

‘building over’

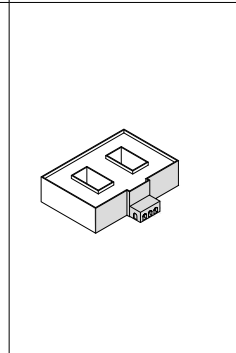
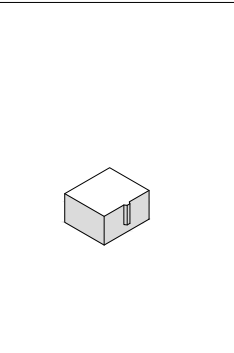
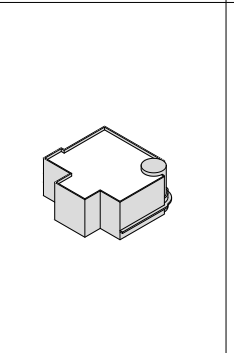
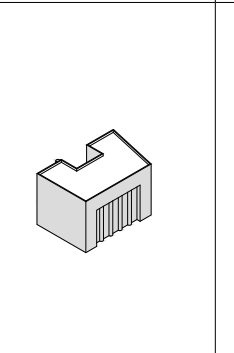
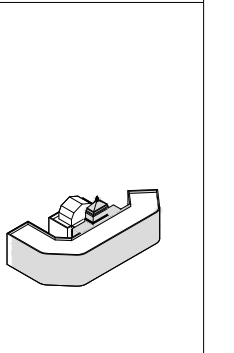
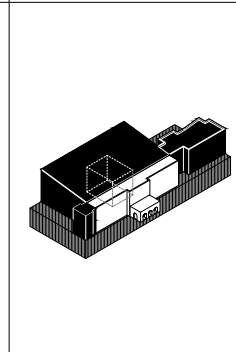
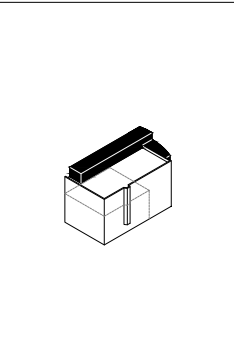
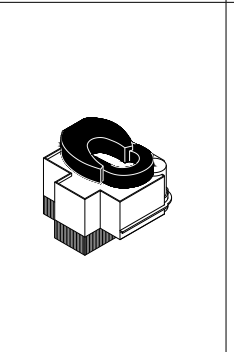
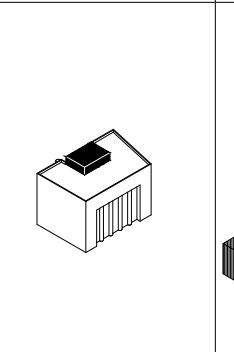
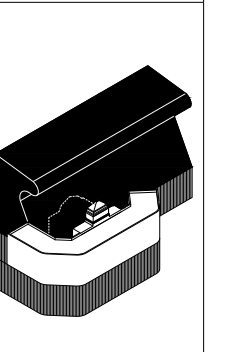
Research Background

In Korea, the beginning of modern architecture is generally considered to coincide with the opening of ports, and stone and reinforced concrete buildings began to appear in the early 20th century. Many modern buildings from the Japanese colonial period were not built voluntarily, and when viewed in a historical context, they carry meanings beyond simple physical renovation. Therefore, such buildings have been demolished not only because of aging or urban redevelopment but also due to national sentiment, as in the case of the demolition of the Government-General of Korea building.

The history of adaptive reuse using existing buildings in Korea is also short. Full attention to modern architecture began in March 2001 with the introduction of the Designated Cultural Property System. However, the period of discussion has been short, and the number of remaining modern buildings is small. Since these buildings were mostly constructed in capital or port cities such as Seoul, Busan, and Incheon, they are located in dense urban areas with limited site conditions. Because of these historical and spatial constraints, adaptive reuse methods in Korea show relatively little diversity.

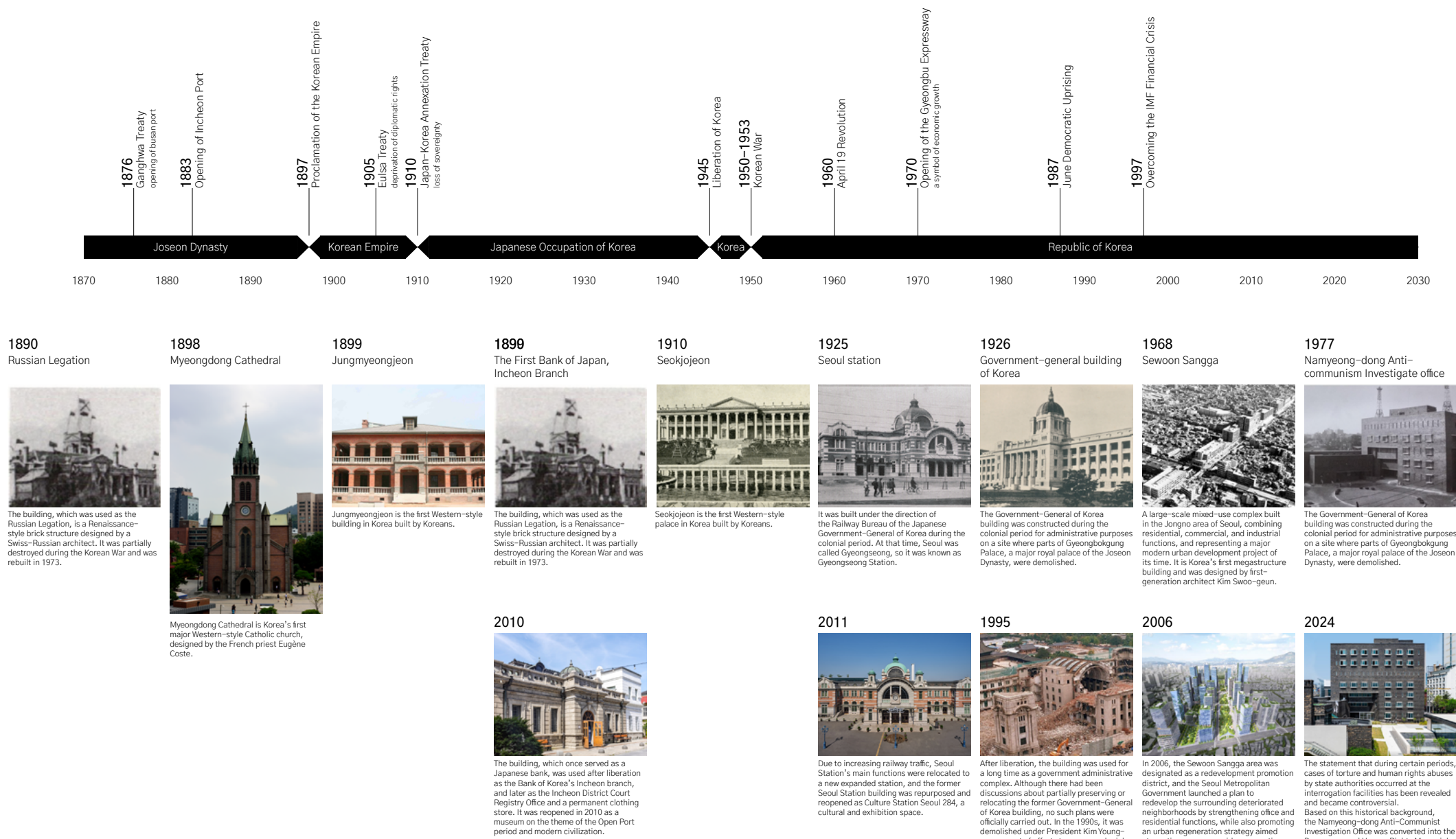
This study therefore examines various cases of adaptive reuse in urban areas in Korea and abroad to explore possible directions and applications for Korea.

Adaptive reuse of modern buildings in Korea

	Seoul Museum of Art	Ilmin Art Museum	Myeongdong National Theater	Sinsegye	Seoul City Hall
					
original building					
after adaptive reuse					
architects	SAMOO architects&engineers	-	SAMOO architects&engineers	-	IARC architects
former function	Supreme court building	headquarter of Dong-A Ilbo	multipurpose theater	headquarter of Jell bank	Seoul city hall
new function	art museum	art museum	national theater	cultural complex within a department store	public library
original data	1928	1926	1936	1935	1926
remodelled data	2002	2002	2009	2025	2012

Modern Korean architecture and adaptive reuse

timeline of Korean modern history and architecture



Changes of Seoul boundary

1394-1913 1914-1935

1936-1948

1949-1963

1963–present

1000

name of city transformation

Hanyang

Gyeongsung

Seoul

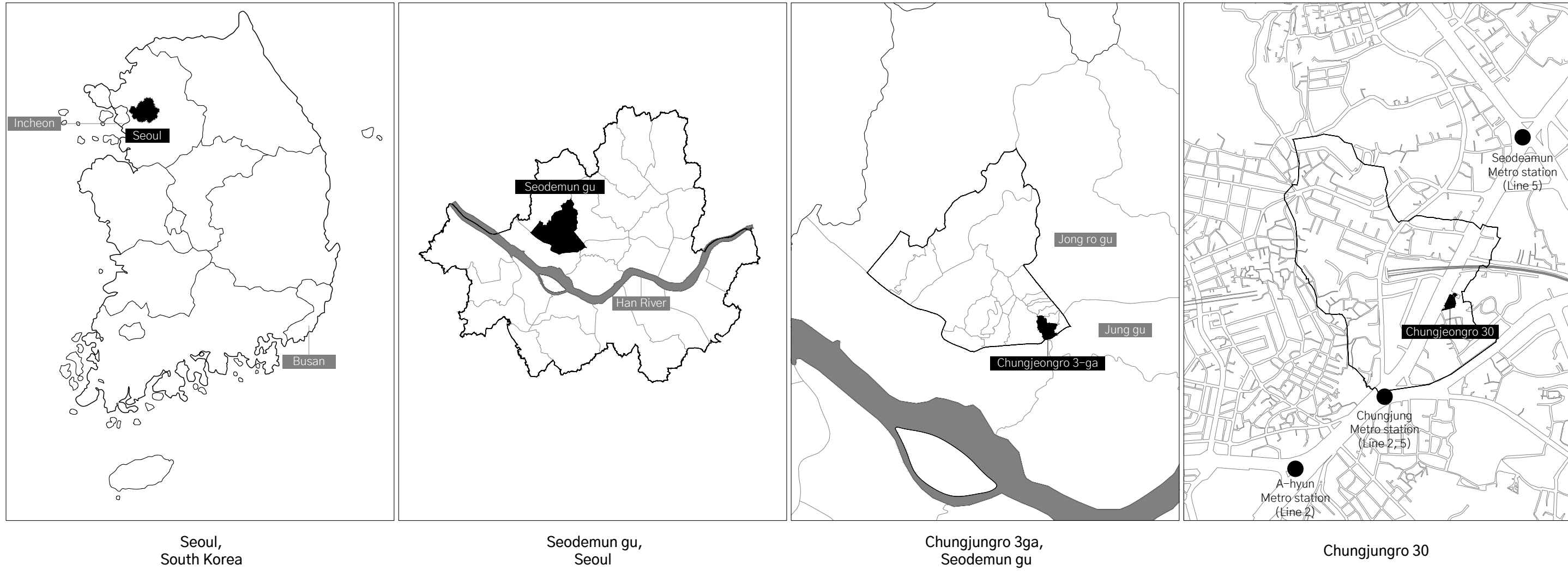
Final Work Laurea Magistrale (Second Degree) First – 2025/26

Supervisor Prof. Montanari Elena

Student Kim Inkyoung



Location of Chungjeong apartment



Comparison of original building and building over

	Building over with complete removal without exterior wall					Building over with partial removal			Building over with full retention	
	Domino sugar refinery	Hearst tower	Elbphiharmonie Hamburg	Caixa Forum	Rockbund	Battersea Power Station	The brewery yard	Banca privata finanziaria	Fahle house	Antwerp Port House
original building										
	brick	stone	brick	brick	brick	brick	brick	stone/plaster	stone	brick
after adaptive reuse										
location	Brooklyn, USA	New York, USA	Hamburg, Germany	Madrid, Spain	Shanghai, China	London, UK	Sydney, Australia	Milan, Italy	Tallinn, Estonia	Antwerp, Belgium
architects	RAU	Foster+Partners	Herzog&Meuron	Herzog&Meuron	David Chipperfield Architects	WilkinsonEyre	Tzannes	BBPR	KOKO arhitektid	Zaha Haddid architects
former function	sugar manufacturing machinery house	Hearst coporation headquarters (publishing offices)	warehouse	Central electricita del Mediodia	ZA+Andrews & George Building	Battersea power station	Carlton and united breweryYard	Banca Finanziaria Privata	Boiler house of cellulose factory	Fire Station
new function	office, retail, communal workspace, private club, event space	Hearst coporation headquarters (office tower)	theater&performance, hotel, residence	Museum	Office, retail	event space, commercial, offices, residences	Mixed commercial, retail hub, public plaza	Banca Finanziaria Privata modern office	residence, office, retail	Headquarters for the port
original data	1884	1928	1960	1899	1894	1930s	1870	1930	1926	1922
remodelled data	2017-2023	2006	2016	2008	2022	2022	2015	1966-1969	2007	2016

Changes of west area of Seoul city wall

18C historical map

1.Old map

2. Seoul city wall and Wall gate

A map showing a section of the city wall. A black line represents the wall, with three square markers indicating gates. The top gate is labeled 'Sordaeum (Main Western Gate)' and the bottom gate is labeled 'Narmdaemum (Main Southern Gate)'. The wall curves from the top left towards the bottom right.

3. Stream

3. Rail and Tram and Subway

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

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4. Main road



Adaptive Reuse in Korea : Experimenting with Vertical Expansion Strategy

Site Analysis

Changes of Apartment typology

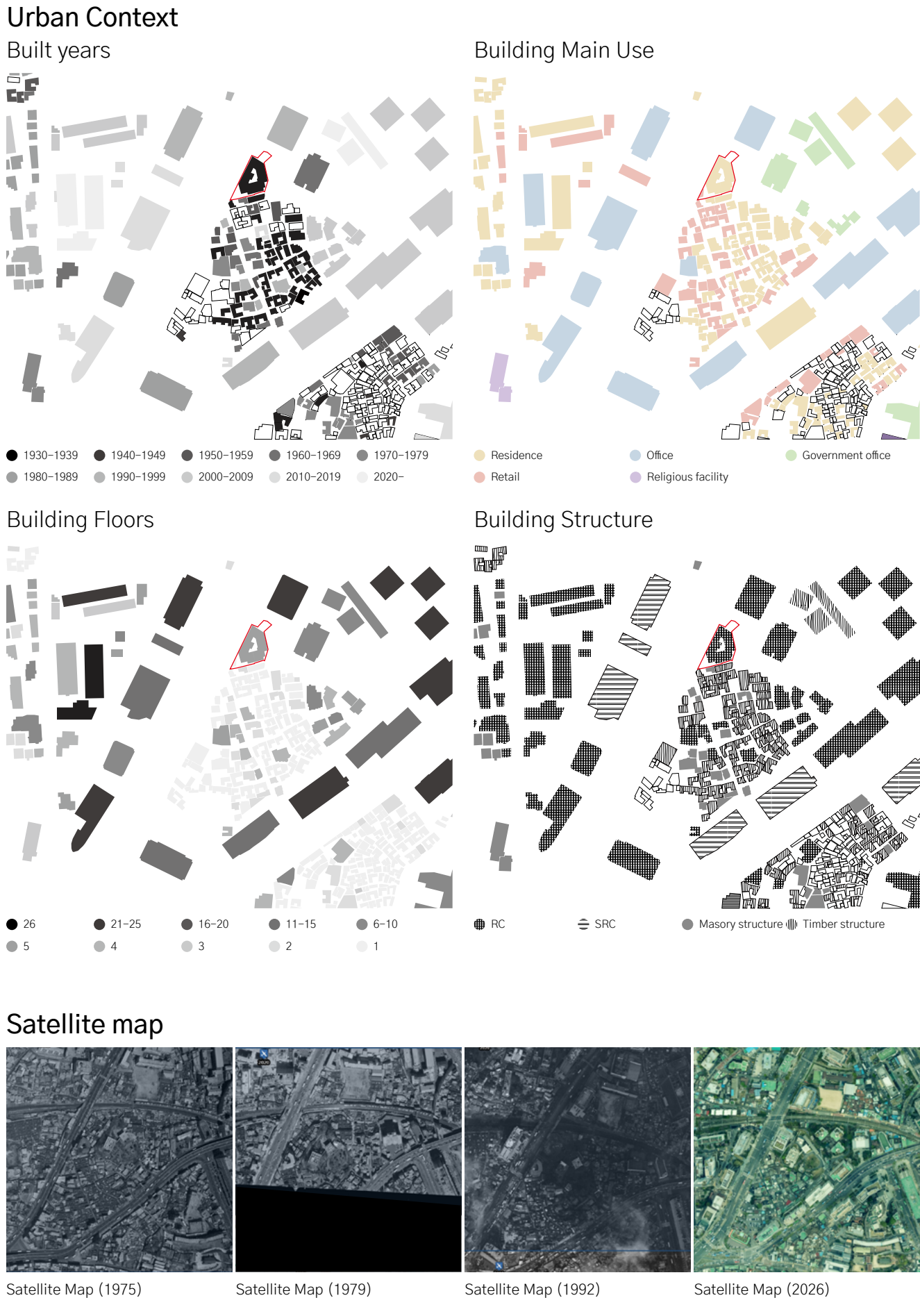
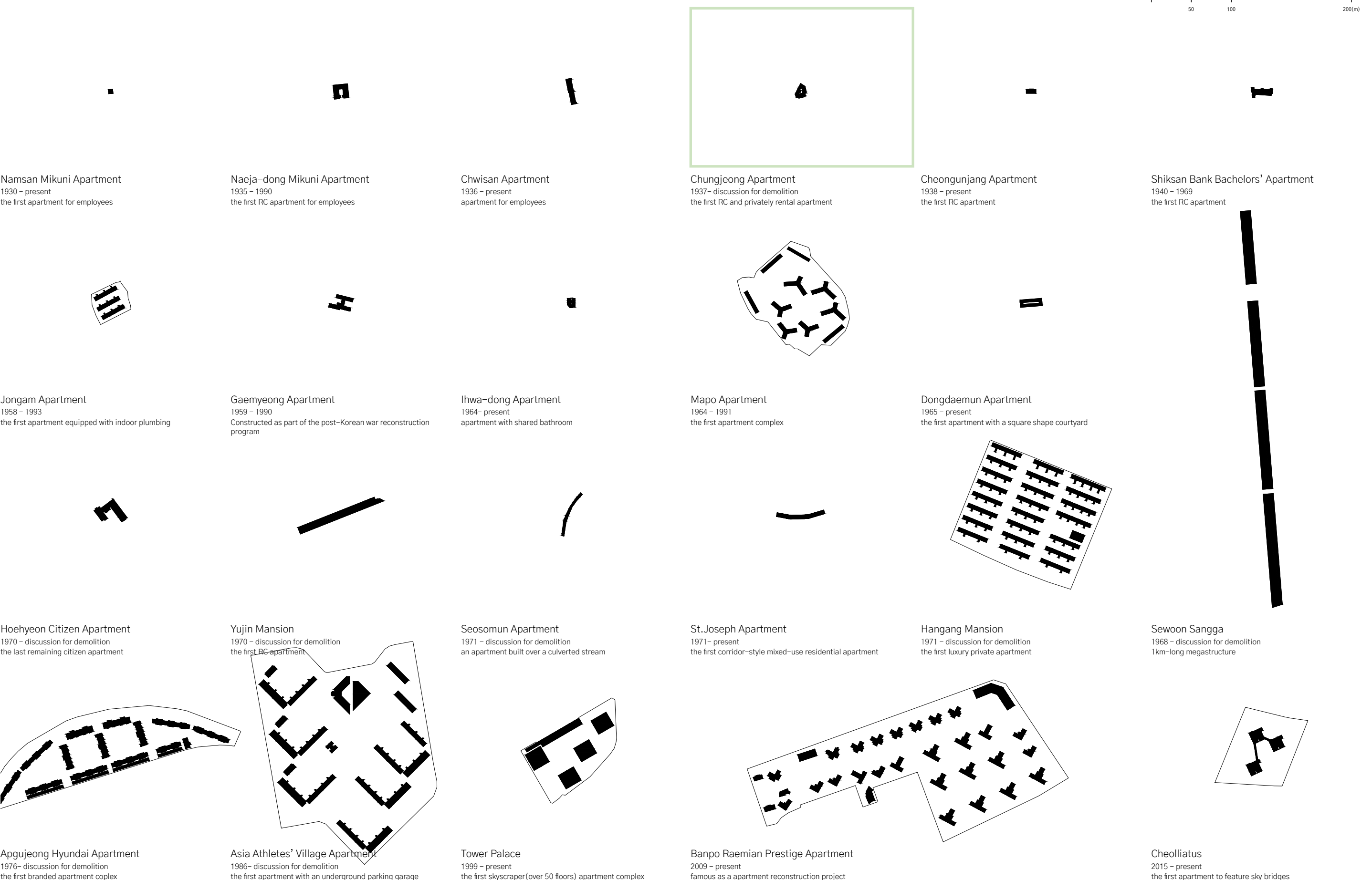
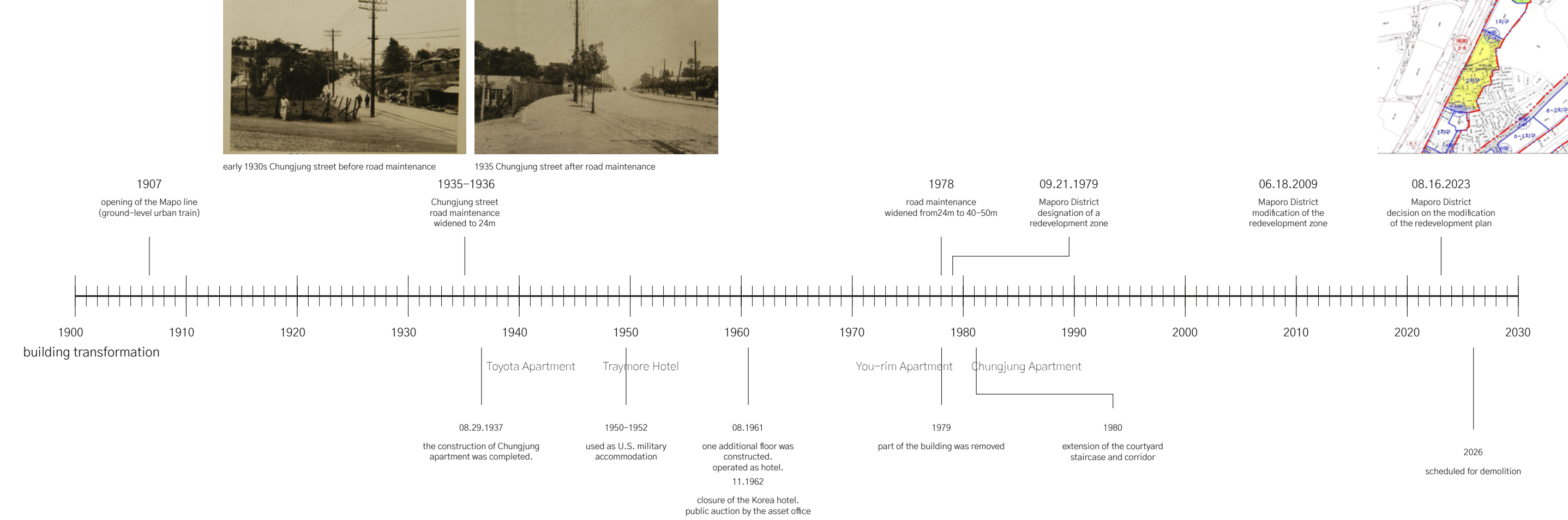
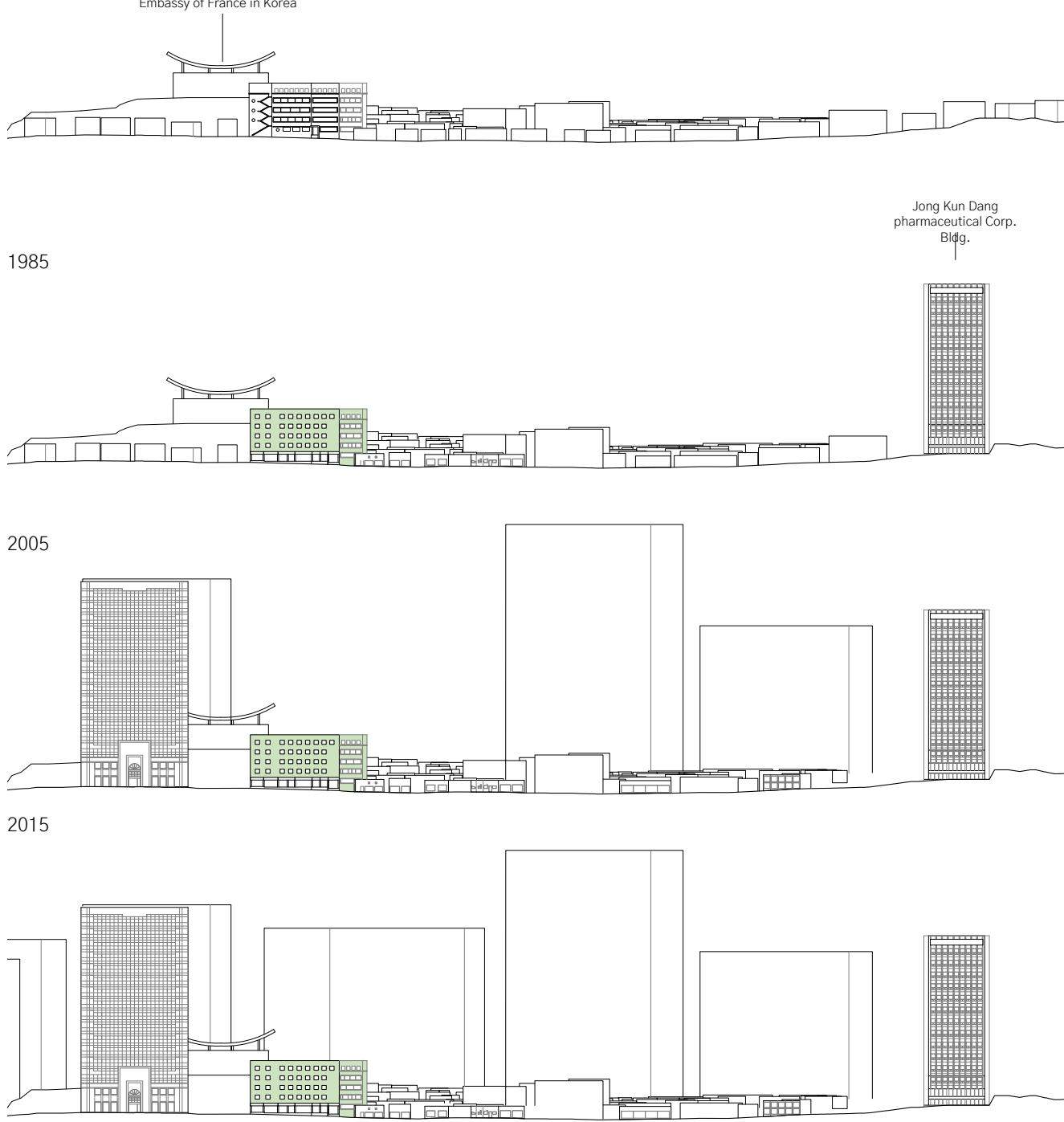


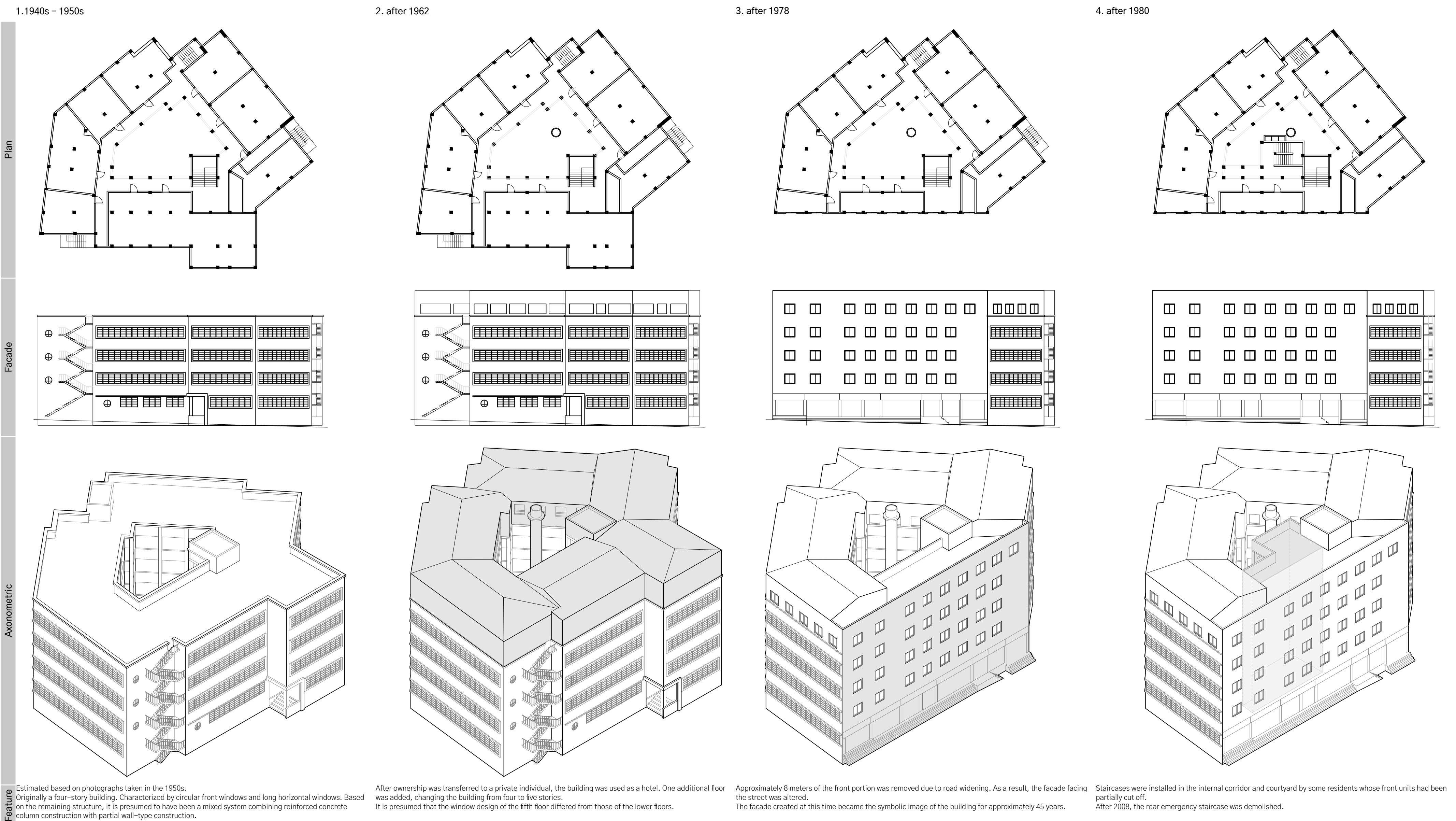
Table of urban and building transformation



Changes of Chungjeong 3 ga



Changes of Chungjeong apartment

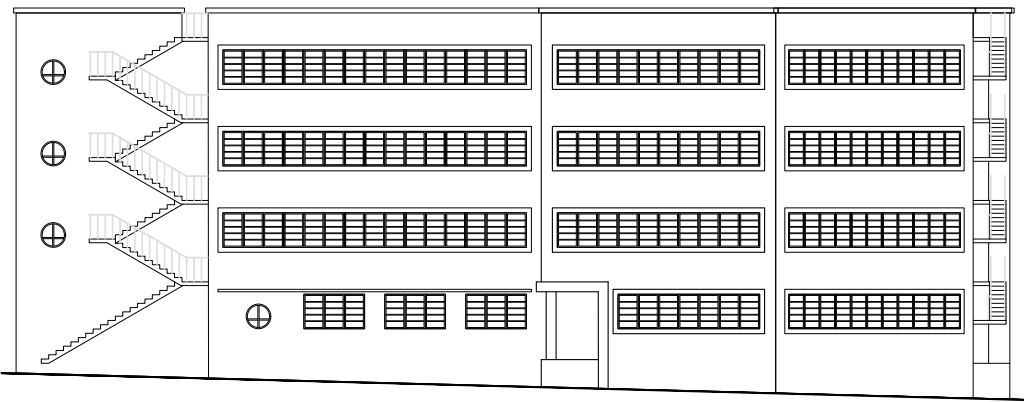


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Adaptive Reuse in Korea : Experimenting with Vertical Expansion Strategy

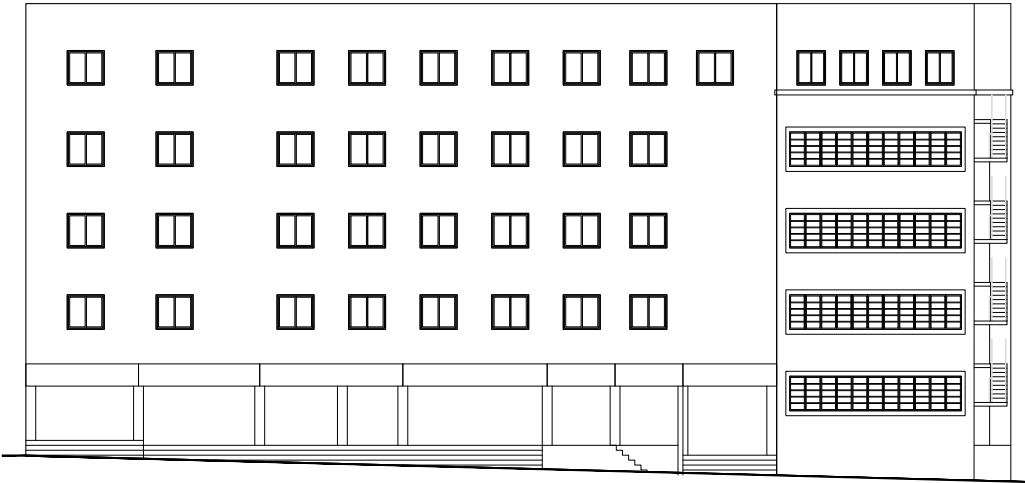
Design Process and Site Plan

Feature of Facade
1937 – 1962



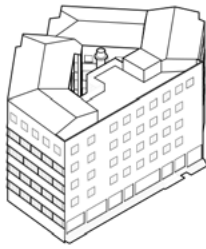
This photograph was taken before the five-story extension added in 1962, and the circular windows and elongated horizontal windows are particularly noticeable.

1978– present



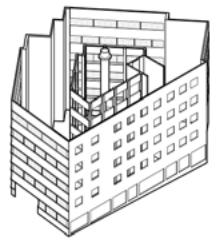
The original section built in 1937, the portion added during the 1962 extension, and the area appended as a result of the 1978 road expansion project can all be seen simultaneously.

Design process



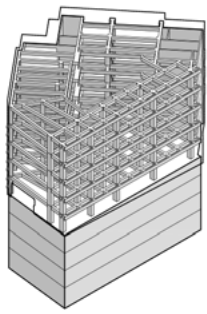
Phase 0
present

present
structural grade E



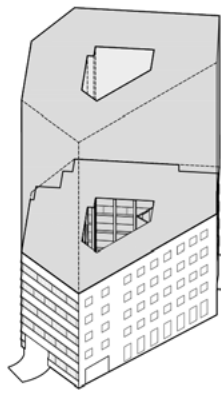
Phase 1
Conservation

Preserve all exterior walls: the four facades that have existed since the building's original completion and the additional facade created during the road-widening project in the 1980s. Preserve the courtyard and chimney, which are distinctive features of the building.



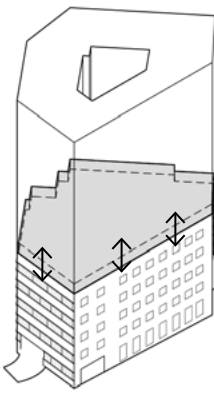
Phase 2
Structural reinforcement

Strengthen the column-and-beam structural system supporting the retained exterior walls, reinforce the foundations, and expand the basement.



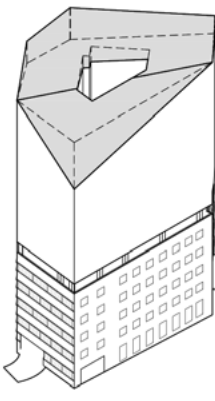
Phase 3
Building Over

Create a residential mass by placing a refined volume, derived from the form of the existing building that follows the site geometry, above the preserved structure.



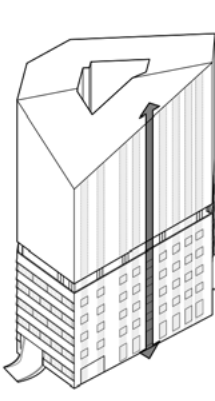
Phase 4
gap between two

Create an urban gap between the existing structure and the new addition, establishing both visual and spatial separation.



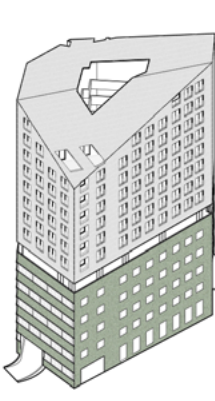
Phase 5
Sculpting

Modify the roof form to reduce the heavy appearance resulting from a simple extrusion of the mass. Fragment the massing to enhance a sense of public openness.



Phase 6
Grid Alignment

Develop a new facade grid that inherits and reinterprets the rhythm of the existing building's windows.



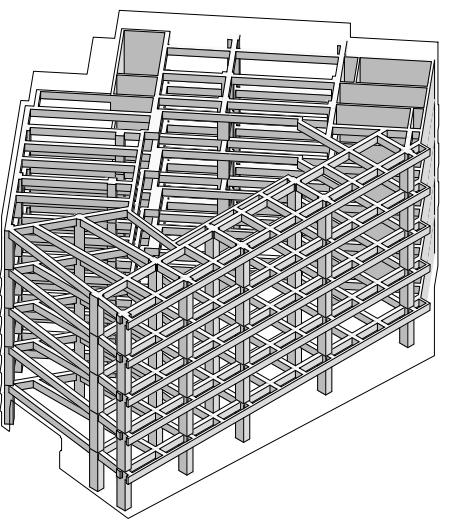
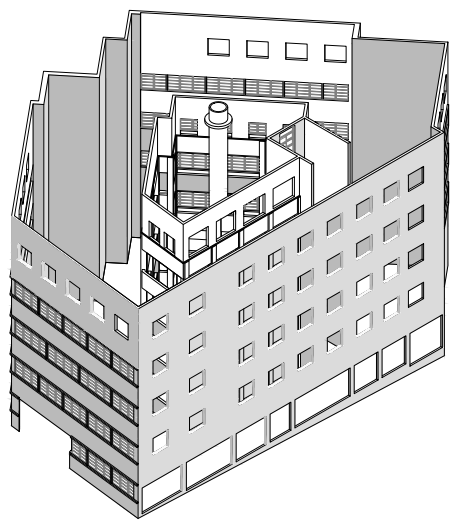
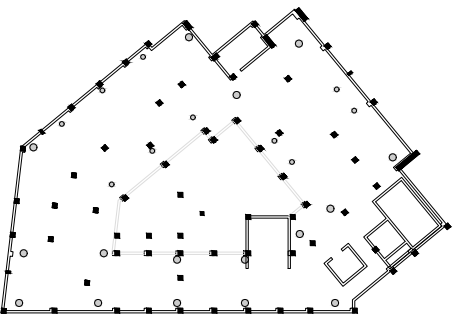
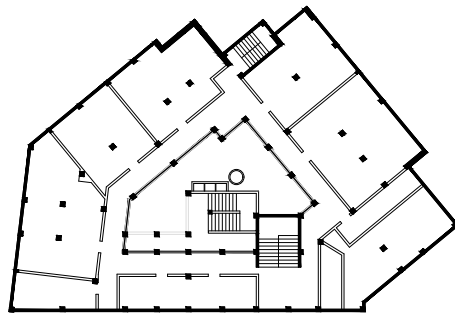
Phase 7
Material contrast

The use of white ceramic tiles, contrasting with the existing building that lacks mortar joints and is characterized by strong green tones, creates a clear distinction between the new addition and the existing structure.

Structural reinforcement

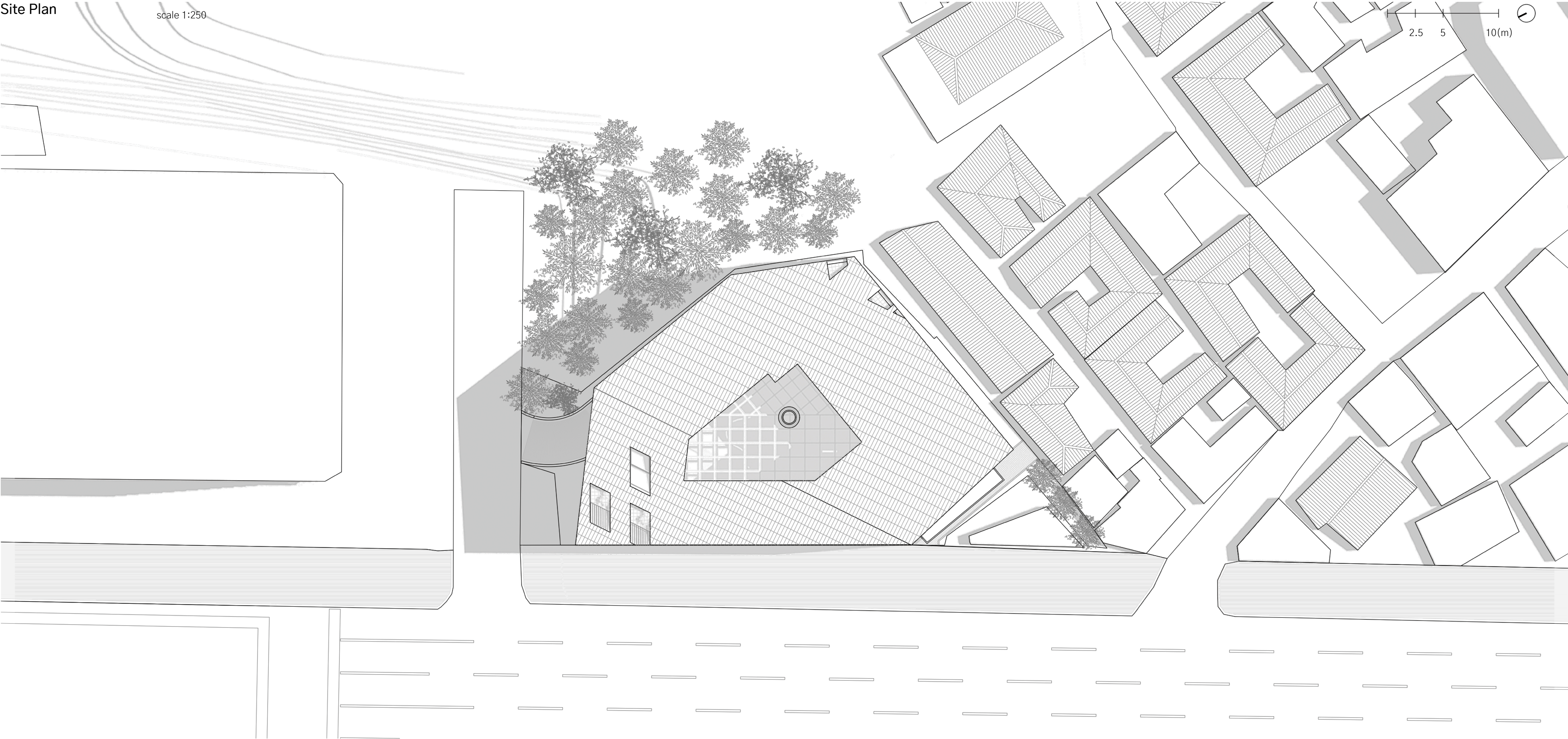
Conservation parts

structural additions



Site Plan

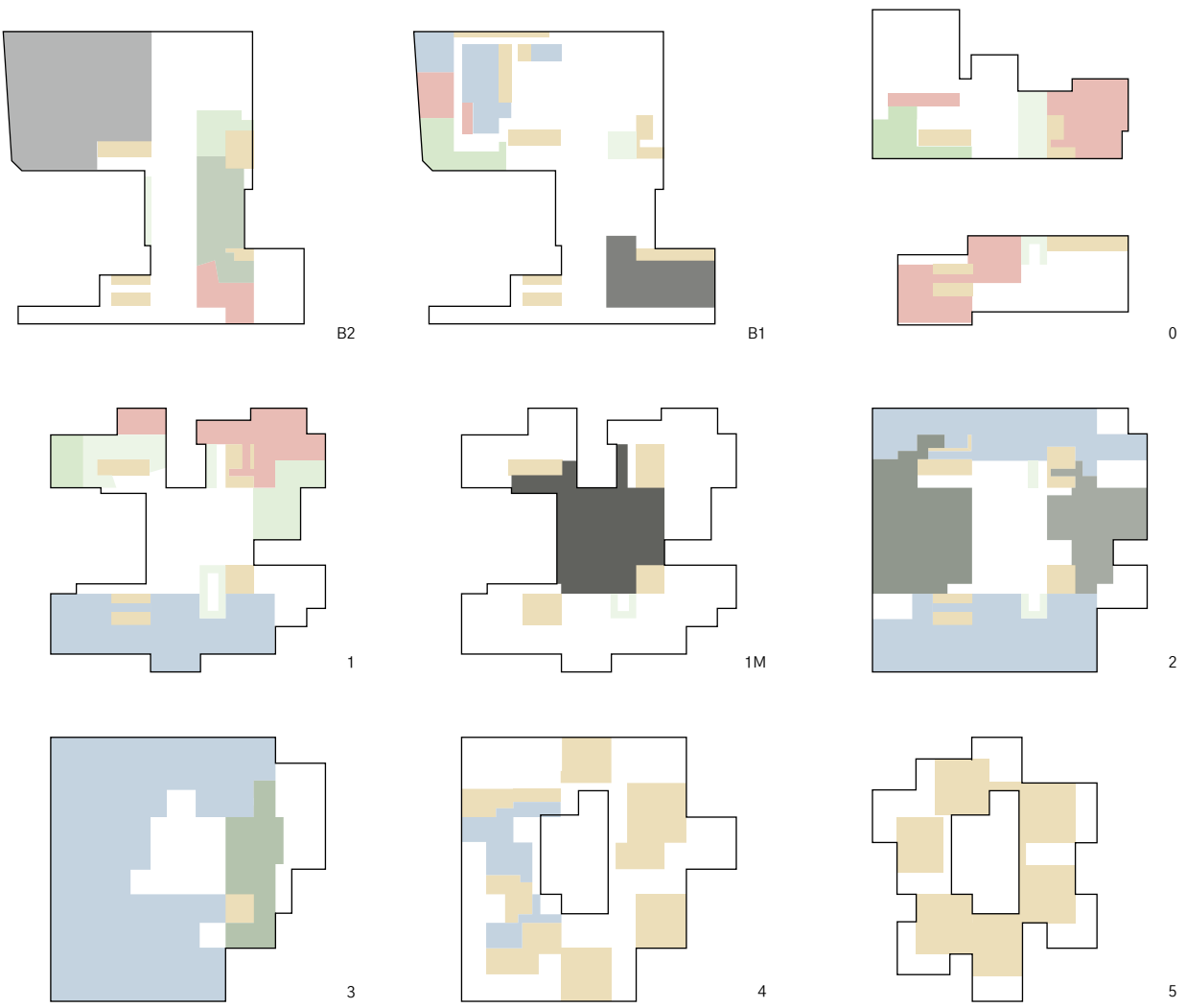
scale 1:250



4 Adaptive Reuse in Korea : Experimenting with Vertical Expansion Strategy

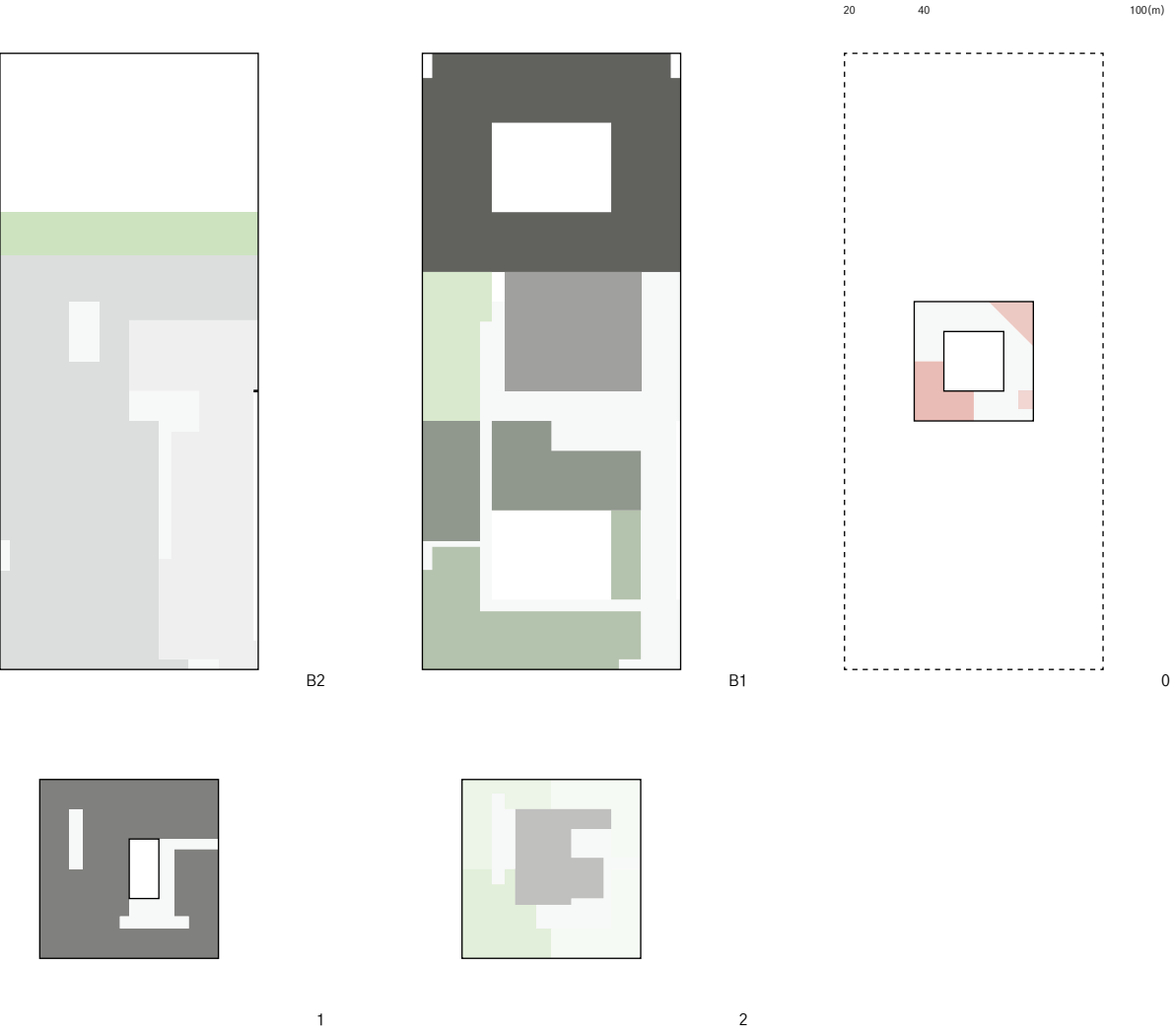
Program Analysis and Axonometric

Program Analysis
BLOX and DAC(Danish Architecture Center) Program analysis
Program Distribution Diagram



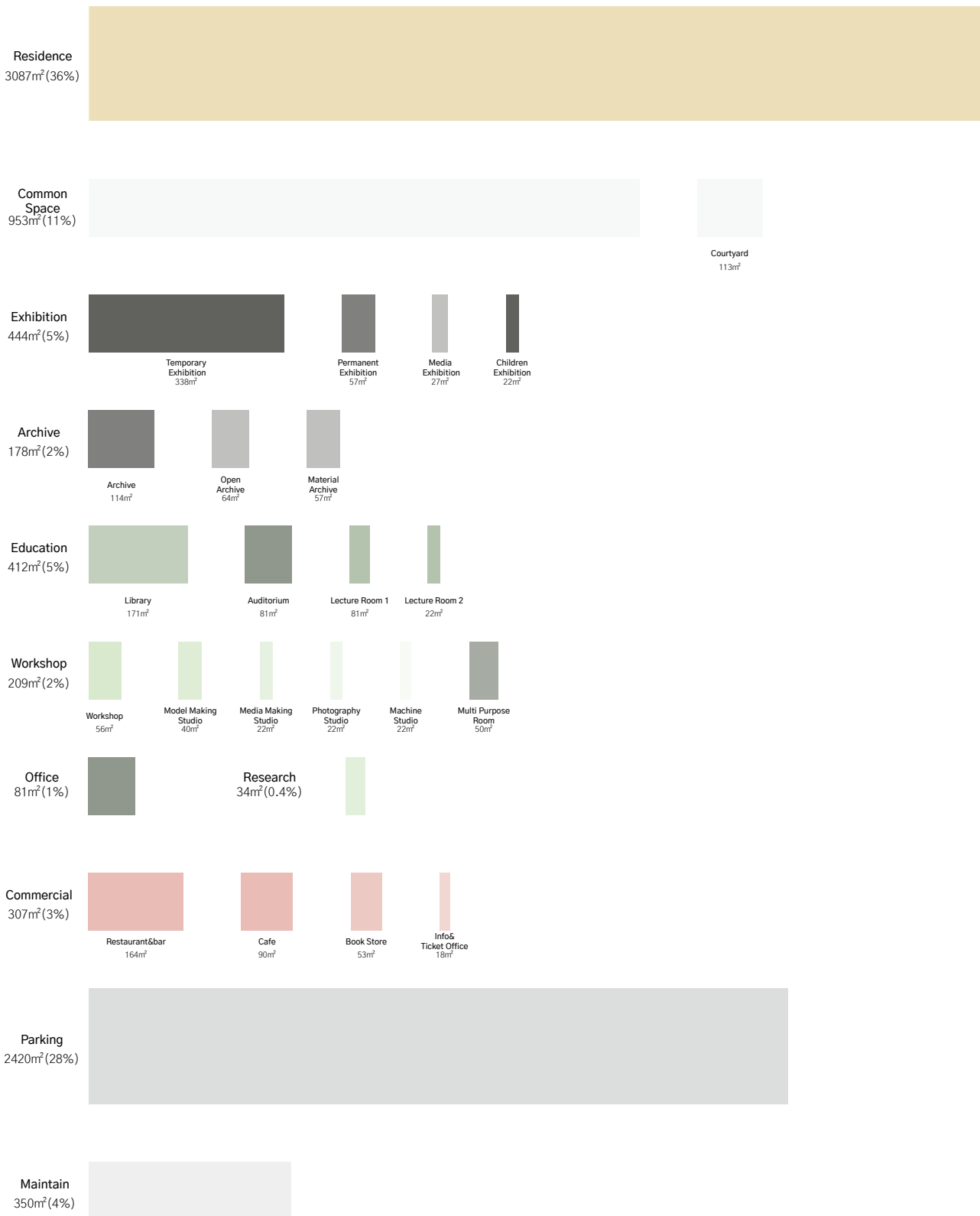
Program Area and Ratio

KMUA(Korean Museum of Urbanism and Architecture) Program analysis
Program Distribution Diagram

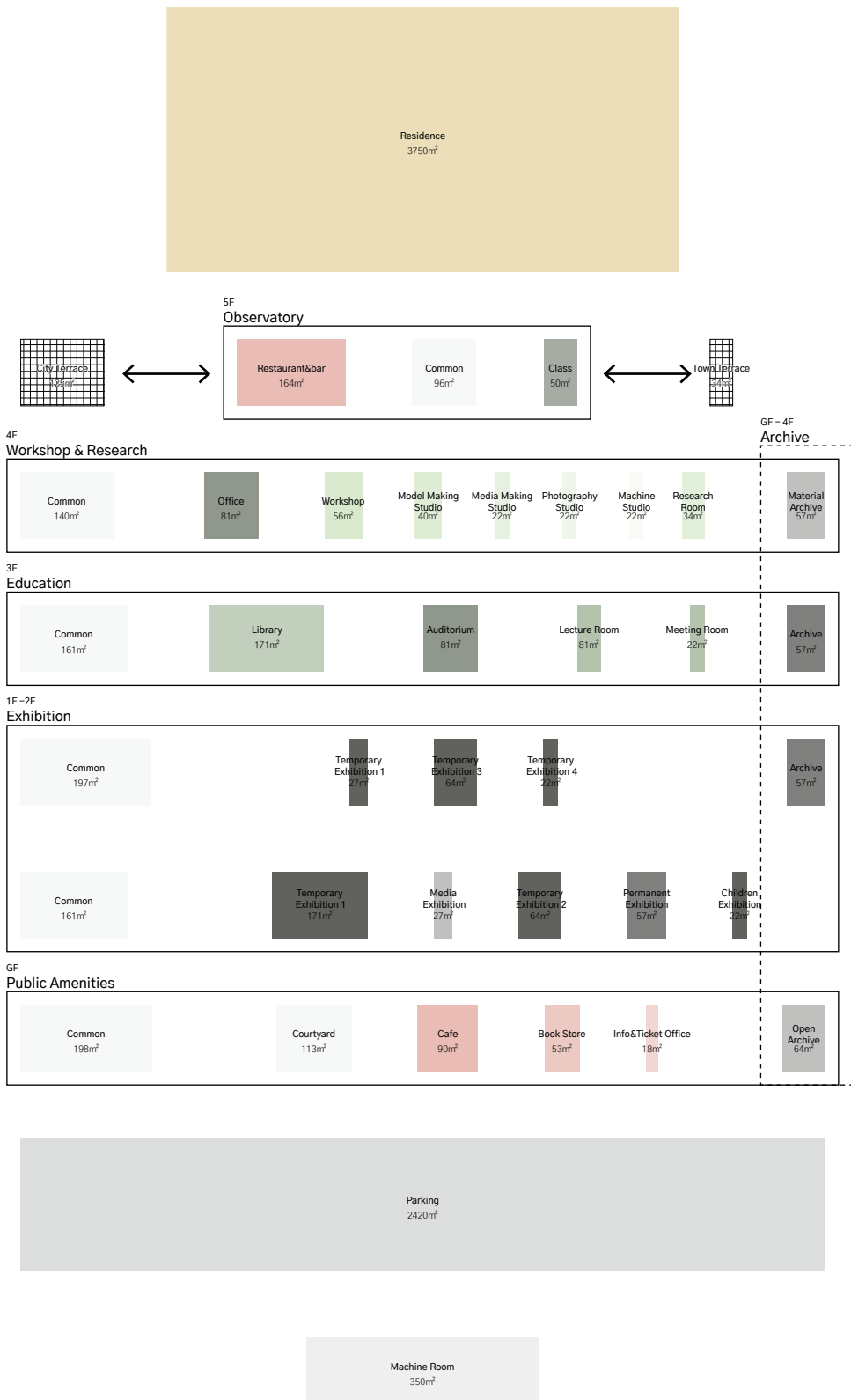


Program Area and Ratio

Program application
Program proposal



Program distribution by floor

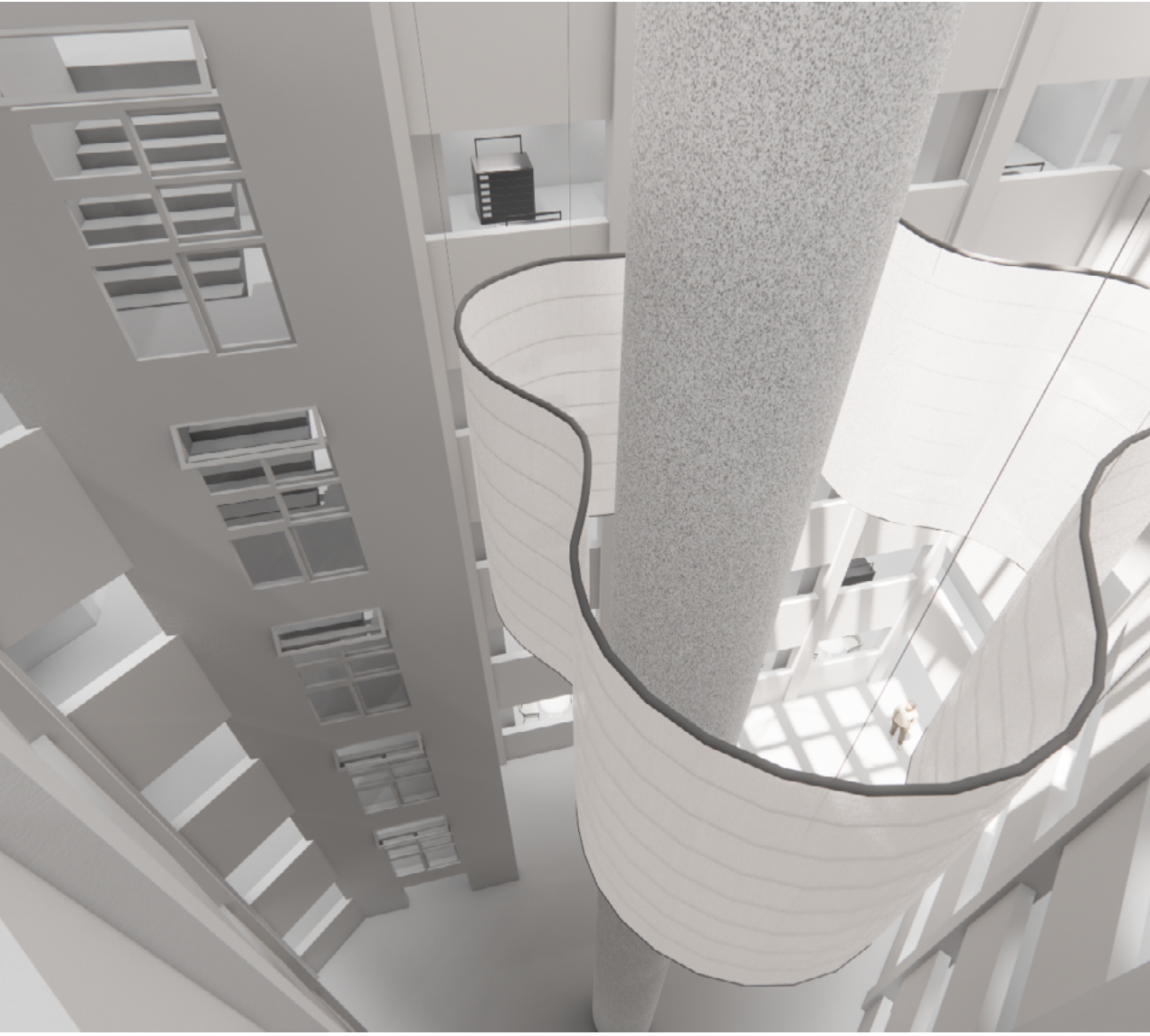
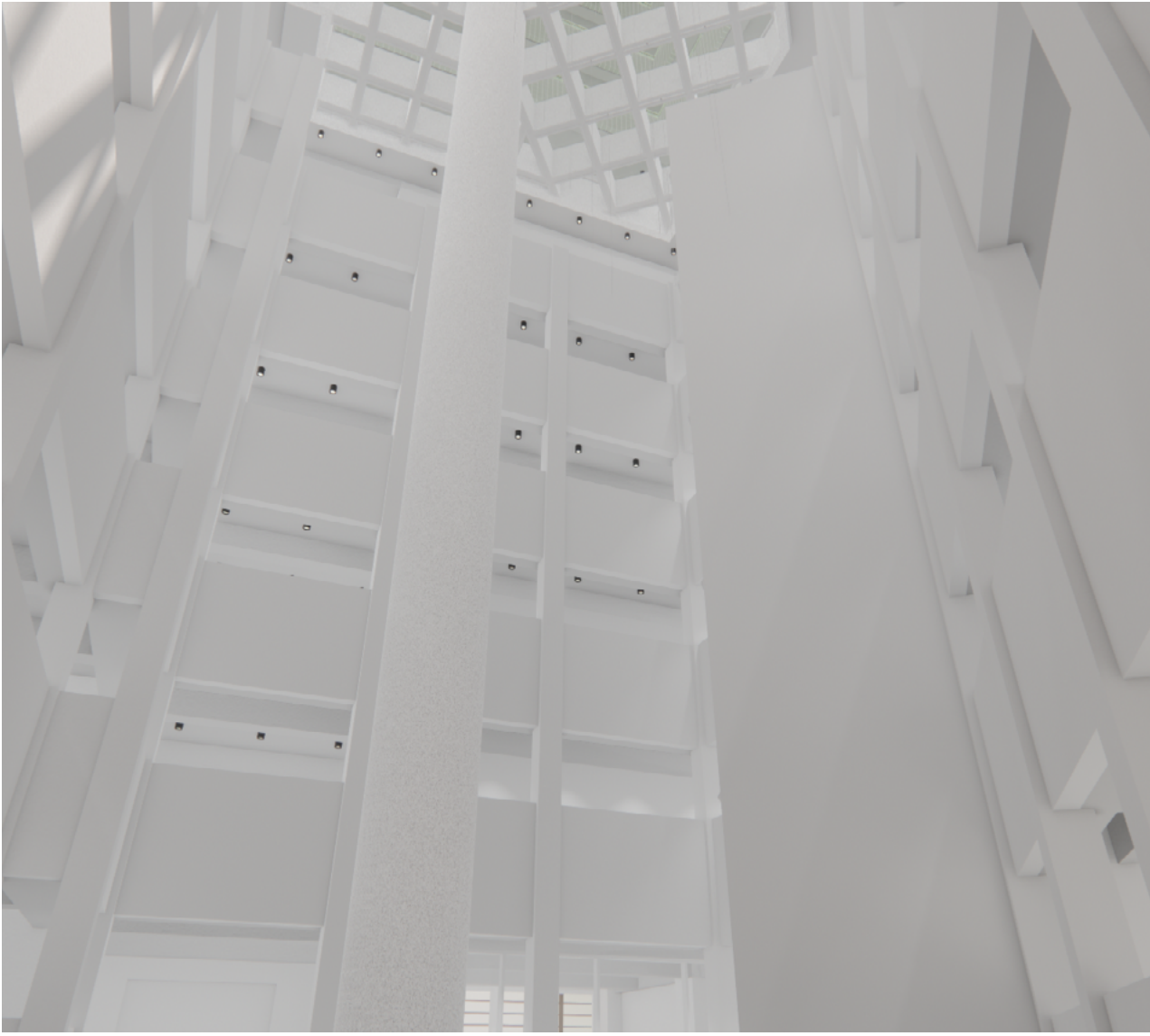
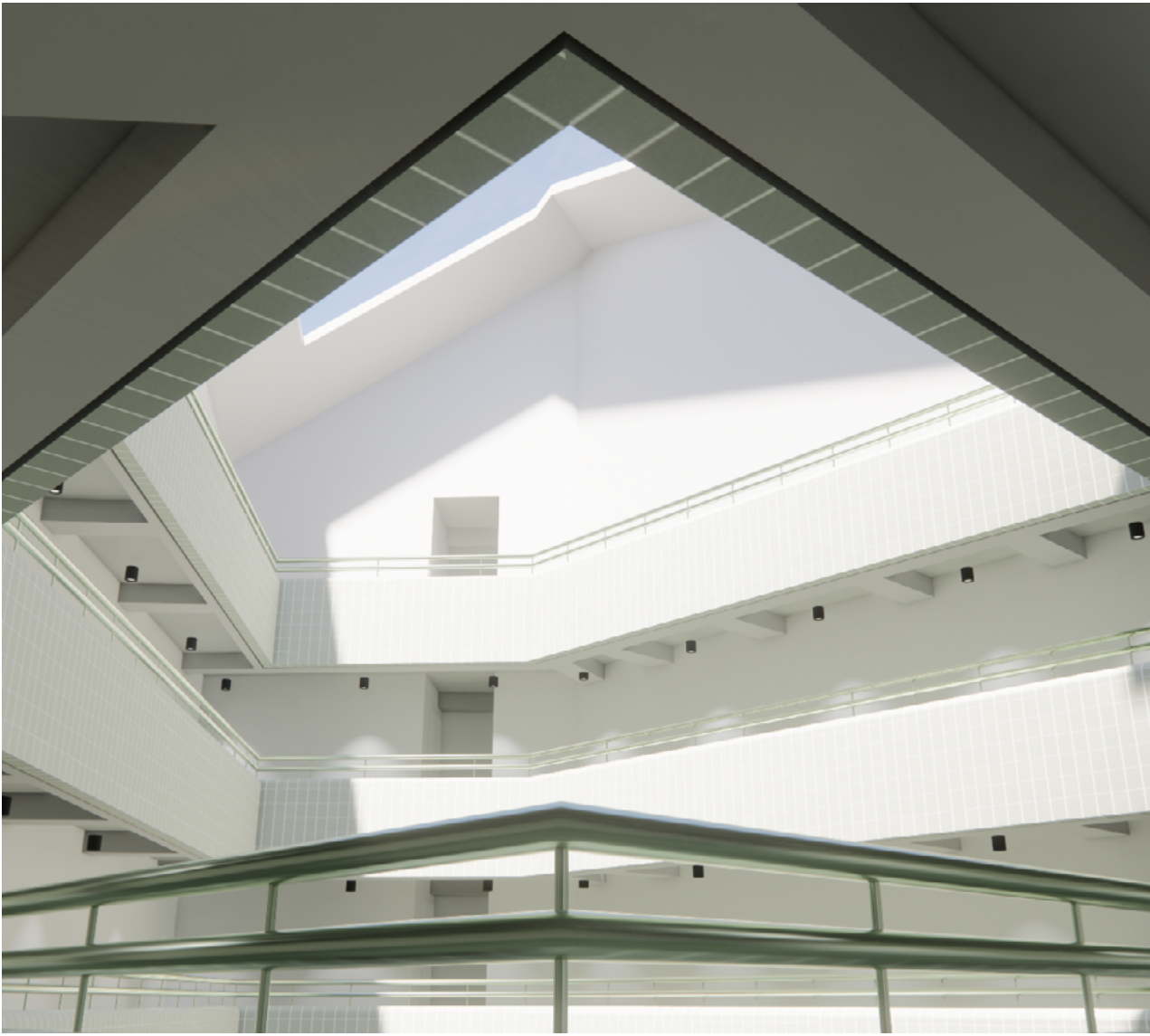


Final Work Laurea Magistrale(Second Degree) First – 2025/26
Supervisor Prof. Montanari Elena
Student Kim Inkyoung



Programmatic axonometric

Residence
Architecture Museum and ResearchCenter

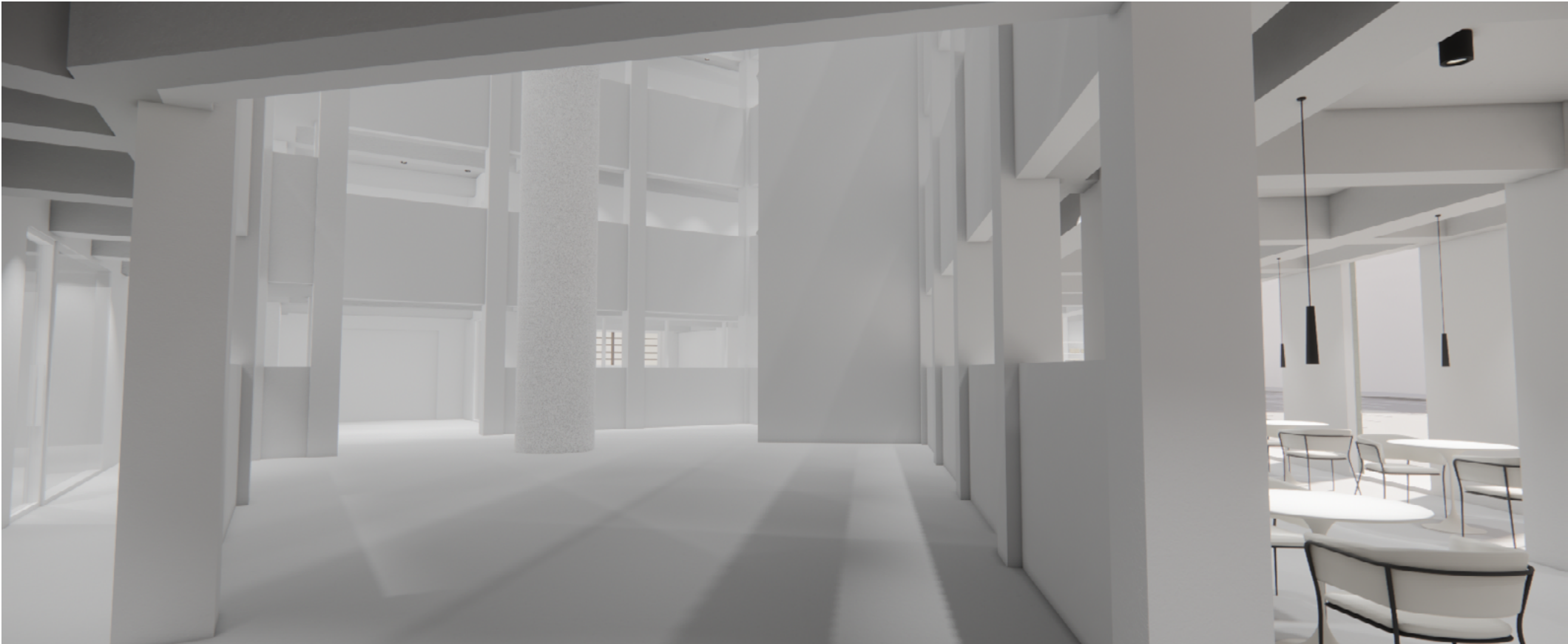




temporary exhibition space view from 2nd floor



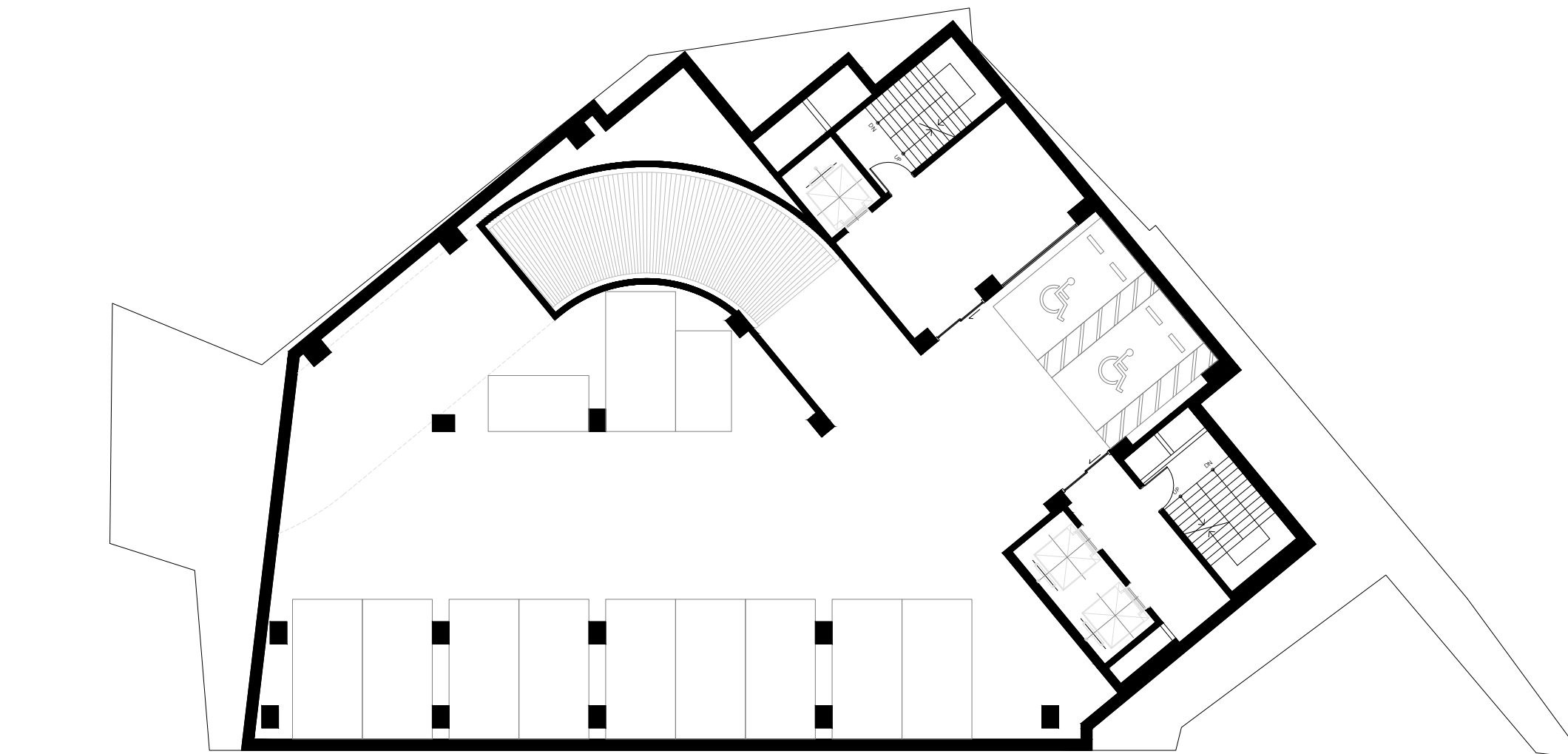
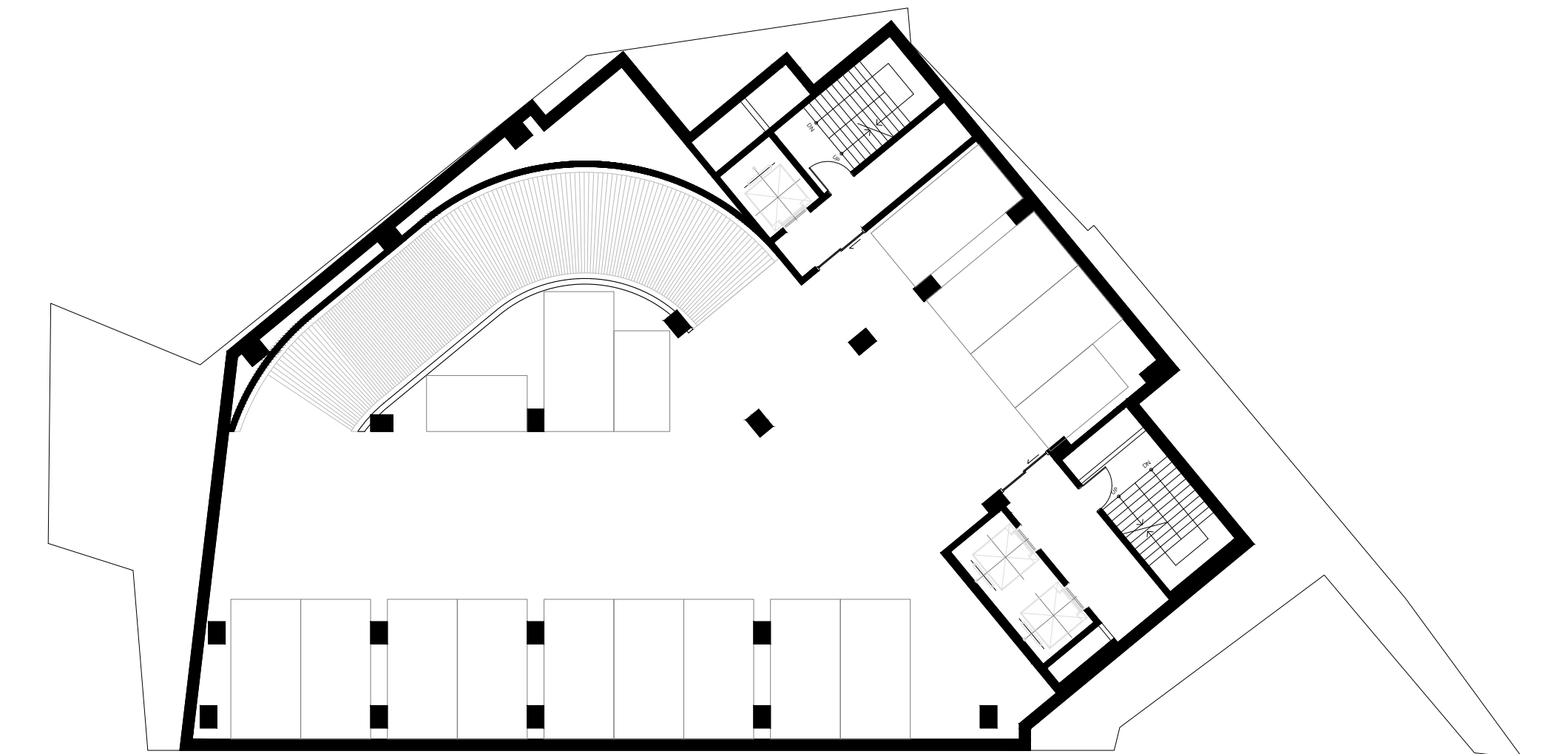
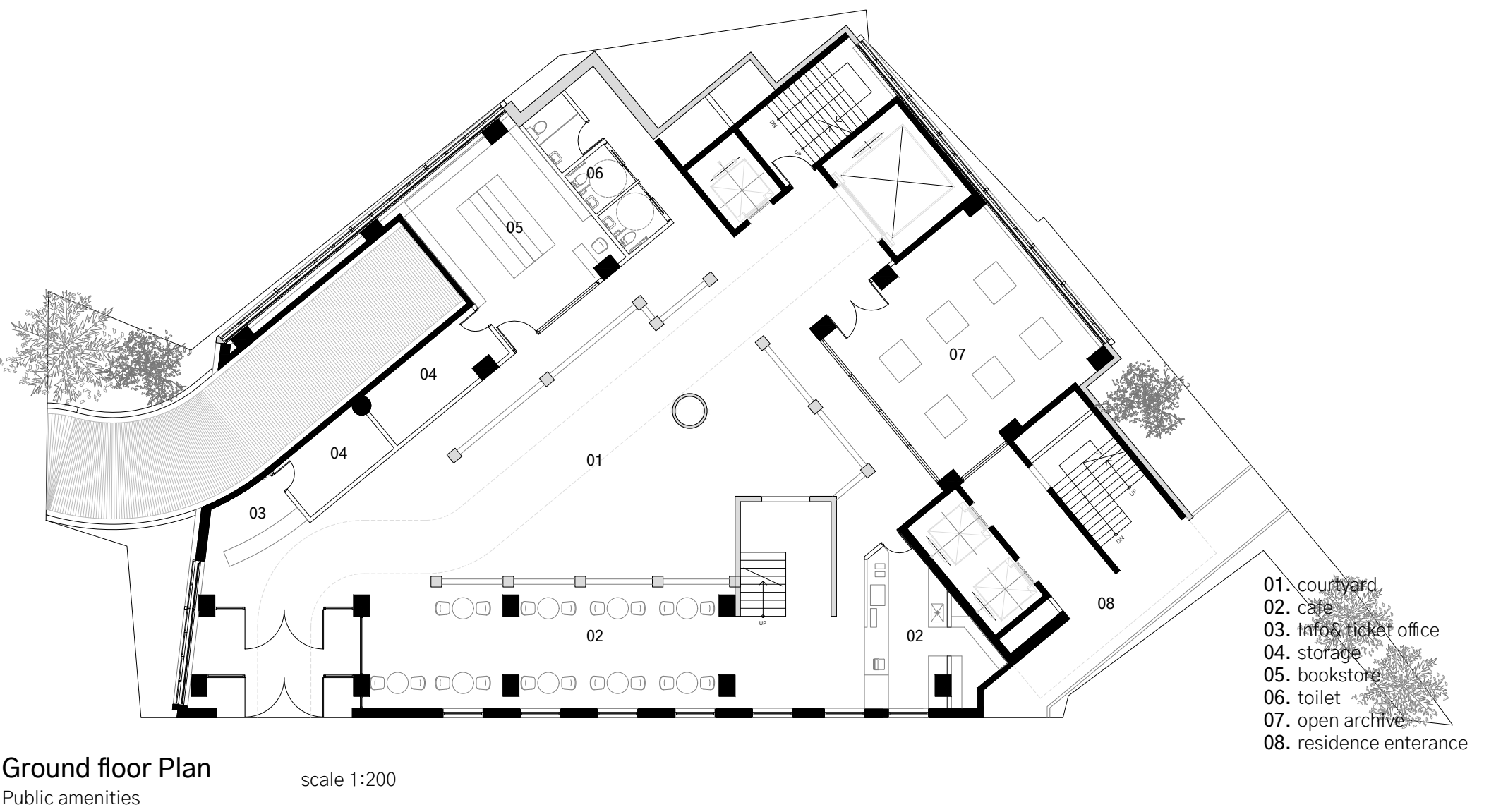
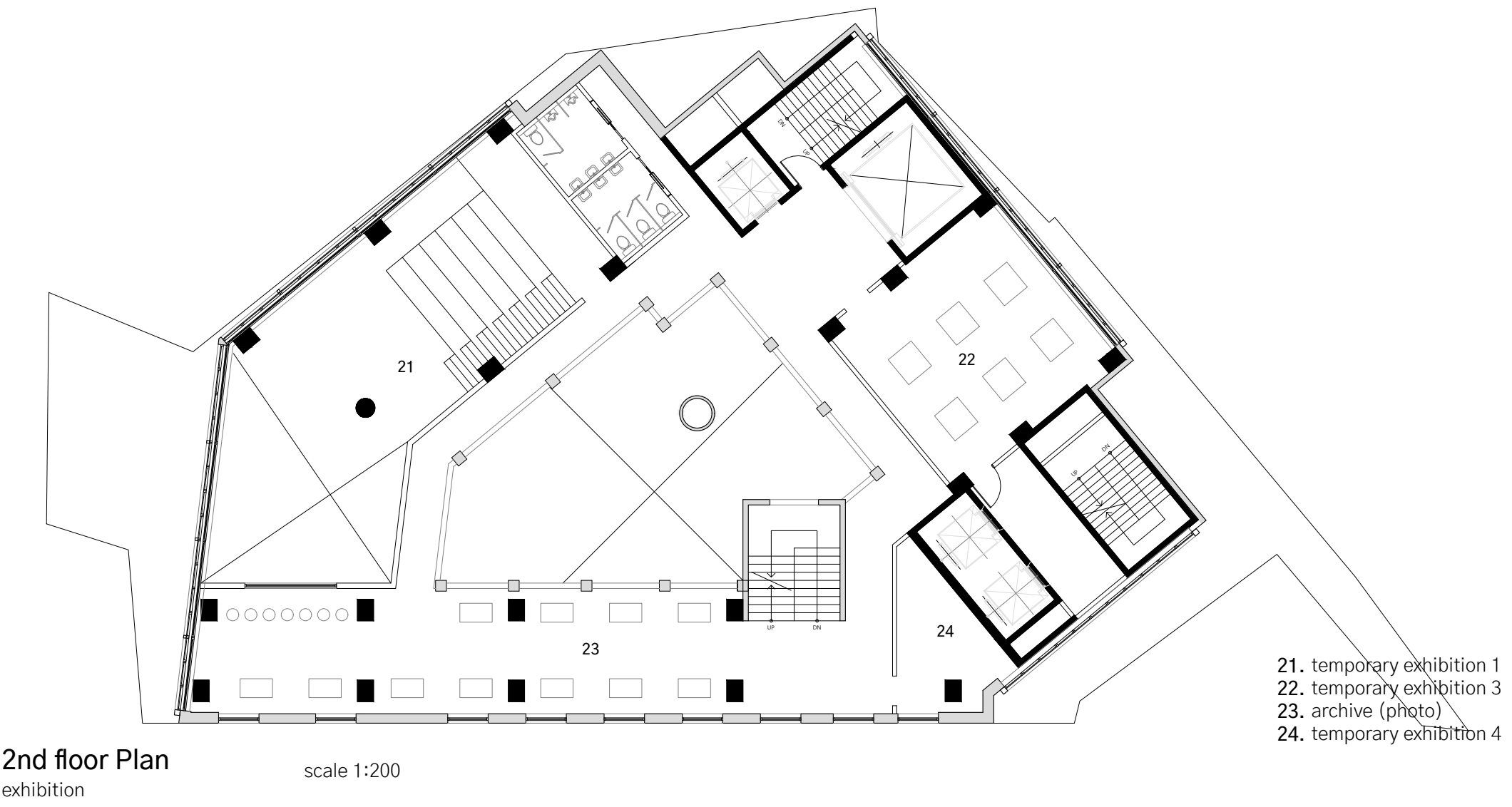
library

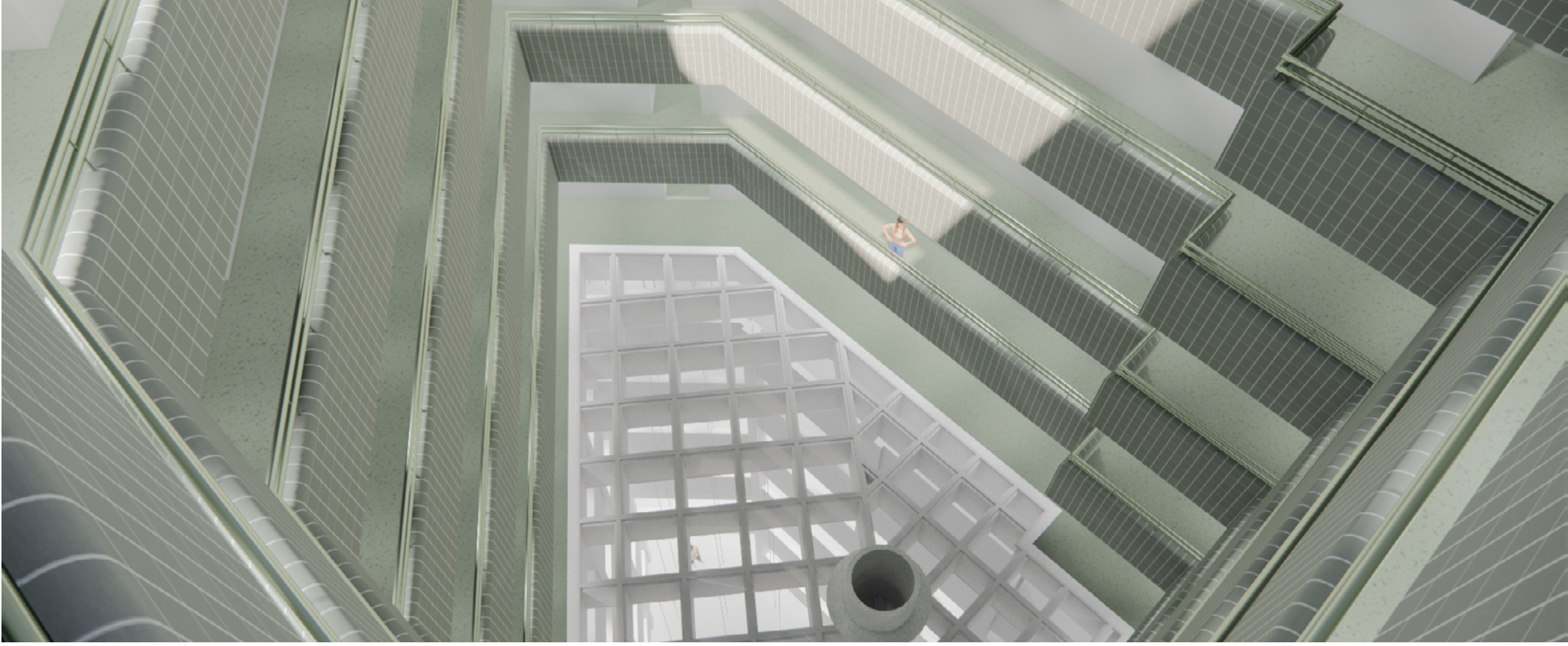


view from the entrance of courtyard



temporary exhibition space view from 1st floor





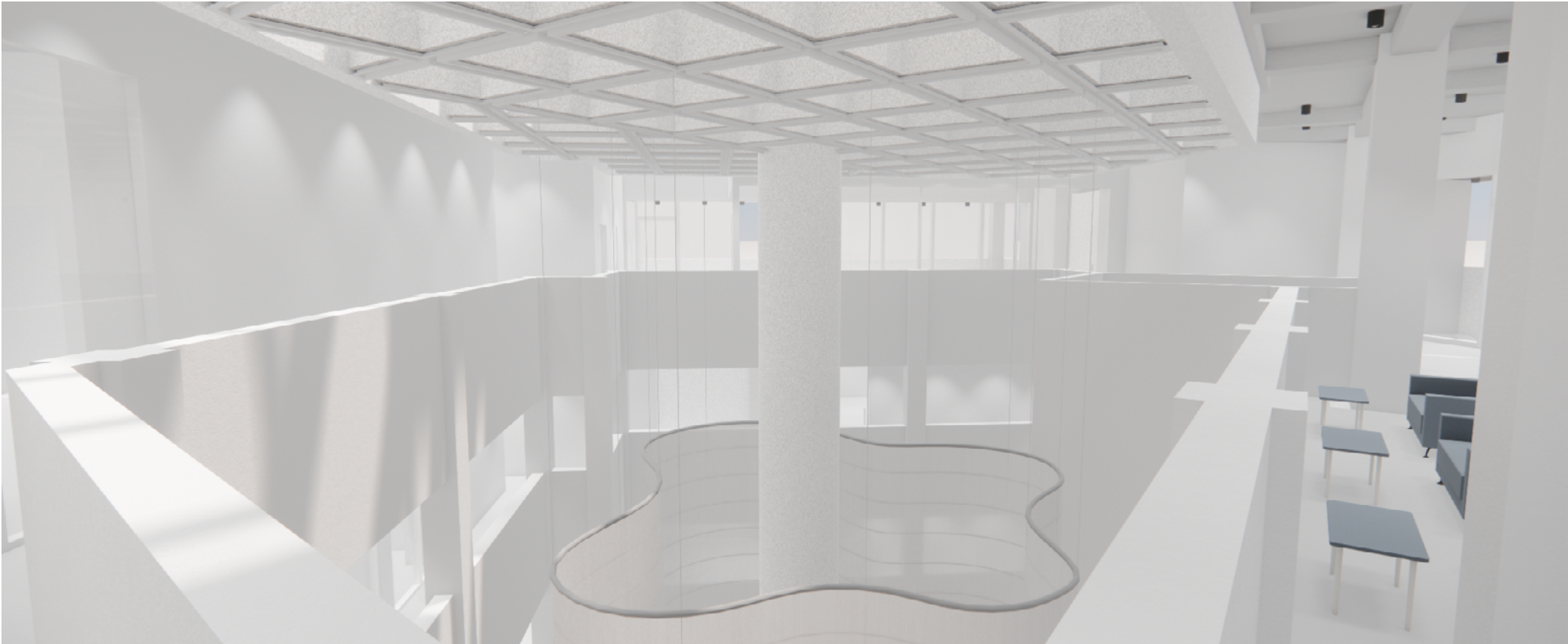
courtyard of residence view



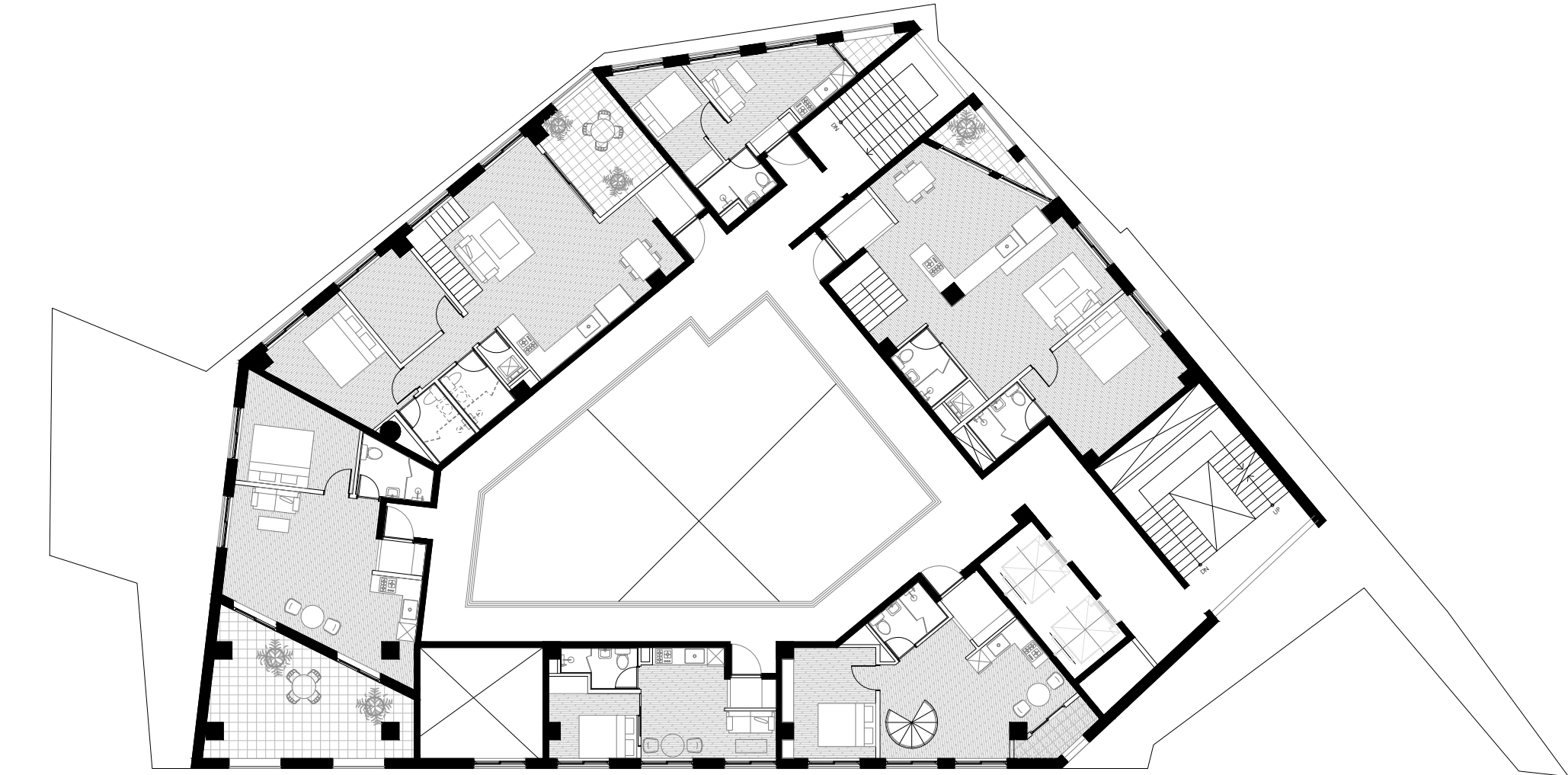
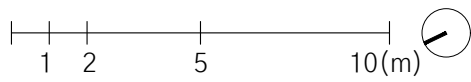
residence



material library and archive



courtyard containing the chimney view from the terrace floor



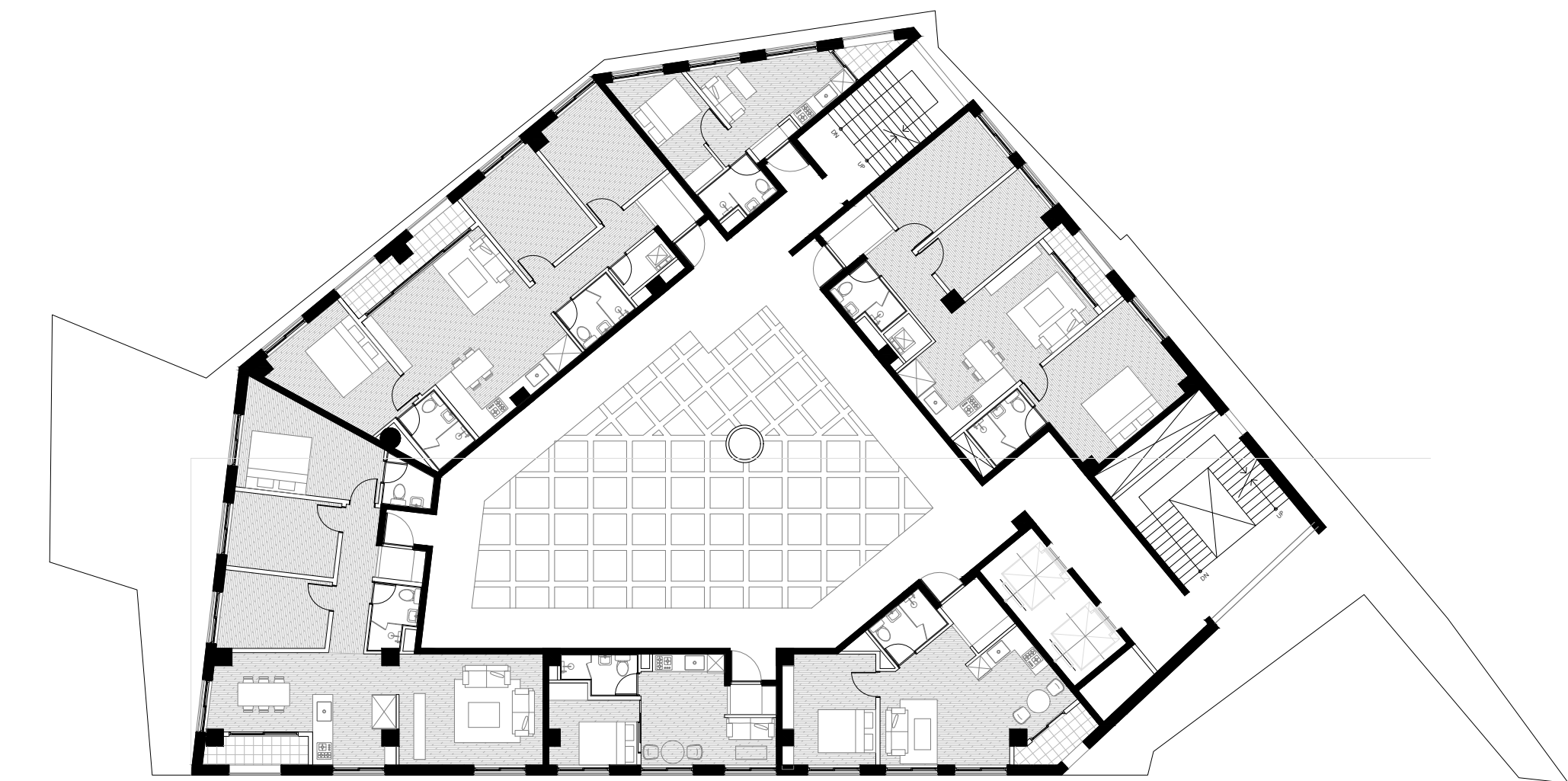
12th floor Plan
Residence

scale 1:200



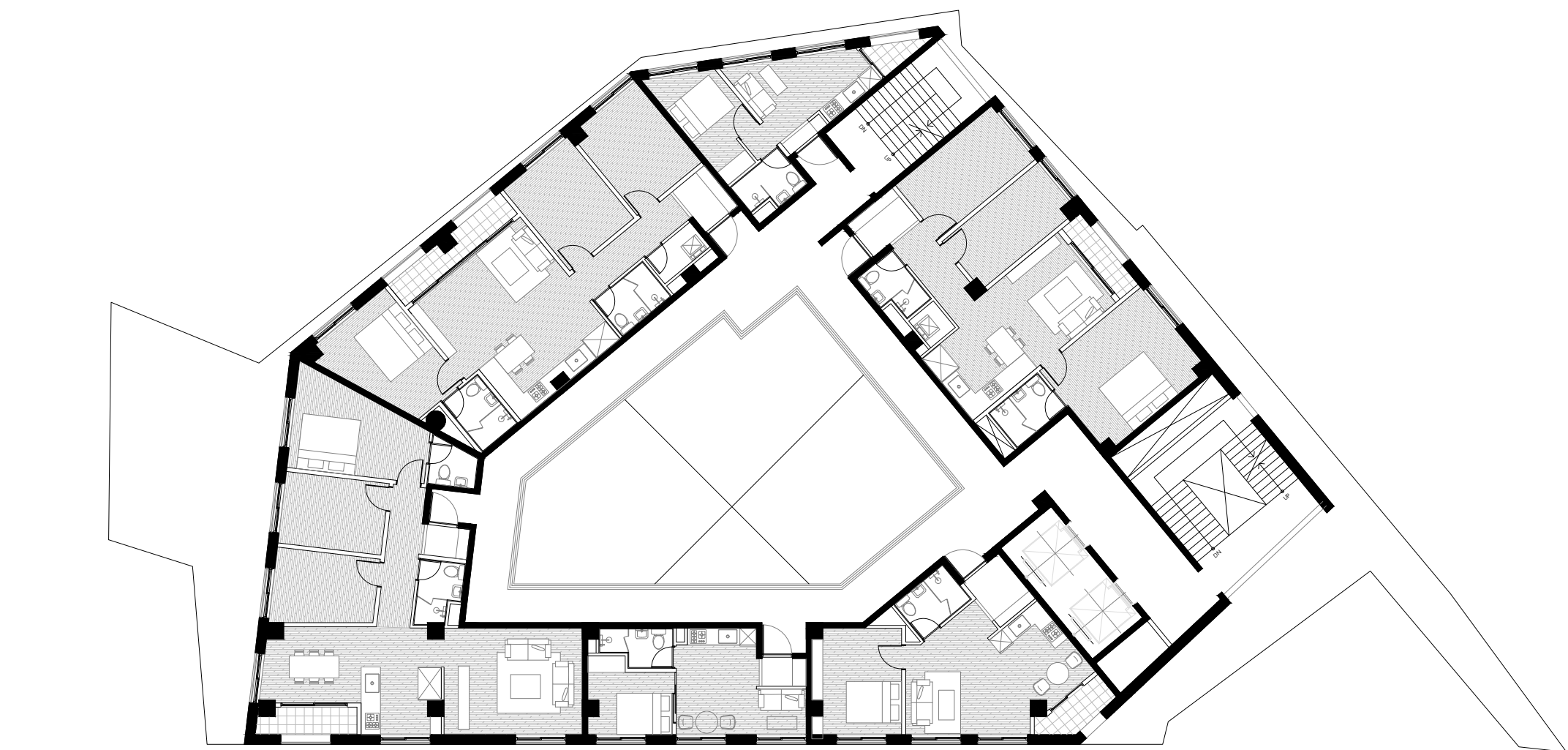
13th floor Plan
Residence

scale 1:200



6th floor Plan
Residence

scale 1:200



7th-11th floor Plan
Residence

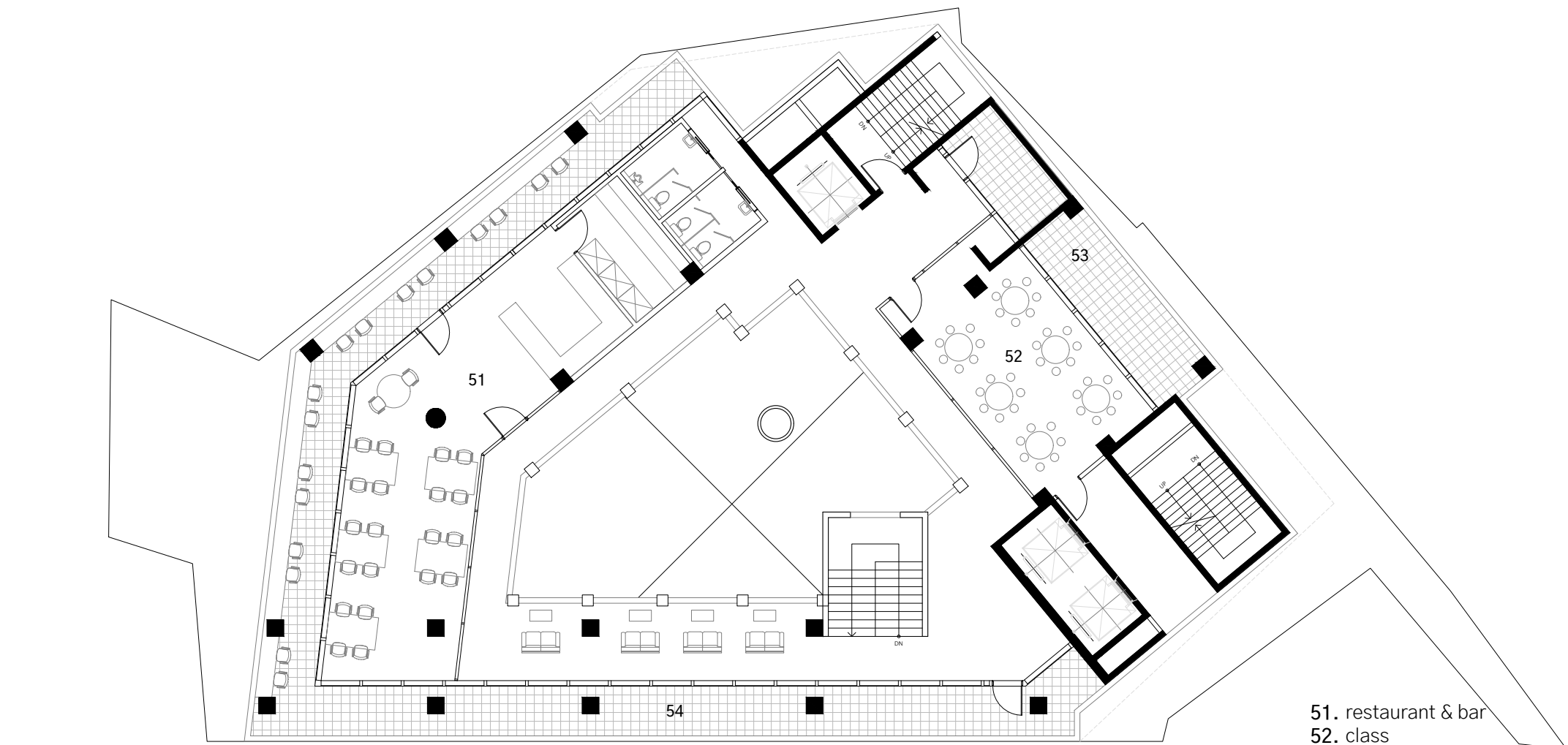
scale 1:200



4th floor Plan
workshop, research

scale 1:200

- 41. workshop
- 42. photography studio
- 43. model making studio
- 44. research room
- 45. machine room
- 46. office
- 47. material library
- 48. media making studio



Terrace(5th) floor Plan
observatory

scale 1:200

- 51. restaurant & bar
- 52. class
- 53. town terrace
- 54. city terrace

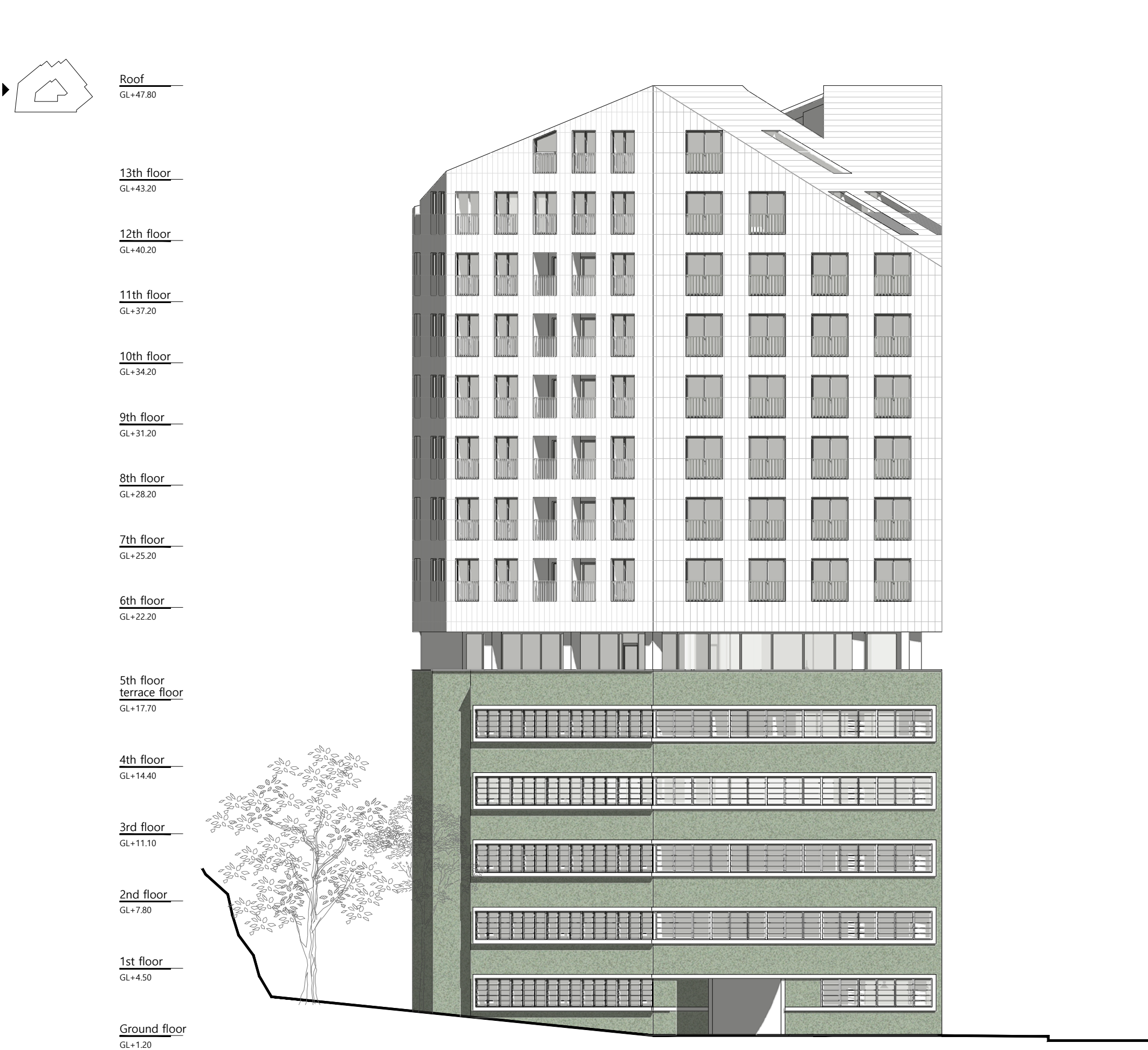
front elevation

scale 1:200



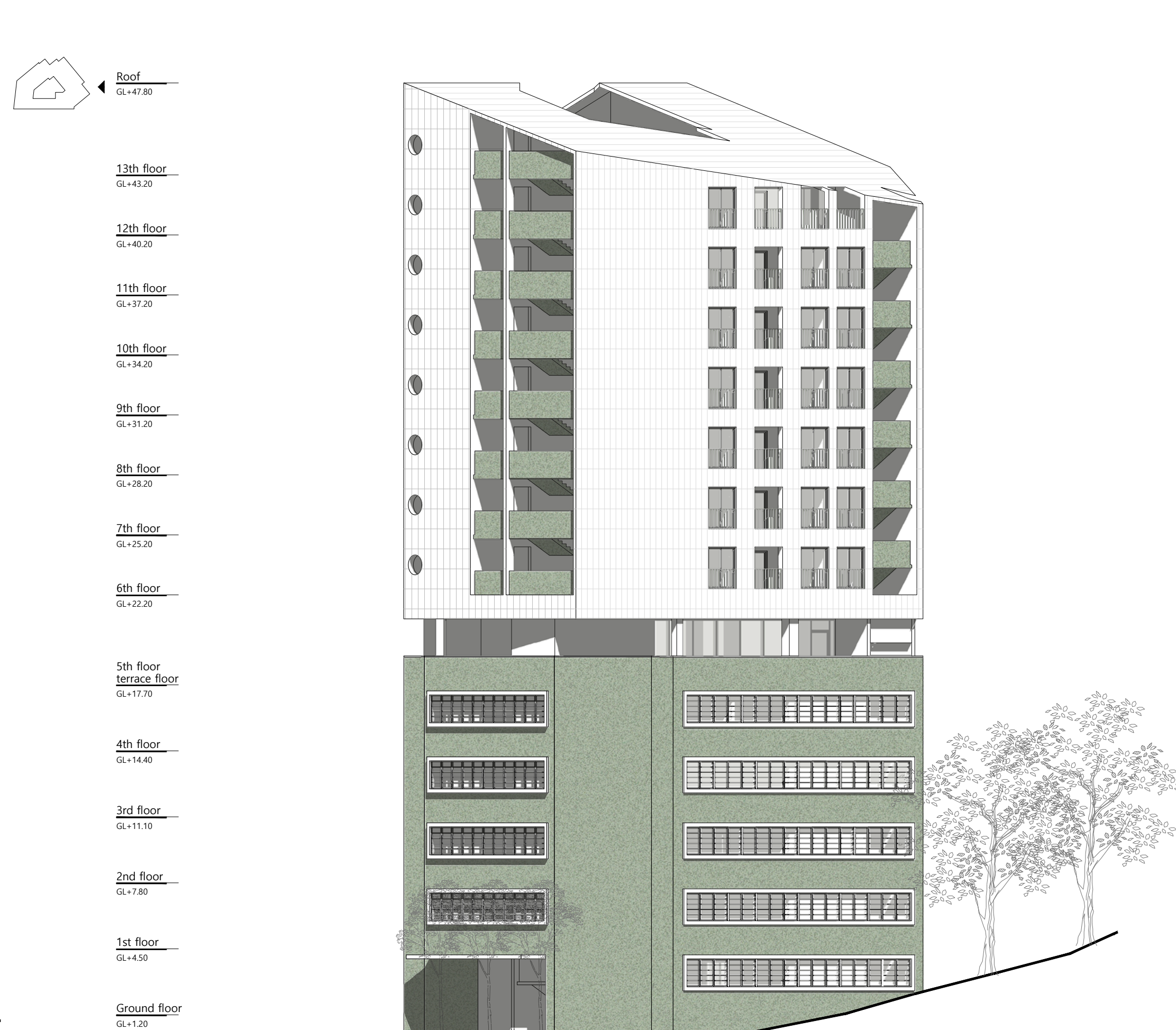
left elevation

scale 1:200



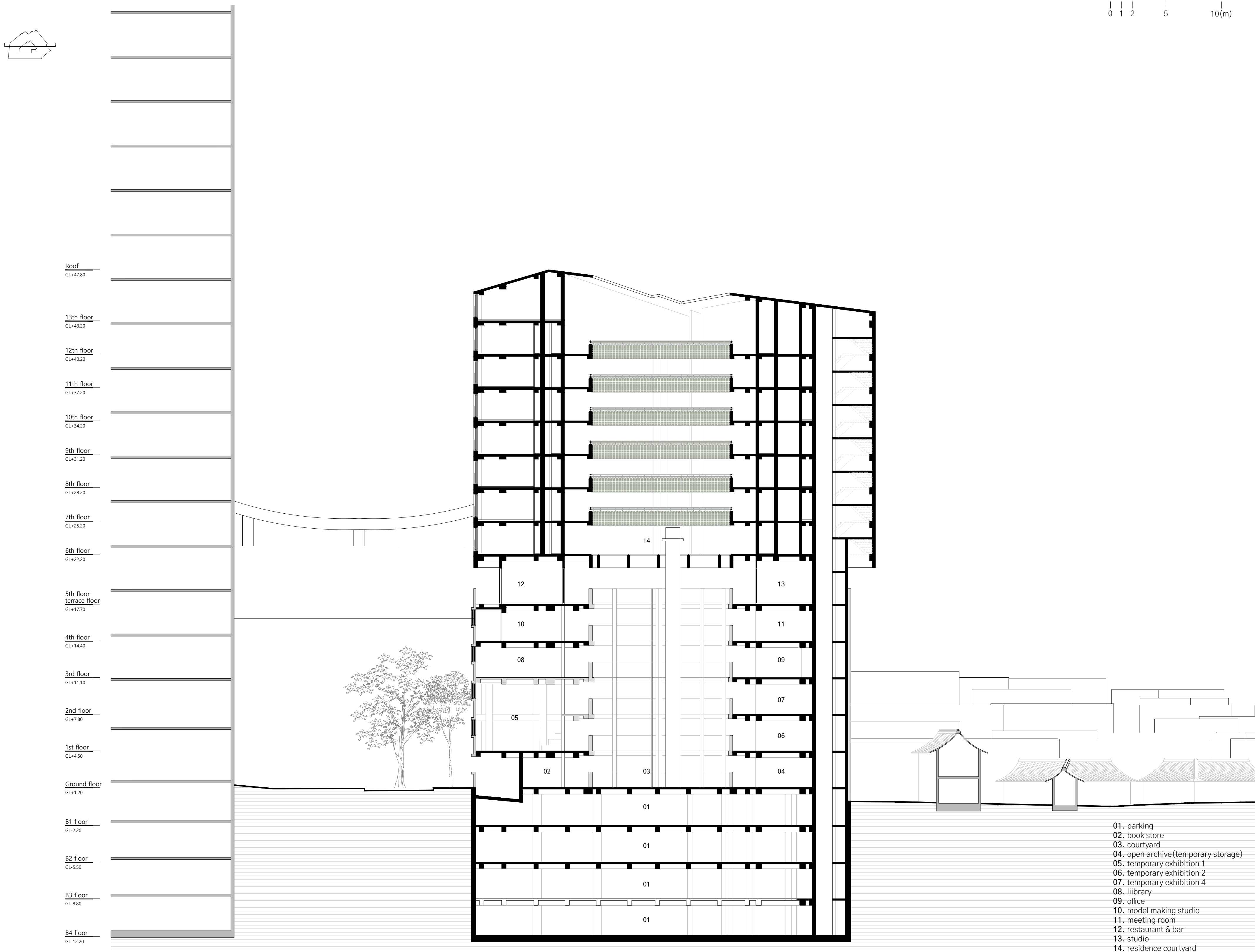
right elevation

scale 1:200



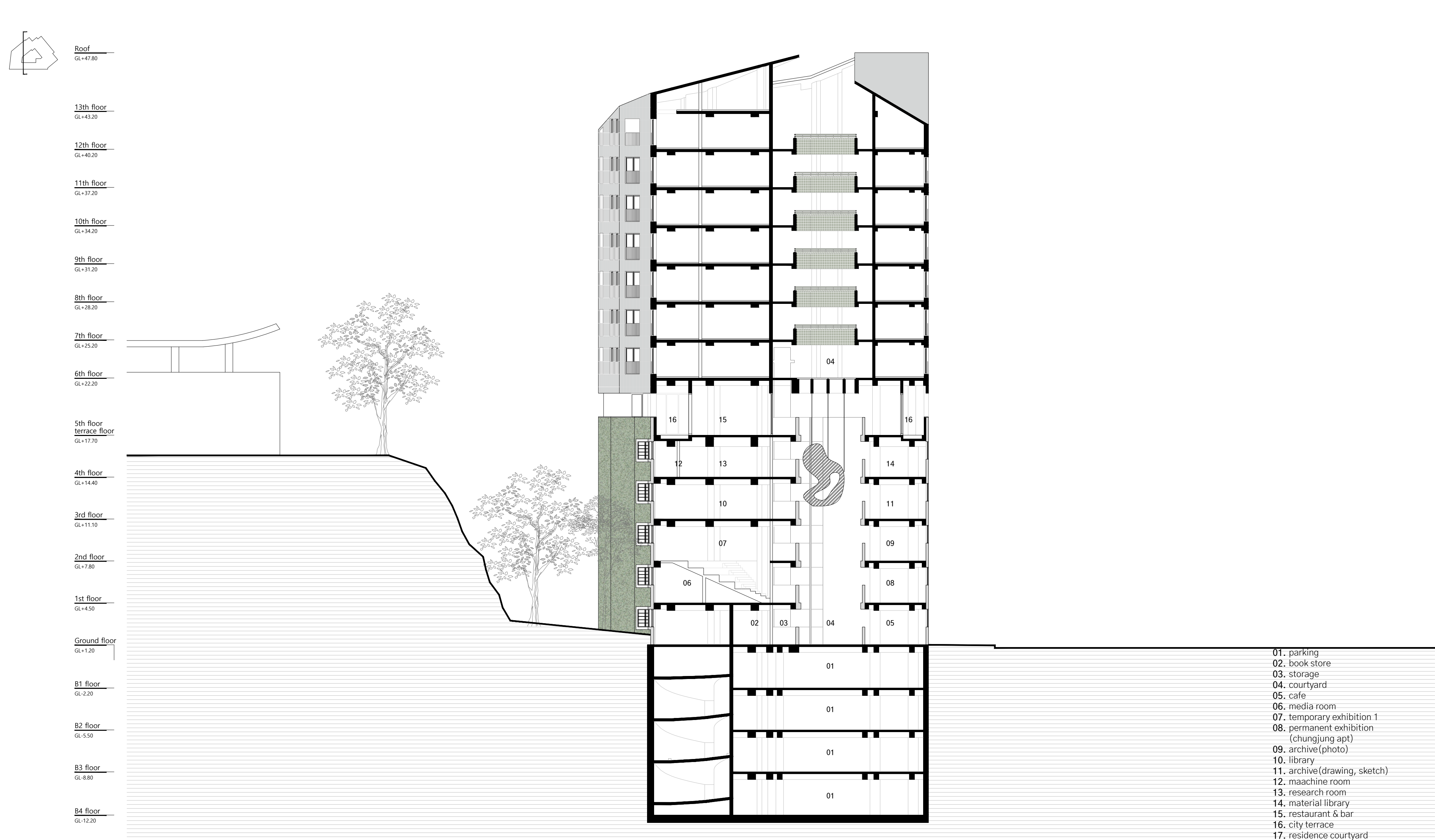
section – 1

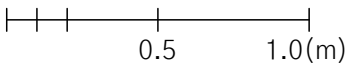
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section – 2

scale 1:200





Section Detail Drawing

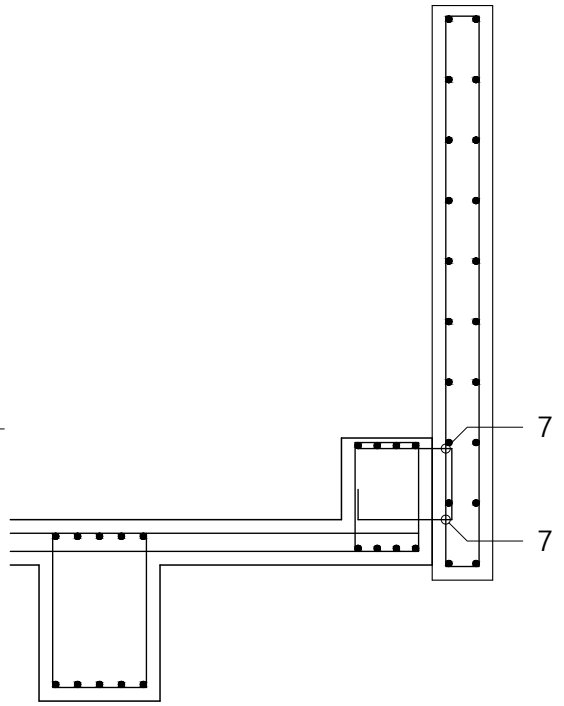
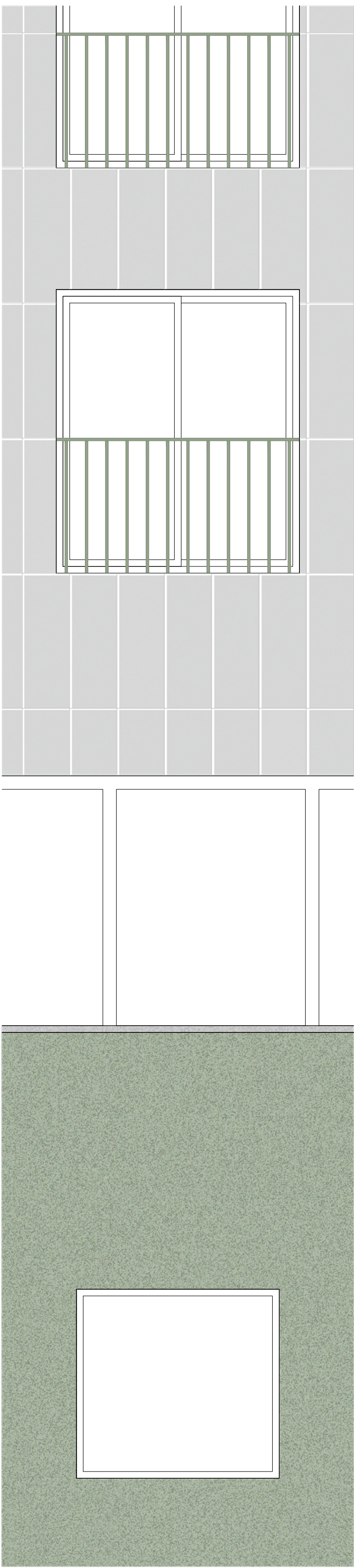
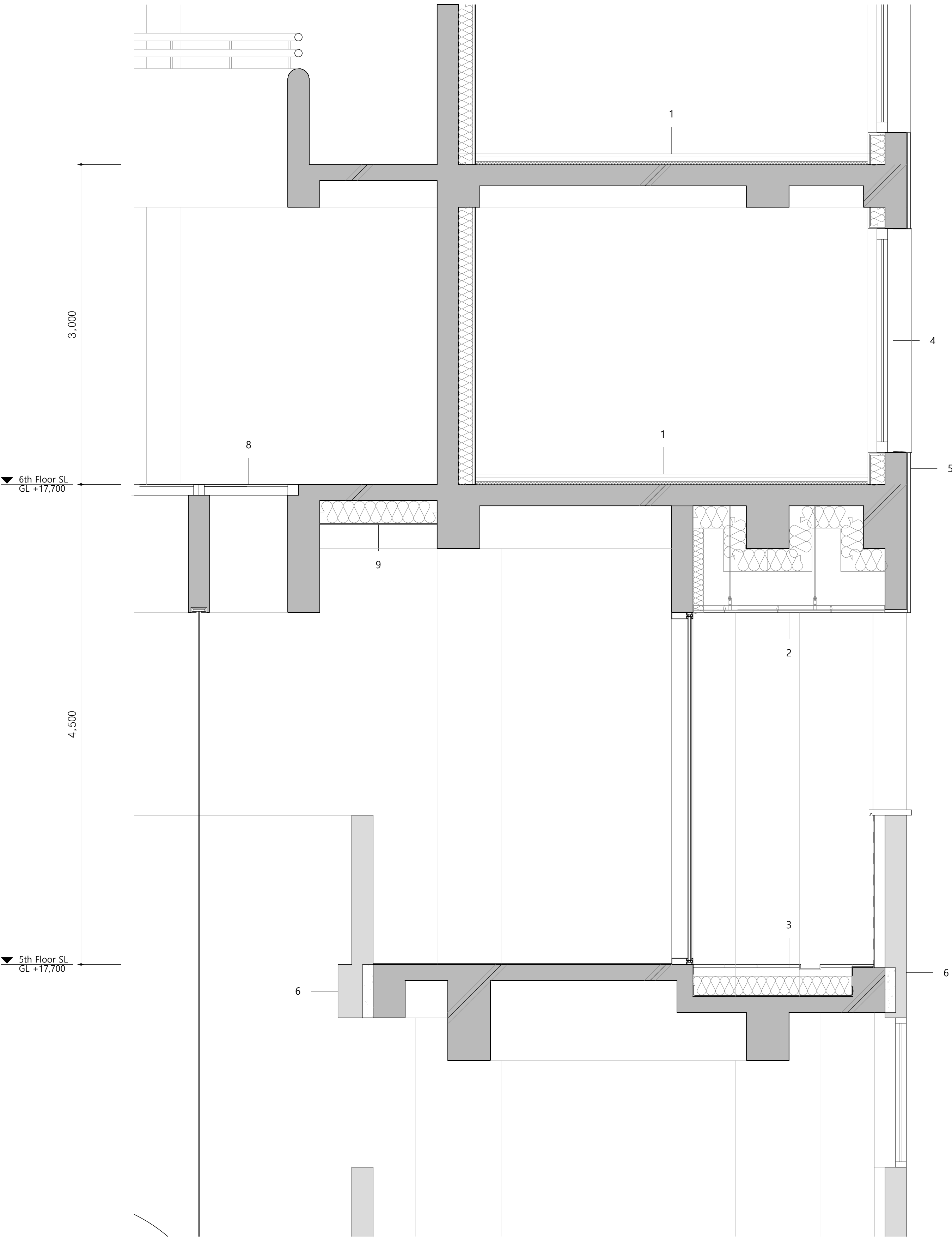
scale 1:25

Elevation Detail Drawing

scale 1:25

Reinforcement Detail Drawing

scale 1:25



1. floor construction :
10mm wood Flooring
37mm cement mortar screed
40mm lightweight foamed concrete
30mm impact sound insulation
200mm reinforced concrete slab
2. ceiling construction :
200mm reinforced concrete slab
215mm extruded polystyrene insulation board
light gauge steel ceiling framing (clip bar system)
0.4mm metal ceiling panel
3. floor construction :
30mm stone tile(300X300)
80mm concrete topping
(#8 wire mesh reinforcement @ 150X150)
180mm extruded polystyrene insulation board
10mm polyurethane composite water proofing membrane
machine-troweled concrete surface finish
150mm reinforced concrete slab
4. glazing :
24mm low-E insulated glass unit
5. wall construction :
200mm reinforced concrete wall
thin-bed laying on rendering
base-bonded sealing layer
10mm ceramic tile (1000X350)
6. wall construction :
150mm reinforced concrete wall
[diagonal hatching symbol]:remove existing concrete
and cast new extension concrete
200mm existing concrete wall
7. reinforcements :
additional reinforcements(HD13)
weld at contact surcafe
8. floor construction :
30mm walk-on glass
9. ceiling construction :
200mm reinforced concrete slab
215mm extruded polystyrene insulation board