

OFFICE-FITOUT-01 · Level 6 layout change proposal

Synthetic tenant floor, 30 × 20 m · 80 staff, 60 % peak attendance · revision R02 after client comments · 2026-10-12

Question: with 80 staff and a 60 % peak attendance, does replacing fixed desks (A) with shared desks plus more meeting rooms, phone booths and focus seats (B, then R02) change peak-day desk shortage and meeting-room waiting, and how?

Observed on the same 20 simulated peak days: mean waiting per arriving staff member is 16.6 min in A, 2.9 min in B and 4.3 min in R02. Desks now stay assigned during meetings, calls and focus work. At 54 desks, B and R02 have 0.0 and 0.0 staff per day without a free desk. The 48-desk variants raise these counts to 1.7 and 1.7. Those staff try a focus seat for the day; 0.75 and 0.80 respectively leave without a seat. Waiting alone is therefore not the decision measure. Keep both seating outcomes and room waits in the decision.

Fixed conditions kept in every option: the service core and its single entrance, the west fire-escape stair, the 1.5 m escape route between them (checked clear), the four columns, the glazed north and south facades with a 1.0 m furniture-free strip. check_space: 0 findings on all five layouts at 0.9 m clearance.

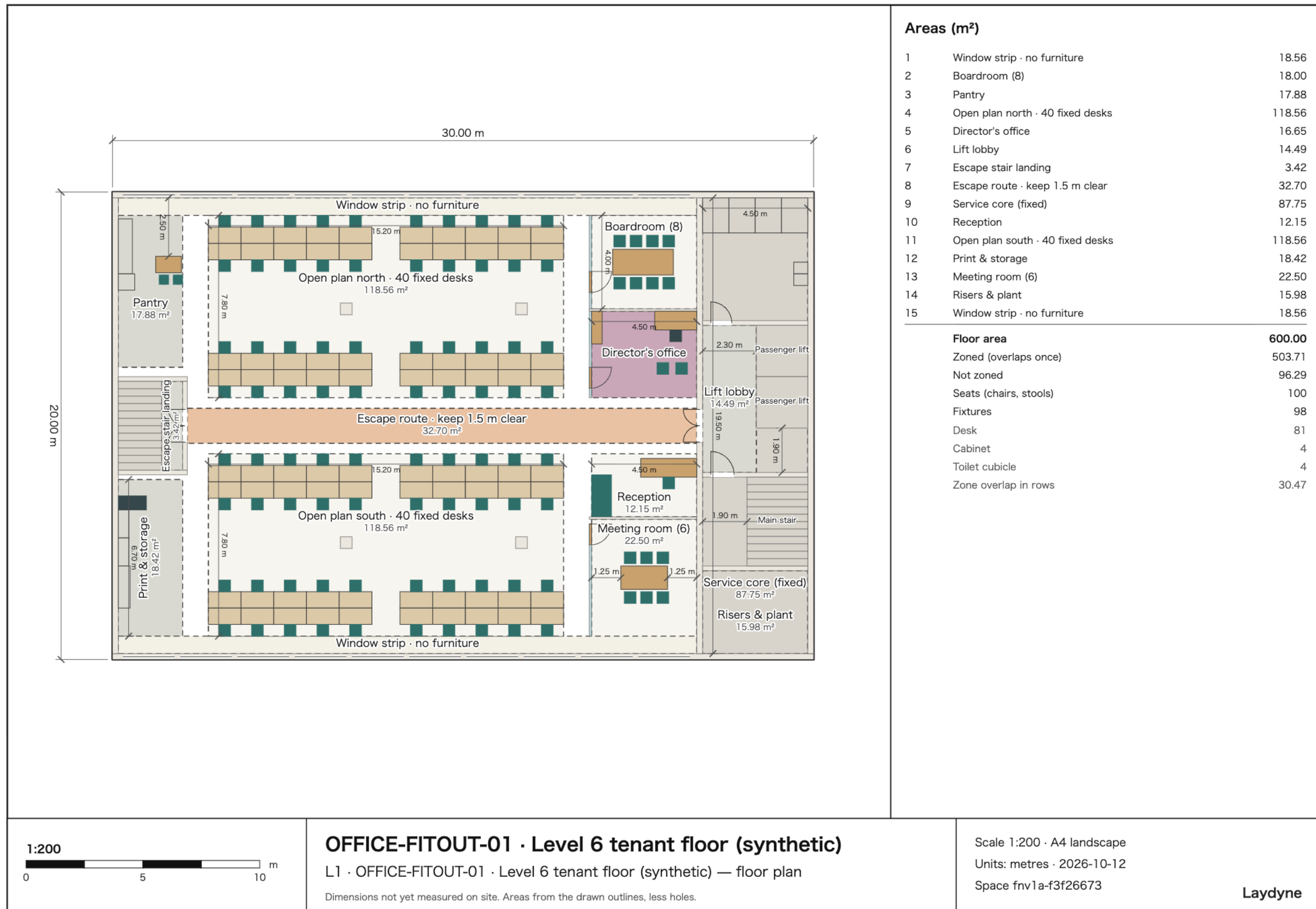
Limits: synthetic inputs (attendance, meeting, call and focus rates are assumptions, not measurements); the simulation covers desk assignment, room bookings by organisers, booth and focus-seat use and walking on a circular-agent route network; attendees walk to a room without booking it; no acoustics, lighting, HVAC, code compliance, furniture products or prices. Differences are paired over 20 seeds with 95 % Student-t intervals; a difference whose interval includes 0 is reported as not shown.

Key figures on the peak day (mean of 20 seeds)

Measure	A · today	B · proposal	R02 · revised
Staff arriving (mean of 20 peak days)	46.3	46.3	46.3
Desks / staff without a free desk (mean)	80 / 0.0	54 / 0.0	54 / 0.0
Staff leaving without any seat (mean)	0.0	0.0	0.0
Meeting rooms (seats)	2 (8, 6)	6 (10, 8, 8, 4, 4, 4)	5 (10, 8, 4, 4, 4)
Phone booths · focus seats	0 · 0	6 · 7	6 · 7
Waiting per staff member per day, all causes	16.6 min	2.9 min	4.3 min
Small meeting (2-4): door-to-door time per booking	60.9 min	31.5 min	32.6 min
Medium meeting (5-8): door-to-door time per booking	76.7 min	51.1 min	55.9 min
Large meeting (9-10): door-to-door time per booking	102.0 min	79.0 min	82.2 min
Focus blocks that found no quiet seat per day	n/a (at desk)	5.1 of 38.6	5.1 of 38.6
Calls taken at the desk after a 5 min booth wait per day	n/a (all at desk)	0.4 of 93.9	0.5 of 93.9

Door-to-door time per booking is the organiser's walk to and from the room, the wait and the meeting itself. Only booking processes completed before 21:00 enter this mean. Assumed duration distributions are the same; this is not a pure queue-wait measure.

A · existing layout · 80 fixed desks, boardroom (8), meeting room (6), director's office

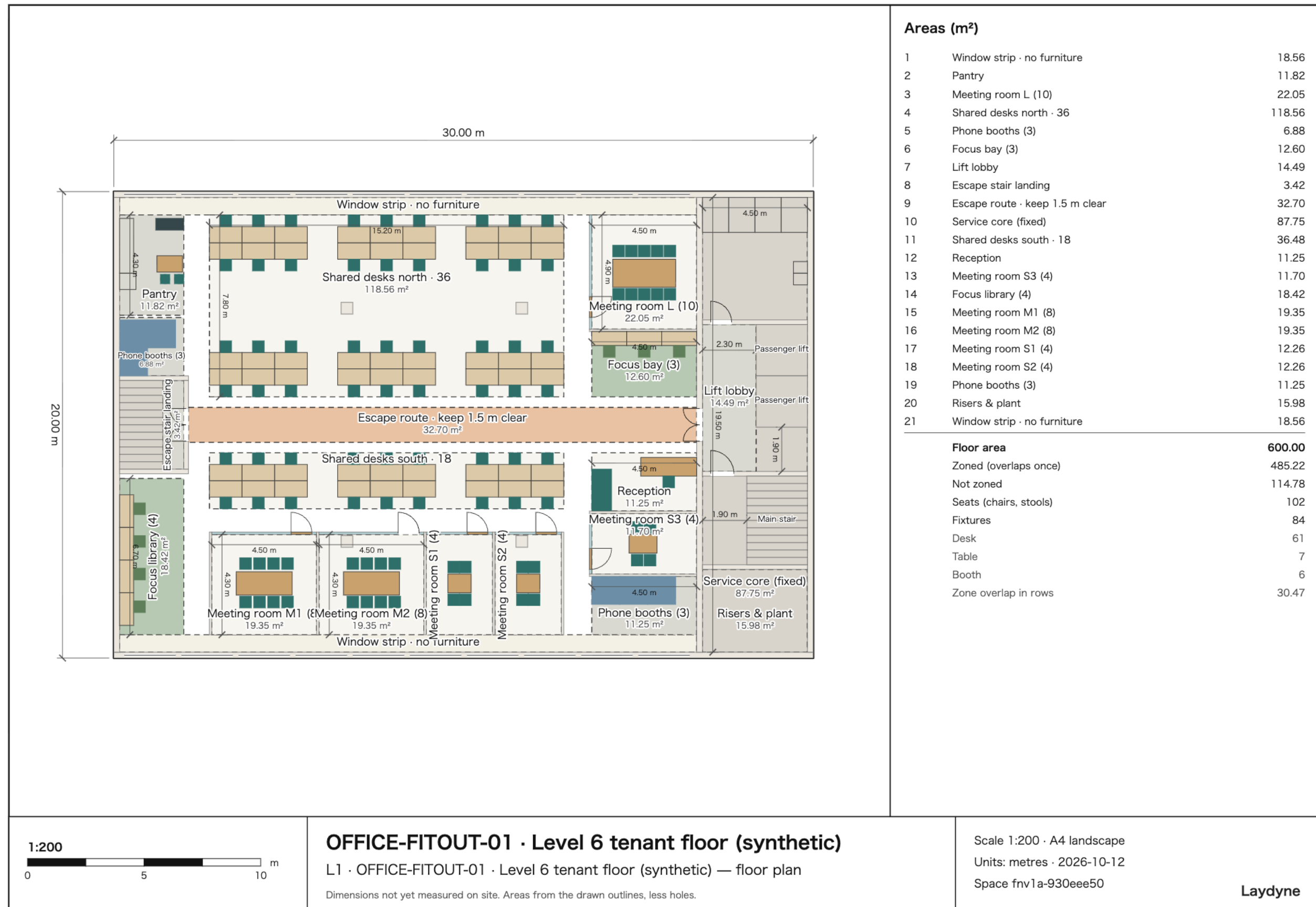


Frozen with the A-B process comparison; inset drawing - use the separate A3 1:100 sheet to measure (print at 100 %).

Source src-23040b97-47ec-48cc-ae7f-2b7bb6c4c7c8 · fnv1a-f3f26673 · 2026-10-12 · 61821dd5-e03e-4dbd-aca6-9057a85b3505/baseline

Drawing inset: use written dimensions; the original sheet scale does not apply.

B · proposal · 54 shared desks, six meeting rooms, six phone booths, seven focus seats

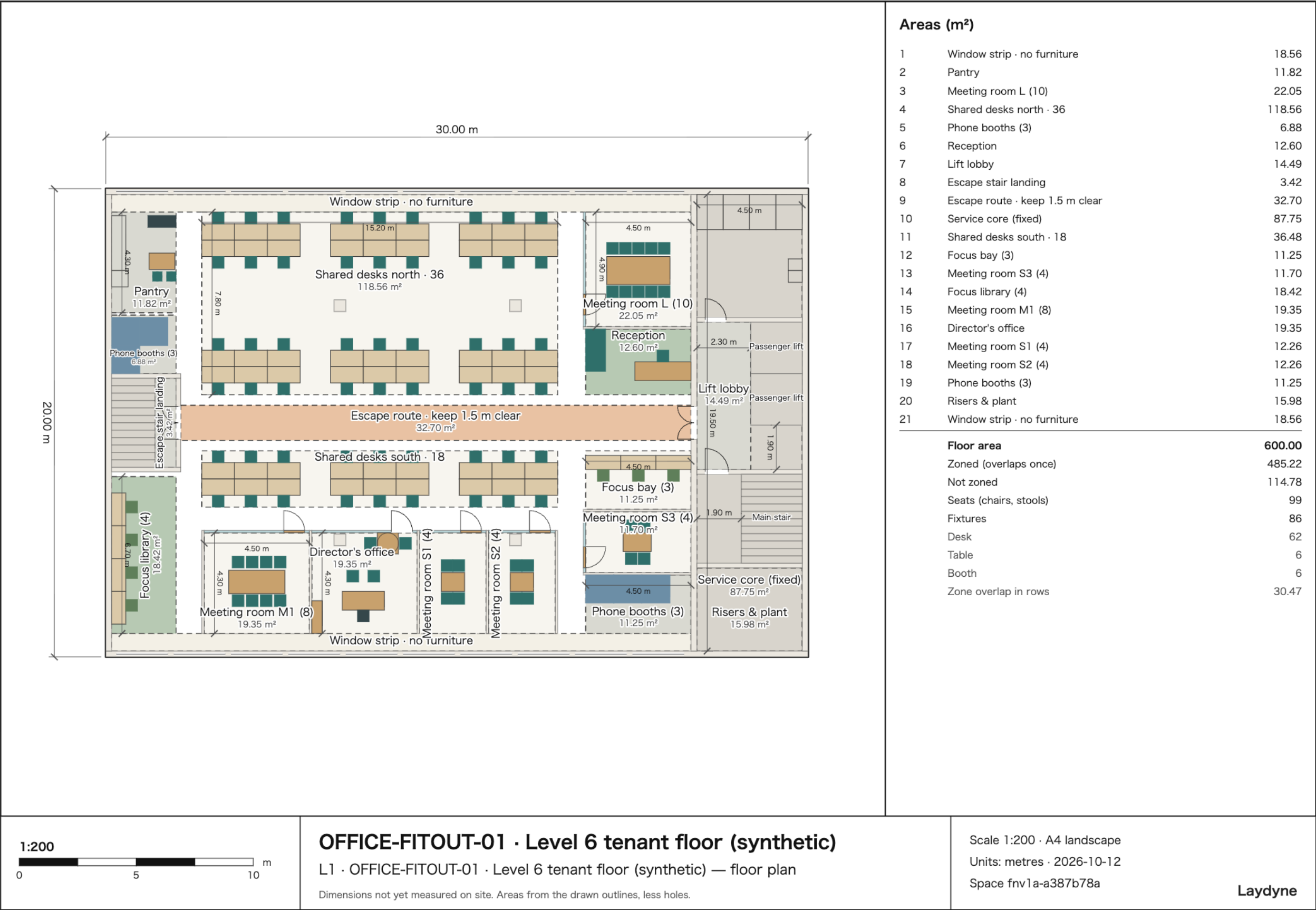


Frozen with the A-B process comparison.

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Drawing inset: use written dimensions; the original sheet scale does not apply.

Laydyne



Comparison on the same 20 peak days

Paired differences, candidate minus baseline, mean and 95 % interval over 20 seeds (20261012-20261031); engine process-des-2.7.0; window 07:00-21:00.

Measure	B - A	R02 - B
Waiting per staff member per day (s)	-818.54 [-1053.05, -584.03]	80.63 [32.68, 128.58]
Small meeting door-to-door (s)	-1766.04 [-2298.08, -1234.00]	67.87 [0.04, 135.70]
Medium meeting door-to-door (s)	-1535.69 [-2121.90, -949.48]	285.06 [50.01, 520.11]
Distance walked by all staff per day (m)	3271.58 [3042.18, 3500.98]	62.32 [9.40, 115.23]
Departures by 21:00, including no-seat exits	0.40 [0.08, 0.72]	-0.05 [-0.15, 0.05]

Meeting-room figures above are door-to-door time, including walking and the meeting itself. Room utilisation below covers the 14 h window:

Room	A	B	R02
Boardroom (8) · A only	56.5 %	–	–
Meeting room (6) · A only	45.2 %	–	–
L (10)	–	37.4 %	41.1 %
M1 (8)	–	17.2 %	24.6 %
M2 (8) · director's office in R02	–	16.7 %	–
S1 (4)	–	13.7 %	15.2 %
S2 (4)	–	6.3 %	8.3 %
S3 (4)	–	10.6 %	12.6 %

Inputs (assumed): arrivals Poisson 07:30-12:00 at 6, 20, 14 and 5.3 per hour (mean 48 = 60 % of 80); 6-8 work blocks of 20-55 min; after each block 7 % book a room (55 % small 20-40 min, 30 % medium 30-60 min, 15 % large 45-90 min), 23 % attend a meeting (25-50 min), 30 % take a call (5-15 min), 12 % do a focus block (45-90 min), 28 % stay. Walking 1.2 m/s. In A large meetings squeeze into the boardroom. B: small meetings use S1-S3/M1/M2; medium M1/M2/L; large L. R02 excludes M2 from both groups.

Assigned desks remain held while their users are away. If all desks are held, a free focus seat becomes the person's base for the day. If that also fails, the person leaves without working. Departures and mean waiting include these early exits; see the seating outcomes on the next page.

48-desk sensitivity: seating outcomes, not just waiting

Each 48-desk variant removes one six-desk bench and its six chairs. Rooms, booths, seven focus seats, fixed geometry, arrivals and operating assumptions are retained. Counts below are means over the same 20 seeds.

Measure	B / 54	B / 48	R02 / 54	R02 / 48
Arriving staff	46.3	46.3	46.3	46.3
No free desk on arrival (staff/day)	0.0	1.7	0.0	1.7
Use a focus seat as their base (staff/day)	0.00	0.95	0.00	0.90
Leave without any seat (staff/day)	0.00	0.75	0.00	0.80
Days with a desk shortage (of 20)	0	9	0	9
Days with a no-seat departure (of 20)	0	7	0	7
Mean waiting per arriving staff	2.9 min	2.7 min	4.3 min	4.7 min

Paired change when six desks are removed (48 minus 54)

Measure	B48 - B: mean [95 % interval]	R02-48 - R02: mean [95 % interval]
Desk shortage (staff/day)	1.70 [0.65, 2.75]	1.70 [0.65, 2.75]
No-seat departures (staff/day)	0.75 [0.04, 1.46]	0.80 [0.08, 1.52]
Waiting per staff per day (s)	-10.53 [-24.57, 3.52]	23.94 [-10.92, 58.79]

A focus seat held for the day is unavailable to other focus users, including while its holder is away. Its holder does focus work at that seat. Reported focus resource utilisation covers focus activities, not all-day assignment. No-seat departures reduce activity demand and can lower waiting; this is not an improvement in service. Twenty synthetic days do not establish a safe attendance limit.

Furniture and quantity schedule (from get_space_quantities)

Item	A	B	R02
Desks (incl. director and focus)	81	61	62
Chairs	98	100	97
Tables	3	7	6
Round tables	0	0	1
Phone booths	0	6	6
Sofas	1	1	1
Reception counters	1	1	1
Cabinets / credenzas / print	4	1	2
Lockers	1	0	0
Shelves	0	0	0
Stools	2	2	2
Pantry counters	1	1	1
Fridges	1	1	1
Glass partitions (count)	5	12	12
Walls (count)	15	21	21
Doors	7	10	10

Zoned areas (m²)

Use	A	B	R02
Open-plan desks	237.1	155.0	155.0
Meeting rooms	40.5	97.0	77.6
Phone booths	0.0	18.1	18.1
Focus	0.0	31.0	29.7
Reception	12.2	11.3	12.6
Director's office	16.6	0.0	19.4
Pantry	17.9	11.8	11.8

Floor area 600.0 m² (30 × 20 m). Desk counts include the director's desk and focus desks; chairs include meeting, reception and visitor chairs. Counts are of drawn parts in the frozen options; no product references or prices.