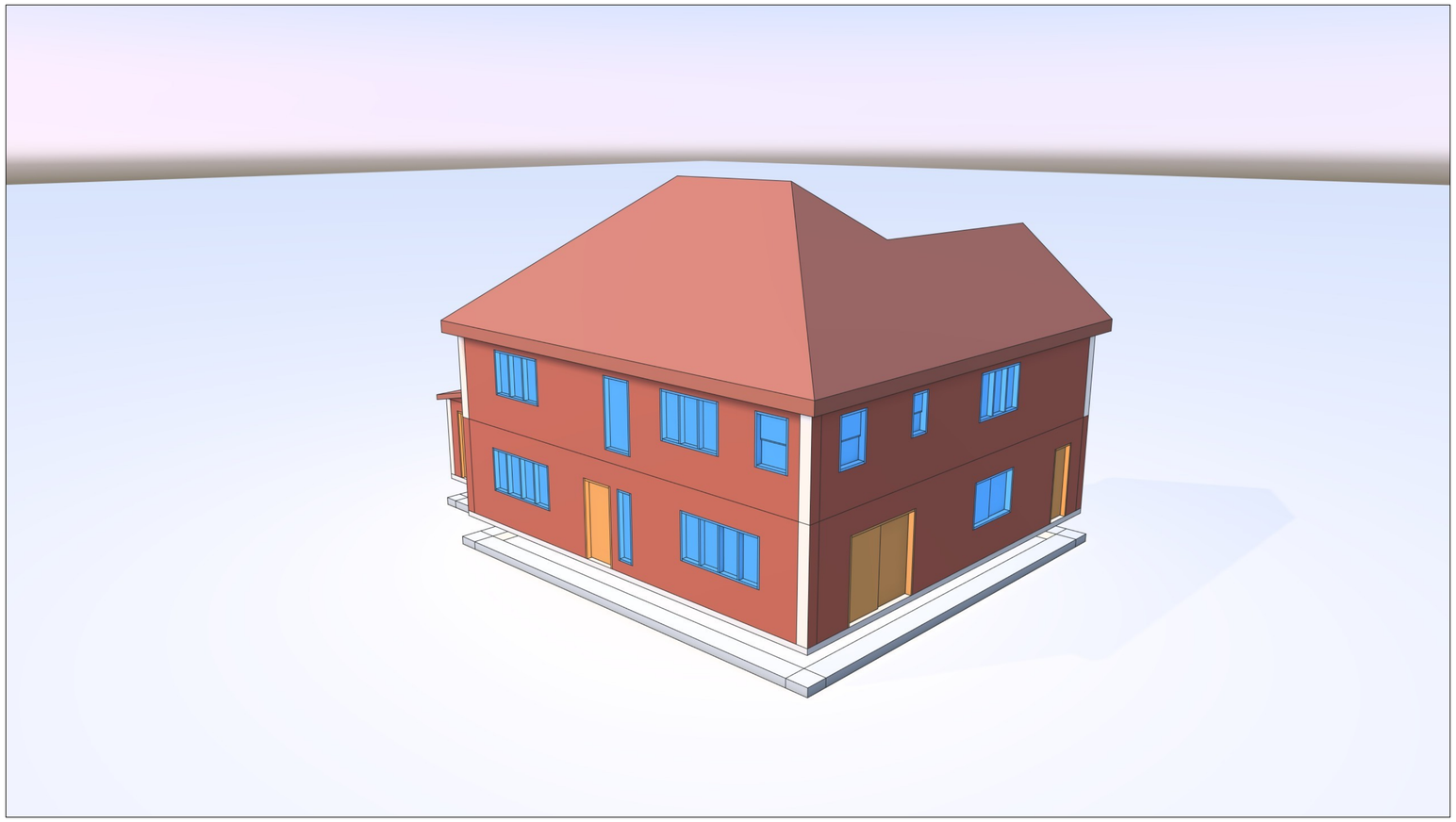
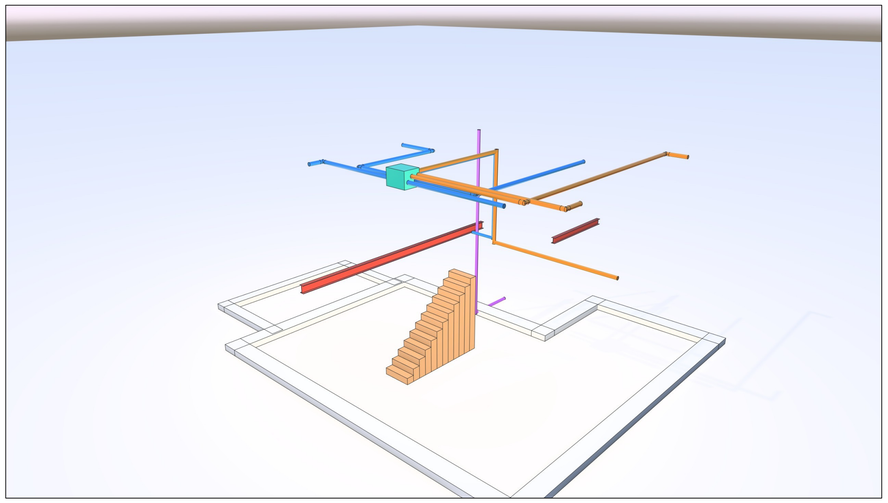
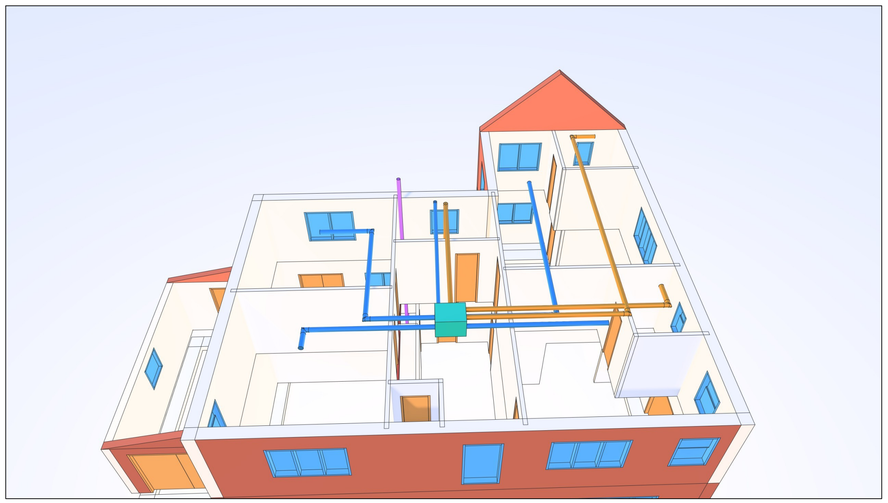


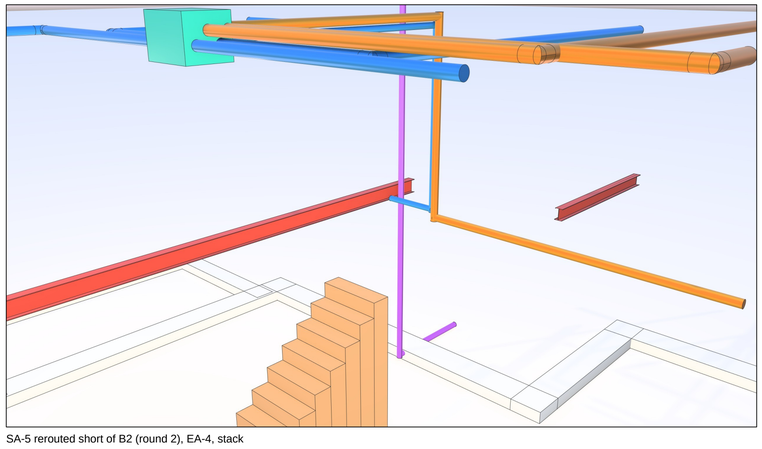
Federated model from the south-east: architecture, structure (footings) and services (stack, drain)



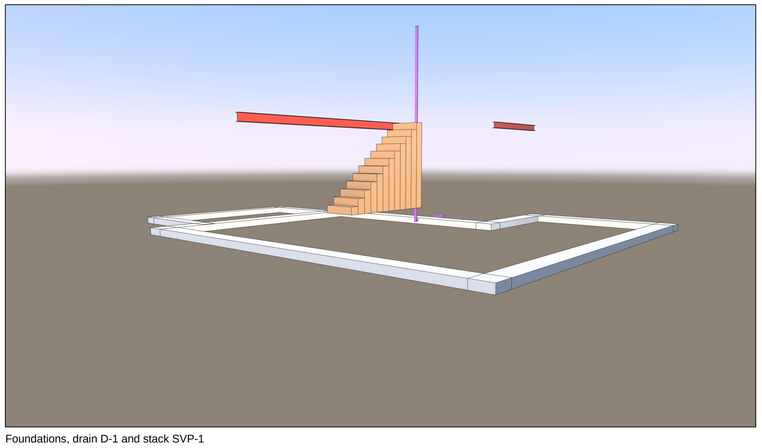
Inside: MVHR unit, ducts, risers, stack, beams B1 and B2, footings



Loft: MVHR unit and supply/extract ducts (roof hidden)



SA-5 rerouted short of B2 (round 2), EA-4, stack



Foundations, drain D-1 and stack SVP-1

DISCIPLINE MODELS AND THEIR IFC FILES (IFCEXPORT, read back by the app)

Model	Made with	IFC4 file (IFCEXPORT)	Objects written	Read back (IFCEXPORT check)
Architecture	Plans to 3D Rooms house + OBJECT, OBJPROP, CLASSIFY, BIMLAYERS	6-rowan-close-architecture.ifc	144 elements, 22 spatial	166 of 166, 916 property sets, 92 classifications
Structure	BOX, 3DMOVE, UNION + OBJECT, OBJPROP, CLASSIFY, OBJFIX	6-rowan-close-structure.ifc	11 elements, 4 spatial	15 of 15, 64 property sets, 9 classifications
Services	SYSTEM, MEPRUN, CYLINDER + OBJECT, OBJPROP	6-rowan-close-services.ifc	79 elements, 3 systems	84 of 84, 234 property sets, 151 relationships

NOTES

1. Architecture: the Plans to 3D Rooms house made into BIM objects (OBJECT, OBJPROP, CLASSIFY, BIMLAYERS, BIMTREE).
2. Structure and services: drawn in Stratal CAD for this demo (footings, two steel beams, MVHR ductwork, stack, drain).
3. Pictures: the architecture model with the structure and services IFC files imported (IFCIMPORT); RENDERSTILL.
4. Fictional project. Values marked example are inputs for the demo, not product or cost data.

Stratal CAD

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TITLE
6 Rowan Close: BIM coordination
Federated model and disciplines

PROJECT	DRAWN		
6 Rowan Close (fictional)	Stratal CAD demo		
DRAWING NO.	SHEET	SCALE	SIZE
STR-BIM-001	1 of 4	NTS	A1
SOFTWARE	DATE		
Stratal CAD 0.1.8, BIM built in	12 Nov 2026		

STATUS
DEMONSTRATION DRAWING - NOT FOR MANUFACTURE

ISSUE REGISTER AFTER ROUND 2 (26 issues from CLASH, read back with OBJINFO)

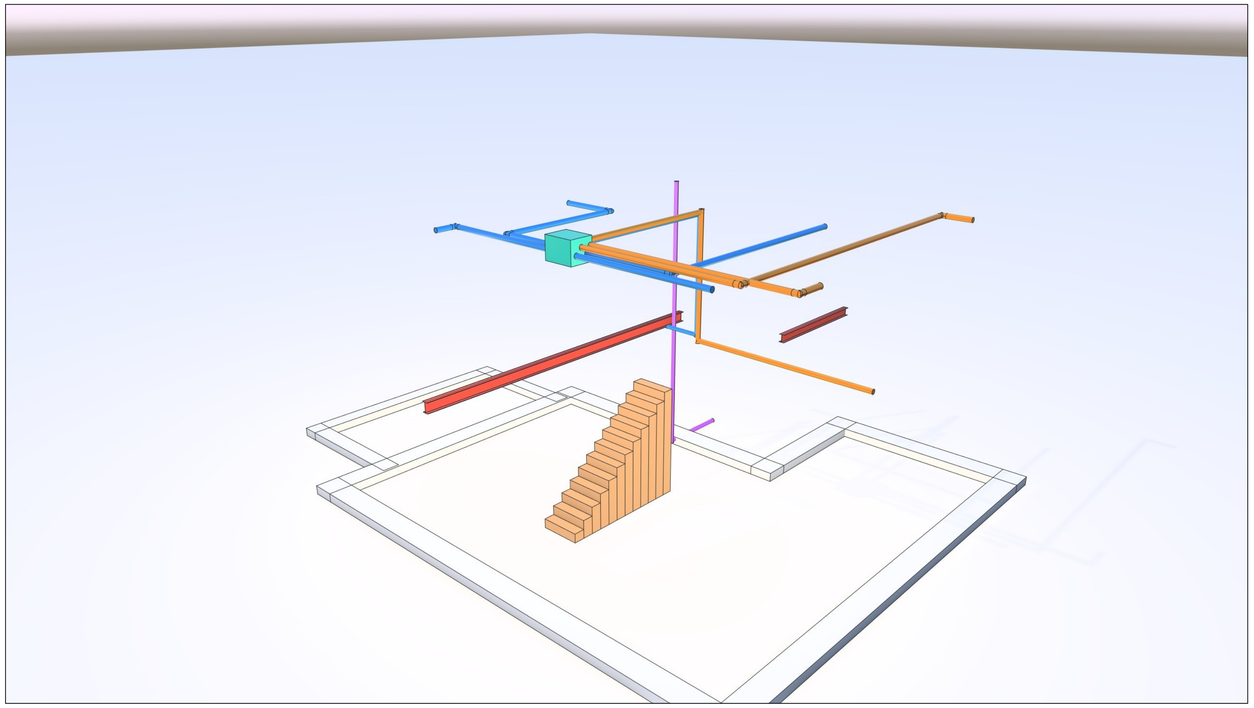
No.	Set	Kind	Element A	Element B	Status	Priority	Assignee	Action
C01	S v A	Hard	Cavity wall 300, GF (A)	B1 203x133x25 UB (S)	Closed	Normal	Structural engineer	Beam bears on the wall on a concrete padstone: by design.
C02	S v A	Hard	Block partition 100, GF (A)	B2 254x146x31 UB (S)	Active	High	Architect	Partition to stop under the beam; head detail with the engineer.
C03	S v A	Hard	First floor slab (A)	B1 203x133x25 UB (S)	Closed	Normal	Structural engineer	Beam sits in the first-floor joist zone; joists hang on it: by design.
C04	S v A	Hard	First floor slab (A)	B2 254x146x31 UB (S)	Closed	Normal	Structural engineer	Beam sits in the first-floor joist zone; joists hang on it: by design.
C05	S v A	Hard	Cavity wall 300, GF (A)	B2 254x146x31 UB (S)	Closed	Normal	Structural engineer	Beam bears on the wall on a concrete padstone: by design.
C06	S v A	Hard	Cavity wall 300, GF (A)	B2 254x146x31 UB (S)	Closed	Normal	Structural engineer	Beam bears on the wall on a concrete padstone: by design.
C07	M v A	Hard	Ground floor slab (A)	stack SVP-1 (M)	Open	Normal	M&E contractor	Floor penetration: sleeve and fire-stop collar.
C08	M v A	Hard	First floor slab (A)	duct SA-5 (M)	Resolved	Normal	M&E designer	SA-5 rerouted (services v2); resolved by CLASH Update.
C09	M v A	Hard	First floor slab (A)	duct EA-4 (M)	Open	Normal	M&E designer	Duct in the joist zone: route through open-web joists (supplier to confirm).
C10	M v A	Hard	First floor slab (A)	extract riser EA-R1 (M)	Open	Normal	M&E contractor	Floor penetration: sleeve and fire-stop collar.
C11	M v A	Hard	First floor slab (A)	supply riser SA-R1 (M)	Open	Normal	M&E contractor	Floor penetration: sleeve and fire-stop collar.
C12	M v A	Hard	First floor slab (A)	stack SVP-1 (M)	Open	Normal	M&E contractor	Floor penetration: sleeve and fire-stop collar.
C13	M v A	Hard	Main roof, hipped with gable (A)	stack SVP-1 (M)	Open	Normal	Roofing contractor	Stack through the roof: weathered vent terminal.
C14	M v A	Hard	Block partition 100, GF (A)	duct SA-5 (M)	Resolved	Normal	M&E contractor	SA-5 rerouted (services v2); resolved by CLASH Update.
C15	M v A	Hard	Block partition 100, GF (A)	duct EA-4 (M)	Open	Normal	M&E contractor	Builder's work hole through the wall with a sleeve.
C16	M v A	Hard	Plasterboard ceiling (A)	stack SVP-1 (M)	Open	Low	M&E contractor	Ceiling penetration: seal and make good.
C17	M v A	Hard	Plasterboard ceiling (A)	extract riser EA-R1 (M)	Open	Low	M&E contractor	Ceiling penetration: seal and make good.
C18	M v A	Hard	Plasterboard ceiling (A)	supply riser SA-R1 (M)	Open	Low	M&E contractor	Ceiling penetration: seal and make good.
C19	M v A	Hard	Plasterboard ceiling (A)	stack SVP-1 (M)	Open	Low	M&E contractor	Ceiling penetration: seal and make good.
C20	M v A	Hard	Bath (A)	stack SVP-1 (M)	Active	High	Architect	Stack runs through the bath: move the stack to the corner or turn the bath.
C21	M v A	Hard	First floor slab (A)	duct SA-5 (M)	Open	Normal	M&E designer	Duct in the joist zone: route through open-web joists (supplier to confirm).
C22	M v A	Hard	Block partition 100, GF (A)	duct SA-5 (M)	Open	Normal	M&E contractor	Builder's work hole through the wall with a sleeve.
C23	M v S	Hard	duct SA-5 (M)	B2 254x146x31 UB (S)	Resolved	High	M&E designer	SA-5 rerouted (services v2); resolved by CLASH Update.
C24	M v S	Hard	drain D-1 (M)	F05 footing (S)	Open	High	Groundworks contractor	Drain through the foundation: sleeve and lintel over the pipe.
C25	M v S	Clearance	stack SVP-1 (M)	F05 footing (S)	Open	Normal	Groundworks contractor	Stack base 45 mm from the footing: confirm the bend and backfill.
C26	M v S	Clearance	stack SVP-1 (M)	B2 254x146x31 UB (S)	Open	Normal	M&E contractor	Stack 12 mm from B2: keep it clear before boxing in.

CLASH SETS (CLASH New, List; Update after FEDERATE Reload)

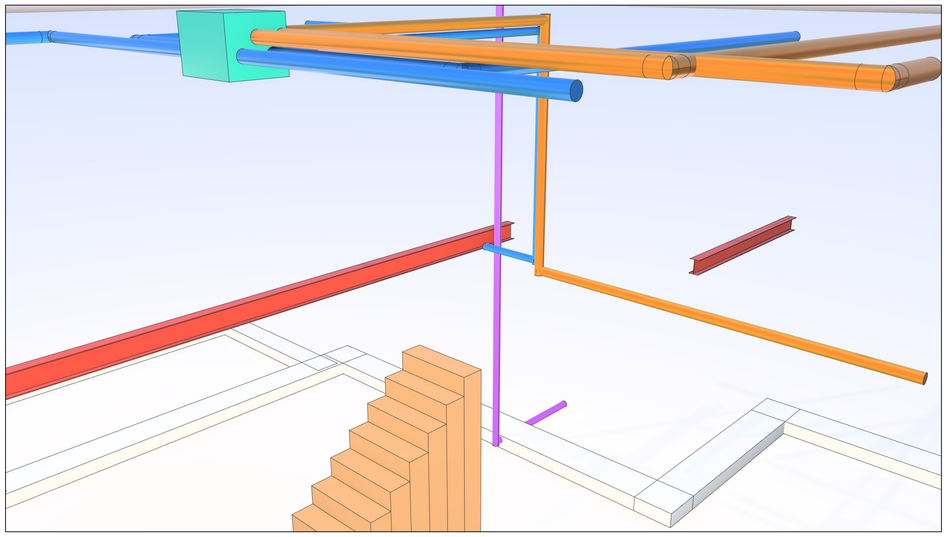
Clash set (CLASH)	Set A	Set B	Test	Round 1	Round 2 (after FEDERATE Reload, CLASH Update)
Structure v Architecture	model: structure	class: bim.element	hard	6 hard: 6 new issues	6 kept: 5 closed, 1 active
Services v Architecture	model: services	class: bim.element	hard	14 hard: 14 new issues	14 hard: 2 new, 12 kept, 2 resolved
Services v Structure	model: services	model: structure	hard + 50 mm clearance	2 hard, 2 clearance: 4 new	1 hard, 2 clearance: 3 kept, 1 resolved

ISSUES BY STATUS

Status (round 2)	Issues
Active	2
Closed	5
Open	16
Resolved	3
Total	26



Services against structure and architecture: the clash sets' subjects



Round 2: SA-5 stops short of B2; CLASH Update resolved the clash

NOTES

1. Clash sets (CLASH) run in the architecture model against the federated structure and services models (FEDERATE).
2. Round 2: SA-5 rerouted in the services model, FEDERATE Check and Reload, CLASH Update.
3. Issues read back from the drawing (OBJINFO); fields set with OBJPROP; exported as BCF 3.0 (BCFEXPORT).
4. Element names from the models' Elements reports (BIMREPORT).

Stratal CAD

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TITLE

6 Rowan Close: BIM coordination
Clash and issue register

PROJECT	DRAWN
6 Rowan Close (fictional)	Stratal CAD demo

DRAWING NO.	SHEET	SCALE	SIZE
STR-BIM-002	2 of 4	NTS	A1

SOFTWARE	DATE
Stratal CAD 0.1.8, BIM built in	12 Nov 2026

STATUS

DEMONSTRATION DRAWING - NOT FOR MANUFACTURE

DOOR SCHEDULE (BIMSCHEDULE Door)

Door schedule										
Name	Arch.Type	Arch.Width	Arch.Height	Arch.Hand	Arch.Swing	Pset_DoorCommon.FireRating	Frame.Material	Pset_ManufacturerTypeInformation.Manufacturer	Container	Quantity.Count
D01	Single door	800 mm	2100 mm	Left	Left				Storey Ground floor	1
D02	Single door	900 mm	2100 mm	Left	Left				Storey Ground floor	1
D03	Folding door	2400 mm	2100 mm	Left	Left				Storey Ground floor	1
D04	Double door	1500 mm	2100 mm	Left	Left				Storey Ground floor	1
D05	Single door	900 mm	2100 mm	Left	Left				Storey Ground floor	1
D06	Single door	700 mm	2100 mm	Left	Left				Storey Ground floor	1
D07	Sliding door	800 mm	2100 mm	Left	Left				Storey Ground floor	1
D08	Single door	800 mm	2100 mm	Left	Left				Storey Ground floor	1
D09	Double door	1200 mm	2100 mm	Left	Left				Storey Ground floor	1
D10	Sliding door	2400 mm	2100 mm	Left	Left				Storey Ground floor	1
D11	Double door	2400 mm	2100 mm	Left	Left				Storey Ground floor	1
D12	Single door	800 mm	2100 mm	Left	Left				Storey Ground floor	1
D13	Single door	1000 mm	2100 mm	Left	Left				Storey Ground floor	1
D14	Single door	700 mm	2100 mm	Left	Left				Storey First floor	1
D15	Single door	700 mm	2100 mm	Left	Left				Storey First floor	1
D16	Single door	800 mm	2100 mm	Left	Left				Storey First floor	1
D17	Single door	800 mm	2100 mm	Left	Left				Storey First floor	1
D18	Single door	700 mm	2100 mm	Left	Left				Storey First floor	1
D19	Single door	800 mm	2100 mm	Left	Left				Storey First floor	1
D20	Single door	700 mm	2100 mm	Left	Left				Storey First floor	1
D21	Single door	800 mm	2100 mm	Left	Left				Storey First floor	1
Total		22600	44100			0	0	0		21

WINDOW SCHEDULE (BIMSCHEDULE Window)

Window schedule										
Name	Arch.Type	Arch.Width	Arch.Height	Arch.SillHeight	Glazing.Type	Pset_WindowCommon.ThermalTransmittance	Frame.Material	Pset_ManufacturerTypeInformation.Manufacturer	Container	Quantity.Count
W01	Casement window	1500 mm	1050 mm	1050 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey Ground floor	1
W03	Casement window	1200 mm	1200 mm	900 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey Ground floor	1
W04	Casement window	600 mm	800 mm	1300 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey Ground floor	1
W05	Sliding window	1800 mm	1200 mm	900 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey Ground floor	1
W06	Casement window	900 mm	900 mm	1200 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey Ground floor	1
W07	Casement window	900 mm	1200 mm	900 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey Ground floor	1
W08	Casement window	2400 mm	1200 mm	900 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey Ground floor	1
W09	Casement window	500 mm	1800 mm	300 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey Ground floor	1
W10	Casement window	2400 mm	1200 mm	900 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey Ground floor	1
W11	Casement window	1500 mm	1200 mm	900 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey First floor	1
W12	Casement window	600 mm	1000 mm	1100 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey First floor	1
W13	Sash window	1200 mm	1200 mm	900 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey First floor	1
W14	Casement window	1500 mm	1200 mm	900 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey First floor	1
W15	Casement window	900 mm	1000 mm	1100 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey First floor	1
W16	Casement window	1800 mm	1200 mm	900 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey First floor	1
W17	Sash window	600 mm	1000 mm	1100 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey First floor	1
W18	Sash window	900 mm	1200 mm	900 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey First floor	1
W19	Sash window	900 mm	1200 mm	900 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey First floor	1
W20	Casement window	1800 mm	1200 mm	900 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey First floor	1
W21	Casement window	900 mm	1800 mm	300 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey First floor	1
W22	Casement window	1800 mm	1200 mm	900 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey First floor	1
W23	Sash window	900 mm	1200 mm	900 mm		1.4 W/(m2.K)		Fenmoor Joinery Ltd (example)	Storey First floor	1
Total		27500	26150	20050	0	30.8	0			22

WALL SCHEDULE (BIMSCHEDULE Wall)

Wall schedule										
Name	Arch.Type	Arch.Width	Arch.Height	Pset_WallCommon.IsExternal	Pset_WallCommon.FireRating	Quantity.CentrelineLength	Quantity.NetSideArea	Quantity.Volume	Basis	Container
Block partition 100, ground floor	Block partition 100	100 mm	2700 mm	false						Storey Ground floor
Block partition 100, ground floor	Block partition 100	100 mm	2700 mm	false						Storey Ground floor
Block partition 100, ground floor	Block partition 100	100 mm	2700 mm	false						Storey Ground floor
Block partition 100, ground floor	Block partition 100	100 mm	2700 mm	false						Storey Ground floor
Block partition 100, ground floor	Block partition 100	100 mm	2700 mm	false						Storey Ground floor
Block partition 100, ground floor	Block partition 100	100 mm	2700 mm	false						Storey Ground floor
Subtotal Block partition 100		600	16200			0	0	0		
Brick wall 215, ground floor	Brick wall 215	215 mm	2400 mm	true						Storey Ground floor
Brick wall 215, ground floor	Brick wall 215	215 mm	2400 mm	true						Storey Ground floor
Brick wall 215, ground floor	Brick wall 215	215 mm	2400 mm	true						Storey Ground floor
Subtotal Brick wall 215		645	7200			0	0	0		
Cavity wall 300, ground floor	Cavity wall 300	300 mm	2700 mm	true						Storey Ground floor
Cavity wall 300, ground floor	Cavity wall 300	300 mm	2700 mm	true						Storey Ground floor
Cavity wall 300, ground floor	Cavity wall 300	300 mm	2700 mm	true	REI 30					Storey Ground floor
Cavity wall 300, first floor	Cavity wall 300	300 mm	2600 mm	true						Storey First floor
Cavity wall 300, first floor	Cavity wall 300	300 mm	2600 mm	true						Storey First floor
Cavity wall 300, first floor	Cavity wall 300	300 mm	2600 mm	true						Storey First floor
Cavity wall 300, ground floor	Cavity wall 300	300 mm	2700 mm	true						Storey Ground floor
Cavity wall 300, first floor	Cavity wall 300	300 mm	2600 mm	true						Storey First floor
Cavity wall 300, first floor	Cavity wall 300	300 mm	2600 mm	true						Storey First floor
Cavity wall 300, first floor	Cavity wall 300	300 mm	2600 mm	true						Storey First floor
Cavity wall 300, ground floor	Cavity wall 300	300 mm	2700 mm	true						Storey Ground floor
Cavity wall 300, ground floor	Cavity wall 300	300 mm	2700 mm	true						Storey Ground floor
Subtotal Cavity wall 300		3600	31800			0	0	0		
Gable infill wall, roof	Gable infill wall			false						Storey Roof
Gable infill wall, roof	Gable infill wall			false						Storey Roof
Gable infill wall, roof	Gable infill wall			false						Storey Roof
Gable infill wall, roof	Gable infill wall			false						Storey Roof
Subtotal Gable infill wall		0	0			0	0	0		
Stud partition 100, first floor	Stud partition 100	100 mm	2600 mm	false						Storey First floor
Stud partition 100, first floor	Stud partition 100	100 mm	2600 mm	false						Storey First floor
Stud partition 100, first floor	Stud partition 100	100 mm	2600 mm	false						Storey First floor
Stud partition 100, first floor	Stud partition 100	100 mm	2600 mm	false						Storey First floor
Stud partition 100, first floor	Stud partition 100	100 mm	2600 mm	false						Storey First floor
Stud partition 100, first floor	Stud partition 100	100 mm	2600 mm	false						Storey First floor
Stud partition 100, first floor	Stud partition 100	100 mm	2600 mm	false						Storey First floor
Subtotal Stud partition 100		800	20800			0	0	0		
Total		5645	76000			0	0	0		

CLASSES, IFC ENTITIES AND UNICLASS (IFCMAP, CLASSIFY)

Class	IFC entity (IFCMAP)	Objects	Uniclass (CLASSIFY)
arch.wall	IfcWall	33	EF_25_10 Walls
arch.door	IfcDoor	21	EF_25_30 Doors and windows
arch.window	IfcWindow	22	EF_25_30 Doors and windows
arch.slab	IfcSlab	2	EF_30_20 Floors
bim.roof	IfcRoof	2	EF_30_10 Roofs
bim.stair	IfcStair	12	EF_35_10 Stairs
bim.ceiling	IfcCovering.CEILING	17	not classified (model check)
bim.furniture	IfcFurniture	25	not classified (model check)
bim.sanitary	IfcSanitaryTerminal	10	not classified (model check)
arch.space	IfcSpace	17	not classified
bim.footing	IfcFooting	9	EF_20_05 Foundations
bim.beam	IfcBeam	2	not classified (model check)
bim.hvac	IfcUnitaryEquipment	1	not classified (model check)
mep.segment.duct	IfcDuctSegment	19	not classified (model check)
mep.fitting.duct	IfcDuctFitting	7	not classified (model check)
mep.segment.pipe	IfcPipeSegment	2	not classified (model check)
mep.body	IfcBuildingElementProxy	25	not classified (model check)

SPACE SCHEDULE (BIMSCHEDULE Space)

Space schedule				
Name	Arch.Number	Quantities.Area	Quantities.Perimeter	Container
En-suite 1	101			Storey First floor
Bedroom 1	102			Storey First floor
Bathroom	103			Storey First floor
Bedroom 4	104			Storey First floor
En-suite 2	105			Storey First floor
Landing	106			Storey First floor
Bedroom 2	107			Storey First floor
Bedroom 3	108			Storey First floor
Linen store	109			Storey First floor
Utility	G01			Storey Ground floor
Kitchen / family	G02			Storey Ground floor
Cloakroom WC	G03			Storey Ground floor
Study	G04			Storey Ground floor
Garage	G05			Storey Ground floor
Hall	G06			Storey Ground floor
Living room	G07			Storey Ground floor
Dining room	G08			Storey Ground floor
Total		0	0	

NOTES

1. Door, window, wall and space schedules placed by BIMSCHEDULE from the federated review model, i.e. after the
2. IFC round trip (IFCEXPORT, then IFCIMPORT): the property sets and classifications came back from the IFC files.
3. Uniclass codes typed for this demo (CLASSIFY); no classification table is bundled with the app.

Stratal CAD

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TITLE

6 Rowan Close: BIM coordination
Property and classification schedules

PROJECT	DRAWN		
6 Rowan Close (fictional)	Stratal CAD demo		
DRAWING NO.	SHEET	SCALE	SIZE
STR-BIM-003	3 of 4	NTS	A1
SOFTWARE	DATE		
Stratal CAD 0.1.8, BIM built in	12 Nov 2026		

STATUS

DEMONSTRATION DRAWING - NOT FOR MANUFACTURE

TAKE-OFF BY CATEGORY (BIMQTO, federated model)

Category (BIMQTO)	Count	Key quantity	Value	Basis
Walls	33	-	-	-
Floors	2	-	-	-
Roofs	2	-	-	-
Doors	21	Area	47.46 m2	Calculated
Windows	22	Area	32.685 m2	Calculated
Structural beams	2	Length	11.2 m	Declared
Foundations	9	-	-	-
Stairs	12	-	-	-
Ceilings	17	-	-	-
HVAC equipment	1	-	-	-
Plumbing fixtures	10	-	-	-
Furniture	25	-	-	-
Spaces	17	-	-	-
Other objects	79	Area	5.105 m2	Measured

MATERIALS (BIMQTO; construction layers and Material.Material)

Material (BIMQTO)	Area (m2)	Count	Objects	Basis
(no material given)	52.565	55	102	Calculated
12.5 mm plasterboard, skimmed	-	17	17	Measured
Acoustic plasterboard	-	16	8	Measured
Aircrete block	-	12	12	Measured
C25/30 concrete (example specification)	-	9	9	Measured
Concrete interlocking tiles on battens	-	2	2	Measured
Dense concrete block	-	6	6	Measured
Engineered softwood, factory painted	32.685	-	22	Calculated
Engineered timber joists, 22 mm chipboard deck	-	1	1	Measured
Facing brick	-	15	15	Measured
Galvanised steel spiral duct	-	26	26	Measured
Ground-bearing concrete slab on insulation	-	1	1	Measured
Gypsum plaster	-	12	6	Measured
Gypsum plasterboard on dabs	-	12	12	Measured
Mineral wool cavity batt	-	12	12	Measured
PVC-U drain pipe	-	1	1	Measured
PVC-U soil pipe	-	1	1	Measured
S355JR steel	-	2	2	Measured
Softwood, oak treads	-	12	12	Measured
Timber stud with mineral wool	-	8	8	Measured
Vitreous china and chrome (example)	-	10	10	Measured

EQUIPMENT SCHEDULE (BIMSCHEDULE Equipment)

Equipment schedule							
Name	Category	Pset_ManufacturerTypeInformation.Manufacturer	Pset_ManufacturerTypeInformation.ModelReference	Pset_ManufacturerTypeInformation.ArticleNumber	Maintenance.Interval	Container	Quantity.Count
Armchair	Furniture					Storey Ground floor	1
Coffee table	Furniture					Storey Ground floor	1
Sofa	Furniture					Storey Ground floor	1
TV unit	Furniture					Storey Ground floor	1
Desk	Furniture					Storey Ground floor	1
Desk chair	Furniture					Storey Ground floor	1
Console table	Furniture					Storey Ground floor	1
Chair	Furniture					Storey Ground floor	1
Dining table	Furniture					Storey Ground floor	1
Chair	Furniture					Storey Ground floor	1
Kitchen units	Furniture					Storey Ground floor	1
Small table	Furniture					Storey Ground floor	1
Washing machine	Furniture					Storey Ground floor	1
Bedside table	Furniture					Storey First floor	1
Double bed	Furniture					Storey First floor	1
Double wardrobe	Furniture					Storey First floor	1
Bedside table	Furniture					Storey First floor	1
Double bed	Furniture					Storey First floor	1
Double wardrobe	Furniture					Storey First floor	1
Bedside table	Furniture					Storey First floor	1
Double bed	Furniture					Storey First floor	1
Double wardrobe	Furniture					Storey First floor	1
Bedside table	Furniture					Storey First floor	1
Double bed	Furniture					Storey First floor	1
Double wardrobe	Furniture					Storey First floor	1
Subtotal Furniture				0			25
MVHR-01 heat recovery unit	HVAC equipment	Calder Air Systems Ltd (example)	CA-350 (example)		Filters every 6 months	Building Building	1
Subtotal HVAC equipment				0			1
Basin	Plumbing fixtures					Storey Ground floor	1
WC	Plumbing fixtures					Storey Ground floor	1
Basin	Plumbing fixtures					Storey First floor	1
Bath	Plumbing fixtures					Storey First floor	1
WC	Plumbing fixtures					Storey First floor	1
Basin	Plumbing fixtures					Storey First floor	1
WC	Plumbing fixtures					Storey First floor	1
Basin	Plumbing fixtures					Storey First floor	1
Shower tray	Plumbing fixtures					Storey First floor	1
WC	Plumbing fixtures					Storey First floor	1
Subtotal Plumbing fixtures				0			10
Total				0			36

MODEL CHECKS

Check	Model	Result
CHECKSTANDARDS, external-wall-u-value (max 0.18)	Architecture	15 walls: cavity 0.265, garage brick 2.226 W/(m2.K)
CHECKSTANDARDS, uniclass-element	Architecture	52 objects without a Uniclass code
CHECKSTANDARDS, window, door, space, wall rules	Architecture	all met
OBJFIX, beam-load-bearing	Structure	2 fixes applied (LoadBearing = true)
OBJFIX, uniclass-element	Structure	2 beams need a person
MEPCHECK	Services	28 open ends (drops to the terminals not modelled)
IFCEXPORT read-back	All three	no differences
IFCIMPORT into the federated review	All three	read; ground-floor walls wrong (FINDINGS)

STRUCTURAL SCHEDULE (BIMSCHEDULE Structural)

Structural schedule							
Name	Category	Dimensions.Profile	Material.Material	Quantity.Length	Quantity.Volume	Basis	Container
Ground floor slab	Floors		Ground-bearing concrete slab on insulation			Measured	Storey Ground floor
First floor slab	Floors		Engineered timber joists, 22 mm chipboard deck			Measured	Storey First floor
Subtotal Floors		0		0	0		
F01 strip footing 600 x 225	Foundations		C25/30 concrete (example specification)			Measured	Storey Foundations
F02 strip footing 600 x 225	Foundations		C25/30 concrete (example specification)			Measured	Storey Foundations
F03 strip footing 600 x 225	Foundations		C25/30 concrete (example specification)			Measured	Storey Foundations
F04 strip footing 600 x 225	Foundations		C25/30 concrete (example specification)			Measured	Storey Foundations
F05 strip footing 600 x 225	Foundations		C25/30 concrete (example specification)			Measured	Storey Foundations
F06 strip footing 600 x 225	Foundations		C25/30 concrete (example specification)			Measured	Storey Foundations
F07 strip footing 450 x 225	Foundations		C25/30 concrete (example specification)			Measured	Storey Foundations
F08 strip footing 450 x 225	Foundations		C25/30 concrete (example specification)			Measured	Storey Foundations
F09 strip footing 450 x 225	Foundations		C25/30 concrete (example specification)			Measured	Storey Foundations
Subtotal Foundations		0		0	0		
B1 203x133x25 UB	Structural beams	203x133x25 UB	S355JR steel			Measured	Storey Ground floor
B2 254x146x31 UB	Structural beams	254x146x31 UB	S355JR steel			Measured	Storey Ground floor
Subtotal Structural beams		457		0	0		
Cavity wall 300, ground floor	Walls					Measured	Storey Ground floor
Cavity wall 300, ground floor	Walls					Measured	Storey Ground floor
Cavity wall 300, ground floor	Walls					Measured	Storey Ground floor
Brick wall 215, ground floor	Walls					Measured	Storey Ground floor
Brick wall 215, ground floor	Walls					Measured	Storey Ground floor
Block partition 100, ground floor	Walls					Measured	Storey Ground floor
Block partition 100, ground floor	Walls					Measured	Storey Ground floor
Block partition 100, ground floor	Walls					Measured	Storey Ground floor
Cavity wall 300, first floor	Walls					Measured	Storey First floor
Cavity wall 300, first floor	Walls					Measured	Storey First floor
Stud partition 100, first floor	Walls					Measured	Storey First floor
Stud partition 100, first floor	Walls					Measured	Storey First floor
Stud partition 100, first floor	Walls					Measured	Storey First floor
Stud partition 100, first floor	Walls					Measured	Storey First floor
Stud partition 100, first floor	Walls					Measured	Storey First floor
Stud partition 100, first floor	Walls					Measured	Storey First floor
Gable infill wall, roof	Walls					Measured	Storey Roof
Gable infill wall, roof	Walls					Measured	Storey Roof
Gable infill wall, roof	Walls					Measured	Storey Roof
Cavity wall 300, first floor	Walls					Measured	Storey First floor
Cavity wall 300, ground floor	Walls					Measured	Storey Ground floor
Cavity wall 300, first floor	Walls					Measured	Storey First floor
Cavity wall 300, first floor	Walls					Measured	Storey First floor
Gable infill wall, roof	Walls					Measured	Storey Roof
Cavity wall 300, first floor	Walls					Measured	Storey First floor
Cavity wall 300, ground floor	Walls					Measured	Storey Ground floor
Gable infill wall, roof	Walls					Measured	Storey Roof
Cavity wall 300, first floor	Walls					Measured	Storey First floor
Cavity wall 300, ground floor	Walls					Measured	Storey Ground floor
Brick wall 215, ground floor	Walls					Measured	Storey Ground floor
Block partition 100, ground floor	Walls					Measured	Storey Ground floor
Block partition 100, ground floor	Walls					Measured	Storey Ground floor
Block partition 100, ground floor	Walls					Measured	Storey Ground floor
Stud partition 100, first floor	Walls					Measured	Storey First floor
Subtotal Walls		0		0	0		
Total		457		0	0		

NOTES

1. Take-off and materials: BIMQTO / BIMREPORT on the federated review model; basis as the app reports it.
2. Model checks: the project's requirement rules (STANDARDS, CHECKSTANDARDS, OBJFIX), MEPCHECK, IFC read-back.
3. U-values are BIMLAYERS estimates from typed conductivities (Rsi 0.13, Rse 0.04), not a compliance calculation.
4. Costs use example rates typed for this demo.

Stratal CAD

cad.stratal.co.uk

TITLE

6 Rowan Close: BIM coordination
Quantities and model checks

PROJECT	DRAWN
6 Rowan Close (fictional)	Stratal CAD demo

DRAWING NO.	SHEET	SCALE	SIZE
STR-BIM-004	4 of 4	NTS	A1

SOFTWARE	DATE
Stratal CAD 0.1.8, BIM built in	12 Nov 2026

STATUS

DEMONSTRATION DRAWING - NOT FOR MANUFACTURE