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A Case Study on the House in Plum Grove

FACE OFF

Graduate Seminar in Technology

APPROACH

Walking down an anonymous residential street in the outskirts of Tokyo, one approaches a mysteriously abstract cubic volume. It appears in stark contrast with the materiality and organization of the surrounding domestic structures, which all employ the conventional model of suburban inhabitation without questioning the possibility of its reorganization. Whatever the volume could be, from the outside--its pure form, its whiteness, and the irregular placement of its varying types of glazed apertures--it signals a departure from the generic condition of domestic enclosure. Instead, it seems to share more of a likeness with a Mondrian painting.







ENTRANCE

As one moves around the outside faces of the volume, one observes that the apertures in the flat surfaces are not only of differing shapes and types but also of differing positions in relation to the outer limit of the form. Some of these openings in the vertical planes are portrait orientation, while others are landscape. Some of them pop out like a picture frame, while others sit within the plane of the wall. Still there are other 'eyes' that are divided by mullions, and others that have no glazing at all. Yet, of all these 'cut-outs,' not one of them announces itself as a door, or a means to penetrate the strictly delineated exterior of the abstract form.

And then on one side, to the right of a picture-frame window, which is oddly positioned just above ground-level, there is one thin plane jutting-out from the structure's face. Though the cantilevered element is partially concealed by the branch of a plum tree, a door handle beneath it signals that this is the way inside.

This is the House in Plum Grove.





EYES THAT SEE IN DIFFERENT WAYS

Now that one is aware that these white surfaces are enclosures of an inside that is made indeterminate by the scattered composition of its openings, one looks to find a logic to their differences and their positioning. Unfolding the faces, reveals four types of what one could call the building's eyes or windows.

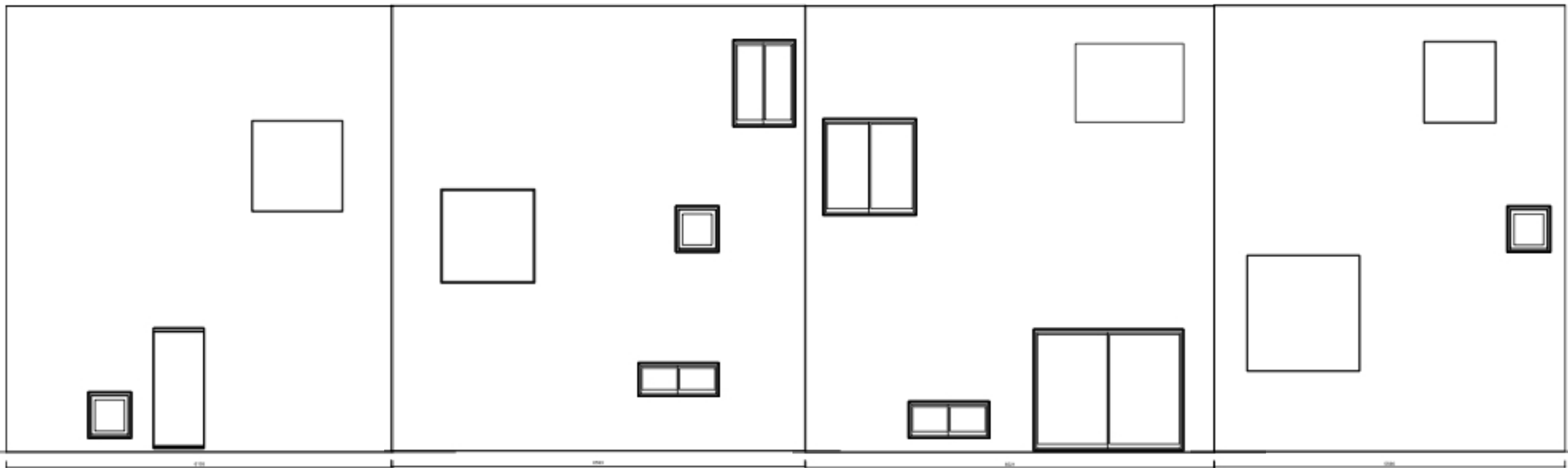
The first type appears to be frameless: a simple cut-out co-planar with the wall. From the outside looking in, these windows seem to offer a higher degree of transparency. They not only reveal spaces within the building's outer walls, they also link one's vision to spaces beyond interior partitions that have similar openings. Within this type, there are three different sizes and permutations of rectangles and squares.

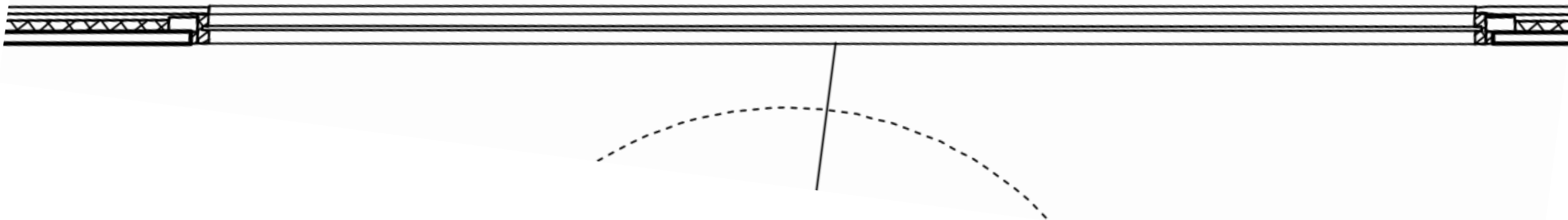
The second type of window projects out from the face of the exterior walls and is thickly framed. These openings somehow conceal what is inside, but they are all the same size and shape.

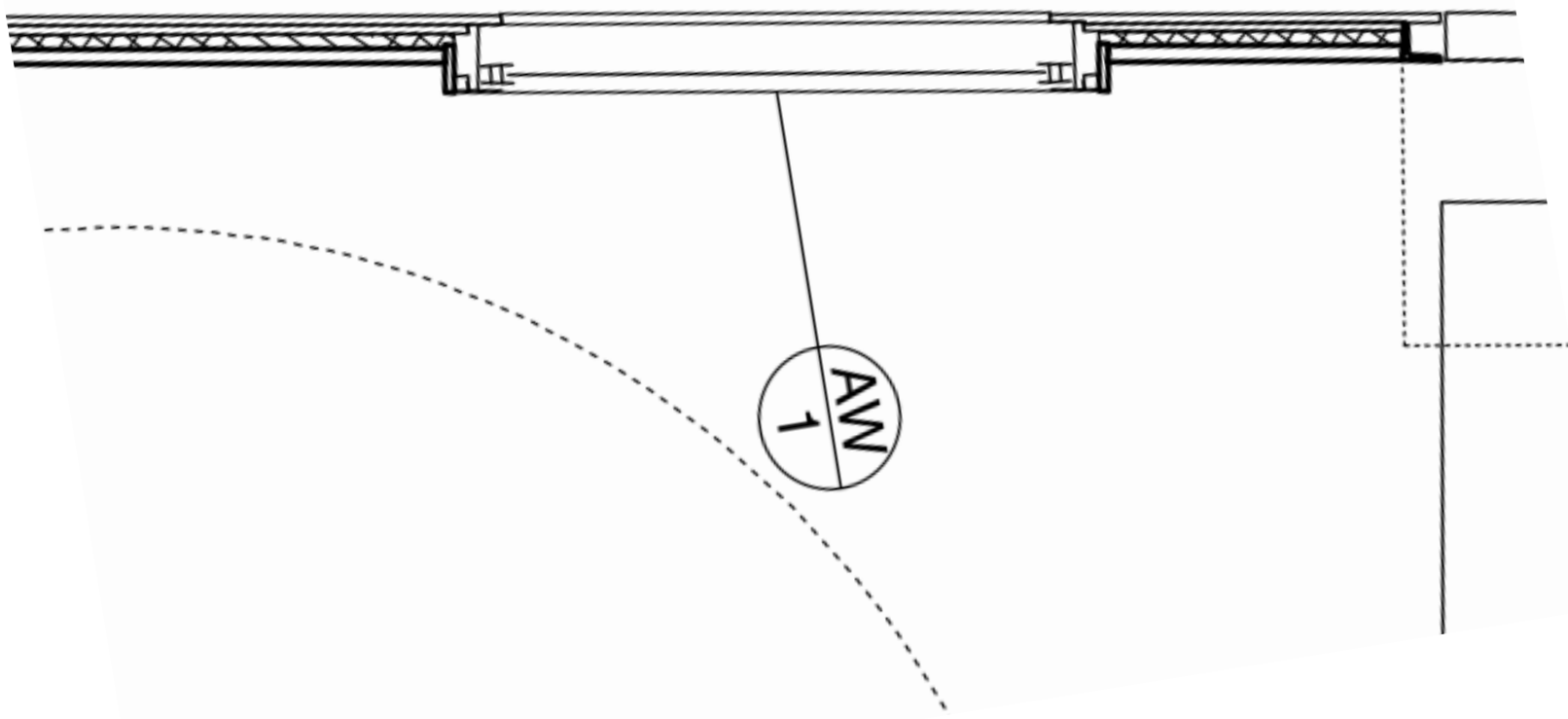
The third type, divided vertically in the middle, is a sliding window. One of these is large enough to serve as a sliding door, but there are four other sizes, in multiple orientations, and some very short and relatively wide, as if the structure of the wall allows for nearly any shape or size of opening.

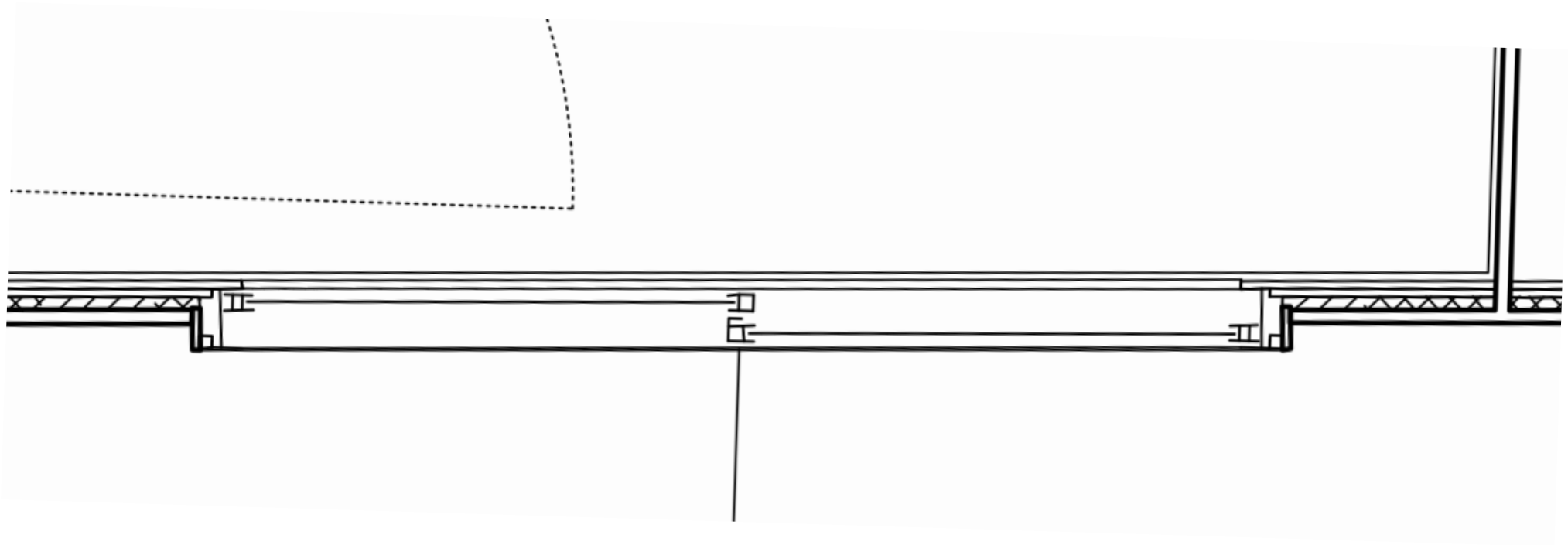
And, the fourth type, is not really a window at all, but literally just a non-glazed rectangular opening in the wall.

The apertures at the bottom of the exterior wall mostly share an alignment with the ground, and the upper ones share a top alignment. However, the apertures spread across the mid-section appear to float and destabilize any alignments that would indicate floor heights or the organization of interior space.

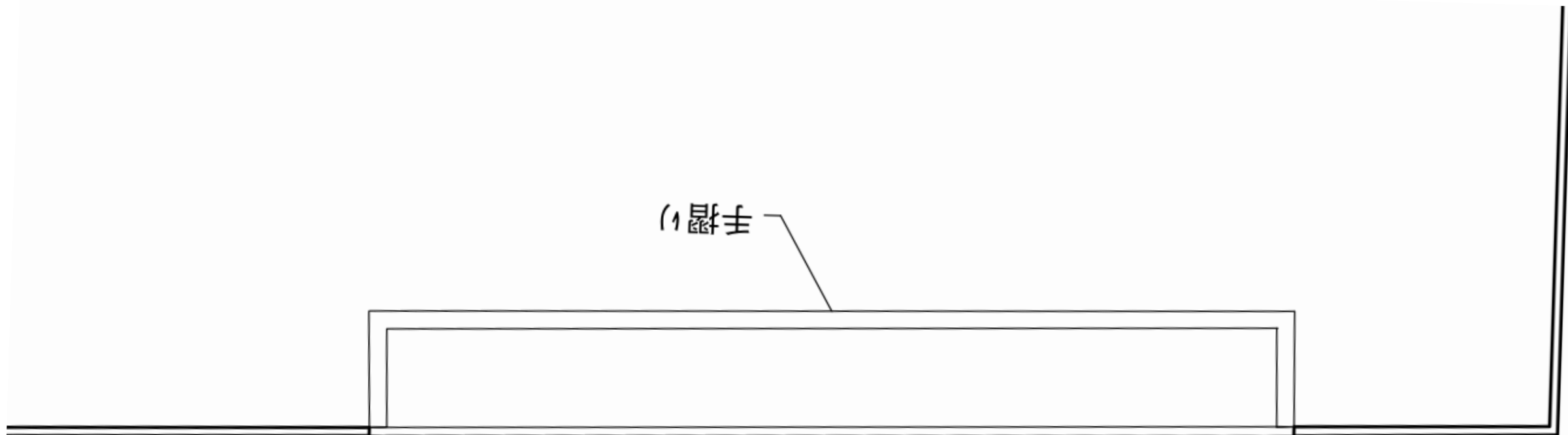








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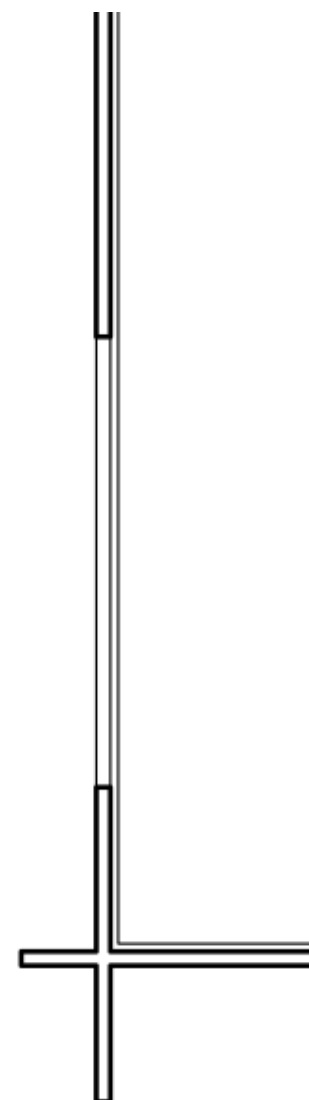


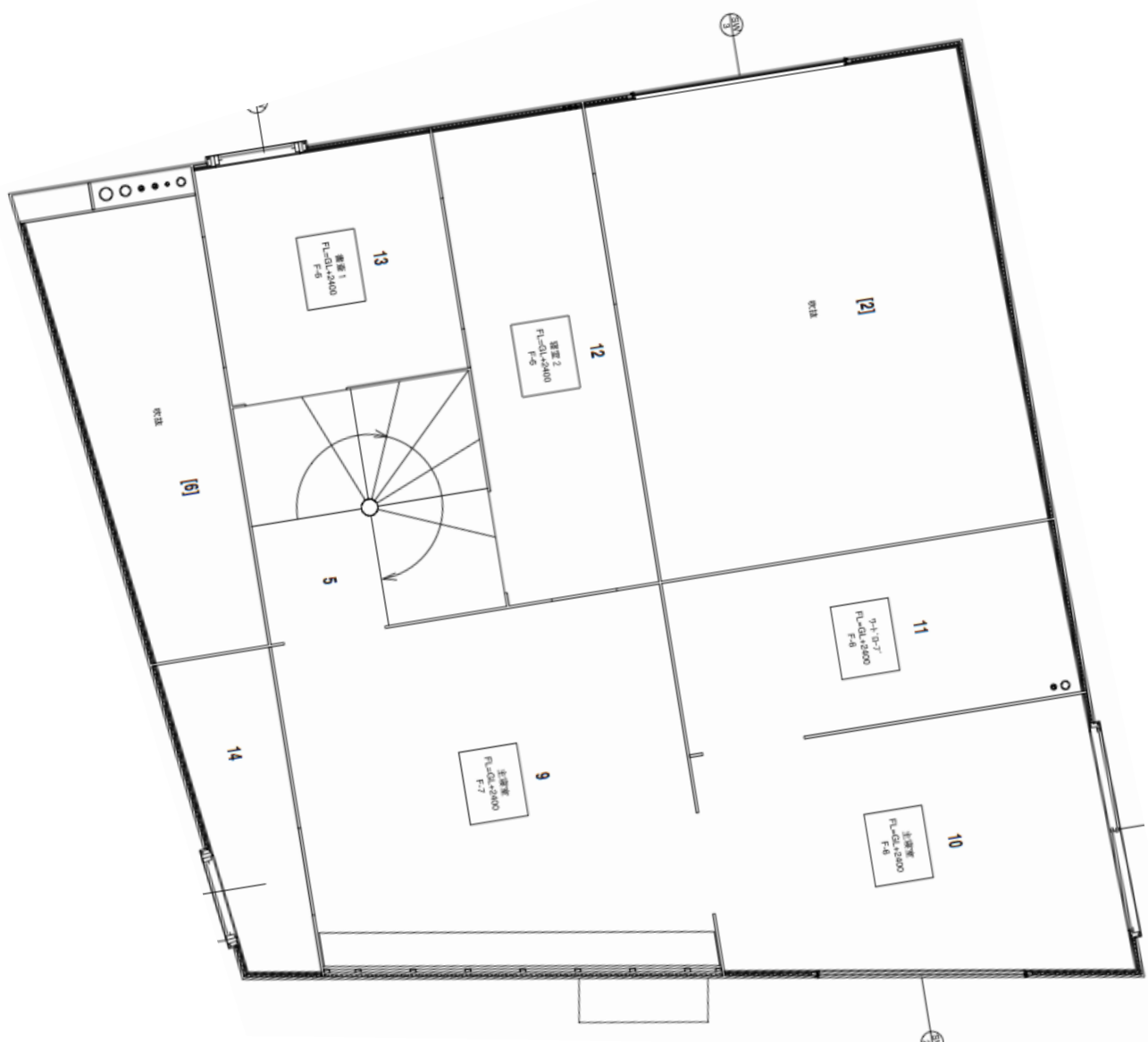
EYES INSIDE THE THIN FACES

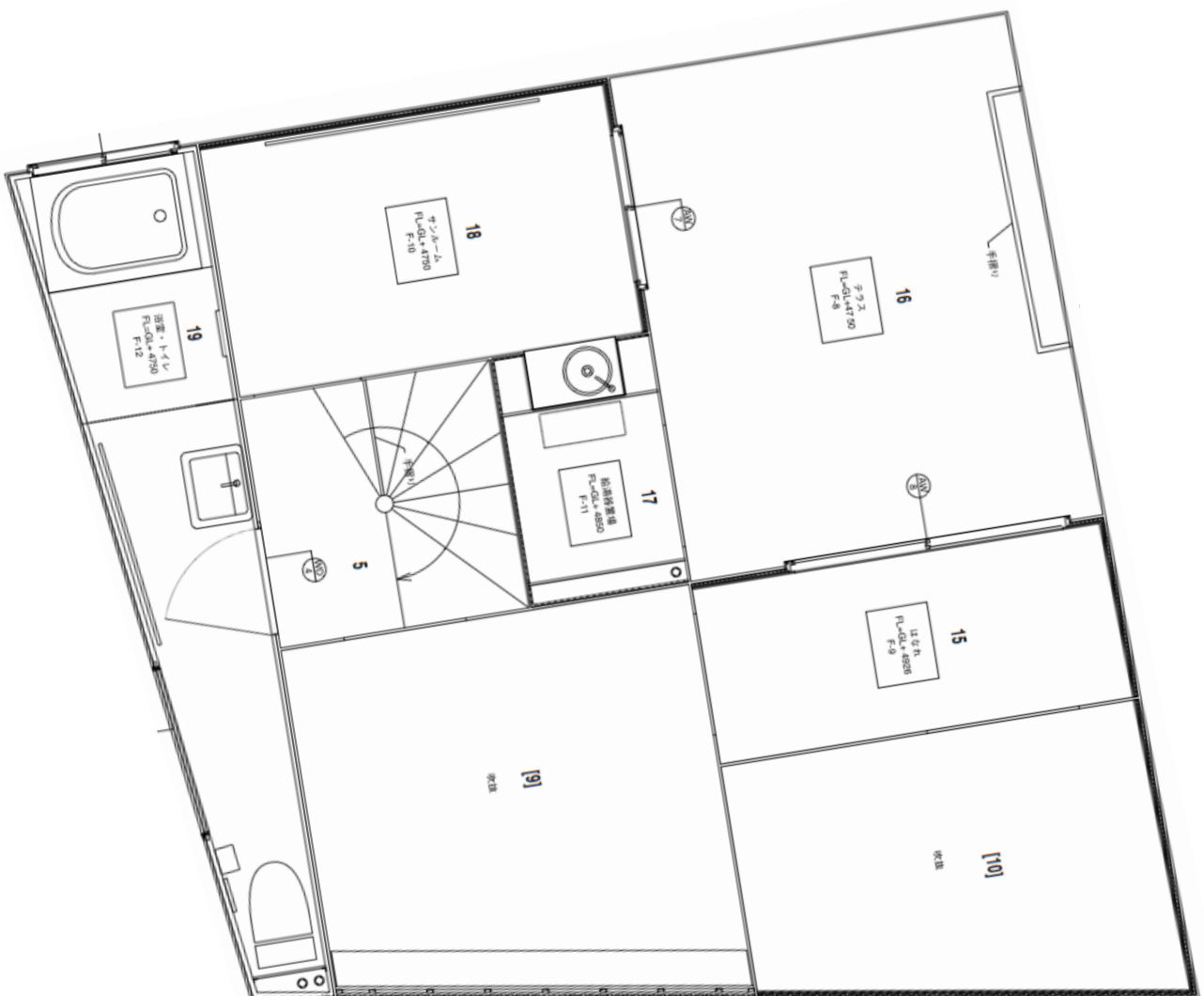
When one moves to the inside of The House in Plum Grove, the decomposition of the exterior faces is projected through the interior partitions. Like on the outside, there are openings that one walks through, and those that one sees through. There are no doors, except within the most private areas of the bathrooms. Similarly, the inside apertures take on different sizes and positions within the walls, thereby constructing specific corridors of movement and vision. The connections are necessary to link the rooms even though each is meant to serve only one activity. Accordingly, the bedrooms are the size of a bed, and the office is only big enough to fit a desk and chair.

Moreover, the connections between the inside and outside layers of apertures both organize and subvert spatial transparencies, in some cases extending the limits of interior spaces while also compressing some rooms into the zone of the exterior walls. In other words, just as the Barcelona Pavilion can be understood as one wall, The House in Plum Grove acts as one unified volume. But through establishing multiple degrees of porosity between the inside and outside, both structures deconstruct the generic conditions of partition and enclosure.

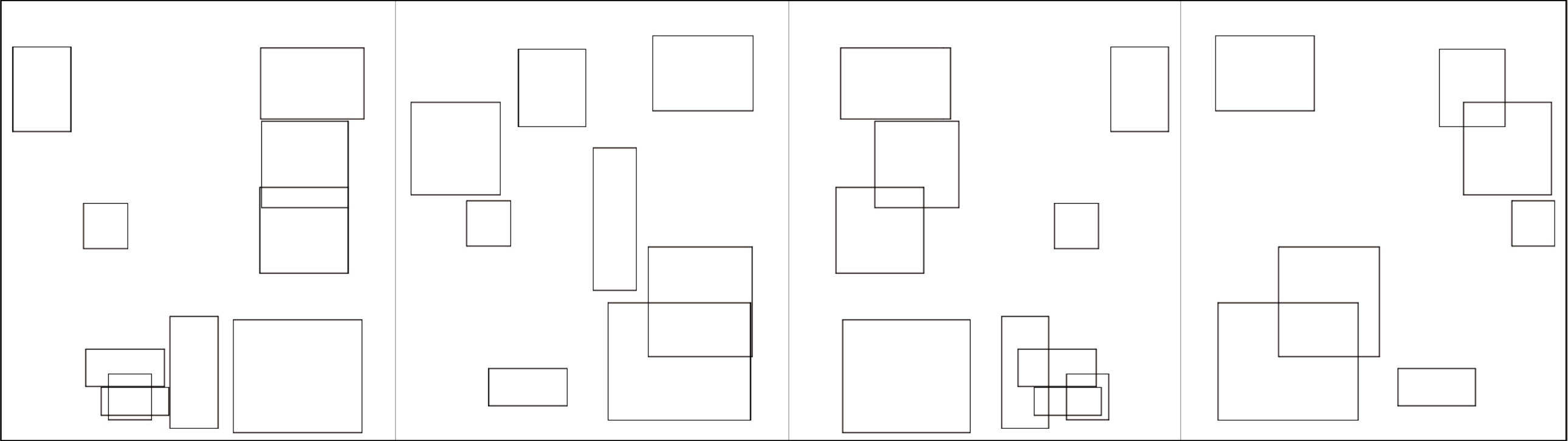


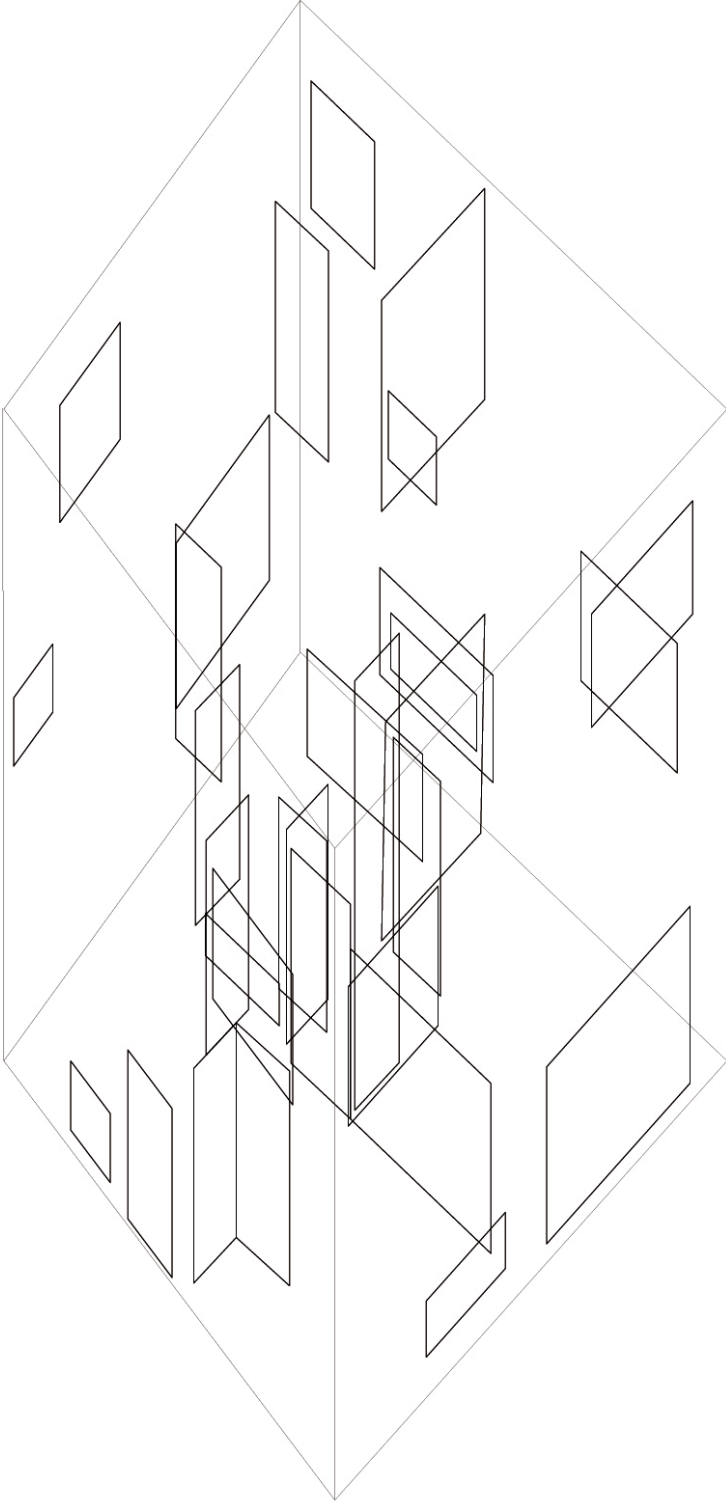


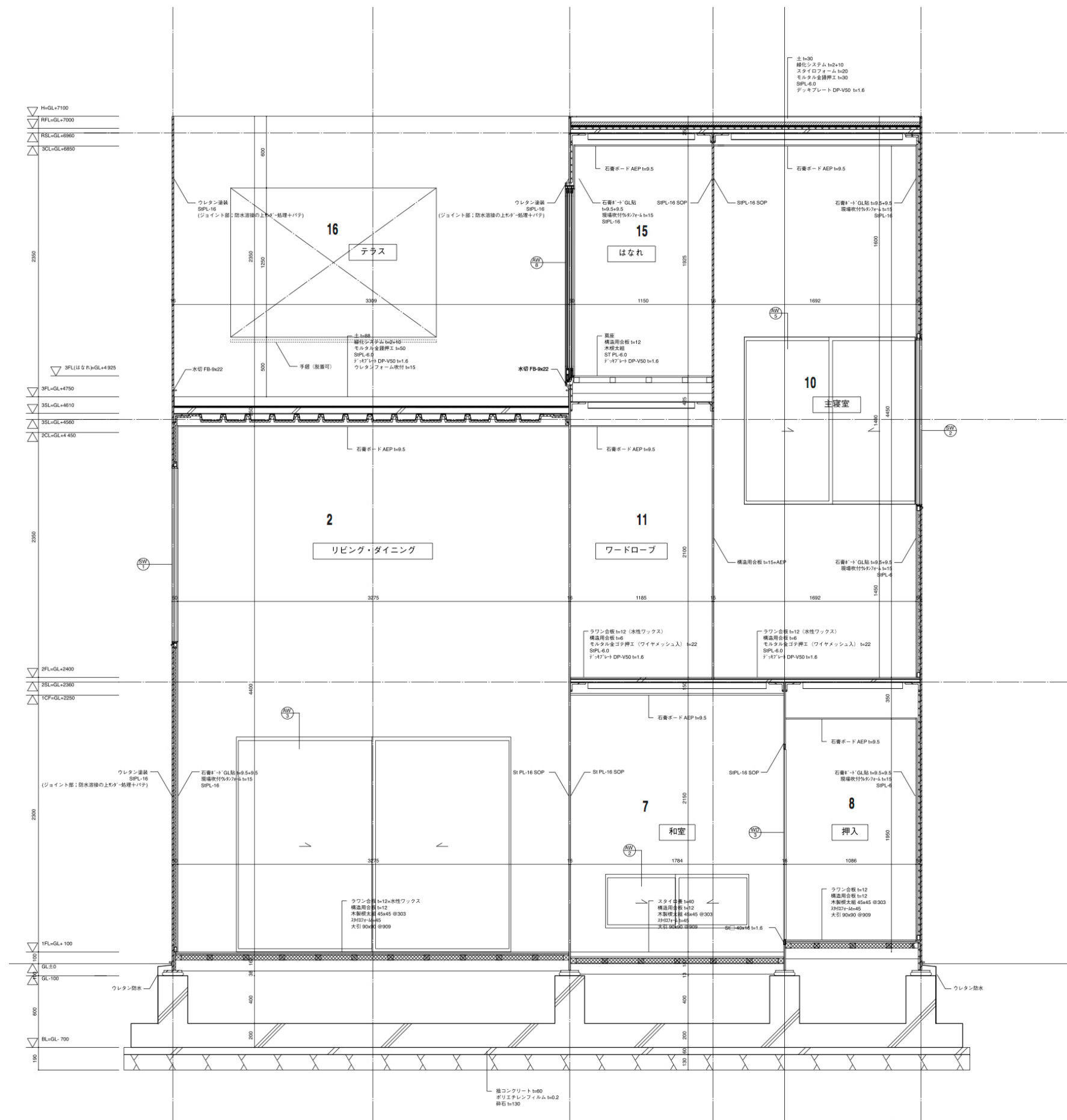


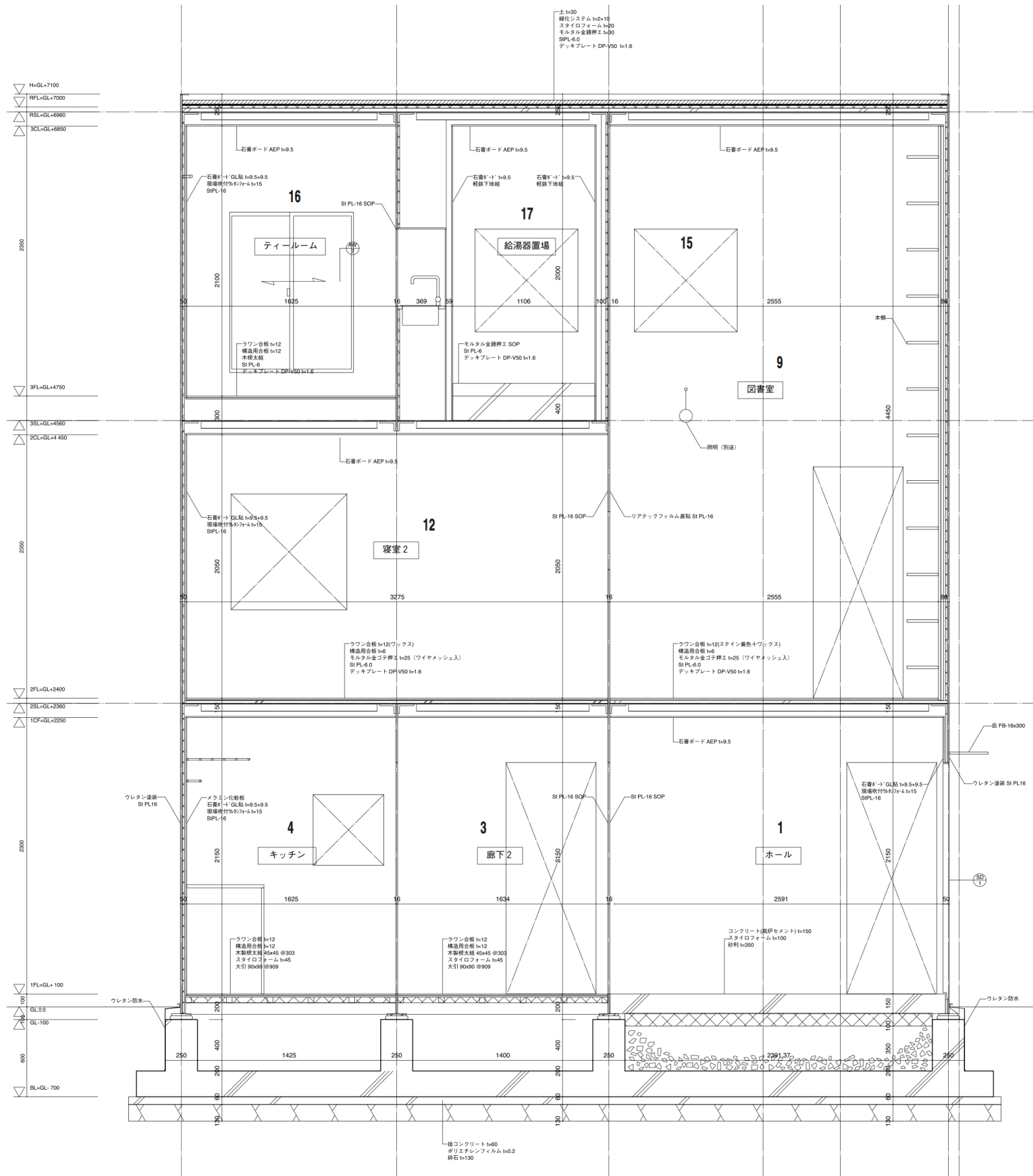










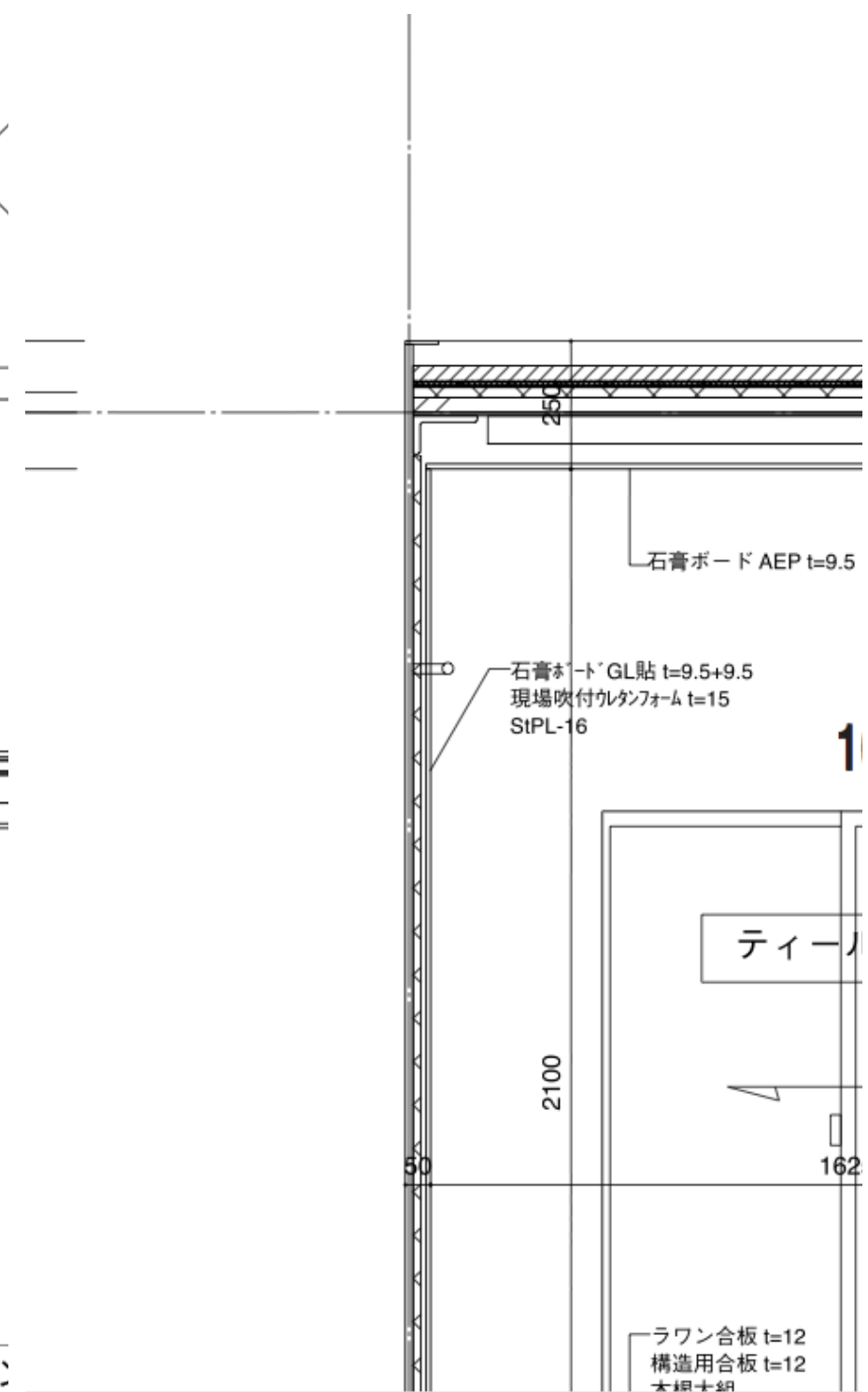
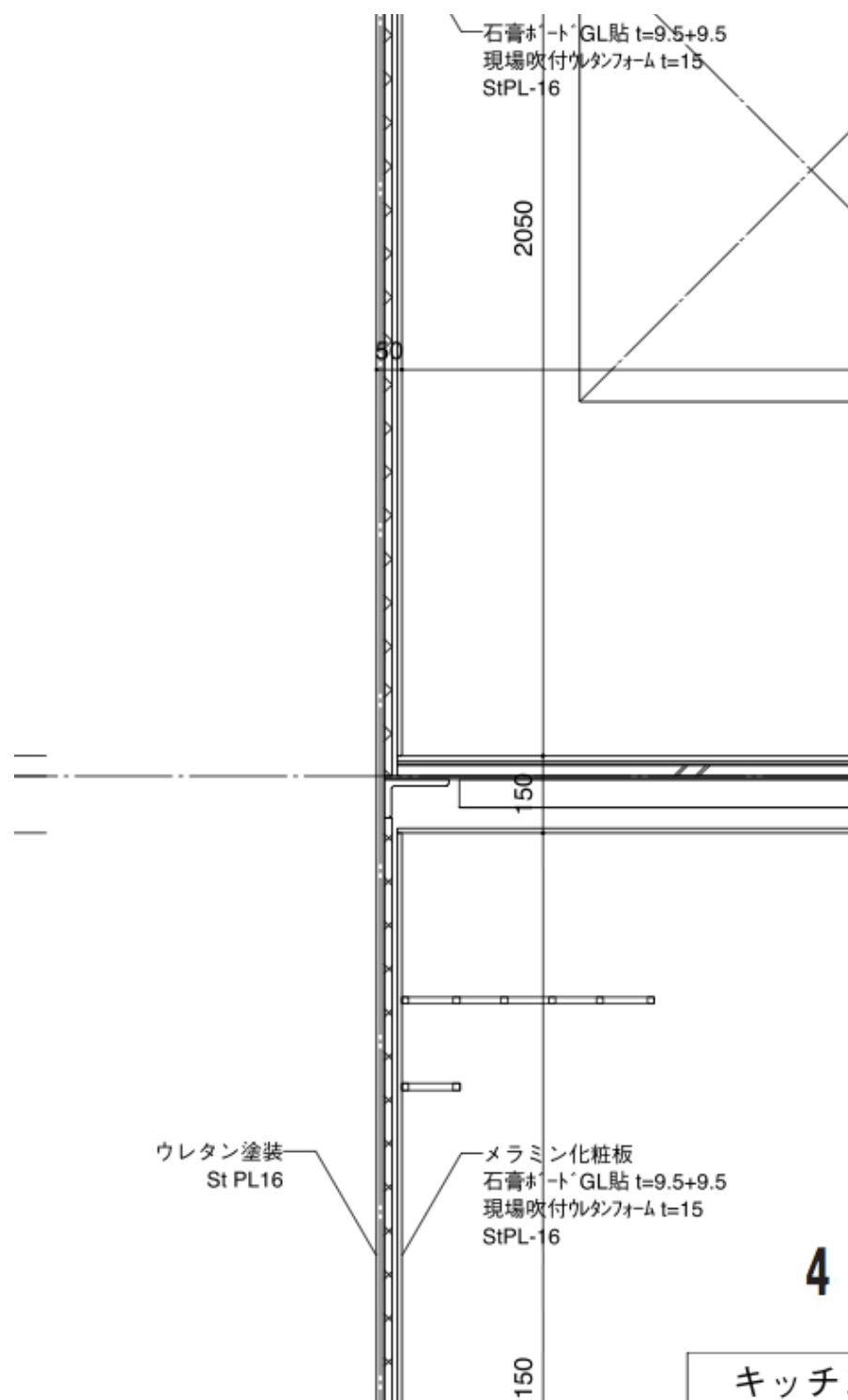
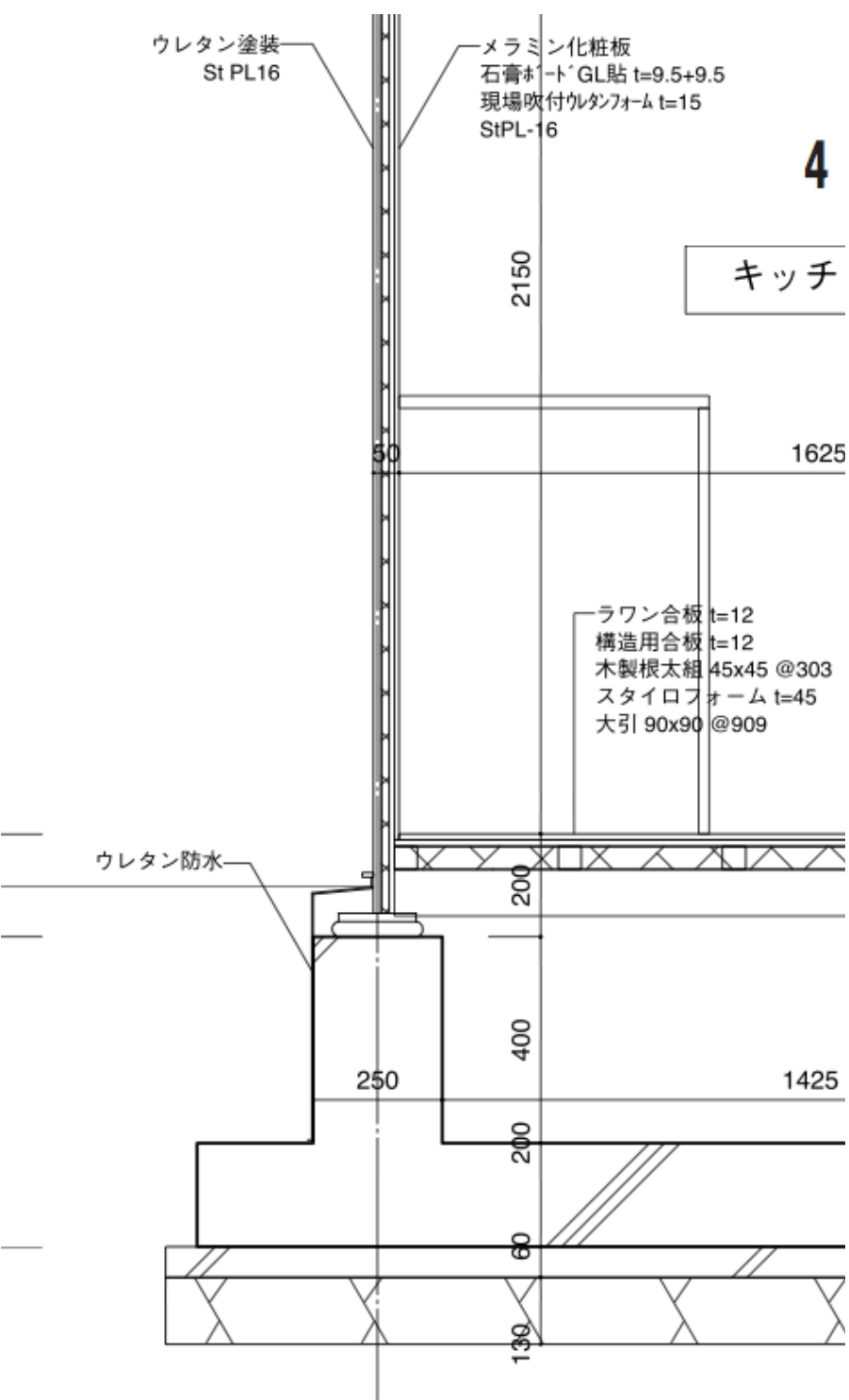


THE LOGIC BETWEEN THE EYES

But perhaps what's most striking about The House in Plum Grove is not its eyes, but rather what gives structure to them. The extremely thin walls of the house are as mysterious as the house itself. In plan and section, the notations of the walls seem to have no thickness and appear to be just the lines of a spatial or programmatic diagram. Yet, in actuality, the walls are made of structural steel panels that even with exterior insulation never exceed two inches in thickness.

In the words of the architect Kazuyo Sejima: "Walls between the rooms are structural and are minimized to a thickness of 16mm. The exterior wall uses the same 16mm structural panel and builds up to a total thickness of 50mm. Units were prefabricated and welded together on site. The thin wall is a prerequisite for this design, both functionally and experientially, as it occupies a minimum of space and allows for multiple openings without imposing itself as a physical object. The numerous spaces and openings offer a freedom for the inhabitants to create new relationships between rooms and functions, and to sense a softer type of privacy while being connected."

As such, though the positions of the exterior windows seemed to be irregular, their size, location, and orientation are highly regulated by the function of the interior spaces. For example, a sliding window opens above the stove and sink, perhaps providing ventilation for the odors of cooking and offering the cook or dishwasher a view to the outside.



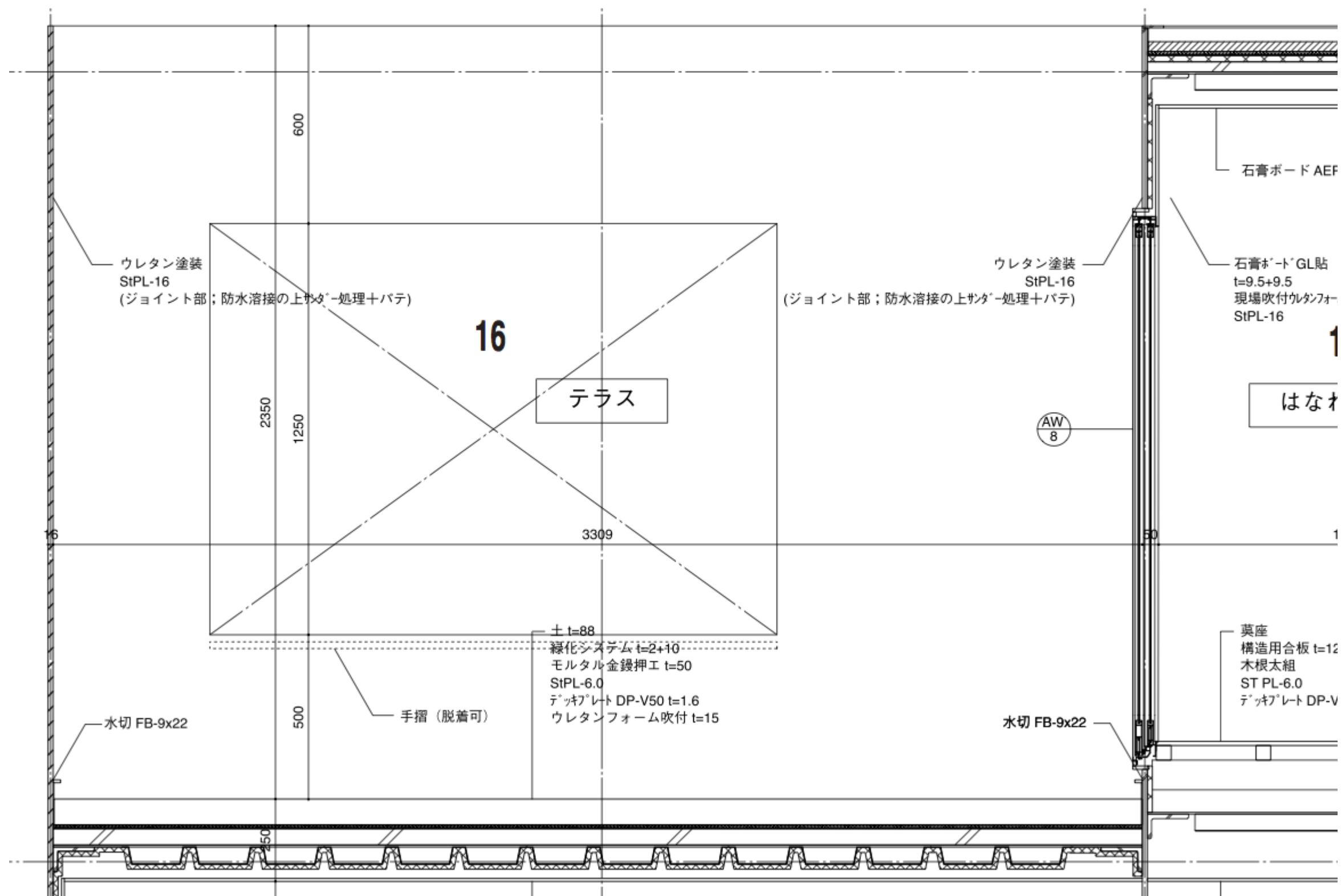
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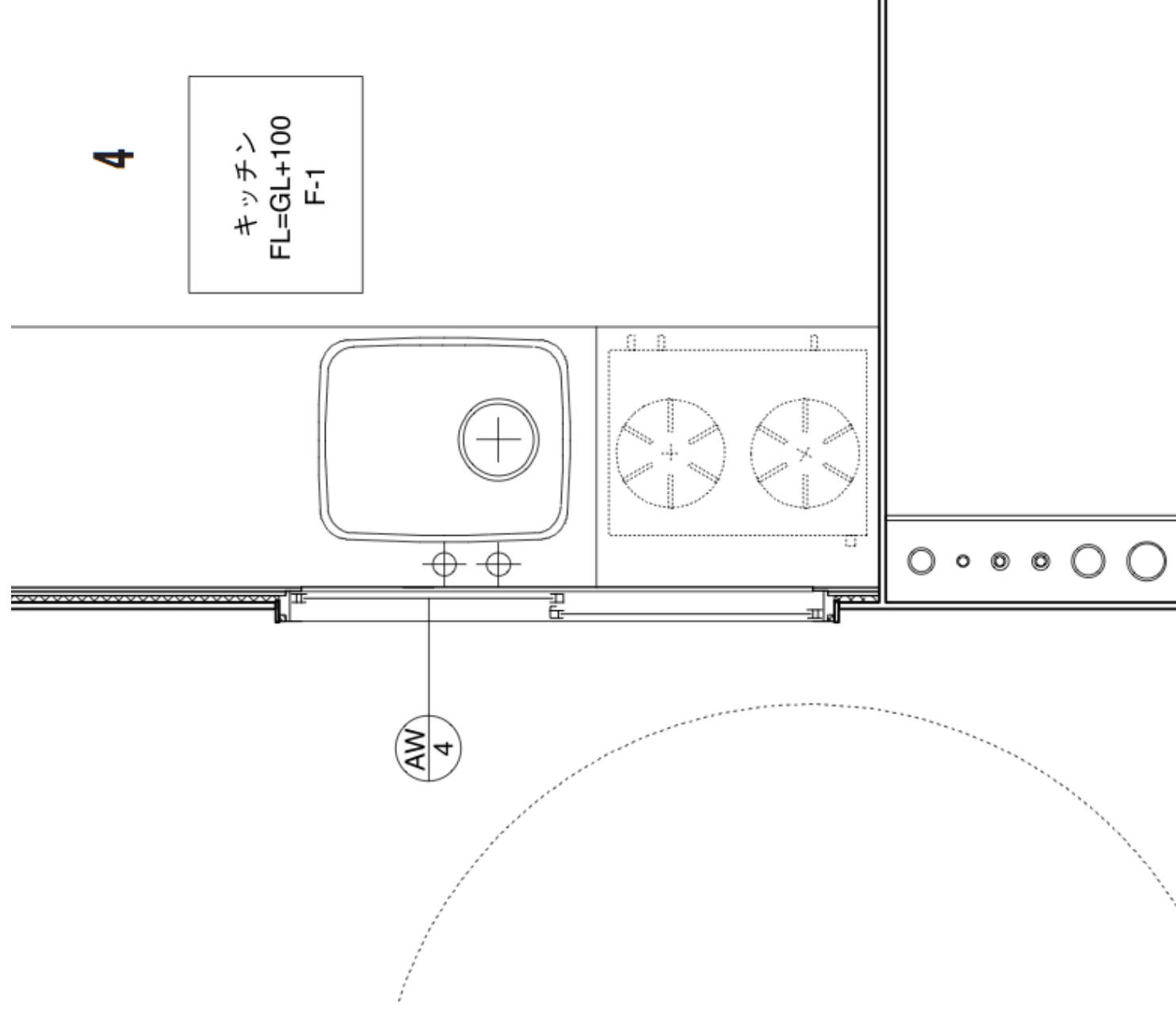
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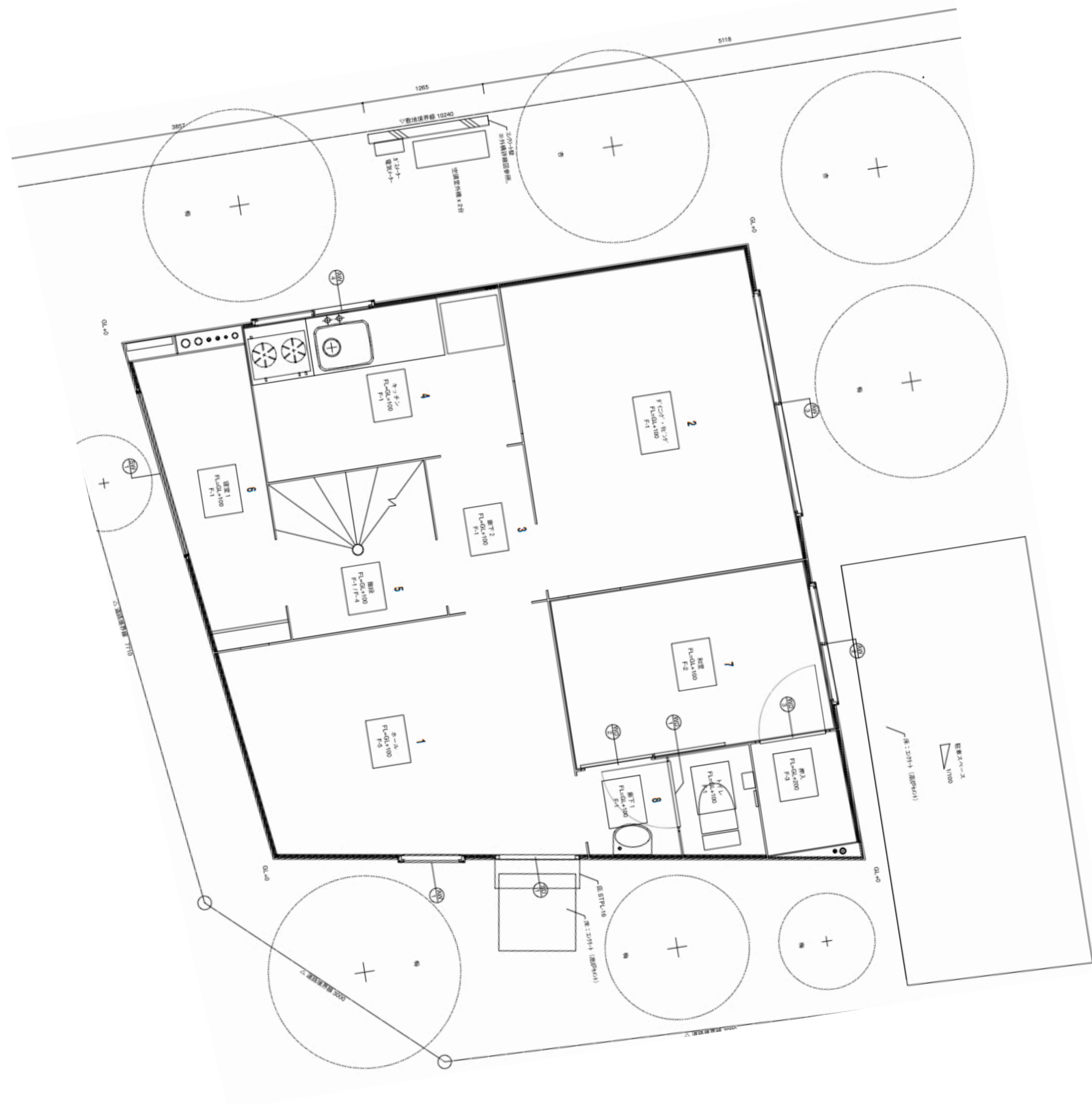
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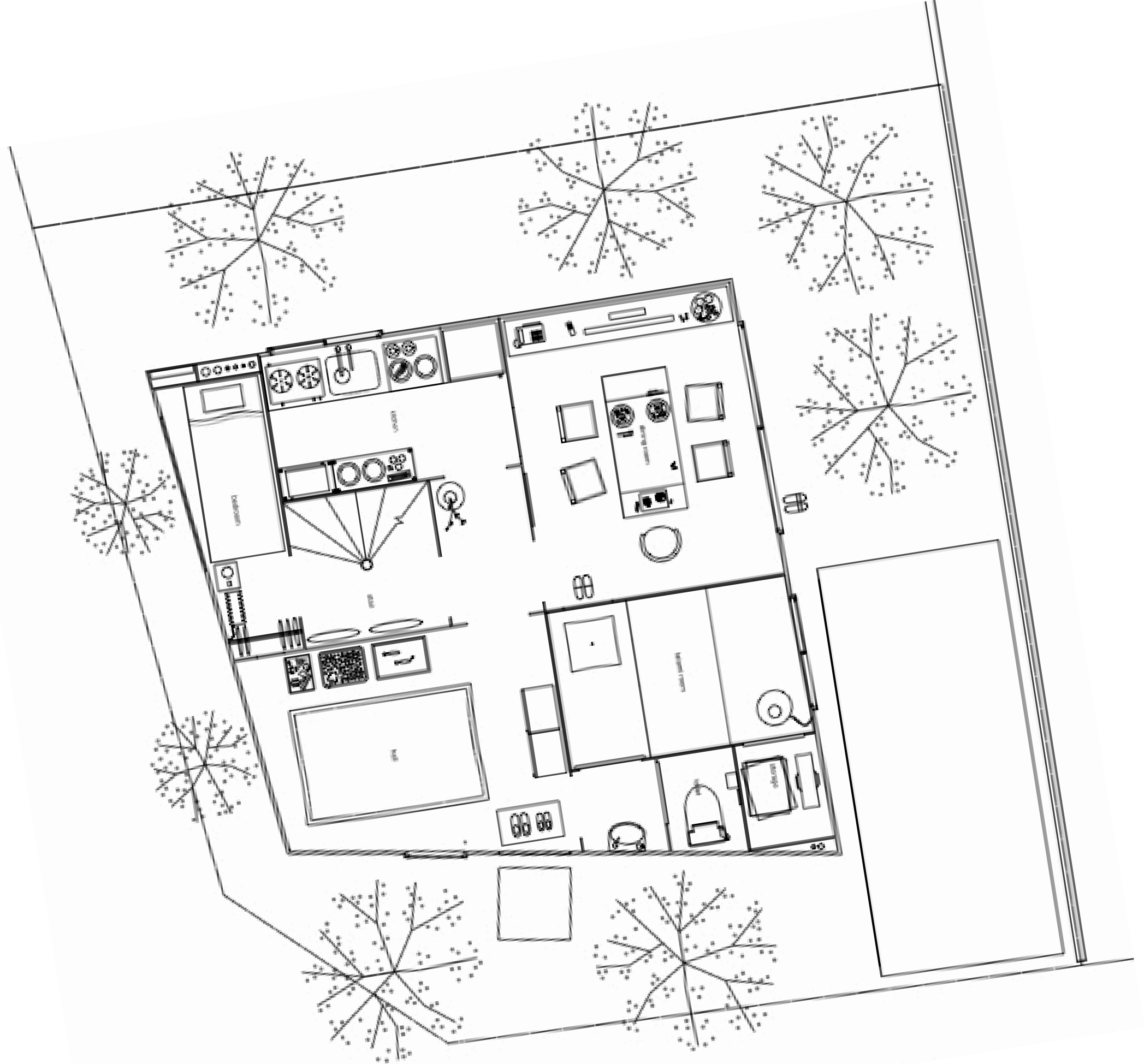
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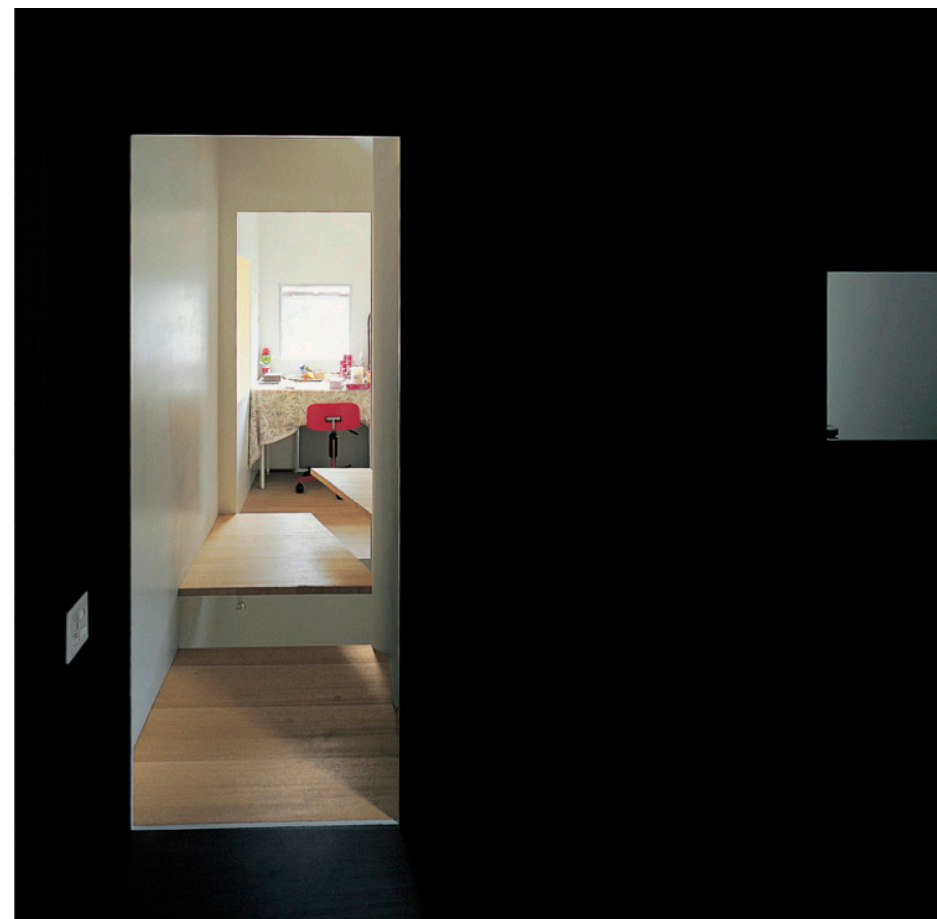






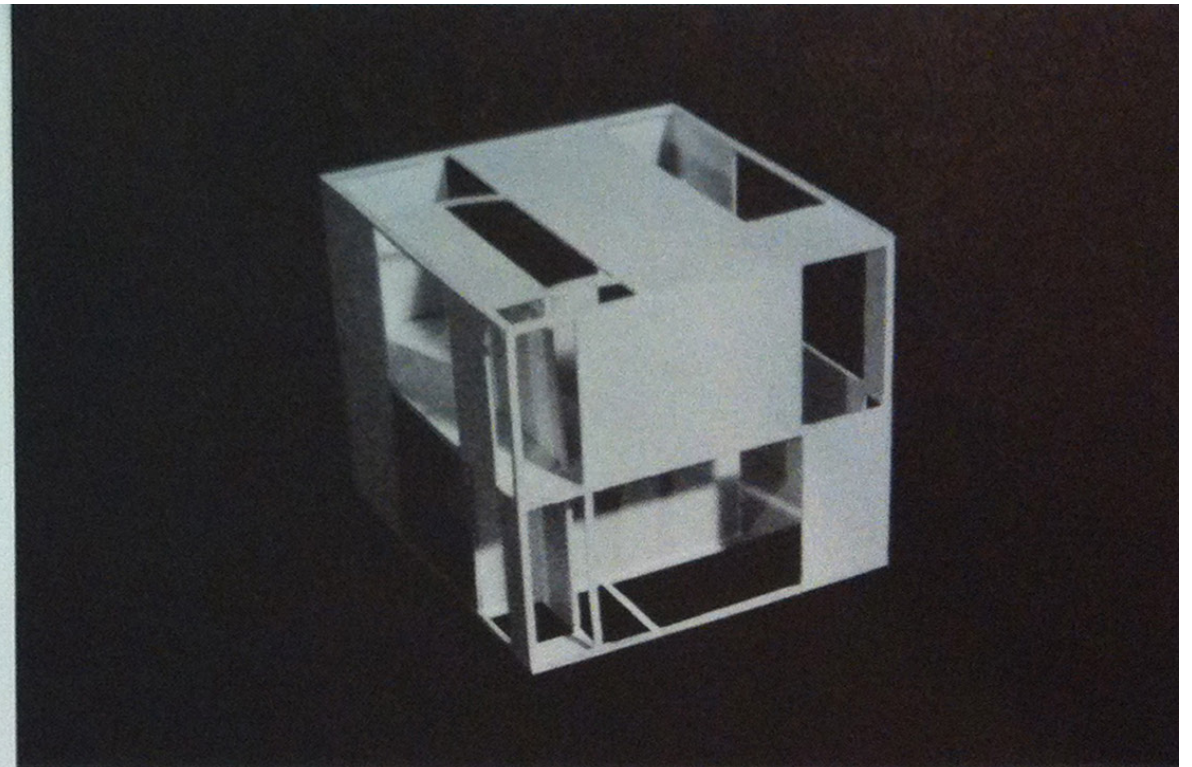
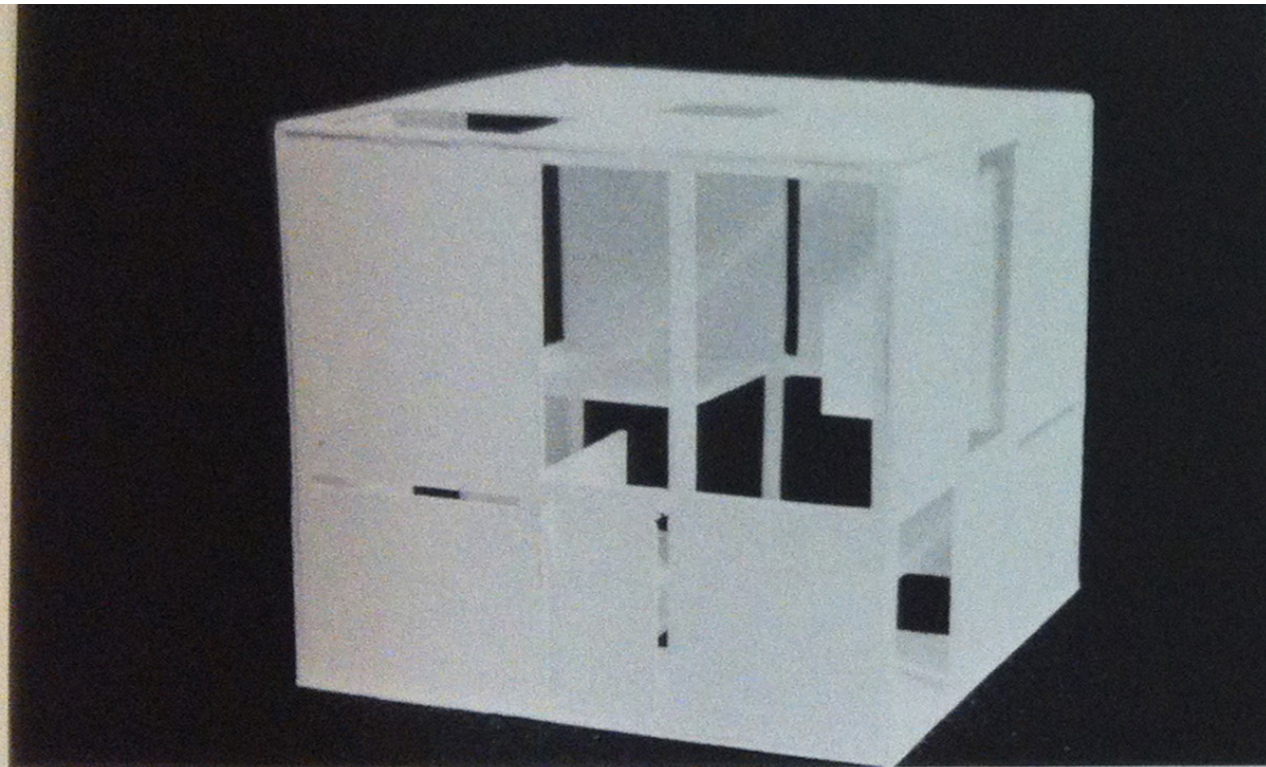






EYES THAT LOOK BACK UPON THEMSELVES

The drawings and the structural logic of The House in Plum Grove denote a certain self-referentiality between the architects and the language and techniques of their discipline. Not only are the plans drawn as if they were diagrams (and in some instances notating impossibilities were the house built using conventional construction methods), but the house itself is designed and put-together as if it were a chipboard model, or part of a fundamental architectonic exercise exploring the spatial volume of a cube.



Volumen-Übungen, Modelle von
Studenten, 1956–57.

*Cube exercises. Models by
students, 1956–1957.*

