



42 Types of Drawings
Used in Building Design

Making a construction plan before beginning the construction is imperative. It provides a detailed overview of the building. Keeping that in mind, a different types of drawings is used today for this purpose. Apart from providing the technical details in a readable format, these drawings are also essential to get the project approval.

They set a benchmark for the construction process and assure compliance to the building standards.

It can be said that these construction drawings provide an outlet to the architectures to convey their ideas and concepts regarding any building.

Types of Drawings Used in Building Design

Listed below are the majority of the construction drawings. All the types of construction drawings can be segregated into the following sets of drawings:

- Architectural Drawings
- Structural Drawings
- HVAC Drawings
- Electrical & Plumbing Drawings
- Firefighter Drawings
- Miscellaneous Drawings



Architectural drawings are the technical representation of a building that is made prior to the beginning of the construction process. They are made with lines, projections and are based on a scale. Different types of architectural drawings include:

1. SITE PLAN

A Site Plan is an aerial view of the construction site that includes the primary building and its adjoining constructions. Among its wide applications, we can include construction drawings for building improvement, understanding the scope of construction activities. Along with it, it helps identify the topography of the building including roads, pavements, etc.

2. FLOOR PLAN

These are an in-depth version of the room layout. Floor plans are made irrespective of the fact that they are to be utilized during the construction of a home, shop, or a commercial project. Applications include an understanding of the dimensions and different kinds of installments. This helps get an idea about the usage of the limited room space.

3. CROSS SECTION

Cross sections allow the architect to look at the different components of a building vertically. This 2-dimensional imagery is useful to provide an overview of both the visible and hidden components in a building. Another type of cross-section is Wall cross-section that is useful to get a view of both sides of the wall.

4. ELEVATION

Elevations help an architect understand the facing of the building. It is useful to know about the direction of the sun and the wind corresponding to the building. They also indicate the height of the building, the external and internal marking which includes the doors and sizes of the windows too.

5. LANDSCAPE

The landscape plan is the aerial of the whole area in which the building is built. It includes the areas designated for trees, street lights, parks, pools, and everything else. Landscape plans are more often used to depict the external aesthetics of the building. You can also include in them the paths, roads, pavements, parking areas, and whatnot.

6. FINISHING DRAWING

The Finishing drawing has a close relationship with the elevation drawings as they also talk about the smaller details of a building. Among the various types of finishing drawings, you can include the patterns of the floor, type, and shape of false ceiling, paint colors, plaster, textures, and whatnot. They are important to maintain the aesthetic value of the structure.

7. WORKING PLAN

The designers create working plans or construction plans for the contractors to help them understand the scope of the project. The benefits of such a plan include the convenience to fabricate the construction material according to the overall design. Working drawings also include a legend that provides information about the different components.

8. SECTION DRAWINGS

The landscape plan is the aerial of the whole area in which the building is built. It includes the areas designated for trees, street lights, parks, pools, and everything else. Landscape plans are more often used to depict the external aesthetics of the building. You can also include in them the paths, roads, pavements, parking areas, and whatnot.

9. GENERAL NOTE

The general note does not have any drawings. It contains detailed information about the buildings. This includes the by-laws, codes, length, mapping forms, construction type, legends, abbreviations, and everything else that is essential.

10. EXCAVATION DRAWING

Excavation drawings are needed to know the length, depth, and the width of the building excavation. It talks about the extent of excavation, removal of soil, and the process of excavation. The different processes used for excavation comprises of trenching, wall shafts, tunneling, and others.

11. AS-BUILT DRAWINGS

The As-built drawings provide a comparison between what has been built and the original plan. It may happen due to circumstantial conditions the contractors may have to change the construction pattern and design. The As-built drawings are made either during the construction process or after the construction is complete.

12. LINE PLAN

These are the single line depictions of the structure of a room. The lines are drawn exactly as the different configurations of the room will be. It has the sizes of the rooms, the position of the doors with proper labeling. A line plan provides an overview of how the whole room will be planned out.

13. SHOP DRAWINGS

Shop drawings are also a sort of construction guide that personifies how an object has to be installed, fitted, or manufactured. Most of the time, the shop drawings are prepared by contractors and subcontractors. Also, suppliers, manufacturers, and fabricators can prepare these drawings. Shop drawings ensure compliance with the original design and specifications of the object.

Follow these: Tips to create accurate Shop-drawings

14. INSTALLATION DRAWINGS

There are plenty of installations that can be added to a building. Some are essential, like the ventilation, heating, and cooling system. So, in that matter, a plan to help with all kinds of installation can be useful to the contractors and the development team. From the most complex structure like data centers to control rooms, these kinds of drawings are also essential from the management point of view.

15. LOCATION DRAWINGS

Location drawings are also referred to as general arrangement drawings. They are made to showcase the composition of the entire project. And if that project has several parts and buildings to be constructed, a location drawing will include details for all of them. Under it, you may consider adding elevations, projections, different plans, and sections.

16. LOCATION PLAN

The location plan further covers a wide area. This kind of construction drawings requires the architect to check out the whole area where the building is to be constructed. Also called General Arrangement Drawings, they represent the objects and more importantly, they show the relationship between the different stages of building development.

“Life is the Art of Drawing Without an Eraser” – John W. Gardner

Structural Drawings are also called engineering drawings and they focus on the structural aspect of the building. These drawings are included in the proposal documents and act as a guide for the workforce.

17. COLUMN LAYOUT

Excavation drawings are needed to know the length, depth, and the width of the building excavation. It talks about the extent of excavation, removal of soil, and the process of excavation. The different processes used for excavation comprises of trenching, wall shafts, tunneling, and others.

18. PLINTH BEAM LAYOUT

Plinth beams are yet another form of beam structures that reinforce the support system of a building. The plinth beam layout drawings showcase the position, length, and sectional design of the plinth beams. Here too, the plinth beams drawings are also made floor wise.

19. LINTEL BEAM LAYOUT

Lintel beams are yet another form of support structures that are made above the doors and windows. These are reinforced structures that are made to provide strength to the part of the building that is made above the windows and doors. In these kinds of drawings, you will find the correct positions, dimensions, and the number of lintel beams on every floor.

20. ROOF BEAM AND SHUTTERING LAYOUT

A roof beam is made to strengthen the building's overall structure. A roof beam is a triangular structure that is usually made on the top of the building and supports the roof. Roof beams are usually made out of wood, but it can also be made from steel or concrete.

21. ROOF SLAB LAYOUT

Roof slab layout is more prominently made in the AutoCAD architectural software. The main purpose of the roof slabs is to provide a detailed account of the floors, roof faces, and other such surfaces that require precise edge information.

22. BLOCK PLAN

A Block plan is the representation of a wider area that is in proximity to the main building under construction. A block plan may include the adjoining buildings, the roads, boundaries, and other such components. More importantly, a block plan is represented in scales, which also means that they cover a wide area.

23. FRAMING PLANS

Framing plans are similar to the beam layouts. They offer information about the framework, sizes, and positions of the beams. Framing plans are helpful to the builders as they can easily understand and layout the plans for the roof, floor, and other such structures that are an essential part of a building.

24. COMPONENT DRAWINGS

The component drawings are majorly referred to as the drawings supplied by the manufacturer of a product. These kinds of plans are replete with the drawings of the component thus providing a detailed insight into its markings and different sub-parts.

25. CONCEPT DRAWINGS

Concept drawings are more like the first draft of a construction project that is made in the first instance. They are not very detailed or distinguished. The concept drawings are like rough sketches of the building and the nearby areas. They are more prominently used to describe an overview of the building to potential clients or stakeholders.

26. ENGINEERING DRAWINGS

Any building may require the installation of some engineered objects or components. So, an engineering drawing is targeted towards the convenient construction or placement of these kinds of structures. They are more of a guide to help the contractor and the engineer, they work in sync with each other and get the desired results.

27. ASSEMBLY DRAWINGS

In the construction industry, these types of drawings are made to depict the connection between two components of a structure. It shows how the different parts of this structure fit together. It has all kinds of designs and patterns including 3D, sectional, and elevation views.

28. DESIGN DRAWINGS

The design drawings are somewhat similar to concept drawings. This means that they are also useful in case of fetching new conversions for a particular project. They are also useful in proposing the designs to the stakeholders and then providing a rough idea to the designing teams for their reference. Design drawings can also become a benchmark or can be used as a comparison.

29. FOUNDATION PLAN

Foundation plans are not necessarily the basement plans or ground floor plans. A foundation plan can be made for any floor of a building. The purpose of making these plans is to convey the dimensions, sizes, shapes, and every single configuration of a floor. Footings are also an essential part of a foundation plan.

Electrical and Plumbing Drawings

Electrical drawings are the wiring diagrams and guides that provide information about the electrical circuits and other systems in a building. Plumbing drawings are similar to electrical drawings and they showcase the water outlets and the piping system of a building.

30. ELECTRICAL DRAWINGS

An electrical drawing represents an in-depth account of all the electrical connections, outlets, fixtures, switches, lighting, fans, and everything else. These drawings provide pillar support to the electricians allowing them to understand the wiring layout on the floor. An electrical drawing also indicates the load capacity and information about the air conditioning or the heating systems.

31. PLUMBING DRAWING

Similar to the electrical drawings, the plumbing construction plans show the markings and the location of the plumbing components. This includes the sanitary pipes, water pipes, water drainage systems, and everything else that is related to the plumbing of the building. It may also include the position of the taps and other water outlets on every floor. Also, you can check out here [how Revit can improve the creation of plumbing designs](#).

HVAC and Firefighting Drawings |

32. HVAC DRAWING

Also called mechanical drawings, the HVAC drawings provide information about the heating and ventilation systems. They also include the air conditioning patterns and layout that is to be constructed inside the building. The HVAC drawings provide an insight into these complex systems and help the builders plan their construction process accordingly.

33. FIREFIGHTING DRAWING

Firefighting drawings are drawn before the construction of a building. They draw out the pattern of the placement of the fire hoses, points, water outlets and everything else. They also lay out the fire protection plan and safety systems that are to be set in place.

Other Types of Construction Drawings |

34. DETAIL DRAWINGS

These are the drawings of any kind of geometric structure that has to be constructed. Detail drawings can include anything from a small building to a large bridge or even a tunnel. These drawings are more detailed and pay attention to the intricate designs and details of any construction project.

35. PERSPECTIVE DRAWINGS

A perspective drawing highlights the spatial aspects of a building along with showing its three-dimensional volumes. These are the realistic images of the building that is under construction. In addition to this, there are different types of perspectives based on vanishing points.

36. PRODUCTION DRAWINGS

Production drawings are guides that convey information to the workers and supervisors about the construction process. Along with the materials, it has dimensions, materials, tools, assembly, and others. The production documents provide instructions and tell how to meet those requirements.

37. SCALE DRAWINGS

Scale drawings demonstrate the larger objects as it is not possible to draw them in the original size. So, this means that every drawing of a building is a type of scale drawing. For instance, a location plan has a scale of 1:1000, a site plan's scale is 1:200, a floor plan, 1:100 and so on. Larger the size of the object under construction, higher will be the propensity of the scale.

38. TECHNICAL DRAWINGS

Technical drawings also conveys a broad meaning with regards to a construction project. The basic purpose of technical drawings is indicating how an object functions. Unlike the artistic drawings, these drawings are made with one specific purpose. In that sense, almost every drawing that is prepared before, during, and post-construction can be referred to as technical drawing.

39. SUBMISSION DRAWING

Submission drawings are prepared with reference to the by-laws drafted and implemented by an authority. They are sent to the authorities for their approval and include index plans, detailed drawings, elevation drawings, and other sectional plans.

40. MODEL

Models come after the drawings. They are prepared for the bigger building and personify how the building will look when it is complete. The benefit of making models is that it helps the architectures identify the difficulties. Everything is clear in a model, the design, elevation, internal and external detailing.

41. ENVIRONMENT PLANS

Some projects are built around rivers or streams. In that case, the environmental plans offer insights into how erosion and sedimentation will be managed. Not only this, but these drawings also talk about plant removal procedures and chemical disposal mechanisms. Moreover, it also has the procedures and plans to attenuate the harmful effects.

42. PRESENTATION DRAWINGS

Presentation drawings are prepared as a part of proposals, for exhibitions, or even publications. These types of drawings may include any kind of drawings that have been discussed before.

WRAPPING UP

Construction drawings provide an insight into the development of a building. They are made in different stages. Some plans are essential to be made before the construction begins while others are made while the structure is being constructed. There are a lot of benefits to having these drawings in the hand. They act as the guiding principles for every construction worker, supervisor, and builder. To help you with it, here is a checklist fo **creating the perfect design drawings**.



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