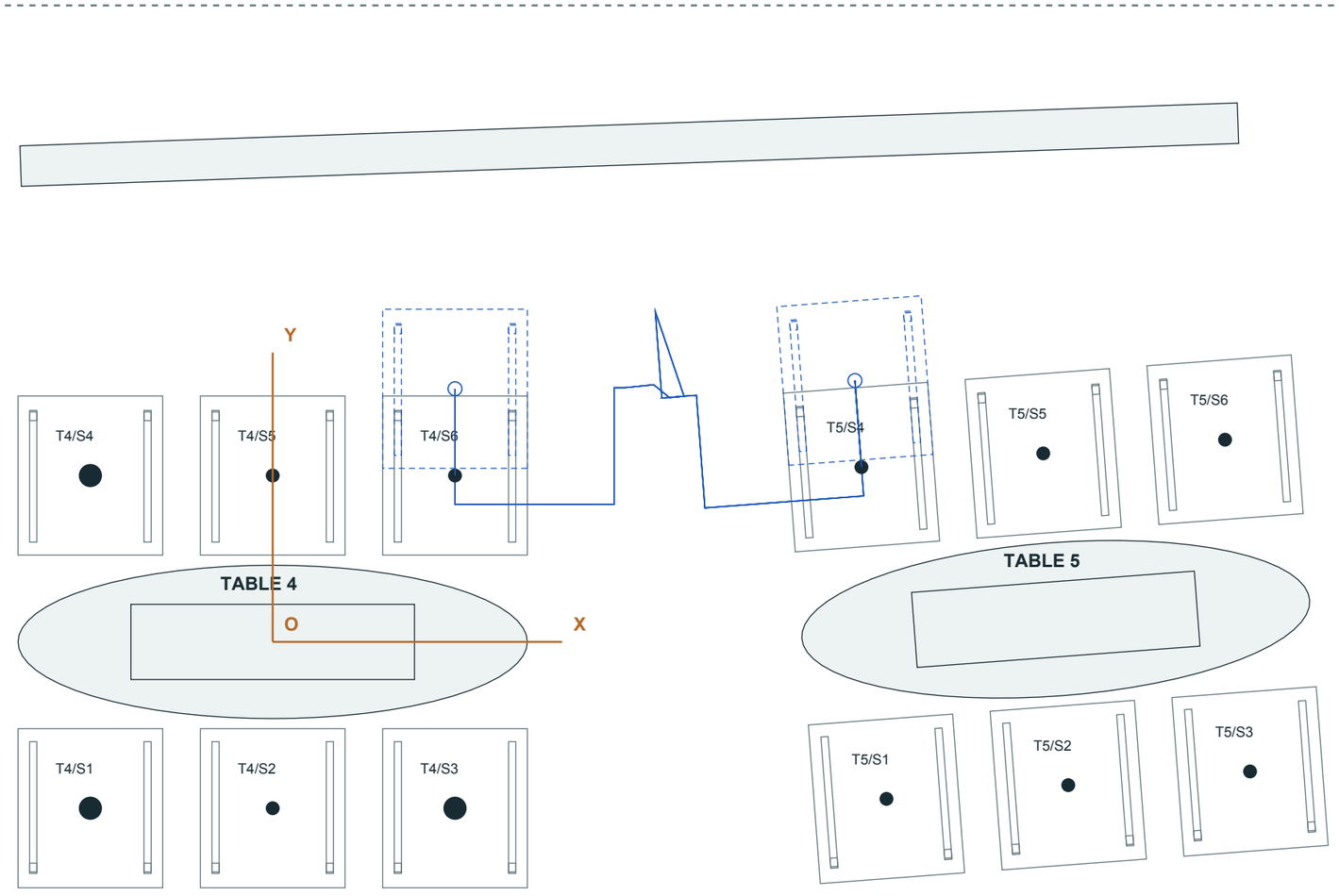
01 B′72 straight boundary - setting-out plan

Full-scale mockup dimensions / Drawing scale 1:20 / A3 landscape / Identical furniture positions



Working area 5200 × 3400 | Dashed perimeter: at least 300mm beyond fixtures

Scale 1:20 / A3 at 100%. 50mm on paper = 1000mm on site. Do not fit or shrink.

1000mm

Seat transfer

T4/S6 → T5/S4 → T4/S6

Physical setup

Two tables, twelve chairs, one boundary segment. Three peers at T4/S1, S3 and S4. Test the other five destination seats occupied as a separate condition.

Datum O

T4 table centre. Long axis = +X; +Y is perpendicular to its left. O-X=1000; O-Y=1000; X-Y=1414.2.

Drawing key

Solid: furniture at rest. Blue dashed: chairs pulled out 300mm. Blue solid: pelvis trace for the full cycle. Black dots: seat centres.

Digital result

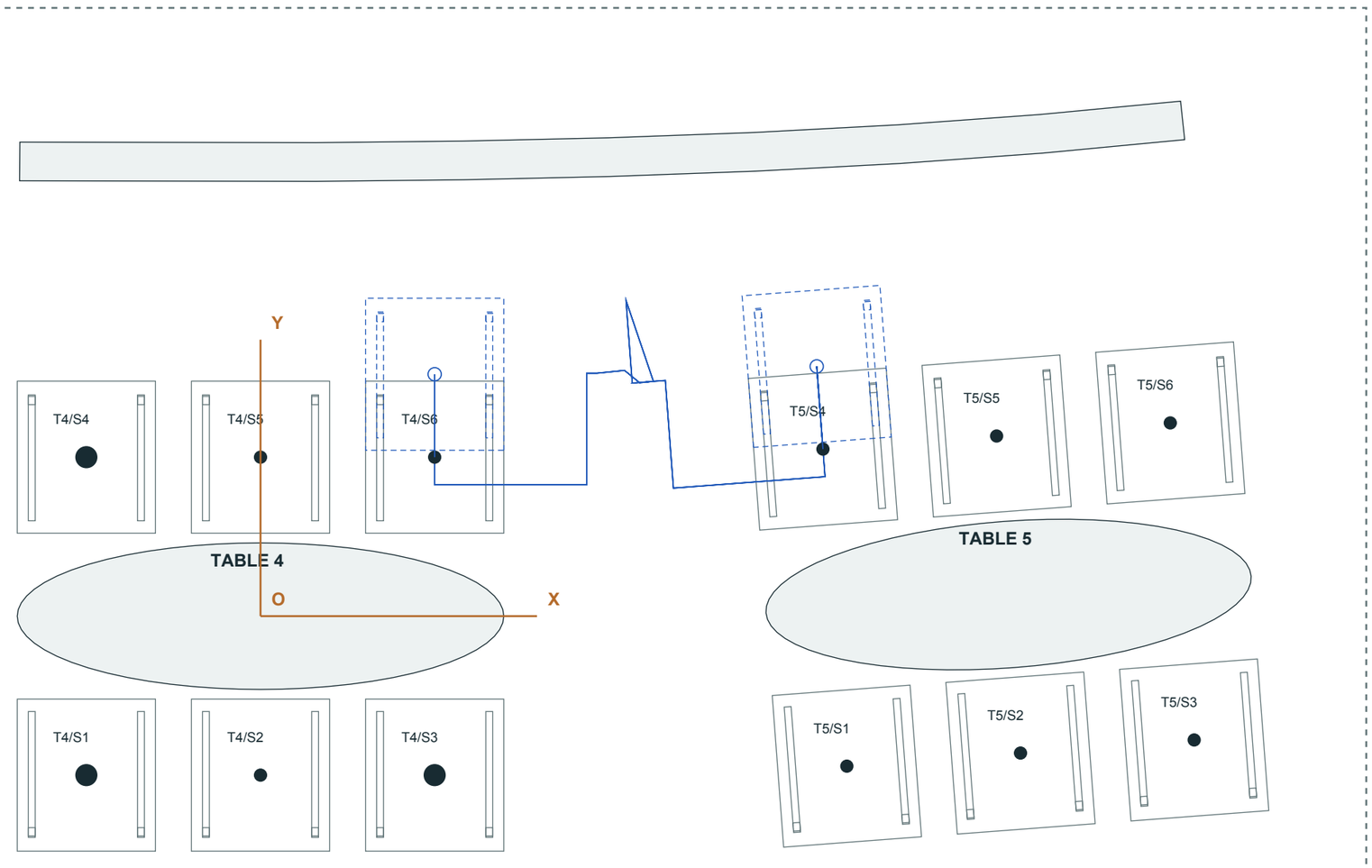
836 states / 17,170 checks: both pass, including five additional destination occupants. 0.22m is only the pad-to-pad route.

Before the trial

Positive whole-cycle clearance and comfort remain unverified. The 100mm buffer from the lower-exposure route does not apply here.

02 B72 curved boundary - setting-out plan

Full-scale mockup dimensions / Drawing scale 1:20 / A3 landscape / Identical furniture positions



Working area 5200 × 3400 | Dashed perimeter: at least 300mm beyond fixtures

Scale 1:20 / A3 at 100%. 50mm on paper = 1000mm on site. Do not fit or shrink.

1000mm

Seat transfer

T4/S6 → T5/S4 → T4/S6

Physical setup

Two tables, twelve chairs, one boundary segment. Three peers at T4/S1, S3 and S4. Test the other five destination seats occupied as a separate condition.

Datum O

T4 table centre. Long axis = +X; +Y is perpendicular to its left. O-X=1000; O-Y=1000; X-Y=1414.2.

Drawing key

Solid: furniture at rest. Blue dashed: chairs pulled out 300mm. Blue solid: pelvis trace for the full cycle. Black dots: seat centres.

Digital result

836 states / 17,170 checks: both pass, including five additional destination occupants. 0.22m is only the pad-to-pad route.

Before the trial

Positive whole-cycle clearance and comfort remain unverified. The 100mm buffer from the lower-exposure route does not apply here.

03 Furniture coordinates and geometry

O = T4 centre / Angles counterclockwise from plan +X / Rounded mm; exact coordinates retained in Rhino and JSON

Fixture	Centre X	Centre Y	Orientation	X, Y after 300mm pull
T4	0	0	0.000° long axis	-
T5	2706	78	4.311° long axis	-
T4/S1	-630	-575	90.000° facing	-
T4/S2	0	-575	90.000° facing	-
T4/S3	630	-575	90.000° facing	-
T4/S4	-630	575	-90.000° facing	-
T4/S5	0	575	-90.000° facing	-
T4/S6	630	575	-90.000° facing	630, 875
T5/S1	2121	-543	94.311° facing	-
T5/S2	2749	-495	94.311° facing	-
T5/S3	3377	-448	94.311° facing	-
T5/S4	2035	604	-85.689° facing	2012, 903
T5/S5	2663	652	-85.689° facing	-
T5/S6	3291	699	-85.689° facing	-

Pull coordinates are listed for the two moving chairs only. Keep the other ten chairs at rest.

Model dimensions

Model Z: tabletop 1760 × 530, top at 760. Seat underside 450 / top 485 / backrest 825. Rail minimum is Z20; physical ground contact and support remain unresolved. Measure actual chair heights from the floor. Not a fabrication drawing.

Chair feet

Two sled rails, each 25 × 455, with 395mm between rail centres. Align the template to the seat centre and forward arrow.

Setting-out sequence

1. Check O-X-Y orthogonality. 2. Mark table centres and angles. 3. Mark chair centres and facing. 4. Align the 1:1 foot template. 5. Set out boundary vertices. 6. Record actual dimensions and deviations.

Record site deviations

The ±5mm setting-out target is a survey target, not a clearance allowance. Differences in chair size, weight or sliding resistance prevent direct transfer of the digital pass to physical use.

Movement sequence

A = original chair; B = destination. Pull each backwards by 300mm. Leave A, pull B and sit, leave and restore B, then return to and restore A. Keep A pulled out by 300mm until the final return.

Comparison conditions

Keep furniture and people identical in B′72 and B72; change only the boundary. This mockup tests a nearby move intended to retain contact, not a reduction in scent exposure.

04 Boundary coordinates and setup checks

Fixed boundary footprint. Connect vertices in order from P1 and close the last point back to P1.

B′72 straight boundary

Point	X	Y
P1	-873	1715
P2	3333	1863
P3	3338	1723
P4	-869	1575

Boundary thickness: 140mm. Retain the model skirting, body and cap heights. Use the overall height below.

The B72 points describe the segmented outline used to test the smooth wall. Do not replace them with a single straight line.

C1_SETTING_OUT in Rhino contains the same world-coordinate outlines, datum axes and chair reference marks.

Overall boundary height, both alternatives: 0 - 1100mm

Check print scales: the drawings are 1:20; the template is 1:1. Verify furniture and boundary setup before observing one moving participant at a time. Record the five-occupant destination condition as a separate trial after the basic round trip.

Sources: F1b access-mesh, access-footprints and layouts; C1 cycles. No further furniture moves; the 72-seat layout is retained. These are not structural, furniture-fabrication or regulatory-compliance drawings.

B72 curved boundary / tested mesh outline

Point	X	Y
P1	735	1578
P2	201	1573
P3	-872	1575
P4	-870	1715
P5	201	1713
P6	732	1718
P7	1261	1730
P8	1785	1749
P9	2305	1777
P10	2820	1814
P11	3328	1863
P12	3343	1723
P13	2831	1675
P14	2314	1637
P15	1792	1609
P16	1265	1590