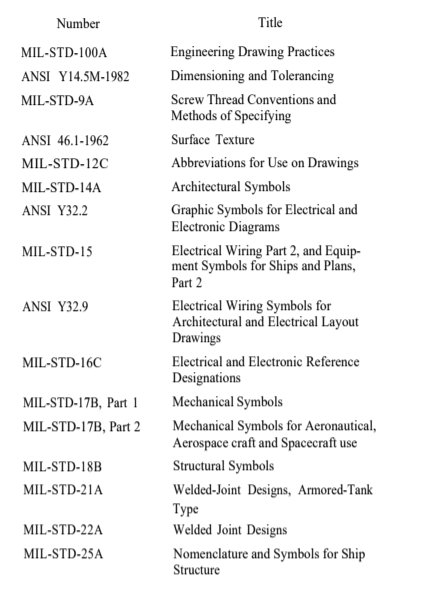
**Blueprint Reading Notes:**

Blueprints (prints) are copies of mechanical or other types of technical drawings. The term blueprint reading, means interpreting ideas expressed by others on drawings, whether or not the drawings are actually blueprints. Blueprints show the construction details of parts, machines, ships, aircraft, buildings, bridges, roads, and so forth.

The standards and procedures prescribed for military drawings and blueprints are stated in military standards (MIL-STD) and American National Standards Institute (ANSI) standards.

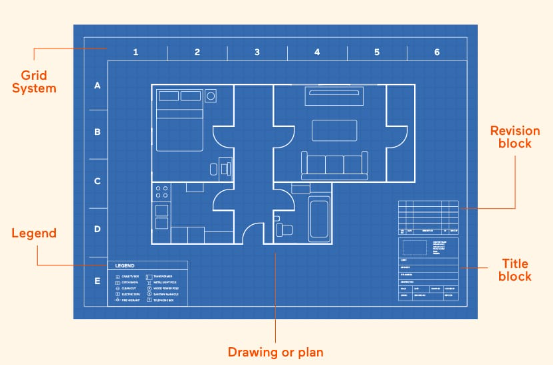
Military Standard and American Nation Standards Institute common standards are shown below:



Some general parts of blueprints include information blocks, finish marks, notes, specifications, legends, and symbols.

The draftsman uses information blocks to give the reader additional information about materials, specifications, and so forth that are not shown in the blueprint or that may need additional explanation.

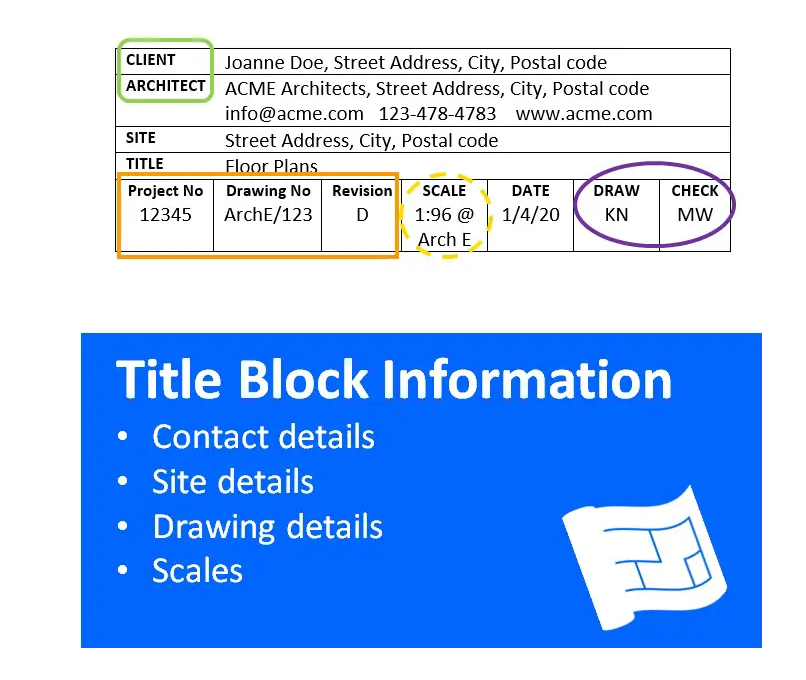
A basic layout for many blueprints is demonstrated below:



A grid system in a blueprint is a network of horizontal and vertical lines that divide the drawing area into squares or rectangles, providing a precise coordinate system for design elements. It helps create accurate drawings, measure and scale designs, and align elements with ease. The grid consists of grid lines, squares or modules, and coordinates that enable precise location and communication among designers, making it a fundamental tool in architecture, engineering, and design.

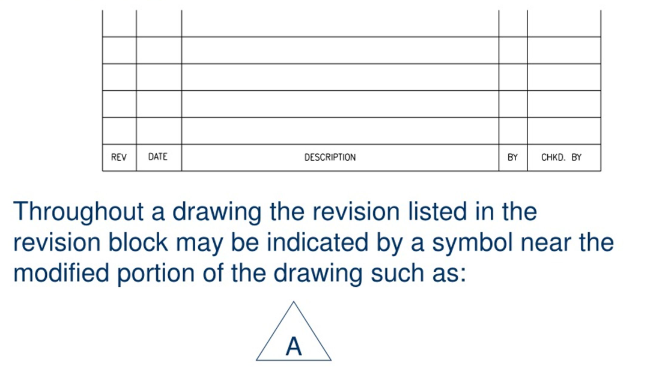
A legend in a blueprint is a key that explains the symbols, abbreviations, and conventions used in the drawing, ensuring clear communication and understanding of the design. It provides a reference guide for the various elements and notations, defining graphical symbols, abbreviations, and drawing conventions, and often includes additional notes and explanations. Located in a corner of the blueprint, the legend is an essential component that helps architects, engineers, and builders accurately interpret and execute the design.

The title block is often located in the lower-right corner of all blueprints and drawings. It contains the drawing number, name of the part or assembly that it represents, and all information required to identify the part or assembly.



A space within the title block with a diagonal or slant line drawn across it shows that the information is not required or is given elsewhere on the drawing.

Revision blocks: a dedicated section that tracks changes and updates made to the design. It includes essential information such as revision number, date, description of changes, and approval details. This block provides a record of modifications, ensuring accuracy and accountability in architectural, engineering, and construction drawings. These are frequently found in the upper right corner of a blueprint.



When a blueprint is revised, the letter A in the revision block is replaced by the letter B and so forth.

Reference numbers that appear in the title block refer to numbers of other blueprints. A dash and a number show that more than one detail is shown on a drawing. When two parts are shown in one detail drawing, the print will have the drawing number plus a dash and an individual number.

In addition to appearing in the title block, the dash and number may appear on the face of the drawings near the parts they identify. A dash and number identify changed or improved parts and right-hand and left-hand parts.

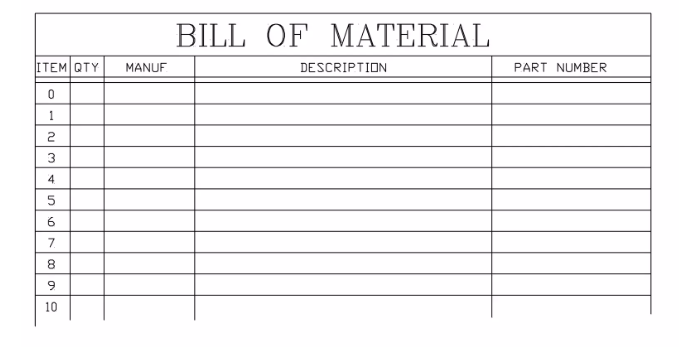
On some prints you may see a notation above the title block such as “159674 LH shown; 159674-1 RH opposite.” Both parts carry the same number. LH means left hand, and RH means right hand. Some companies use odd numbers for right-hand parts and even numbers for left-hand parts.

Zone numbers serve the same purpose as the numbers and letters printed on borders of maps to help you locate a particular point or part.

The scale block in the title block of the blueprint shows the size of the drawing compared with the actual size of the part. The scale is chosen to fit the object being drawn and space available on a sheet of drawing paper.

Never measure a drawing; use dimensions. The print may have been reduced in size from the original drawing. Read the dimensions on the drawing; they always remain the same.

The bill of material block contains a list of the parts and/or material needed for the project. The block identifies parts and materials by stock number or other appropriate number, and lists the quantities requited.



The application block on a blueprint tells you where the part or assembly shown fits into a bigger machine or system. It points out what larger unit the part belongs to.

