## Example 3 – Creating a Brick Veneer wall from the Wall Types tab

In the following example a Custom wall will be created from scratch in the Wall Types tab and then subsequently saved into the Wall Library. The wall will be built with the following build up:

Outside		
110r	mm	Brickwork: generic extruded clay brick (typical density)
40m	im	Air gap (unventilated with single sided foil (e = 0.2 from manufacturer's
		literature))
90m	Im	Rigid insulation with the highest possible R value (lowest conductivity)
10m	ım	Plasterboard
Inside		

This construction resembles Brick Veneer, so we could use that as a starting point for this Custom wall. However, for the purposes of this exercise we will start from scratch.

Wall Name	r wall a name and code	2 Wall Code:	Retain	ing Wall
2. Build up y	your wall layers			
< Outside		Untitled Wall		Inside +
(mm)		0		
		,		
		R0.0 RAG 0 AG 0		
Add Layer	r Delete Layer U	4	Add Insulation Lay	
Add Layer	r Delete Layer U	4	Add Insulation Lay	R-value
Conception of the local distance of the loca	Select a material	4 p▲ Down ▼ Flip 3 A Material 5	Thickness (mm)	0.0
a	Select a material Insulation Placeholder	4 p▲ Down ▼ Flip 3 4 Material 5	Thickness (mm)	0.0 0.0
a	Select a material	4 p▲ Down ▼ Flip 3 A Material 5	Thickness (mm)	0.0
a	Select a material Insulation Placeholder	4 p▲ Down ▼ Flip 3 4 Material 5	Thickness (mm)	0.0 0.0
a Outside Inside	Select a material Insulation Placeholder Select a material	4 p▲ Down ▼ Flip 3 A Material 5 5	Thickness (mm)	0.0 0.0
a Outside Inside	Select a material Insulation Placeholder Select a material	4 p▲ Down ▼ Flip 3 4 Material 5	Thickness (mm)	0.0 0.0
a Outside Inside	Select a material Insulation Placeholder Select a material	4 p▲ Down ▼ Flip 3 A Material 5 5	Thickness (mm)	0.0 0.0
A Outside Inside	Select a material Insulation Placeholder Select a material	4 p ▲ Down ▼ Flip 3 4 Material 5 5 selected. These is yets will be deleted.	Thickness (mm)	0.0 0.0

- 1. Go to the Wall Types tab and click on the New Wall Type button.
- 2. Give your wall a name. Note that the Wall Code field will automatically populate with the initials of the wall name.
- 3. Add two construction layers (click *Add Layer* twice) and one insulation placeholder (click *Add Insulation Layer* once).
- 4. Move the insulation placeholder between the two construction layers by using the Up button.
- 5. Select the materials for the construction layers and their thickness: *General > Brickwork, generic extruded clay brick (typical density)* and *General > Plasterboard*.
- 6. Highlight the insulation placeholder and then click on the Edit Default Insulation button.



Outside	1	14		Inside		
(mm)			130 10			
		R3.21 RAG 1 AG 0				
Ret	aining Wall					
Wall Cons						
wall Cons		Material	Thickness (mm)	R-value		
Outside	Brickwork: generic extruc	led day brick (typical density)	110	0.18		
	Insulation Placeholder		40	3.63		
	Plasterboard		10	10 0.0		
Inside						
Insulation	Layers					
Warnm	e if my insulation thickness	differs from 0 🔶 (mm)				
	Thickness (mm)	Total Thickness (mm) 130				
		Up ▲ Down ▼ Flip ౮				
Add Lay		Material	8 Thickness (mm)	R-value		
Add Lay	Air gap vertical 31-65 mm	(40 nominal) unventilated reflective (0.2/		0.4		
7		= 0.028)	90	3.2		
7	Polystyrene extruded (k					
Add Lay 7 Outside						

- 7. Add two insulation layers (click Add Layer twice).
- 8. Change the outermost layer and select the Air gaps (ventilated 31-65mm; 40 nominal) > Vertical > Air gap vertical 31-65mm (40 nominal) unventilated reflective (0.2/0.9; E = 0. 20) and click OK. Note that the thickness displayed is 40mm (ie the nominal thickness of the selection). As this matches the required width, there is no need for any manual changes.
- Edit the innermost layer selecting a rigid bulk insulation material from the Specified conductivity list. Select the Extruded Polystyrene which has the lowest k-value (0.028) and click OK. Note that the thickness displayed is 0mm. Manually change this to 90mm.
- 10. Click OK to save the wall. Note that this has only been created in the Wall Types tab and will be saved project file only.



Wall Code	Wall Nam Brick Veneer	1. A	Library	Used Metres	
	Brick Veneer				
	ALL	FR.5		0.0	
	EXAMPLE 3 Br	idk	11	0.0	
AC200	AAC Block	FR.5		0.0	
AC75	AAC 75mm Pa	nel FR.5		0.0 0.0	
	Brick Cavity	FR.5			
Sol	Concrete Bloc	k So FR.5		0.0	
SolPB	Concrete Bloc	k So FR.5		0.0	E
0100	Cast Concrete	e FR.5		0.0	
0125	Cast Concrete	e FR.5		0.0	
ncBlock 190	Concrete Bloc	kH FR5		0.0	
ncBlock190CF	Concrete Bloc	k 19 FR.5		0.0	
ncBlock90	Concrete Bloc	kH FR.5		0.0	
ncBlock90PB	Concrete Bloc	kH FR5		0.0	
3	Double Brick	FR.5		0.0	
PB	Double Brick F	Finis FR.5		0.0	
S100	100mm Expan	ded FR.5		0.0	
S50	50mm Expand	ied FR.5		0.0	
575	75mm Expand	led FR.5		0.0	
	Fibro Clad Fra	med FR5		0.0	
t	Internal Plaste	erbo FR5		0.0	
g250HWood	Log Wall 250m	nm FR.5		0.0	
g250HWoodPB	Log Wall 250m	nm FR.5		0.0	
g250SWood	Log Wall 250m	m S., FRS		0.0	-
	IC75 ISII ISIIPB ISIIPB ISIIPB ISIIPB ISIICO ISIICI	IC75     AAC 75mm Pa       Brick Cavity     Brick Cavity       ISal     Concrete Bloc       ISalPB     Concrete Bloc       ISalPB     Concrete Bloc       ISalPB     Concrete Bloc       ISalPB     Concrete Bloc       ISALS     Cast Concrete       ISALS     Cast Concrete       ISALBIAS     Concrete Bloc       ISALBIAS     Concrete Bloc	AC 75mm Panel     FR5       Brick Cavity     R5       Sel     Concrete Block So       Stable     Concrete Block So       It25     Cast Concrete       Cast Concrete     R5       IndBlock190     Concrete Block H       Concrete Block H     R5       IndBlock90PB     Concrete Block H       Concrete Block H     R5       IndBlock90PB     Concrete Block H       S100     Double Brick       S100     Double Brick       S100     Domm Expanded       S75     75mm Expanded       Fibro Clad Framed     R5       Internal Plasterbo     R5       Stot Internal Plasterbo     R5       S250HWoodPB     Log Wall 250mm	kC75     AAC 75mm Panel     PR5       Brick Cavity     PR5       Sell     Concrete Block So     PR5       ISolPB     Concrete Block So     PR5       100     Cast Concrete     PR5       1125     Cast Concrete     PR5       1126     Cast Concrete     PR5       ncBlock190C     Concrete Block H     PR5       ncBlock190CF     Concrete Block H     PR5       ncBlock190CF     Concrete Block H     PR5       ncBlock190CF     Concrete Block H     PR5       ncBlock90PB     Concrete Block H     PR5       IDouble Brick     FR5     PS       S100     L00mm Expanded     PR5       S100     L00mm Expanded     FR5       S100     Elbro Clad Framed PR5     S1       S100     Elbro Clad Framed PR5     S1       S20     S0mm Expanded     FR5       S1     Fibro Clad Framed PR5     S1       Log Wall 250mm     FR5     S1	LC75     AAC 75mm Panel     PR5     0.0       Brick Cavity     PR5     0.0       Sel     Concrete Block So     PR5     0.0       ISoIPB     Concrete Block So     PR5     0.0       ISOID     Cast Concrete     PR5     0.0       IndBlock190     Concrete Block H     PR5     0.0       IndBlock190     Concrete Block H     PR5     0.0       IndBlock90PB     Concrete Block H     PR5     0.0       IndBlock190CF     Concrete Block H     PR5     0.0       IsoidoH     Concrete Block H     PR5     0.0       IsoidoH     Double Brick Friston     PR5     0.0       S100     ID0mm Expanded     PR5     0.0       S75     7smm Expanded     PR5     0.0       S75     7smm Expanded     PR5     0.0

- 11. In order to save it to the Wall Library locate the wall in the Wall Types table. Right click on the wall and click on Add To Library.
- 12. Select the appropriate Custom Library folder and click Save.

