

# DRAFTING 2 - ARCHITECTURAL

## A

**Aggregates** (D) – stone, gravel, cinder, or slag used as one of the components of concrete.

**Alcove** (C) – a small room adjoining a larger room separated by an archway.

**Anchor bolts** (F) – a threaded rod inserted in masonry construction to anchor the sill plate to the foundation.

**Applicant** (A) – the person applying for a job.

**Application** (A) – printed form where an applicant provides information about job history, education, personal experiences, and references.

**Apron** (C) – the inside trim board placed below a window sill.

## B

**Beam** (F) – a structural member that supports the joists and effectively reduces the span.

**Bearing capacity** (D) – a design value specifying the amount of weight a square foot of soil can support.

**Bidet** (C) – a low bowl shaped bathroom fixture with running water for personal hygiene.

**Blind ad** (A) – classified advertisement that lists desirable work traits and only lists a phone number, not a company name [used so that only qualified applicants will call and the company will not be overwhelmed by applicants that just want to work for the company].

**Blocking** (F) – framing members, typically wood, placed between joists, rafters, or studs to provide support. This will allow for additional construction items.

**Breezeway** (C) – a covered walkway with open sides between two different parts of a structure.

**Bridging** (F) – small wood or metal members that are inserted in a diagonal position between the floor joists at mid-span to act both as tension and compression members for the purpose of bracing the joists and spreading the action of loads.

# C

**Casing** (C) – the decorative trim that covers the joint between the jamb and rough opening (inside and outside).

**Cavity wall** (C) – a masonry wall formed with two wythes with an air space between each face.

**Ceiling joist** (E) – the horizontal member of the roof which is used to resist the outward spread of the rafters and to provide a surface on which to mount the finished ceiling.

**Ceiling joist** (F) – used to span and support the roof loads from the ridge to the top plate.

**Chords** (F) – the outside framing members of a truss, often referred to as top or bottom chord.

**Closed plan** (C) – cubicle like rooms with little chance for overflow into other rooms.

**CMU** (D) – Concrete Masonry Unit/ Concrete blocks used in foundation walls and piers.

**Collar ties/beams** (E) – horizontal ties between rafters near the ridge to help resist the tendency of the rafters to separate.

**Columns/post** (D) – vertical structural support, usually round and made of steel.

**Compartmentalized** (C) – term used to indicate a water closet that is partitioned off from other bathroom fixtures.

**Copy** (B) – an editing tool that copies entities to a different location either manually or a set of inputted coordinates.

**Corner bracing** (F) – used at the corner of the structure to stiffen, strengthen, and insure that the wall unit is square.

**Cornice** (G) – the part of the roof that extends out from the wall, sometimes referred to as the eave.

**Cornice/eave** (E) – the part of the roof that extends out from the wall.

**Crawl space** (F) – the shallow space below the floor of a house built above the ground; generally surrounded with the foundation wall.

**Cripple stud** (F) – also called a “jack stud”. Studs not full height used to frame around an opening in a wall.

**Cursor** (B) – the symbol or icon which represents the current mouse location relative to the drawing window. The cursor may appear as crosshairs or another symbol depending on the CAD software used.

**Cutting plane** (C) – lines used to show where an object is to be sectioned.

**Cutting plane** (F) – the location on the floor plan where a cross section is taken; identified with symbols known as cutting plane lines.

## D

**Dead load** (D) – weight of building materials or other immovable objects in a structure.

**Dead load** (E) – static or fixed weights of the structure itself; examples: weight of roofing materials, foundation walls, siding, joist, etc...

**Deck** (C) – exterior floor that is supported on at least two opposing sides by adjoining structures, piers, or posts.

**Double joist** (F) – a built up beam located under walls running parallel to the joist direction.

**Double top plate** (F) – located on top of the studs and used to hold the walls together.

**Drain tile** (D) – a buried drainage system used for run-off storm water or sewer away from the foundation. Typically made of black, plastic tubing with holes.

**Drain tile** (F) – a pipe that allows moisture to escape from a masonry structure.

**Drawing scale** (B) – the relative size at which a drawing is viewed or plotted/printed on the screen. Scale is often represented as a ratio where 1:1 = full scale; 1:12 denotes 1" = 1'-0", 1:48 denotes ¼" = 1'-0", etc.

**Dutch hip roof** (E) – a combination between a hip roof and a gable roof.

**DXF (drawing eXchange Format)** (B) – created by Autodesk. An ASCII text file that has become an industry standard drawing file compatible with most CAD systems.

## E

**Eave** (G) – the lower part of the roof that projects from the wall, sometimes referred to as the cornice.

**Egress** (C) – a term in building codes to describe access.

**Elevation** (G) – the exterior views of a structure.

**Employer** (A) – person representing a business that is looking for qualified workers.

**Employment agency** (A) – business designed to help people find work [public and private].

**Employment wanted ad** (A) – classified advertisement placed by someone seeking employment with listed qualifications.

**Equal opportunity employer** (A) – business that advertises the fact that no discrimination is practiced.

**Extracurricular activities** (A) – clubs, organizations, and other social and church groups in which one participates.

## F

**Face grain** (F) – a symbol representing materials from a particular view.

**Fascia** (E) – covers the rafter end enclosing the overhang.

**Fascia** (F) – a vertical board nailed onto the ends of the rafters.

**Finished floor** (F) – the top layer of flooring placed on top of floor decking or concrete.

**Flange** (F) – the top and lower portion of an “I” beam.

**Flashing** (E) – metal used to prevent water leaking through surface intersections.

**Flashing** (F) – sheet metal or other material used in roof and wall construction to shed water away from areas of potential leakage.

**Flashing** (G) – metal used to prevent water leaking through surface intersections.

**Flat roof** (E) – common in areas with little rain or snow.

**Flitch beams** (F) – a built up beam that consists of steel plates bolted between wood members.

**Floor joist** (F) – used to support the floor decking.

**Floor plan** (C) – architectural drawing of a room or building as seen from above.

**Follow-up letter** (A) – letter mailed to the employer after the interview; used to refresh the interviewer about the applicant’s qualifications and thank the interviewer.

**Footing** (D) – lowest member of foundation system used to spread the loads of structure across supporting soil.

**Footing** (F) – a masonry section, usually concrete, in a rectangular form; used to increase the supporting capacity.

**Forms** (D) – wood or plastic molds used to create footings from poured concrete.

**Foundation wall** (D) – the vertical wall that extends from the top of the footing up to the first floor level of the structure. Helps spread the load being supported.

**Foundation wall** (F) – *the supporting portion of the structure below the first-floor construction, or below grade, including the footings.*

**Fringe benefits** (A) – *types of services provided by the employer in addition to wages.*

**Frost line** (D) – *depth to which soil will freeze.*

## G

**Gable end wall** (E) – *the triangular wall that is formed at each end of a gable roof between the top plate of the wall and the rafter.*

**Gable roof** (E) – *one of the most common roof types in residential construction; constructed with two sloping sides that meet to form a ridge.*

**Gambrel roof** (E) – *a traditional shape that dates back to the colonial period; the lower level is covered with a steep roof surface, which connects into the upper roof system with a slighter pitch.*

**Garnishment** (A) – *act of withholding wages or other property to satisfy a debt.*

**Girder** (F) – *a large or principle beam of wood or steel used to support concentrated loads at isolated points along its length.*

**Girders** (D) – *horizontal support member at the foundation level.*

**Glulam beams** (F) – *glue laminated members that consist of 1x or 2x lumber glued in stacks to the desired shape and size.*

**Grade line** (G) – *the spot where the soil surface strikes the building; reference point for most elevations.*

**Grid** (B) – *a pattern of regularly spaced dots or lines that aids in the alignment of drawings. Most CAD systems have a SNAP feature that will position the cursor directly to each grid point.*

## H

**Half bath** (C) – *bathroom containing water closet and lavatory only.*

**Hardcopy** (B) – *the actual printed drawing outputted by a printer, plotter, copier, or diazo.*

**Hatching/section lining** (F) – *used to show the feature has been sectioned or cut.*

**Header – rim joist, butt joist** (F) – *a beam placed perpendicular to joists and to which joists are nailed.*

**Header (C)** – *the horizontal structural member used to support other structural members over openings.*

**Header (F)** – *wood horizontal member above the door or window to provide support for the top plate.*

**Hip (E)** – *the exterior edge formed by two sloping roof surfaces.*

**Hip roof (E)** – *has many similarities to a gable roof but with four surfaces instead of two; the intersecting surfaces are called hips.*

## I

**Insulation (F)** – *prevents or reduces the transfer of heat or sound from one location to another.*

**Interview (A)** – *meeting between the job applicant and the employer for questioning and evaluation of qualifications.*

## J

**Jamb (C)** – *the frame that is fitted inside the rough opening which encloses the door sash.*

- a. *Head jambs extend across the top of opening.*
- b. *Side jambs extend vertically.*
- c. *The jamb may come as part of a packaged door unit.*

**Jamb blocks (D)** – *a concrete block that is shaped to go around the jamb.*

**Joist (F)** – *provides support for the floor or ceiling.*

**Joist hanger (F)** – *a metal strap used to support piping or the ends of joists.*

## K

**Knee wall (E)** – *a wall of less than full height.*

## L

**Laundry** (C) – a room designed for the specific purpose of washing, drying, folding, and ironing clothes.

**Lavatory** (C) – a fixture that is designed for washing hands and face, usually found in a bathroom.

**Ledger strip** (F) – a strip of lumber nailed along the bottom of the side of a girder on which joists rest.

**Line** (B) – a universal CAD command used to create an entity defined by two endpoints.

**Line width** (B) – a property assigned to any line, circle, curve, or arc describing how thick a line or other object appears on the screen or hardcopy.

**Lintels** (D) – a horizontal steel member used to provide support for masonry over an opening.

**Live load** (D) – load from all movable objects within a structure including loads from furniture and people. External loads from snow and wind are also considered live loaded.

**Live load** (E) – fixed or moving weights that are not a structural part of the building; examples: furniture, occupants, snow on the roof, wind, etc...

**Longitudinal section** (F) – a method of post and beam construction where the beams are placed at right angles to the roof slope and the roof decking is laid from the ridgepole to the eaves line.

**Lookout** (E) – a beam used to support eave loads.

**LVL** (F) – “Laminated Veneer Lumber” an engineered wood product in which veneers of wood are stacked in parallel and glued under pressure.

## M

**Mansard roof** (E) – similar to a gambrel roof with the angled lower roof on all four sides rather than just two.

**Masonry** (C) – stone, brick, concrete, hollow tile, concrete block, gypsum block, or other similar building units or materials or a combination of the same, bonded together with mortar to form a wall, pier, buttress, or similar mass.

**Master bedroom** (C) – the largest bedroom in a home, generally with a bath adjoining the room.

**Modular** (C) – building parts that have been preassembled either in a plant or on-site.

**Modular brick** (D) – brick that is identified by a nominal size that includes an allowance for the thickness of a standard mortar joint.

**Monolithic** (D) – concrete construction created in one pour.

**Move** (B) – an editing tool that moves entities to a different location either manually or by a set of inputted coordinates.

**Mullions** (C) – vertical and horizontal members between window and door units.

**Muntins** (C) – divide the glass into smaller panes.

## O

**O.C.** (F) – “on center”; the measurement of spacing for studs, rafters, joists, and other framing members from the center of one member to the center of the next.

**Open plan** (C) – plan in which rooms are not closed off from each other; minimal walls.

**OSB** (F) – “Oriented Strand Board”; an engineered wood product in which long strands of wood are mixed with resin, placed in layers, and pressed and cured.

## P

**Parging** (D) - a thin coat of plaster used to smooth a masonry surface.

**Particleboard** (F) – a composition board made of wood chips or particles bonded together with an adhesive under high pressure.

**Patio** (C) – ground level exterior entertaining area that is made of concrete, stone, brick, or treated wood.

**Pier** (F) – a masonry pillar usually below a building to support the floor framing.

**Piers** (D) – concrete or masonry foundation pillar support used to support the floor system.

**Pilaster** (D) – a reinforcing column built into or against a masonry wall.

**Plotter** (B) – a wide format printer used in drafting to print drawings created by a CAD system.

**Plumbing wall** (C) – the walls in a building where plumbing pipes are installed.

**Polyethylene** (D) – vapor barrier sheeting, generally 6 mil, used to block moisture.

**Porch** (C) – a covered entrance to a structure.



**Portfolio** (A) – binder containing examples of drawings, letters, etc. that show how a person is qualified for a job opening.

**Post** (F) – a metal structure used below a building to support the floor framing.

**Pressure treated** (F) – the wood has been treated to resist rot and termites.

**Projection** (G) – horizontal or vertical guidelines used for transferring measurements orthographically from one view to another.

**PSL** (F) – “Parallel Strand Lumber”; an engineered wood product in which thin strands of wood are glued together under pressure.

## Q

**Qualifications** (A) – experience, education, and physical characteristics that suit a person to a job.

## R

**Rafter** (E) – the inclined structural member of a roof system designed to support loads.

**Rafter** (F) – the most basic member of roof framing; designed to support roof loads.

**Rail** (G) – decorative barriers and supports typically used to enclose porches and decks.

**Rebar** (D) – reinforcing steel used to strengthen concrete.

**Resume** (A) – brief summary of one’s qualifications and work related experiences.

**Ridge** (E) – the top of a roof where two sloping edges meet.

**Ridge board** (E) – the top horizontal member that rafters are aligned against to resist their downward force.

**Ridge board** (F) – the board placed on edge at the ridge of the roof into which the upper ends of the rafters are fastened.

**Roof pitch/slope** (E) – a description of the angle of the roof that compares the horizontal run and the vertical rise.

**Roof plan** (E) – a drawing in plan view of the roof area showing the features and items on the roof.

**Roof ridge** (G) – the uppermost area of two intersecting roof planes.

**Roof truss** (E) – a prefabricated member formed of triangular shapes used to construct a roof.

**Rotate** (B) – *an editing tool that rotates objects or groups of objects based on a chosen point of rotation and angle.*

**R-value** (F) – *a measure of resistance to heat flow.*

## S

**Scale** (B) – *an editing tool that changes the size of an entity. Scale can be implemented by proportion/ratio or adjusted manually.*

**Section line** (F) – *defines surfaces touched by the cutting plane.*

**Settlement** (D) – *sinking foundations, cracked or buckled walls and uneven floors caused by unstable soil and extreme moisture with lack of proper drainage.*

**Sheathing** (C) – *a covering material placed over walls, floors and roofs which serves as a backing for finishing materials.*

**Sheathing** (F) – *the structural covering, usually wood boards or plywood, used over studs, joists, or rafters of a structure.*

**Shed roof** (E) – *offers the same simplicity and economical construction methods as a flat roof but does not have the drainage problems associated with a flat roof.*

**Shingles** (F) – *“asphalt shingles”; composition roof shingles made from asphalt-impregnated felt covered with mineral granules.*

**Siding** (G) – *exterior wall covering used to protect walls from the weather.*

**Sill/mud sill** (F) – *the lowest member of the frame of a structure, it rests on the foundation and supports the floor joists or the uprights (studs) of the wall.*

**Sill** (C) – *the horizontal member placed at the bottom of walls and openings in walls.*

**Skylight** (G) – *an opening in the roof to allow light and ventilation that is usually covered with glass or plastic.*

**Soffit** (E) – *usually the underside of an overhanging cornice.*

**Soffit** (F) – *underside of the overhanging cornice.*

**Sole plate** (F) – *the bottom horizontal member of the wall on which studs rest.*

**Stem wall** (D) – *a concrete block or brick foundation wall constructed on top of the footer.*

**Stretchers** (D) – *a course of masonry laid horizontally with the end of the unit exposed.*

**Structural reinforcement** (D) – *rebar, steel forms, keyways or any other material used to strengthen foundation systems.*

**Stucco/content** (G) – a type of plaster made from Portland cement, sand, water, and a coloring agent that is applied to exterior walls.

**Stucco/exterior finish** (G) – a weather resistant, colored plaster finish used for an exterior wall covering.

**Stud** (F) – a vertical framing part of a stud wall.

**Stud wall** (F) – a vertical wall framing member.

**Sub floor** (F) – affixed to the floor joists; provides the surface on which the underlayment for the final floor will rest.

**Surface materials** (G) – the materials used to protect the building from the weather.

**Swing** (C) – the opening direction of a door opens based on the hinge location; right or left hand.

**Symbol library** (B) – a collection of pre-drawn symbols or drawings that can be readily inserted into drawings in order to save drawing time.

## T

**Threshold** (C) – the beveled member directly under a door.

**Topography** (G) – physical description of land surface showing its variation in elevation and location of features such as rivers, lakes, or towns.

**Trim** (B) – an editing tool that removes overlapping entities.

**Trimmer stud** (F) – used to support the header of an opening in a wall.

**Truss** (F) – structural members arranged and fastened in triangular units to form a rigid framework for support of loads over a long span.

## U

**Underlayment** (F) – a material placed under finish coverings, such as floor or shingles, to provide a smooth, even surface for applying the finish.

**Unexcavated** (D) - undisturbed earth that has not been dug out or filled.

**Units** (B) – units of measurement in a CAD system, which can be typically configured in metric or English.

**Utility room** (C) – a room that includes space for washing, drying, folding, mending, ironing, and storing clothes as well as long term storage of dry and canned food and a freezer.

## V

**Valley** (E) – the internal corner formed between two intersecting roof surfaces.

**Vapor barrier** (F) – prevents moisture transfer.

**Veneer construction** (F) – type of wall construction in which frame or masonry walls are faced with other exterior surfacing materials.

## W

**Wall studs** (F) – vertical framing member of a wall.

**Wall ties** (F) – nailed to sheathing prior to constructing masonry veneer walls for the purpose of tying the masonry units to the wood frame wall.

**Want ad** (A) – classified advertisement telling what kind of job opening is available and desired qualifications.

**Water closet** (C) – a water flushing plumbing fixture, such as a toilet, that is designed to receive and discharge human excrement.

**Web** (F) – the framework between the chords of a truss.

**Weep hole** (F) – an opening at the bottom of a wall that allows the drainage of water.

## Z

**Zoom** (B) – the method of enlarging or reducing the view of images on the screen for ease of use. Zooming does not affect the actual dimensions of the object.