

Glossary of Terms

A

AASHTO American Association of State Highway and Transportation Officials

ABD Anchor Bolt Diameter

ADVERTISING means of communication with end users of a product or service

- www.adpoles.com
- www.advertisingpole.com

A/F Across the Flats or outside diameter

AIRPORT Aerodrome with extended facilities for commercial air transport

- www.airportpoles.com

AISC American Institute of Steel Construction

ALLOWABLE STRESS Maximum permissible stress as defined by design criteria.

ALLOY Mixture of metals or a mixture of a metal and another element

AMERICAN POLES Buy America and Buy American

AMPACITY Current-carrying capacity of electric conductors expressed in amperes

- www.americanpoles.com

ANCHOR BASE Non-breakaway pole-to-foundation attachment

ANCHOR BOLT Steel threaded rod embedded in concrete to connect the pole to the foundation

- www.Lanchorbolt.com
- www.Lanchorbolts.com
- www.poleanchors.com
- www.polelineaccessories.com
- www.poleline.info
- www.rebaranchorbolt.com
- www.steelanchorbolt.com

ANSI American National Standards Institute

AREA LIGHTING ADVERTISING Pole mounted advertising device

- www.arealightingadvertising.com

AREA LIGHTING POLE

- www.arealighting.info
- www.arealighting.org
- www.arealightingpoles.com

ARM Extension of a cross section used to mount a single fixture

ARM RISE Vertical distance from the center line of the simplex connection to the center line of the arm end

ASTM American Society for Testing and Materials

ASTRO BRACKET Attach a traffic signal to the pole or mast arm, rigid mounted or free swinging

- www.astrobracket.com

AWG American Wire Gauge as applied to non ferrous conductors

AWS American Welding Society

B

BACK-UP-BAR Steel bar used to secure the handhole cover

BACK-PLATE Border surrounding traffic signal heads

BANNER ARMS Parallel pipe extensions bolted to pole shaft to mount a special banner

BARRIER Roadside barriers blocks suitable for highways and infrastructure

- www.bishopblock.com
- www.bishopblocks.com

BARRIER SADDLE Roadside barrier sign support system

- www.barriersaddle.com

BASE COVER Shroud used to enclose the base plate and anchor bolts

- www.roundbasecover.com
- www.squarebasecover.com

BASEPLATE Steel plate welded to the bottom of the pole shaft to connect the pole to the foundation

- www.baseplatetemplate.com

BCD Bolt Circle Diameter

- www.boltcirclediameters.com

BEARING PLATE Steel plate attachment of an anchor bolt designed to prevent bolt pull-out

- www.bearingplate.com

BEND RADIUS Radial dimension of a curvature of a bend, typically measured from the inside surface

BENDING MOMENT Product of a wind force or weight force multiplied by its distance from a section

BOLLARD Ornamental post used as a pedestrian or traffic barrier

BOLT Metal rod or pin for fastening pole accessories together

BOLT CIRCLE Dimension from one anchor bolt to another which intersects the center line of the pattern

- www.boltcircle.com
- www.boltcirclesquare.com

BOLT COVER Ornamental cover fastened to the base plate covering the anchor bolts

- www.plasticnutcaps.com
- www.rubbernutchaps.com

BOLT PROJECTION Length of anchor bolt extending above the base plate surface

- www.boltprojection.com

BONDING CONDUCTOR Conductor which connects the non-current carrying parts of electrical equipment

BRANDING name, slogan, sign or design elements that identify products or services of a company

- www.brandpoles.com
- www.poletopbranding.com

BREAKAWAY SIGN SUPPORT

- www.breakawaysignpost.com
- www.breakawaysignsupport.com
- www.breakawaysignsupports.com

BSQ Bolt Square - center to center distance on a square base plate

BULLHORN Pipe bent 90 degrees upward to mount light fixtures and pole accessories

- www.roundbullhorns.com
- www.squarebullhorns.com

BUMP FORMED Pressing a flat steel plate at equal spacing forming a geometrically correct shape

- www.formedpoles.com
- www.multisidedpoles.com

- www.octagonpoles.com

BUTT WELD Circumferential weld joint used to connect two pole shaft sections

C

C-HOOK Steel rod formed into shape of a "C" for support or handling purposes.

CBC Canadian Building Code

CSA Canadian Standards Association

CWB Canadian Welding Bureau

CAD Computer-Aided Design

CAMBER Curving of sign structure, mast arms or poles during the manufacturing process

CAPITAL Ornamental pole top

CANTILEVER Vertical and horizontal cantilevers poles and arms affixed at one end free at the other

- www.cantileverpoles.com

CASTING Products produced by molding in a form with a molten alloy

CIRCUIT BREAKER Device designated to open and close a circuit by non-automatic means

COMMUNICATION POLE

- www.communicationpoles.com

CERTIFICATION Documents confirming products and/or designs meets or exceeds specified conditions

CLEARANCE The vertical distance from the road surface to the lowest point of an overhanging device

COATING Covering a pole product with galvanizing, painting and/or metallizing

COBRA HEAD Generic term for some street lighting fixtures

COD

COIL MATERIAL Steel which is rolled into coil form after processing from the steel mill

COIL SET Curvature of the material stock from being wound under tension

CONDUIT Raceway of circular cross-section other than electrical metallic tubing

COR-TEN Trade name by United States Steel Company for high strength, low alloy, self-weathering steel

COUPLING Internally threaded steel fitting for wiring access of controller cabinets and junction boxes

CRITERIA Written specification used in control stages of the design procedure

CROSSARM Steel tubing or angle that attaches to pole shaft for mounting a single row of lighting fixtures.

D

DD Double Davit pole with two arms

DAMPER Mechanical device to eliminate or reduce harmonic vibrations

DAVIT Radial formed pole/luminaire arm

- www.davitpoles.com

DEAD LOAD Total weight of structure and all added appurtenances

DECORATIVE POLE

- www.decorativelampposts.com

DEFLECTION Movement of pole/arm as a displacement or rotation, from dead loads or other applied loads

DERATE Material's loss of physical or mechanical properties due to manufacturing process such as welding

DIE CASTING Molten metal is forced under pressure into the cavity of a mold to form shapes

DODECAGONAL Cross-section consisting of 12 equal sides

DRAG COEFFICIENT Numerical factor used in wind force calculations applied to the EPA

DRILL PATTERN Layout of hole size and spacing for a given fixture

DRIVE RIVET steel or aluminum fastener utilized on square sign posts

- www.aluminumdriverivet.com
- www.steeldriverivet.com

DUNNAGE

- www.liftdunnage.com
- www.polecradles.com
- www.rubberdunnage.com

DUTY Requirement of service that demands the degree of regularity of the load

E

EFFECTIVE PROJECTED AREA (EPA) Area of a given fixture and/or structure resisting wind force

- www.effectiveprojectedarea.com

ELEVATION Distance above or below sea level, ground level or another referenced surface

ELLIPTICAL Having the shape of an oval

EMBEDDED POLE fixed in concrete or compacted soil by means of an extended portion •

EMERGENCY Immediate risk to health, life, property, or environment.

- www.emergencypoles.com

EV STATION Electric vehicle charging station

- www.evbases.com
- www.eviotcity.com
- www.evpole.ca
- www.evpole.info
- www.evpole.org
- www.evpoles.com
- www.freewayev.com
- www.highwayev.com
- www.interstateev.com
- www.interstatechargingstation.com

EXTRUSION The process of forcing material through a die to form a desired cross-section shape

F

FASTENER Part used to attach or secure two components together

FINIAL Sculptured ornament located at pole top or end of arm

FINIAL CAP Cast or spun ornamental pole top cap

FINISH Protective and usually decorative coating applied to structures and their components

FIXED BASE Type of pole-to-foundation attachment not designed to breakaway if impacted by a vehicle

FIXTURE A lighting fixture, which provides area light

FLANGE PLATE Connection plate between two pole sections or bottom pole and arms

FLOOD LIGHT Projecting a broad beam in parking lots, sports fields, and other area lighting applications

FLUTING Formation of rounded grooves to create an ornamental motif on the shaft or column

- www.flutedpoles.com

FOB Free on Board or Freight on Board. Shipping terms, transferring title to the customer.

FORCE Vector quantity that tends to produce stress and deflection in the structure to which it is applied

FOUNDATION Support for a pole structure, consisting of concrete, steel reinforcing bars and anchor bolts

FRANGIBLE BASE Designed to breakaway when struck by a vehicle

FULL BASE COVER Ornamental shroud used to enclose the base plate and anchor bolts

G

GALVANIZE Zinc coating applied by a hot dip process or other approved methods

- www.galvanizedpoles.com

GASKET Natural or synthetic rubber seal used between piece parts to prevent the intrusion of moisture

GAUGE Whole number representing an equivalent decimal thickness

GROMMET Natural or synthetic rubber ring placed in drilled wire way holes to prevent damage to wires

GROSS without tax or other contributions having been deducted

GROUND ROD A rod driven into the ground to carry current safely away from a circuit

- www.groundinghardware.com

GROUNDING Pole for connecting a cable which makes an electrical connection with the earth

GROUND STUD Bolt attached inside of the hand hole providing the means for electrical grounding

GROUT Mortar used for filling space between the bottom of the pole base plate

GUSSET Steel plate used to strengthen a welded connection

GUST FACTOR Numerical factor applied to constant wind velocity for an instantaneous outburst of wind

GUY WIRE a tensioned cable designed to add stability to free-standing structure.

H

HAND HOLE Reinforced opening providing internal access to structure

- www.aluminumhandholecover.com
- www.plastichandholecover.com
- www.steelhandholecover.com

HARDWARE

- www.cornerbolt.com
- www.poleaccessories.com
- www.signposthardware.com
- www.squaresignposthardware.com
- www.roundpostsignhardware.com

HARMONIC VIBRATION Motion of a member moving the same distance in opposite directions

HEAT TREAT Heating and cooling a material in a controlled manner to develop different mechanical properties

Heavy Hex Nut

- www.heavyhexnut.com
- www.heavyhexnuts.com

HEXDECAGONAL Cross-section consisting of sixteen equal sides

HEXAGONAL Cross-section consisting of six equal sides

HEIGHT COEFFICIENT Increased wind pressure due to smoother flow of air at higher elevations

- HIGH MAST Light large areas by fixture attachment higher than an average area lighting structure
www.highmastpoles.com

HIGHWAY

- www.highwaypoles.com
- www.roadwaypoles.com

HINGED POLE Top access using a hinge by which the pole top can be lowered to ground level
www.hingedpoles.com

HSS Hollow Structure Section

I

IOT Internet of Things

- www.iotpole.com

ISOMETRIC DRAWING 3 faces of a solid object shown with the lines parallel to the edges drawn in true length

ISOTACH Line on a map connecting points of equal wind speed

J

J-HOOK Steel rod in the shape of a "J" used for wire support or handling purposes

JACKING LUGS Steel nuts welded to pole shaft to assist in slip fitting pole sections together

JUNCTION BOX In-ground plastic wiring vaults

K

KEEPER PLATE Thin steel plate to keep the connecting bolts of a slip base assembly in place

KIP Unit of measure equivalent to 1000 pounds.

KSI Kips per Square Inch

L

LADDER BAR Ornamental tenon with provision for resting a ladder

LAMINATED SHAFT Firmly pressing two tapered tubes, one inside the other, to increase wall thickness

LAMP POST

LED Light emitting diode

- www.ledpoles.com
- www.ledstreetlight.org
- www.typealights.com
- www.typeblights.com
- www.typeclights.com
- www.typedlights.com

LIGHTNING ROD Metallic rod attached to pole structure creating a continuous conducting path to the ground

LIQUID COAT Finish applied to material in a liquid form

LMA Luminaire Mast Arm

LOCK WASHER Split washer used to prevent loosening by exerting pressure on a nut

LOCKNUT A nut tightened down on another

LOGISTICS

www.polelogistics.com

LOWERING DEVICE Apparatus capable of lowering fixtures to ground level for ease of maintenance

LUG WASHER Steel plate washer used in transformer base connections •

LUMINAIRE Complete lighting unit

M

MANUFACTURING EQUIPMENT

- www.polemachinery.com

MAGNETIC PARTICLE INSPECTION Non-destructive method of detecting cracks

MANDREL FORMED Produce round tapered tubes by forming steel coil around a mandrel

- MAST ARM Horizontal member typically used to support luminaries, traffic signals or roadway signs
www.lightingmasts.com

MILD STEEL Comparatively soft and easily worked steel capable of being extended or shaped

MILL CERTIFICATION Document issued by the steel mill stating the physical and chemical properties

MOMENT Force multiplied by the distance the point of rotation

MONOTOWER Tubular self supporting structure

- www.monotowers.com

MOUNTING HEIGHT Vertical distance to particular part of a pole structure

N

NEMA National Electrical Manufacturers Association

NEMA BOX An enclosure mounted to pole used for breaker switches and terminal blocks

NET Free from all charges or deductions

NOISE BARRIER PANEL

- www.noisebarrierpanel.com
- www.rubberfences.com

NUT CAP Ornamental cover usually fastened to the pole covering the anchor bolt

- www.plasticnutcaps.com
- www.rubbernutchaps.com

NUT HOLDER Small bracket usually welded to the inside of a pole for grounding purposes

O

O-RING Ring made from natural or synthetic rubber, used as an air-tight or water-tight seal

OBSTRUCTION LIGHT mounted on a structure to warn aircraft of its presence

OCTAGONAL POLE having an eight-sided cross section

ONE PIECE SLIP OVER BASE One-piece shell base, which slips over the pole during installation

OPTICON Control device acting as a switch upon sensing motion or light

ORNAMENTAL POLE

- www.ornamentpole.com

OXIDATION Chemical reaction of a material when exposed to oxygen

P

PARKING LOT Area, usually divided into individual spaces, intended for parking motor vehicles.

- www.parkinglotpoles.com

PARKING STOP

- www.parkingstop.co
- www.parkingstop.info

PEC Photo Electric Cell

PSI Pounds per Square Inch

PED POLE designed to support pedestrian signal heads

- www.pedestriancontrol.com

PIPE Hollow steel cylinder manufactured to specific nominal inside diameter

POLE Vertical member of a structure

- www.poledesigns.com
- www.7poles.com

POLE DESIGNS

- www.poledesigns.com

POLE TOP Steel rubber or plastic cap mounted to the top of a pole for weather protection

- www.octagonalpoletop.com
- www.poletops.com
- www.roundpoletop.com
- www.squarepoletop.com

POLYCARBONATE Lightweight thermoplastic used for traffic signal housings and back plates

POS Point of sale terminal

- www.paythepole.com
- www.payatthepole.com
- www.polepayment.com

POWDER COAT Electrostatically applied dry powder coating, oven-baked for a smooth, durable finish

PLASTIC Synthetic material made from a wide range of organic polymers

- www.plasticpoles.com

PROJECTED AREA Surface area subjected to wind pressures

PROJECTION Length of anchor bolt protruding beyond the top of a foundation

Q

QUOTE Estimated cost for a particular job or service

R

RADIAL INDEX Illustration showing the orientation of appurtenances

REBAR Deformed steel reinforcing bar

RECYCLE Return material to previous stage in a cyclic process

- www.recycledpoles.com

REST AREA Interstate Highway motor vehicle and highway tractor operator recovery facility

- www.restareaads.com
- www.restareapoles.com
- www.interstaterestarea.com
- www.interstatereststop.com
- www.restareawifi.com

RFQ Request for quotation

RIV-NUT Metal fastener serving as the female threaded portion of a bolted connection

ROUND POLE Hollow Pipe uniform in shape from base to top

- www.roundpoles.com

RUMBLE MAT

- www.rubberrumblemat.com

RUMBLE STRIP

- www.rubberrumblestrip.com

S

SAG Distance a wire or cable droops from its attachment point

SD Single Davit pole with one arm

SBC Standard Building Code

SECURITY POLES

- www.securitypoles.com

SETBACK Distance from the roadway edge to the location of the pole

SHEAR FORCE within a member that acts perpendicular to the axis of the member

SHOE BOX Term used for describing a rectangular shaped outdoor lighting fixture

SIGN STRUCTURE designed to support signs, signals or other devices

- www.overheadsignsupport.com
- www.signbridges.com
- www.signsupport.info

SLEEVE Additional layer of steel wrapped around a specific area of a pole shaft

SLIP BASE ASSEMBLY Connects the pole to the anchor bolts, designed to breakaway upon impacted

SLIP FITTER Short piece of pipe/tube used as the internal portion of a connection

SLIP JOINT Friction connection between two tapered shafts

SMA Signal Mast Arm

SMART POLE

- www.poletopolelink.com
- www.smartpolemedia.com
- www.smartpolelink.com

SPEED BUMP Ridge set in a road surface, typically at intervals, to control the speed of vehicles

- www.rubberspeedbump.co
- www.rubberspeedbump.info
- SPEED HUMP Parabolic, circular, or sinusoidal in shape and a gentle version of the speed bump
www.rubberspeedhump.com

STEEL UTILITY POLE

- www.steelutilitypoles.com

STRAIN POLE To support wires or cables from which traffic signals or signs are suspended

- www.strainpoles.com

SPECIFICATIONS Organized listing of requirements for materials, products, design or testing

SPORTS FIELD POLES Hold large lighting banks to illuminate playing fields

- www.sportsfieldpoles.com

SQUARE POLE Hollow Structural Steel tube consisting of four equal sides

- www.squarepoles.com

STATIC LOAD Constant or non-varying load

STEPPED POLE An enlarged pole base with incrementally smaller sections up to the top

- www.steppedpoles.com

STEPS Removable headed bolts fastened to pole shafts used for climbing

STRAIGHT POLES Tapered or non tapered poles without any curvature

- www.straightpoles.com

STREETLIGHT STANDARD Steel pole and light fixture for illuminating a roadway or highway

- www.streetlightstandards.com

STRESS Internal force per unit area within a member, usually expressed in PSI

STRUCTURAL BASE Welded to the shaft and contributes to the structural integrity of the pole

- www.structuralbase.com

T

TAMPER RESISTANT SCREW Fastener that requires a unique driver for removal

TAPERED POLE Continuous gradual reduction of a shaft's diameter from base to top

- www.roundtaperedpoles.com
- www.squaretaperedpoles.com
- www.taperedpoles.com

TAPPING Formation of an internal screw thread in a hole

TELESCOPIC TUBING perforated welded steel tubing in various sizes and gauges

- www.nonperforatedsignpost.com
- www.perforatedsignpost.com
- www.telescopingsquaresignpost.com

TEMPLATE Guide or pattern used for the proper placement of anchor bolts

- www.anchorbolttemplate.com
- www.rubbertemplate.com

TENON Short length of pipe or tubing used to mount luminaries, signals or brackets

TORSIONAL MOMENT Action of external forces causing twist in a structure

TRAFFIC SIGNAL Automatically operated colored lights for controlling traffic junctions and crosswalks

- www.plastictrafficbarrels.com
- www.plastictrafficcones.com
- www.plastictrafficdrums.com
- www.trafficsignalpoles.com

TRANSFORMER apparatus for reducing or increasing the voltage of an alternating current

TRANSFORMER BASE Box used under a pole for wiring access

- www.transformerbase.com
- www.transformerbases.com
- **TRANSMISSION POLE** Structure to carry high voltage power lines over great distances
www.transmissionlines.com
- **TROLLEY POLE** to transfer electricity from overhead wire to the control and the electric traction motors
- www.trolleypoles.com

TRUSS ARM two main supporting members with one or more struts between them

TUBE Generic term used for hollow steel shafts

U

UPRIGHT Vertical pipe portion of a sports lighting cage

UL American Safety Consulting and Certification company

USMCA United States Canada Mexico trade agreement

- www.usmcaagreement.com
- **UTILITY POLE** a tall pole that is used to support telephone wires and electrical wire
www.utilitypolestructures.com

V

VEHICLE POLE designed to support vehicular and/or pedestrian signal heads

- www.vehiclepole.com

VIBRATION DAMPER Device placed on or inside a pole or arm to reduce or prevent harmonic vibration caused by win

W

WASHER

- www.flatplatewasher.com
- www.flatplatewashers.com
- www.lugwasher.com
- www.saewasher.com
- www.squareplatewasher.com
- www.usswasher.com

Wi-fi computers or smartphones ability to connect to the Internet wirelessly

- www.dashboardwifi.com
- www.wifihighway.com
- www.wifipoles.com

WIND ENERGY

- www.americanwindenergy.com
- www.canadianwindenergy.com
- www.windenergypoles.com

WIND LOADING Live load pressures of wind acting on a structure

WIND SPEED Velocity of wind (MPH) noted either as a basic/iso tach speed or as a gust/maximum velocity

- www.windspeedmap.com

WROUGHT Beaten out or shaped by hammering.

WROUGHT ALLOY Mixture of base elements whose physical and mechanical properties favor wrought

X

Xylene Used as a solvent in industrial applications with a mixture of isomers

Y

YIELD The stress in a material at which plastic deformation occurs

YIELD MOMENT in a pole or arm that will cause the member to yield

Z

Zinc Chemical element in hot-dip galvanizing for corrosion barrier protection to steel.