

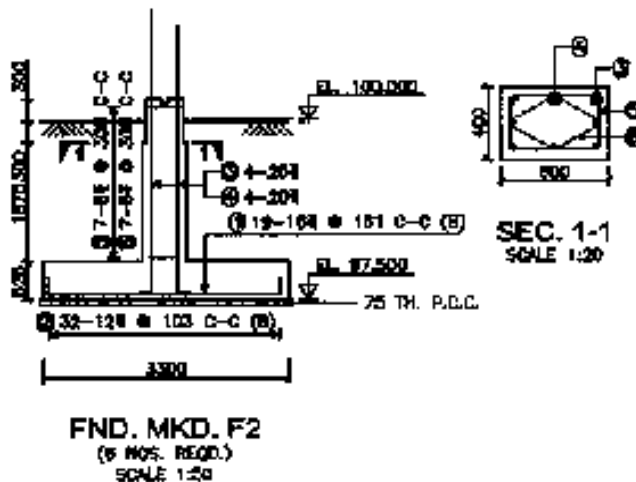
DecaPlot Flayout

D2D

Design to Drawing

**Foundation Layout &
R/F Details**

User's Manual



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1. Capabilities of software

DecaPlot - Flayout software prepares Foundation Layout & R/F Details Drawing from the drawing data file generated by

DecaPlot - Combo.

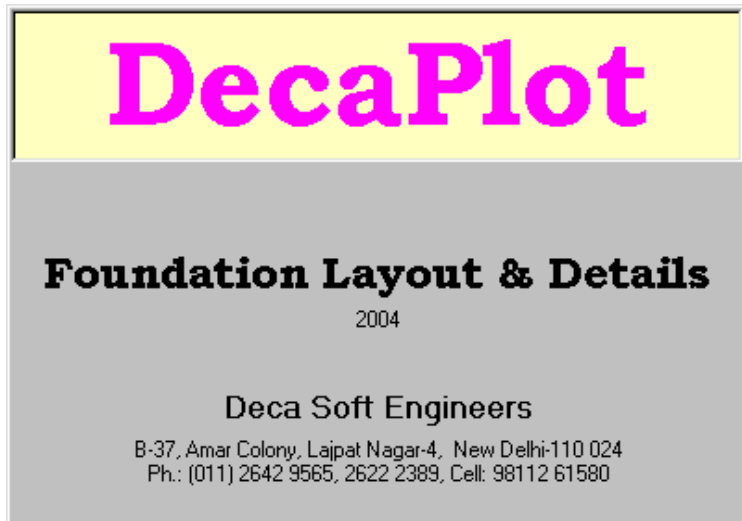
Any data item can be changed by the user to suit the requiremnets

The salient features of DecaPlot Flayout are:

- Foundation layout & Marking Plan with Grids, Foundations, Pedestals, Plinth Beams & Walls
- Sectional Elevation of Foundations showing R/F Details with Bar Marks
- Cross-Section of Pedestals showing R/F Details with Bar Marks
- Wall Cross-Sections (Brick Wall, R.C.C. Wall & Double Wall)
- Notes
- Option for Bar bending schedule
- Provision for Columns Flush on a line
- Provision for foundations on Property Line
- Provision for shifting of Walls/ Beams

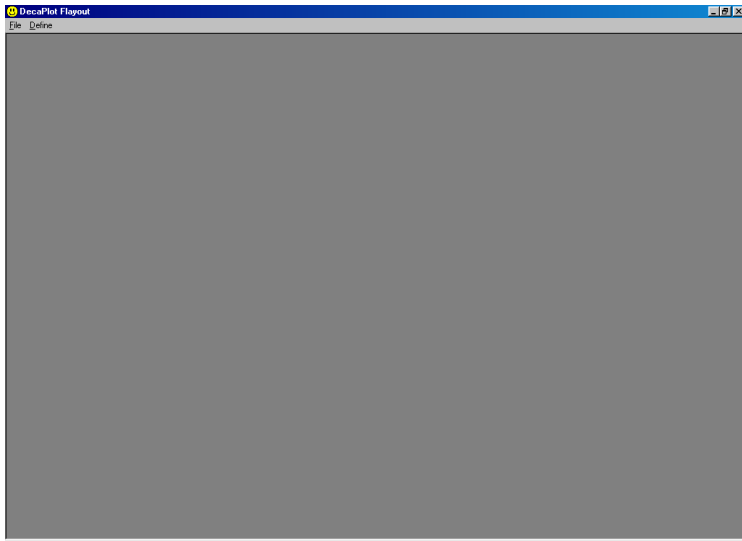
2. Running the software

1. Start windows
2. Double click on **Flayout** icon in the desktop. The following window will appear



The above window will disappear after few seconds. It will also disappear on mouse click on the message screen or any key press by user.

3. Then following main window will appear with two menu items – **File & Define**.



The two menu items – **File & Define** are explained in details in the following pages.

3. File

Click menu item **File** to open sub-menu.

Click **New** to create a new data file

Or

Click **Open** to edit existing data file

Or

Click **Continue** to continue the last data session

Click **Close** when complete data has been given

Click **Save** to save the data

Click **Save As** to save the data under different file name

Click **View** to view the data file on the screen

Click **Print** to print the data file on the printer

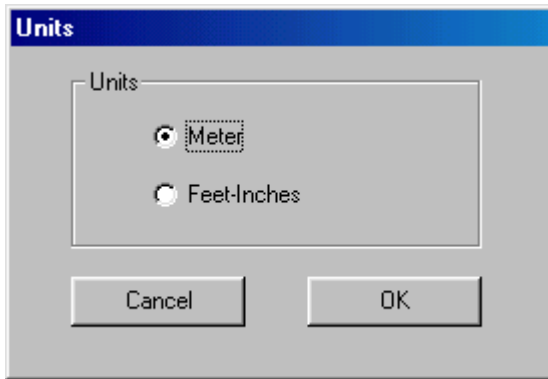
Click **Exit** to exit the program.

4. Define

4.1 Units

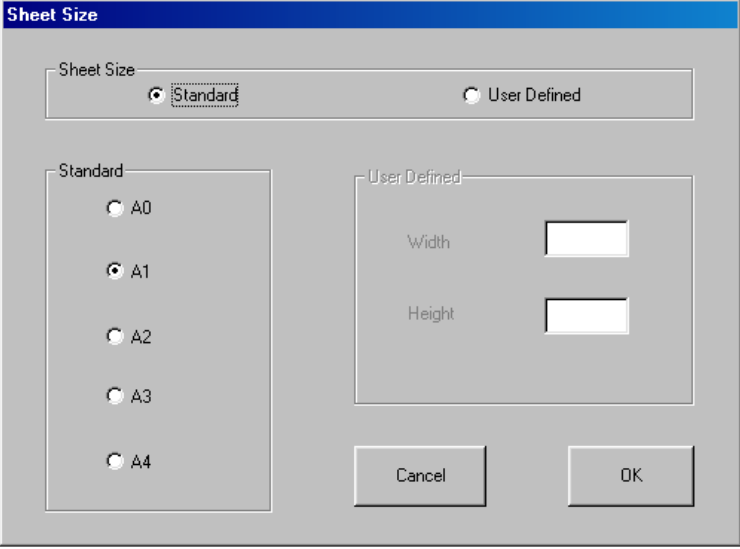
Purpose: To specify the units.

Feet-inches option is currently not available.



4.2 Sheet Size

Purpose: To specify the sheet size.
User can select either standard sheet size (A0, A1, A2, A3, A4) or non-standard sheet size with specified width & height.



The image shows a 'Sheet Size' dialog box with a blue title bar. It contains two main sections: 'Standard' and 'User Defined'. The 'Standard' section has five radio buttons for A0, A1, A2, A3, and A4, with A1 selected. The 'User Defined' section has two text input fields for 'Width' and 'Height'. At the bottom are 'Cancel' and 'OK' buttons.

Sheet Size

Sheet Size

☒ Standard ☐ User Defined

Standard

☐ A0

☒ A1

☐ A2

☐ A3

☐ A4

User Defined

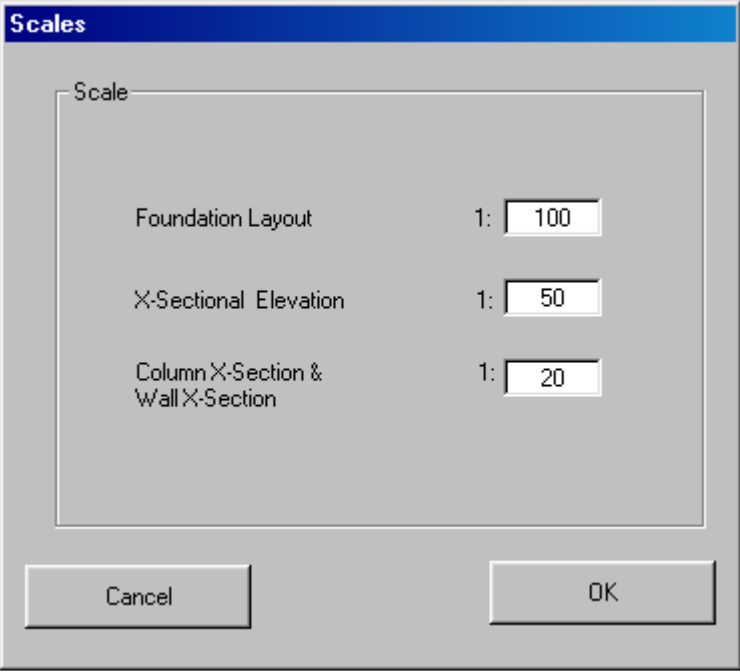
Width

Height

Cancel OK

4.3 Scales

Purpose: To specify the drawing scales for different drawing components.

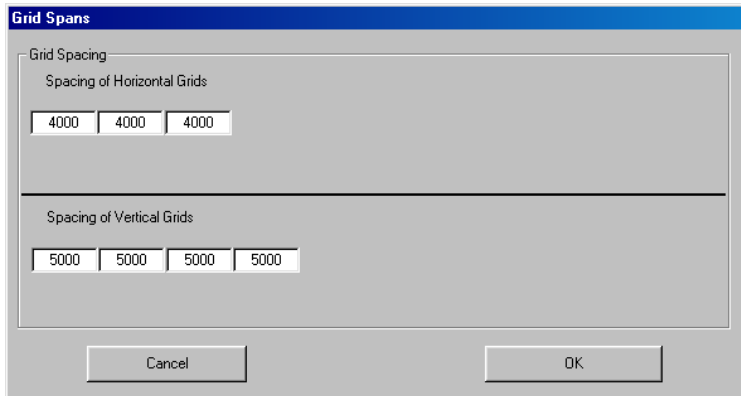


The image shows a software dialog box titled "Scales". It contains a list of drawing components with their corresponding scales. The components and their scales are: Foundation Layout (1: 100), X-Sectional Elevation (1: 50), and Column X-Section & Wall X-Section (1: 20). At the bottom of the dialog box are two buttons: "Cancel" and "OK".

Component	Scale
Foundation Layout	1: 100
X-Sectional Elevation	1: 50
Column X-Section & Wall X-Section	1: 20

4.4 Grids Spans

Purpose: To specify the horizontal & vertical spacing of grids.



The image shows a software dialog box titled "Grid Spans". It has a blue header bar with the title. Below the header, there is a section labeled "Grid Spacing". Inside this section, there are two sub-sections. The first is "Spacing of Horizontal Grids", which contains three input fields, each with the value "4000". The second is "Spacing of Vertical Grids", which contains four input fields, each with the value "5000". At the bottom of the dialog box, there are two buttons: "Cancel" on the left and "OK" on the right.

Grid Spans				
Grid Spacing				
Spacing of Horizontal Grids				
4000	4000	4000		
Spacing of Vertical Grids				
5000	5000	5000	5000	
Cancel		OK		

4.5 Grids Details

Purpose: To specify the grids marks, grid types & distances.

Horizontal Grids				
	1	2	3	4
Grid Mark	A	B	C	D
Grid Type	FB	CC	CC	FT
Distance	115			115
Dummy Grid	No	No	No	No

Vertical Grids					
	1	2	3	4	5
Grid Mark	1	2	3	4	5
Grid Type	FL	CC	CC	CC	FR
Distance	115				115
Dummy Grid	No	No	No	No	No

Cancel OK

Horizontal grid type can be defined as **FB** or **FT** or **PB** or **PT** or **CB** or **CT** or **CC** along with a distance.

FB indicates all the columns, beams & walls will be bottom flush on a line at the specified distance from the grid.

FT indicates all the columns, beams & walls will be top flush on a line at the specified distance from the grid.

PB indicates all the columns, beams & walls will be flush on the property line at bottom at the specified distance from the grid.

PT indicates all the columns, beams & walls will be flush on the property line at top at the specified distance from the grid.

CB indicates all the columns, beams & walls will be placed centrally on the line at bottom at the specified distance from the grid.

CT indicates all the columns, beams & walls will be placed centrally on the line at top at the specified distance from the grid.

CC indicates all the columns, beams & walls will be placed centrally on the grid line. The distance should be specified as zero in this case.

Vertical grid type can be defined as **FL** or **FR** or **PL** or **PR** or **CL** or **CR** or **CC** along with a distance.

FL indicates all the columns, beams & walls will be left flush on a line at the specified distance from the grid.

FR indicates all the columns, beams & walls will be right flush on a line at the specified distance from the grid.

PL indicates all the columns, beams & walls will be flush on the property line at left at the specified distance from the grid.

PR indicates all the columns, beams & walls will be flush on the property line at right at the specified distance from the grid.

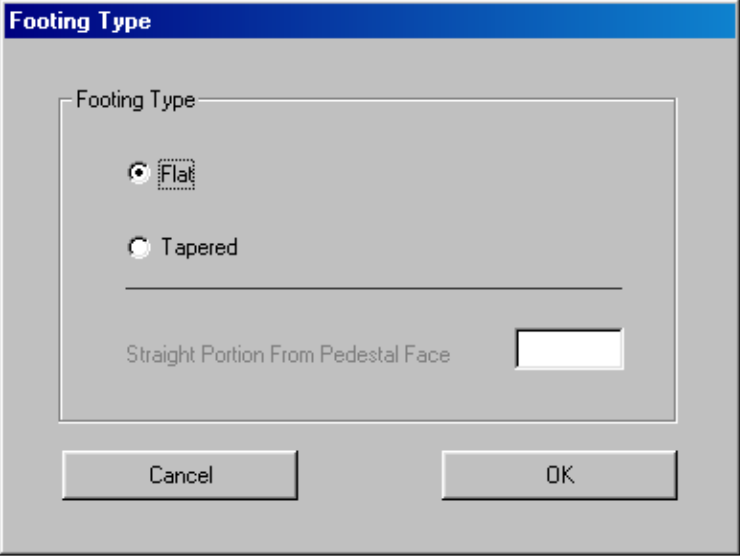
CL indicates all the columns, beams & walls will be placed centrally on the line at left at the specified distance from the grid.

CR indicates all the columns, beams & walls will be placed centrally on the line at right at the specified distance from the grid.

CC indicates all the columns, beams & walls will be placed centrally on the grid line. The distance should be specified as zero in this case.

4.6 Footing Type

Purpose: To specify the type of footing – Flat (Uniform thick) or tapered.



The image shows a software dialog box titled "Footing Type". It has a blue header bar with the title in white. The main area is light gray. Inside, there's a label "Footing Type" above a white rectangular area. In this area, there are two radio buttons. The first is selected and labeled "Flat". The second is unselected and labeled "Tapered". Below these, there's a horizontal line, and then the text "Straight Portion From Pedestal Face" followed by a small white text input box. At the bottom of the dialog, there are two buttons: "Cancel" on the left and "OK" on the right.

Footing Type

Footing Type

☒ Flat

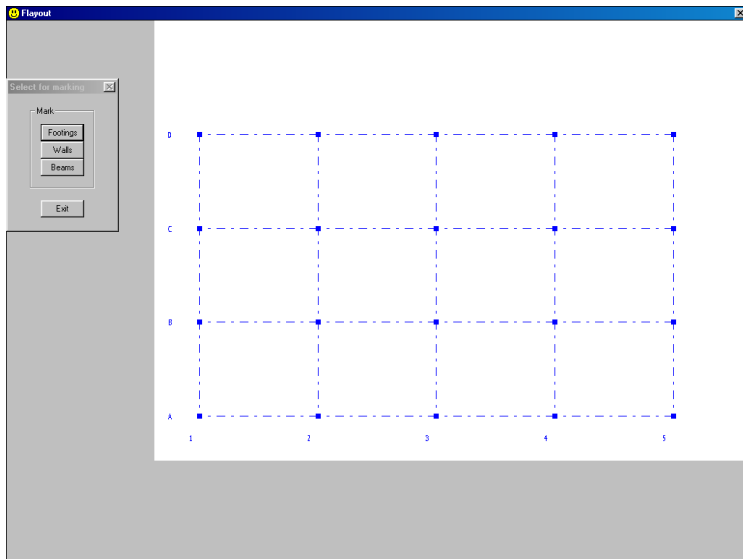
☐ Tapered

Straight Portion From Pedestal Face

Cancel OK

4.7 Graphics

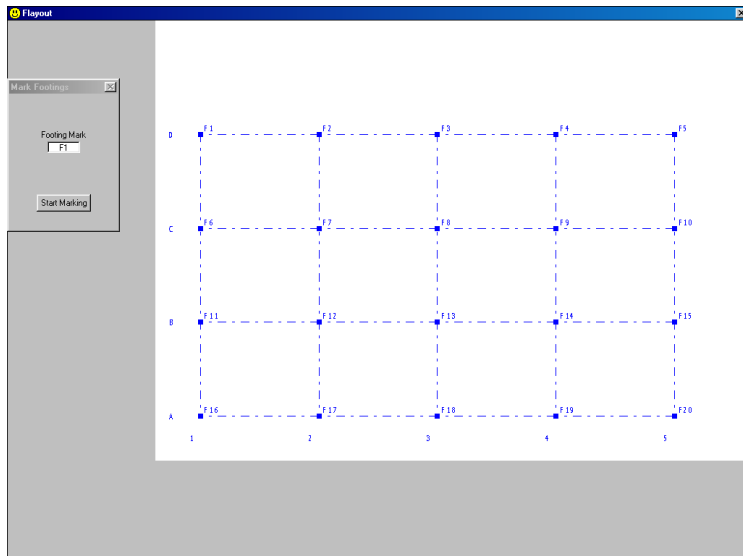
Purpose: To specify the location of footings, walls & beams graphically. A graphical sketch showing grids & the grid marks will appear on the screen.



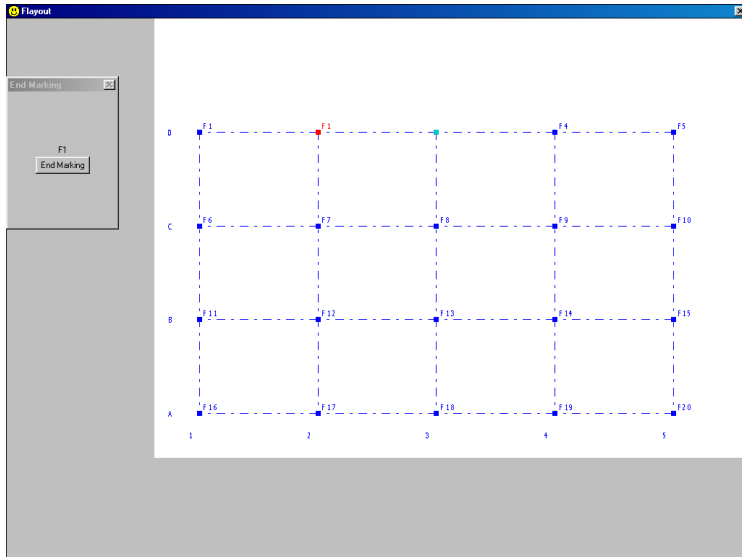
4.7.1 Marking footings

Purpose: To specify the mark & location of footings graphically.

Click **Footings** to start marking footings.



Specify footing mark & click **Start Marking**.



Click on or near the intersection of grids where the specified footing mark is to be provided.

A red rectangular square along with footing mark will appear at that intersection of grids.

Move to next intersection where same footing mark is to be provided & click again. Repeat this process for all the intersections having same footing mark.

Click **End Marking** to end footing marking.

Specify next footing mark & repeat the above steps.

If a footing has been wrongly marked & its color is currently blue, click the same & its color changes to red along with that of footing mark. Click the same again &

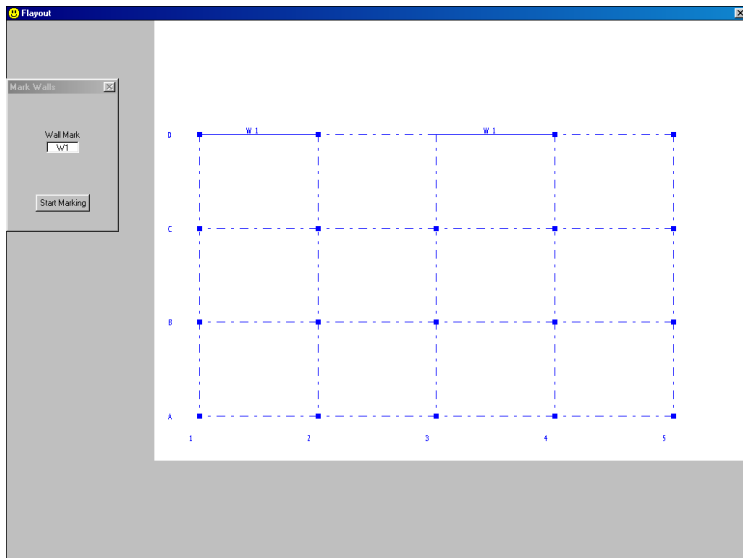
now its color changes to cyan & the footing mark disappears.

If a footing has been wrongly marked & its color is currently red, click the same again & now its color changes to cyan & the footing mark disappears.

4.7.2 Marking Walls or Beams

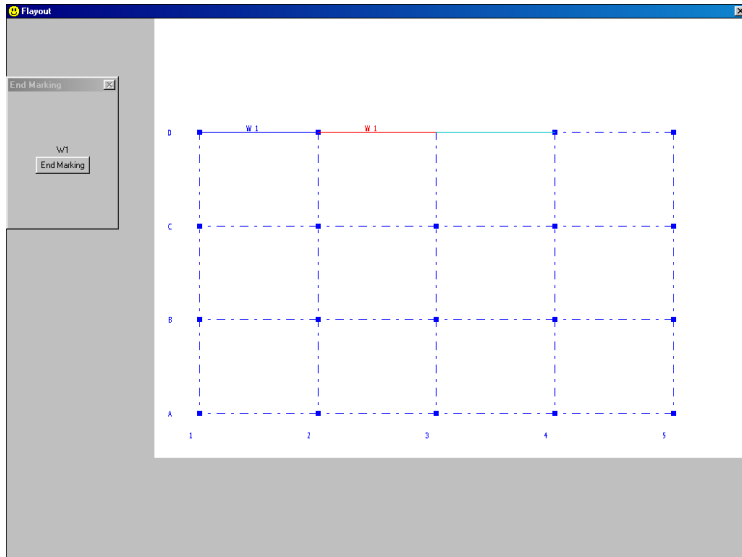
Purpose: To specify the mark & location of Walls or Beams graphically.

Wall mark must begin with letter W.



Click **Walls** or **Beams** to start marking walls or beams.

Specify wall or beam mark & click **Start Marking**.



Click on or near the grid line where the specified wall or beam mark is to be provided.

The color of the grid line will change to red & wall or beam mark in red will also appear.

Move to next grid line where same wall or beam mark is to be provided & click again. Repeat this process for all the grid lines having same wall or beam mark.

Click **End Marking** to end wall or beam marking.

Specify next wall or beam mark & repeat the above steps.

If a wall or beam has been wrongly marked & its color is currently blue, click the same & its color changes to red along with that of its mark. Click the same again & now

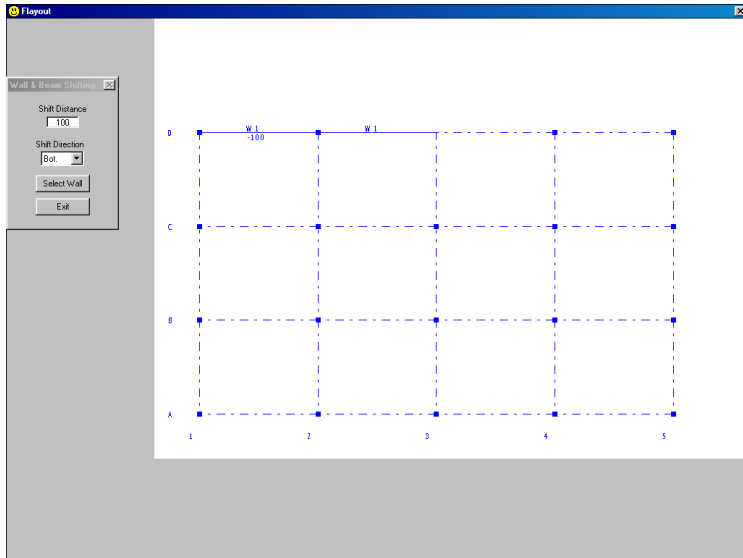
its color changes to cyan & the wall or beam mark disappears.

If a wall or beam has been wrongly marked & its color is currently red, click the same again & now its color changes to cyan & the wall or beam mark disappears.

Click **Exit** to come out of graphics mode.

4.8 Wall Shifting

Purpose: To specify the walls or beams which are to be shifted by specified distance **graphically**.



Specify the distance by which the wall or beam is to be shifted.

Select the direction of shift (Bottom, Top, Left or Right)

Click **Select Wall** & select wall or beam.

Repeat the above procedure for all walls to be shifted.

Click **Exit** to come out of graphics mode.

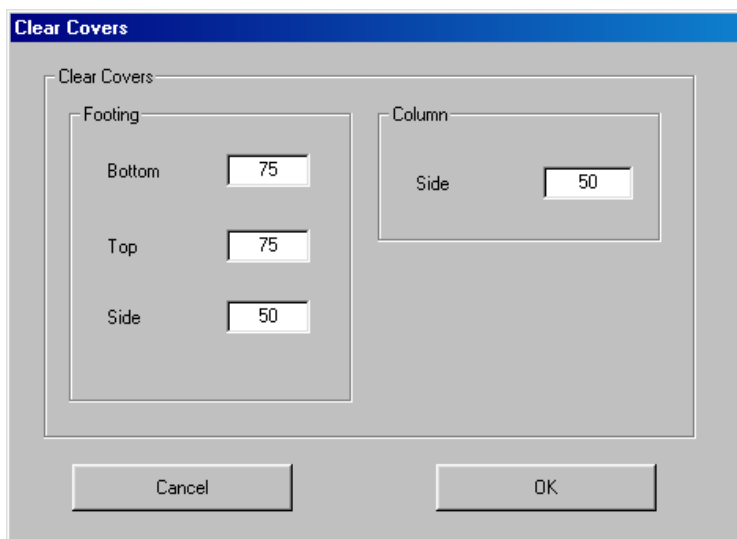
4.9 Footing Levels

Purpose: To specify the footing levels.

Footing Levels	
Levels	
Construction Joint Level	100.300
Finished Ground Level	100.000
Top of Plinth Beam Level	99.700
Bottom of Footing Level	97.500
Cancel	OK

4.10 Covers

Purpose: To specify the covers.

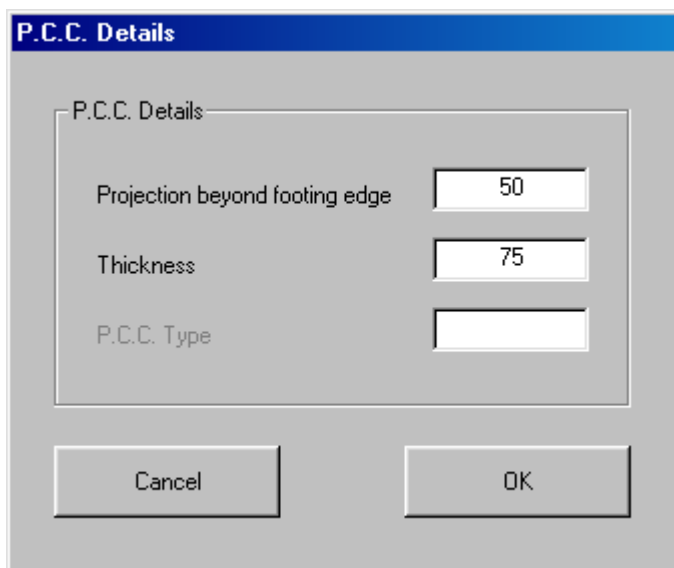


The image shows a software dialog box titled "Clear Covers". It contains two main sections: "Footing" and "Column". The "Footing" section has three input fields: "Bottom" with a value of 75, "Top" with a value of 75, and "Side" with a value of 50. The "Column" section has one input field: "Side" with a value of 50. At the bottom of the dialog are two buttons: "Cancel" and "OK".

Section	Parameter	Value
Footing	Bottom	75
	Top	75
	Side	50
Column	Side	50

4.11 P.C.C. Details

Purpose: To specify the P.C.C. details.



The image shows a software dialog box titled "P.C.C. Details". It has a blue title bar. Inside, there is a section titled "P.C.C. Details" with a light gray background. This section contains three labels and their corresponding input fields: "Projection beyond footing edge" with a text box containing "50", "Thickness" with a text box containing "75", and "P.C.C. Type" with an empty text box. At the bottom of the dialog box, there are two buttons: "Cancel" on the left and "OK" on the right.

P.C.C. Details	
Projection beyond footing edge	50
Thickness	75
P.C.C. Type	

Buttons: Cancel, OK

4.12 Footing Sizes

Purpose: To specify the footing sizes & r/f details.

Footing Details										
Mark	Nos.	Footing Size		Pedestal Size		Column Size		Thickness	Edge Thickness	Flat Portion
		Along X	Along Y	Along X	Along Y	Along X	Along Y			
F16	1	2300	2200	700	600	600	500	300		
F17	1	2600	2500	700	600	600	500	400		
F18	1	2700	2600	700	600	600	500	400		
F19	1	2600	2500	700	600	600	500	400		
F20	1	2200	2100	700	600	600	500	300		
F11	1	2500	2400	700	600	600	500	375		
F12	1	3000	2900	700	600	600	500	475		
F13	1	2900	2800	700	600	600	500	450		
F14	1	2900	2800	700	600	600	500	450		
F15	1	2500	2400	700	600	600	500	375		
F6	1	2600	2500	700	600	600	500	375		
F7	1	2900	2800	700	600	600	500	450		
F8	1	3000	2900	700	600	600	500	450		
F9	1	2900	2800	700	600	600	500	450		
F10	1	2500	2400	700	600	600	500	375		
F1	2	2200	2100	700	600	600	500	300		

Cancel OK

Footing Details									
Mark	Bottom Steel		Top Steel		Column R/F		Links		
	Along X No. Dia. Spa.	Along Y No. Dia. Spa.	Along X No. Dia. Spa.	Along Y No. Dia. Spa.	Bigger No. Dia.	Smaller No. Dia.	No. Dia. Spa.		
F16	20-#12@110	20-#12@115	0-#0@0	0-#0@0	4-#20	12-#16	9-#8@300		
F17	22-#12@114	24-#12@108	0-#0@0	0-#0@0	12-#16	0-#0	9-#8@287		
F18	24-#12@108	25-#12@108	0-#0@0	0-#0@0	12-#16	0-#0	9-#8@287		
F19	22-#12@114	24-#12@108	0-#0@0	0-#0@0	12-#16	0-#0	9-#8@287		
F20	18-#12@117	18-#12@123	0-#0@0	0-#0@0	4-#20	12-#16	9-#8@300		
F11	22-#12@109	22-#12@114	0-#0@0	0-#0@0	12-#16	0-#0	9-#8@290		
F12	18-#16@164	18-#16@170	0-#0@0	0-#0@0	4-#20	0-#0	9-#8@278		
F13	17-#16@168	18-#16@164	0-#0@0	0-#0@0	4-#20	0-#0	9-#8@281		
F14	17-#16@168	18-#16@164	0-#0@0	0-#0@0	4-#20	0-#0	9-#8@281		
F15	22-#12@109	22-#12@114	0-#0@0	0-#0@0	12-#16	0-#0	9-#8@290		
F6	24-#12@104	24-#12@108	0-#0@0	0-#0@0	4-#20	12-#16	9-#8@290		
F7	17-#16@168	18-#16@164	0-#0@0	0-#0@0	4-#20	0-#0	9-#8@281		
F8	18-#16@164	19-#16@161	0-#0@0	0-#0@0	4-#20	0-#0	9-#8@281		
F9	17-#16@168	18-#16@164	0-#0@0	0-#0@0	4-#20	0-#0	9-#8@281		
F10	22-#12@109	22-#12@114	0-#0@0	0-#0@0	12-#16	0-#0	9-#8@290		
F1	18-#12@117	18-#12@123	0-#0@0	0-#0@0	4-#20	12-#16	9-#8@300		

Cancel OK

4.13 Wall Details

Purpose: To specify the wall details.

Wall Details								
Wall Mark	Wall Material	Wall Type	Total Wall Thickness	Top / Left PCC Proj.	Bott. / Right PCC Proj.	D/W Thick.	DPC Thick.	Wt
W1	BW	Sym	230	400	400		25	2

CancelOK

Wall Details												
Wall Mark	Step 1		Step 2		Step 3		Step 4		Step 5		Step 6	
	Width	Height	Width	Height	Width	Height	Width	Height	Width	Height	Height	Width
W1	230	750	460	200	690	200	800	150				

◀

▶

Cancel
OK

4.14 Beam Details

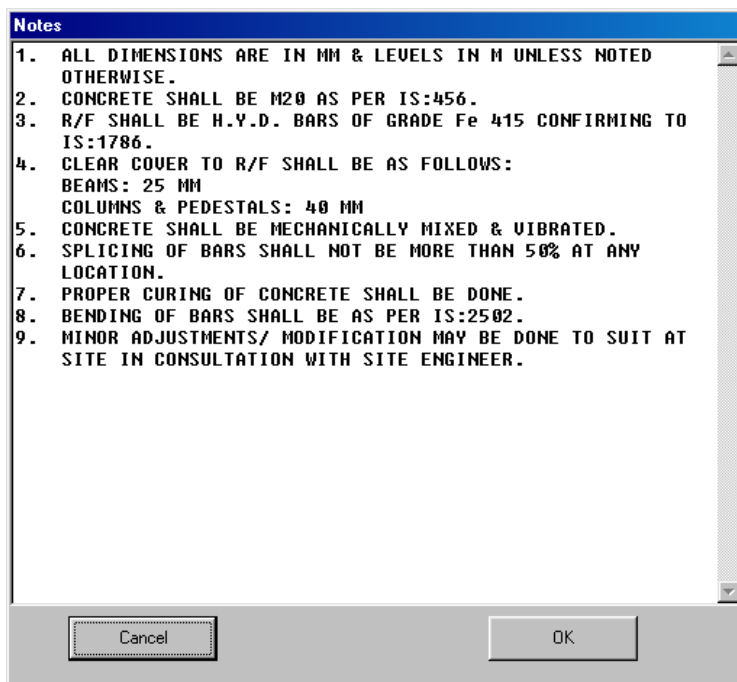
Purpose: To specify the beam sizes.

Beam Details		
Beam Mark	Width	Depth
B1	230	500

Cancel OK

4.15 Notes

Purpose: To specify the notes.



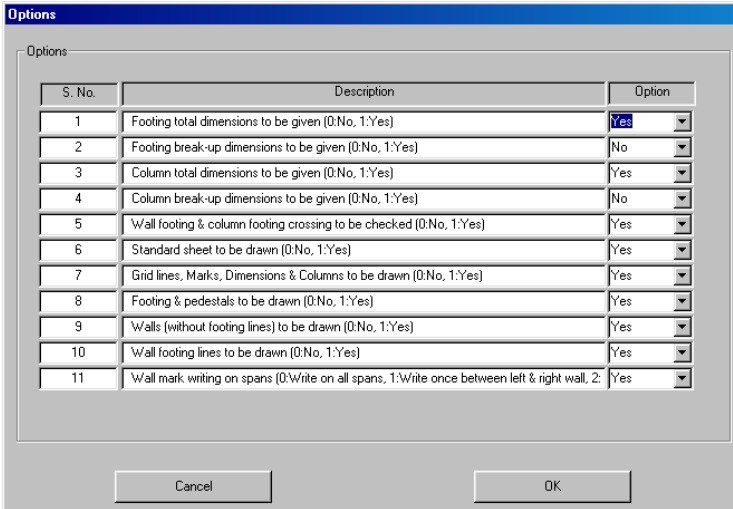
The image shows a software dialog box titled "Notes". It contains a list of nine numbered specifications for construction work. The text is as follows:

1. ALL DIMENSIONS ARE IN MM & LEVELS IN M UNLESS NOTED OTHERWISE.
2. CONCRETE SHALL BE M20 AS PER IS:456.
3. R/F SHALL BE H.Y.D. BARS OF GRADE Fe 415 CONFIRMING TO IS:1786.
4. CLEAR COVER TO R/F SHALL BE AS FOLLOWS:
BEAMS: 25 MM
COLUMNS & PEDESTALS: 40 MM
5. CONCRETE SHALL BE MECHANICALLY MIXED & VIBRATED.
6. SPLICING OF BARS SHALL NOT BE MORE THAN 50% AT ANY LOCATION.
7. PROPER CURING OF CONCRETE SHALL BE DONE.
8. BENDING OF BARS SHALL BE AS PER IS:2502.
9. MINOR ADJUSTMENTS/ MODIFICATION MAY BE DONE TO SUIT AT SITE IN CONSULTATION WITH SITE ENGINEER.

At the bottom of the dialog box, there are two buttons: "Cancel" on the left and "OK" on the right.

4.16 Options

Purpose: To specify the options for drawing.



The image shows a software dialog box titled "Options". It contains a table with 11 rows, each representing a different drawing option. Each row has three columns: "S. No.", "Description", and "Option". The "Option" column contains a dropdown menu with a small downward arrow. At the bottom of the dialog box, there are two buttons: "Cancel" and "OK".

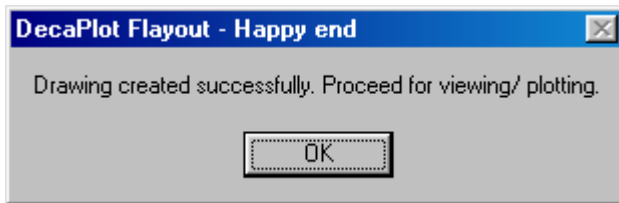
S. No.	Description	Option
1	Footing total dimensions to be given (0:No, 1:Yes)	Yes
2	Footing break-up dimensions to be given (0:No, 1:Yes)	No
3	Column total dimensions to be given (0:No, 1:Yes)	Yes
4	Column break-up dimensions to be given (0:No, 1:Yes)	No
5	Wall footing & column footing crossing to be checked (0:No, 1:Yes)	Yes
6	Standard sheet to be drawn (0:No, 1:Yes)	Yes
7	Grid lines, Marks, Dimensions & Columns to be drawn (0:No, 1:Yes)	Yes
8	Footing & pedestals to be drawn (0:No, 1:Yes)	Yes
9	Walls (without footing lines) to be drawn (0:No, 1:Yes)	Yes
10	Wall footing lines to be drawn (0:No, 1:Yes)	Yes
11	Wall mark writing on spans (0:Write on all spans, 1:Write once between left & right wall, 2:	Yes

Cancel OK

5. Preparing Drawing

When **Exit** is clicked under menu item **File**, drawing preparation program automatically starts & intermediate status indicator message appears.

When the drawing preparation is over, a message indicating the same appears.



Click **OK** to end the program.

6. Viewing, Editing & Plotting Drawing

Double click on **DecaPlot Drawing** icon in desktop.

The drawing automatically appears on the screen which can be editing, plotted & saved.