

# House Design Tutorial

This House Design Tutorial shows you how to get started on a design project. The tutorials that follow continue with the same plan. When we are finished, we will have created a sample plan named “Stucco Beach House.” You can then apply the tools and techniques learned to your own plans.

In this tutorial you will learn about:

- Before You Begin
- Getting Started
- Drawing Walls
- Creating Dimension Lines
- Adjusting Wall Positions
- Creating Rooms
- Creating a Camera View
- Adding Floors
- Placing Doors and Windows

## Before You Begin

Home Designer Landscape and Deck may look differently on your screen than it does in the following tutorials.

- Screen captures are taken from a smaller window to optimize image quality, so the size and proportion of your interface may be different.
- Some features, such as the Reference Grid, have been turned off to optimize image quality. For more information, see “General Plan Defaults Dialog” on page 43 of the Reference Manual.
- As the program is updated, features may be added or removed. If you are using the latest version of Home Designer Landscape and Deck, you may see buttons and/or menu items that have been added or removed since this tutorial was written. For more information, see “Program Updates” on page 20.
- Depending on your operating system and Windows system settings, dialogs and toolbars may appear differently than they do in the tutorials.

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## Getting Started



We'll start with a new, blank plan.

### *To start Home Designer Landscape and Deck*

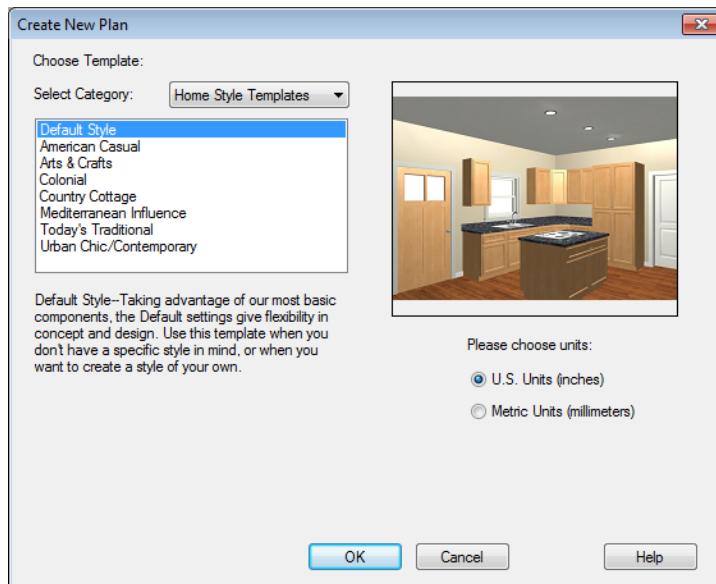
1. Click the Windows Start button and select All Programs.
2. Browse to Chief Architect> Home Designer Landscape and Deck 2014> Home Designer Landscape and Deck 2014, and click to start the program.




3. When Home Designer Landscape and Deck launches, the **Getting Started** window displays. For more information, see “Startup Options” on page 18 of the Reference Manual.



- Click **New Plan**  to open a new, blank plan.
- If you have disabled the Startup Options at startup or already have the program open, you can select **File> New Plan**  to open a new, blank plan.

- The **Create New Plan** dialog displays next.

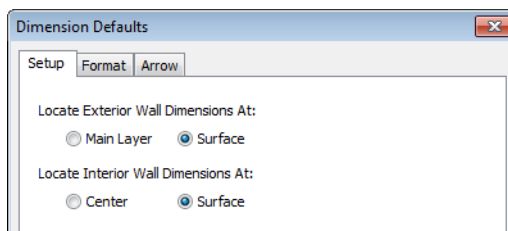


- Home Designer Landscape and Deck includes a selection of Landscape & Terrain, Landscaping, Decks and Pools templates to choose from. Some templates contain empty yards you can place your own house into. Other templates contain buildings and/or landscaping designs. For this tutorial, select the **Design Your Own** template from any category, then select the **U.S. Units** radio button.
- You should begin work on any new file by saving it. To do this:
  - Select **File> Save**  from the menu to open the **Save Plan File** dialog.
  - Specify the location on your computer where you would like to save the plan.
  - Type a name for your plan.
  - Click **Save**.
- It is wise to save your work, and save it often, as you proceed. To do this, you can:
  - Select **File> Save**  from the menu to open the **Save Plan File** dialog
  - Click the **Save**  button on the toolbar.
  - Type Ctrl + S on your keyboard.

For more information about saving files, see “Saving, Exporting, and Backing Up Files” on page 32 of the Reference Manual.

***To set the Dimension Defaults***

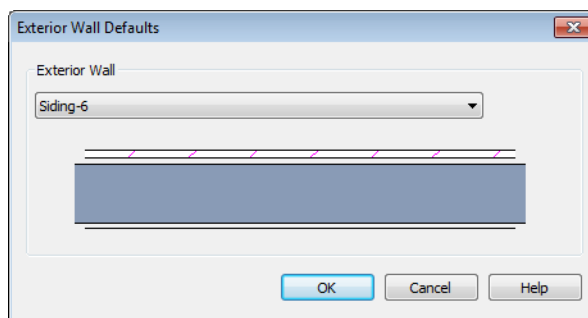
1. Select **Edit> Default Settings** to open the **Default Settings** dialog.
2. Click on "Dimension" and click the **Edit** button.



3. Review each of the tabs and settings available for setting up your Dimension Defaults. For more information, see [Dimension Defaults Dialog](#).

***To set the Wall Defaults***

1. Select **Edit> Default Settings**  to open the **Default Settings** dialog.
2. Click on Walls, and click on the **Edit** button.
3. From the Exterior Wall drop down menu, we will select Stucco-6, and click OK.



4. Click the **Done** button to close the **Default Settings** dialog.


You may want to review some of the other available defaults when setting up your template.

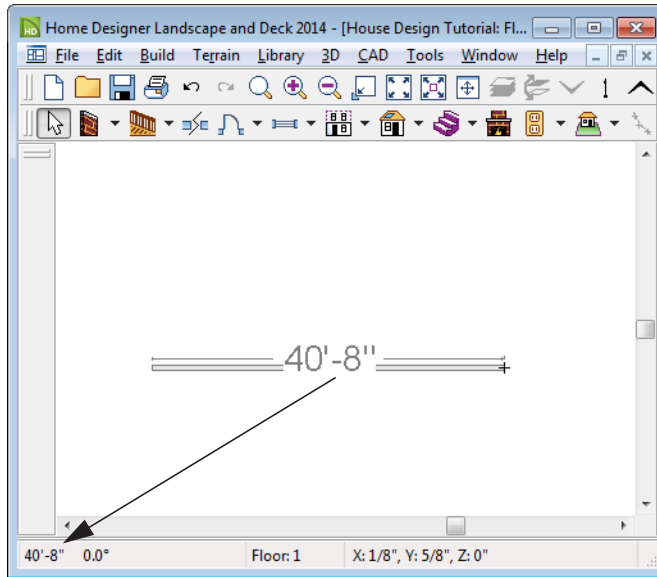
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## Drawing Walls



We'll start by drawing some exterior walls. When drawing walls, do not try to size or position them precisely - they can be more easily positioned after they are created. For more information, see "Walls, Railings & Fencing" on page 93 of the Reference Manual.


*To draw exterior walls*

1. Select **Build> Wall> Straight Exterior Wall**  from the menu or click the corresponding toolbar button.
  - Click and drag from left to right to draw a wall.

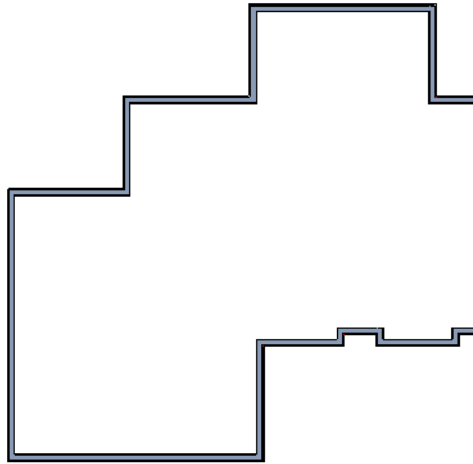


*Wall length is indicated in the Status Bar as the wall is drawn*



2. There are a few things to make note of as you draw a wall.
  - The wall's length displays in two places: above the wall and in the Status Bar at the bottom of the screen.
  - Wall angles are restricted to increments of 7.5° when Angle Snaps  are on. . See "Snap Behaviors" on page 60 of the Reference Manual for more information.
3. Continue drawing walls, creating a rough outline of the building's exterior, as shown in the following image.
  - Exact dimensions are not important yet, but it is helpful to keep the final size of the structure in mind as you draw. The overall length of this building's sides will be 41' x 39'6".
  - It is important that exterior walls (and any other wall types with an interior side and an exterior side) are drawn clockwise to ensure the proper orientation of wall surfaces.

- When your walls completely enclose an area, a roof will automatically be generated. For the purposes of this tutorial, this roof can be removed. Select **Build > Roof > Delete Roof** . When asked if you want to turn **Auto Rebuild Roofs** off, click Yes.

Note: The “Auto Rebuild Roofs” option is a fast and convenient alternative to manual roof design. It has been turned off in this tutorial to simplify the display of our building in floor plan view. The option is located in the Build Roof dialog. For more information, see “Build Roof Dialog” on page 181 of the Reference Manual.



### *To delete a wall*


- While the **Select Objects**  tool is active, click on a wall with the pointer to select it.
- Press the **Delete** key or click the **Delete**  edit button.

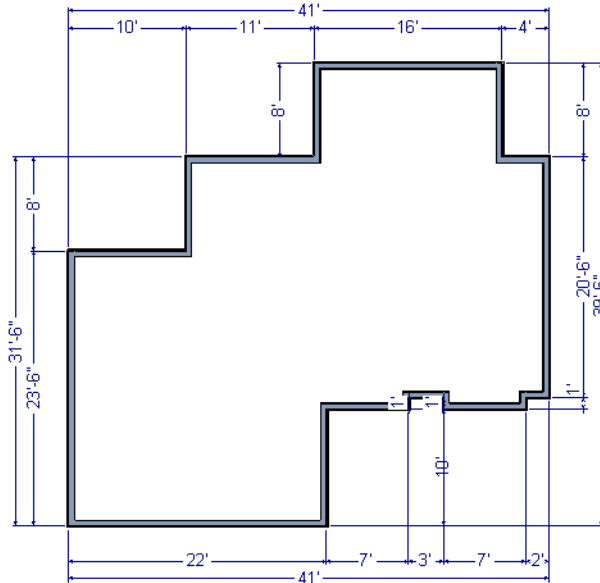
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## Creating Dimension Lines

Dimension lines locate walls, openings in walls, and other objects. In Home Designer Landscape and Deck, you can generate types of automatic dimension lines and draw a variety of manual dimensions. For more information, see “Dimensions” on page 335 of the Reference Manual.

*To create automatic exterior dimension lines*

1. Select **CAD> Dimensions > Auto Exterior Dimensions** .



2. For a closer view of a certain area, click the **Zoom**  tool, click and drag a box around the area you want to see in detail, and release the mouse button. That area fills the screen. For more information, see “Zoom & View Tools” on page 305 of the Reference Manual.
3. To return to the previous zoom factor, select **Window> Undo Zoom** .
4. If you can't see all the exterior dimension lines at once, select **Window> Fill Window Building Only**  to center your plan on screen.




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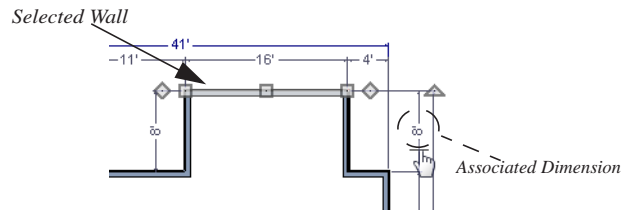
## Adjusting Wall Positions

Now we'll adjust the spacing of walls with more precision. There are a couple of ways to move walls into position, but the fastest and most accurate uses dimension lines. For more information about using dimensions to relocate objects with accuracy, see “Moving Objects Using Dimensions” on page 343 of the Reference Manual.



***To move walls using dimensions***

1. Let's begin by selecting **Window > Fill Window Building Only**  so we can see the entire building.
2. Click the **Select Objects**  button, then click on a wall that you want to move.
3. Click on a dimension line that indicates how far the selected wall is from another wall. There are a couple ways to determine which dimensions can be used for this purpose:
  - Move the selected wall and see which dimensions update.
  - Move your pointer over a dimension. If it is an associated dimension, the icon will change to a pointing hand ().



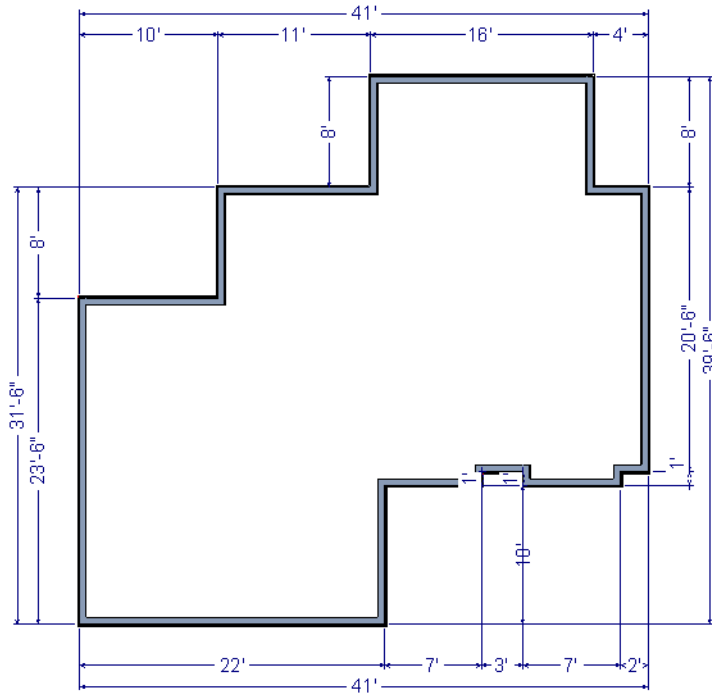
4. Click on the associated dimension and enter a new value. Remember, numbers entered with an apostrophe denote feet and numbers entered with quotes denote inches. If neither apostrophes or quotes are included, the entered value defaults to inches.
5. Use the Enter key on your keyboard to close the dialog and apply the change so that the wall will move the specified distance.
6. Repeat this process for the adjacent exterior wall, continuing in a clockwise direction. It may help to refresh **Auto Exterior Dimensions** (Shift + A) between commands.



If you use dimensions to reposition walls, you should always work in the same direction, adjusting one wall section after another.



Dimensions can also be used to change the length of a selected wall. Bear in mind, though, that when a wall is resized in this manner its Start point will always be locked and its End point will always be moved. When, adjusting all the walls in a floor plan, it is often easier to move them than to resize them. See “Editing Walls” on page 104 of the Reference Manual.

When you are finished, the dimensions of your model should match those in the following image.




When your exterior walls are positioned properly, you may find it helpful to delete the dimensions.




*To delete all dimensions at once*

1. Select **Edit > Delete Objects**  to open the **Delete Objects** dialog. See “Delete Objects Dialog” on page 91 of the Reference Manual.
2. Select the **All Rooms On This Floor** radio button.
  - Check **Manual Dimensions** to delete manually-drawn dimension lines such as those drawn by the tool;
  - Check **Automatic Dimensions** to delete automatically generated dimension lines such as those created by the **Auto Exterior Dimensions**  tool;
  - Click OK.


Although using dimensions is generally the fastest and most accurate way to move walls, you can also move them using their edit handles and edit tools.


### *To move walls using their edit handle*

1. Click the **Select Objects**  tool then click on an exterior wall to select it.
2. Click and drag the Move edit handle that displays at the position along the wall where you clicked. Walls can be moved perpendicular to the direction that they are drawn.
3. As you move the wall, the dimension lines that indicate how far it is from other walls will update.

If you have difficulty positioning a wall at the desired location because it jumps over that location as you move it, try zooming in on it by scrolling with your mouse wheel or by using either the **Zoom**  or **Zoom In**  tool. You can also use the **Accurate Move**  edit tool to slow your mouse movement.

### *To use the Accurate Move edit tool*

1. Click on the wall that you wish to move more slowly and with greater accuracy.
2. Click the **Accurate Move**  edit button.
3. Click and drag the Move edit handle to the desired position.

Your mouse will move more slowly for this edit only. The next time you want to move or resize the wall slowly, you will need to click the **Accurate Move**  edit button again.

## Creating Rooms

Now that the exterior of the house has been finalized we can begin laying out rooms. Rooms are defined by the walls that enclose them. They are then assigned a Room Type that assigns common room attributes. For more information about rooms, see “Room Types” on page 121 of the Reference Manual.

### Room Types



Rooms in Home Designer Landscape and Deck are given special attributes by assigning a Room Type. For example, porches use a concrete floor material and have a ceiling and roof, while decks use floor planking and have no ceiling or roof. For more information, see “Rooms” on page 117 of the Reference Manual.

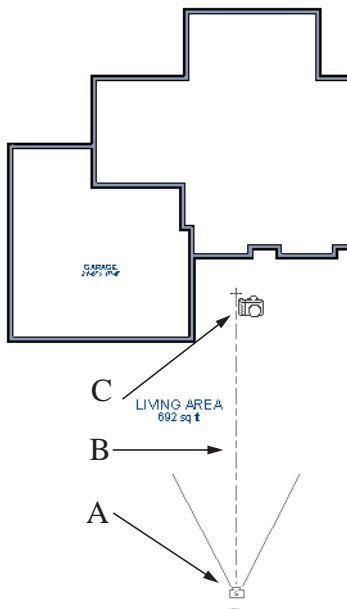
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## Creating a Camera View



Let's take a look at our plan in 3D and see how it looks so far. For more information, see "3D Views" on page 313 of the Reference Manual.

### *To create a camera view*

1. In floor plan view, click the **Fill Window**  button to zoom out as needed to fill the view window with the entire drawing.
2. Select **3D > Create Camera View > Camera**  (or press Shift + J).
3. Click at the bottom of the floor plan view window and drag a line that stops at the Entry. The point where you click (A) defines the point of perspective and the line (B) defines the direction of perspective.



4. Release the mouse button to create the 3D camera view. Where the mouse is released (C) is the camera's focal point.
5. If necessary, you can use the **Mouse-Orbit Camera**  tool to change the camera's perspective. The camera will revolve around its focal point (C). See "Repositioning Cameras" on page 318 of the Reference Manual for more information.

- Once you have accurately positioned your camera, to smooth out the edges and create a more realistic rendering of the model, you can select **3D> Camera View Options> Final View**  or **Final View with Shadows** .


Final Views often take significantly longer to generate than Previews, so the 3D view reverts back to the Preview Settings as soon as anything is changed within the view.

- To return to floor plan view, select **File> Close** from the menu.


## Adding Floors

Creating new floors in a plan is easy, but it is best to do so only after the first floor plan has been finalized. Now that we have done so in our plan, we'll add a second story and basement. For more information about working with multiple floors, see "Multiple Floors" on page 161 of the Reference Manual.

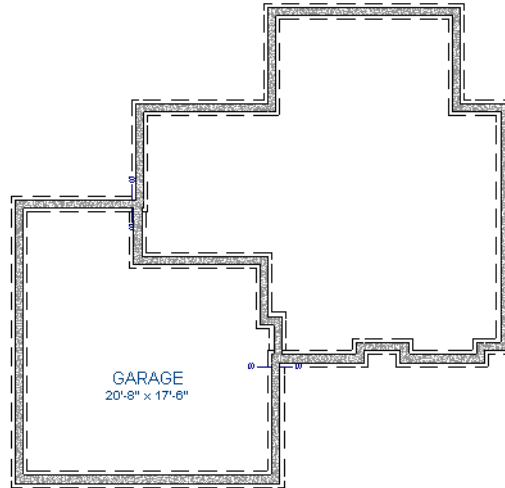
### *To add a second floor*

- Select **Build> Floor> Build New Floor** . The **New Floor** dialog displays.
- Select **Derive new 2nd floor plan from the 1st floor plan** and click **OK** to close the **New Floor** dialog to display the Floor 2 Defaults.

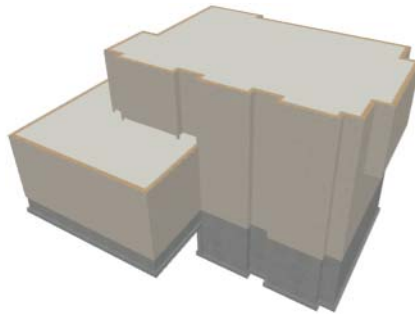
Click **OK** and a floor plan for the second floor is created based on the exterior walls of the first floor plan. *To create a foundation or basement*

- Select **Build> Floor> Build Foundation** . In the **Build Foundation** dialog:
  - Change the **Wall Height** to 100 inches.
  - Click **OK** to close the dialog and create a foundation level for your plan.
- Select **Derive New Foundation Plan From the First Floor Plan** and click **OK** to close the **New Floor** dialog. For more information, see "Adding Floors" on page 162 of the Reference Manual.

3. You can select **Window> Fill Window Building Only**  from the menu to center the plan on screen.




4. Select **3D> Create View> Full Overview**  from the menu to create a 3D overview of our entire plan so far.



#### ***To add a second story balcony***

Now that we have a second floor, we'll use the tools and techniques we learned earlier to add a second story balcony that is aligned with the floor below.

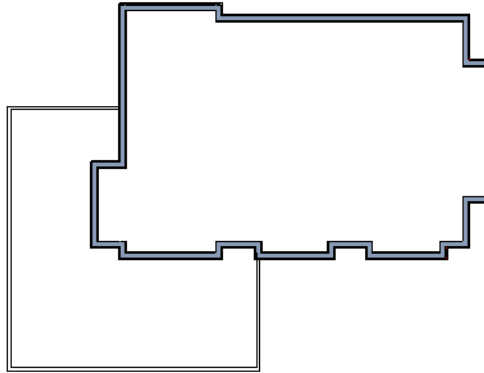
1. Press Ctrl + Tab on your keyboard to switch back to floor plan view and return to Floor 2.
2. If they are not already displayed, click **Reference Display**  to display the first floor walls.





3. Select **Build> Wall> Straight Railing** .



For best results, do not use the Deck Railing tool or specify the balcony room as a Deck.

4. Draw a balcony as shown in the following image. You can manually align the wall with the first floor deck below in the following steps.



5. Next, use the **Select Objects**  tool to select one of the railings, and click on the **Open Object**  edit tool to display the **Railing Specification** dialog. On the General tab, increase the Thickness to 8 1/8" then click **OK**.
6. Repeat this process for the remaining railings in the plan.
7. Select a section of railing that has a wall below it on the first floor and click the **Align with Wall Below**  edit button.
  - Note: If **Align with Wall Below**  is not available, the selected railing either needs to be moved closer to the wall below, or the railing is already aligned with the one below. See “Aligning Walls” on page 107 of the Reference Manual.
8. Repeat this step for each section of railing that has a railing directly below it on the first floor.


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## Placing Doors and Windows


We’re making progress on our house, but we can’t get into it, and neither can light. Now is a good time to add some doors and windows. For more information about doors and windows, see “Doors” on page 131 of the Reference Manual and “Windows” on page 145 of the

Reference Manual.



### *To add a door*

1. If your views are still tiled, close the 3D view and maximize the floor plan view.
2. Select **Build> Door> Hinged Door** .
3. Move the pointer to the entry and click on the front wall, left of its center, to place a door.


### *To add a window*

1. Select **Build> Window> Window** .
2. Move the pointer to the entry and click on the wall, right of center, to place a window.

### *To edit a door*

1. So that we can better see the results when we edit our door, let's select **3D> Create Camera View> Perspective Full Camera**  to create a camera view of the entry. Click and drag a camera arrow inside the structure, pointed at the entry.
2. Click the **Select Objects**  tool, then click on the door to select it in the 3D view.



3. Click the **Open Object**  edit button to open the **Door Specification** dialog. For more information, see “Door Specification Dialog” on page 140 of the Reference Manual.
4. On the General tab, set the **Door Style** to Glass and set the Width to 36”.
5. On the Frame & Lites tab, set the **Frame Bottom** to 8 inches. Press the Tab key to update the preview image on the right side of the dialog so that it reflects your change.
6. On the Lites tab, set the **Lites across** to 3 and **Lites vertical** to 5.
7. On the Hardware Tab, set the Handle **In from Door Edge** to 2”




8. Click **OK** to return to the 3D view.


*To edit a window*

1. Next, click on the window to select it.




2. Click the **Open Object**  edit button to open the **Window Specification** dialog. For more information, see “Window Specification Dialog” on page 155 of the Reference Manual.
3. On the General tab, select “Fixed Glass” from the **Window Type** drop-down list.
4. On the Lites tab, change the **Lites across** to 4 and **Lites vertical** to 4.
5. Click OK to close the **Window Specification** dialog.




 If you would like all of your doors and/or windows to be customized, make your changes in the Door Defaults and Window Defaults dialogs before placing these objects. For more information, see “Default Settings vs Preferences” on page 42 of the Reference Manual.

***To change the door swing***

1. Return to floor plan view and select the door.
2. Click the **Change Opening/Hinge Side**  edit button.

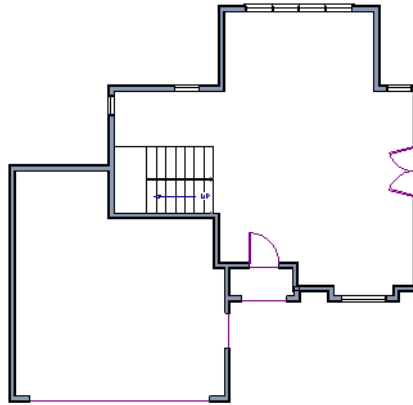
***To copy a window or door***

1. Return to the 3D view and select the window, or door, you wish to copy.
2. Click the **Copy/Paste**  edit button. For more information about copying objects, see “Copying and Pasting Objects” on page 63 of the Reference Manual.

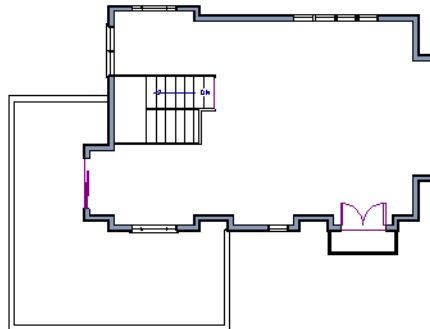
Doors and windows can be placed, selected, deleted, copied, pasted, and edited in either 2D or 3D views. If there is a window design that you will be using throughout a plan, you can create it once, then just copy and paste it. An even better approach is to set your door and window defaults to the desired settings before placing these objects. For more information, see “Default Settings vs Preferences” on page 42 of the Reference Manual.

Use the tools and techniques you've learned to add window and doors to the rest of the plan, as shown in the following images. Doors placed in interior walls become interior doors and have different specifications than exterior doors. If you feel inspired, customize the doors and

windows as you see fit. For example, increase a door's width to 48" or greater and the program will automatically create a double door.



*1st Floor*



*2nd Floor*

When you have finished, **Save**  your work.

If you would like, you can continue working on this plan in the Landscaping Tutorial. You can also learn about materials in the Materials Tutorial or find out more about roofs in the Roof Tutorial.

