
Asteel 3D Tutorial



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Introduction

About This Guide

This guide will walk you through creating a simple model in Asteel 3D. It also shows you how to produce various output from that model.

For more detailed information about Asteel 3D, see the Asteel 3D Operation Reference.

CHAPTER 1

Creating a Model

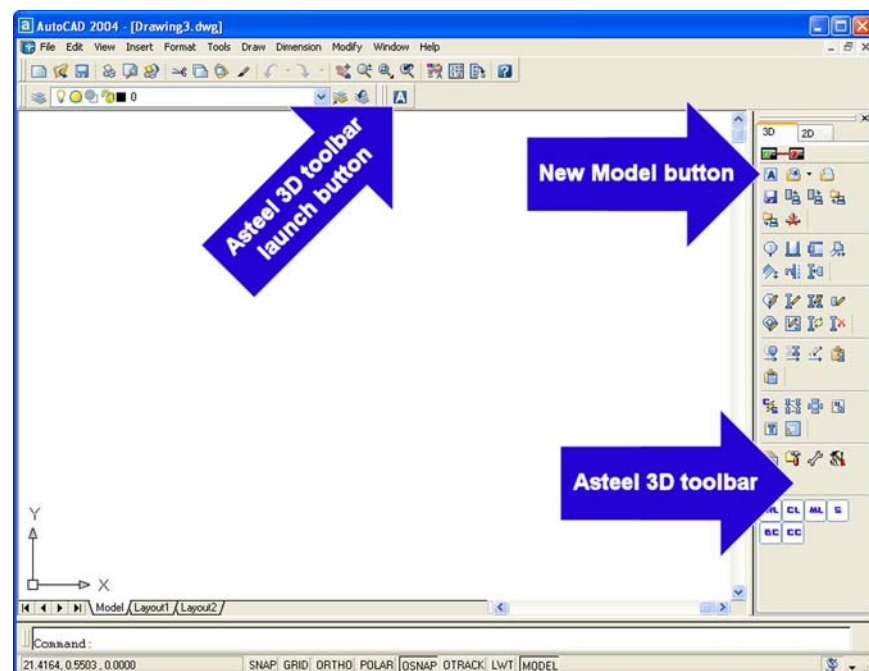
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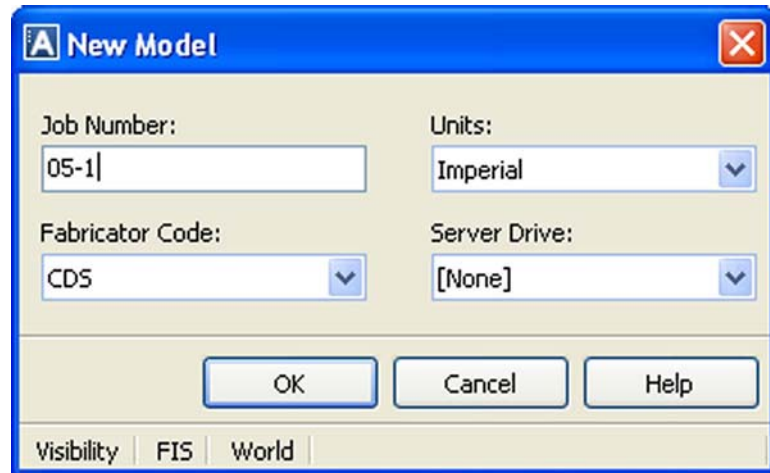
Getting Started

This chapter will guide you through creating a simple model in Asteel 3D.

First, launch AutoCAD. The Asteel 3D toolbar should open automatically when starting AutoCAD. If it doesn't, refer to the Asteel Installation Guide for instructions on loading the Asteel 3D toolbar in AutoCAD.



After AutoCAD has opened, click the New Model button on the Asteel 3D toolbar. The New Model dialog will be displayed.



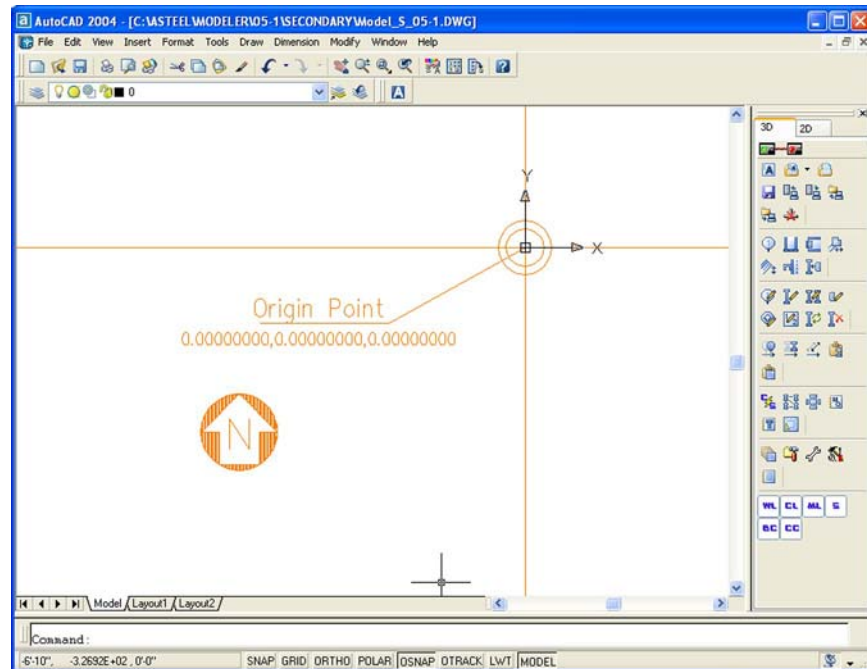
In the Job Number field, type in the job number that will be used for this model. Use the format YY-NNN where YY is the last two digits of the year and NNN is a number from 1 to 999. For example, you would enter 05-1 for the first job in 2005. For this tutorial we will use job number "05-1".

Next select a fabricator from the Fabricator Code field. For this tutorial we will use the "CDS" fabricator.

The Units field controls how dimensions are shown in the detail drawings. It also controls how data is input in Asteel 2, not Asteel 3D. For this tutorial we will use imperial.

The Server Drive field is used in a network environment when more than one user will be working on the model. For this tutorial we will set the server drive to "[None]".

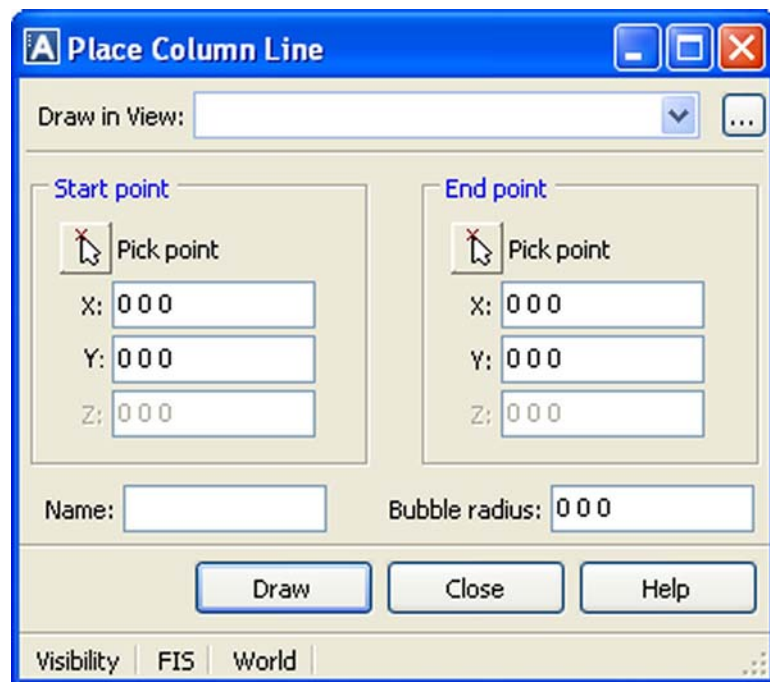
Click OK. The model drawing will be created with an origin point and a north arrow.



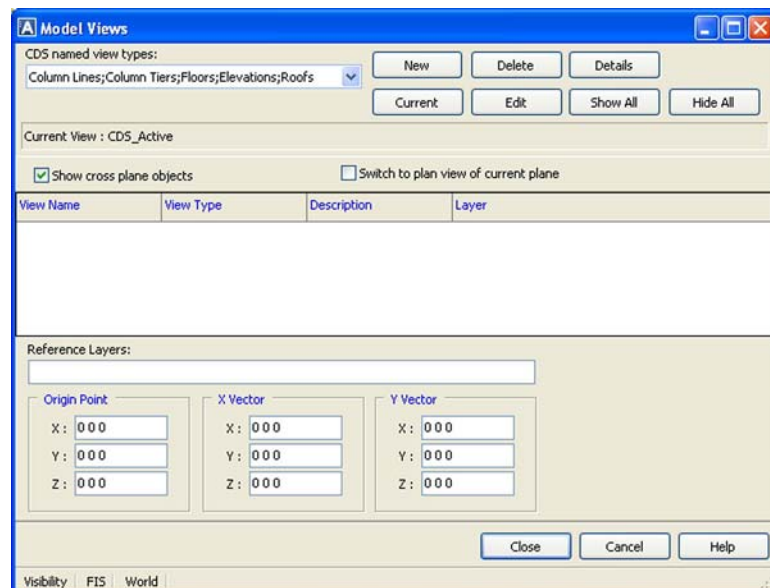
Now we can begin placing column lines. This procedure is described in the next section.

Placing Column Lines

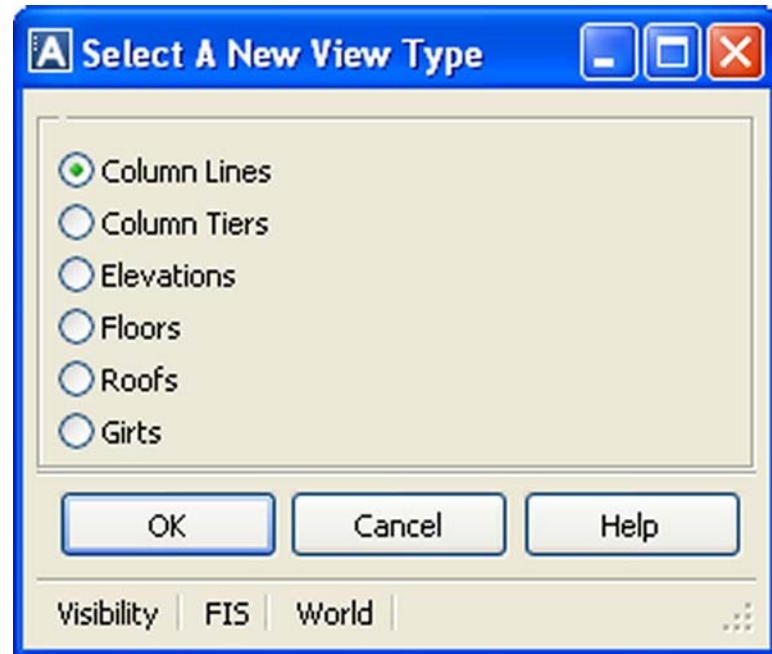
The next step in building our model is placing the column lines. Click the Place Column Line button on the Asteel 3D toolbar. The Place Column Line dialog will be displayed.



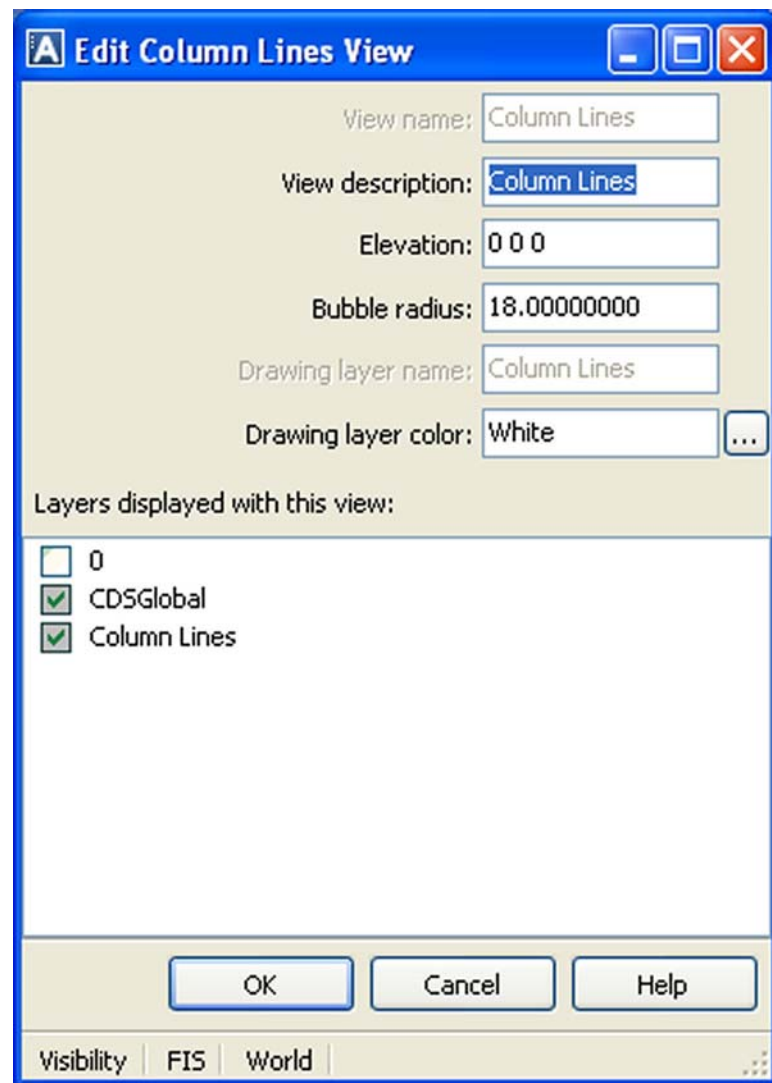
Before we can place any column lines, we must create a view to place those column lines in. Currently there are no views in this model. To create a view, click the "..." button to the right of the Draw in View field. The Model Views dialog will be displayed.



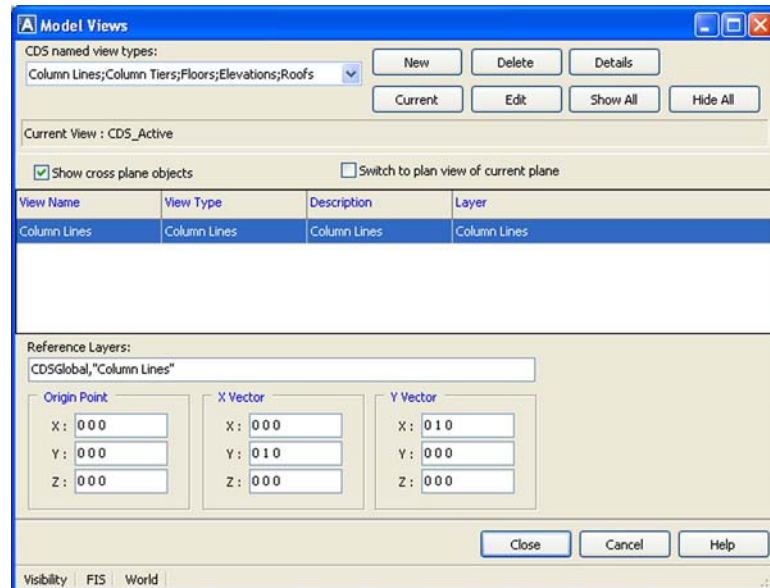
Click the New button on the Model Views dialog. The Select a New View Type dialog will be displayed.



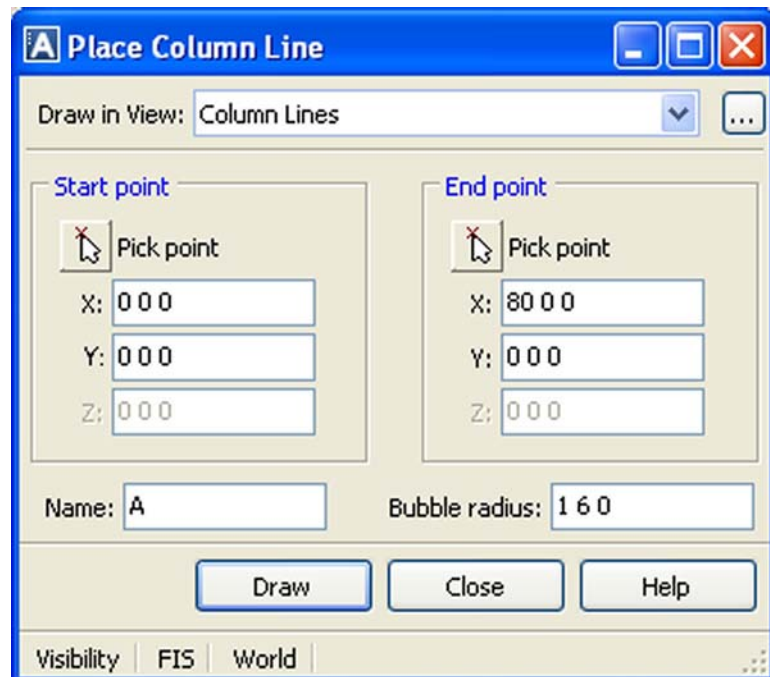
Click the Column Lines radio button and click OK. The Edit Column Lines View dialog will be displayed.



Change the View Description field to "Column Lines". Click the OK button. The Model Views dialog will be displayed, but this time you will see the new Column Lines view available.



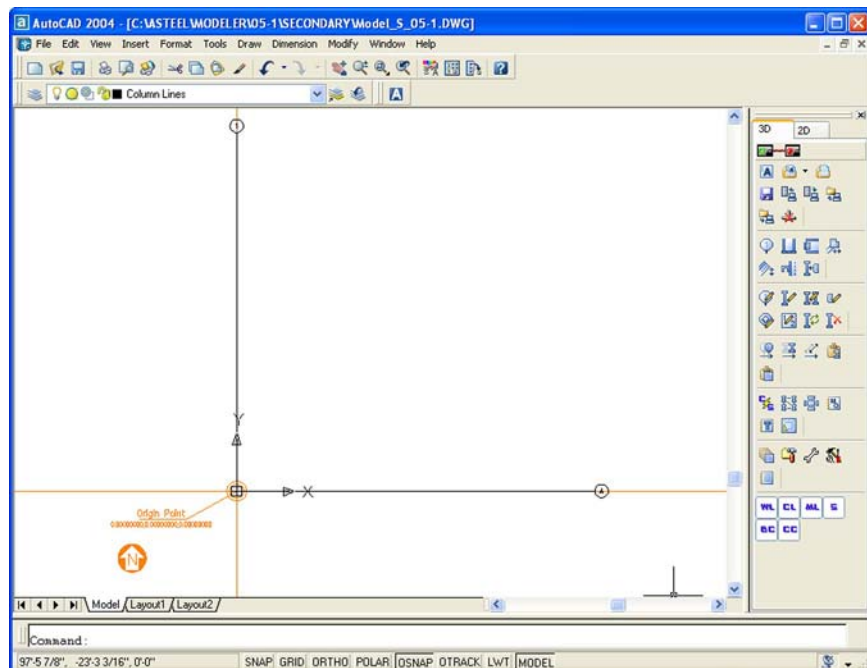
Select the Column Lines view and click the Current button. This makes the Column Lines view the current view. Then click the Close button. The Place Column Line dialog is shown.



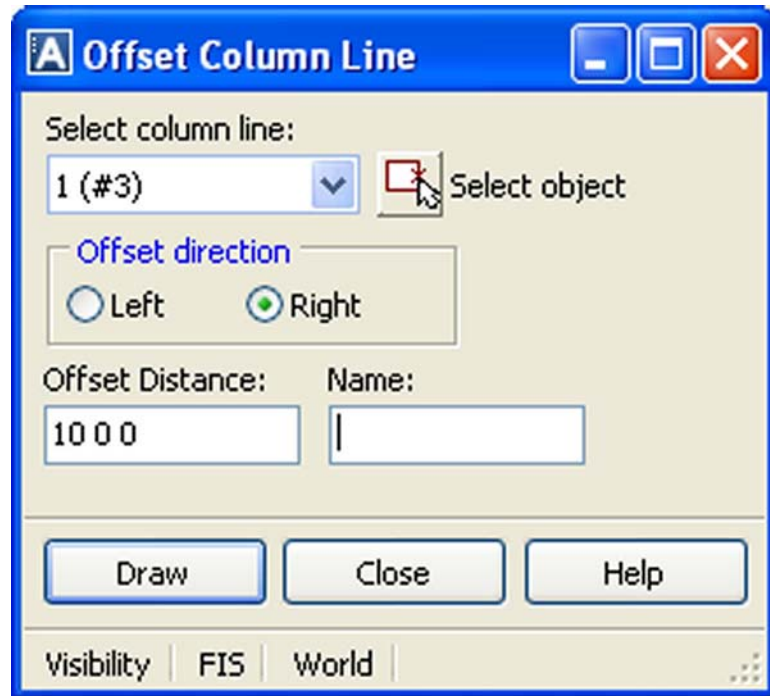
This example building will have a first floor, a second floor and a roof. It will have three twenty foot bays running both horizontally and vertically.

We will now draw the first horizontal column line. Type "80 0 0" in the X field for the End Point (eighty feet). This syntax for dimension data entry is common in Asteel 3D and Asteel 2 - the first number is feet, the second number is inches and the third number is sixteenths. For example, "1 3 8" represents one foot - three and a half inches. In the Name field, type "A" - this value will appear in the column line bubble. Click the Draw button. Notice that the Place Column Line dialog does not close after clicking the Draw button. This allows you to input multiple column lines quickly.

We will now draw our first vertical column line. Type "0 0 0" in the X field for the End Point. Type "80 0 0" in the Y field for the End Point. In the Name field, type "1". Click the Draw button, then click the Close button. You should now see the first two column lines drawn in the model in AutoCAD.

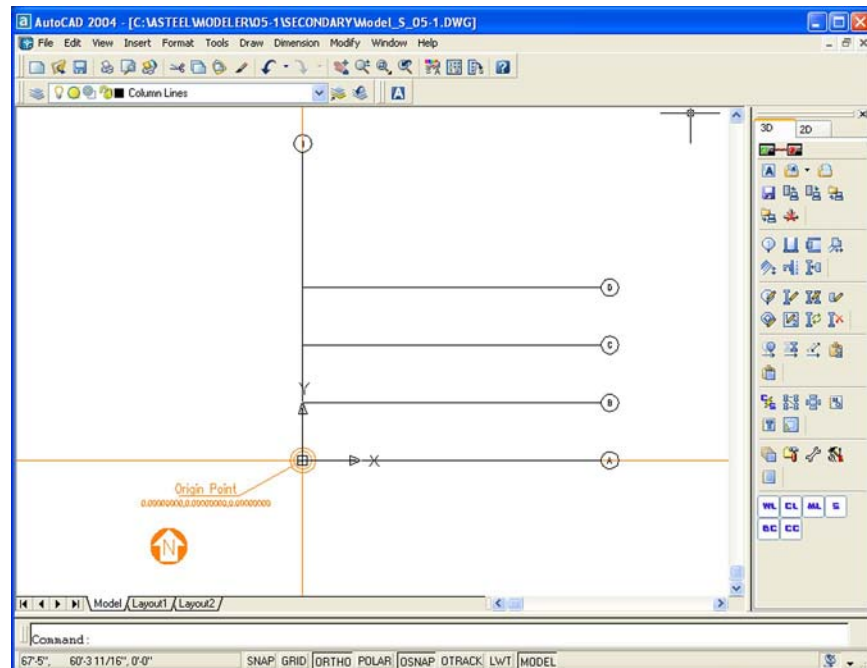


The easiest way to draw the rest of the column lines is to offset from our two existing column lines. Click the Offset Column Line button on the Asteel 3D toolbar. The Offset Column Line screen will be displayed.

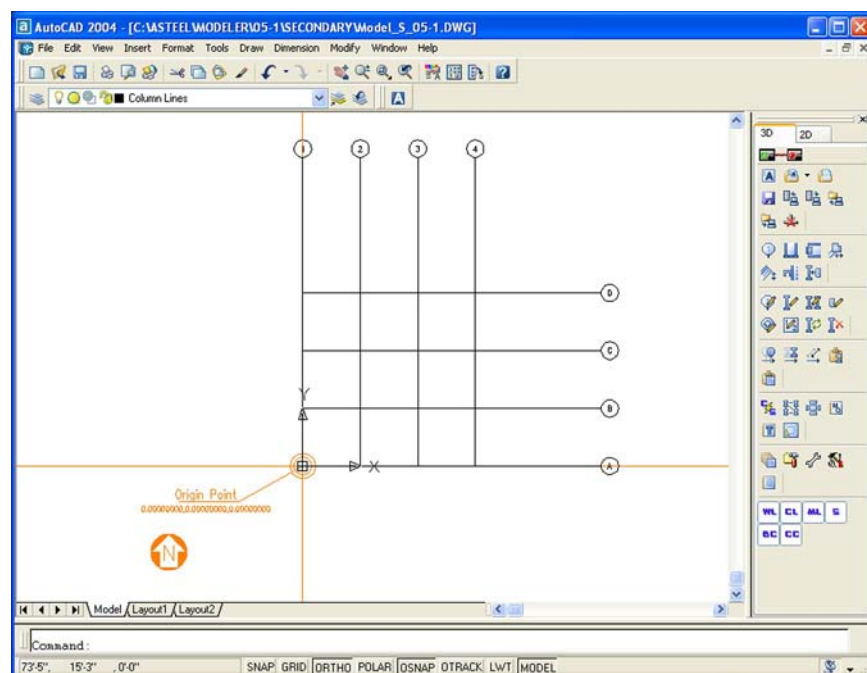


Click the down arrow on the Select Column Line listbox and select column line "A". Select "Above" for the Offset Direction option. Type "20 0 0" in the Offset Distance field. In the Name field type "B". Click the Draw button. Notice that the Offset Column Line dialog does not close after clicking the Draw button. This allows you to offset multiple column lines quickly.

Let's continue drawing the rest of our horizontal column lines. In the Name field type "C". Click the Draw button. Do the same for column line D. Click the Close button. You should now see all of the horizontal column lines drawn in the model in AutoCAD.



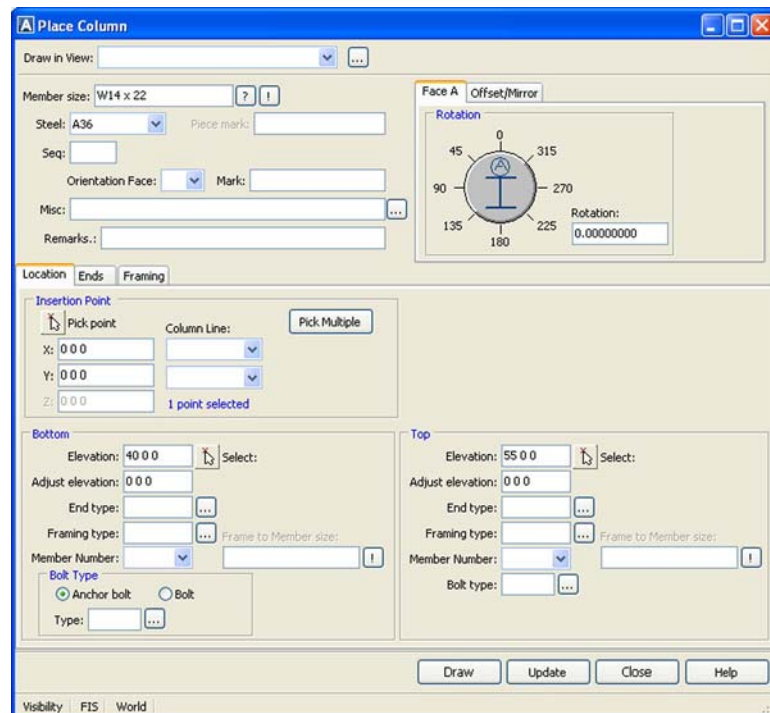
We will now draw the rest of our vertical column lines. Click the Offset Column Line button on the Asteel 3D toolbar. Click the down arrow on the Select Column Line listbox and select column line "1". Select "Right" for the Offset Direction option. Type "20 0 0" in the Offset Distance field. In the Name field type "2". Click the Draw button. Do the same for column lines "3" and "4". Click the Close button. You should now see all of the vertical column lines drawn in the model in AutoCAD.



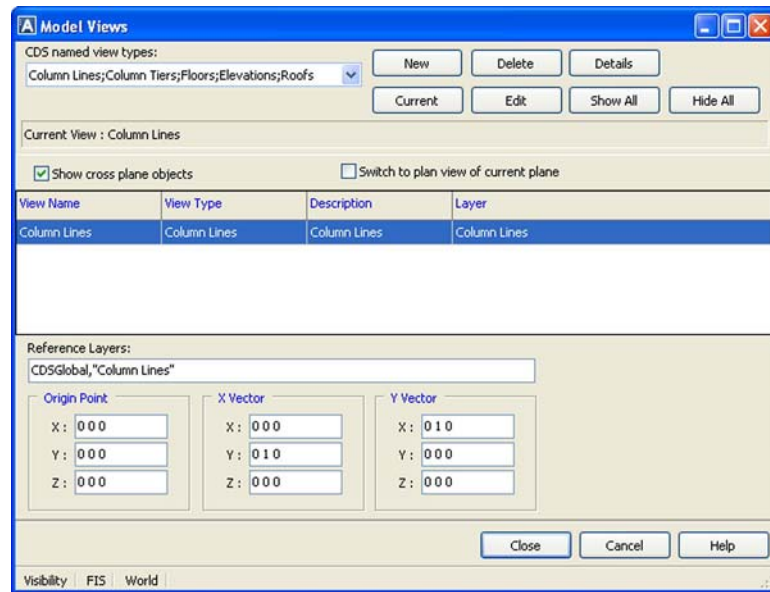
The next step in creating a model is placing columns.

Placing Columns

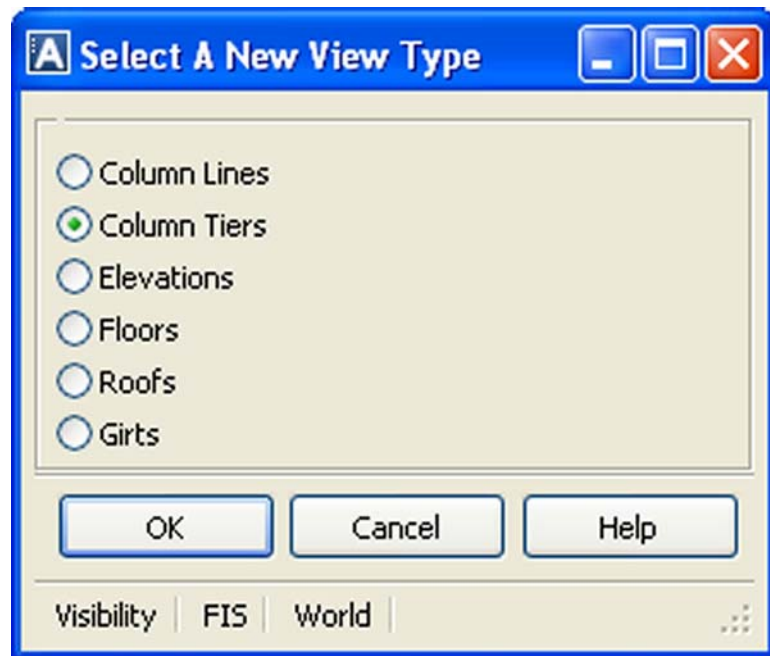
The next step in building our model is placing the columns. Click the Place Column button on the Asteel 3D toolbar. The Place Column dialog will be displayed.



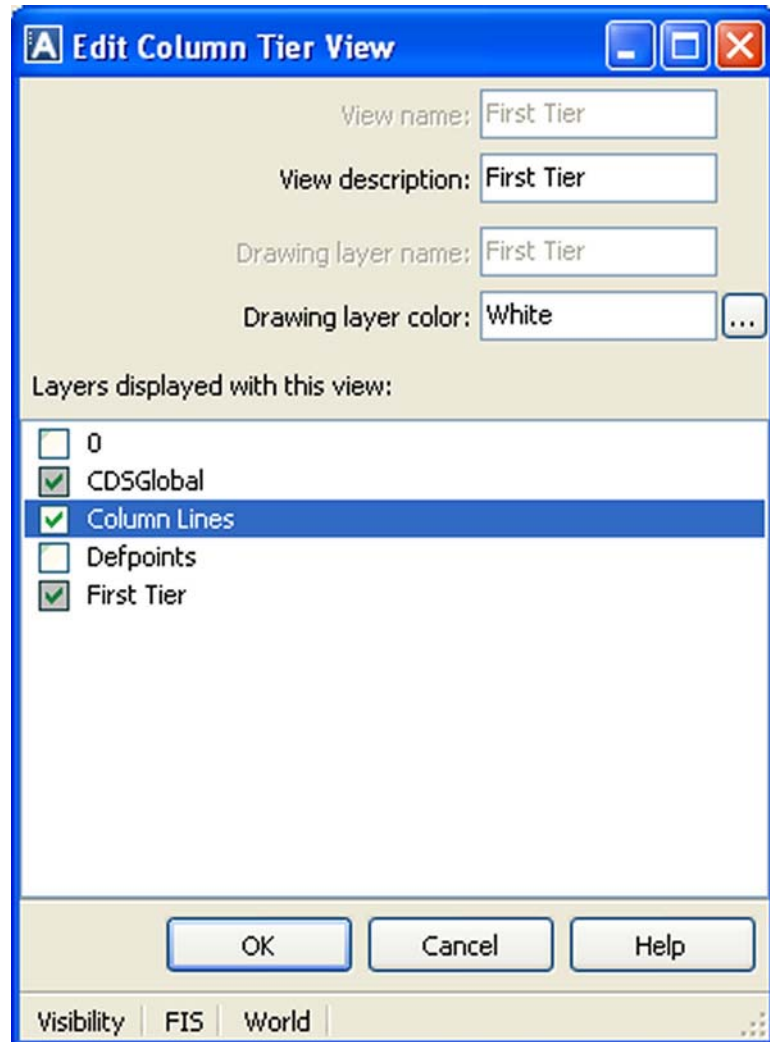
Before we can place any columns, we must create a view to place those columns in. Currently there are no column views in the model. To create a column view, click the "..." button to the right of the Draw in View field. The Model Views dialog will be displayed.



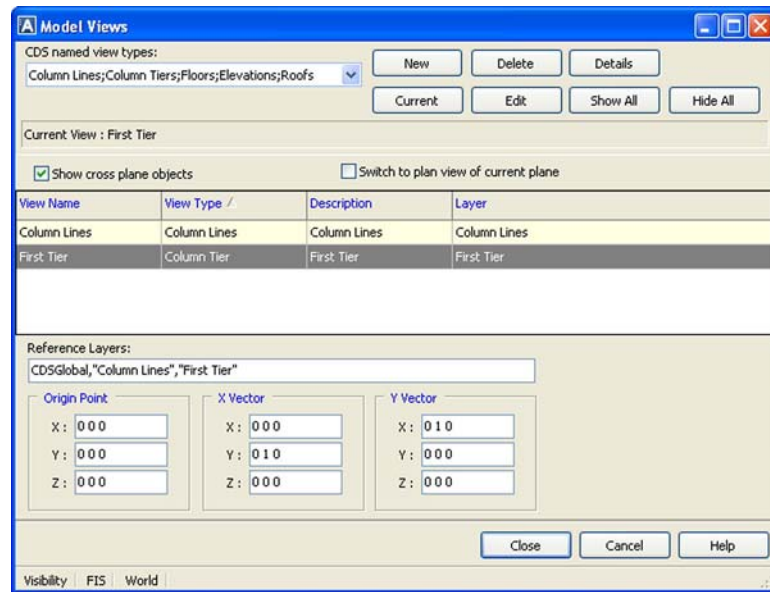
Click the New button on the Model Views dialog. The Select a New View Type dialog will be displayed.



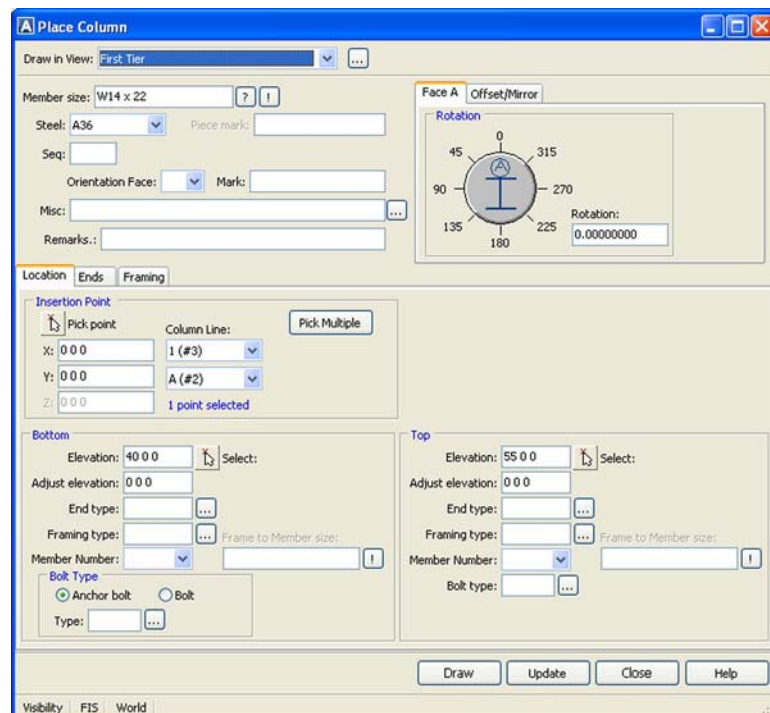
Click the Column Tiers radio button and click OK. The Edit Column Tier View dialog will be displayed.



The View Description field defaults to the View Name, but let's change that value to "First Tier". Check the box next to the "Column Lines" view so that the column lines we drew in the previous section will be visible when we are looking at the First Tier view. Click the OK button. The Model Views dialog will be displayed, but this time you will see the new First Tier view available.



Select the First Tier view and click the Current button. This makes the First Tier view the current view. Then click the Close button. The Place Column dialog is displayed again.

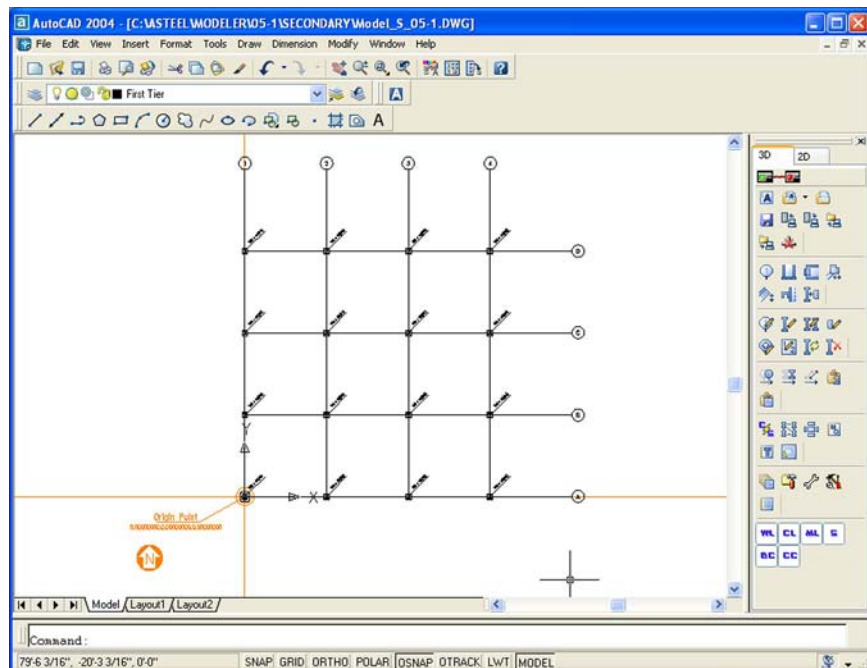


In the Member Size field, enter "10 49" for a W10 x 49 shape. In the Rotation field, enter "180" so that the A face of the column is pointing south. In the bottom Elevation field, enter "-0 10 0". In the bottom End Type field, enter "68". In the top Elevation field, enter "24 0 0". Drop the column down one inch from the top of steel by entering "-0 1 0" in the top Adjust Elevation field.

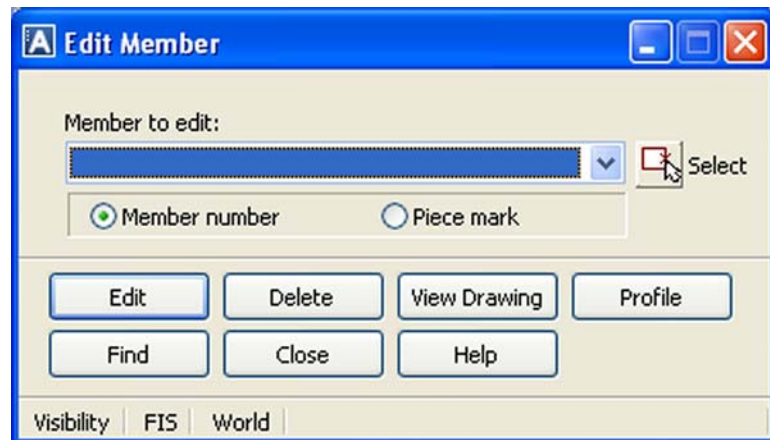
Click the Pick Multiple button. This will take you back to AutoCAD. Left-click the four intersections along column line 1 - these are the points where the columns will be drawn. When you are done, right-click. This returns you to the Place Column dialog. Click the Draw button. All four columns along column line 1 will be drawn.

Let's continue by drawing the columns along column line 2. The roof of this example building is sloped, so we need to adjust our top column elevation. In the top Elevation field, enter "24 5 0". Click the Pick Multiple button. Left-click the four intersections along column line 2. Right-click to return to the Place Column dialog. Click the Draw button. All four columns along column line 2 will be drawn.

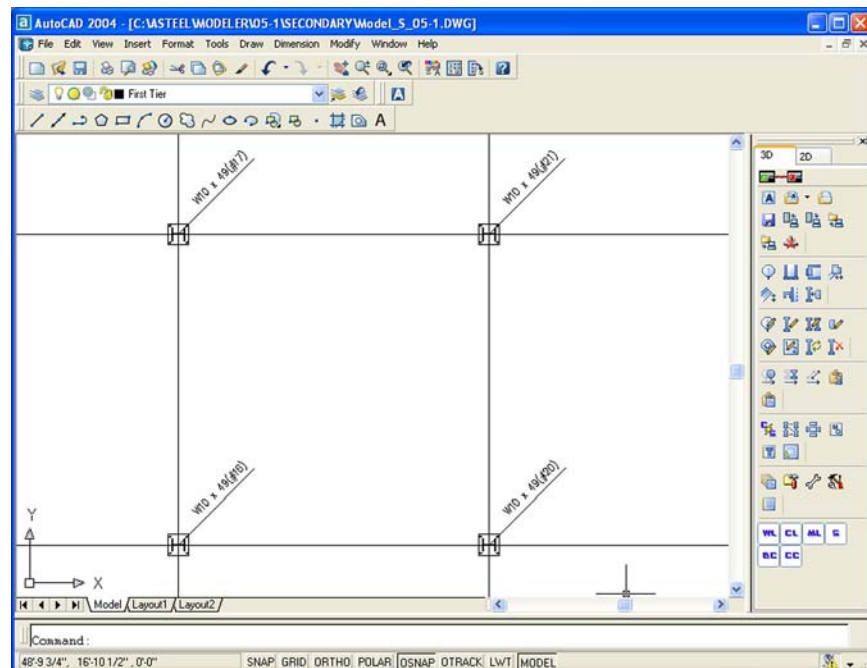
Repeat this process for column lines 3 and 4. For column line 3, our top Elevation is "24 10 0". For column line 4, our top Elevation is "25 3 0". After we are done with column line 4, click the Close button on the Place Column dialog.



All of our columns are now drawn, but we need to rotate the four interior columns so that the A face faces to the west. To do this, click the Edit Member button on the Asteel 3D toolbar. The Edit Member screen is displayed.



Click the Select button on the Edit Member screen. Select one of the four interior columns by left-clicking it. The Edit Member screen will be displayed again. Click the Edit button. The Edit Column dialog is displayed. Change the Rotation field to "90". Click the OK button. Repeat this process for all four interior columns.



The next step in creating a model is placing beams.

Placing Beams

The next step in building our model is placing the beams. Click the Place Beam button on the Asteel 3D toolbar. The Place Beam dialog will be displayed.

Place Beam

Draw in View: [Dropdown] [...]

Member size: **W14 x 22** [?] [!]

C/N/C: Non Composite [Dropdown] Camber: 0 0 0

Steel: **A36** [Dropdown] Piece mark: [Text]

Seq: [Text] Det len.: 0.00 0.00

Remarks: [Text]

Misc.: [Text] [...]

Mirror X Axis
☐ Yes ☒ No X Offset: 0 0 0

Mirror Y Axis
☐ Yes ☒ No Y Offset: 0 0 0

Relative Axis
☒ Work ☐ Mbr Rotation: 0.00000000

Start [Clear] **End** [Clear]

Location [Pick point] [Cont] X: 0 0 0 Len +/-: 0 0 0 Y: 0 0 0 NS/FS: 0 0 0 Z: 0 0 0 Elev.: 0 0 0

End type: [Dropdown] Condition: [Text]

Framing type: [Dropdown]

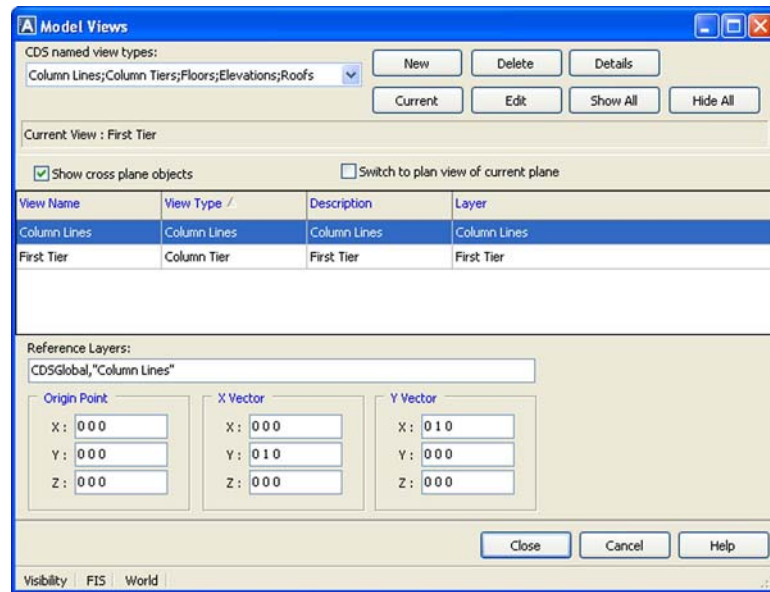
Bolt type: [Dropdown]

Mbr: [Dropdown] [Text] [!]

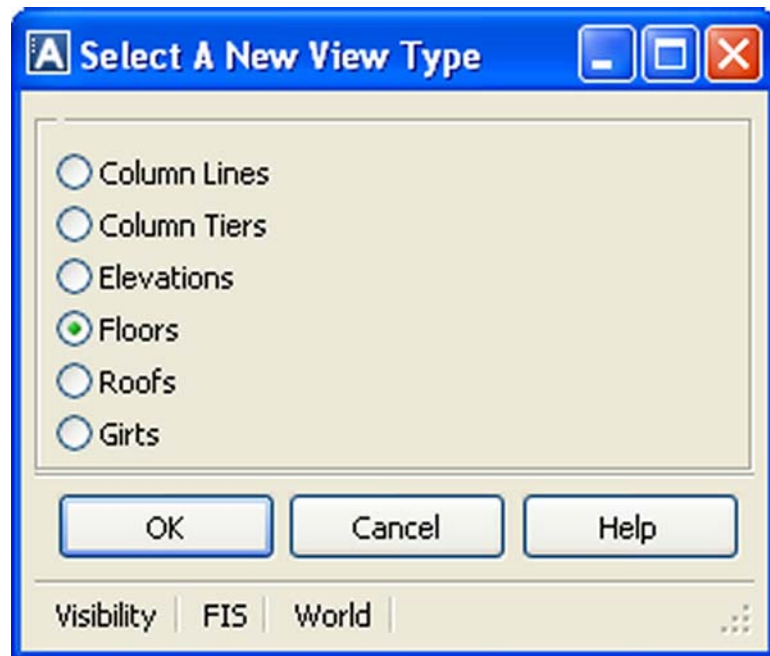
Draw Close Update Help

Visibility FIS World

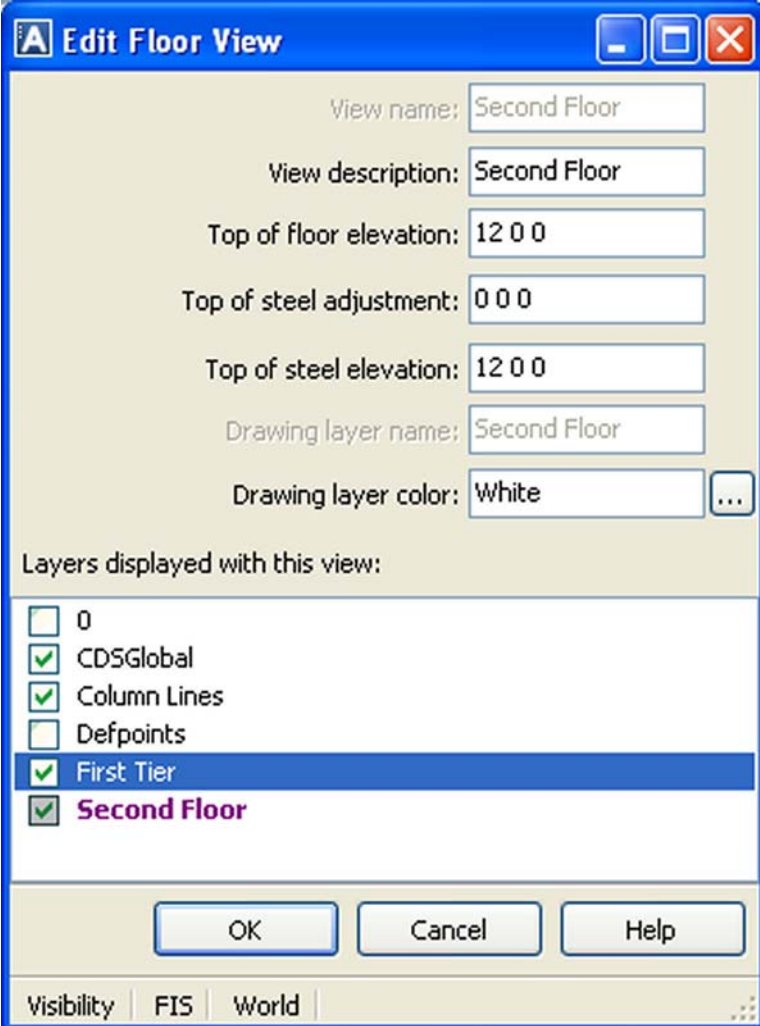
Before we can place any beams, we must create a floor view to place those beams in. Currently there are no floor views in the model. To create a floor view, click the "..." button to the right of the Draw in View field. The Model Views dialog will be displayed.



Click the New button on the Model Views dialog. The Select a New View Type dialog will be displayed.



Click the Floors radio button and click OK. The Edit Floor View dialog will be displayed.



The "Edit Floor View" dialog box is shown with the following fields and values:

- View name: Second Floor
- View description: Second Floor
- Top of floor elevation: 12 0 0
- Top of steel adjustment: 0 0 0
- Top of steel elevation: 12 0 0
- Drawing layer name: Second Floor
- Drawing layer color: White

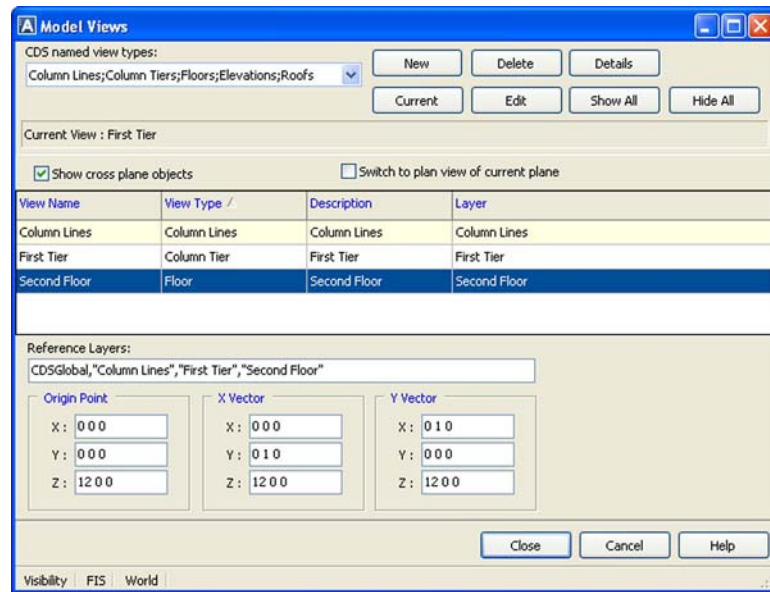
Layers displayed with this view:

- ☐ 0
- ☒ CDSGlobal
- ☒ Column Lines
- ☐ Defpoints
- ☒ First Tier
- ☒ **Second Floor**

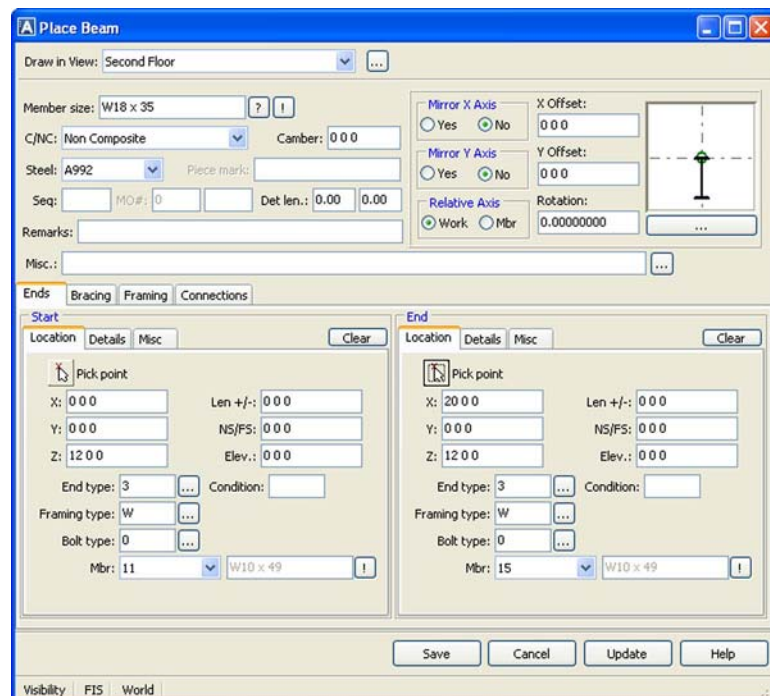
Buttons: OK, Cancel, Help

Visibility: FIS World

Let's change the View Description field to "Second Floor". Enter "12 0 0" in the Top of Floor Elevation field. Turn on the Column Lines layer and the First Tier layer. Click the OK button. The Model Views dialog is displayed once more.



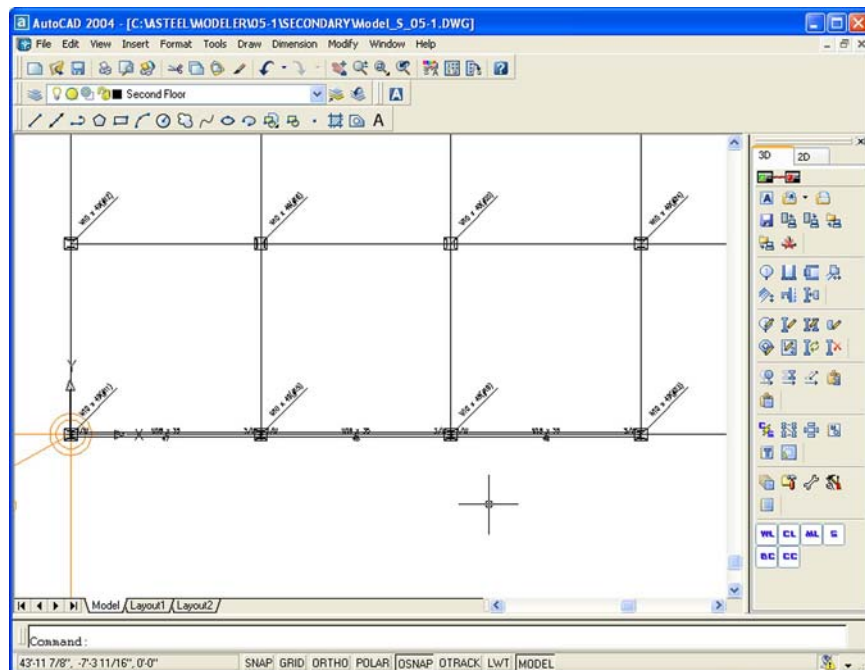
Select the Second Floor view and click the Current button. Then click the Close button. The Place Beam dialog is displayed again. Make sure that the Second Floor view we just created is selected in the Draw in View listbox.



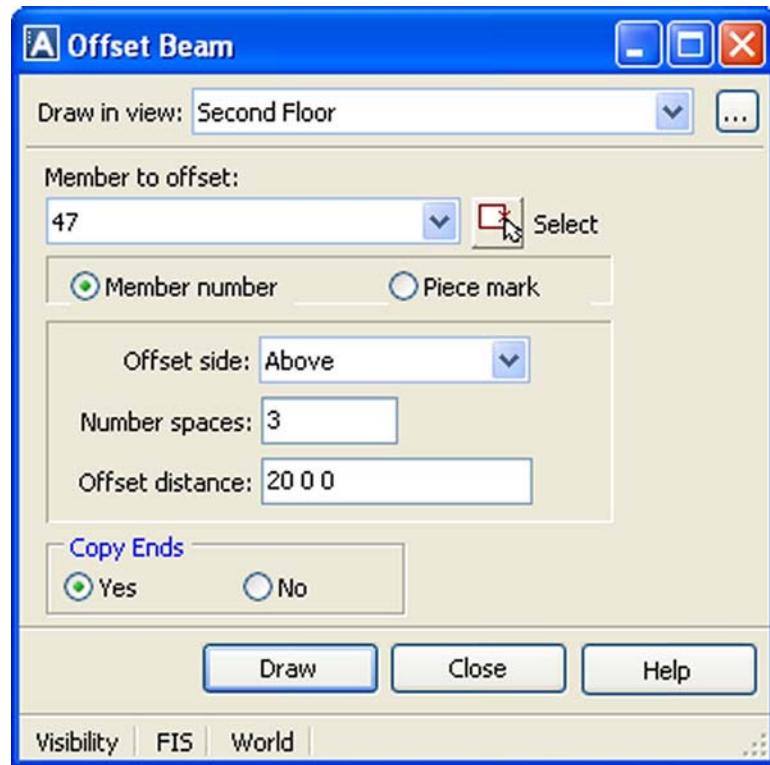
Let's start placing the horizontal beams. Enter "18 35" in the Member Size field. Select "A992" in the Steel listbox. Under Start, click the Pick Point button. Select the center of the bottom-left column. Under End, click the Pick Point button. Select the center of the column to the right of the previously selected column. Click the Draw button.

Notice that the beam has been drawn but the Place Beam dialog did not close. This allows us to continue placing beams. To the right of the End "Pick Point" button, there is a checkbox labeled "Cont" for Continue. Make sure this box is checked. This allows us to continue drawing beams by simply selecting the next end point.

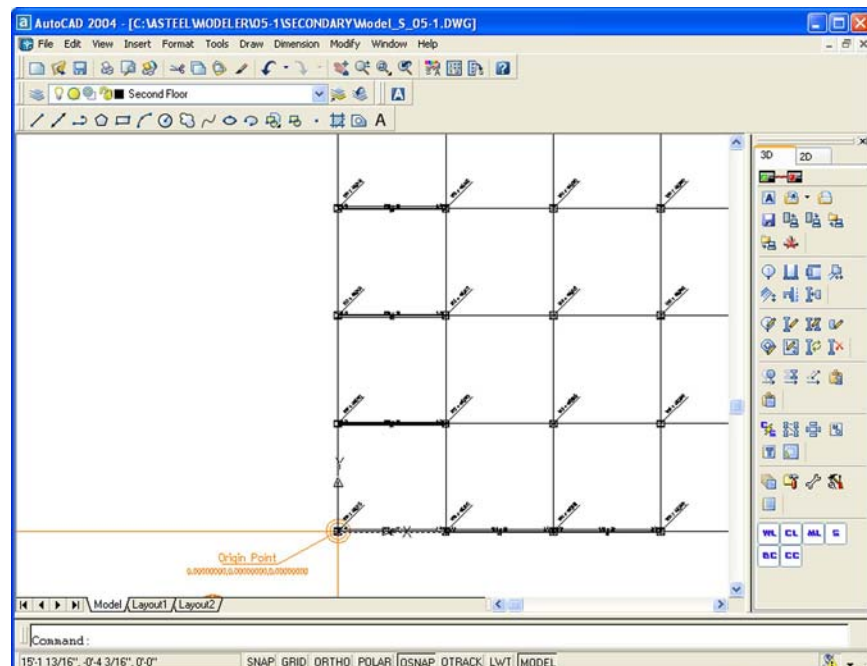
Under End, click the Pick Point button again. Select the center of the column to the right of the previously selected column. Click the Draw button. Continue this until all three of the lower perimeter beams have been drawn.



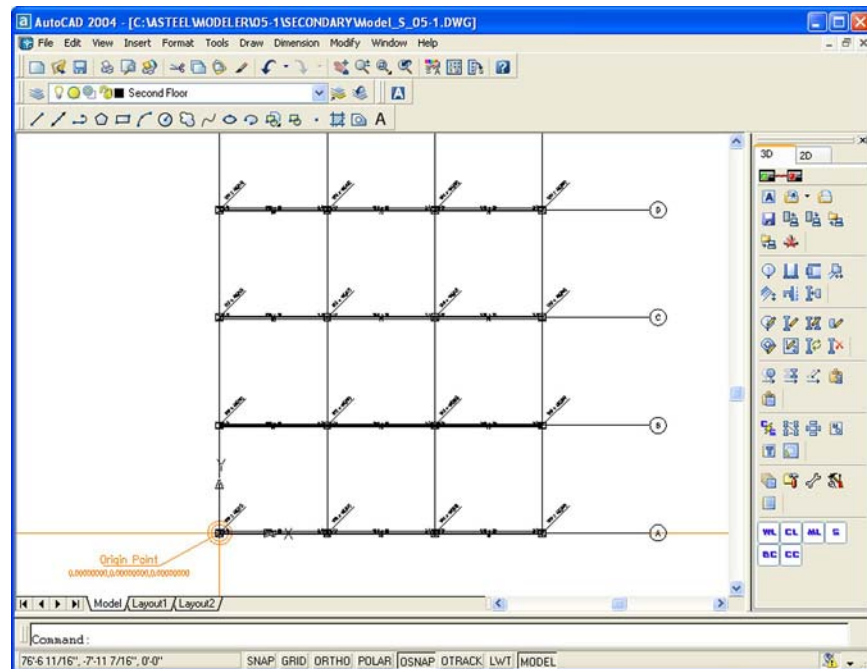
Once those three horizontal perimeter beams have been drawn, we can draw the remaining horizontal beams. Instead of drawing each horizontal beam individually, let's use the Offset Beam command. Click Offset Beam on the Asteel 3D toolbar. The Offset Beam dialog will be displayed.



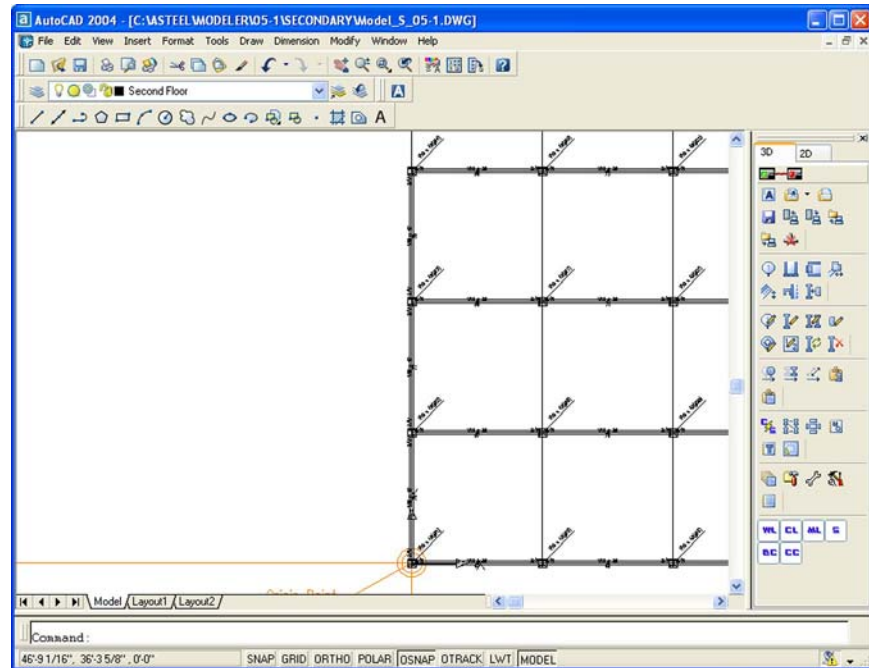
Click the Select button and left click the lower left beam. Select "Above" in the Offset Side listbox. Enter "3" in the Number Spaces field. Enter "20 0 0" in the Offset Distance field. Select "No" for the Copy Ends option. Finally, click Draw. Notice that three new beams have been created and offset from the lower left beam.



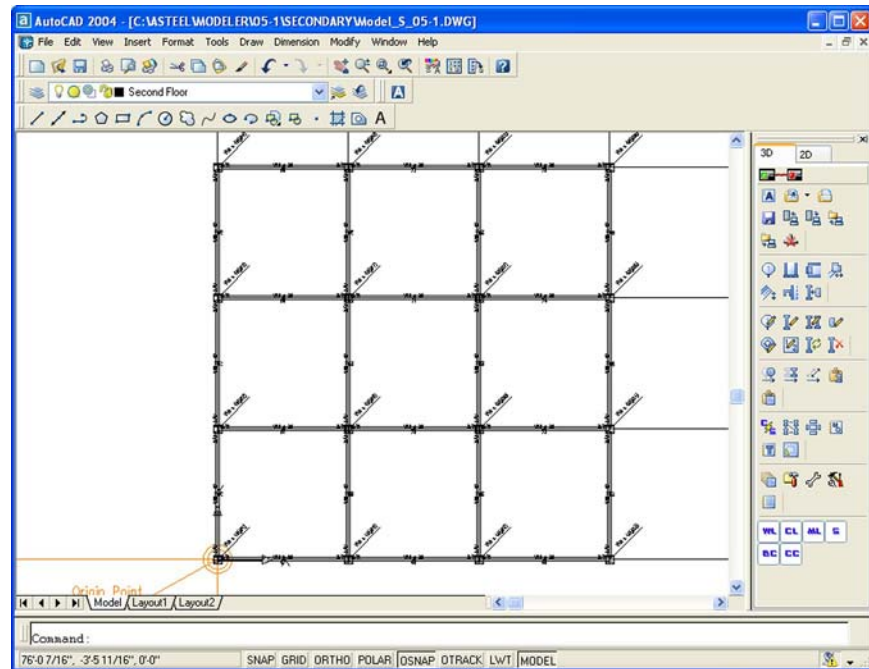
Use the Offset Beam command to draw the remaining six horizontal beams.



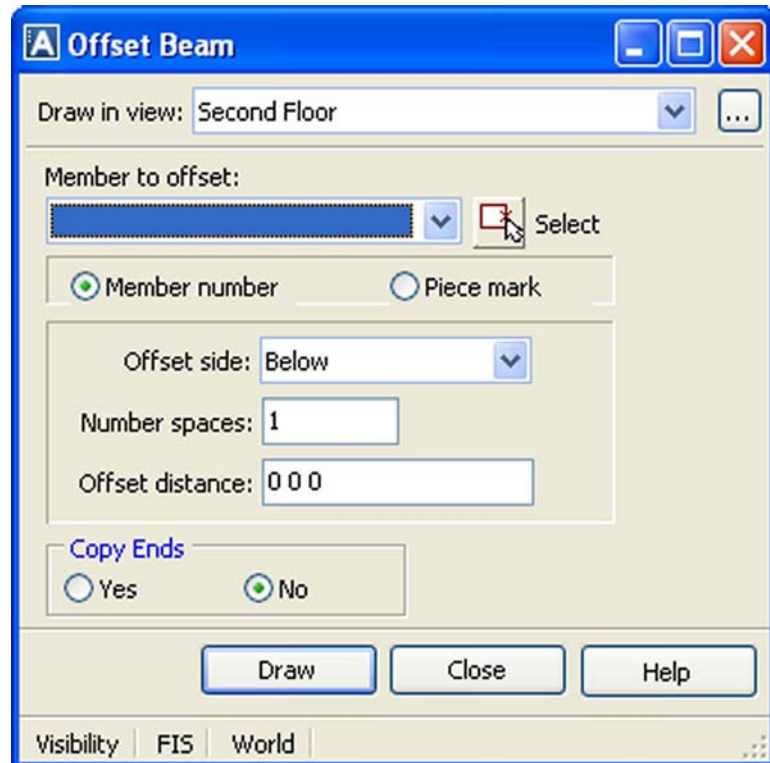
Let's place the vertical beams. Start by placing the lower left vertical beam. Click Place Beam on the Asteel 3D toolbar. The Place Beam dialog will be displayed again. Enter "18 40" in the Member Size field. Under Start, click the Pick Point button. Select the center of the bottom-left column. Under End, click the Pick Point button. Select the center of the column above the previously selected column. Click the Draw button. Continue this process until all of the vertical beams on the left side have been drawn.



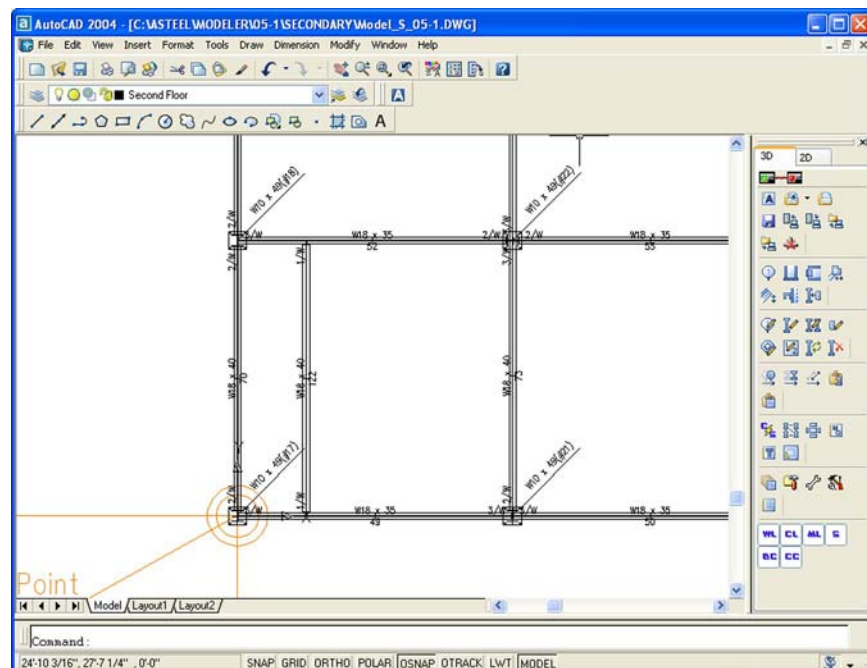
Use the Offset Beam command to draw the remaining nine vertical beams.



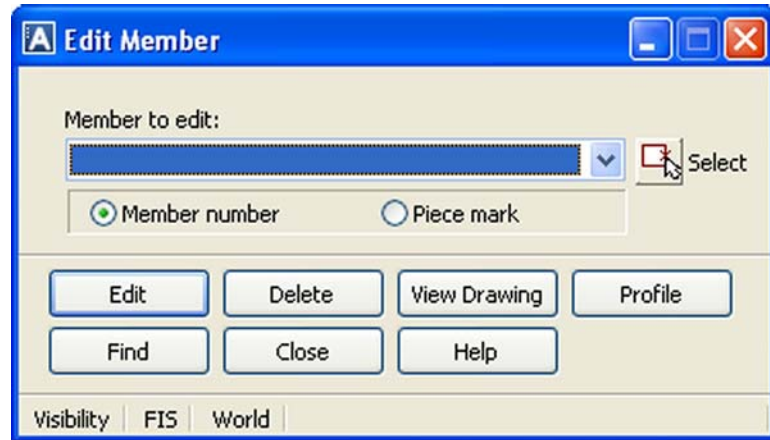
Now we can place our filler beams. Click the Offset Beam button on the Asteel 3D toolbar. The Offset Beam dialog will be shown.



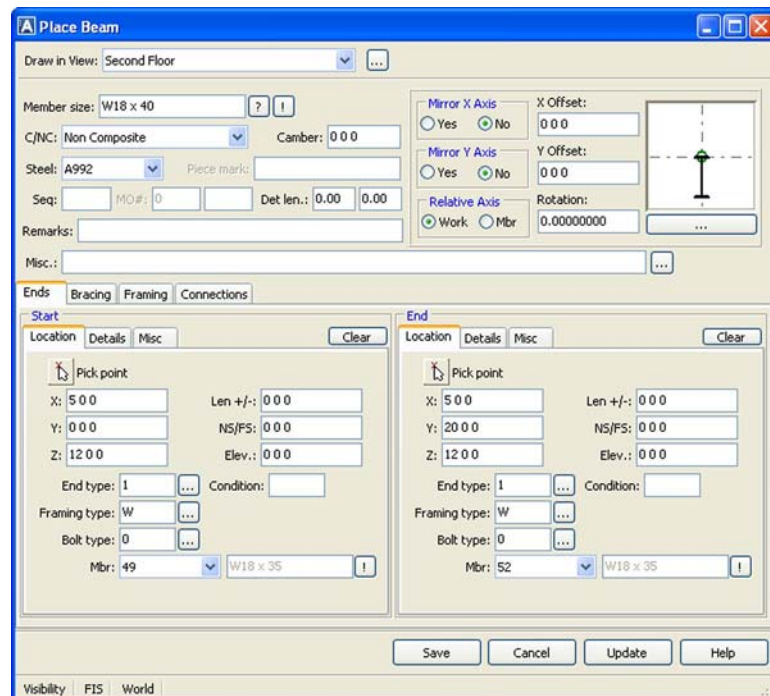
Click the Select button. Select the vertical beam just above the bottom-left column. Select "Below" in the Offset Side field. Enter "1" in the Number Spaces field. Enter "5 0 0" in the Offset Distance field. Select "No" for the Copy Ends options. Click the Draw button then click the Close button.



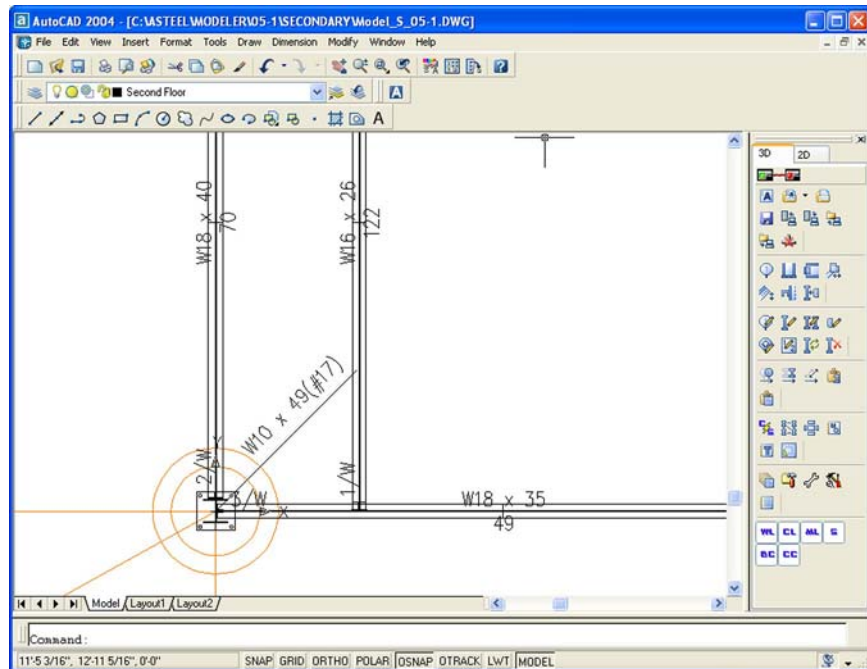
The beam we selected has been duplicated five feet to the right. We need to change the member size for the new beam. Click the Edit Member button on the Asteel 3D toolbar. The Edit Member dialog will be displayed.



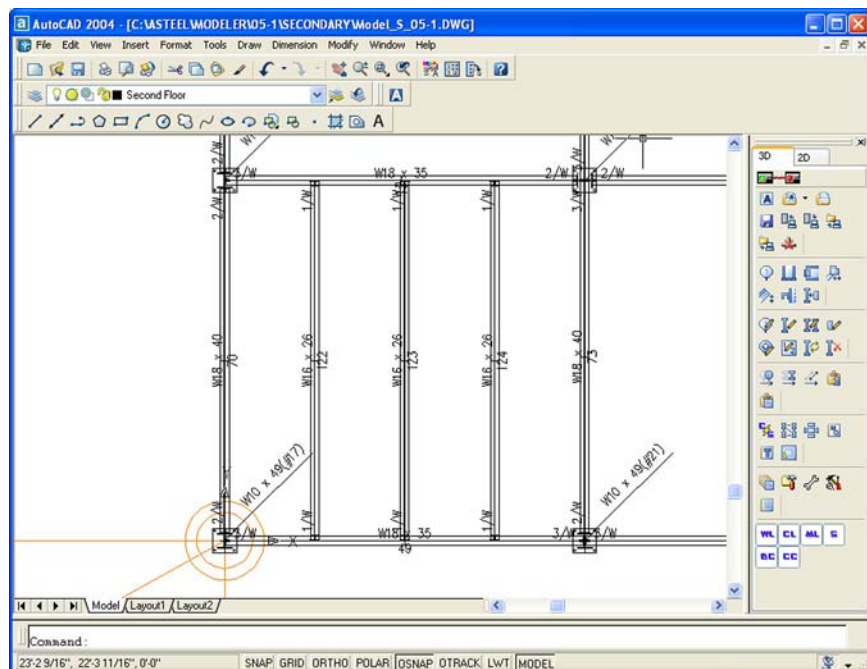
Click the Select button and select the filler beam we just created. Click the Edit button and the Edit Beam dialog is displayed.



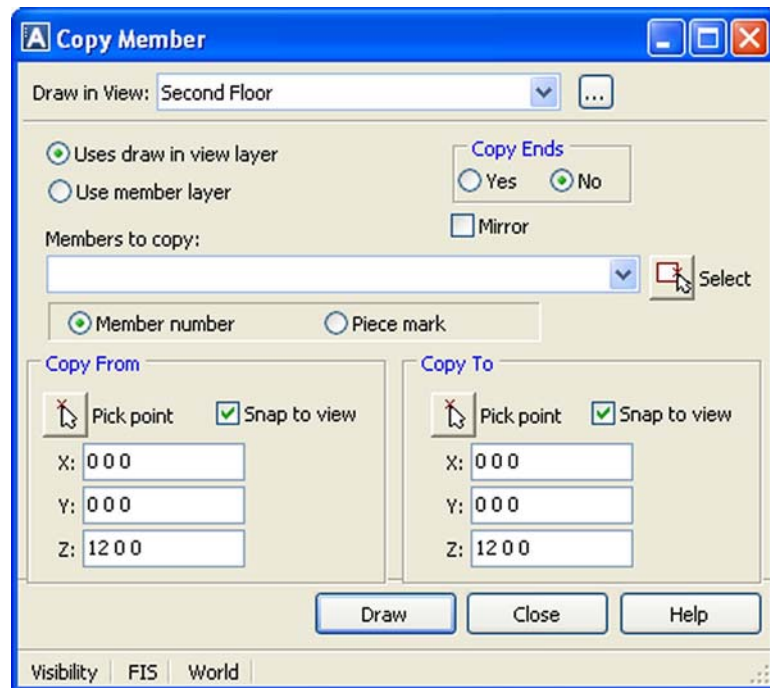
Change the Member Size field to "16 26". Click the Save button. Click the Close button on the Edit Member dialog. As you can see, the member size has been changed in the model.



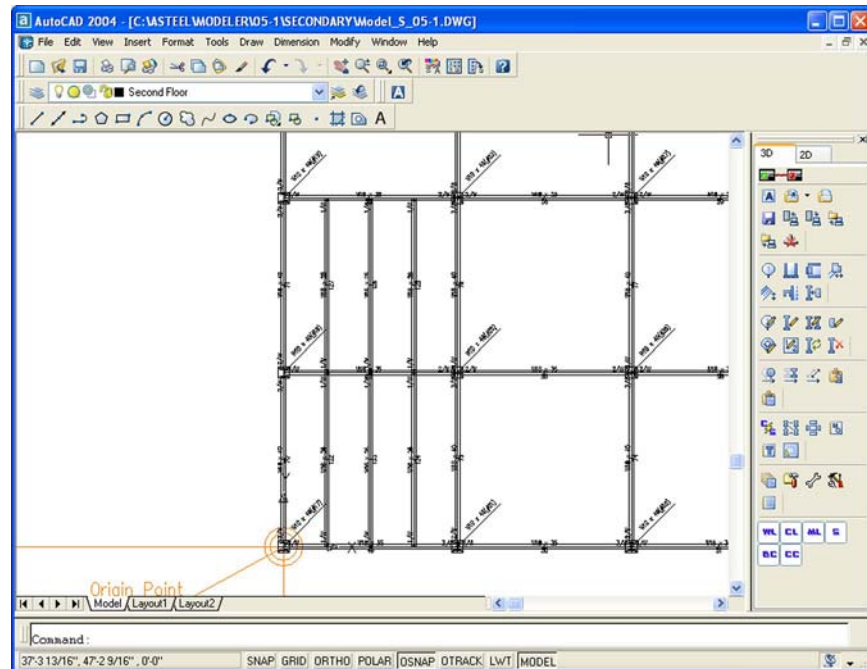
Click the Offset Beam button on the Asteel 3D toolbar. The Offset Beam dialog will be shown. Click the Select button and select the filler beam we just created. Select "Below" in the Offset Side field. Enter "2" in the Number Spaces field. Enter "5 0 0" in the Offset Distance field. Select "No" for the Copy Ends option. Click the Draw button. Click the Close button. We should now have three filler beams.



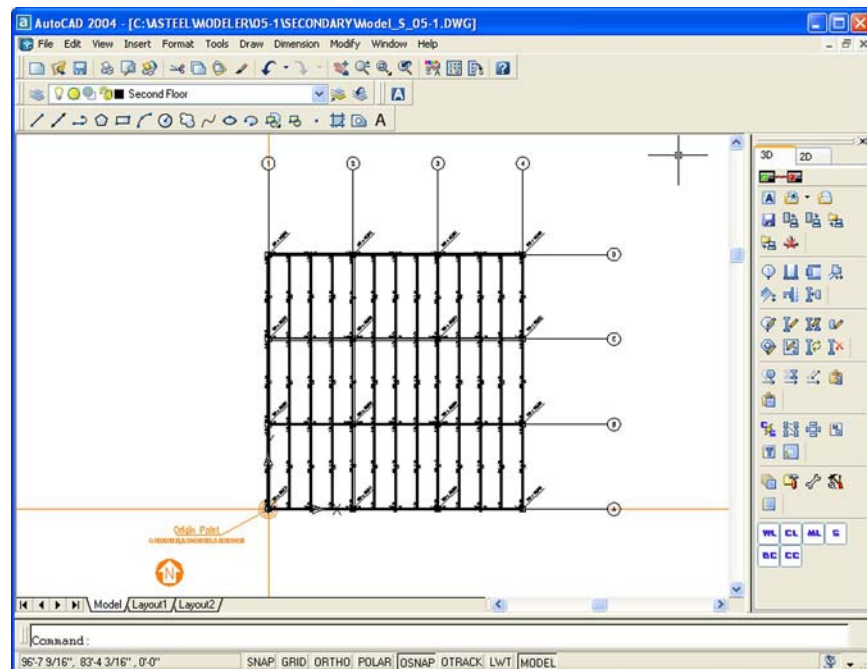
Click the Copy Member button on the Asteel 3D toolbar. The Copy Member dialog is displayed.



Click the Select button. Select all three filler beams we just created. Once selected, right-click to return to the Copy Member dialog. In the Copy From area, click the Pick Point button. Select the center of the bottom-left column. In the Copy To area, click the Pick Point button. Select the center of the column just above the column we previously selected. Click the Draw button. We should now have six filler beams.



Continue with this process until all of the bays have filler beams.



The next step in creating a model is placing floor bracing.

Placing Floor Bracing

The next step in building our model is placing the floor bracing. Click the Place Floor Brace button on the Asteel 3D toolbar. The Place Floor Brace dialog will be displayed.

Place Floor Brace

Draw in View: Second Floor

Member size: W14 x 22 ? I

Steel: A36 Piece mark:

Seq.:

Rows: 2 @ 0 3 0 Spacing Load: 0.0000

Gage 1: 0 2 12 Gage 2: 0 0 0

Base: 0 0 0 Rise: 0 0 0

Misc: Remarks:

Ends Intersections

Start

Location Connection Clear

Pick point

X: 0 0 0

Y: 0 0 0

Z: 12 0 0

Adjust: 0 0 0

Brace end type: Bolt type:

End Cond Framing Type Mbr #

Hor: Conn Primary

Vert: Conn Primary

End

Location Connection Clear

Pick point Cont

X: 0 0 0

Y: 0 0 0

Z: 12 0 0

Adjust: 0 0 0

Brace end type: Bolt type:

End Cond Framing Type Mbr #

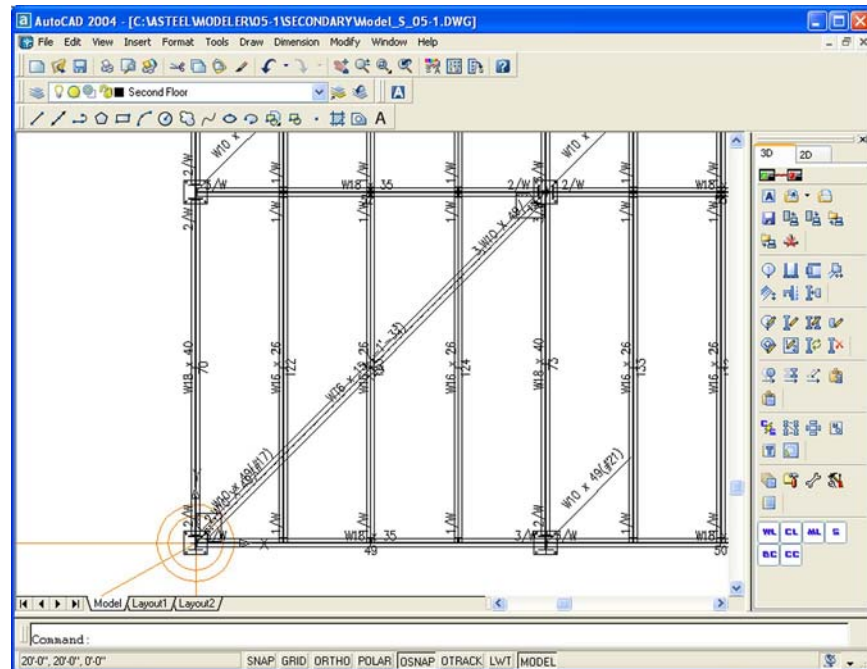
Hor: Conn Primary

Vert: Conn Primary

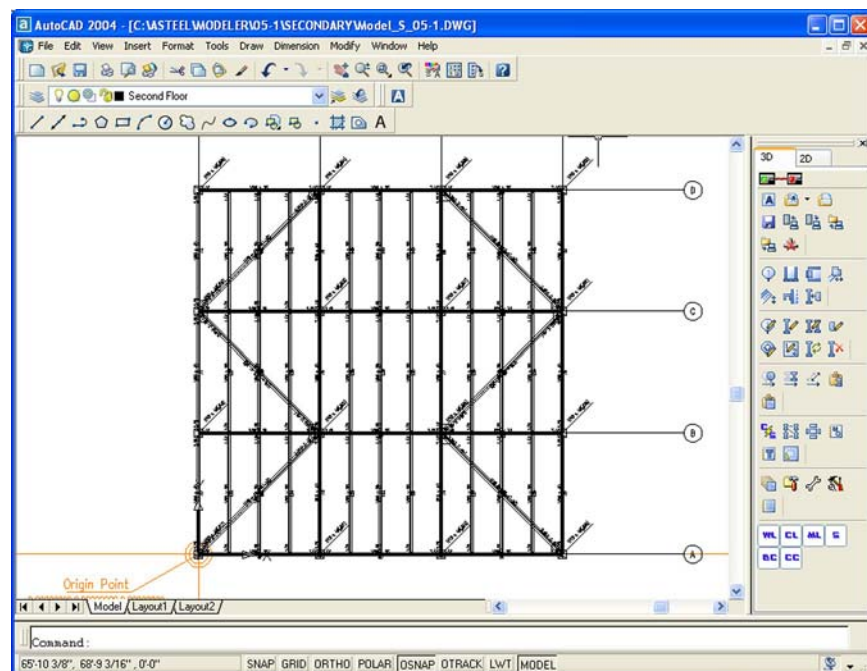
Draw Close Recalculate Help

Visibility FIS World

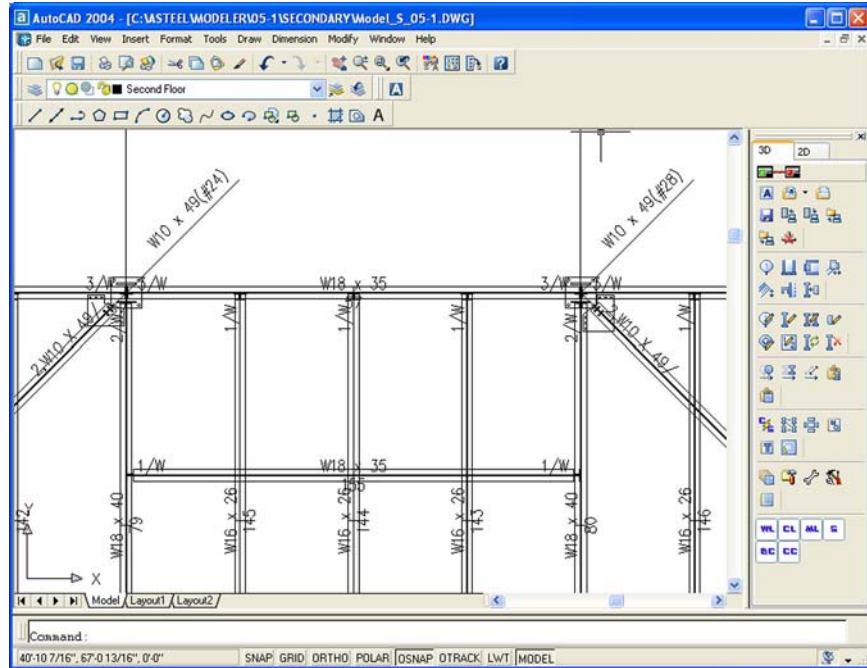
Enter "WT6 15" for the Member Size field. Enter "A992" for the Steel field. Enter "-1 3 12" in the Y Offset field. Now we can pick our starting and ending coordinates for the braces. Under Start, click the Pick Point button. Select the center of the bottom-left column. Under End, click the Pick Point button. Select the center of the column diagonal to the previously selected column. Click the Draw button.



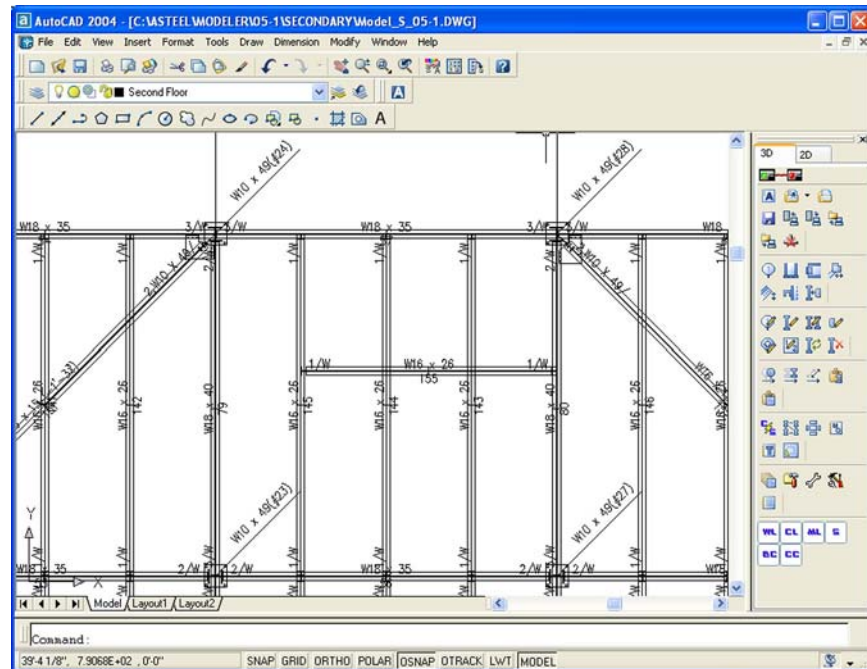
Continue drawing floor braces until your model looks like this.



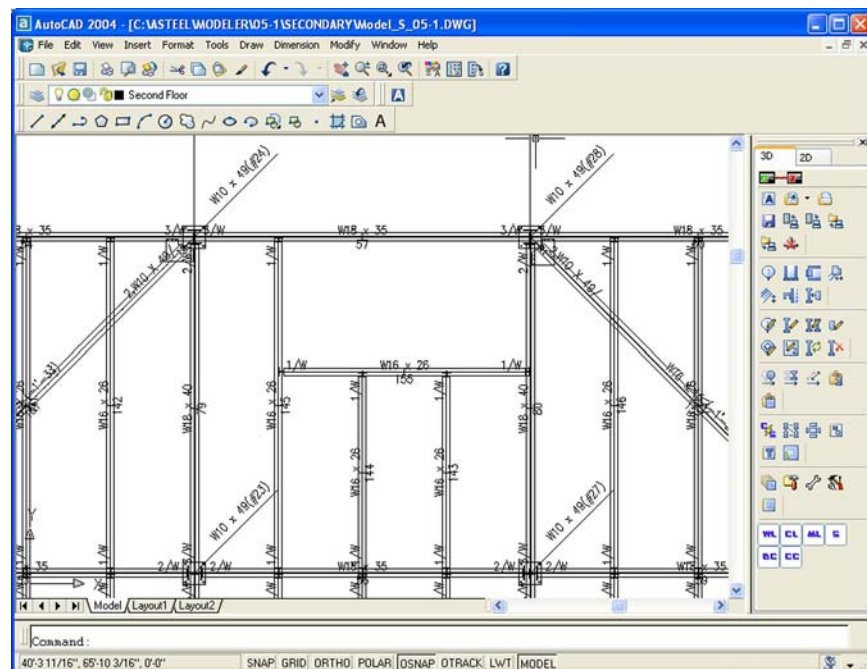
We will now add an opening on the northern side of the building. Click the Offset Beam button on the Asteel 3D toolbar. Click the Select button and select the top-most, middle beam. Set the Offset Side field to "Below". Enter "1" in the Number Spaces field. Enter "8 0 0" in the Offset Distance field. Select "No" for the Copy Ends option. Click the Draw button, then click the Close button.



We need to change the size of the member we just created. Click the Edit Member button on the Asteel 3D toolbar. The Edit Member dialog appears. Click the Select button and then click the member we just created. Click the Edit button on the Edit Member dialog. Change the Member Size field to "16 26". Under Start, click the Pick Point button. Adjust the left end of this beam so that it is perpendicular to the filler beam like the picture below (you will have to click the OK button after you adjust the start point).



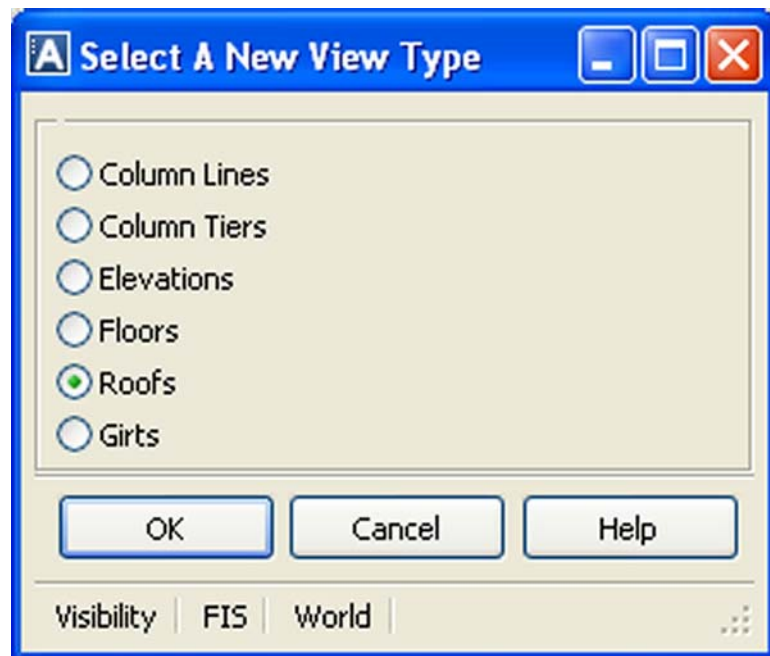
As you can see, we have two filler beams that intersect the beam we just created. Fix this problem by editing the end points of those two filler beams using the Edit Member dialog.



The next step in creating a model is modeling a roof.

Modeling a Roof

The next step in building our model is modeling the roof. Click the Place Beam button on the Asteel 3D toolbar. The Place Beam dialog will be displayed. We must first create a roof view. Currently there are no roof views in the model. To create a roof view, click the "..." button to the right of the Draw in View field. The Model Views dialog will be displayed. Click the New button. The Select a New View Type dialog is displayed.



Select "Roof" and click OK. The Edit Roof View dialog will be displayed.



Edit Roof View

View name:



View description:

☒ Select column line ☐ Select 3 points


First Column Line

 Elevation: 

Second Column Line

 Elevation: 

Base Point


 Pick point

X:

Y:

Z:

Drawing layer name:

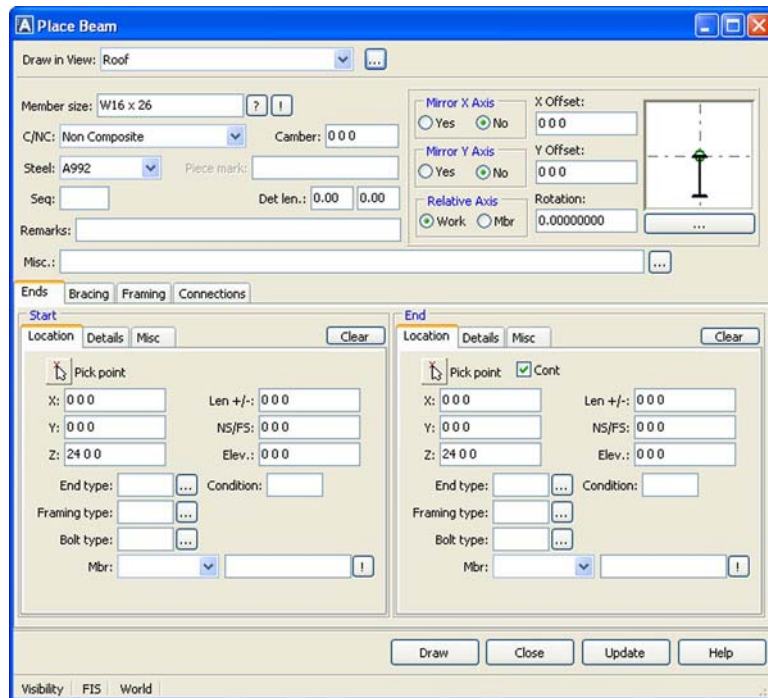
Drawing layer color: 

Layers displayed with this view:

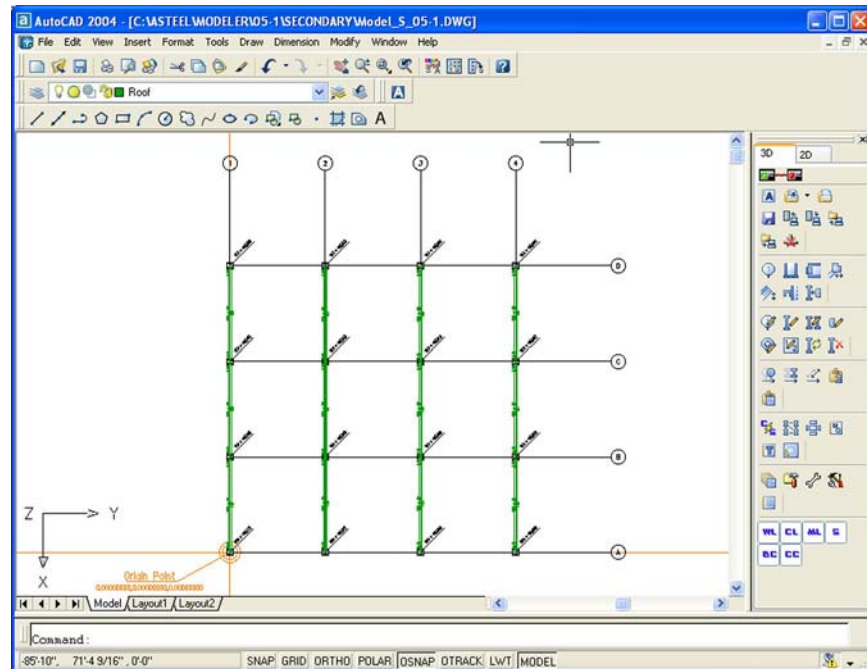
- ☐ 0
- ☒ CDSGlobal
- ☒ Column Lines
- ☐ Defpoints
- ☒ First Tier
- ☒ Roof
- ☐ Second Floor

Visibility | FIS | World

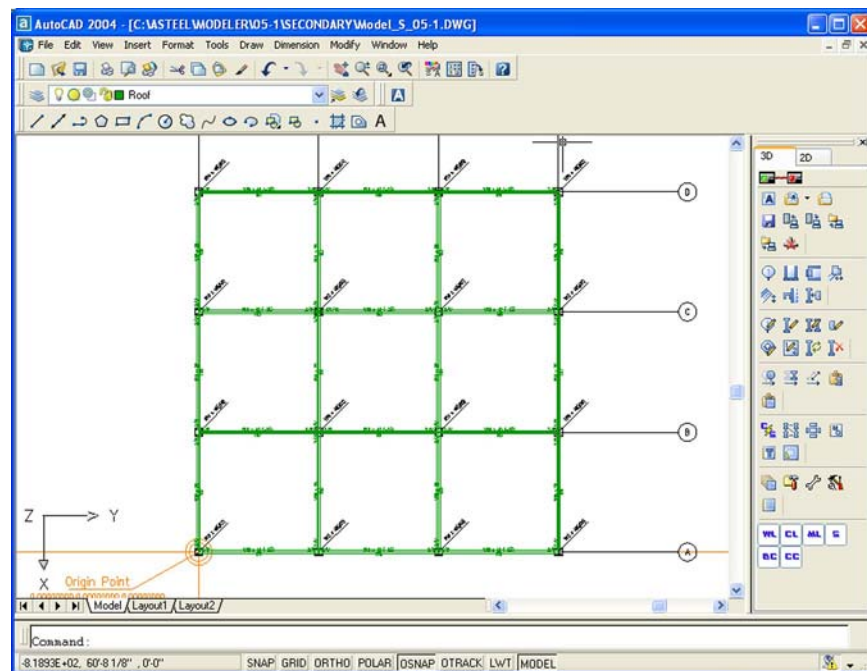
Enter "Roof" in the View Description field. Click the Select Column Line radio button. Enter column line 1 for the First Column Line at elevation "24 0 0". Enter column line 4 for the Second Column Line at elevation "25 3 0". Turn on the "Column Lines" layer and the "First Tier" layer. Click the OK button. The Model Views dialog is displayed. Select the "Roof" view. Uncheck Switch to Plan View of Current Plane if it is checked. Click the Current button, then finally click the Close button. The Place Beam dialog will be displayed. Now we can start placing roof beams. If you look at the UCS, notice that X and Y have been reversed.



Select "Roof" in the Draw in View field if it isn't already selected. Enter "18 35" in the Member Size field. Select "A992" in the Steel listbox. Under Start, click the Pick Point button. Select the center of the bottom-left column. Under End, click the Pick Point button. Select the center of the column above the previously selected column. Click the Draw button. Continue drawing beams in this manner until all of the vertical beams have been drawn along column lines 1, 2, 3 and 4.



Now let's draw our horizontal beams. Click the Place Beam button on the Asteel 3D toolbar if the dialog isn't already open. Enter "18 40" in the Member Size field. Enter "-0 2 8" in the Y Offset field. Draw all of the horizontal columns along column lines A, B, C and D.



The next step in creating a model is placing vertical bracing.

Placing Vertical Bracing

The final step in building our model is placing the vertical bracing. Click the Place Vertical Brace button on the Asteel 3D toolbar. The Place Vertical Brace dialog will be displayed.

Place Vertical Brace

Draw in View: ...

Member size: ? !

Steel: Piece marks:

Seq.:

Rows: @ Spacing

Gage 1: Gage 2:

Base: Rise:

Misc: Remarks:

Ends Intersection

Start Location Connection Clear

X: Pick point

Y:

Z:

Vert WP location: Adjust by:

Actual location in model:

Horiz WP location: Adjust by:

Actual location in model:

Brace end type:

Framing condition: Framing type:

Member Number: Frame to Member size: Bolt type:

End Location Connection Clear

X: Pick point

Y:

Z:

Vert WP location: Adjust by:

Actual location in model:

Horiz WP location: Adjust by:

Actual location in model:

Brace end type:

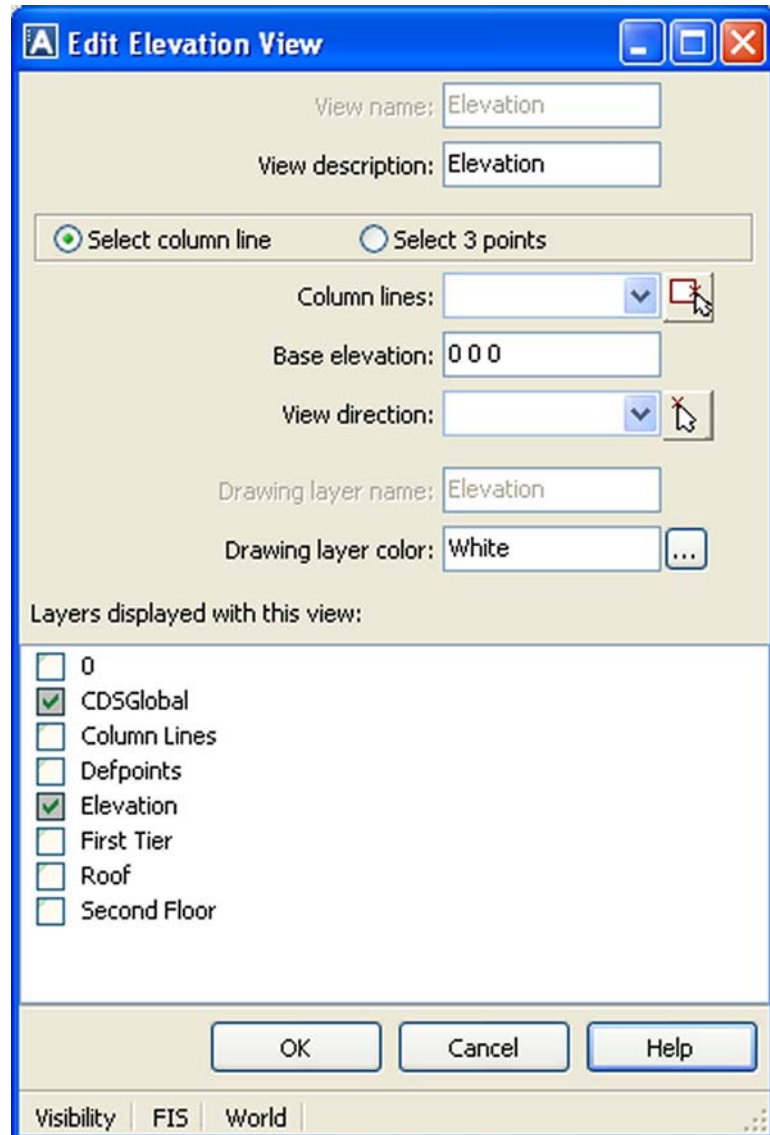
Framing condition: Framing type:

Member Number: Frame to Member size: Bolt type:

Draw Close Recalculate Help

Visibility FIS World

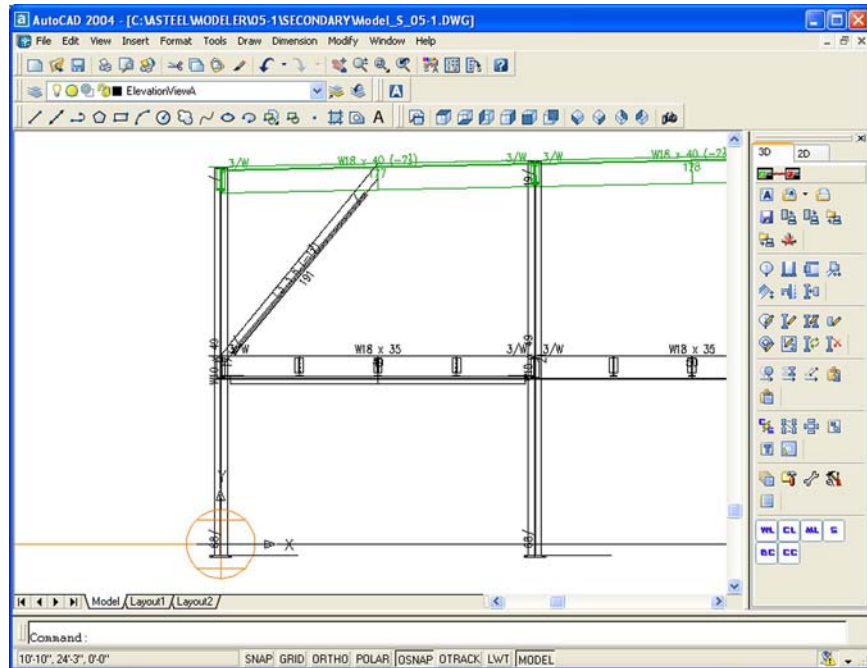
We must first create an elevation view. Currently there are no elevation views in the model. To create an elevation view, click the "..." button to the right of the Draw in View field. The Model Views dialog will be displayed. Click the New button. The Select a New View Type dialog is displayed. Select "Elevations" and click OK. The Edit Elevation View dialog is displayed.



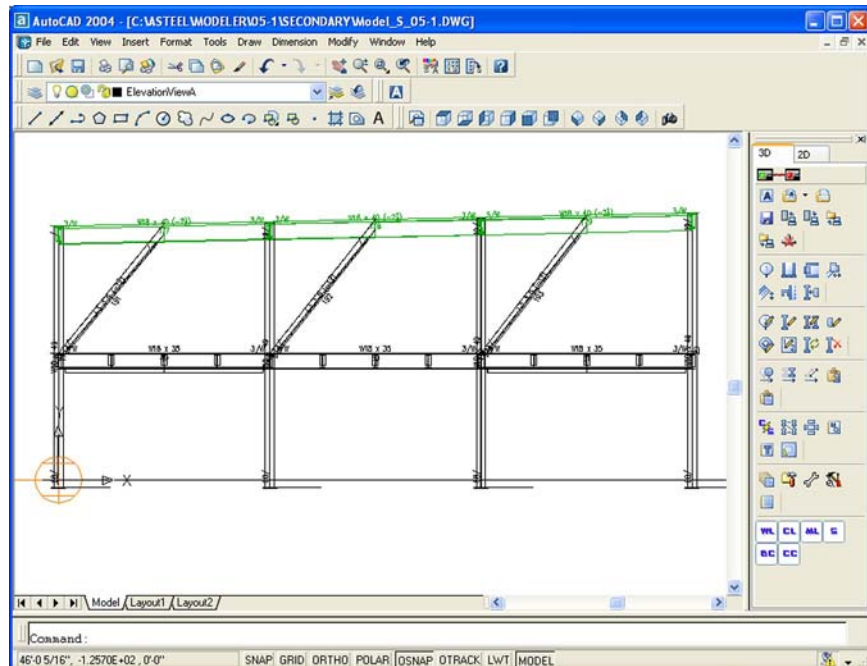
Select column line "A" in the Column Lines listbox as the reference line we will use for the elevation view. Enter "ElevationViewA" in the View Description field. Click the OK button to return to the Model Views dialog. Select the view we just created ("ElevationViewA"), click the Current button, then click the Close button. The Place Vertical Brace dialog is displayed again.

Select "ElevationViewA" in the Draw in View listbox. Enter "L3 3 6" in the Member Size field. Enter "-0 1 12" in the Y Offset field. Select "Nominal 1/2 depth of beam" for the Vertical WP Location fields for both Start and End. Select "Actual location in model" for the Horizontal WP Location for both Start and End. Select "Bracing Beam End" for the Start Framing Condition field. Select "Bracing Beam Midspan" for the End Framing Condition field. Now we can start drawing our braces from the second floor to the roof.

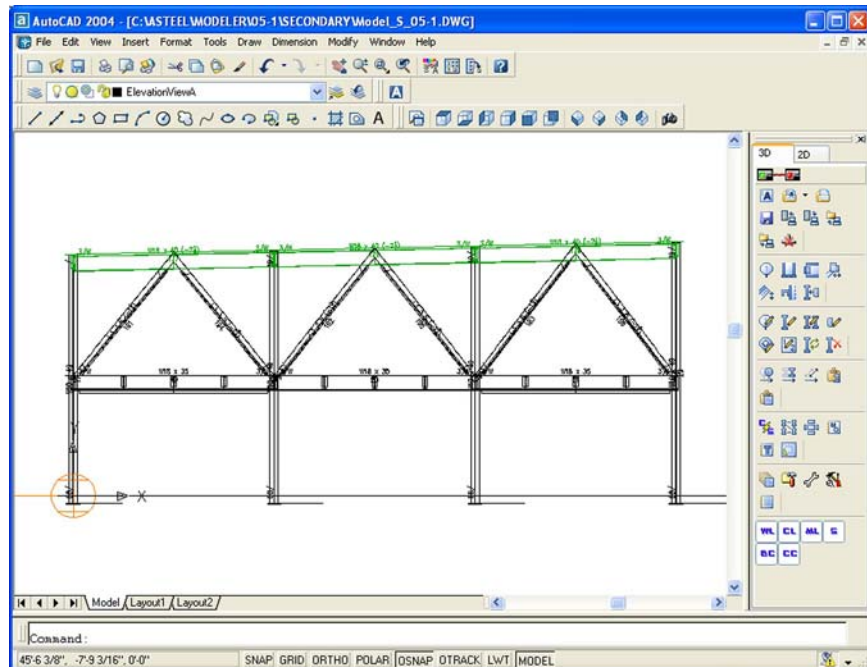
Click the Start end's Pick Point button. Switch AutoCAD to Front View mode. Click the start point of the left-most second floor beam. Click the End end's Pick Point button. Click the midpoint of the left-most roof beam. Click the Draw button on the Place Vertical Brace dialog.



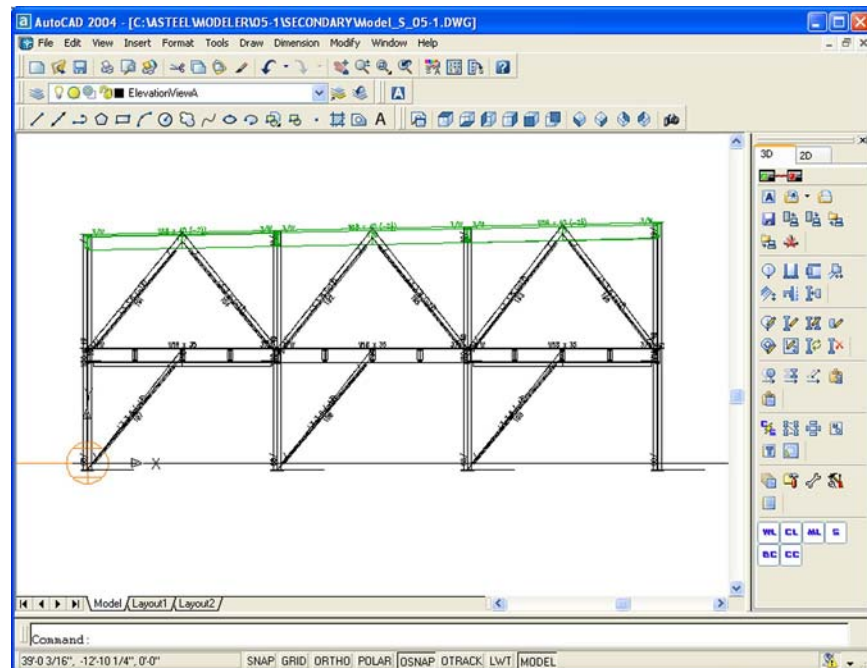
Continue this process until you have drawn three braces supporting the roof.



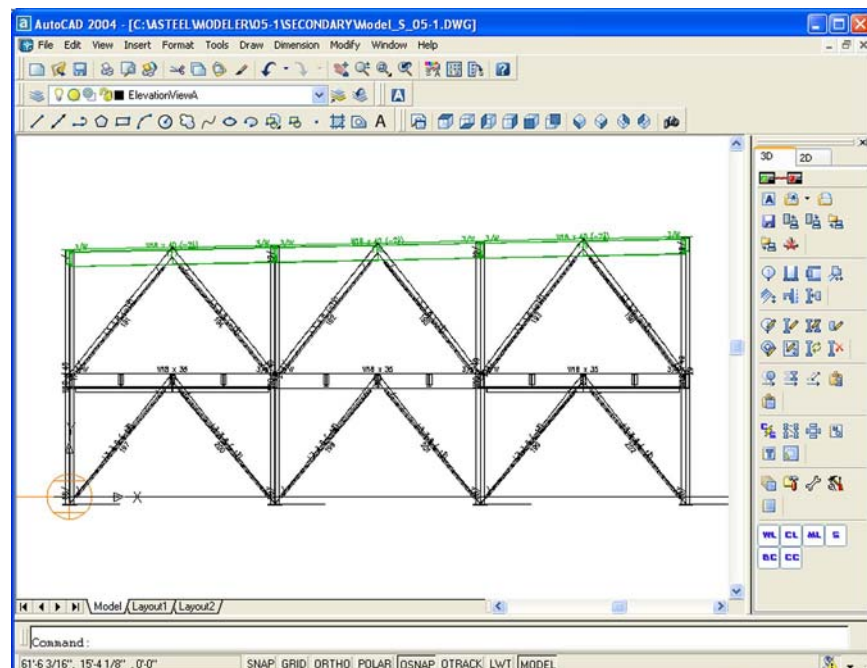
Select "Bracing Beam Midspan" for the Start Framing Condition field. Select "Bracing Beam End" for the End Framing Condition field. Now we can finish up our second floor braces. Start by clicking the Start end's Pick Point button. Click the right end of the first brace we drew. Click the End end's Pick Point button. Click the right end of the left-most second floor beam. Click the Draw button on the Place Vertical Brace dialog. Continue this process until you have drawn all six braces supporting the roof.



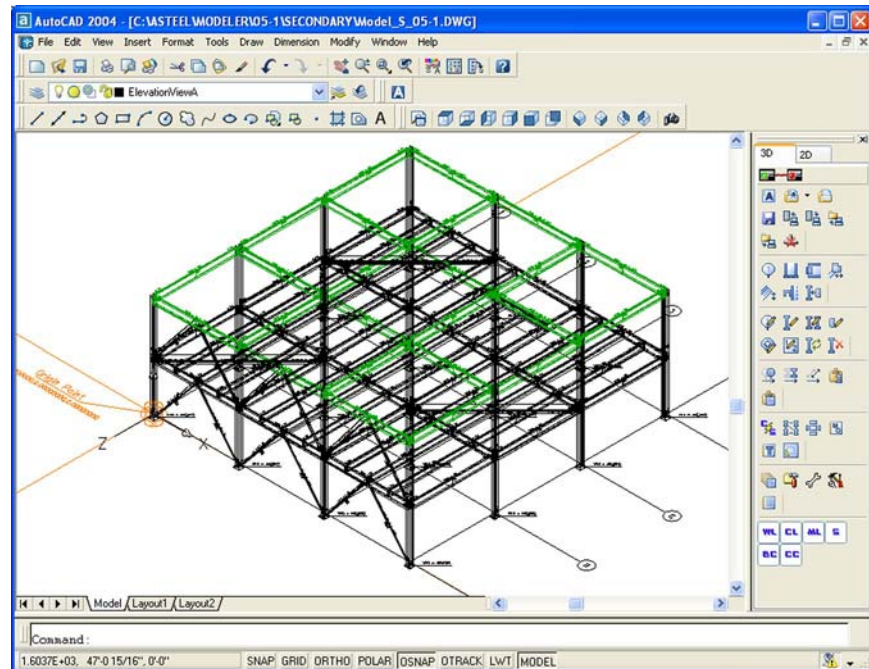
Let's put some vertical bracing in from the ground floor to the second floor. Select "Column End" for the Start Framing Condition field. Select "Bracing Beam Midspan" for the End Framing Condition field. Enter "-0 1 12" in the Y Offset field. Click the Start end's Pick Point button. Click the bottom of the left column. Click the End end's Pick Point button. Click the midpoint of the left-most second floor beam. Click the Draw button on the Place Vertical Brace dialog. Continue this process until you have drawn three braces supporting the second floor.



Select "Bracing Beam Midspan" for the Start Framing Condition field. Select "Column End" for the End Framing Condition field. Draw in the remaining braces for the first floor.



Let's take a look at our entire model. Click the Model Views button on the Asteel 3D toolbar. Click the Show All button and then click the Close button. Switch to the south-east isometric view in AutoCAD.



The model is now complete. In the next chapter, we will produce various outputs from the model.

CHAPTER 2

Producing Output from the Model

In This Chapter

Creating Sheets.....	47
Creating Plans Drawings.....	50
Creating Mill Orders	51
Creating Field Bolt Lists	54

Creating Sheets

This chapter will guide you through creating various types of output from the model created in the last chapter. We will start by creating detail sheets.

To create detail sheets, start off by clicking the Create Sheets button on the Asteel 3D toolbar. The Create Sheets dialog will be displayed.

A Create Sheets

Draw in View: ElevationViewA

Find Drawing

Mbr Number: Pc Mark: Drawing No.:

Beams Columns Floor Bracing Vertical Bracing Girts

Drawing #: Layout: 6

Made By: Last Save:

Pc Mark	Members	Sel	Length	Move
			9.00	0.00
			9.00	0.00
			9.00	0.00
			9.00	0.00
			9.00	0.00
			9.00	0.00

Save Close Help Include CDS Member #'s Create Drawings Preview Drawings Sheet Report Delete Drawings

Visibility | FIS | World

We want to create a beam sheet, so click the Beam tab. Enter "1" in the Drawing Number field. Drawing 1 will have four beams, so select "4" in the Layout listbox.

Click the Sel button for beam 1. Select a beam in the model and right click to return to the Create Sheets dialog. Notice that the member number for the beam you selected was placed in the Members field for beam 1. Continue selecting beams for beam 2, 3 and 4. Click the Save button.

Draw in View: Roof

Find Drawing

Mbr Number: Pc Mark: Drawing No.: 1

Beams Columns Floor Bracing Vertical Bracing Girts

Drawing #: 1 Layout: 4

Made By: Last Save: 1/19/2007 1:13:30 PM

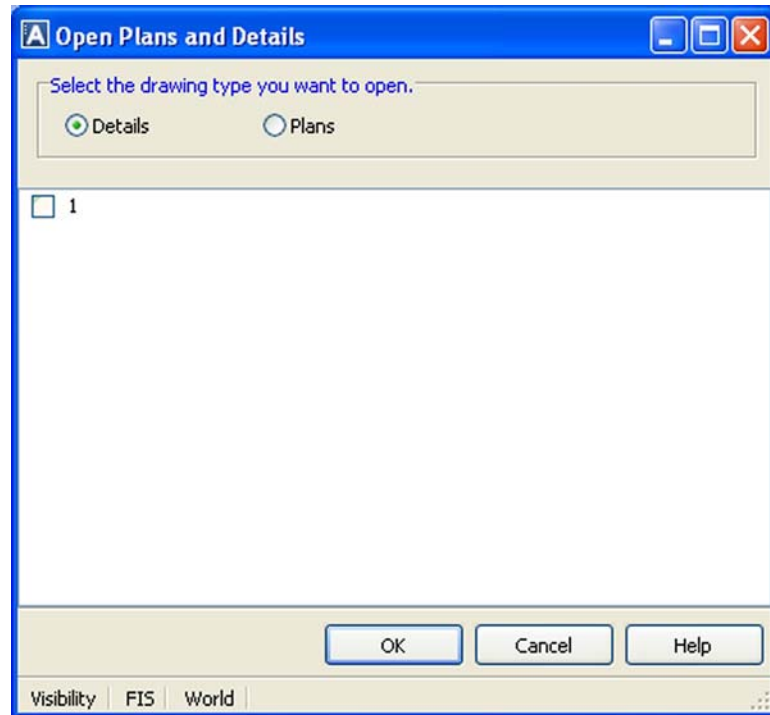
Pc Mark	Members	Sel	Length	Move
	177		9.00	0.00
	178		9.00	0.00
	179		9.00	0.00
	166		9.00	0.00

Save ☒ Include CDS Member #'s Create Drawings Preview Drawings

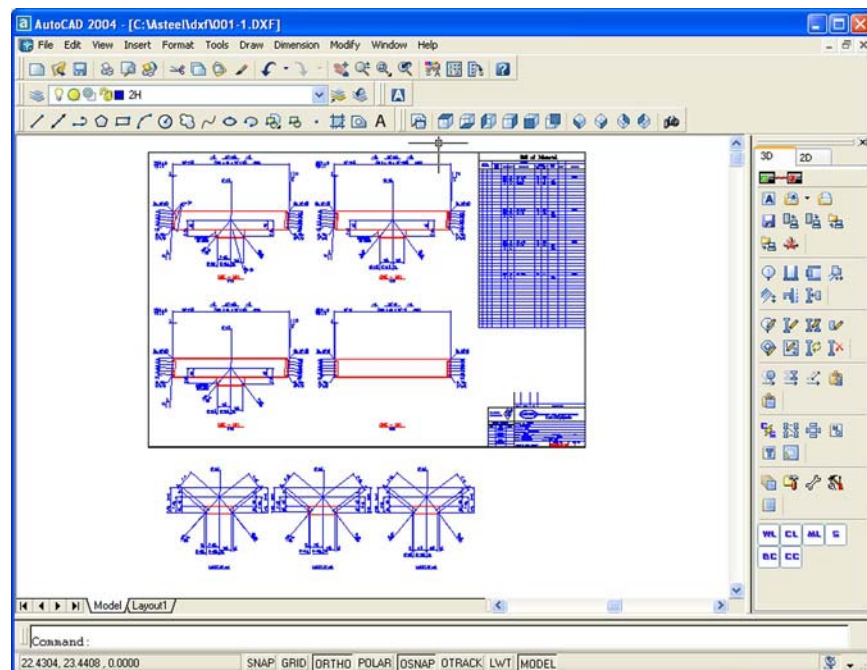
Close Help Sheet Report Delete Drawings

Visibility: FIS World

Notice that a 1 appears in the list to the right. Check the box next to sheet 1 and click Create Drawings. A progress dialog will appear followed by a log dialog showing the results. Click Preview Drawings. The Open Plans and Details dialog will be displayed.



Check "1" and click the OK button. Sheet 1 will be opened in AutoCAD.



In the next section we will create plan drawings from the model.

Creating Plans Drawings

To create floor plans, elevation views, girt views or anchor bolt plans from the model, start off by clicking the Create Plans button on the Asteel 3D toolbar. The Create Plans dialog is displayed.

Create Plans

Select the plan drawing type you want to create.

☒ Anchor Bolt Plan ☐ Floor Plan ☐ Elevation View ☐ Girt View

Select a view for this plan drawing.

View:
First Tier

☐ Create all of the plan drawings for the selected plan drawing type.

Scale options.

Bubbles: 1
Layouts: 8
Sections: 2.5
Text: 5
Title Text: 10

Other options.

Title: First Tier

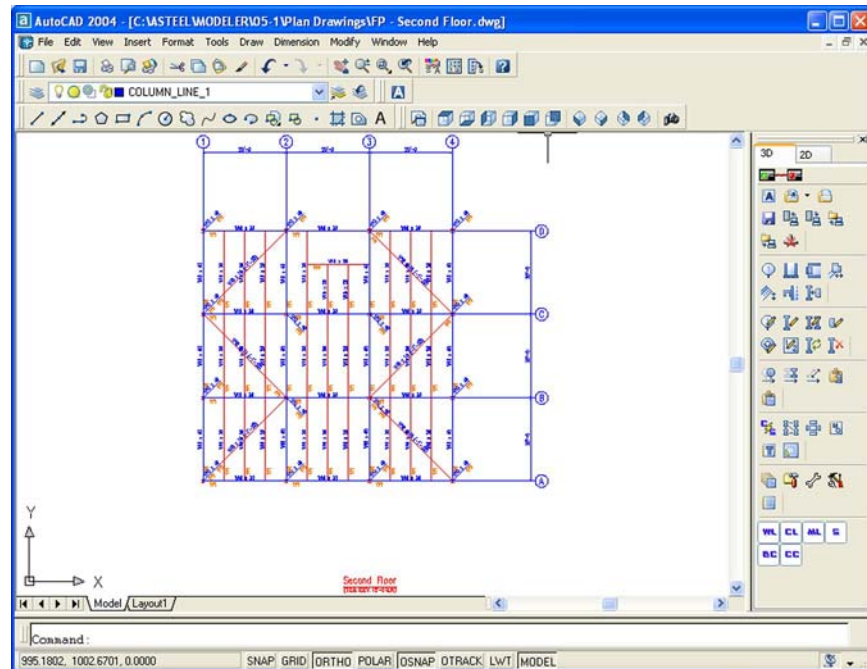
☒ Analyze members.
☐ Break column grid lines.
☐ Show sequence numbers.

Units
☒ Imperial ☐ Metric

OK Cancel Help

Visibility FIS World

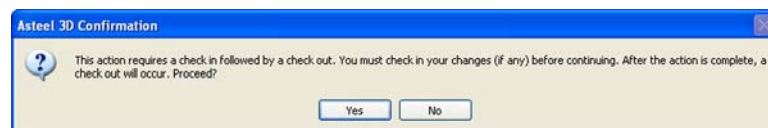
For this example, we will create a floor plan of the second floor. Click the "Floor Plan" radio button, then select "Second Floor" in the View listbox. We will use the defaults for all other options on the form. Click the OK button. A progress dialog is shown and the plan drawing of the second floor is opened in AutoCAD.



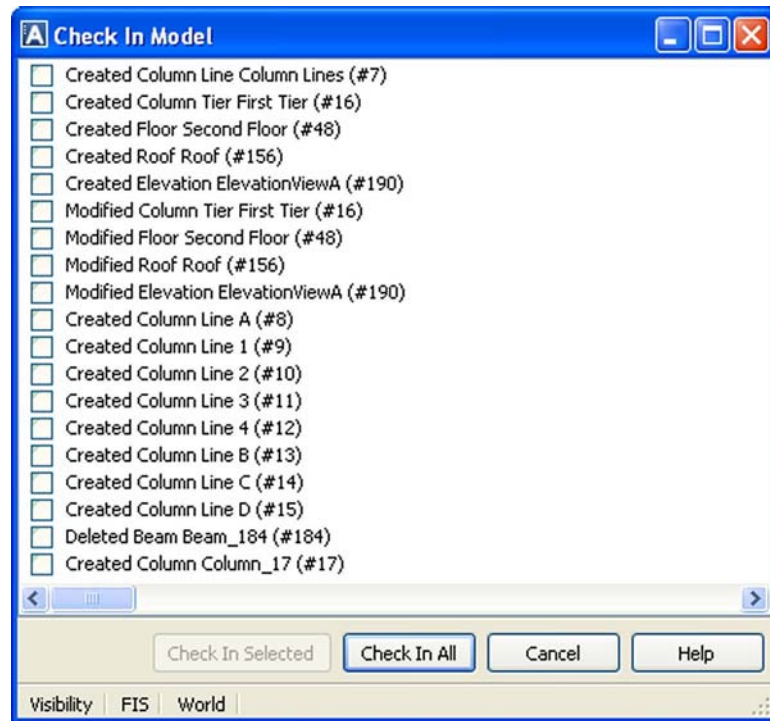
In the next section we will create a mill order.

Creating Mill Orders

To create a mill order from the model, start off by clicking the Create Mill Order button on the Asteel 3D toolbar. A sub menu will be shown. You can select either "Full Mill Order Create and Edit" or you can select "View/Edit Mill Order". For this example select "Full Mill Order Create and Edit". A confirmation dialog is displayed asking if you want to check in your changes.



Click the Yes button on the confirmation dialog. The Check In Model dialog is displayed.



Right click one of the changes and select Check All, then click the Check In Selected button. A progress dialog will be shown while changes are being checked in.



The Mill Order dialog will then be displayed.

Mill Order

Customer: Customer job #:
 Customer address: Job description:
 Customer address: Description:
 Made by: Sequence: Chk'd By: ☒ Imperial output
☐ Overwrite existing
☐ Sort by sequence
 Starting line number: Starting page number:

<input type="checkbox"/> 17	<input type="checkbox"/> 28	<input type="checkbox"/> 55	<input type="checkbox"/> 75	<input type="checkbox"/> 126	<input type="checkbox"/> 137	<input type="checkbox"/> 148
<input type="checkbox"/> 18	<input type="checkbox"/> 29	<input type="checkbox"/> 56	<input type="checkbox"/> 76	<input type="checkbox"/> 127	<input type="checkbox"/> 138	<input type="checkbox"/> 149
<input type="checkbox"/> 19	<input type="checkbox"/> 30	<input type="checkbox"/> 57	<input type="checkbox"/> 77	<input type="checkbox"/> 128	<input type="checkbox"/> 139	<input type="checkbox"/> 150
<input type="checkbox"/> 20	<input type="checkbox"/> 31	<input type="checkbox"/> 58	<input type="checkbox"/> 78	<input type="checkbox"/> 129	<input type="checkbox"/> 140	<input type="checkbox"/> 151
<input type="checkbox"/> 21	<input type="checkbox"/> 32	<input type="checkbox"/> 59	<input type="checkbox"/> 79	<input type="checkbox"/> 130	<input type="checkbox"/> 141	<input type="checkbox"/> 152
<input type="checkbox"/> 22	<input type="checkbox"/> 49	<input type="checkbox"/> 60	<input type="checkbox"/> 80	<input type="checkbox"/> 131	<input type="checkbox"/> 142	<input type="checkbox"/> 153
<input type="checkbox"/> 23	<input type="checkbox"/> 50	<input type="checkbox"/> 70	<input type="checkbox"/> 81	<input type="checkbox"/> 132	<input type="checkbox"/> 143	<input type="checkbox"/> 154
<input type="checkbox"/> 24	<input type="checkbox"/> 51	<input type="checkbox"/> 71	<input type="checkbox"/> 122	<input type="checkbox"/> 133	<input type="checkbox"/> 144	<input type="checkbox"/> 155
<input type="checkbox"/> 25	<input type="checkbox"/> 52	<input type="checkbox"/> 72	<input type="checkbox"/> 123	<input type="checkbox"/> 134	<input type="checkbox"/> 145	<input type="checkbox"/> 157
<input type="checkbox"/> 26	<input type="checkbox"/> 53	<input type="checkbox"/> 73	<input type="checkbox"/> 124	<input type="checkbox"/> 135	<input type="checkbox"/> 146	<input type="checkbox"/> 158
<input type="checkbox"/> 27	<input type="checkbox"/> 54	<input type="checkbox"/> 74	<input type="checkbox"/> 125	<input type="checkbox"/> 136	<input type="checkbox"/> 147	<input type="checkbox"/> 159

Clear Create Close Print Summary Print Members Edit Members Edit Summary Help

Visibility FIS World

Fill in the various fields as you see fit. Right click the area with the member numbers listing and click Check All.

Mill Order

Customer: CDS, Inc. Customer job #: 05-1
 Customer address: 111 Spring Hall Drive Job description: Test Job
 Customer address: Goose Creek, SC 29445 Description: A mill order produced for 05-1.
 Made by: JCC Sequence: 1 Chk'd By: JCC ☒ Imperial output
☐ Overwrite existing
☐ Sort by sequence
 Starting line number: 1 Starting page number: 1

<input checked="" type="checkbox"/> 17	<input checked="" type="checkbox"/> 28	<input checked="" type="checkbox"/> 55	<input checked="" type="checkbox"/> 75	<input checked="" type="checkbox"/> 126	<input checked="" type="checkbox"/> 137	<input checked="" type="checkbox"/> 148
<input checked="" type="checkbox"/> 18	<input checked="" type="checkbox"/> 29	<input checked="" type="checkbox"/> 56	<input checked="" type="checkbox"/> 76	<input checked="" type="checkbox"/> 127	<input checked="" type="checkbox"/> 138	<input checked="" type="checkbox"/> 149
<input checked="" type="checkbox"/> 19	<input checked="" type="checkbox"/> 30	<input checked="" type="checkbox"/> 57	<input checked="" type="checkbox"/> 77	<input checked="" type="checkbox"/> 128	<input checked="" type="checkbox"/> 139	<input checked="" type="checkbox"/> 150
<input checked="" type="checkbox"/> 20	<input checked="" type="checkbox"/> 31	<input checked="" type="checkbox"/> 58	<input checked="" type="checkbox"/> 78	<input checked="" type="checkbox"/> 129	<input checked="" type="checkbox"/> 140	<input checked="" type="checkbox"/> 151
<input checked="" type="checkbox"/> 21	<input checked="" type="checkbox"/> 32	<input checked="" type="checkbox"/> 59	<input checked="" type="checkbox"/> 79	<input checked="" type="checkbox"/> 130	<input checked="" type="checkbox"/> 141	<input checked="" type="checkbox"/> 152
<input checked="" type="checkbox"/> 22	<input checked="" type="checkbox"/> 49	<input checked="" type="checkbox"/> 60	<input checked="" type="checkbox"/> 80	<input checked="" type="checkbox"/> 131	<input checked="" type="checkbox"/> 142	<input checked="" type="checkbox"/> 153
<input checked="" type="checkbox"/> 23	<input checked="" type="checkbox"/> 50	<input checked="" type="checkbox"/> 70	<input checked="" type="checkbox"/> 81	<input checked="" type="checkbox"/> 132	<input checked="" type="checkbox"/> 143	<input checked="" type="checkbox"/> 154
<input checked="" type="checkbox"/> 24	<input checked="" type="checkbox"/> 51	<input checked="" type="checkbox"/> 71	<input checked="" type="checkbox"/> 122	<input checked="" type="checkbox"/> 133	<input checked="" type="checkbox"/> 144	<input checked="" type="checkbox"/> 155
<input checked="" type="checkbox"/> 25	<input checked="" type="checkbox"/> 52	<input checked="" type="checkbox"/> 72	<input checked="" type="checkbox"/> 123	<input checked="" type="checkbox"/> 134	<input checked="" type="checkbox"/> 145	<input checked="" type="checkbox"/> 157
<input checked="" type="checkbox"/> 26	<input checked="" type="checkbox"/> 53	<input checked="" type="checkbox"/> 73	<input checked="" type="checkbox"/> 124	<input checked="" type="checkbox"/> 135	<input checked="" type="checkbox"/> 146	<input checked="" type="checkbox"/> 158
<input checked="" type="checkbox"/> 27	<input checked="" type="checkbox"/> 54	<input checked="" type="checkbox"/> 74	<input checked="" type="checkbox"/> 125	<input checked="" type="checkbox"/> 136	<input checked="" type="checkbox"/> 147	<input checked="" type="checkbox"/> 159

Clear Create Close Print Summary Print Members Edit Members Edit Summary Help

Visibility FIS World

Click the Create button. A progress dialog appears followed by the Save Advance Mill Order dialog.



Navigate to the "\\Asteel\\Modeler\\05-1\\MillOrder" folder and save the mill order output into a file called "AdvanceMillOrder.csv".

To view the mill order, click the Print Summary button on the Mill Order dialog. A dialog will be displayed asking you to select a mill order file. Select the file you just saved in the previous step and click Open. A printer dialog will be displayed. Note that we aren't actually printing here - we are formatting the report based on a printer. Select a printer and click OK. Finally, our report will be displayed.

CDS, Inc.
111 Spring Hall Drive
Goose Creek, SC 29445

Advance Bill Of Material Customer Job # 05-1
Test Job
A mill order produced for 05-1.

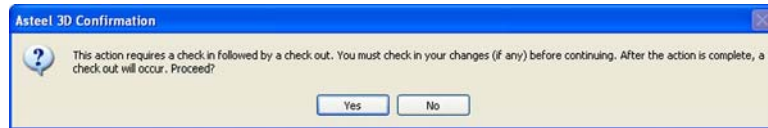
LINE	QTY.	DESCRIPTION	GRADE	LENGTH	REMARKS	WEIGHT
1	2	L3x3x 3/8	A36	13'-3		191
2	3	L3x3x 3/8	A36	13'-6		292
3	5	L3x3x 3/8	A36	13'-7		489
4	1	L3x3x 3/8	A36	13'-11		100
5	1	L3x3x 3/8	A36	14'-0		101
6	4	W10 x 49	A36	24'-8		4835
7	4	W10 x 49	A36	25'-1		4916
8	4	W10 x 49	A36	25'-6		4998
9	4	W10 x 49	A36	25'-11		5080
10	6	W16 x 15	A36	26'-7	Exact Length	2392
11	2	W16 x 26	A992	12'-0		624
12	1	W16 x 26	A992	15'-0		390
13	56	W14 x 54	A992	20'-0		11000

Page 1 of 1

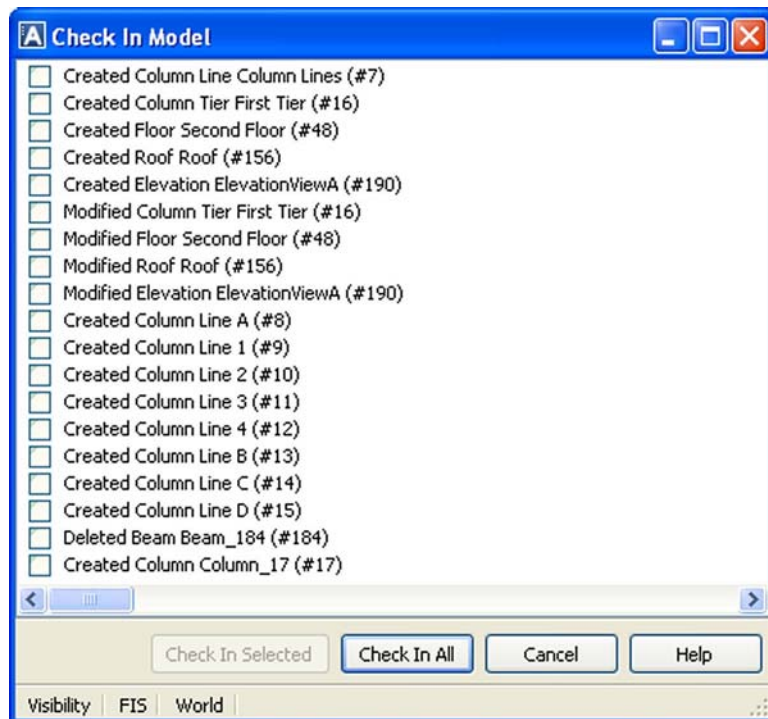
In the next section we will create a field bolt list.

Creating Field Bolt Lists

To create a field bolt list from the model, start off by clicking the Create Field Bolt List button on the Asteel 3D toolbar. A sub menu will be shown. You can select either "Full Bolt List Create and Edit" or you can select "View/Edit Bolt List". For this example select "Full Bolt List Create and Edit". A confirmation dialog is displayed asking if you want to check in your changes.



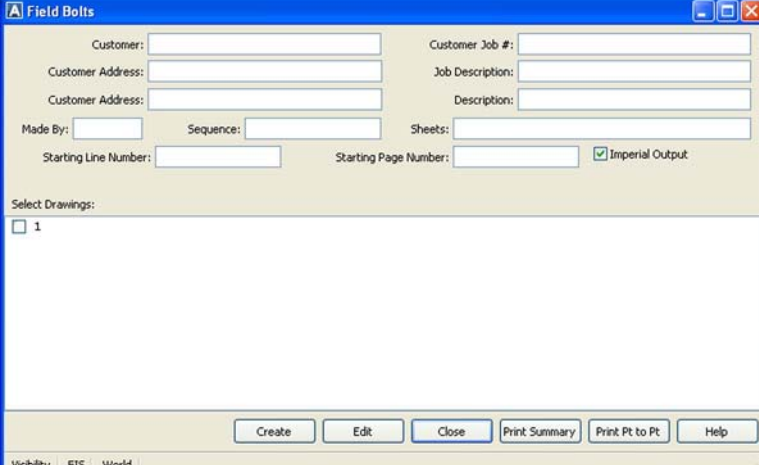
Click the Yes button on the confirmation dialog. The Check In Model dialog is displayed.



Right click one of the changes and select Check All, then click the Check In Selected button. A progress dialog will be shown while changes are being checked in.



The Field Bolts dialog will be displayed.

A dialog box titled "Field Bolts" with a blue header and standard window controls. The form contains several input fields: "Customer:", "Customer Job #:", "Customer Address:", "Job Description:", "Customer Address:", "Description:", "Made By:", "Sequence:", "Sheets:", "Starting Line Number:", and "Starting Page Number:". There is a checked checkbox for "Imperial Output". Below these fields is a section labeled "Select Drawings:" with a list box containing the number "1". At the bottom, there are buttons for "Create", "Edit", "Close", "Print Summary", "Print Pt to Pt", and "Help". A status bar at the very bottom shows "Visibility | FIS | World".

Fill in the various fields as you see fit. Right click the area with the drawing numbers listing and click Check All.

Field Bolts

Customer: CDS, Inc. Customer Job #: 05-1

Customer Address: 111 Spring Hall Drive Job Description: Test Job

Customer Address: Goose Creek, SC 29445 Description: A field bolt list for 05-1.

Made By: JCC Sequence: 1 Sheets:

Starting Line Number: Starting Page Number: ☒ Imperial Output

Select Drawings:

☒ 1

Create Edit Close Print Summary Print Pt to Pt Help

Visibility FIS World

Click the Create button. A progress dialog appears followed by a Save Bolt List Items dialog. Save the file to your hard drive in any location you see fit.

To view reports on the bolt list, click the Print Pt to Pt button or the Print Summary button. An open dialog will be displayed asking you to select a csv file. Select the file you just saved in the previous step and click the Open button. A printer dialog will be displayed. Note that we aren't actually printing here - we are formatting the report based on a printer. Select a printer and click the OK button. Finally, our report will be displayed.

Field Bolt Summary

CDS, Inc.
111 Spring Hall Drive
Goose Creek, SC 29445

Customer Job # 05-1
Test Job
A field bolt list for 05-1.

Made By :	JCC	Sequence :	1	Finish :	Black	
Date :	1/22/2007	Sheet Numbers :				
LINE #	QTY	DIA.	GRADE	DESCRIPTION	LENGTH	NOTES
0	20	3/4"	A-325	BOLT	2	W/(1) H.H.N. Each.
1	40	3/4"	A-325	BOLT	2 1/4	W/(1) H.H.N. Each.
2	40	3/4"	A-325	FLAT WASHER		

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