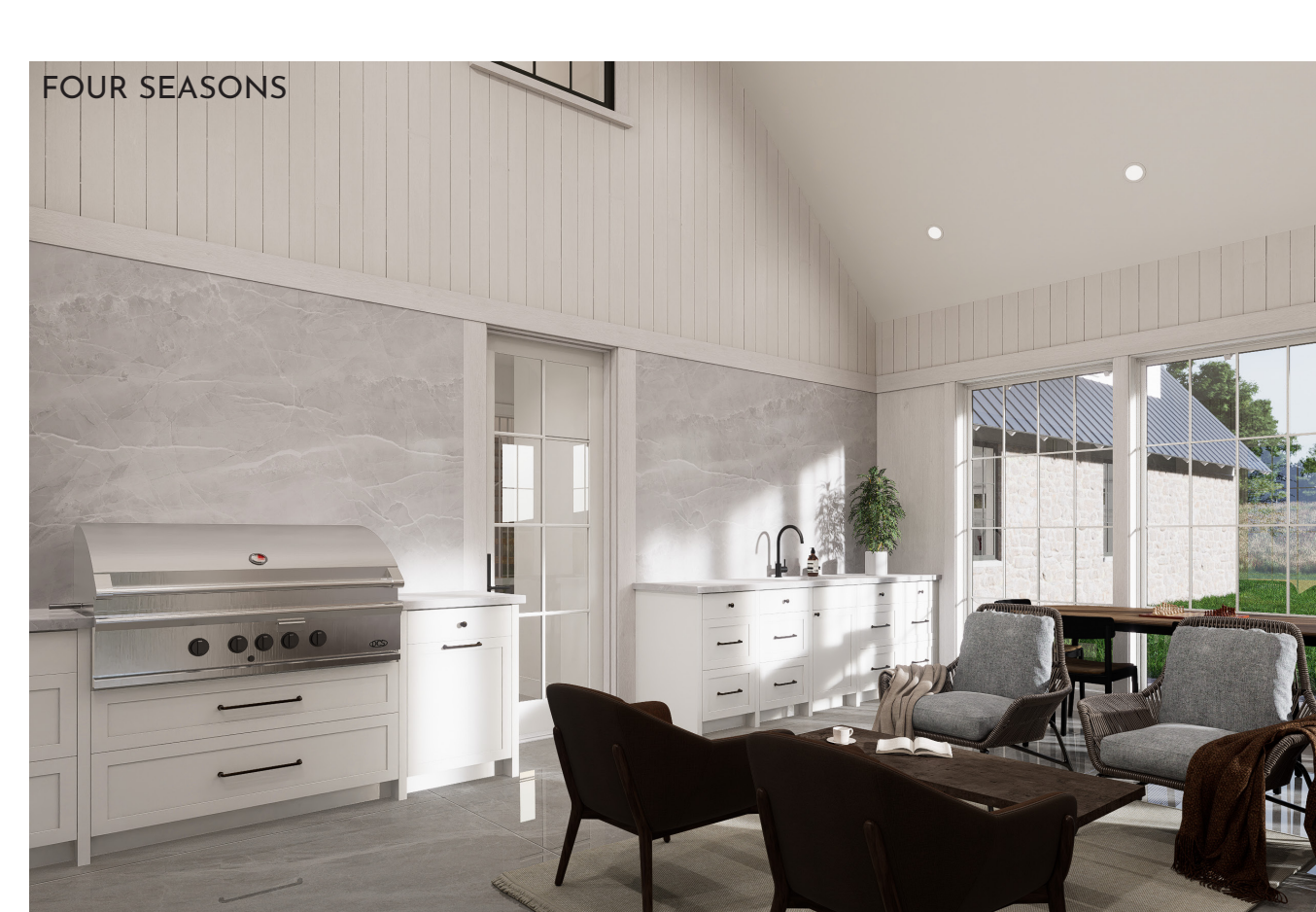
MAIN LEVEL 0 12 24



UPPER LEVEL 0 12 24



SITE PLAN 0 50 100'



This adapted construction system consists of horizontal members influenced by traditional Japanese carpentry. These members serve as headers, sills, and blocking for fastening wall fixtures including upper cabinetry. They also create a more rigid wall frame and require less support around windows and doors. For more information about the details of this construction method refer to the adaptation manual on the stand below.

