

A

Abbreviations

a	acre, ampere	Actl	actual
A	area, area square feet, ampere	a.d.	air-dried
A&E	architect-engineer	AD	access door, air-dried, area drain, as drawn
AAMA	Architectural Aluminum Manufacturers Association	ADA	Americans with Disabilities Act
AASHTO	American Association of State Highway and Transportation Officials	ADAAG	Americans with Disabilities Act Accessibility Guidelines
ABC	aggregate base course, Associated Builders and Contractors	ADD	addendum (on drawings), addition (on drawings)
ABS	acrylonitrile butadiene styrene, asbestos-bonded steel	Addit	additional
ABT	air blast transformer, about	ADF	after deducting freight (used in lumber industry)
ac, a-c, a.c.	alternating current	ADH	adhesive
a.c.	asphaltic concrete (a.c. paving)	ADI	after date of invoice
AC	air conditioning, alternating current (on drawings), armored cable (on drawings), asbestos cement	adj	adjacent, adjoining, adjust, adjustable
ACB	asbestos-cement board, air circuit breaker	ADS	automatic door seal
ACC	accumulator	af	audio frequency
Access.	accessory	AFE	Association for Facilities Engineering (formerly the American Institute of Plant Engineers)
ACD	automatic closing device	AFL-CIO	American Federation of Labor and the Committee for Industrial Organization
ACEC	American Consulting Engineers Council	AFUE	Annual fuel utilization efficiency
ACGIH	American Conference of Governmental Industrial Hygienists	AG	above grade
ACI	American Concrete Institute, Association of Construction Inspectors	AGA	American Gas Association
ACM	asbestos-containing material, asbestos-covered metal	AGC	Associated General Contractors
ACS	American Ceramic Society	Agg, Aggr	aggregate
ACSR	aluminum cable steel reinforced, aluminum conductor steel reinforced	AGL	above ground level
Acst	acoustic	AH, A HR, amp hr	ampere-hour
		AHERA	Asbestos Hazard Emergency Response Act
		AHU	air-handling unit
		AI	Asphalt Institute

AIA American Institute of Architects, Asbestos Information Association

AIC ampere interrupting capacity

AIEE American Institute of Electrical Engineers

AIMA Acoustical and Insulating Materials Association

AISC American Institute of Steel Construction

AISE Association of Iron and Steel Engineers

AISI American Iron and Steel Institute

AITC American Institute of Timber Construction

AL, alum aluminum

Allow, ALLOW allowance

ALM alarm

ALS American Lumber Standards

alt altitude

ALT alternate

ALTN alteration

ALY alloy

AM ante meridiem

AMB asbestos millboard

AMD air-moving device

amp, Amp ampere

ANFO ammonium nitrate fuel oil mix

ANL anneal

Anod anodized

ANSI American National Standards Institute

AP access panel

APA The Engineered Wood Association (formerly the American Plywood Association)

APC acoustical plaster ceiling, American Plastics Council

APF acid-proof floor

API American Petroleum Institute

APPA The Association of Higher Education Facilities Officers (formerly the Association of Physical Plant Administrators)

Appd approved

Approx approximate

APR air-purifying respirator

Apt apartment

APW Architectural Projected Window

AR as required, as rolled

ARC W, ARC/W arc weld

ARS asbestos roof shingles

ART artificial

AS automatic sprinkler

ASA American Standards Association

asb asbestos

ASBC American Standard Building Code

asbe asbestos worker

ASC asphalt surface course

ASCE American Society of Civil Engineers

ASCII American Standard Code for Information Interchange

ASEC American Standard Elevator Codes

ASES American Solar Energy Society

ASHRAE American Society of Heating, Refrigeration, and Air-Conditioning Engineers

ASIS American Society for Industrial Security

ASME American Society of Mechanical Engineers

asph asphalt

ASR automatic sprinkler riser

ASSE American Society of Sanitary Engineering

ASTM American Society for Testing and Materials

AT asphalt tile, airtight

ATB asphalt-tile base

ATC acoustical tile ceiling; architectural terra-cotta, automatic temperature control

ATF asphalt-tile floor

atm atmosphere, atmospheric

aux auxiliary

av, ave, avg average

A/W all-weather

AW actual weight

AWEA American Wind Energy Association

AW&L all widths and lengths

AWG American wire gauge

AWI Architectural Woodwork Institute

AWPI American Wood Preservers Institute

AWS American Welding Society

AWWI American Wood Window Institute

Definitions

abaciscus, abaculus 1. A tessera or small square stone used in mosaic tile. 2. A small abacus.

abamurus A masonry buttress for the support of a wall.

abandonment 1. To surrender the right or claim of interest without specifically transferring it. 2. The act of deserting one's obligations under a contract frequently manifested by removing personnel, materials, and equipment from the job site.

abate 1. To cut away in stone or to beat down on metal in order to create figures or a pattern in relief. 2. To reduce or decrease concentrations of pollutants.

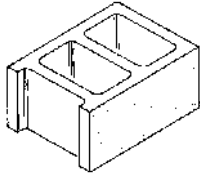
abatement 1. The encapsulation or removal of building materials containing pollutants (such as lead or asbestos) to prevent the release of or exposure to fibers. 2. In lumber industry, the amount of wood lost as waste during the process of sawing or planning.

abatvent A wall louver that restricts wind from entering a building, but admits light and air.

abatvoix An acoustical reflector for a single voice, such as behind and over a church pulpit.

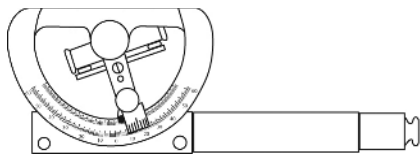
ABC extinguisher A fire extinguisher suitable for use on type A, B, and C fires.

A-block A hollow masonry unit with one closed end commonly used at wall openings.



A-block

Abney level A handheld level used for measuring elevations and vertical angles.



Abney level

above finished floor Datum or benchmark for measuring the height above a floor, abbreviated as AFF.

above-grade subfloors A floor above ground level, but with no headroom below.

abrade To scrape or wear away a surface by friction or striking.

Abrams' law The rule stating that with given materials, curing, and testing conditions, concrete strength is inversely related to the ratio of water to cement. Low water-to-cement ratios produce high strengths.

abrasion resistance index A comparison of the abrasion resistance of a given material to that of rubber. The index is applied principally to aggregate handling equipment.

abrasive 1. A hard material used for wearing away or polishing a surface by friction. 2. The material that is adhered to or embedded in a surface such as sandpaper or a whetstone.

abrasive blasting A method of cleaning surfaces with a high-pressure stream of air and an abrasive material such as sand or steel grit.

abrasive floor A floor with an abrasive adhered to or embedded in the surface to provide traction and prevent slipping.

abrasive floor tile Floor tile with an abrasive adhered to the surface.

abrasive nosing A strip of anti-skid abrasive adhered to or attached to the nosing of a stair tread.

abrasive stair tread A stair tread with an abrasive surface.

abrasive terrazzo A terrazzo floor with an abrasive surface rather than a high polish.

abreuvour The mortar joint between masonry units.

absorbed moisture Moisture that has been absorbed by a solid such as masonry.

absorbent 1. A material that has an affinity for certain substances and attracts these substances from a liquid or gas with which it is in contact, thus changing the physical and/or chemical

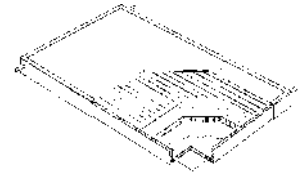


ABC extinguisher

properties of the material. 2. A substance that attracts and holds large quantities of liquid.

absorber 1. A device containing liquid for the absorption of vapors. 2. In a refrigeration system, the component on the low-pressure side used for absorbing refrigerant vapors.

absorber plate That part of a solar energy system that collects the solar energy.



absorber plate

absorption 1. The process by which a liquid is drawn into and fills permeable pores in a solid body, increasing its weight. 2. The process by which solar energy is collected on a surface. 3. The increase in weight of a porous object resulting from immersion in water for a given time, expressed as a percent of the dry weight.

absorption air conditioning An air cooling and dehumidifying system powered by solar or other energy collected on absorbing plates.

absorption bed or field (disposal field, drain field) A network of trenches that may contain coarse aggregate and distribution pipe and is used to distribute septic tank effluent into the surrounding soil.

absorption chiller Heat-operated refrigeration unit that uses an absorbent (lithium bromide) as a secondary fluid to absorb the primary fluid (water), which is a gaseous refrigerant in the evaporator. The evaporative process absorbs heat, thereby cooling the refrigerant (water), which in turn cools the chilled water circulating through the heat exchanger.

absorption loss 1. Water losses that occur until soil particles are sufficiently saturated, such as in filling a reservoir for the first time. 2. Water losses that occur until the aggregate in a concrete mix is saturated.

absorption rate (initial rate of absorption) 1. The weight of water absorbed by a brick or concrete masonry unit that is partially immersed in water for one minute, expressed in grams or ounces per minute. 2. The annual rate at which new housing or leasable space is being sold or leased. The absorption rate of a prior year often is used to predict the needs for next year. (A gross absorption rate measures the consumption of new housing/space only.)

absorption-type liquid chiller A system using an absorber, condenser, and associated accessories to cool a secondary liquid.

ABS plastic pipe Acrylonitrile-butadiene-styrene plastic pipe, which is resistant to heat, impact, and chemicals.

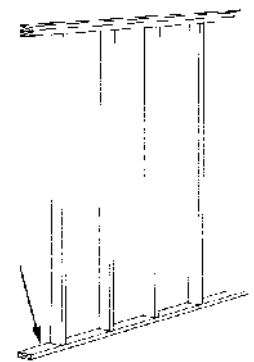
abstract of bids A list of the bidders for a sealed bid procurement indicating the significant portions of their bids.

abstract of title A deed for a parcel of land showing encumbrances and a history of ownership.

abut To join or touch at one edge or end without overlapping.

abutment (butment) 1. The structure that supports the end of a bridge or arch or that anchors the cables of a suspension bridge. 2. The surface at which one member meets another.

abutment piece In structural framing, the horizontal member that distributes the load of vertical members and is thus the sole plate of a partition.



abutment piece

A

abuttals The properties adjacent to a parcel of land or body of water and which mark the boundaries of that land or water body.

abutter A property owner contiguous or within a specified distance from a parcel of land.

Accelerated Cost Recovery System (ACRS) A method of calculating depreciation of assets placed in service from 1980 to 1986 for federal income tax purposes. Replaced by the Modified Accelerated Cost Recovery System (MACRS) by the Tax Reform Act of 1986.

accelerated depreciation Asset depreciation at a faster rate than the straight-line method. Examples include the 200% or 150% declining balance methods.

accelerating admixture An admixture for hydraulic concrete that shortens setting time and inhibits early strength development.

accelerator An additive that, when added to paint, concrete, mortar, or grout mix, speeds the rate of hydration and thereby causes it to set or harden sooner.

accelograph An instrument used to measure displacement during an earthquake. Often installed in buildings to measure movement.

accent lighting Fixtures or directional beams of light arranged so as to bring attention to an object or area.

acceptance Compliance by an offeree with the terms and conditions of an offer.

acceptance, final (partial) The formal action by the owner accepting the work (or a specified part thereof), following written notice from the engineer that the work (or specified part thereof) has been completed and is acceptable subject to the provisions of the contract regarding acceptance.*

acceptance certificate A dated and signed document issued to a contractor by an owner certifying that all the work of a construction project is complete and in accordance with all provisions of the contract.*

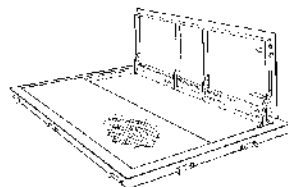
accepted bid The proposal or bid a contractor and an owner or owner's representative use as the basis for entering into a construction contract.

access 1. The means of entry into a building, area, or room.
2. A port or opening through which equipment may be inspected or repaired.

access connection A ramp or roadway for entering or exiting an arterial highway.

access control system Computerized building security equipment, such as badge readers, designed to protect against unauthorized entry into buildings or building zones.

access door or panel A means of access for the inspection, repair, or service of concealed systems, such as air-conditioning equipment.

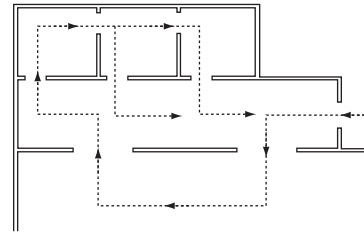


access door or panel

access flooring A raised flooring system with removable panels to allow access to the area below. This type of flooring is frequently used in computer rooms because it provides easy access to cables.

accessible That which is easily removed, repaired, or serviced without damaging the finish of a building.

accessible route A continuously unobstructed path connecting all accessible elements and spaces of a building or facility.



accessible route

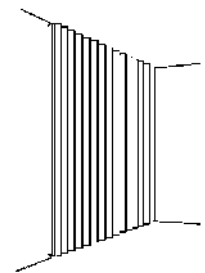
accessories In the placing of concrete, the items used to assemble scaffolding, shoring, and forms, other than the wales, frames, and the forms themselves.

accessory building A secondary building on the same lot adjacent to the main building.

access to the work The right of the contractor to ingress and egress, and to occupy the work site as required to reasonably perform the work described in the contract documents. An example of denial of access to the work would be on the segment of a sewer installation project where no easements or work limits are indicated, but the contractor is ordered, after contract award, to conduct operations within a narrow work corridor necessitating different or unanticipated construction methods (e.g., use of sheeting).*

acolade Ornamental treatment over an arch, doorway, or window formed by two ogee curves meeting in the middle.

accordion door A retractable door, usually fabric-faced, hung from an overhead track and folding like the bellows of an accordion.



accordion partition

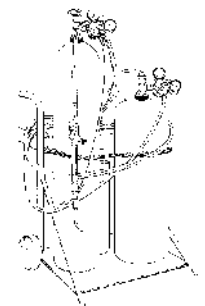
accordion partition A retractable partition having the same features as an accordion door.

accouplement 1. In architecture, the pairing of pilasters or columns, as in a colonnade or buttress. **2.** In carpentry, a tie or brace between timbers.

accumulator (surge drum, surge header) 1. A pressure vessel whose volume is used to maintain a constant pressure. **2.** In refrigeration, a storage chamber for low-side refrigerant.

acetone A highly flammable organic solvent used with lacquers, paint thinners, paint removers, and resins.

acetylene A carbon gas which, when combined with pure oxygen and ignited, produces an extremely hot flame used in gas welding and metal cutting.



acetylene torch

acetylene torch The torch used for welding and cutting. Contains compressed acetylene and oxygen.

AC generator A generator that produces alternating current.

achromatic color White, colorless light.

acid- and alkali-resistant grout or mortar A grout or mortar that is highly resistant to prolonged exposure to alkaline compounds, acid liquids, or gases.

acid etch (acidizing) A method of cleaning the latence from concrete by washing it with an acid solution and rinsing with water.

acid-proof floor A floor that resists deterioration when exposed to acid.

acid resistance A measurement of a surface's ability to resist the corrosive effect of acids.

acid-resistant brick Brick that resists deterioration caused by exposure to acid. This type of brick should be laid with acid-resistant mortar.

acid soil Soil with a pH value of less than 6.6.

acid steel Steel made with a silica flux or in a silica-lined furnace.

acorn nut Nut with hexagonal base and rounded top that encases the end of the screw.

acoustical A term used to define systems incorporating sound control.

acoustical barrier A building system that restricts sound transmission.

acoustical block (acoustic block) A masonry block with sound-absorbing qualities, usually defined in terms of its NRC (noise reduction coefficient) rating.

acoustical board A construction material in board form that restricts or controls the transmission of sound.

acoustical ceiling A ceiling system constructed of sound-control materials. The system may include lighting fixtures and air diffusers.

acoustical door A door constructed of sound-absorbing materials and installed with gaskets around the edges.

acoustical enclosure (acoustical booth, acoustical room) An enclosure constructed of acoustical materials for privacy in speaking, listening, and recording, as in a recording studio or a telephone booth.

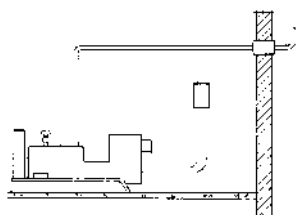
acoustical lining Insulating material secured to the inside of ducts to limit sound and provide thermal insulation.

acoustical materials Materials that absorb and isolate sound and reduce reverberation, including felts, tiles, boards, and plasters.

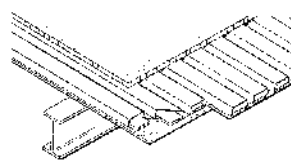
acoustical metal deck A metal decking that includes a sound-absorbing material installed at a small additional cost per square foot.

acoustical panel Modular units composed of a variety of sound-absorbing materials for ceiling or wall mounting.

acoustical reduction factor A value, expressed in decibels, that defines the reduction in sound intensity that occurs when sound passes through a material.



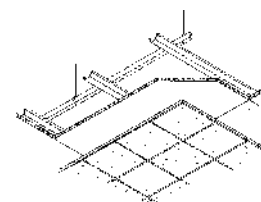
AC generator



acoustical metal deck

acoustical sprayed-on material A fibrous material with acoustical properties applied to a surface by spraying through a nozzle.

acoustical tile A term applied to modular ceiling panels in board form with sound-absorbing properties. This type of tile is sometimes adapted for use on walls.

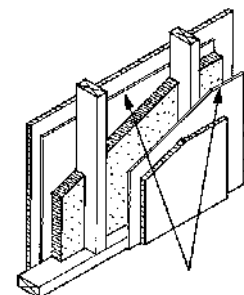


acoustical tile

acoustical transmission factor The reciprocal of the sound reduction factor. A measure of sound intensity as it passes through a material, expressed in decibels.

acoustical wallboard Wallboard with sound-absorbing properties.

acoustical window wall Double-glazed window walls with acoustical framing. This type of wall system is used particularly at airports.



acoustical wallboard

acoustic lining Insulating material secured to the inside of ducts to attenuate sound and provide thermal insulation.

acoustics 1. The science of sound transmission, absorption, generation, and reflection. 2. In construction, the effects of these properties on the acoustical characteristics of an enclosure.

acquiescence A term frequently used when owners of adjacent properties agree on a boundary between their properties, if the original boundary is difficult or impossible to establish.

acre A common unit of land-area measurement equal to 160 square rods, or 43,560 square feet.

acre foot A unit of volume measurement equal to one acre times one foot thick. The acre foot is used to measure the volume of water or ore deposits.

acrylic See **acrylic resin**.

acrylic fiber Fiber produced from polymerized acrylonitrile, a liquid derivative of natural gas. A tough economical fiber commonly used in commercial and residential carpets and draperies.

acrylic plastic glaze A clear plastic sheet that is bonded to glass and that increases the ability of the glass to resist breaking and shattering.

acrylic resin (acrylate resin) In construction, clear, tough, thermoplastic resin manufactured in sheet and corrugated form, used as an adhesive, and as the main ingredient in some caulking and sealing compounds.

action item An element of work, design, research, or other task to be completed before a specific date or time, such as the before a subsequent meeting of involved parties.

action level The point when a concentration of hazardous materials reaches a level where OSHA regulations dictate protective steps be taken.

activated sludge Sludge that has settled out of oxygenated sewage.

active earth pressure The horizontal component of pressure exerted on a wall by earth.

active leaf In a double-leaf door, the leaf to which the latching or locking mechanism is attached.

active solar energy system

A

active solar energy system A system that primarily collects and transfers solar energy using mechanical means that are not powered by solar energy.

active walls Building walls that act as a generator or collector of energy. An example is a double glass wall that collects solar energy and reflects excess heat when the desired interior envelope temperature has been reached. This combination reduces a facility's net heating and cooling load.

activity In critical path method (CPM) scheduling, a task or item of work required to complete a project. Also called *task*.



activity

activity arrow In arrow diagrams in critical path method scheduling, a graphic representation of an activity.



activity arrow

activity duration In critical path method scheduling, the estimated time required to complete an activity in time units (weeks, days, hours, etc.). There are three types of duration: original (or planned) duration, actual duration, and remaining duration. For in-progress activities, the completion duration is calculated by combining actual duration (so far) and remaining duration.

act of God An unforeseeable, inevitable event caused by natural forces over which an insurance policyholder has little or no control.

actual costs The actual expenditures incurred by a program or project.*

actual cost records Contemporaneous construction and accounting records detailing actual costs from a constructed project, including invoices, contracts, subcontracts, change orders, and applications for payment.*

actual damages Damages that can be assessed against an owner or contractor if either or both fail to perform their respective responsibilities and obligations as contained in the construction contract. Actual damages are considered economic (monetary) damages that can be clearly determined and proven, typically awarded by a court as the result of a lawsuit brought by one of the parties to the construction contract.*

actual dimension The real dimensional measurement of a piece of lumber, masonry unit, or other construction material.

actual finish date Date when work on an activity is substantially complete. Activity substantial completion is when only minor or remedial work remains and successor activities may proceed without hindrance from the predecessor's remaining work. It is not necessarily the last day work will be performed on that activity. The remaining duration of this activity is zero.*

actual start date Date when work on an activity actually started with intention of completing activity within the planned duration. The actual start date is not necessarily the first date work

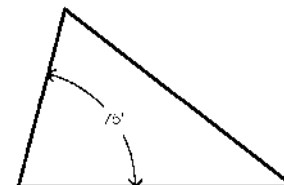
was performed on that activity. Interim starts and stops for an activity may show the need for splitting the activity into component parts.*

actuator In hydraulics, a motor or cylinder designed to convert hydraulic energy into mechanical energy.

acute angle An angle less than 90°.

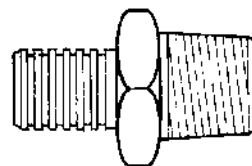
adapt To modify a building or space to make it suitable for new requirements or purposes.

adaptable building A building that can be easily updated or modified to meet changing needs or requirements.



acute angle

adapter Any device designed to match the size or characteristics of one item to those of another, particularly in the plumbing, air-conditioning, and electrical trades.



adapter

ADA Standards for Accessible Design As an adjunct to the Americans with Disabilities Act, a set of standards that establish minimum technical requirements for the design and construction of buildings and facilities. Their intent is to increase the level of accessibility in the built environment, in existing facilities as well as new construction and alterations.



ADA Standards for Accessible Design

addendum A document describing an addition, change, correction, or modification to contract documents. An addendum is issued by the design professional during the bidding period or prior to the award of contract, and is the primary method of informing bidders of modifications to the work during the bidding process. Addenda become part of the contract documents.

addition 1. An expansion to an existing structure, generally in the form of a room, floor, or wing. An increase in the floor area or volume of a structure.
2. A chemical added to cement at the time of its manufacture to help the process or to alter the cement's characteristics.



addition

additive A substance that is added to a material to enhance or modify its characteristics, such as curing time, plasticity, color, or volatility.

additive alternate A specific alternate option for construction specifications or plans that results in a net increase in the base bid.

address system An electronic audio system with a microphone and speakers installed for either fixed (permanent) or mobile use. Wiring for a permanent system should be done prior to any finish work.

addressable system An advanced fire alarm or security system that provides for easy monitoring, remote testing, and quick location of an alarm condition.

adhesion The binding together of two surfaces by an adhesive.

adhesion-type ceramic veneer Ceramic tile or veneer attached to a backing by mortar, grout, or adhesive only. No anchors are used.

adhesive Generally, any substance that binds two surfaces together. In construction, the term is used principally in the wallboard and roofing trades.

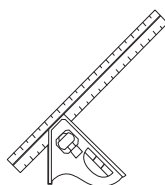
adiabatic process A thermodynamic process occurring in the absence of heat gain or heat loss.

adit 1. The entrance or approach to a building.
2. The entrance to a mine.

adjustable base anchor An attachment to the base of a door frame above a finished floor.

adjustable clamp A temporary clamping device that can be adjusted for position or size.

adjustable square (double square) A carpenter's tool used for marking and scribing lumber. An adjustable square usually incorporates a level bubble.



adjustable square (double square)

adjustable wrench A wrench with a jaw that can be adjusted to fit different size nuts or bolt heads.

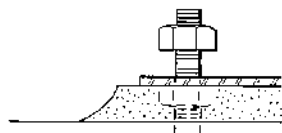


adjustable wrench

adjusted base cost The total estimated cost of a project after adding or deducting addenda or alternatives.

adjuster A representative of the insurance company who negotiates with all parties involved in a loss in order to settle the claim equitably. An adjuster deals with the policyholder, repair contractor(s), witnesses, and police (if necessary), and acts as a middleman between these parties and the insurance company.

adjusting nut A threaded nut used for alignment of an object. Often coupled with a locking nut to secure it in position.



adjusting nut

adjusting screw A screw used for alignment of an object. Often coupled with a locking nut to secure it in position.

adjustment The determination of: (a) the cause of a loss, (b) whether it is covered by the policy, (c) the dollar value of

the loss, and (d) the amount of money to which the claimant is entitled after all allowances and deductions have been made.

admixture An ingredient other than cement, aggregate, or water that is added to a concrete or mortar mix to affect the physical or chemical characteristics of the concrete or mortar. The most common admixtures affect plasticity, air entrainment, and curing time.

adobe Earthen, sun-cured brick. A relatively labor-intensive, but low-embodied energy material, adobe absorbs excess heat during hot days and releases it during cool nights, thereby moderating a building's internal temperature.

adobe brick A large, roughly formed, unfired brick made from adobe and straw.

adsorbed water Water that is held on the surface of materials by electrochemical forces. This water, such as that on the surfaces of aggregate in a concrete mix, has a higher density and thus different physical properties from those of the free water in the mix.

adsorbent A material that has the ability to extract certain substances from gases, liquids, or solids by causing them to adhere to its surface without changing the physical properties of the adsorbent. Activated carbon, silica gel, and activated alumina are materials frequently used for this application.

adsorption The process of extracting specific substances from the atmosphere or from gases, liquids, or solids by causing them to adhere to the surface of an adsorbent without changing the physical properties of the adsorbent.

ad valorem Latin for based on value. Real property taxes, as they are based on the value of real property, are an ad valorem tax. An ad valorem tax is levied in proportion to value.

advance payment A partial payment to a contractor made shortly after the contract is signed. Similar to a down payment.

advance payment bond The generic term for the assurance of performance provided by a contractor to an owner that any money advanced to the contractor will be properly used to pay for project costs.

advance slope method A method of placing concrete in which the sloped face of the fresh concrete moves forward as the concrete is placed.

advance waiver of liens A waiver of all the contractor's rights to file mechanic's or materialmen's liens against the owner for nonpayment for work performed. Such advance waiver may be a condition of the owner's contract.

advertisement for bids Published notice of an owner's intention to award a contract for construction to a constructor who submits a proposal according to instructions to bidders.

adz A long-handled tool with a curved blade set perpendicular to the handle. Used for dressing lumber.



adz

adz-eye hammer A claw hammer with a long eye for receiving the handle.

aerate To introduce air into soil or water, for example, by natural or mechanical means.

A

aeration The process of introducing air into a substance or area by natural or mechanical means.

aeration plant A sewage treatment plant in which air is introduced into the sewage to accelerate the decomposition process.

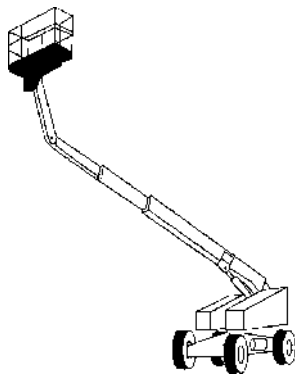
aerator A mechanical device that introduces air into a material such as soil, water, or sewage.

aerator fitting A pipe fitting used to introduce air into a flow of water.

aerial Pertaining to, caused by, or present in the air.

aerial ladder An extension ladder capable of reaching high places and often mounted on a vehicle such as a fire truck.

aerial lift A term commonly applied to mobile working platforms that are elevated hydraulically or mechanically.

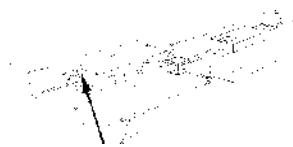


aerial lift

aerial survey A survey of the earth's surface based on aerial photographs and ground control points.

aerodynamic instability A harmonic motion occurring in a structure during high winds and endangering structural integrity. The term was used to define the failure of the Tacoma Narrows Bridge.

aerofilter A bed of coarse aggregate used for filtering sewage.



aerofilter

affidavit of noncollusion A sworn statement by the bidders on a project that the prices on their proposals were arrived at independently without consultation between or among them.

affinity A tendency for two substances to unite chemically or physically.

A-frame 1. A structural system or hoisting system with three members erected in the shape of an upright capital letter "A." 2. A building with a steep gable roof that extends to the ground.



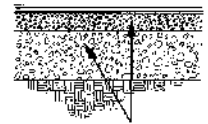
A-frame

afterfilter (final filter) In air conditioning, a filter located at the outlet end of the system.

age hardening A term used to describe a hardening process of metals at room temperature.

agent Under agency law, an agent is authorized by the principal to act on the principal's behalf. Generally, an agent's acts bind the principal as though the principal had acted directly.

aggregate Granular material such as sand, gravel, crushed gravel, crushed stone, slag, and cinders. Aggregate is used in construction for the manufacturing of concrete, mortar, grout, asphaltic concrete, and roofing shingles. It is also used in leaching fields, drainage systems, roof ballast, landscaping, and as a base course for pavement and grade slabs. Aggregate is classified by size and gradation.



aggregate

aggregate, abrasive An antiskid aggregate worked into the surface of a concrete floor.

aggregate bonding capacity The maximum total contract value that a bonding company will cover (in performance bonds) for all of a construction company's current contracts.

aggregate, coarse Aggregate that is larger than 1/8" and is retained on the No. 8 sieve.

aggregate, coarse-graded Aggregate with a continuous grading from coarse to fine, with a predominance of coarse particles.

aggregate, concrete The fine and coarse aggregate used in manufacturing concrete. Both are usually washed and graded.

aggregate, exposed A concrete surface with the aggregate exposed, formed by applying a retarder to the surface before the concrete has set, and subsequently removing the cement paste to the desired depth.

aggregate, fine Aggregate smaller than 1/8". Fine aggregate passes through the No. 8 sieve.

aggregate, heavyweight The aggregate produced from materials with high specific gravity, such as limonite, iron ore tailings, and magnetite.

aggregate interlock The term applied to a situation in which the aggregate from one side of a concrete joint projects between the aggregate of the other side of the joint, thus resisting shear.

aggregate, lightweight One of several materials used to decrease the unit weight of concrete, thereby reducing the structural load and the cost of the building. The materials most commonly used are perlite and vermiculite. The use of lightweight aggregate is costly, but sometimes necessary in construction.

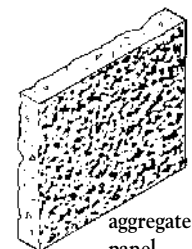
aggregate limit The maximum amount an insurance policy will pay for the sum of all personal injury and property damage claims that may arise during the term of the policy as the result of multiple occurrences. Legal defense costs may be excluded from this limit.

aggregate, masonry Washed sand used in a mortar mix.

aggregate, open-graded An aggregate in which a skip between the sieve gradations has been deliberately achieved so that the voids are not filled with intermediate-size particles.

aggregate panel A precast concrete panel with exposed aggregate.

aggregate, plaster Natural or manufactured washed sand used in a plaster mixture.



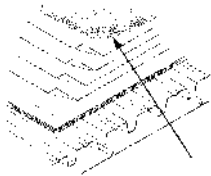
aggregate panel

aggregate, roof 1. The aggregate used for a tar-and-gravel application. 2. The ballast used for membrane-type roofing.



aggregate spreader A piece of equipment used for placing aggregate to a desired depth on a roadway or parking lot.

aggregate testing Any of a number of tests performed to determine the physical and chemical characteristics of an aggregate. Common tests are for abrasion, absorption, specific gravity, and soundness.



aggregate, roof

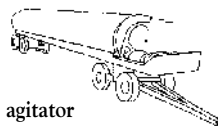
aggregate, well-graded An aggregate that incorporates sizes from the maximum to the minimum specified so as to fill most of the voids. This type of aggregate is used for asphaltic concrete mixes and for base courses.

aggressive sampling During removal of hazardous materials, the agitation of air to test success of remediation effort.

aging 1. A method of classifying individual receivables by age groups, according to the time elapsed from the date due. 2. A process used to make building materials appear old or ancient. 3. The chemical and physical changes in a material incurred by the passage of time.

agitation The rotation of, or moving of blades through, a drum containing concrete or mortar to prevent segregation or setting of mixture.

agitator A mechanical device used to maintain plasticity and to prevent segregation, particularly in concrete and mortar.



agitator

A-grade wood 1. A plywood surface that is smooth and paintable, and considered the best standard veneer. May be composed of more than one piece well jointed together. 2. Plywood designation A-face, best veneer grade.

agreement 1. A promise to perform, made between signatories to a document. 2. In construction, the specific documents setting forth the terms of the contracts among architect, owner, engineer, construction manager, contractor, and others.

agreement form A standard printed form used by the signatories to an agreement, with blank spaces to fill in information pertinent to a particular contract.

agricultural lime A granular hydrated lime used for soil conditioning.

air admittance valve A one-way valve that allows air to enter into a plumbing drainage system if negative pressure in the piping occurs.

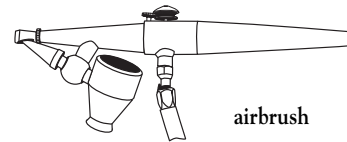
air balancing The process of adjusting a heating or air-conditioning duct system to provide equal distribution to all areas.

air barrier A component of the building envelope system that prohibits air leakage into a building and reduces the risk of condensation buildup. House wrap and fluid-applied air barriers are examples.

airborne transmission A term that refers to sound traveling through air in a structure.

air break A piping arrangement in which a drain from a fixture appliance or device discharges through an open connection into a receptacle or interceptor. Used to prevent backflow or back siphonage.

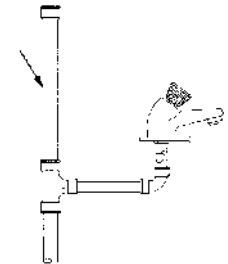
airbrush A device with a nozzle for applying paint with compressed air.



airbrush

air chamber In water piping, a vertical pipe containing entrapped air to absorb the pressure shock when a valve is closed suddenly.

air change The volume of air in an enclosure that is being replaced by new air. The number of air changes per hour is a measure of ventilation.

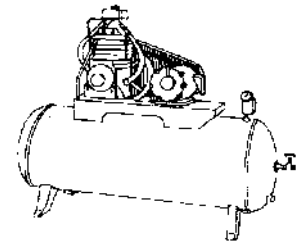


air chamber

air circuit breaker A breaker that discontinues current flow in air.

air cleaner A device, often hung from the ceiling, for removing impurities from the air. The device may have a mechanical or electrostatic filter.

air compressor A machine that extracts air from the atmosphere and compresses it into a holding chamber. The most common use of compressed air is for the operation of pneumatic tools. Air compressors are classified by the number of CFM (cubic feet per minute) of compressed air they can produce.



air compressor

air-conditioner A mechanism that controls temperature, humidity, and/or the cleanliness of air within an enclosure.

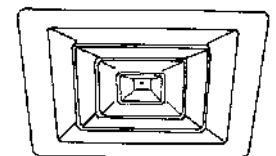
air-conditioning system An air treatment system designed to control the temperature, humidity, and cleanliness of air and to provide for its distribution throughout the structure.

air content The volume of air present in a concrete or mortar mix, expressed as a percentage of the total volume. A controlled air content prevents concrete from cracking during the freeze/thaw cycle.

air curtain (air wall) A narrow stream of air directed across an opening to deter the transfer of hot or cold air, contaminants, and insects from one side to the other.

air density The weight per unit volume of air, expressed in pounds per cubic foot.

air diffuser An outlet in an air-supply duct for distributing and blending air in an enclosure. Usually, a round, square, or rectangular unit mounted in a suspended ceiling.

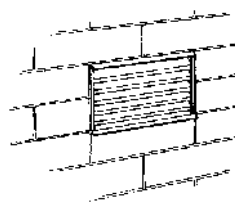


air diffuser

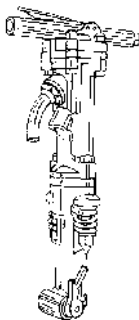
air-distributing ceiling

A

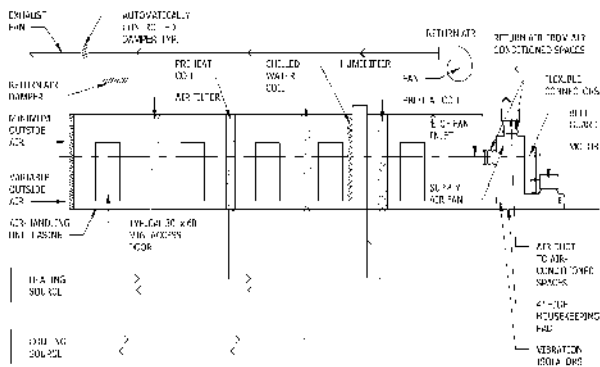
- air-distributing ceiling** A suspended ceiling system with small perforations in the tiles for controlled distribution of the air from a pressurized plenum above.
- air door** An invisible barrier of high-velocity air that separates different environments. Sometimes called *air walls*, air doors are typically used for garage-type or larger doors to reduce infiltration and ex-filtration.
- air drain** An empty space left between a foundation wall and a parallel wall to prevent the fill from lying directly against the foundation wall.
- air-entraining agent** An admixture for concrete or mortar mixes that causes minute air bubbles to form within the mix. Air entrainment is desirable for workability of the mix and prevention of cracking in the freeze/thaw cycle.
- air-entraining hydraulic cement** Hydraulic cement containing an air-entraining addition in such amount to cause the product to entrain air in mortar within specified limits.
- air escape** In plumbing, a valve for automatically discharging excess air from a water line.
- air exchange rate** Refers to the rate at which outside air replaces indoor air in a building, expressed in either air changes per hour (ACH) cubic feet per minute (CFM).
- air gap** In plumbing, the distance between the outlet of a faucet and the overflow level of the fixture.
- air grating** A fixed metal grating, particularly in masonry foundation walls, for ventilation.
- air hammer** A portable, pneumatic percussion tool used for breaking and hammering.
- air-handling troffer** A ceiling lighting unit that incorporates an air diffuser.
- air-handling unit (AHU)** The traditional method of heating, cooling, and ventilating a building by which single- or variable-speed fans push air over hot or cold coils, then through dampers and ducts and into one or more rooms.



air grating



air hammer

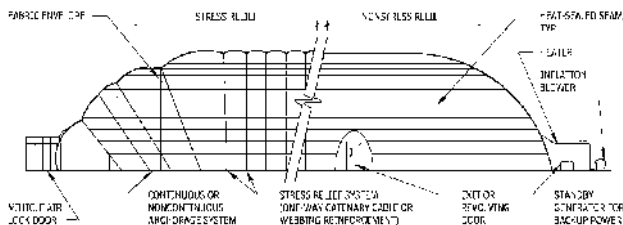


air-handling unit (AHU)

- air leakage** The air that escapes from a system or enclosure through cracks, joints, and couplings.
- air lift** A device that uses compressed air to lift slurry or dry powder through piping.
- airlock** **1.** An airtight chamber such as that used in tunnel and caisson excavation. **2.** A system of double doorways permitting entry and exit while preventing airflow from one area to another, as from a contaminated area to an uncontaminated area. **3.** An entrance room between areas of different pressures, such as the entrance to an air-supported structure. **4.** In plumbing, air trapped in a system and preventing flow.
- air makeup unit** A system for introducing fresh, conditioned air into an enclosure from which air is being exhausted.
- air-mixing plenum** In an air-conditioning system, a chamber in which fresh air is mixed with recirculated air.
- air monitoring** In asbestos abatement, a procedure used to determine the fiber content in a volume of air over a measurable period of time.
- air permeability test** A procedure for determining the fineness of powdered material such as cement.
- air pocket** A void filled with air, such as in a water piping system or in a concrete form when placing concrete.
- air purge valve** A device for eliminating trapped air from a piping system.
- air-purifying respirator** A device that removes pollutants from a contaminated atmosphere as a person breathes.
- air receiver** The air storage tank on a compressor.
- air regulator** An instrument for regulating the flow or pressure of air in a system.
- air release valve** A valve that releases air from a water pipe or fitting.
- air rights** The exclusive right of real property owners to possess the airspace above their land, as long as they comply with building and zoning laws.
- air separator** A pneumatic device that uses air to sort materials by size.
- air shaft (air well)** A roofless enclosed area within a building, admitting light and ventilation.
- air splitter** Device inside an air duct that divides a single air stream into several streams.
- air-supported structure** A nonrigid structure supported by atmospheric pressure that is slightly higher inside the tank than outside. The difference in pressure is created by fans.



air-purifying respirator



air-supported structure

air terminal The top of a lightning protection system on a building.

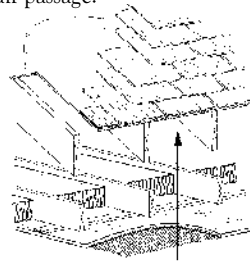
air test A test for leaks in ductwork and in drainage and pipe systems where compressed air is forced into a sealed system and leaks are detected with a pressure gauge.

airtight Refers to the inability to permit air passage.

air tube system A tubular conveying system that uses air pressure to move capsules containing paperwork from one station to another.

air washer A water spraying mechanism for cleaning and humidifying air in a ventilation system.

airway The air space between the thermal insulation and sheathing on a roof.



airway

aisleway Any open passageway permitting access and traffic flow between sections within a building.

alarm system An installed electrical system devised to protect against unauthorized entry or fire by giving off an audible and/or visual signal.

alclad A product having an aluminum or aluminum alloy coating metallurgically bonded to the surface. The coating is anodic to the core, thus protecting it physically and electrolytically against corrosion.

alcove A recess or partly enclosed extension opening into a larger room.

algorithm A set of mathematical instructions, or a computer program, used to produce a control output.

alidade A sighting apparatus often used with a plane table for determining and plotting horizontal and/or vertical angles.

aligning punch A tool used for aligning holes in structural steel. Often referred to as a spud wrench.

alignment 1. The adjustment of elements in a plane such as structural steel. 2. The plane or horizontal orientation of a structure or roadway.

aliphatic resin glue Thermoplastic adhesive used to bond wood and other porous materials.

alite The primary constituent of Portland cement clinker. Alite is composed of tricalcium silicate and small amounts of magnesium oxide, aluminum oxide, ferric oxide, and other materials.

alkali 1. A liquid that has a pH greater than 7.0. 2. Water-soluble salts of alkali metals, such as sodium and potassium, which occur in concrete and mortar mixes. The presence of alkaline substances may cause expansion and subsequent cracking.

alkali resistance The ability, particularly of paint, to resist attack by alkaline materials.

alkali soil Soil that has a pH value of 8.5 or higher and is thus harmful to some plant life.

alkyd paint A paint, with an alkyd resin base, that produces a quick-drying, hard surface.

alkyd plastics Thermoset plastics with good heat and electrical insulation properties. Commonly used in paints, lacquers, and molded electrical parts where temperatures will not exceed 400°F.

alkyd resin A synthetic resin used as a binder in lacquers, adhesives, paints, and varnishes.

Allen wrench A section of hexagonal stock used to turn an Allen head screw or bolt.

alligating Rough cracking of a painted surface, often caused by applying another coat before the first is dry or by exposing a painted surface to extreme heat.

alligator shears (lever shears) A shop tool used for shearing sheet metal.

allocable cost A cost that is assignable to a particular contract or other cost objective.

allocated cost The total cost of an asset's individual components, summarized, including incorrect costs, and classified into one of four categories.

allowable bearing value (allowable soil pressure) The bearing capacity of a soil, in pounds per square foot (psf), determined by its characteristics, such as shear, compressibility, water content, and cohesion. The higher the allowable bearing value of a soil, the smaller the footing required to support a structural member.

allowable cost Any reasonable cost that may be recovered under the contract to which it is allocable.

allowable load The ultimate load divided by a safety factor.

allowable pile-bearing load The allowable load used to design a pile cluster to support a structure.

allowable stress The maximum stress allowed by code for members of a structure, depending upon the material and the anticipated use of the structure.

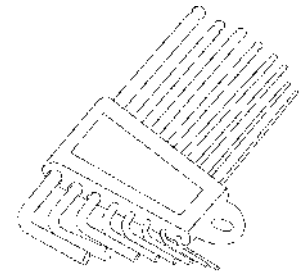
allowance 1. A stated requirement of the contract documents whereby a specified sum of money is incorporated, or allowed, into the contract sum in order to sustain the cost of a stipulated material, assembly, piece of equipment, or other part of a construction contract. This device is convenient in cases where the particular item cannot be fully described in the contract documents. 2. In bidding, an amount budgeted for an item for which no exact dollar amount is available. 3. A contingency for unforeseen costs. 4. The classification of connected parts or members according to their tightness or looseness.

alloy A homogeneous mixture of two or more metals developed and used because of its lower cost and/or the certain desirable properties it exhibits.

alpha gypsum A specially processed calcined gypsum with an extremely high compressive strength.

ALTA survey Short for American Land Title Association, a land survey that identifies the title commitments of the parcel in addition to the normal as-built conditions.

alteration Construction within a structure or to its exterior closure that does not change the overall dimensions of the structure. Alteration includes remodeling and retrofitting.



Allen wrench

A

alternate A specified item of construction that is set apart by a separate sum. An alternate may or may not be incorporated into the contract sum at the discretion and approval of the owner at the time of contract award.

alternate bid An amount stated in a bid that can be added or deducted by an owner if the defined changes are made to the plans or specifications of the base bid.

alternating current An electric current that reverses direction at regular intervals. In the United States, most current for domestic use reverses direction at 60 cycles per second.

alternative dispute resolution (ADR) A confidential method of settling a dispute without going to court, typically negotiation, mediation, or arbitration.

alternator A machine that develops alternating current by mechanical rotation of its rotor.

altitude In surveying or astronomy, the angular distance of a celestial body above the horizon.

alum A double sulfate added to plaster as a hardener and accelerator.

alumina Aluminum oxide found in the clay used to make brick and clay tile.

aluminum A silver-colored, nonmagnetic, lightweight metal used extensively in the construction industry. It is used in sheets, extrusions, foils, and castings. Sheets are often anodized for greater corrosion resistance and surface hardness. Because of its light weight and good electrical conductivity, aluminum is used extensively for electrical cables. Aluminum is usually used in alloy form for greater strength.

aluminum-clad window A factory-finished and sealed window whose wooden construction is enclosed with aluminum sheeting.

aluminum-coated steel Steel coated with aluminum to inhibit corrosion.

aluminum door A glazed door with aluminum stiles and rails.

aluminum foil A very thin aluminum sheet used extensively for thermal reflection and moisture protection.

aluminum nitrate fuel oil mix (ANFO) An inexpensive explosive used in blasting and mining operations.

aluminum paint A paint containing aluminum paste, which gives the paint good heat-, light-, and corrosion-resistant properties.

aluminum window A glazed window with an aluminum sash and muntins.

ambient lighting The general background lighting, whether natural or artificial, of an area.

ambient noise The total noise level from all sources in a given area, either within a building or in an outside environment.

ambient temperature The temperature of the environment surrounding an object.

amendment A modification of the contract by a subsequent agreement. This does not change the entire existing contract but does alter the terms of the affected provisions or requirements.*

American Arbitration Association (AAA) A private nonprofit organization that provides education, training, and administrative assistance to parties who use nonjudicial methods, such as alternative dispute resolution (ADR) for resolving disputes. The AAA is involved primarily with binding arbitration and mediation.

American basement (walk-out basement) The floor of a building partly above and partly below grade.

American Conference of Governmental Industrial Hygienists (ACGIH) An organization of professionals skilled in the science of industrial hygiene.

American Federation of Labor (AFL) A labor organization or union formed in the United States under the leadership of Samuel Gompers in 1886. The American Federation of Labor provided an "umbrella" organization, the purpose of which was to represent to management the interests of workers in various trades, crafts, and other skilled disciplines related to manufacturing and construction.

American Federation of Labor and the Committee for Industrial Organizations (AFL-CIO) A major union formed by the merger of the two organizations listed above under the leadership of John L. Lewis in 1955. The AFL-CIO represents the interests of various types of member workers in industry and other endeavors (including construction) for the purpose of negotiating with management for acceptable wages, benefits, and other material interests of worker-employees.

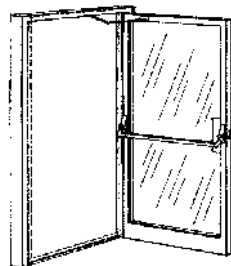
American Lumber Standards Committee (ALSC) The committee that maintains standards for hardwood and softwood grading, including those for size and nomenclature. Rules for grading are established by the U.S. Department of Commerce and enforced by regional organizations.

American National Standards Institute (ANSI) Publisher of the American National Standards, a reference book outlining the approved standards and specifications for all facets of building construction.

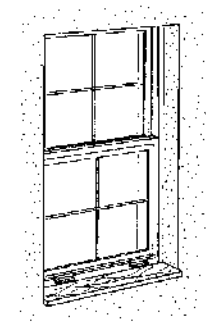
American standard beam A hot-rolled steel I-beam designated by the prefix S before the size and weight.

American standard channel A hot-rolled steel channel designated by the prefix C before the size and weight.

American Standard Code for Information Interchange (ASCII) An accepted standard for computerized data transmission.



aluminum door



aluminum window



American standard beam



American standard channel

American standard pipe threads (Briggs standard) The thread size and pitch commonly used in the United States for connecting pipe and fittings.

American wire gauge (American standard wire gauge, Brown and Sharpe gauge) The standard in the United States for specifying and manufacturing wire and sheet metal sizes, particularly electrical wire and metal flashing.

Americans with Disabilities Act (ADA) A federal civil rights act prohibiting discrimination against people with disabilities. There are five sections that cover different aspects of discrimination: employment, state and local government, public accommodations and commercial facilities, telecommunications, and miscellaneous provisions.

Americans with Disabilities Act Accessibility Guidelines (ADAAG) The minimum guidelines that must be followed to meet ADA Standards for Accessible Design. *See also ADA Standards for Accessible Design.*

ammeter An instrument for measuring the rate of ampere flow through an electric circuit.

amorphous A type of rock that has no crystalline structure.

amortization The process of paying off stock, bonds, a mortgage, or other indebtedness through installments or by a sinking fund.

amount of mixing The mixing action employed to combine the ingredients of concrete or mortar, measured in time or number of revolutions.

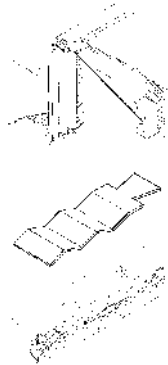
ampacity A designation of the current-carrying capacity of an electrical wire, expressed in amperes.

ampere The electromotive force required to move one volt of electricity across one ohm of resistance. A measure of electrical current.

amplitude In sound or vibration, the maximum variation from the mean position.

analog point In Building Automation Systems, a sensor, such as a damper or temperature sensor, that has a continuous range of settings that can be monitored or controlled by the system.

analog signal A signal in the form of a fluctuating quantity (such as voltage or current strength) that reflects variations, such as loudness. It is not limited to discrete units.



anchor (anchorage)

anchor (anchorage) 1. A device to prevent movement when in tension, such as a tie-back for sheet piling. 2. In masonry composite wall construction, the tension connection between components. 3. In prestressed or posttensioned concrete, the end connection for the tendons. 4. A timber connector. 5. The metal devices that secure metal door and window frames to masonry. 6. In piping systems, a device that secures piping to a structure.

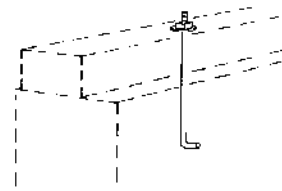
anchorage bond stress (development bond stress) The forces on a deformed reinforcing steel bar divided by the product of the perimeter times the embedded length.

anchorage deformation (anchorage loss, anchorage slip) In prestressing concrete members, the deformation of an anchor or slippage of tendons when the prestressing device is released.

anchorage zone 1. In pretensioning, the area of the member in which the stresses in the tendon anchor are developed. 2. In posttensioning, the area adjacent to the anchorage that develops secondary stresses.

anchor block A block of wood in a masonry wall that provides a means of attaching other wood members.

anchor bolt (foundation bolt, hold-down bolt) A threaded bolt, usually embedded in a foundation, for securing a sill, framework, or machinery.



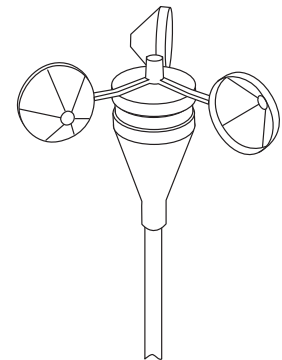
anchor bolt (foundation bolt, hold-down bolt)

anchor bolt plan A plan view showing size and location of all anchor bolts for a building's systems components. May be included in structural steel and shop drawings.

anchor plate A plate attached to an object to which accessories or structural members may be attached by welding, screwing, nailing, or bolting.

anchor rod A threaded metal rod attached to hangers and used to support pipe and ductwork.

anchor strip A wooden, plastic, or metal board surrounding a window and nailed to the building's framing to serve as a windbreak.



anemometer

anemometer An instrument that measures the velocity of airflow.

angle 1. The figure or measurement of a figure formed when two planes diverge from a common line. 2. In construction, a common name for an L-shaped metal member.

angle bead (angle staff, staff angle) A metal or wood strip set at the corner of a wallboard or plaster wall to serve as a guide and to provide protection. Angle beads are most commonly made of nonferrous or galvanized perforated sheet metal.

angle block (glue block) A small block of wood used to fasten or stiffen the joint of two adjacent wood members, usually at right angles.

angle bond A metal tie that projects into each wall at a corner and is used to bond masonry.

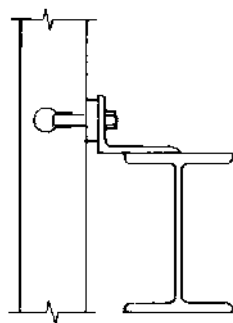
angle brace (angle tie)

A

angle brace (angle tie) A piece of material temporarily or permanently secured across an angle to make it rigid, such as a strip of wood nailed across the corners of a window frame to keep it square during installation.

angle brick A brick cast with an oblique angle on one of its corners.

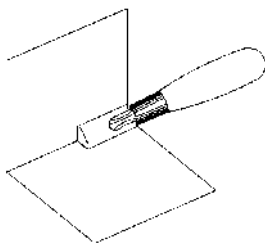
angle cleat (angle clip) A short section of angle iron used to attach structural members, such as precast panels, to structural steel.



angle cleat (angle clip)

angle closer A special brick or a portion of a brick used to close the bond on the outside corner of a brick wall.

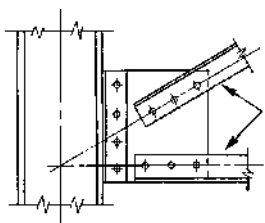
angle collar (bevel collar) A cast-iron pipe angle fitting with a bell-type connection at each end.



angle float (angle trowel)

angle float (angle trowel) A trowel with two surfaces meeting at right angles. An angle float is used for finishing plaster or concrete in an inside corner.

angle framing Light-gauge framing with an angle iron.



angle framing

angle gauge A template used to set or maintain an angle during construction.

angle iron (angle bar, angle section) An L-shaped steel structural member classified by the thickness of the stock and the length of the legs.



angle iron (angle bar, angle section)

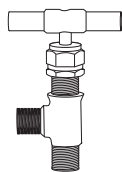
angle lacing A system of connecting two structural components with angle irons.

angle plane A hand tool used to remove projections and smooth inside corners on a plaster brown coat covering once it has set.

angle strut An angle iron erected to carry a compression load.

anglet A groove in a material or structure, most often containing a right angle.

angle valve A valve with the inlet at right angles to the outlet for controlling flow in a pipe.



angle valve

angular aggregate An aggregate made of crushed material with sharp edges, as opposed to screened gravel with rounded edges.

angular measure The deviation between two lines that meet at a point, measured in degrees, minutes, and seconds.

anhydrite An additive used in the manufacture of Portland cement to control the set.

anhydrous calcium sulfate (dead-burnt gypsum) Gypsum from which all the water of crystallization has been removed.

anhydrous gypsum plaster A high-grade finish plaster with most of the water of crystallization removed.

animal glue A strong adhesive with poor water resistance made from bones and hides of animals. Often used in furniture manufacture.

anionic surfactant A negatively charged adjuvant with limited compatibility used in asbestos abatement.

annealed wire A pliable wire used in construction primarily for reinforcing steel tie wires.

annealing The process of subjecting a material, particularly glass or metal, to heat and then slow cooling to relieve internal stress. This process reduces brittleness and increases toughness.

annex A secondary structure either near or adjoining a primary structure.

annual fuel utilization efficiency (AFUE) A seasonal efficiency rating that is an accurate estimation of fuel used for furnaces and direct-fired forced hot air systems. It measures the system efficiency and accounts for start-up, cool-down, and other operating losses.

annular ring nail A nail with a series of threadlike rings on its shank to give it good holding power. This type of nail is used for attaching gypsum board to wood studs.



annular ring nail

annunciator An electrical signaling device that identifies when a circuit is engaged.

anode The conductor rod used in an electrical system to protect underground tanks and pipes from electrochemical action.

anodize The process of creating electrolytically a hard, noncorrosive film of aluminum oxide on the surface of a metal. This film can be either clear or colored.

antechamber An entrance, vestibule, or foyer.

anticorrosive paint A paint containing corrosive-resistant pigments such as zinc chromate, lead chromate, or red lead. This type of paint is used as a primer on iron and steel products.

antiflotation pads Concrete pads secured to underground tanks to add sufficient weight to the tank to overcome buoyancy when empty.

antimicrobial A compound commonly added to other products to prevent bacterial growth on the surface of a finished product.

antioxidant Any substance that inhibits oxidation, which deteriorates plastics and other materials.

antisiphon trap (deep-seal trap) In a drainage system, a plumbing trap that provides a water seat to prevent siphonage.

antislip paint A paint with coarse particles mixed in to roughen the surface to which it is applied. This type of paint is used on steps, ramps, walkways, and porches.

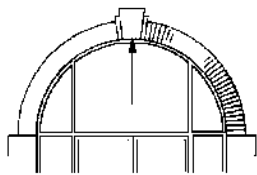
antistatic agent An additive that reduces the development of static electricity on the surface of plastics or on carpeting.

anvil The part of a pile hammer that transmits the driving force to a pile.

aperture In construction, any opening left in a wall for a door, window, or for ventilation.

apex The peak, or highest point, of any structure.

apex stone (keystone, saddle stone) The highest stone or block in an arch, gable, dome, or vault. Apex stones are often decorative.



apex stone (keystone, saddle stone)

apparent density The mass per unit volume (or the weight per unit volume) of a material, taking into consideration any voids.

appliance An electric or gas device used to provide occupant comfort or convenience such as by producing light, heat, air conditioning, refrigeration, and so forth.

appliance panel An electrical service panel with circuit breakers or fuses specifically designed for service to appliances.

application bond The measurement of the strength of adhesion between two adhered surfaces.

application butyl An adhesive with a butyl base used in caulking and sealants.

application cement A common term for mastics used in flooring and roofing applications.

application failure The separation by chemical or physical means of two adhered surfaces.

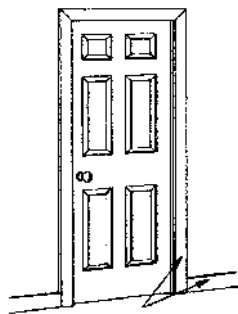
application for payment A formal written request for payment by a contractor for work completed on a contract and, if allowed for in the contract, materials stored on the job site or in a warehouse.

application mortar A mixture with an adhesive additive used for affixing ceramic wall or ceiling tile.

application neoprene A liquid neoprene compound applied to concrete foundation walls for waterproofing.

application spreader A trowel with notched edges used for applying adhesive.

applied trim Strips or moldings applied to, as opposed to manufactured with, door and window frames and wood paneling.



applied trim

appraisal A dollar estimate of the value of a certain item of property, or the assessment of the value of a loss. The estimate is developed from market value, replacement cost, income produced, or a combination of these factors. Appraisals are usually made by qualified professional appraisers.

apprentice A person who works with a skilled craftsman for a number of years in order to learn the trade. An apprentice is generally rated by the number of years served.

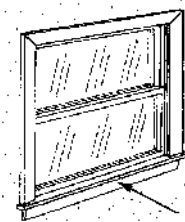
approach ramp 1. An access for vehicles to a highway. 2. A sloped access for the handicapped to a building, in lieu of stairs.

approved In construction, materials, equipment, and workmanship in a system, or a measurable portion thereof, which have been accepted by an authority having jurisdiction. Usually, the term refers to approval for payment, approval for continuation of work, or approval for occupancy.

approved equal Material, equipment, or method of construction that has been approved by the owner or the owner's representative as an acceptable alternative to that specified in the contract documents.

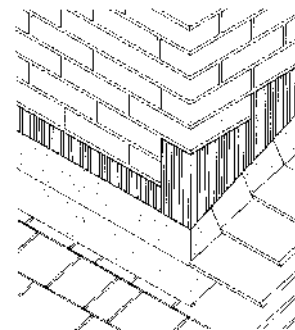
appurtenance 1. Something added on to a main structure or system. 2. A condition added to a property deed, such as a right-of-way.

apron 1. A piece of finished trim placed under a window stool. 2. A slab of concrete extending beyond the entrance to a building, particularly at an entrance for vehicular traffic. 3. The piece of flat wood under the base of a cabinet. 4. Weather protection paneling on the exterior of a building. 5. A splashboard at the back of a sink. 6. Bowl-front closing device for a scraper bowl. 7. At an airport, the pavement adjacent to hangars and appurtenant buildings.



apron

apron flashing 1. The flashing that diverts water from a vertical surface on a building to a sloped roof, such as that around a chimney. 2. Flashing that leads water from a roof into a gutter.



apron flashing

apron molding The piece of flat wood under the base of a cabinet.

apron piece (pitching piece) A piece of lumber protruding from a wall to support the rough stringers at the top or at a landing of a wooden staircase.

apron wall A distinct exterior wall panel extending from a windowsill to the window below.

aquastat An electrical control activated by changes in water temperature.

arbitration The process by which parties agree to submit their disputes to the determination of a third, impartial party (referred to as the arbitrator), rather than pursuing their claims before a judge and jury in a court of law.

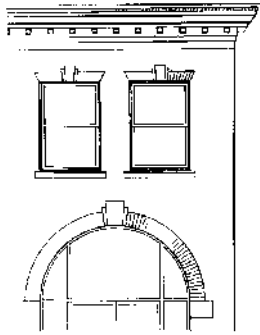
arbor 1. An enclosure of closely planted trees, vines, or shrubs that are either self-supporting or supported on a framework. 2. The rotating shaft of a circular saw or shaper.

arc 1. The electrical discharge between two electrodes. When the electrodes are surrounded by gas in a lamp, they become a bright, economical light source. **2.** Any portion of a circle or the angle that it makes.

arcade A covered passageway between buildings, often with shops and offices on one or both sides.

arc cutting A method of cutting metal with an electric welding machine. The metal melts from the heat produced by the arc between the electrode and the metal.

arch A curved or flat structure spanning an opening. The shape and size of arches are limited by the materials used and the support provided.



arch

archaic materials Historical components and assemblies that are essential to the integrity of a historic structure, but that are not in common use for new construction. Examples include traditional solid masonry construction, historic reinforced concrete assemblies, terra cotta masonry, lead-coated copper sheet metal assemblies, and hollow clay tile interior partition walls.

arch brick (compass brick, feather edge brick, radial brick, radiating brick, radius brick, voussoir brick) **1.** One of a number of types of brick manufactured to construct curved surfaces such as arches and round manholes. **2.** Extremely hard-burned brick from an arch of a scove kiln.

arching The bridging of shear stresses in a soil mass across an area of low shear strength to adjacent areas of higher shear strength.

architect A professionally qualified and licensed person who prepares plans and specifications for a building or structure. Architectural services include such duties as project analysis, development of the project design, and the preparation of construction documents (including drawings, specifications, bidding requirements, and general administration of the construction contract).

architect-engineer A person or company providing services as both architect and engineer.

architect's approval Permission granted by the architect, acting as the owner's representative, for actions and decisions involving materials, equipment, installation, change orders, substitution of materials, or payment for completed work.

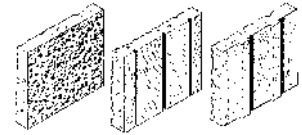
architect's scale A draftsman's tool with proportionate, graduated spaces. May be flat, like a ruler, or three sided. The three-sided scale has 10 separate scales: $\frac{1}{8}$ " and $\frac{1}{4}$ ", 1" and $\frac{1}{2}$ ", and $\frac{3}{8}$ ", $\frac{3}{16}$ ", and $\frac{3}{32}$ ", and $1\frac{1}{2}$ " and 3".

architectural Pertaining to a class of construction, particularly in home building, of higher-than-average quality. The term often pertains to the ornamental features of a structure.

architectural area of buildings The total of all stories of a building, after adjustments, computed according to AIA standards, measured from the exterior faces of exterior walls and from the center line of walls between buildings.

architectural barrier An architectural feature that is not compliant with accessibility for disabled users or prohibits usage or access to a building.

architectural concrete Structural or nonstructural concrete that will be permanently exposed to view and therefore requires special attention to uniformity of materials, forming, placing, and finishing. This type of concrete is frequently cast in a mold and has a pattern on the surface.



architectural concrete

architectural door A grade classification of door that designates higher-than-standard specifications for material and appearance.

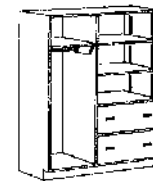
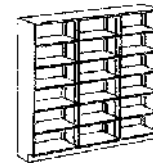
architectural drawings Also called core drawings, these show the layout of the building and its use of space. Architectural drawings convey the structure's aesthetic value and show the dimensions and placement of all key features.

architectural fee The cost of architectural services to an owner. The fee varies according to the services provided and the complexity of the project.

architectural glass Glass with a configured surface to obscure vision or diffuse light.

architectural floor plan The most common plan view that shows doors, windows, walls, and partitions.

architectural millwork (custom millwork) Millwork manufactured to meet the specifications of a particular job, as distinguished from stock millwork.



architectural millwork (custom millwork)

architectural precast concrete Precast concrete that, through application, finish, shape, color, or texture, contributes to a building's architectural form and finished effect.

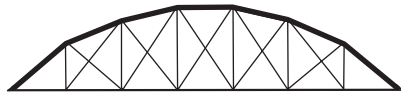
architectural programming A process that identifies a structure's proposed use, code, agency review, and approval requirements and identifies the necessary rehabilitation and restoration of existing components, and any other needed improvements.

architecture The art and science of designing and building structures.

architrave In classical architecture, **1.** the bottom-most beam that spans from column to column resting directly upon the capitals; **2.** ornamental moldings around door or window openings.

arch stone The wedge-shaped masonry units used in building an arch.

arch truss A roof truss having a curved upper chord and a straight lower chord.



arch truss

arc voltage The reaction of a circuit's inductance to the rate of current change in the circuit.

arc welding The joining of metal parts by fusion. Heat is produced by the electricity passing between an electrode and the metal, and is usually accompanied by a filler metal and/or pressure.

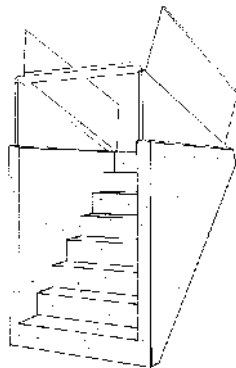
area 1. A measurement of a given planar region or of the surface of a solid. 2. A particular part of a building that has been set aside for a specific purpose.

area drain A catch basin or other device designed to collect surface water.

area light A light source used to illuminate a significant area, either indoors or outdoors.

area method A construction cost estimating system employing unit square foot costs multiplied by the adjusted gross floor area of a building.

area wall A masonry wall surrounding or partly surrounding an open area, particularly one below grade, such as an areaway at the entrance to a basement.

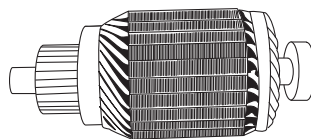


areaway

areaway An open area located below grade and adjacent to a building to provide light, air, or access to a basement or crawl space.

areaway grating A steel or cast-iron grating placed over an areaway, usually at grade level.

armature The rotating part of a motor or generator consisting of copper wire wound around an iron core.



armature

arm conveyor A belt with protruding arms or angles to carry materials into a building.

armor coat Durable pavement comprised of two or more thin layers of aggregate and asphalt.

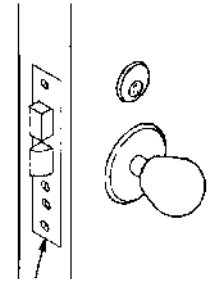
armored cable (metal-clad cable) An electrical conduit of flexible steel cable wrapped around insulated wires.



armored cable (metal-clad cable)

armored concrete Concrete with a surface treatment containing steel or iron and used in areas with heavy, steel-wheeled traffic.

armored faceplate A metal faceplate mortised into the edge of a door to protect the lock mechanism.



armored faceplate

armored front A tamperproof metal plate that covers the set screws of a mortise lock.

armored plywood Plywood that is faced on one or both sides with metal cladding.

armor plate (kick plate) A metal plate that is installed on the lower part of a door to protect it from kicks and scratches.

arrester 1. A wire screen at the top of a chimney or incinerator to prevent burning material from flying out. 2. In electrical equipment, a protective device that limits surge voltages by diverting current.

arrow diagram A CPM (critical path method) diagram in which arrows represent activities in a project.

articles Also referred to as *clauses*, these separate and numbered paragraphs within a construction contract state the rights, duties, responsibilities, and obligations of the parties (e.g., the owner and the contractor) to the contract.

artificial intelligence Computer systems that solve problems symbolically rather than algorithmically. Similar to the warning, decision-making, and problem-solving process in the human brain.

artificial stone A material containing stone chips and cement, mortar, or plaster that is seasoned for several months, then polished for a finish that simulates stone.

artificial turf A synthetic material designed to simulate a natural surface, and used to form playing surfaces for indoor or outdoor sports arenas, such as football fields.

asbestos (asbestos fiber) A flexible, noncombustible, inorganic fiber used primarily in construction as a fireproofing and insulating material.

asbestos encapsulation An airtight enclosure of asbestos fibers with sealant or film that prevent fibers from becoming airborne and creating a potential health hazard.

asbestos removal A special trade that has developed since the health hazards of airborne asbestos have been revealed. Applies principally to ceiling tile, fireproofing, and pipe insulation.

asbestos work A classification system designed by OSHA that rates the level of training needed to perform asbestos-related tasks. Class I involves the removal or abatement of thermal insulation or surfacing asbestos-containing materials (ACM); Class II involves removing asbestos floor or ceiling tiles, siding, roofing, or piping; Class III involves repair and maintenance operations where employees may disturb ACM; and Class IV involves custodial activities during which employees contact ACM.

as-built drawings Record drawings made during construction.

As-built drawings record the locations, sizes, and nature of concealed items such as structural elements, accessories, equipment, devices, plumbing lines, valves, mechanical equipment, and the like. These records (with dimensions) form a permanent record for future reference.

as-built schedule A time-scaled graphic depiction of the historical record of events, activities, and progress of a given project.

ash A sturdy, long-grained hardwood with excellent bending qualities. This wood is used in veneers, trim, and flooring.

ash dump An opening in the bottom of a firebox or fireplace into which ashes are swept, falling into an ashpit below.

ashlar 1. Any squared building stone. The term usually refers to thin stone used as facing. If the horizontal courses are level, it is called coursed ashlar, if they are broken, it is called random ashlar. 2. Short vertical studs between the ceiling joists and the rafters.

ashlar brick (rock-faced brick) A brick with a broken face resembling stone.

ashlar line A horizontal line on the exterior face of a masonry wall.

ashlar masonry A stone masonry wall or veneer composed of rectangular units bonded with mortar.

ashlar veneer A nonstructural wall facing composed of ashlar masonry.

ashpit A cleanout under a fireplace, usually at the base of a chimney, where ashes are removed.

as-late-as-possible (ALAP) An activity for which the scheduling application sets the early dates as late as possible without delaying the early dates of any successor.*

aspect The orientation of a building with respect to the points of a compass.

aspect ratio 1. In any configuration, the ratio of the long dimension to the short dimension. 2. The ratio of the width of a duct to its height.

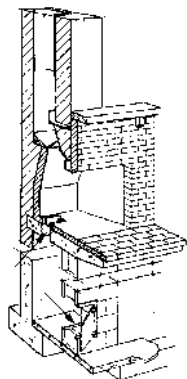
aspen A smooth-grained, white hardwood used for trim and veneer.

asphalt A dark brown to black bitumen pitch that melts readily. It appears in nature in asphalt beds and is also produced as a by-product of the petroleum industry.

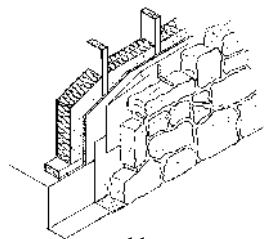
asphalt, blown Asphalt that has had air blown through it at high temperatures to give it workability for roofing, pipe coating, foundation waterproofing, and other purposes.

asphalt base course A bottom paving course consisting of coarse aggregate and asphalt.

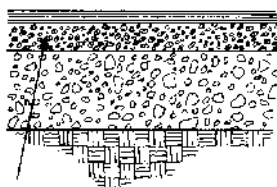
asphalt block A manufactured paving block made from asphaltic



ash dump



ashlar masonry



asphalt base course

concrete and aggregate. The block is typically manufactured in squares, rectangles, and hexagons, and comes in dark gray or black colors.

asphalt cement Asphalt that has been refined to meet the specifications for use in paving and other special uses.

asphalt coating (asphalt-lined pipe) The asphaltic coating of corrugated metal pipe. Coatings can be inside, outside, or just on the invert.

asphalt color coat An asphalt surface treatment that has been impregnated with aggregate of a specified color.

asphalt curb An extruded or hand-formed berm made from asphaltic concrete.

asphalt cutback An asphalt that has been liquefied by an additive for a specific use.

asphalt cutter Any of a variety of machines designed to cut asphalt pavement.

asphalt dampproofing The application of asphalt to the surface of a concrete or masonry wall to prevent passage or absorption of water or moisture.

asphalt emulsion Liquid asphalt in which water has been suspended. When the water evaporates, the asphalt hardens.

asphalt expansion joint Premolded felt or fiberboard impregnated with asphalt and used extensively as an expansion joint for cast-in-place concrete.

asphalt felt Felt impregnated with asphalt and used in roofing and sheathing systems.

asphalt filler (asphalt joint filler) A liquid asphalt used for filling joints and cracks in pavement and floors.

asphalt flashing cement A semisolid asphaltic material used to apply flashing.

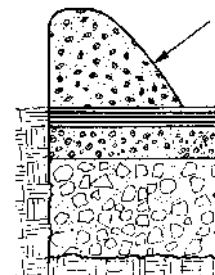
asphaltic A term used to describe materials containing asphalt. While sometimes used interchangeably with asphalt in the construction industry, it is usually more correct to use asphaltic.

asphaltic concrete (asphalt paving, bituminous concrete, blacktop) A mixture of liquid asphalt and graded aggregate used as a paving material for roadways and parking lots. It is usually spread and compacted in layers over a prepared base while still hot.

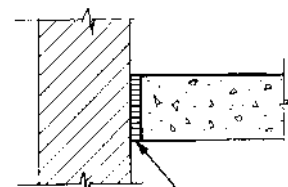
asphaltic macadam A term generally referring to a penetration method of paving whereby the aggregate is placed first, then liquid asphalt is sprayed into the voids, followed by the addition of a finer-graded aggregate. Penetration macadam usually needs a seal coat to prevent damage caused by water infiltration.

asphaltic mastic (mastic asphalt) A viscous asphaltic material used as an adhesive, a waterproofing material, and a joint sealant.

asphalt leveling course A course of asphaltic concrete pavement of varying thickness spread on an existing pavement to compensate for irregularities prior to placing the next course.



asphalt curb



asphalt expansion joint

asphalt, liquid An asphaltic material having a fluid consistency at normal temperatures. The common types specified for pavements are cutback, rapid curing (RC), medium curing (MC), and slow curing (SC), which are blended with petroleum solvents and emulsion, which is blended with water.

asphalt overlay One or more courses of asphaltic concrete placed over existing pavement. The process of overlaying usually includes cleaning, and application of a tack coat, followed by a leveling course.

asphalt paint An economical, liquid-asphaltic product used principally for weatherproofing.

asphalt paper A paper that has been coated or saturated with asphalt for use as a moisture barrier.

asphalt pavement Any pavement made from one or more layers of asphaltic concrete.

asphalt pavement sealer A material applied to asphalt pavement after compaction to protect it from deterioration caused by exposure to weather or petroleum products.

asphalt penetration A measure of the hardness or consistency of asphalt, expressed as the distance a needle of standard diameter will penetrate a sample under given time, load, and temperature conditions.

asphalt-prepared roofing (asphaltic felt, bituminous felt, cold-process roofing, prepared roofing, rolled roofing, rolled strip roofing, roofing felt, sanded bituminous felt, saturated felt, self-finished roofing felt) A roof covering manufactured in rolls and made from asphalt-impregnated felt with a harder layer of asphalt applied to the surface of the felt. All or part of the "weather" side may be covered with aggregate of various sizes and colors.

asphalt prime coat A tack coat, usually an emulsion, to increase the adhesion of one course to another in pavement construction.

asphalt primer A liquid asphalt of low viscosity that is applied to a nonbituminous surface such as concrete to prepare the surface for an asphalt course.

asphalt seal coat A thin asphalt surface treatment used to waterproof and improve the wearing surface texture of pavement, particularly that of an asphaltic macadam. Depending on the intended purpose for the pavement, a seal coat may or may not include aggregate.

asphalt shingles (composition shingles, strip slates) Roofing felt saturated with asphalt, coated on the weather side with a harder asphalt and aggregate particles, and cut into shingles for application to a sloped roof.

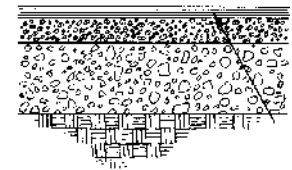


asphalt shingles (composition shingles, strip slates)

asphalt surface course The top or wearing course of asphaltic concrete pavement.

asphalt surface treatment The application of liquid asphalt to any asphaltic pavement, with or without adding aggregate.

asphalt tack coat A light coat of asphalt, usually an emulsion, added to an existing pavement to create a bond between the pavement and another course.



asphalt surface course

aspirator A device that draws a stream of gas or liquid into it by means of the suction created by liquid or gas passing through an orifice. An aspirator is used for mixing air with a stream of water or for mixing a controlled amount of a chemical with water.

as-planned schedule A project schedule prepared by the contractor to indicate the intended progress and method of performance. Frequently used as the baseline schedule for calculating delay.

assembled occupancy For design purposes, the maximum number of people who will occupy a room or hall at one time.

assessed valuation The value of a property assigned by a municipality for real estate tax purposes. The valuation may be higher or lower than the market value of the property.

assessment 1. A tax on property. 2. A charge for specific services, such as sewer or water, by a government agency.

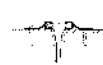
assessment ratio The ratio between the market value and assessed valuation of a property, expressed as a percent.

asset An item of monetary value, which can include real, personal, or financial property, that is expected to have some value in a future period.

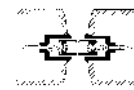
assignment 1. A transfer of rights, frequently involving rights arising under a contract. 2. With respect to a contract, a document stating that payment for work completed or materials delivered must be made to someone other than the company or person specified in the contract.

associate dimensioning A feature of a computer-aided design and drafting system that dynamically recalculates all dimensions affected by a change the operator has made.

astragal 1. A molding attached to one of a pair of doors or casement windows to cover up the joint between two stiles. 2. A bead molding, most often half-round and ornate, with a narrow flat band, or fillet, on at least one side.



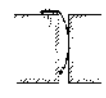
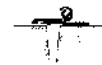
astragal (a)



astragal (b)



astragal (c)



astragal (d)

atmospheric pressure The pressure (14.7 psi) exerted by the earth's atmosphere at sea level under standard conditions.

attenuation The sound reduction process utilizing a sound-absorbing system.

Atterberg limits

A

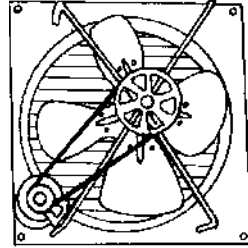
Atterberg limits Terms defining the properties of soils at different water contents.

Atterberg test Laboratory tests to determine the Atterberg limits.

attic Unfinished space between ceiling joists of the top story of a building and the roof rafters.

attic tank A domestic water storage tank installed above the highest plumbing fixture in a building to provide water pressure by gravity.

attic ventilator An electric fan, frequently thermostatically controlled, to push hot air out of an attic.



attic ventilator

attorney-in-fact One who holds a power of attorney from another to execute documents on behalf of the grantor of the power.

attribute In the context of asset or project planning, a characteristic or property that is appraised in terms of whether it does or does not exist (e.g., go or not-go) with respect to a given requirement.*

audio frequencies Frequencies between 15 and 20,000 cycles per second (Hz), which is within hearing range of the human ear.

audio masking system Reducing distracting sounds and increasing speech privacy through the use of sound-masking equipment or software. Some systems provide protection from laser beams and other high-tech sound detection devices.

audit The examination of records, documents, and other evidence for the purpose of determining the propriety of transactions and assessing fiscal compliance with relevant cost and accounting requirements.

auger 1. A carpenter's hand tool used for boring holes in wood. 2. A handheld or rotary-powered tool with a helical cutting edge used for drilling holes in soil. Augers are used for taking soil samples, drilling for caissons, or drilling for cast-in-place piles.



auger

authority having jurisdiction (AHJ) A person who has the delegated authority to determine, mandate, and enforce code requirements established by jurisdictional governing bodies.

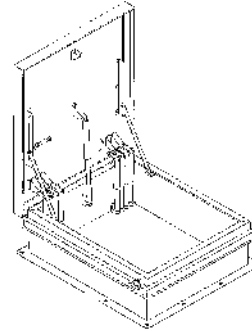
authorized work An effort that has been approved by higher authority and may or may not be definitive.*

autoclave A chamber in which steam at high pressure is used to cure precast concrete members.

automatic door A power-operated door that opens at the approach of a person or vehicle and closes when the person or vehicle has passed.

automatic fire pump A pump in a standpipe or sprinkler system that turns on when the water pressure drops below a predetermined level.

automatic fire vent (automatic smoke vent) A device in the roof of a building that operates automatically to control fire or smoke.

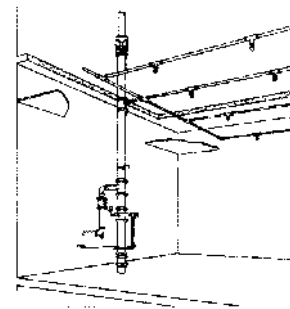


automatic fire vent (automatic smoke vent)

automatic iris An optical device, much like the iris in the eye, containing a diaphragm that expands and contracts to control the amount of light that passes through the lens.

automatic operator A remote-control operating device. The term usually refers to the opening and closing of doors by electronically actuated switches.

automatic sprinkler system A fire safety system designed to provide instant and continuous spraying of water over large areas in the case of fire.



automatic sprinkler system

automatic transfer switch In an electrical system, a switch that automatically transfers the load to another circuit when the voltage drops below a predetermined level.

auxiliary contact An additional contact not normally associated with operation of a switching device such as a contact or circuit breaker.

auxiliary rafter (cushion rafter) A rafter used to strengthen the main rafter, usually at the area of greatest load.

auxiliary reinforcement In a prestressed concrete member, refers to all reinforcing steel other than the prestressing steel.

average annual cost The conversion, by an interest rate and present worth technique, of all capital and operating costs to a series of equivalent equal annual costs. As a system for comparing proposal investments, it requires assumption of a specific minimum acceptable interest rate.*

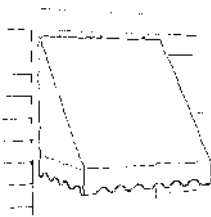
average bond stress The force exerted on a steel reinforcing bar divided by the product of the perimeter multiplied by the embedded length.

average grade The average of ground surface elevations within a building site.

average haul The average distance material is transported from where it originates to where it is deposited, such as from cut to fill in roadway construction.

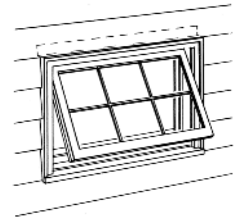
awl A hand tool used for piercing holes, particularly in leather. Often fitted with a needle for sewing heavy materials.

awning A projection over a door or window, often retractable, for protection against rain and sun.



awning

awning window A window that is hinged at the top.



awning window

ax (axe) A sharp-edged hand tool for splitting wood and hewing timber.

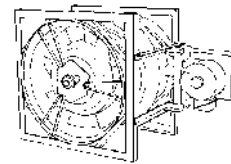
axed brick (rough axed brick) Brick shaped by an ax so as to create rough surfaces.

ax hammer A hand tool for dressing stone.

axial fan A fan that produces pressure from the velocity of gas passing through the impeller, with no pressure being produced by centrifugal force.



ax hammer



axial fan

axial force diagram In statics, a graphic representation of the axial loads acting at each section of a structural member.

axial load (axial force) The longitudinal force acting on a structural member.

axis A straight line representing the center of symmetry of a plane or solid object.

azimuth The horizontal angle measured clockwise from north to an object.