WEATHERIZATION TERMINOLOGY

ABBREVIATIONS

AC	Alternating Current
AC	Air Conditioner
ACH	Air Changes per Hour
ACH50	Air Changes per Hour at 50 Pascal
AFUE	Annual Fuel Utilization Efficiency
AGA	American Gas Association
Amps	Ampere
ANSI	American National Standards Institute
ASHRAE	American Society of Heating, Refrigeration & Air Conditioning Engineers
ASTM	American Standards for Testing Materials
BART	Baseload Appliance Rating Tool
BEEP	Baseload Energy Efficiency Program
BD	Blower Door
BLD	Building Summary Report
BOCA	Building Officials and Code Administrators
BTL	Building Tightness Limit
BTUs	British Thermal Unit
BTUh	British Thermal Unit Per Hour
BWR	Building Weatherization Report
CAZ	Combustion Appliance Zone
CCA	A wood preservative formulation containing Chromated Copper Arsenate
CFM50	Cubic Feet per Minute at 50 Pascal's
CIMA	Cellulose Insulation Manufacturers Association
CO	Carbon Monoxide
DC	Direct Current
DCAA	Division of Community Action Agency
DG	Digital Gauge
DOE	Department Of Energy
ECIP	Energy Crisis Intervention Program
ECM	Energy Conservation Measure
ECO	Energy Cut Off
EEM	Energy Efficiency Mortgage

EER	Energy Efficiency Ratio
EPA	Environmental Protection Agency
FG	Fiberglass
FHA	Federal Housing Authority
FPM	Feet per Minute
Ga	Gauge
HDR	House Data Report
HEAP	Home Energy Assistance Program
HEPA	High Energy Particulate Air
HUD	Housing & Urban Development
IAC	Iowa Administrative Code
IAS	International Approval Service
IOSH	Iowa Occupation Safety and Health Standards
IDPH	Iowa Deputy of Public Health
kWh	Kilowatt Hour
LP	Liquid Propane
MCH	Mechanical Change Rate
MEC	MidAmerican Energy Company
MVL	Minimum Ventilation Level
NACH	Natural Air Change per Hour
NACH50	Natural Air Change per Hour at 50 Pascals
NAECA	National Appliance Energy Conservation Act
NEAT	National Energy Audit Tool
NEC	National Electrical Code
NFPA	National Fire Prevention Association
O_2	Oxygen
OC	Oil Over-Charge
OSHA	Occupational Safety and Health Act
QCI	Quality Control Inspector
Pa	Pascal
PCM	Phase Contrast Microscopy
PEL	Permissible Exposure Limit
PMI	Per Manufacturer’s Instructions
PNG	Peoples Natural Gas
PPM	Parts per Million
PSI	Pounds per Square Inch
P/T valve	Pressure/Temperature Valve

REP	Building Output Report
rh	Relative Humidity
RO	Rough Opening
SEER	Seasonal Energy Efficiency Ratio
SHPO	State Historic Preservation Office
SIR	Savings to Investment Ratio
SSE	Steady State Efficiency
Sq	Square
ΔT	Delta Temperature
ΔP	Delta Pressure
TEM	Transmission Electron Microscopy
TWA	Time Weighted Average
UG	Microgram
UL	Under-Writers Laboratories
μm	Micron
UMC	Uniform Mechanical Code
VOC	Volatile Organic Compound
Vol	Volume
WAMS	Weatherization Automated Management System
WAP	Weatherization Assistance Program
WC	Water Column
WRT	With Reference To
WX	Weatherization
W/S	Weatherstrip

WEATHERIZATION TERMINOLOGY

Acoustical Tile:	Special tile for walls and ceilings made of mineral, wood, vegetable fiber, cork, or metal. Its purpose is to control sound volume while providing cover.
Aggregate:	Material such as sand or gravel used with cement and water to make concrete.
Air Boundary:	The surface of the home that is most relied upon to stop air movement. It should be the surface that is insulated.
Air Changes per Hour (ach):	The number of times the complete volume of air in a house is exchanged for outside air in one hour.
Air Handler:	A steel cabinet containing a blower with cooling and or heating coils connected to ductwork which transports indoor air to and from the air handler.
Alternating Current (AC):	An electrical current that periodically changes in magnitude and in direction of the current.
Ambient Temperature:	Temperature of the surrounding air.
Ammeter:	An instrument for measuring AC or DC electrical current in a circuit. Unless magnetically coupled, it must be placed in the current path so the flow is through the meter.
Ampere (Amps):	The rate of flow of electricity through electric wires.
Anchor Bolts:	Bolts use to secure a wooden sill plate to concrete or masonry floor or wall.
Anode Rod:	A metal rod, usually magnesium, placed in a water heater tank to protect the tank from corrosion.
Anticipator:	A small resistive heater located in a thermostat which allows the thermostat to anticipate the need to shut off the gas to the furnace and allows the fan to run until the heat is taken out of the heat exchanger.
Apron:	In building, a plain or molded finish piece below the stool of a window put on to cover the rough edge of the plastering. (See Window Terminology)
Arbor:	A short spindle or shaft on which another rotating part is mounted. The blade in a table saw is usually mounted on an arbor.
Asbestos Shingles:	Shingles made of molded asbestos. Used in both roofing and siding. Rigid and easily broken. (Slate Siding)

Asphalt Shingles: Shingles made of felt impregnated with a saturate asphalt then coated with a weather-resistant asphalt and surfaced with mineral granules to reduce flammability and protect it from the sun's heat.

Attic: The space between the rafters of the roof and ceiling joist.

Attic Fan: A small capacity fan used to vent the attic.

Attic Ventilators: In houses, screened openings provided to ventilate an attic space. Sometimes called louvers or just vents.

Atmospheric Pressure: The pressure of the surface of the earth exerted by the weight of the air surrounding it. At sea level atmospheric pressure is 14.7 pounds per square inch.

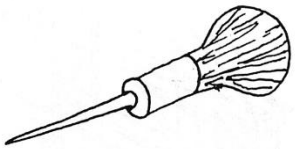
Automatic Gas Valve: An automatic or semi-automatic device consisting of a valve and an operator that controls the gas supply to the burner(s) during operation of an appliance.

Automatic Ignition: Ignition of the appliance burner(s) in response to an appliance user initiating the operation of the appliance.

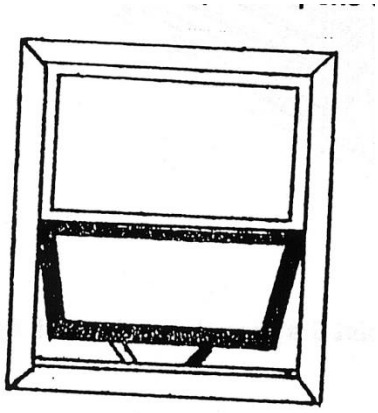
Automatic Pilot Device: A device incorporated in a gas pilot assembly which acts to automatically shut off the gas supply to the appliance burner if the source of ignition fails.

Automatic Pilot: A gas pilot which acts to light the gas at the main burner(s) each time the appliance operates and acts to shut off gas supply to the burner(s) in the event of pilot flame failure. (See Pilot)

Awl: A tool shaped like an ice pick that is used to for starting holes to be drilled in wood and to scribe lines on metal or wood.



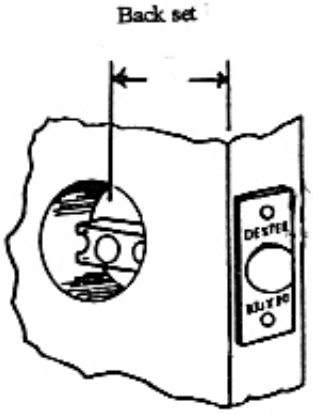
Awning Window: A window that is hinged at the top and opens outwards.



Backfill: The gravel or earth replaced in the space around a building wall after foundations are in place.

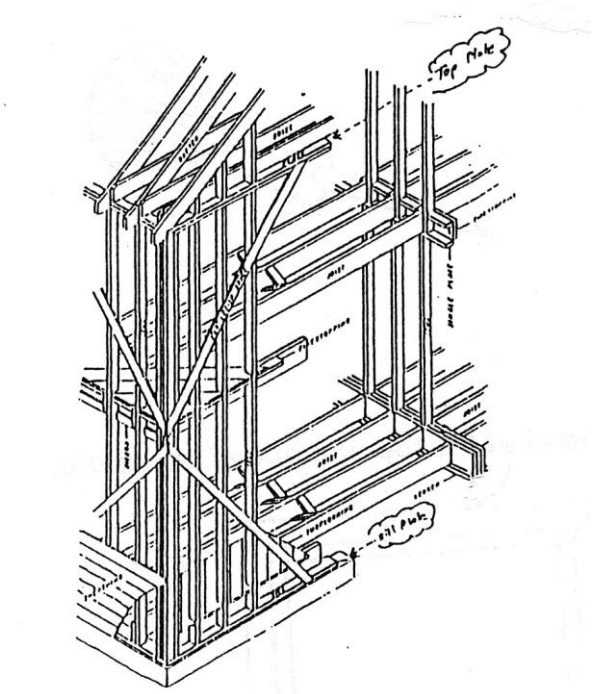
Back Plastering: Also known as double lathe and plaster. For insulation purposes, the installing of lath and plaster in the stud space midway between the outside sheathing and the inside lath and plaster of an exterior wall. Thus providing a double air space in the wall. Also, the application of a ⅜" thick mortar coat on the outside of the foundation wall for the purpose of moisture proofing and air proofing. Also called parging.

Back Set: The distance from the edge of a door to the center of the lockset. Standard locksets are 2⅜" and 2¾"



Baffle: An object placed in an appliance to change the direction of, or retard the flow of air, air-gas mixtures of flue gases.

Balloon Framing: Framing in which the studs are continuous from the foundation to the rafters or rafter plate. Second-floor joists are supported by a ribbon board usually mortised into the studs. Unless fire blocking is installed, this type of framing creates on open wall cavity from the attic to the sill.



Band Joist: Also called rim joist, it is the floor joist that ties the ends of the other floor joist together.

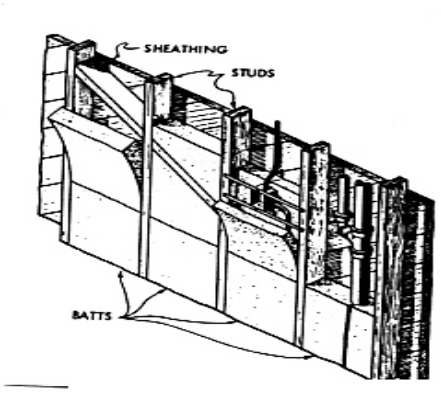
Barometric Draft Control: Usually found on an oil furnace vent pipe. A device attached to a flue outlet on some appliances without draft hoods which has a counter-weighted baffle to allow dilution air to mix with the combustion products. It is used to control excessive draft on an appliance.

Barrel Bolt: A sliding door fastener mounted on the inside of the door to keep it from being open.

Base or Baseboard: A board placed against the wall around a room next to the floor to finish properly between the floor and the plaster or drywall.

Baseline Reading: A pressure reading from one area to another without any equipment operating such as a blower door, exhaust equipment, etc. or a natural state. This reading is taken when using a digital pressure gauge so it may be added or subtracted to the pressure readings. Example- blower door pressure of 50pa WRT outside and baseline of –2 would be an actual blower door reading of –48.

Batt Insulation: Insulation that is made to fit between studs or joists. Batts are usually made in widths of 15 inches and 13 inches. Batts may have a vapor barrier attached to them in the form of "Kraft paper" or foil, or they may be "unfaced" (i.e., without a vapor barrier).



Batten: Narrow strips of wood used to cover joints or as decorative members over plywood or wide boards. Sometimes called lath.

Bay Window: A window, either square, rectangular, polygonal, or curved in shape projecting outward from the wall of a building, forming a recess in a room; a window supported on a foundation extending beyond the main wall of a building; a projecting window similar to a bay window, but carried on brackets or corbels; the term bay window may also be applied to an ordinary window which projects over the street line.

Bearing Wall: A wall that supports a floor or roof of a building.

Bevel: To cut or plane the thickness of a piece of stock to an angle other than a right angle.

Bimetal: A strip, coil, or bar of material formed of two materials of different thermal expansion properties laminated together so a change in temperature causes bending in the strip or twisting of the coil.

Blanket Insulation: Same as batt insulation only manufactured without a vapor barrier. (See Batt Insulation)

Blind Stop: A strip of wood, usually 3/4" x 1-3/8" nailed between the outside trim and the outside sash against which screens, or storm windows are fastened. (See Window Terminology)

Blower Door: A device consisting of a fan mounted in a framework that can be sealed into a doorway to pressurize or depressurize a house. Used to measure and locate air leaks.

Board and Batten: Exterior siding where boards are nailed vertically to the framing and the cracks between the boards are covered with battens. (See Batten)

Board Foot: The volume of a piece of wood one inch thick, one foot wide, and one foot long, equivalent to 144 cubic inches.

BOCA Code: A series of model regulatory construction codes issued by the Building Officials and Code Administrator (BOCA) International, Inc. Frequently used in part or in whole in local building codes.

Bourdon Tube:	A closed-end tube slightly flattened and wound into a coil or spiral so that as pressure is applied to the inside of the tube the coil tends to straighten.
Bow Window:	A window such as a bay window, especially a bay with a curved ground plan.
Brace:	An inclined piece of framing lumber applied to a wall or floor to stiffen the structure. Often used on walls as temporary bracing until framing has been completed.
Braced Facing:	Construction technique using posts and crossbracing for greater rigidity.
Brick Veneer:	A facing of brick laid against and fastened to a wall of any construction sheathing on a frame wall or on the wall construction.
Bridging:	Small wood or metal member that are inserted in a diagonal position between the floor joists at mid-span.
British Thermal Unit:	The quantity of heat required to raise the temperature of one pound of pure water one degree Fahrenheit at or near the temperature of maximum density of water 39 degrees Fahrenheit. (Also see BTUs)
BTUs:	British Thermal Unit is used to measure the amount of heat being gained or lost (Also see British Thermal Unit).

Common Fuels and their BTU values:

Natural Gas:	1 Cubic foot	930 to 1050 Btus
	1 Therm (100cf)	100,000 Btus
	10 Therms (Mcf)	1,000,000 Btus
Propane:	1 Gallon	95,000 Btus
Fuel Oil:	1 Gallon	130,000 to 150,000 Btus
Electricity:	1 Kwh	3,413 Btus

Buffer Zone: A space in a building which separates the heated interior of a building from the outside. Buffer zones include; attics, crawlspaces, garages, floor cavities, and interior soffits.

Building Code: The civil regulations governing the construction and repair of buildings and setting forth the requirements for such building and repair.

Building Envelope: The exterior surface of a building, including walls, roof, and floor.

Building Paper: A heavy paper used in walls to air and damp proof.

Building Permit: A certificate which must be obtained from the local government by the property owner or contractor before a building can be erected or repaired and which must be kept pasted in a conspicuous place until the job is finished.

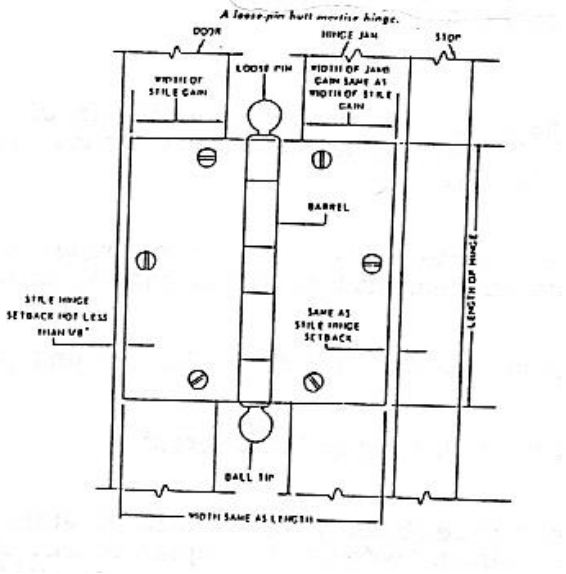
Build-Up Roof: A roof material applied in sealed, water-proof layers, where there is only a slight slope to the roof.

Bungalow: A one-story house with low, sweeping lines and a wide veranda.

Burner: A devise for the final conveyance of fuel, or a fuel and air mixture to the combustion chamber.

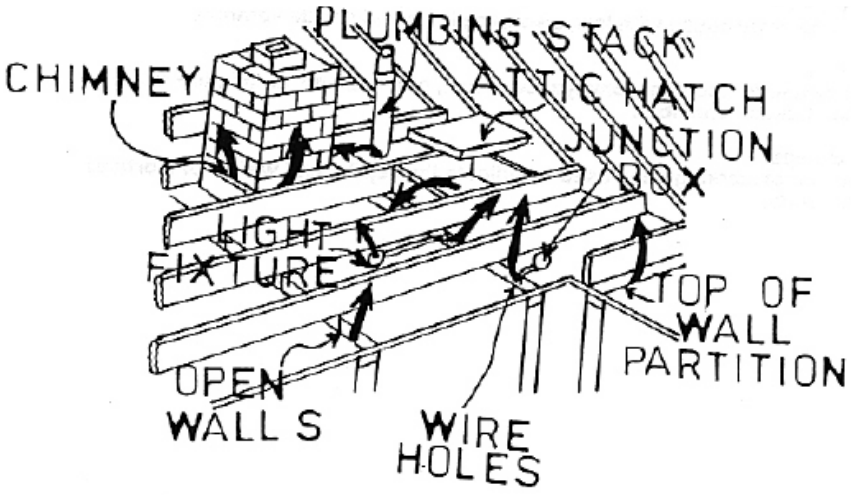
Butt Gage: A type of marking gage used to indicate the depths and widths of mortises for butts.

Butt Hinge: A hinge secured to the edge of a door and the face of the jamb it meets when the door is closed, as distinguished from the strap hinge. Usually mortised into the door and jamb.



Butt Joint: Any joint made by fastening two parts together end to end without overlapping.

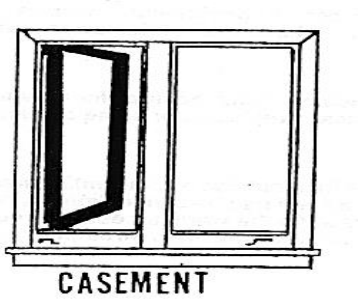
Bypasses: Openings between heated and unheated spaces, such as open wall cavities, around flues and pipes, etc.



CFM 50: Refers to the air leakage rate (cubic feet per minute) across a surface with a 50 Pascals pressure difference acting across it. For example CFM50 House / Zone refers to the air leakage rate of the house-to-zone surface at a 50 Pascals pressure difference across that surface (not 50 Pa across the whole flow path from inside to outside).

Camp Ceiling:	A type of ceiling often used in attic rooms, in which the two opposite side walls slope in at the top, in line with the rafters, to meet the plane surface of the upper, or middle section, which is horizontal. (The slope ceiling of a story and half house)
Cantilever Joist:	Short joists used to support a projecting balcony or a bay window, which has no supporting foundation.
Carbon Monoxide:	A colorless odorless very toxic gas that turns to carbon dioxide with a blue flame and is formed as a product of the incomplete combustion of carbon.
Carriage:	The member, which supports the steps or treads of a stair from top to bottom.
Casement Frame and Sash:	Frames of wood or metal enclosing part or all of the sash, which may be opened by means of hinges affixed to the vertical edges.

Casement Window: Window with sash that opens on hinges; a window sash made to open by turning on hinges attached to its vertical edge.



Casing: The framework around a window or door. Also the finished lumber around a post or beam.

Caulking Compound: A filler used to fill cracks, especially around window and door framing, to prevent the leakage of water, air, or dust into the building from the outside and to prevent the escape of warm air from the inside of the building.

Cavity Wall: A hollow wall formed by firmly linked masonry walls and providing an insulating air space between.

CAZ: See combustion appliance zone.

CCA Lumber: CCA stands for Chromated Copper Arsenate, a wood preservative formulation containing copper, chromium and arsenic. The copper acts as the main fungicide and also provides some protection against termites. Arsenic provides protection against termites and copper-tolerant decay fungi. Chromium helps to bond and "fix" the chemical components to the wood.

Cellulose Insulation: A building insulation made from ground-up wood fiber (newspaper) and treated with chemicals to be fire resistant.

Center Meeting Rail: On a double hung window, the point where the top rail of the bottom sash meets the bottom rail of the top sash (also known as the meeting rail, see window terminology).

Centigrade: Thermometer whose scale at the freezing point is zero and one-hundred at the boiling point of water. To change from (degree C) to (degree F) C + 17.78 x 1.8 = F. To change from F to C F - 32 x 5/9 = C.

Centimeter: A measure of length in the metric system equal to the one-hundredth part of a meter or .3937 inch.

CFM: Cubic feet per minute.

Check Rail: The middle horizontal member of a double-hung window, forming the lower rail of the top sash and the top rail of the lower sash. (See window terminology)

Chimney:	That part of a building which contains the flues for drawing off smoke or fumes from stoves, furnaces, fireplaces, or some other source of smoke and gas.
Chimney Effect:	When inside air is warmer than outside air, the entire house or building acts as a chimney. Warm air will rise by convection and leak out of openings in the upper levels. As the warm air escapes out of the upper levels it will cause cooler air to be drawn in through openings in the lower levels. (Also see Stack Effect)
Circuit:	In electricity, the path taken by an electrical current in flowing through a conductor (two or more wires) from one terminal of the source of supply to the other.
Circuit Breaker:	A safety device which opens (breaks) an electric circuit automatically when it becomes overloaded.
Circular Saw:	A saw with teeth spaced around the edge of a circular plate, or disc, which is rotated at high speed upon a central axis, spindle, used for cutting lumber or sawing logs.
Circumference:	The perimeter of a circle; a line that bounds a circular plane surface.
Clapboard:	Long thin boards, graduating in thicker from one end to the other, used for siding, the thick end overlapping the thin portion of the board.
Clock Thermostats:	A thermostat that can be set to turn the furnace on and off automatically at predetermined hours.
Code:	Any systematic collection or set of rules pertaining to one particular subject and devised for the purpose of securing uniformity in work or for maintaining proper standards of procedure, as a building code.
Coil:	A snakelike piece of copper tubing surrounded by rows of aluminum fins which clamps tightly to the tubing to aid in heat transfer.
Cold-Air Duct:	In heating and ventilating systems, a pipe which carries cold air back to the furnace to be reheated. (See Return Air)
Cold Junction:	That part of a thermoelectric element which is attached to a load, through which electricity generated by the thermocouple is conducted to the load. (See also Thermocouple, Hot Junction)
Collar Beam:	A beam connecting pairs of opposite roof rafters above the attic floor.
Comb Board:	The (ridge board) of a roof; the board at to ridge of a roof to which the rafters are nailed.
Combination Square:	Tool which combines in handy compact form the equivalent of several tools, including an inside try square, outside try square, miter square, plumb, level, depth gage, marking gage, straight edge, bevel protractor, and center head in addition to square head.

Combination Window: Windows having an inside removable section so the same frame serves both summer and winter. In warm weather a screen may be inserted and in winter a storm window is used.

Combustion Air: The air needed to support combustion (burning) in a furnace or similar fuel-burning device.

Combustion Appliance Zone: The room in which the combustion appliance is located.

Combustion Chamber: The portion of an appliance within which combustion normally occurs.

Combustion Products: Constituents resulting from the combustion of a fuel gas with the oxygen in sir, including the inserts, but excluding excess air.

Common Nails: These are available from 2d to 60d in length. As their name implies, they are the most commonly used kind of nail and will usually be supplied if no other specification is made. They are used when the appearance of the work is not important.

Common Rafter: One of a series of rafters extending from the rafter plate of a roof to the ridge.

Common Wall: A wall jointly used by two parties, one or both of whom are entitled to such use under the provisions of a lease.

Compressor: A motorized pump that compresses the gaseous refrigerant and sends it to the condenser where heat is released.

Concrete: A mixture of cement, sand, and gravel with water in varying proportions according to the use which is to be made of the finished product.

Concrete Blocks: In masonry, precast, hollow, or solid blocks of concrete used in the construction of buildings.

Condensation: Condensation is the opposite of evaporation. Beads or drops of water (and frequently frost in extremely cold weather) that accumulate on the inside of the exterior covering of a building when warm, moisture-laden air from the interior reaches a point where the temperature no longer permits the air to sustain the moisture it holds. Use of louvers or attic ventilators will reduce moisture condensation in attics. A vapor barrier under the gypsum lath or dry wall on external walls will reduce condensation in them.

Condense: Gas changing into a liquid as it cools.

Condenser: The coil in an air conditioning system where the refrigerant condenses and releases heat which is carried away by air moving through the coil.

Conditioned Space: An area of a dwelling which receives conditioned (heated) air, however minimal, from some source within the structure. A conditioned space may contain a furnace or wood stove, water heater, uninsulated ductwork, or water and or sewer lines. Any area of the dwelling used as a sleeping area is considered conditioned space.

Conduction: The movement of heat through a material or by contact from one material to another.

Conductor: A substance through which electrons flow with relative ease.

Conduit (Electrical) A pipe, usually metal, in which wire is installed.

Continuity: A continuous electrical path.

Control: The methods and means of governing the operation of an appliance.

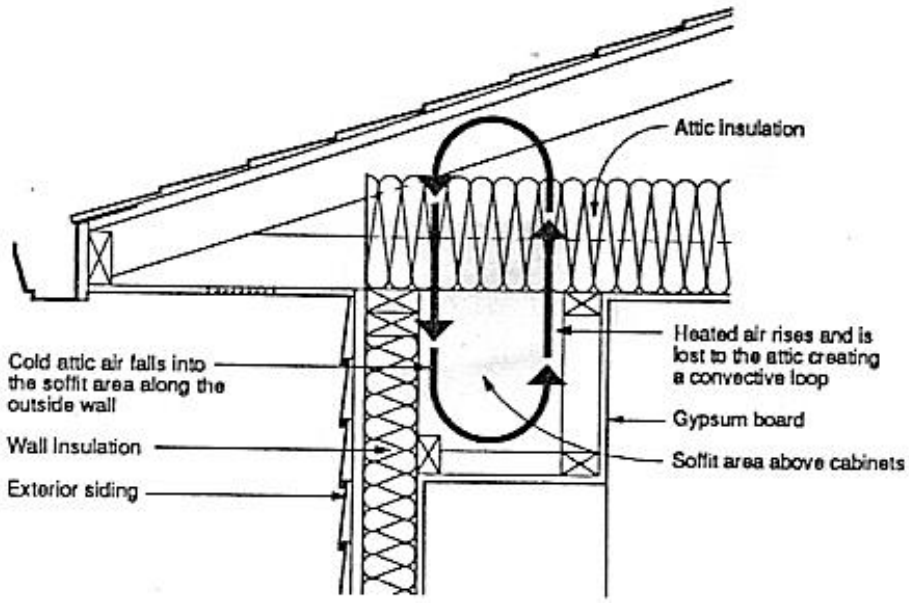
(1) Combination Control - Two or more control functions are built into the same control.

(2) Fan and Limit Control - A combination control used on forced warm air furnaces which controls air fan operation and limits circulation air temperature.

Convection: The transfer of heat caused by the movement of a fluid-like water or air. When a fluid becomes warmer it becomes lighter and rises.

The fluid at the bottom of the kettle is heated by the hot surface of the metal. Warmer fluid is lighter than cooler fluid. The cooler fluid falls and the warmer fluid rises. The current caused by this movement is called convection.

Convective Loop: Soffited ceilings usually lose heat through a convective loop. Warm air rises to the top of the open cavity and is cooled and then falls.



Convector: A type of heat dispenser used when heating is accomplished by convection.

Convector Radiator: A type of heating in which steam or hot water runs through a pipe core, heating metal plates or fins attached to it at short intervals. Air passed over these fins picks up heat and distributes it through vents in an enclosure to the area to be heated.

Cooling load: The maximum rate of heat removal required of an air conditioner when the outdoor temperature and humidity are at the highest expected level. Cooling load is calculated to determine the proper size for the air conditioning equipment based on outdoor temperature and humidity.

Coping Joint: A piece of wood cut to fit the profile of another.

Corner Bead: A strip of wood or metal for protecting the external corner of plastered walls.

Cornice: Overhang of a pitched roof at the eaves line, usually consisting of a facia board, a soffit for a closed cornice, and appropriate molding.

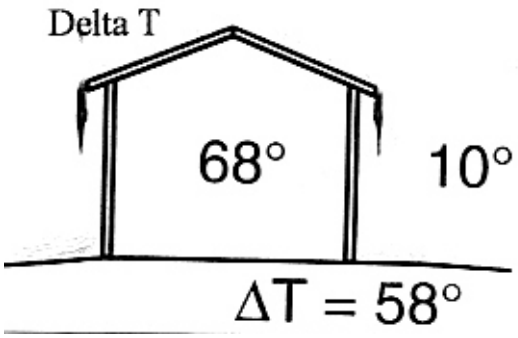
Course: A horizontal row of bricks, blocks, or other masonry materials, shingles and siding.

Cove Molding: A quarter around or concave molding.

Crawlspace: A shallow space below the living quarters of a house without a basement, normally enclosed by the foundation walls.

Cripple:	Any part of a frame which is cut less than full size, as a cripple stud over a door or under a window opening.
Cripple Jack Rafter:	A jack rafter that is cut in between a hip and valley rafter. A cripple jack touches neither the ridge nor the plate but extends from a valley rafter to a hip rafter.
Cross Ventilation:	Producing a flow of air across a room by means of windows, doors, or other openings on opposite sides of the room.
Crosscutting:	Cutting with a saw across the grain or width of a board.
Cubic Foot of Gas:	(Standard Conditions) The amount of gas which will occupy 1 cubic foot when at a temperature of 60 degrees F and under a pressure equivalent to that of 30 inches of mercury.
Cubic Foot per Minute (CFM):	A measurement of air movement past a certain point or through a certain structure.
Current:	The flow of electrons, measured in amperes. One ampere results when one volt is impressed on a circuit that has a resistance of one ohm.
Damper:	A device used for regulating the draft in the flue of a furnace.
Dead Bolt:	In a door lock, a bolt with a square head controlled directly by the key when moved in either direction.
Decking:	The wood material installed under the roofing material to support the roofing (Sheathing).
Degree:	A unit of angular measurement. One 360th part of the circumference of a circle. Also a unit of temperature measurement, such as degree Fahrenheit or degree Centigrade.
Degree-Day (heating):	A unit employed in estimating fuel consumption and specifying the nominal heating load of a building in winter. It is based upon the temperature difference and time. For any one day, when the mean temperature is less than 65 degrees F, there exists as many degree-days as there are Fahrenheit degree difference in temperature between the mean temperature for the day and 65 degrees F.
Dehumidifier:	A device used in homes to extract excess moisture from the air in summer to prevent “sweating” of cold surfaces.

Delta T: The difference in temperature between indoors and outdoors is the driving force for heat flow and presents the need for a heating device to replace the heat which is flowing out.



Dense Pack Insulation: Cellulose insulation installed with the intention of stopping air movement through the pressure boundary. Dense pack insulation replaces conventional air sealants such as caulk and foam in areas where conventional sealants are expensive and ineffective. Dense pack insulation is installed at 3.5 lbs per cubic foot or greater density.

Density: The standard unit weight per unit volume of a material usually expressed as pounds per cubic foot.

Desiccant: An agent that removes moisture from air or materials.

Dew Point: The temperature at which a given sample of moist air will become saturated and deposit dew; the point at which dew begins to form.

Diaphragm Valve: A control valve in which the main actuating means in the gas pressure on a flexible diaphragm.

Dilution Air: Air which enters a draft hood and mixes with flue gases.

Dip Tube: A tube, usually non-metallic, fitted into a water heater to direct incoming cold water to the bottom of the tank.

Direct Current (DC): Current in a circuit in one direction only.

Direct Spark Ignition System: An ignition system in which gas is ignited directly by a continuous spark formed between two high-voltage electrodes. No intermediate pilot flame is used.

Diverter: See Draft Hood.

DOE: Department of Energy

Door Bolt: A door fastener, consisting of a sliding bar or rod which is mounted and attached to a door so as to lock it.

Door Jack: A frame used by carpenters for holding a door while it is being planed and the edges fitted to the size of a door opening.

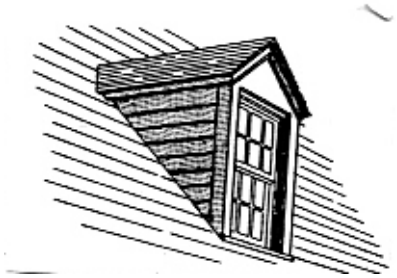
Door Jamb: Two upright pieces fitted and held together by a head to form the lining for a door opening.

Door Saddle: An aluminum strip with a vinyl or rubber cushion mounted on it. Used to cover or replace threshold strips in doorways to prevent air infiltration under doors.

Door Sill: The bottom of an outside door frame over which the door closes.

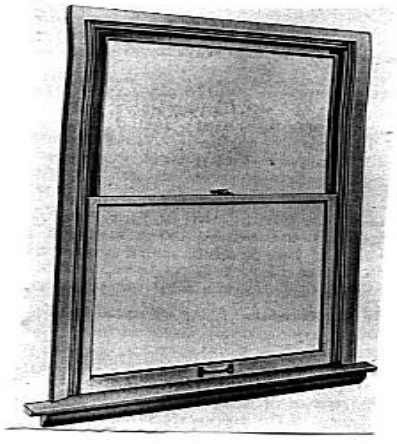
Door Sweep: An aluminum strip with a vinyl, rubber, or fiber flap attached to its bottom edge. The sweep is attached to the bottom of the door so the flap seals the crack beneath the door when the door is closed.

Dormer: An opening in a sloping roof, the framing of which projects out to form a vertical wall suitable for windows or other openings.



Double Glazing: An insulating window pane formed of two thicknesses of glass with a sealed air space between them. The term is also used when referring to a storm window.

Double Hung Window: Windows with an upper and lower sash, each supported by cords and weights or side channels.



Dovetail:	An interlocking joint made by angle cutting two boards to fit into each other as in boxes and drawers.
Doweling:	The method of fastening two pieces of wood together by the use of dowels; butt joints are sometimes secured by the use of glue and dowel pins.
Down draft:	The flow of air downward, as a current of air down a chimney usually due to improper operation of furnace or fireplace from improper design.
Down spout:	A pipe, usually of metal, for carrying rainwater from roof gutters.
Draft:	A term used in reference to the pressure difference which causes a current of air or gases to flow through a flue or chimney.
Draft Damper:	A device to automatically regulate the draft.
Draft Hood (Draft Diverter):	A device built into an appliance, or made a part of the flue or vent connector from an appliance, which is designed to (1) provide for the ready escape of the flue gases in the event of no draft, back draft, or stoppage beyond the draft hood; (2) prevent a back draft from entering the appliance; and (3) neutralize the effect of stack action of the chimney or gas vent upon the operation of the appliance.
Draft Regulator:	A device which functions to maintain a desired draft in the appliance by automatically reducing the draft.
Ductwork:	The system of supply and return ducts that transport air to and from the air handler in a central air conditioning system.
Dust Mite:	A microscopic animal that lives on skin flakes in house dust.
Eave:	The part of a roof which projects over the side wall (Also is soffit).
Electricity:	A form of energy produced by the flow of electrons through materials and devices under the influence of an electromotive force produced electrostatically, mechanically, chemically, or thermally.
Energy Cut Off (ECO):	A thermostatic element placed in the control circuit which shuts off gas supply in case of excessively high water temperature.
Energy Efficiency Rating (EER):	A measurement of energy efficiency for room air conditioners. The EER is computed by dividing cooling capacity, measured in British Thermal Units per hour (BTU), by the watts of power. (See also Seasonal Energy Efficiency Rating SEER)
Evaporation:	The change that occurs when a liquid becomes a gas. Evaporation is the key process in the operation of air conditioners and evaporative coolers.
Evaporative Cooler:	A device for cooling homes in dry climates that cools the incoming air by humidifying.
Evaporator:	The heat transfer coil of an air conditioner or heat pump that cools the surrounding air as the refrigerant inside the coil evaporates and absorbs heat.

Excess Air: Air which passes through the combustion chamber and the appliance flues in excess of that which is theoretically required for complete combustion.

Fascia or Fascia Board: A flat board, band, or face used sometimes by itself but usually in combination with moldings, often located at the outer face of the cornice.

Fahrenheit: A temperature scale so graduated that the freezing point of water is 32° and the boiling point is 212°.

Fan and Limited Control: (See Control)

Fiberglass Insulation: Insulation made from spun glass fibers. Fiberglass is manufactured in batts, blankets, and blowing wool.

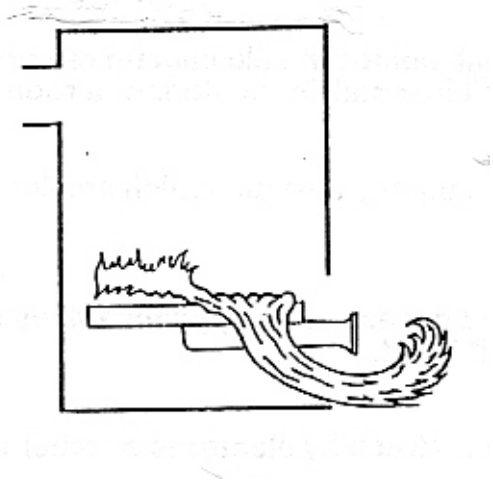
Fin Comb: A comb-like tool used to straighten bent fins in air conditioning coils.

Fire Blocks: Short pieces of wood nailed between studding to serve as bracing and, in case of fire, to stop drafts and prevent the spread of the fire to other parts of the building.

FHA: Federal Housing Authority

Flame Switch: A thermostatic control element responsive to high temperature and thereby used to sense presence of flame.

Flame Roll out: A condition where flame rolls out of a combustion chamber when the burner is turned on due to the lack of air. This lack of air may be due to overrating of burners, poor draft or blockage in flue.

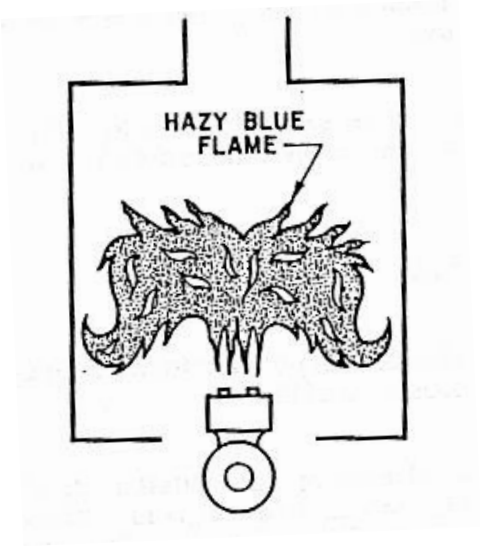


Flashback: An undesirable flame characteristic in which burner flames strike back into a burner to burn there or to create a pop after the gas supply has been turned off.

Flashback Arrestor: A gauze, grid or any other portion of a burner assembly used to avert flashback.

Flashing: Sheet metal or other material used in roof and wall construction to protect a building from water seepage.

Floating Flames: An undesirable burner operating condition, usually indicating incomplete combustion in which flames leave the burner ports to reach for combustion air. They are long, ill-defined, quiet flames, which roll around in the combustion chamber sometimes completely off the ports. Usually a strong formaldehyde odor is present.



Floor Furnace: A heating unit made for small homes in mild climate regions that have no basements. The heating unit is installed in the floor of a room.

Flue: The space or passage in a chimney through which smoke, gas, or fumes ascend.

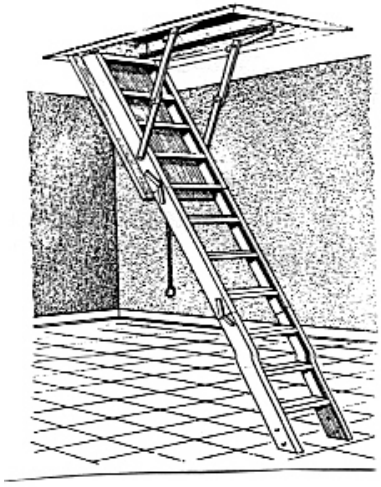
Flue Gas: Products of combustion and excess air in appliance flues or heat exchangers before the draft hood.

Fluorescent: The ability to emit light when struck by electrons or other radiation.

Flush Door: A door that is flat on both surfaces.

Flue Loss: The heat lost in flue products exiting from the flue outlet of an appliance.

Folding Stair: A stair that folds into the ceiling. Also called pull-down stairs.



Footing: A masonry section, usually concrete, in a rectangular form, wider than the bottom of the foundation wall or pier it supports.

Forced Draft Burner: A burner in which combustion air is supplied by a fan or blower.

Foundation: The supporting portion of a structure below the first floor construction, or below grade, including the footings.

Frame Construction: A type of construction in which the structural parts are wood or depend upon a wood frame for support. In codes, if masonry veneer is applied to the exterior walls, the classification of this type of construction is usually unchanged.

Framing: Lumber used in the structural skeleton of a building, such as studs, joists, rafters, etc.

Framing Square: A metal square having a blade 24" long and a tongue 8" long, on which are various tables for the use of builders in the construction of a building.

French Door: A pair of doors with glazed panels extending the full length of the door, serving as both door and window.

French Window: A long, double casement window with the sashes hinged at the sides and opening in the middle. The window extends down to the floor and serves as a door to a porch or terrace.

Fungus: Microorganism that dissolves nutrients from the materials it lives in and on, damaging these host materials.

Furnace: An apparatus in which heat is generated and maintained by the combustion of fuel; a heating plant.

Furnace Cycle: The time it takes a furnace to start up, ramp, steady state, and tail.

Furring: Strips of wood or metal applied to a wall or other surface to even it and normally to serve as a fastening base for finish material.

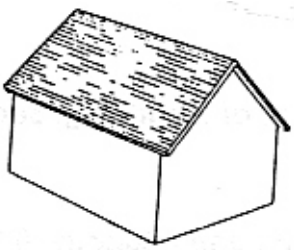
Fuse: A short plug in an electric panel box which opens (breaks) an electrical circuit when it becomes overloaded.

Fusible Link: An electrical circuit component made of low melting-point material, which upon exposure to heat, melts and breaks an electric circuit.

Fusible Plug: A tank plug made of low melting-point material so it will melt and relieve tank pressure when excessive temperature occurs within the tank.

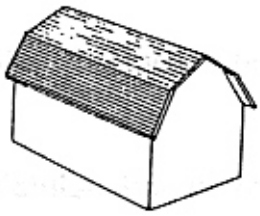
Gable: In house construction, the portion of the roof above the eave line of a double-sloped roof.

Gable Roof: Two roof surfaces rising from opposite sides of a house and meeting at the ridge line, forming gables at the other two sides.



Gable roof.

Gambrel: A type of roof which has its slope broken by an obtuse angle, so the lower slope is steeper than the upper slop; a roof with two pitches.



Gambrel roof.

Girder: A main member in a framed floor supporting the joists which carry the flooring boards. It carries the weight of a floor or partition.

Glazing: Fitting glass into windows or doors.

Glazing Compound: A putty-like substance used to seal glass to the window sash to prevent air leakage.

Glazing Points: Small, triangular pieces of metal driven into the rabbet of a sash to hold the glass in place before glazing compound is installed.

Glow Coil: A coil of fine wire heated by electric current and used to light a pilot flame.

Glow Bar: A bar of high-temperature material, usually spirally machined to provide a long electrical path, heated with an electrical current to incandescence to ignite gas burner flames.

Grade Line: The point at which the ground rests against the foundation wall.

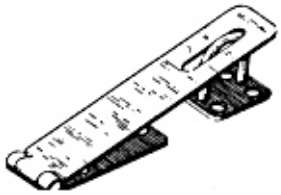
Gravity Furnace: Usually a centrally located furnace that has no fan or blower. Warm air is distributed through ducts by the buoyancy of the warm air. When it cools, gravity brings the cooled air back to the floor were it is brought back to the furnace through cold air ducts.

Ground (or Grounded): (1) The common return path for electric current in electronic equipment (called electrical ground). (2) A reference point connected to, or assumed to be at zero potential with respect, to the earth.

Gutter: A channel at the eaves for conveying rain water.

Hard Flame: A flame with a hot, tight, well-defined inner cone.

Hasp: A hinged-metal strap designed to pass over a staple and secured by a peg or padlock.



Hatch: A small door for closing an opening such as a trap door; also, the cover for an opening leading to the roof or to an attic of a building.

Head Jamb: The top member of a door or window frame. It is also called a yoke.

Header: One or more pieces of lumber used to support the ends of floor joist, studs, or rafters and transfer their load to other parallel joists, studs, or rafters. A framing member over a window or door opening.

Heat: Heat is a measurable quantity of energy.

Heat Anticipator: A small resistance heater in a wall thermostat which, by heating the thermostat enclosure, causes the thermostat to cycle to off before the set room temperature is reached.

Heat Exchanger: Any device for transferring heat from one fluid to another. A heat exchanger captures the heat produced during combustion then transfers or exchanges the heat produced on the combustion side to the distribution side of the furnace.

Heating Degree-Days: The number of degrees the daily average temperature is below 65°F. Normally heating is not required in an building when the outdoor average daily temperature is 65°F. Heating degree-days are determined by

subtracting the average daily temperatures below 65° from the base 65°F. A day with an average temperature of 50° has 15 degree-days (65 – 50 = 15), while one with an average temperature of 65° or higher has none.

Heat Gain: An increase in temperature within a structure due to the transmission of heat from the outside through doors, windows, walls, ceilings, floors, and infiltration.

Heat Pump: A type of heating and air conditioning installation in which house heat in summer is drawn out and released into the outside air. In winter, the same refrigerant concentrates heat collected from the natural heat of the outside air or from earth or water. It may be used with either a hot water or forced warm air system.

Heating Plant: Any system for heating a building, including a furnace, boiler, pipes, and fixtures.

Heat Radiation: Heat energy that flies through space from one solid object to another.

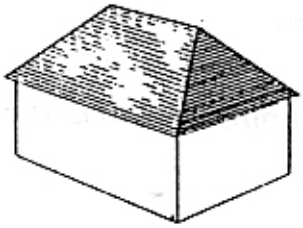
HEPA: A high efficiency particulate arresting filter that removes many of the smaller particles from the air.

High Density Insulation: Insulation that is installed at a density of one pound per square foot in a three and a half inch wall cavity.

High-limit Switch: A temperature operated switch used for warm air, hot water, or steam systems which prevents the system from overheating.

Hip: The external angle formed by the juncture of two slopes of a roof.

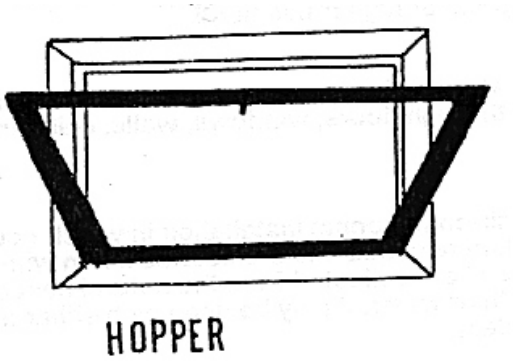
Hip Roof: A roof that rises by inclined planes from all four sides of a building.



Hip roof.

Hollow core door: A faced door with a space between the facings which is occupied by a structure consisting of air or open cells between wood, plastic, or other suitable material.

Hopper Window: A window in which the sash opens at the top and is hinged at the bottom.



Horse Power: A unit of power performed by 746 watts in one hour.

Hot Junction: That part of a thermocouple where the two wires, rods, etc., making up the thermocouple are joined together and heated to produce electricity by the thermoelectric effect. (See also Thermocouple, Cold Junction)

House Pressure: Refers to the pressure difference between the house and the outside.

House Zone: (See Zone)

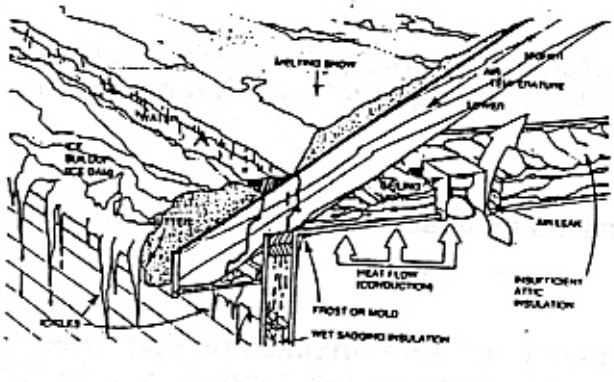
Humidifier: A device designed to increase the humidity within a room or a house by means of the discharge of water vapor.

Humidistat: A device to sense and control the amount of moisture (relative humidity) in circulating air.

Humidity: The amount of moisture in the air.

Hydronic Heating System: A central heating system, which utilizes heated water carried through pipes to supply heat throughout the structure.

Ice Dam: As snow is melted on the roof of a house by warm air in the attic, the melted snow runs down the roof till it reaches the overhang where it then re-freezes forming icicles and a buildup of ice at the edge of the overhanging portion of the roof.



Ignition: The act of starting combustion.

Incandescent Lamp:	The common light bulb found in residential lamps and light fixtures and sold in stores everywhere.
Inches of Mercury Column:	A unit on measuring pressures. One inch of mercury column equals a pressure of 0.491 pounds per square inch.
Inches of Water Column:	A unit used in measuring pressures. One inch of water column equals a pressure of 0.578 ounces per square inch. One inch mercury column equals about 13.6 inches water column.
Induced Draft Burner:	A burner which depends on draft induced by a fan or blower at the flue outlet to draw in combustion air and vent flue gases.
Infiltration:	The uncontrolled flow of air through cracks and openings in the building envelope.
Infrared (IR Scanner):	A viewer that scans infrared (heat) emissions from an object to indicate temperature.
Input Rate:	The quantity of heat or fuel supplied to an appliance, expressed in volume or heat units per time, such as cubic feet per hour or Btu per hour.
Input Rating:	The gas-burning capacity of an appliance in Btu per hour as specified by the manufacturer. Appliance input ratings are based on sea level operation and need not be changed for operation up to 2,000 feet elevation. For operation at elevations above 2,000 feet, input ratings should be at the rate of 4 percent for each 1,000 feet above sea level.
Insulating Glass:	Two panes of glass separated by gases or an air space and sealed around the edges.
Insulation, Thermal:	Any material high in resistance to heat transmission that, when placed in the walls, ceiling, or floors of a structure, will reduce the rate of heat flow. (See Cellulose, Fiberglass, Rock Wool)
Internal Gains:	The heat generated by bathing, cooking, and operating appliances that must be removed during the summer to promote comfort.
Jalousies:	(1) Windows with movable, horizontal glass slats angled to admit ventilation and keep out rain. (2) Outside shutters of wood constructed in the same way.
Jamb:	The side and head lining of a doorway, window, or other opening.
Joist:	A heavy piece of horizontal timber that are laid edgewise to form the supports to which the boards of a floor or the ceiling are nailed.
Joist Hangers:	A metal stirrup used to support the ends of joists which are to be flush with the girder.
Junction Box:	A square metal or plastic box which protects the connection of electrical wires.

Keeper: The (strike plate) of a door lock; the socket which is fitted to a door jamb to house the bolt of the lock when the door is in a closed position.

Kerf: A cut made with a saw.

Kick Plate: A metal plate, installed along the bottom edge of a door to prevent the marring of the finish by shoe marks.

Kiln-dried: Artificially dried lumber: superior to most lumber that is air dried.

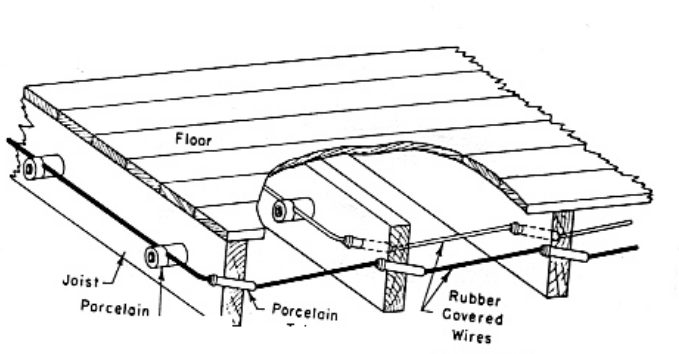
Kilo: A prefix placed before a word to indicate a number one thousand times that indicated by the word.

Kilowatt: One thousand watts of electricity.

Kilowatt-hour: A measurement of electricity which equals 1000 watts an hour.

Knee Wall: Attic wall formed by framing vertically between the joists and the rafters. Used when making an attic into a living area to wall off floor area under the lowest portion of roof slope.

Knob and Tube Wiring: A system of wiring where the positive and negative wires are kept separated by porcelain knobs for going over the tops of joist and tubes for going through the joist.



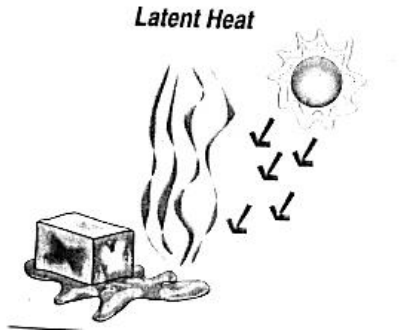
Kraft Paper: A type of strong brown paper used as a building paper.

Lap Siding: Siding in which the top piece of siding overlaps the bottom piece.

Latch: A device for fastening a door. It usually consists of a movable bar which is secured to the door and falls into a hook or catch on the frame of the door.

Latch Bolt: A lock bolt that has a beveled head, moved by a spring when it is retracted in contact with the strike plate.

Latent Heat: The unexpectedly high amount of heat absorbed or released when a material changes phase: from a solid to a liquid or from a liquid to a gas and vice versa.



Lath: One of a number of thin narrow strips of wood nailed to ceiling joists or wall studs to provide a base for plaster.

Lifting Flames: An unstable burner flame condition in which flames lift or blow off the burner port(s).

Lights: The openings or pieces of glass in an opening.

Lineal Foot: A line measuring 12" in length.

Lintel: A horizontal structural member that supports the load over an opening such as a door or window.

Load: Any component, circuit, subsystem or system than consumes power delivered to it by a source of power.

Load-bearing Wall: A strong wall capable of supporting weight.

Lockout: A condition in which a control system prevents further operation of an appliance until a malfunction is corrected and the system reset manually.

Lookout: A short piece of lumber used to support the overhanging portion of a roof.

Loose Butt Hinge: A butt hinge in which one leaf may be lifted from the other. A hinge having a single knuckle on each half, one of them with the pin and the other with a corresponding hole, permitting separation of the two parts.

Loose Fill Insulation: An insulation which may be fibrous, granular, or powdered.

Louver: An opening with a series of horizontal slats so arranged as to permit ventilation but to exclude rain, sunlight, or vision.

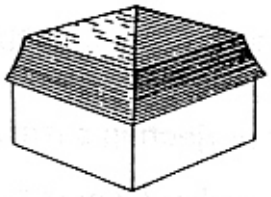
Low E: Short for "low emission" which means the characteristic of a metallic glass coating to resist the flow of radiant heat.

Low-flow Showerhead: A showerhead with a maximum flow of three gallons per minute.

Make-up Air: Air supplied to a space to replace air exhausted or otherwise removed from the space.

Manifold: The conduit of an appliance which supplies gas to the individual burners.

Mansard Roof: A roof with a double pitch on all sides, the lower slope being almost vertical, the upper slope similar to a hip roof pitch.



Mansard roof.

Masonry: 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, of similar mass.

Mastic: A pasty material used as a cement (as for setting tile) or a protective coating (as for thermal insulation or water-proofing).

Meeting Rail: The strip of wood or metal forming the horizontal bar which separates the upper and lower sash of a window (same as check rail).

Metal Lath: Sheets of metal that are slit and drawn out to form openings. Used as a plaster base for walls and ceilings and as reinforcing over other forms of plaster base.

Methane: A hydrocarbon gas with the formula CH4, the principal component of natural gas.

Mildew: A mold or discoloration on wood caused by parasitic fungi.

Milliampere: One thousandth of an ampere.

Milli-Volt: One thousandth of a volt.

Mineral Wool: A type of insulation produced by sending a blast of steam through molten slag or rock. (See Rock Wool)

Miter: The joining of two pieces at an evenly divided angle, as the joint in the corner of a picture frame.

Mod Kit: (Moderization Kit) Converts outdated mortise lockset doorways without filling holes left by removal of the old locks. The kit will contain a latch plate, strike plate, and front and back trim. Two sizes are usually available.

Module: A unit of measurement commonly established at 4". A complete part of a building assembled in a shop, such as a bathroom.

Mold: A fungus that grows on or in damp and decaying vegetable matter.

Molding: (1) A wood strip having a carved or projecting surface, used for decorative purposes. (2) The joint of two pieces at an angle that bisects the joining angle. For example, the miter joint at the side and head casing at a door opening is made at a 45° angle.

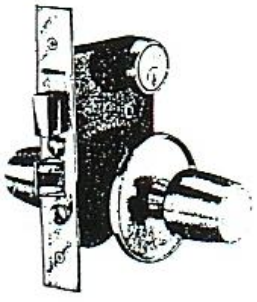
Monoxor: An instrument used to measure (CO) carbon monoxide.

Mop Board: Also called baseboard, a finishing board installed at the base of a wall next to the floor.

Mortar Mix: A mixture of cement, lime, and sand from which mortar can be made merely by adding water.

Mortise: A cavity cut in a piece of wood such as for a strike plate or hinge butt.

Mortise Lock: A lock made to fit into a mortise in the edge of a door.



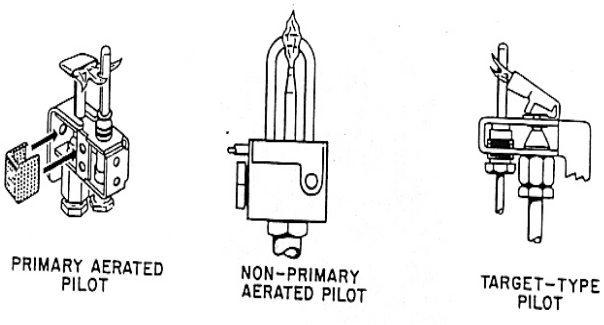
Mortise lock.

Mud: Joint compound, used to fill nail holes and to tape drywall joints, also used when referring to mortar in brick or block laying.

Mud-Sill: The lowest sill of a structure placed on the ground or foundation.

Mullion:	The division between multiple windows. (See Window Terminology)
Muntin:	The small members that divide glass in a window frame. (See Window Terminology)
Natural Draft:	The motion of flue products through an appliance generated by hot flue gases rising in a vent connected to the furnace flue outlet.
Natural Gas:	Any gas found in the earth, as opposed to gases which are manufactured.
Natural Ventilation:	Ventilation using only natural air movement, without air vents, fans, or other mechanical devices. Exchange of air between a home and the outside through cracks and holes in the envelope of the house.
NEC:	National Electrical Code
Negative Pressure:	When an area or room has less pressure than an area or room next to it. The area is sucking in air from its surrounding areas.
Oakum:	Oakum is made from Hemp and is used for caulking joints.
Ohm:	The unit of electrical resistance. A circuit component has a resistance of one ohm when one volt applied to the component produces a current of one ampere.
Orifice:	A small opening such as an opening at the end of a vent pipe. Limits the flow of gas into the burner before the burners.
Orifice Spud:	A removable plug or cap containing an orifice which permits adjustment of the gas flow either by substitution of a spud having a different size orifice or by motion of an adjustable needle into or out of the orifice.
OSHA:	Occupational Safety and Health Act
Particulate:	The small particles of suspended matter in air. Of most concern are those small enough to be breathed deep into the lung.
Parting Stop:	A small wooden piece used in the side and head jambs of a double hung window to separate upper and lower sash.
Pascal:	(1) Pressure equal to that of two inches of water column. (2) The same amount of pressure exerted by 15 full grown gnats farting at the same time.
Perm:	The water vapor permeance of a material. One perm is equal to one grain of water vapor per square foot hour per inch of mercury vapor pressure difference.

Pilot: A small flame which is used to ignite the gas at the main burner.



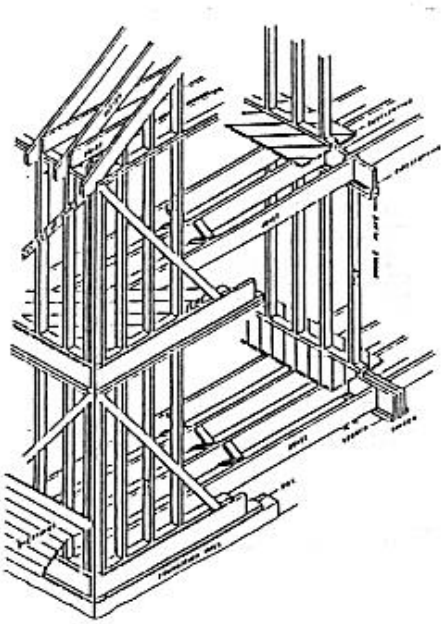
Typical automatic pilot burners.

Pitch of a roof: Slope of a roof; to figure the pitch of a roof, divide the total rise by the span. An example, if the total rise is 4 feet and the span is 12 feet then the pitch would be 4/16 or 1/4 pitch and the angle would be 25°.

Plasterboard: (See Drywall)

Plate: A horizontal structural member placed on top and bottom of the studs of a wall for the purpose of supporting joists, girders, rafters, etc. Also called wall plate, top and bottom plate, or rafter plate.

Platform Framing: In platform framing, the floors of a house are framed independently and are supported by studs of only one story in height.



Pocket Door: A door which slides into a pocket in the wall when it is in the open position.

Pointing:	Treatment of joints in masonry by filling with mortar to improve appearance or protect against weather.
Polyethylene Film:	Large plastic sheets used for a vapor barrier.
Port:	Any opening in a burner head through which gas or an air-gas mixture is discharged for ignition.
Positive Pressure:	When an area or room has a greater pressure than an area or room next to it. The area is ballooning or air is being forced out of it.
Post-and-Beam:	Wall construction in which beams are supported by heavy posts rather than many smaller studs.
Power Pile:	This system runs on milli-volts. It is characterized by a ribbed wire running to the pilot light, a thermostat without an anticipator, and a milli-volt gas valve. The system needs all the above in order to operate properly.
Prefabrication:	Construction of components such as walls, trusses, or doors before delivery to the building site.
Pressure Boundary:	The surface between inside and outside is sealed to reduce convective heat loss. Pressure boundaries and thermal boundaries must align in order for insulation to work right.
Pan:	Any device or material that creates a temporary pressure boundary across the inside of the pressure boundary and a duct termination (grill or register). This can be an actual pan or it can be made with masking tape, card board, or plastic.
Pressure Regulator:	A device for controlling and maintaining a uniform outlet gas pressure.
Primary Air:	The air introduced into a burner which mixes with the gas before it reaches the port or ports.
Primer:	(1) The first coat of paint in a paint job that consists of two or more coats. (2) The paint used for such a first coat.
Propane:	A hydrocarbon gas heavier than methane but lighter than butane. It is used as a fuel gas alone, mixed with air or as a major constituent of liquefied petroleum gases.
P/T Value:	A safety device for water heaters design to relieve the pressure or temperature before they can reach dangerous levels.
Rabbet:	A groove cut in the edge of a board, such as on the edge of a cabinet door.
Radiant Heating:	A method of heating, usually consisting of a forced hot water system with pipes placed in the floor, wall, or ceiling, or with electrically heated panels.
Radiation:	Heat transfer between a hot object and a cooler one without heating of the atmosphere between.

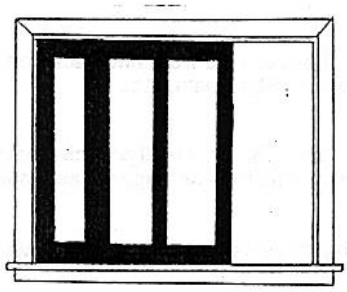
Rafter:	One of a series of structural member of a roof designed to support roof loads. The rafters of a flat roof are sometimes called roof joists.
Rail:	A horizontal strip of wood on a door, cabinet, or window, such as a meeting rail. (See Window Terminology)
Rake:	The overhang of the gable end of the roof.
Reflective Insulation:	Insulation that has a foil surface. The insulating value is determined by the number of its reflective surfaces and must be used with air spaces.
Reglazing:	Removing old window glazing and replacing it with new glazing compound to stop air leakage around window glass.
Regulator:	A devise that controls and maintains gas pressure. (See Pressure Regulator)
Relative Humidity:	The amount of moisture in the air and is expressed as a percentage.
Relay:	Used to control a load by opening or closing contacts through the action of a solenoid coil. Loads of 20 amps or more are usually called contacts.
Relief Opening:	The opening in a draft hood to permit ready escape to the atmosphere of flue products from the draft hood in event of no draft, back draft or stoppage beyond the draft hood, and to permit inspiration of air into the draft hood in the event of a strong chimney updraft.
Resistance Heater:	A heater that uses the heat produced by electrical resistance.
Resistor:	A device which acts to limit flow of electrical current.
Return Air:	Air returning through ductwork to be reheated by a forced-air furnace after circulation through the heated space (also known as cold air return).
Return Register:	A vent that returns cold air to the furnace to be warmed.
Ridge Board:	The board placed on edge at the ridge of the roof into which the upper ends of the rafters are fastened.
Rigid Foam Board:	A Styrofoam type insulation board made in rigid sheets of various widths, lengths, and thicknesses.
Right Hand Door:	If the door swings from you and the hinges are at your right hand, when you face the door from the outside, it is called a right-hand door. If the door swings toward you, then it is known as a reverse right-hand.
Rim Joist:	A board resting on the sill-plate running horizontally along the outside surface of the foundation (also called a "band joist").
Riser:	The upright piece of a stair step, from tread to tread.
Rock Wool:	A form of mineral fiber insulation made from super-heated limestone.
Roll Out:	(See Flame Roll Out)

Roof Cement:	Asphalt based compound used to repair roofs and stop leaks. Also called roofing tar.
Roof Sheathing:	The boards or sheet material fastened to the roof rafters.
Rough Opening:	The unfinished opening of a window or door.
Rot:	The decomposition of wood by certain types of fungi.
R-Value:	The measure of the ability of materials to stop heat loss.
Safe Lighting Valve:	A manual gas valve which permits gas flow to the pilot burner but not the main burner for safety when lighting the pilot.
Sash:	A frame containing one or more panes of glass. (See Window Terminology)
Sash Lock:	A device for holding two window sash together at the check rails. (See Window Terminology)
Scoring:	To mark across the grain of a piece of wood. For the purpose of making the surface rough enough to make it a firmer joint when glued.
Scuttle Hole:	A small opening to the attic, the crawlspace, or the plumbing pipes.
Secondary Air:	Combustion air externally supplied to a burner flame at the point of combustion.
Shake:	A thick hand split shingle, usually edge-grained.
Sheathing:	Usually wood boards or plywood used over studs or rafters of a structure.
Shim:	Thin tapered piece of wood used for leveling or tightening a stair or other building element.
Shingles:	Roof covering of asphalt, asbestos, wood, tile, slate, or other materials cut to stock lengths, widths, and thickness. (See Asphalt Shingles, Asbestos Shingles, and Shakes)
Shiplap:	Boards with rabbet edges so that when placed next to another shiplap board the edges will be overlapped.
Siding:	The finish covering of the outside wall of a frame building, whether made of horizontal weather boards, vertical boards with battens, shingles, or other materials.
Sill:	The member forming the lower side of an opening, as a door sill, window sill, etc. (See Window Terminology)
Sill Plate:	The lowest member of the frame of a structure, resting on the foundation and supporting the floor joists or the uprights of the wall.
Skirting:	Material used to enclose the crawlspace under a house or mobile home.

Skylight: A window installed in a roof or ceiling for admitting sunlight.

Slab: Concrete floor placed directly on earth or a gravel base and usually about four inches thick.

Sliding or Slider Window: A window in which the sash fit into a track at the top and bottom and is opened by sliding it from one side to another.



SLIDING

Sling Psychrometer: An instrument used to measure the % of relative humidity.

Slope: The incline of the roof expressed as a ratio between a unit run (12") and a unit rise. An example of this would be the roof rises 4" per 12" of run expressed as 4/12 slope.

Soffit: Usually the underside of an overhang cornice. Also the box area over kitchen cabinets.

Soffit Chute: An insulation damning material made of cardboard or Styrofoam and installed between two rafters at the wall plate to allow air circulation to and from the soffit vents.

Soffit Vent: A vent installed in the underside of a roof overhang (soffit) to allow ventilation of the attic.

Soft Flame: A flame partially deprived of primary air such that the combustion zone is extended and inner core is ill-defined.

Soil Vent: The portion of a soil stack that is above the highest fixture waste connection to it.

Solenoid: A coil of wire which creates a magnetic field when electricity flows through it, and hence tends to pull a movable iron core placed within the coil.

Soleplate: The lowest portion of a wall which rests on the rough floor that the studs are nailed to.

Solid Core Door: A door which has no voids between the front and back veneers. Can be filled with wood, particle board, Styrofoam, etc.

Soot: A black substance, mostly consisting of small particles of carbon, which can result from incomplete combustion and appear as smoke.

Spackle: A patching plaster for taping sheet rock joints. Also known as joint compound.

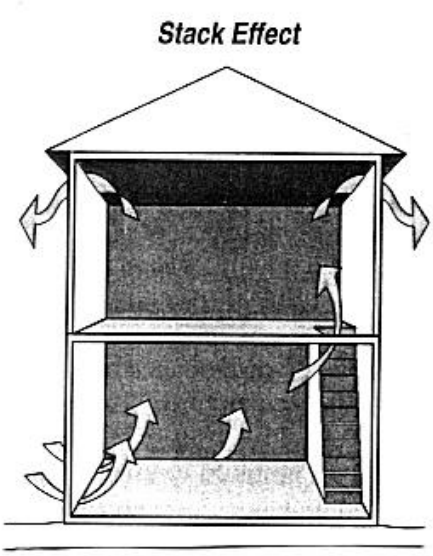
Span: The distance between one rafter tail and the other rafter tail. The distance between one exterior wall and the opposing wall which will be span by one pair of rafters.

Spark Ignition: The flame for the pilot burner is established through a high voltage spark when heat is called for.

Spillage: Combustion products flowing from the appliance air openings or draft hood relief openings due to a malfunction of the venting system.

Split Level: A house which in one part is one story and in another adjacent part a two story.

Stack Effect: In a leaky home, as warm air rises and escapes through bypasses into the attic and out the attic through roof vents, it pulls replacement air into the house through holes and cracks from the lowest portion of the home. Also known as the chimney effect.



Static Pressure: The pressure exerted by a motionless gas.

Steady State: The condition that exists when temperatures have stabilized throughout the heater and distribution system.

Steady State Efficiency (SSE): SSE is the difference between the total amount of heat released by the fuel and the % lost up the chimney with the vent gases. SSE = 100% - %

	on cycle stack loss. The determining factors are net stack temp (flue gas temp - ambient temp) and the O2 or CO2 content of the fuel gases.
Stile:	A vertical piece of wood in the edge of a door or window, also vertical members of cabinet facings.
Storm Windows:	Windows, usually contained in an aluminum frame, which are attached to the exterior casing or blind stops of primary windows to reduce heat loss and air infiltration.
Strap Hinge:	A metal hinge where the leaves narrow from the pin out toward the end of the hinge.
Strike Plate:	A piece of metal fastened to the door jamb that the bolt of the lock strikes against.
Stucco:	An exterior wall finish made of Portland cement, sand, and a small amount of lime (concrete).
Subcontractor:	A contractor who has contracted to do work for another contractor.
Subfloor:	Usually plywood sheets that are nailed directly to the floor joists and receive the finish flooring.
Stud:	One of a series of slender wood or metal vertical structural members placed as supporting elements in walls and partitions.
Sump:	A pit in the basement in which water collects to be pumped out with a sump pump.
Suspended Ceiling:	A ceiling that is hung below the structural ceiling. Also known as a drop ceiling.
Sweating:	Moisture from condensation on a cool surface.
Sweep:	A strip of metal and vinyl or rubber installed at the bottom of a door to stop infiltration of cold air from entering under the door.
T Hinge:	A type of hinge that is shaped like a T and is mainly used on the outside of such things as barn doors and gates.
Therm:	A unit of heat energy equal to 100,000 Btu.
Thermal Boundary:	The surface between inside and outside that we insulate to reduce conductive heat loss.
Thermal Unit:	A unit of measurement used as a standard of comparison of other quantities of heat such as Btu. (British thermal unit)
Thermocouple:	A device consisting of two wires or strips of dissimilar materials which are joined together at one end (hot junction). When this hot junction is heated, the thermocouple produces a DC voltage across the other two ends (cold junction).

Thermostat: An electrically operated instrument which automatically controls the operation of a heating or cooling system responding to the changes in temperature.

Transformer: A set of coils wound on an iron core in which a magnetic field couples energy between two or more coils or windings.

Threshold: A piece of wood or metal, usually with a rubber or vinyl bulb installed on the sill in such a way that allows the door to just touch the bulb when it is closed causing it to stop infiltration.

Toe Nailing: Driving a nail at a slant with the initial surface in order to achieve better bond with the second member.

Tongue-and Groove: A method of joining stock (especially flooring), with one piece having a rib or tongue which fits into a groove in the other piece.

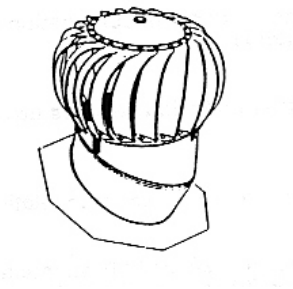
Transformer: An electrical device which, by electromagnetic induction, transforms AC power in one circuit to another circuit(s), usually at different current and voltage values.

Tread: The horizontal board in a stairway on which the foot is placed.

Trim: The finish materials in a building, such as molding, applied around openings (window trim, door trim) or at the floor and ceiling of some rooms (baseboards, cornice, and other moldings).

Truss: A frame or jointed structure designed to act as a beam of long span, while each member is usually subjected to longitudinal stress only, either tension or compression.

Turbine Vent: A roof vent that is turned by outside air and draws the heat from the attic.



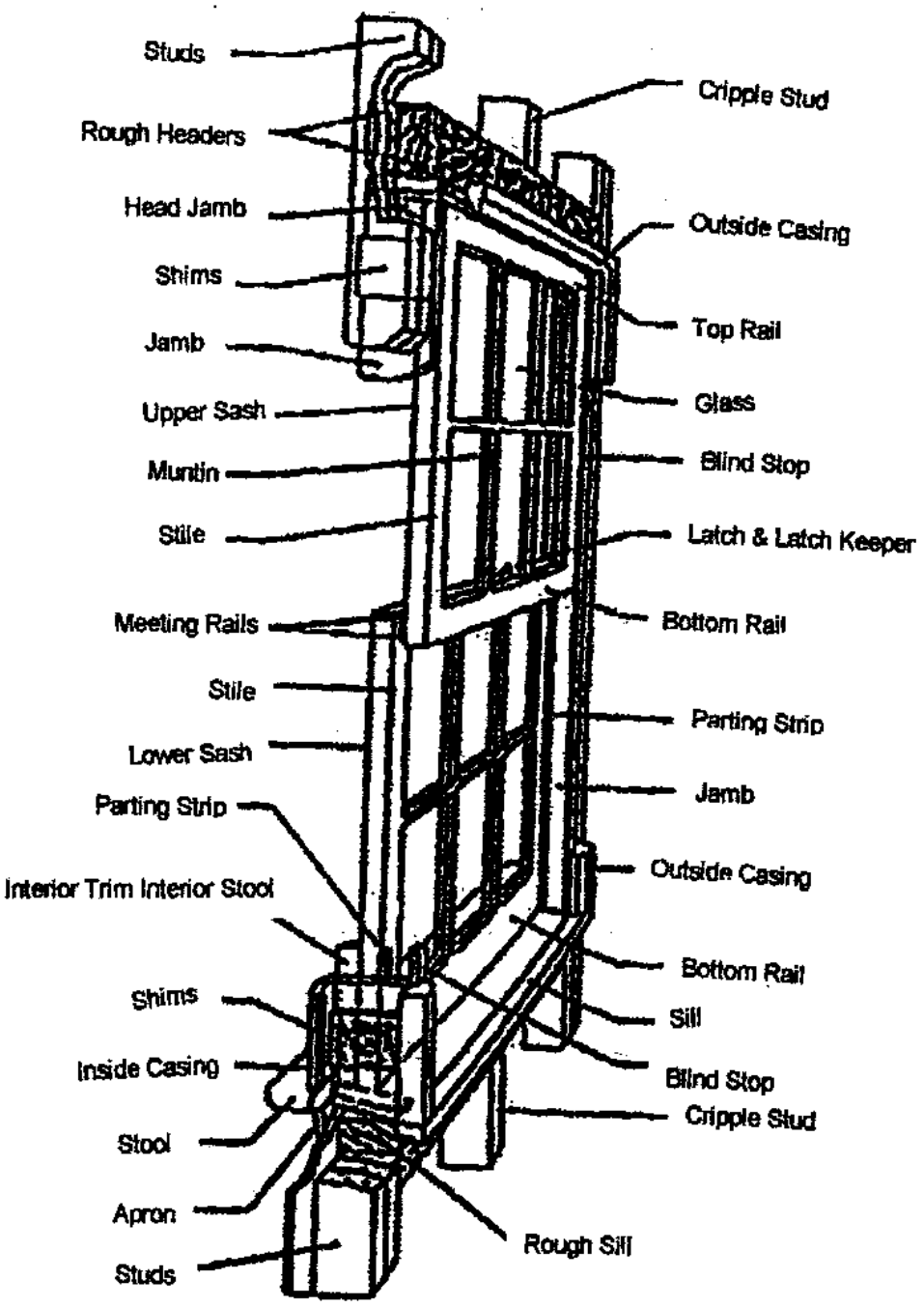
Two Stage Pilot: A pilot ignition system whereby a small standing pilot is used to light a larger pilot which is cycled by the thermostat so gas flow control to the main burner is exercised by the automatic pilot valve.

Unconditioned Space: Any space not served by a heating or cooling system, e.g., crawlspaces, attics, and basements.

U-Value:	The U-Value of a building section is a measure of how well it transmits heat. The lower the U-Value, the less heat is conducted.
Valley:	The internal angle formed by the junction of two sloping sides of a roof.
Vapor Barrier:	A material used to retard the flow of vapor or moisture into walls and thus to prevent condensation within them. The vapor barrier must be installed on the warm side of the wall.
Veneer:	A thin sheet of hard wood used to cover doors, lesser grade of wood, or particle board to make it look like a thick piece of hard wood.
Vent Connector:	The vent pipe that runs from the furnace to the chimney.
Vent Damper:	A device intended for installation in the venting system, in the outlet of or downstream of the appliance draft hood, of an individual automatically operated fuel-gas burning appliance and which is designed to automatically open the venting system when the appliance is in operation and to automatically close of the venting system when the appliance is in a standby or shutdown condition.
Vent Pipe:	A pipe which allows gas to escape from plumbing systems.
Ventilation:	The free circulation of air in a room or building. The process of changing the air in a room by either natural or artificial means.
Venturi:	A section in a pipe or a burner body that narrows down and then flares out again.
Vermiculite:	Mica which is expanded by heat and used for insulation.
Vertical Siding:	A type of siding which comes in 4'x8' or 4'x9' sheets and has grooves or can have battens installed on it to make it look like 1"x12' boards.
Vestibule:	A small entrance room at the outer door of a building.
Voltage (or Volt):	The unit of electromotive force that causes current when included in a closed circuit. One volt causes a current of one ampere through a resistance of one ohm.
Voltage Drop:	The difference in potential between two points caused by a current through an impedance or resistance.
V Seal:	A V shaped weather stripping made of plastic (sometimes metal) for weatherstripping doors and windows.
Wainscot:	A wall covering for the lower part of an interior wall such as wood paneling.
Water Column:	Abbreviated as W.C. A unit used for expressing pressure. One inch water column equals a pressure of 0.578 ounces per square inch.
Watt (W):	The unit of electrical power in joules per second, equal to the voltage drop (in volts) times the current (in amperes) in a resistive circuit.
Weatherization	

Materials:	Items intended primarily to improve the heating or cooling efficiency of a dwelling unit. Weatherization materials include, but are not limited to: ceiling, wall, floor, and duct insulation; vapor barrier; storm windows and doors; items to improve attic ventilation; skirting; and caulking and weather-stripping.
Weatherstrip:	A narrow or jamb-width sections of thin metal, wood, plastic, foam, felt, or other material that prevents infiltration of air and moisture around windows and doors. Compression weatherstripping prevents air infiltration, provides tension, and acts as a counter balance.
Weep Hole:	Small holes at the bottom of storm windows which allow moisture to escape, thus preventing the sill from rotting.
Whole-House Fan:	A fan, usually mounted in the ceiling, that ventilates the entire house and exhausts air out into the attic.
Window Apron:	A piece of trim installed under the window stool to conceal the rough edge of plaster and subsill. (See Window Terminology)
Window Pull:	A “U” shaped handle mounted on a window sash to help open and close the lower sash. (See Window Terminology)
Window Sash:	The window frame in which the glass is mounted with push points and glazing. (See Window Terminology)
Window Sill:	The bottom portion of the window frame. (See Window Terminology)
Window Stool:	The horizontal trim at the bottom of the window next to the sash. (See Window Terminology)
Window Stop:	On the interior side of a window, a wooden strip which holds the sash in position in the frame. (See Window Terminology)

Window Terminology:



Worst Case Scenario: Setting up the house to make drafting of the furnace, water heater and other appliances the most difficult. This is done by running exhaust equipment and having doors closed.

Zone: Refers to the building cavity or section which is between the inside and outside surfaces of the series leak. Examples include attics, basements, garages, etc. A) House Zone refers to the surface or interface between the house and zone (or a pressure measurement across this surface). Examples include the top floor ceiling, the basement ceiling and the house/garage wall. B) Zone Outside refers to the surface or interface between the zone and the outside (or a pressure measurement across this surface). Examples include the roof, basement perimeter and garage outside walls.