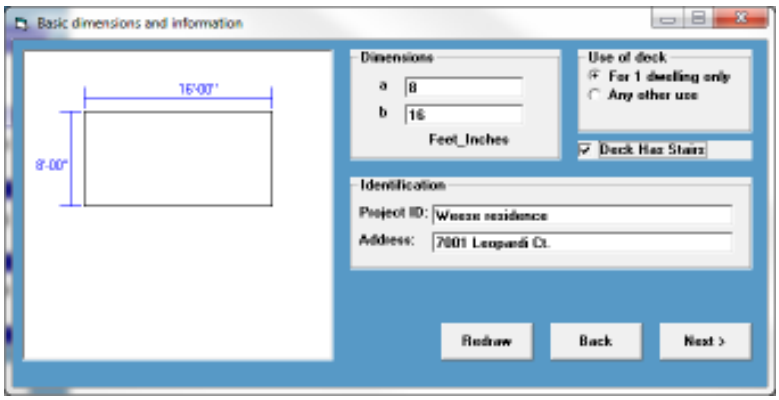
DESIGNING OR CHECKING A DECK USING PLAN ANALYST

BASIC DIMENSIONS AND INFORMATION INPUT FORM



Enter the depth (a) and width (b) of the basic deck.

If the deck includes stairs, click the check box. A check mark will be placed in the box when stairs are included.

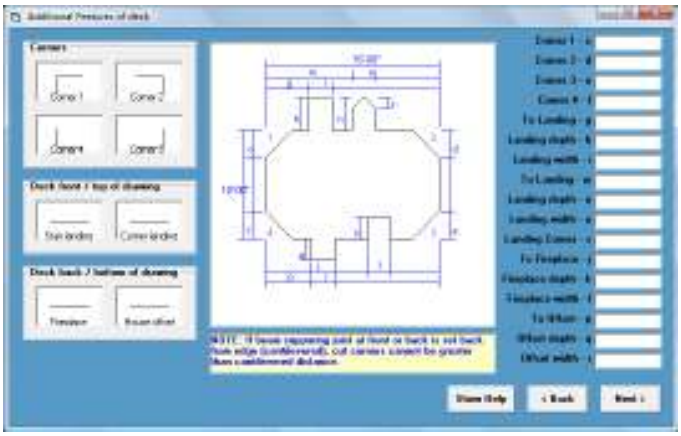
If the deck is to be used for anything other than a single family dwelling, click Any other use.

Deck shape will be redrawn when you leave dimension boxes. You may also click the Redraw button to see new shape.

Enter the Project ID. This may be anything, number, name, etc. or you may leave it blank.
Enter the Project Address. This may be anything or you may leave it blank.

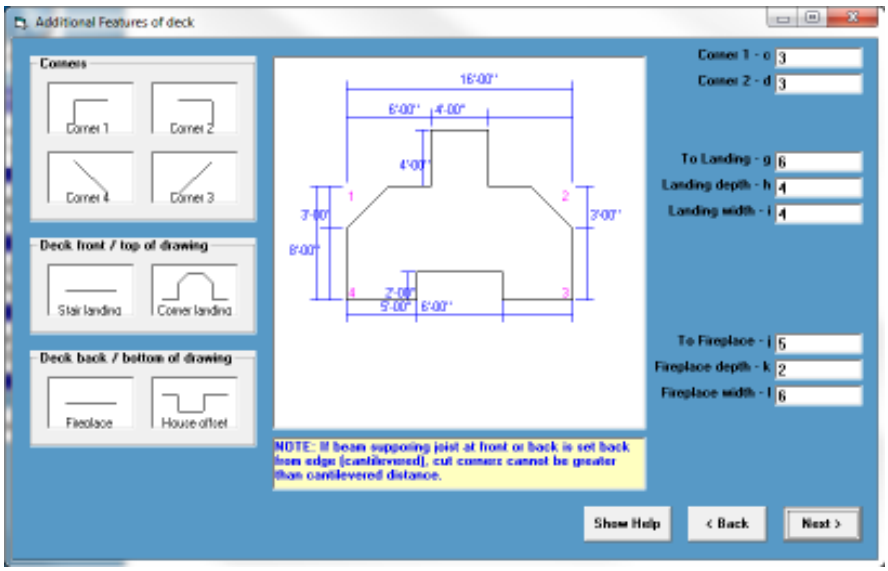
When all of the information is entered, click the next button.

ADDITIONAL FEATURES OF DECK FORM



This example drawing shows all of the options available. Normally, you would only use a few of these. Notice the long list of options that we have used for this example on the right side of the screen and the complexity of the resulting design.

EXAMPLE DECK



For our example, we have selected the following options:

First, we clicked the Corner 1 picture icon.

Then the Corner 2 picture icon

Then the Stair landing picture icon

Then the Fireplace picture icon

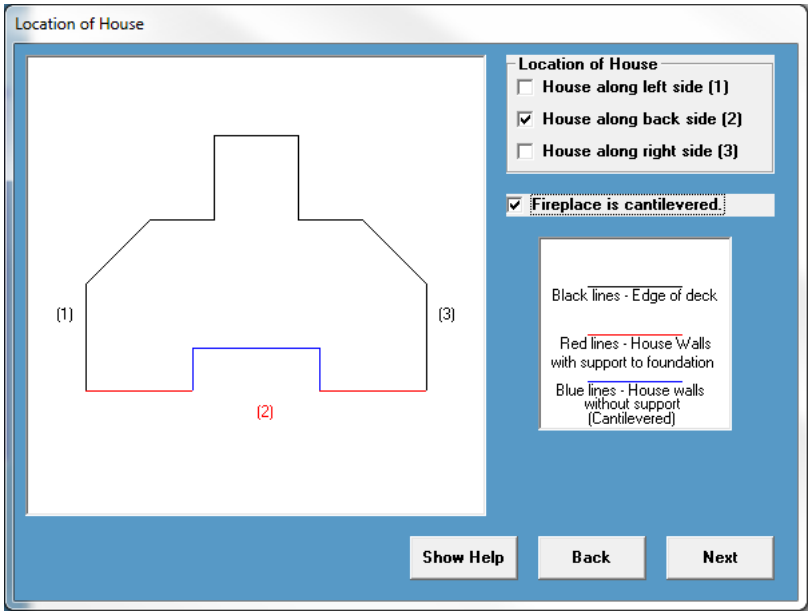
Plan Analyst will add the dimension input boxes on the right side of the screen for each of the options selected.

As you enter the dimensions, the drawing will be adjusted based on the dimensions entered. You see the exact shape of the deck instantly.

To remove a feature, simply click the picture icon again.

When all of the information is entered, click the next button.

LOCATION OF HOUSE FORM



To input the deck location in relation to the house we

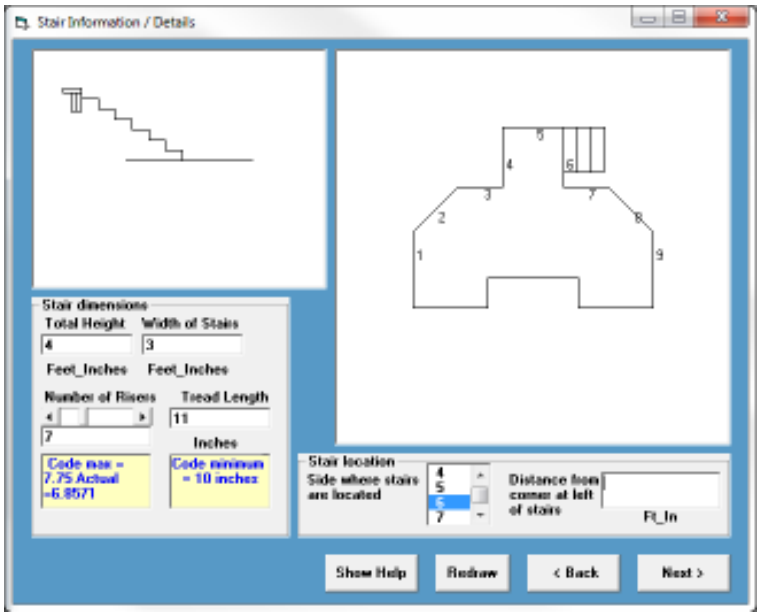
First, Select the location(s) of the house walls adjoining the deck by clicking the box that matches the Numbers on the drawing. Note: If no walls are selected, the deck will be designed as a free standing deck.

For our example, we have selected House wall at location 2.

Since we selected a fireplace on the previous screen, we are asked if the fireplace is cantilevered. We selected yes.

When all of the information is entered, click the next button.

STAIR INFORMATION / DETAILS FORM



Since we indicated on the first input Screen that our design includes stairs, Plan Analyst has added the stair information / details form to the input.

Enter Total Height – Distance from ground to top of decking.

Enter Width of Stairs

The Number of Risers will default to the minimum number of risers required by code. You would only change this if you want the rise to be shorter than required.

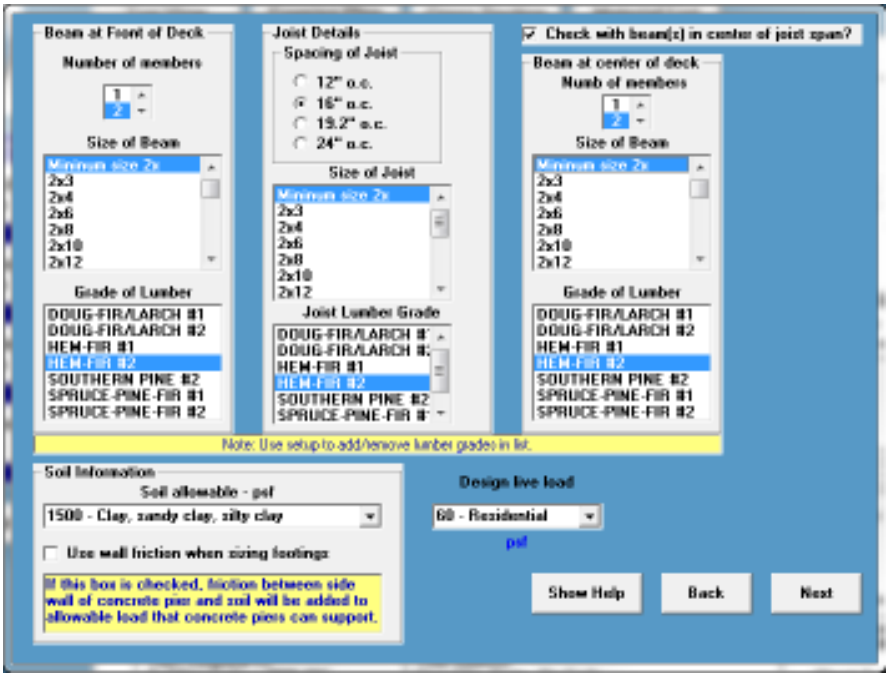
The Tread Length defaults to 11 inches (2 2X6's). You would only change for special conditions.

Stair location – Numbers are shown on the plan where stairs are allowed. Scroll to the number matching the side where you want the stairs and click on it. The selected number will be shown in blue. Steps will be shown on the side selected.

Distance from corner at left of stairs – If the stairs are in the middle of the side, enter the distance from the corner on the left side of the stairs. In this example, we left the box blank, this will locate the stairs at the left corner of the side.

You click **Next** to go to the next screen.

STRUCTURAL INFORMATION INPUT SCREEN



For Beam at Front of Deck:

1. We first chose the **number of members** as 2.
2. We highlighted the **minimum size 2X** (when we choose this option plan analyst will find the minimum size beam for us).
3. We highlighted **Hem-Fir #2** as the Grade of lumber.

For Joist Details:

1. We chose **16"o.c.** for the Spacing of the Joist
2. We highlighted **minimum size 2X** (when we choose this option plan analyst will find the **minimum size joist for us).**
3. We highlighted **Hem-Fir #2** as the Grade of Lumber.
4. We checked the box to **Check with beam at center of joist span. Note:**to leave the center beam out click the box again.

For Beam at center of deck

1. We first chose the **number of members** as 2.
2. We highlighted the **minimum size 2X** (when we choose this option plan analyst will find the minimum size beam for us).
3. We highlighted **Hem-fir #2** as the grade of lumber.

Soil Information

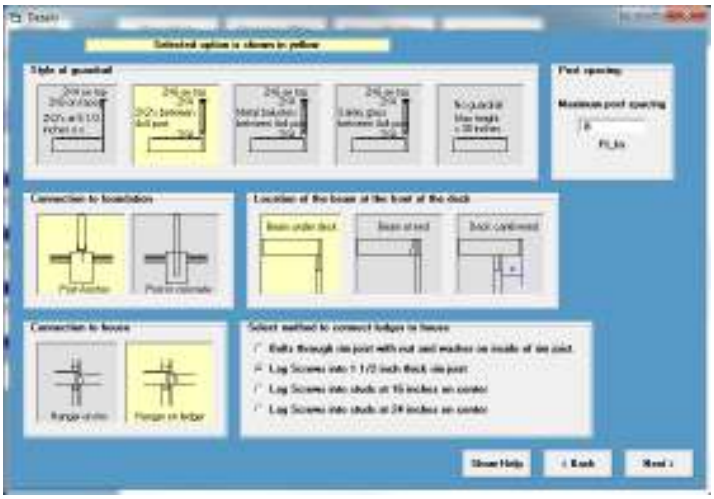
1. We selected **sandy type** of soil so we are not using sidewall friction in the footing design. NOTE: Wall friction should only be used if permitted by the local building department and you are pouring concrete without a form in the hole.

Design live load

1. We selected a **residential floor load**.

You click **Next** to go to the next screen.

Structural Details



The options shown in yellow are the current default selections. **Note**: These options can be changed by clicking the picture icons of your choice.

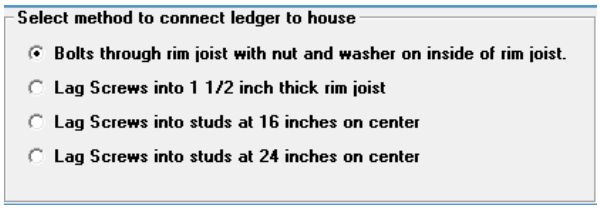
This form includes 4 options:

1. The Connection of post to foundation.
2. The Connection to house (This option is only shown if the deck is attached to the house).
3. The Style of guardrail.
4. The Location of beam at front of deck.

FOR OUR EXAMPLE WE SELECTED:

1. CONNECTION TO FOUNDATION - POST ANCHOR
2. CONNECTION TO HOUSE - HANGER ON LEDGER
   SINCE WE SELECTED TO USE A LEDGER, WE WILL NEED TO SELECT THE ATTACHMENT METHOD. SEE INFORMATION BELOW.
3. GUARDRAIL - 2X6 ON TOP - 2X4'S WITH 2X2'S BETWEEN 4X4 POST WE ENTERED 8 FEET BETWEEN POST FOR RAILING.
4. LOCATION OF BEAM AT THE FRONT OF DECK - BEAM UNDER DECK

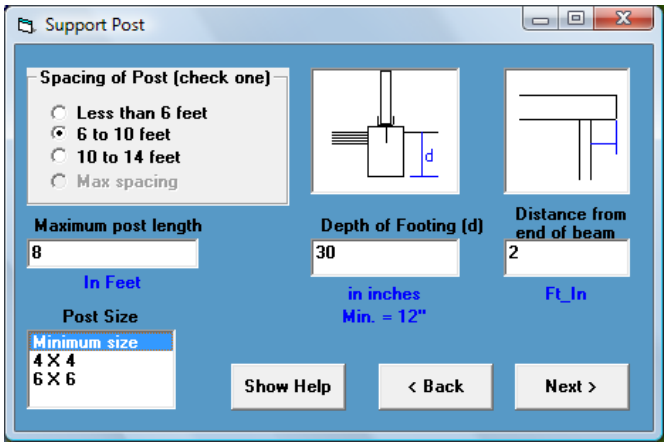
SINCE WE SELECTED HANGER ON LEDGER, THIS SHOWS TO SELECT THE BOLT TYPE



1. BOLTS THROUGH RIM JOIST WITH NUT AND WASHER ON INSIDE OF RIM. THIS IS THE STRONGEST WAY TO ATTACH THE DECK TO A RIM JOIST. NOTE: YOU MUST HAVE ACCESS TO THE INSIDE OF THE RIM JOIST TO USE THIS METHOD (NEW CONSTRUCTION OR UNFINISHED BASEMENT).
2. LAG SCREWS INTO 1 1/2 INCH THICK RIM JOIST. USE THIS METHOD IF YOU DO NOT HAVE ACCESS TO THE INSIDE OF THE RIM JOIST. NOTE: SOME HOMES DO NOT HAVE A STRUCTURAL RIM JOIST. A SPECIAL DESIGN WOULD BE REQUIRED.
3. LAG SCREWS INTO STUDS AT 16 INCHES ON CENTER
4. LAG SCREWS INTO STUDS AT 24 INCHES ON CENTER

FOR OUR EXAMPLE WE CHOSE #1 FOR THE TYPE OF BOLTS

SUPPORT POST FORM



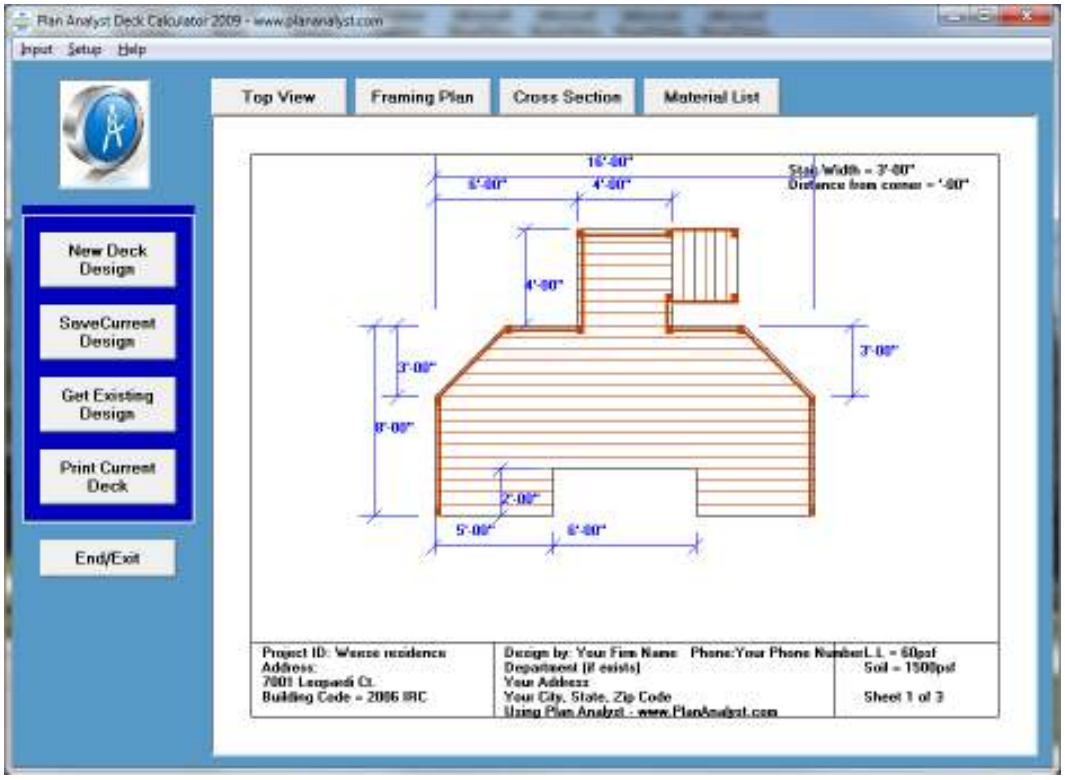
FOR THE SUPPORT POSTS WE THEN SELECTED:

1. A POST SPACING OF BETWEEN 6 AND 10 FEET. NOTE: MAX SPACING IS NOT AVAILABLE SINCE WE SELECTED THE OPTION FOR PLAN ANALYST TO FIND THE SIZE OF BEAMS. IF YOU ENTER A SPECIFIC SIZE OF BEAM, THEN THE MAX SPACING OPTION IS AVAILABLE.
2. WE ENTERED 30 INCHES FOR THE DEPTH OF THE FOOTING. THIS IS USUALLY CONTROLLED BY LOCAL CODE REQUIREMENTS (FROST DEPTH).
3. WE SELECTED FOR BEAMS TO HAVE A 2 FOOT DISTANCE FROM END OF BEAM (CANTILEVER).
4. WE WILL CHOOSE TO LET PLAN ANALYST DETERMINE THE MINIMUM SIZE OF POST.

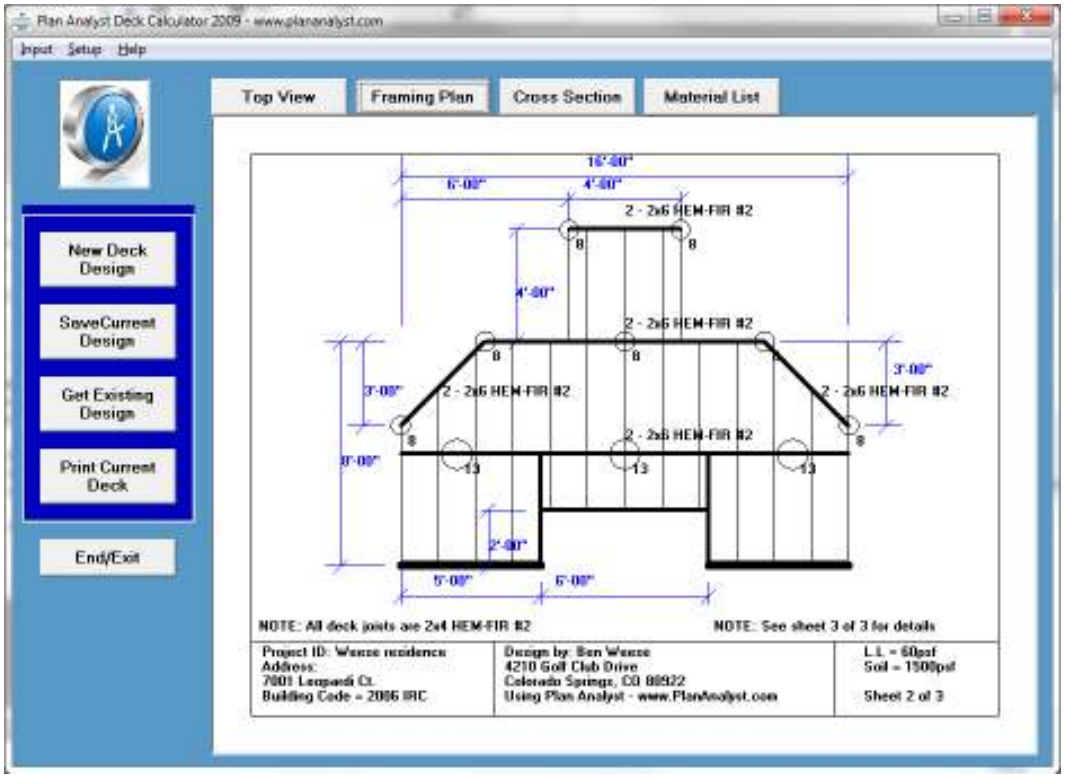
PLAN ANALYST RESULTS

Plan Analyst will Create three drawings:

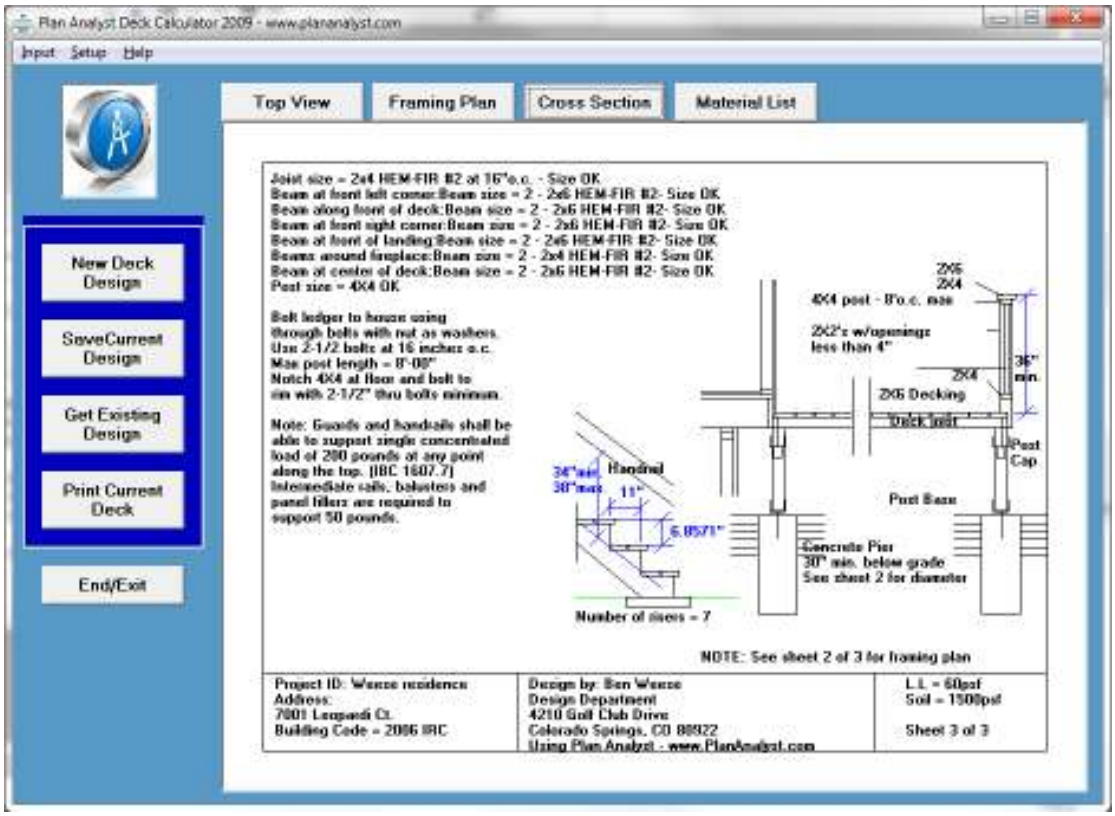
Top View



Framing Plan



Cross Section



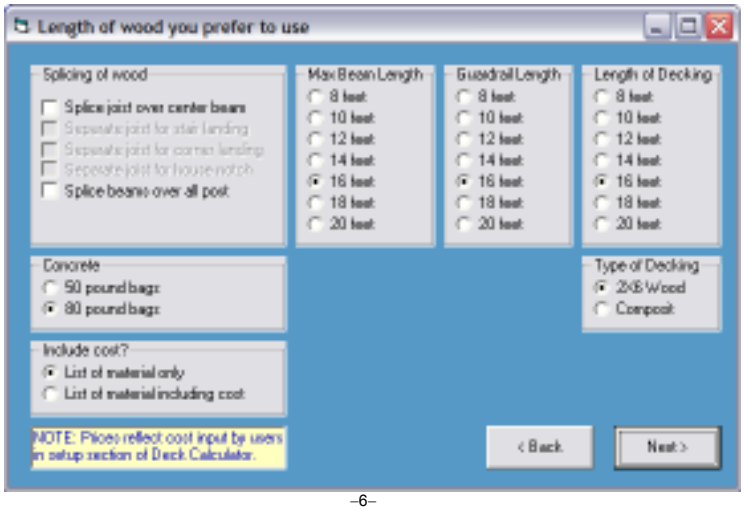
To view the drawings, click the Top View, Framing Plan or Cross Section tabs above the drawings.
To print the drawings, click the Print Current Deck button on the left side.

To edit the deck design, click Input and then click Edit for the information that you are changing. When the changes are made, the drawings will be adjusted for the new information.

MATERIALS LIST

If you would like for Plan Analyst to produce a complete materials List, you simply click the Material List tab.

This form will show.



You will be asked to select options based on your preferences and the materials available in your area.

You then click Next.

THE FOLLOWING IS A SAMPLE MATERIALS LIST BASED ON OUR SAMPLE INPUT