

# Creating Walls with a Block and Tie Beam (CBS)

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The information in this article applies to:




## QUESTION

I live in the southeastern United States and regularly build CBS (Concrete Block Stucco or Concrete Block Structure) structures. How do I model a CBS wall that is block on the bottom and has a tie beam on top?

## ANSWER

A CBS wall is essentially two wall types placed on top of one another, a layered concrete block wall with a solid poured concrete tie beam across the top. By defining these two wall types and stacking them using the pony wall option, this type of wall can be accurately modeled.

To create a CBS wall

1. From the menu choose **Build> Wall> Define Wall Types**  to display the **Wall Type Definitions** dialog.
2. Create two new custom wall types - one for the lower block wall and one for the tie beam, or upper wall.
  - A predefined CBS wall type option is available in most all template files. You can **Copy** this wall type and name it **CBS Lower Wall**.

Wall Type Definitions

CBS Lower Wall New Copy Rename Delete Delete All Unused

Wall Layers

Layer #	Line Color	Line Style	Material	Pattern	Texture	Fill	Thickness
Exterior Layers							
1			Sand Finish - ...		No Texture		5/8"
Main Layers							
2			Blocks Running...				8"
Interior Layers							
3			Fir Framing 2				1 1/2"
4			Drywall		No Texture		1/2"
5							

Insert Above  
Insert Below  
Move Up  
Move Down  
Delete

Total Thickness:  
10 5/8"

Selected Wall Layer Line

Line Color: ☒ By Layer

Line Style:

Material Layer

☐ Framing

☐ Use Default Framing Material

Type: Lumber

Spacing: 0"  On Center

Width: 0"

☐ Horizontal Framing

Bottom Run Elevation: 0"

☐ Air Gap

OK Cancel Help

If you choose to modify a wall type that is already in use in your plan, all existing walls in the file that are using that wall type will update when you make changes to the wall type. This is why it's recommended to create a copy of an existing wall type.

- You can also **Copy** a concrete wall type and name it **CBS Upper Wall**.

Wall Type Definitions

CBS Upper Wall ▼ New Copy Rename Delete Delete All Unused

Wall Layers

Layer #	Line Color	Line Style	Material	Pattern	Texture	Fill	Thickness
Exterior Layers							
Main Layers							
1			Concrete 1				10 5/8"
Interior Layers							
2							

Insert Above  
Insert Below  
Move Up  
Move Down  
Delete

Total Thickness:  
10 5/8"

Selected Wall Layer Line

Line Color: ☒ By Layer

Line Style: ▼

Material Layer

☐ Framing

☐ Use Default Framing Material

Type: Solid Concrete ▼

Spacing: 0" On Center


Width: 4"

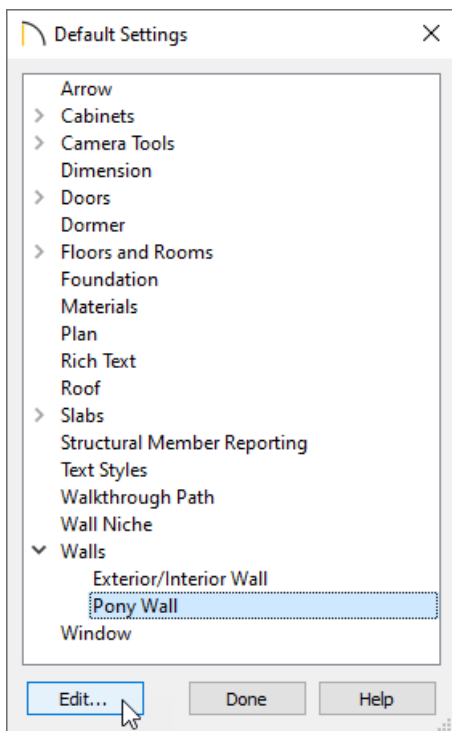
☐ Horizontal Framing

Bottom Run Elevation: 0"

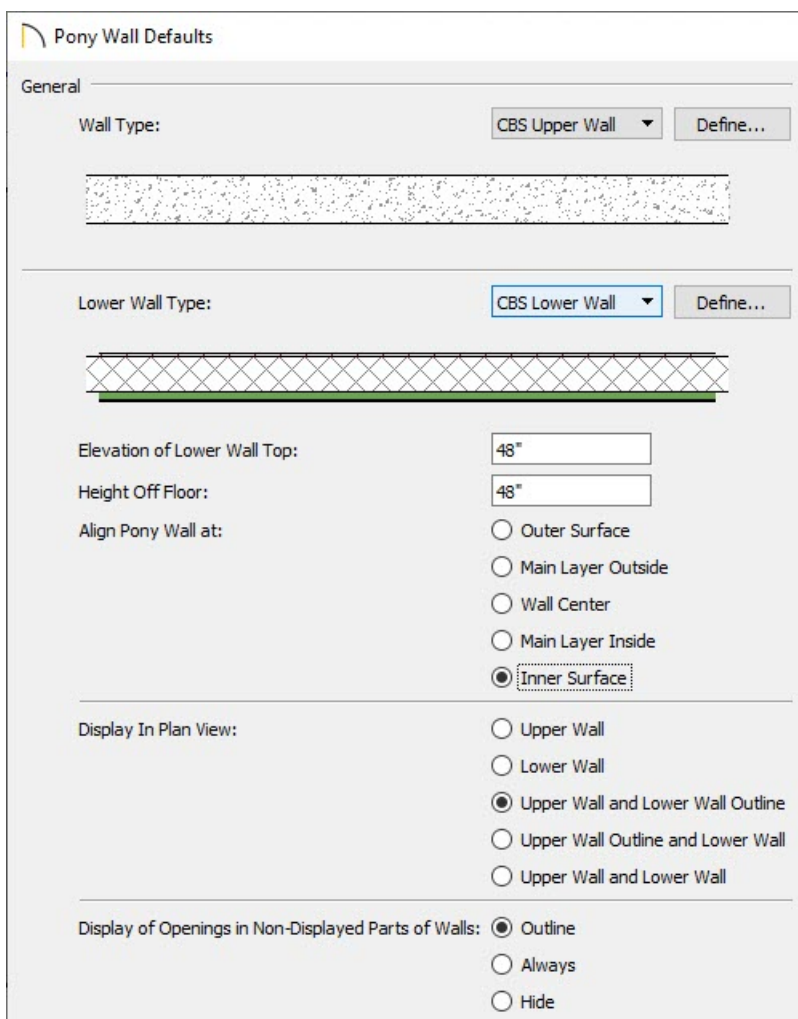
☐ Air Gap

OK Cancel Help


- Typically, these two wall types will have the same **Total Thickness**.
- Once these these new wall types are created, click **OK** to confirm the changes and close the dialog.
  - Navigate to **Edit> Default Settings** , expand the **Walls** category, click on **Pony Wall**, then click **Edit**.



5. In the **Pony Wall Defaults** dialog that displays:



- For the **Wall Type** field at the top, use the drop-down menu and choose the **CBS Upper Wall**.
- For the **Lower Wall Type** field, use the drop-down menu and choose the **CBS Lower Wall**.

- In the **Elevation of Lower Wall Top** field, type in the height you would like the **CBS Lower Wall** to be.
  - In the **Align Pony Wall** section, select **Inner Surface**.
  - Specify your desired display options.
6. Once you click the **OK** button you will be able to draw your structure using the **Pony Wall**  tool and the wall types that you have customized.