

3.3 Using computers

Since the late 1980s, the use of computer technology in urban design has increased dramatically, but amid all the sophistication and quality of computer imagery, the essential message can be lost. We now have a more mature appreciation of the appropriate role the computer can play in expanding the graphical language of urban design. Modern computer software packages offer a powerful tool for creating images and drawings, but the range and sophistication of these packages can confuse the non-specialist.

3.3.1 Two-dimensional illustration

Illustrations (pictures or diagrams) make a subject easier to understand by sifting out unwanted or extraneous information to highlight what is important. Basic programs are available to create pictures and diagrams in vector form, when the accuracy of a comprehensive computer aided design (CAD) package would be unnecessarily complicated and require advanced skills. The line-based generation of images in vector form gives a cleanliness and sharpness to illustrations that can rarely be achieved by hand.



Primary role: Illustrating two-dimensional drawings, maps, plans and diagrams.

Characteristics: Generally produces crisp, sharp lines that can be softened by a variety of additional effects.

Level of accuracy: Can be scaled but not at high levels of detail.

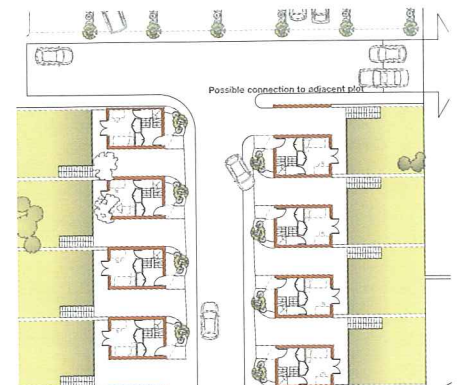
Graphic capability: Excellent capabilities with numerous line types, colour fills, textures, patterns and effects to produce lively illustrations.

3.3.2 Computer aided design (CAD)

These packages are used to create very accurate scale drawings, and have transformed the technology of architectural design and construction. Their capability goes far beyond the range of images discussed in this book, but they can still be useful because they provide:

- the basis for 3-D modelling/ rendering and animation
- high levels of accuracy
- easy editing without having to redraw the whole image.

When a concept is to be translated into a masterplan, CAD makes it possible to resolve the plan to the level of accuracy required during subsequent detailing and implementation phases of the project.



Primary role: To produce accurate working drawings in plan, section and elevation and form the basis of 3-D modelling.

Characteristics: Generally produces a hard-edged, finished look, although some versions have features such as 'sketch mode' to make the drawing look less definitive.

Level of accuracy: Very accurate and used for working drawings.

Graphic capability: Numerous line types, fills and patterns, but lacks special effects.