

SECTION 115 Glossary

115.1 Acronyms

Interpret acronyms used throughout the CMM as follows:

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| AASHTO | American Association of State Highway and Transportation Officials |
| AC | Asphalt cement |
| APL | Department's approved products list available at: https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/appr-prod/default.aspx |
| ASTM | American Society for Testing and Materials |
| BOS | The department's Bureau of Structures |
| BTS | The department's Bureau of Technical Services |
| CMM | The department's Construction and Materials Manual |
| EBS | Excavation below subgrade |
| ECIP | Erosion Control Implementation Plan |
| FHWA | Federal Highway Administration |
| HTCP | The department's Highway Technician Certification Program |
| ACT | An HTCP assistant certified technician |
| MASH | Manual for Assessing Safety Hardware |
| NCHRP | National Cooperative Highway Research Program |
| NTPEP | AASHTO's National Transportation Product Evaluation Program |
| OSHA | Occupational Safety and Health Administration |
| PAL | Department's erosion control product acceptability list available at: https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/pal/default.aspx |
| QMP | Quality management program |
| QC | Quality control |
| QV | Quality verification |
| IA | Independent assurance |
| QPL | Department's electrical qualified product list available at: https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/prods/qpl.aspx |
| WisDOT | Wisconsin Department of Transportation |
| WTM | WisDOT Test Modified |
| WTP | WisDOT Test Procedure |

Other commonly used WisDOT acronyms are defined at:

<https://wisconsindot.gov/Documents/doing-bus/eng-consultants/cnslt-rsrcs/swig/constr-acronyms.docx>

115.2 Definitions

The department defines terms used here in 115.2. Interpret these terms, used throughout the CMM, as follows:

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| Absorption | The process of a solid taking up liquid into its interior by capillary action. |
| Abutment | The structural element supporting the ends of a bridge. |
| Addendum | A revision to the plans or the proposal form developed before opening of proposals. |
| Admixture | Any material other than portland cement, aggregates, and water added to a concrete batch just before or during mixing. |
| Aggregate | Inert mineral material such as sand, gravel, crushed gravel, crushed stone, or combinations thereof. |
| Air-entraining agent | A material added to concrete to increase the amount of trapped air in the mixture. Entrained air is present in the form of minute bubbles. |
| Air-entraining cement | Cement into which air-entraining agents have been inter-ground at the mill. |
| Angle of repose | Acute angle measured between a horizontal plane and the maximum unsupported slope a material will lie at without sliding. |
| Anti-desiccant | A chemical emulsion applied to needles of newly planted evergreens to reduce loss of moisture. |

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| As-built plan | An exact reproduction of the original contract plan upon which is drawn or written, in red ink, including all additions, deletions, and modifications to the original plan that have actually been constructed. |
| Asphalt cement | Asphalt refined to meet specifications for paving purposes. |
| Asphaltic binder course | A plant mix of coarse graded aggregate and asphaltic material, which constitutes the lower layer of the asphaltic pavement. |
| Asphaltic binder mixture | A coarse graded asphaltic mixture normally having less asphaltic material than a surface mixture and used for construction of the binder course upon which the asphaltic surface course is placed. |
| Asphaltic concrete | A designed combination of mineral aggregate filler and asphaltic cement mixed in a plant, laid, and compacted while hot. |
| Asphaltic emulsion | A mixture in which minute globules of bitumen are suspended in water. When the emulsion is applied to a surface, the water evaporates or runs off quickly, leaving a thin coating of bitumen. |
| Auxiliary lane | The portion of the roadway adjoining the traveled way for parking, change of speed, or for other purposes supplementary to through traffic movement. |
| Award | The department's acceptance of a bid. |
| Back sight | A survey sight taken along a previously established survey alignment in order to extend the line; a survey sight taken on a point of previously established elevation in order to establish the elevations of other points. |
| Back slope | A surface pitched downward and toward the traveled way; normally, lying between the construction limit and the ditch. |
| Balance points | Points on the centerline of the roadway between which the amount of cut (excavation) equals the amount of fill (embankment) after the quantities have been adjusted for swell or shrinkage. |
| Base | The layer or layers of specified or selected material of designed thickness placed on a subbase or subgrade to support a surface course. |
| Batch plant | An assembly consisting of a mixer and its feeder components by which aggregates are proportioned with either cement or asphalt, in order to produce a batch. |
| Bench mark | A permanent point of known or assumed elevation. |
| Bent | The term is used in connection with bridges supported by timber trestles. A framed bent is a structural unit consisting of posts that rest upon a sill and support a cap. A pile bent consists of piles that support a cap. The cap supports the stringers and deck. |
| Bidder | An individual, partnership, joint venture, corporation, limited liability company, limited liability partnership, or a combination of any or all jointly, submitting a proposal (bid) for the work advertised in the invitation for bids, acting directly or through a duly authorized representative. |
| Bitumen | A group of hydrocarbons, including asphalt, tar, and coal tar pitch. |
| Blended cements | Blended cements are combinations of portland cement and slag cement, fly ash or silica fume, used in making portland cement concrete. Blended cements come from the cement manufacturer in the blended state, rather than a concrete producer proportioning the individual materials at the batch plant. |
| Blue tops | Wooden hubs or stakes driven into the subgrade to indicate the finished subgrade elevation. |
| Borrow | Suitable material from sources outside the right-of-way limits of the project, used primarily for embankments. |
| Breakdown rolling | The initial compaction effort applied to a freshly placed asphaltic mixture by a roller operating immediately behind the paver. |
| Breaker run | Aggregate composed of very large particles resulting from mechanical crushing of stone in a primary crusher which has not been separated by screens into standardized sizes. |
| Bridge | A structure having a span of more than 20 feet from face to face of abutments or end bents, measured along the centerline of the |

roadway, spanning a water course or other opening or obstruction, such as a highway or railroad, including the substructure, superstructure, and trestle work approaches.

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| Butt joint | A transverse interface between existing and new paved surfaces, formed by cutting or sawing a vertical notch into the existing surface and then paving into the notch. |
| Business day | Every day the calendar shows, except Saturdays, Sundays, and department-specified holidays. |
| Calendar day | Every day the calendar shows, including Saturdays, Sundays, and department-specified holidays. |
| Camber | A slight convex upward curvature built into a structure or a structural member that allows for the downward deflection of the structure under load, in order to match finished grade line. |
| Cap | A heavy, horizontal member placed on top of the piles or posts of a trestle bent. |
| Cement | The substance used for binding particles of aggregate together to form a pavement. Examples include portland cement and asphalt cement. |
| Cement paste | A mixture of portland cement and water. |
| Central mix | Concrete that has been completely mixed in a stationary plant. Further mixing in the transporting vehicle is not needed. |
| Certificate of materials (DT1310) | Report for each let contract documenting all material deviations from contract specifications and Buy America Exception use. |
| Certificate of compliance | A document, provided by a manufacturer, producer, or supplier of a product, stating that the product as furnished to the contractor complies with the pertinent specifications and contract requirements. |
| Certified report of test or analysis | A certified test report, provided by a manufacturer, producer, or supplier of a product, indicating that actual results of tests or analyses comply with the elements of the specification requirements. |
| Change order | A written order to the contractor detailing changes to the specified work quantities or modifications within the scope of the original contract. |
| Chip seal | An asphaltic surface treatment consisting of a high rate spray application of asphalt emulsion, followed immediately by an overlay of aggregate chips. |
| Coarse aggregate | Aggregate predominantly retained on the No. 4 sieve. |
| Cofferdam | A watertight enclosure from which water is pumped to expose a stream bed or lake bed so construction may proceed under dry conditions. |
| Completion date | The calendar date shown in the proposal on or before which the work contemplated under the contract must be completed. |
| Composite pipe | Pipe having a wall cross-section of ABS (Acrylonitrile-Butadiene-Styrene) material for the inner and outer surfaces, which are separated by a lightweight (perlite) concrete mixture. |
| Concrete; Portland cement concrete | The product resulting from mixing aggregates such as sand, crushed stone, and gravel with portland cement and water to produce portland cement concrete. |
| Concrete mobile mixer | A self-propelled mixer having internal storage bins and tanks for cement, aggregates, and water, and an internal batch mixing capability. It is used for production at job sites where demand may be small or delivery time may be critical. |
| Construction joint | A vertical joint made necessary by a prolonged interruption in the placing of the surfacing material. |
| Construction limits | The limits of grading or other work generally defined by slope stakes offset from the actual slope intercepts or limits of the work. |
| Contract | The written agreement between the department and the contractor setting forth the obligations of the parties to the contract, including, but not limited to, performance of the work, furnishing of labor and materials, and basis of payment. |

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| | The contract includes the notice to contractors, proposal, contract form, contract bond, standard specifications, special provisions, addenda, general plans, detailed plans, notice to proceed, and change orders and agreements required to complete the construction of the work in an acceptable manner, including authorized extensions, all of which constitute one instrument. |
| Contract bid item | An item of work whose quantity and unit of payment are specified in the contract. |
| Contract bond | The department-approved form of security, executed by the contractor and the contractor's surety or sureties, guaranteeing the performance of the contract work, completion of the contract requirements, and the payment of claims as provided in 779.14 of the Wisconsin statutes. |
| Contract period | The period from the specified date of commencing work to the date that the specified number of calendar or working days has elapsed, both dates inclusive, or from the specified date of commencing work to the specified completion date, both dates inclusive; as specified in the contract. |
| Contract time | The number of calendar or working days shown in the proposal representing the time allowed for the completion of the work contemplated in the contract. |
| Contract time extension | An allowance of calendar or working days given to the contractor for unavoidable delays to the prosecution of the work or because of increased value of the contract, resulting in an overrun of contract time. |
| Contraction joint | A transverse vertical joint sawn in a concrete pavement slab to control the location of transverse cracks. |
| Contractor | The individual, partnership, joint venture, corporation, limited liability company, limited liability partnership, or agency undertaking the performance of the work under the terms of the contract and acting directly or through a duly authorized representative. |
| Control strip | A short section of pavement layer or course compacted to the maximum density attainable with the equipment to be used for the rest of the layer or course. The attained maximum density is used as a reference when determining density of the rest of the course or layer. |
| Controlled access | A situation where the public authority, WisDOT, or a local government establishes, through purchase or legal action, whether or not private driveways or public streets will be allowed to intersect the major highway or street, and if so, the number and nature of those connections. |
| Cost reduction incentive | A financial reward resulting from acceptance and implementation of a formal suggestion for reducing the cost of a construction contract. |
| Crown | The highest point on a nonsuperelevated cross-section of a road. |
| Crushed aggregate | Aggregate resulting from the mechanical breaking of rock, boulders, large cobbles, or gravel. |
| Culvert | Any structure not classified as a bridge that provides an opening under a roadway. |
| Daylighting | As applied to column forms: The providing of openings in the forms for the purpose of inspecting and working the concrete. As applied to highways in cuts: Cutting back the slope on the inside of a curve or at an intersection for the purpose of increasing sight distance. Daylighting ditches. |
| Dense graded aggregate | A well-graded aggregate proportioned to contain a relatively small percentage of voids. |
| Department | The Wisconsin Department of Transportation. |
| Diamond interchange | A 4-leg interchange with a single one-way ramp in each quadrant. |
| Directional interchange | An interchange generally having more than one highway grade separation, with direct connections for the major left-turning movements. |
| Divided highway | A highway with separate roadways for traffic in opposite directions. |

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| Dowel | A load transfer element usually consisting of a plain round steel bar embedded in a concrete pavement and extending across a transverse joint. |
| Drift pin | A metal pin tapered at both ends, used to draw members of a steel structure into position by being driven through the corresponding rivet or bolt holes. |
| Emulsified asphalt | An emulsion of asphalt cement, water, and a small amount of an emulsifying agent. Emulsified asphalts may be of either the anionic or cationic type, depending upon the type of emulsifying agent. |
| End-result specification | A written requirement that places the entire responsibility on the contractor or producer for supplying an item of specified construction or a material of specified quality. |
| Engineer | The secretary of the department of transportation or the secretary's authorized representative limited by the particular duties assigned to the representative. |
| Equipment | Machinery and articles necessary for the proper construction and acceptable completion of the work. This includes the supplies, tools, and apparatus for upkeep and maintenance of the equipment. |
| Expansion joint | A joint located to provide for expansion of a rigid slab without damage to itself, adjacent slabs, or structures. |
| Expressway | A divided arterial highway for through traffic with full or partial control of access and either at-grade or grade-separated intersections. |
| Extra work | All work performed by the contractor, with approval of the engineer, that does not appear in the proposal or contract as a specific bid item accompanied by a unit price, and that is not included under the price bid for other bid items in the contract. Extra work may also consist of additions to, or changes in, design of contract bid items or portions of contract bid items, if additions are wholly disassociated from or outside the scope of work in the contract, and if the work caused by these additions or changes must be performed under conditions or in a manner materially different from the conditions and manner existent for contract bid items under the original scope of work. |
| Fabricator | Company that performs fabricated metal processes such as; forging, stamping, bending, forming, and machining used to shape individual pieces of metal; and other processes, such as welding and assembling, used to join separate parts together. |
| Fine aggregate | Those aggregates that entirely pass the 3/8" sieve, almost entirely pass the No. 4 sieve, and are predominantly retained on the No. 200 sieve. |
| Fineness modulus | A numerical value obtained by adding the total percentages of a sample of the aggregate retained on each of a specified series of sieves and then dividing the sum by 100. |
| Flash point | The lowest temperature at which an asphaltic material subjected to increasing heat will ignite when exposed to open flame. |
| Flexible pavement | A pavement structure that maintains intimate contact with and distributes loads to the subgrade and depends upon aggregate interlock, particle friction, and cohesion for stability. |
| Flushing | The loss of uncombined (free) asphalt from an asphaltic mixture. |
| Fly ash | A finely divided residue resulting from the burning of coal. |
| Follower | A short piece of a pile that rests on the pile being driven and transmits the blow of the hammer to it. It is used when the top of the driven pile is below the leads of the pile driver. |
| Force account work | Prescribed work paid for on the basis of actual costs of labor, equipment, and materials. Also called "service and supply work." |
| Foresight | A survey sight taken to a point to determine elevation of that point, or a survey sight taken to a point to extend a previously established alignment. |
| Freeway | An expressway with access allowed only at interchanges. |
| Geogrid | A grid-pattern plastic sheet used to enhance the strength of earth construction. |

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| Geotextile | Any water-permeable thin sheet of textile material used with foundation, soil, rock, earth, or any other geotechnical managing-related material, as an integral part of a man-made project, structure or system. |
| Girders | The longitudinal fabricated bridge members supporting the deck of a bridge, either directly or through floor beams. |
| Gradation | A general term used to describe the composition by size of the aggregate particles in a mixture. It is usually expressed as the proportion (percent) of the aggregate that will pass a series of designated standardized sieves. |
| Grading limits | The lateral lines beyond which no material is excavated in cuts and no material is deposited in fills. |
| Grout | A mortar of liquid consistency used to consolidate a mass of loose material or to fill seams, cracks, joints, or holes and consisting chiefly of sand and cement. |
| Gusset plate | A plate of metal used at some joints of a steel-framed structure. |
| Gutter | Area between the face of the curb and the edge of the pavement. |
| High-early strength cement | A type of portland cement that differs from regular cement in chemical composition and finer particle size. Concrete made with high-early strength cement gains strength faster than that made with regular cement. |
| Hot roller | The unit of compaction equipment performing the initial or breakdown compaction of a freshly laid asphaltic surface. |
| Hot screen | The wire mesh in the aggregate feeder component of an asphaltic mixing plant. It is used to separate the various sizes of heated aggregate before incorporation in a mix. |
| Hub | A short, wooden stake of square-end section used for survey reference points. |
| Inslope | A side slope between the shoulder and the ditch. |
| Interlock | A "fail-safe" mechanism in a mixing plant that denies further progression through the sequence of operations until preset requirements are met. |
| Invitation for bids | The advertisement for proposals for all work or materials on which bids are required. Such advertisement will indicate the character, quantity, and location of the work to be done, or the character and quantity of the equipment and material to be furnished, and the time and place of submitting the proposals. |
| Island | A defined area between traffic lanes for control of vehicle movements or for pedestrian refuge. Within an intersection, a median or an outer separation is considered an island. |
| Laboratory | The materials testing laboratory of the department or other testing laboratory designated by the engineer. |
| Laitance | A weak mortar that may collect at the surface of freshly placed concrete, usually caused by an excess of mixing water or by over finishing. |
| Leads | The two vertical members of a pile driver that steady the hammer and the pile during the driving. |
| Leveling course | The layer of material placed on an existing surface to eliminate irregularities before placing an overlying course. Also called wedging course. |
| Liquid asphalt | An asphaltic material having a soft or fluid consistency that is beyond the range of measurement by the standard penetration test. Liquid asphalts include the three following normally designated types: |
| Liquid limit | The moisture content that is the boundary between the liquid and plastic states for the minus No. 40 fraction of soil. |
| Liquidated damages | A credit payment to the state by a contractor for non-justified exceeding of the contract time. |
| Local road or street | A street or road used primarily for access to residences, businesses, or other abutting property. |

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| Locke shot | A survey sight using a hand-held level, when cross-sectioning and out of range of the leveling instrument. |
| Longitudinal joint | A joint normally placed between traffic lanes to control longitudinal cracking in concrete pavement. |
| Lute | A hand-held tool that resembles a rake in general form but has a smooth, straight bottom edge in place of teeth. It is used to smooth and shape asphaltic surfaces. |
| Major item | A bid item whose total cost, determined by multiplying the bidding schedule quantity and the contract unit price, is equal to or greater than 5 percent of the total amount of the original contract. |
| Materials archive | Material documentation retained in long-term storage for future reference. |
| Materials project records | Material documentation to be retained with the construction project records. |
| Median | The portion of a divided highway separating the traveled ways for traffic in opposite directions. |
| Median lane | A speed change lane within the median to accommodate left-turning vehicles. |
| Mineral filler | Limestone dust, portland cement or other similar material incorporated into asphaltic and concrete mixes to fill voids. |
| Minor item | Any contract bid item whose total cost is less than 5% of the original contract amount. |
| Moisture content | The proportion of moisture present in a material, expressed as a percentage of the oven-dry weight of the material. |
| Moisture-density relationship | The effect of moisture content on the density of a soil compacted according to specified conditions. |
| Mud sill | A platform, usually timber, laid on earth as a bed for the sill of a framed trestle bent, or one of the timbers in such a platform. |
| Notice to proceed | A written notice from the engineer to the contractor of the time period within which the prosecution of the work must begin. |
| Open graded aggregate | A well graded aggregate containing little or no fine aggregate, with a relatively large percentage of voids. |
| Optimum moisture content | The moisture content at which a particular soil will be brought to the greatest density obtainable with a specified compactive effort. |
| Ordinary compaction | Compactive effort applied to an asphaltic layer or course to achieve a state of visual non-deflection under the compaction vehicle load. |
| Overbreak | The material in rock cuts that is removed outside the staked backslope limit. |
| Overburden | The soil mantle found over a deposit of rock, sand, or gravel. It is normally stripped off and stockpiled for later use. |
| Pavement structure | The combination of subbase, base, and surface course placed on a subgrade to support the traffic load and distribute it to the roadbed. |
| Penetration | The consistency of an asphalt cement, expressed as the distance that a standard needle penetrates a sample of the material under standard conditions of loading, time, and temperature. |
| Permeable voids | Those voids in the individual particles of a dry material that become filled with water when the material is soaked. |
| Pier | The vertical structural element built to support a bridge at the junction of connecting spans. |
| Plans | The department-approved plans, profiles, typical cross-sections, working drawings, and supplemental drawings that show the location, character, dimensions, and details of the work to be done. |
| Plastic limit | The moisture content that is the boundary between the moldable and semi-solid states of consistency of a soil. It is defined as the moisture content at which a soil will just begin to crumble when rolled into a thread approximately 1/8-inch in diameter. |
| Plasticity | The property of a soil that allows it to be deformed beyond the point of recovery without cracking or appreciable volume change. |
| Plasticity index | The numerical difference between the liquid limit and the plastic limit. |

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| Portland cement | The product obtained by pulverizing clinker consisting essentially of hydraulic calcium silicates to which no addition, other than water and/or untreated calcium sulfate, has been made subsequent to calcination. |
| Portland cement concrete | The product resulting from mixing portland cement, aggregate, and water. |
| Prime coat | An application of a low viscosity liquid asphaltic material to coat and bind aggregate particles preparatory to placing a surface course. |
| Profile grade | A line denoting elevation on the top of the pavement surface course, as taken along a longitudinal centerline or reference line. |
| Profiler | Equipment capable of measuring variations from a true plane on a pavement surface. |
| Project | The designated physical area together with improvements to be constructed under the contract. |
| Proposal | The written offer of the bidder, submitted on the prescribed proposal form, to perform the work at the prices quoted by the bidder; also, commonly known as the "bid." |
| Proposal form | The approved form on which the department requires bids to be prepared and submitted. |
| Proposal guaranty | The security furnished with a bid to guarantee that the bidder will enter into the contract if the bid is accepted. |
| PS&E | Plans, specifications, and estimates, included as part of the contract proposal package, which define the scope and detail of work to be done under the contract. |
| Pugmill | A type of mixer having paddles on a rotating horizontal shaft. |
| Pumping | The ejection of foundation material, either wet or dry, through joints or cracks, or along edges of concrete slabs, due to vertical movements of the slab under traffic. |
| Quarry | A deposit of ledge rock from which the rock is excavated by cutting or blasting. |
| Quartering | A method of reducing the size of a sample without segregation. |
| Ramp | A connecting roadway between two intersecting highways at a highway separation; also, may include other access connections. |
| Recycled asphaltic surface | A pavement produced by combining salvaged asphaltic pavement, new aggregate, and new asphalt cement. |
| Recycling | Reuse of previously used paving materials. |
| Refinery | A plant for producing petroleum products from crude oil. |
| Reflection crack | A crack appearing in a resurface or overlay that is caused by movement at joints or cracks in underlying base or pavement. |
| Resurfacing | The placing of one or more new courses or layers on an existing pavement surface. |
| Right of access | The right to enter a highway from abutting land and exit a highway to abutting land. |
| Right of entry | The right of department personnel to enter private property temporarily to survey and investigate for transportation-related purposes. |
| Right-of-way | Land, property, or interest in land or property acquired for or devoted to transportation purposes. |
| Rigid pavement | A pavement structure having a portland cement concrete slab as the surface course. |
| Riprap | An unbound collection of broken stones placed in or near water to protect a slope from erosion by lake or stream water action. |
| Roadbed | The graded portion of a highway, within top slopes and side slopes, prepared as a foundation for the pavement structure and shoulders. |
| Roadbed material | The material below the subgrade in cuts and fills (embankments) and in embankment foundations extending to such depth as affects the support of the pavement structure. |
| Roadside | The area adjoining the outer edge of the roadway. Areas between the roadways of a divided highway may also be considered roadside. |

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| Roadside control | The public regulation of the roadside to improve highway safety, expedite the free-flow of traffic, conserve abutting property values, safeguard highway investment and preserve the attractiveness of the landscape. |
| Roadway | The portion of a highway within the limits of construction. A divided highway has 2 or more roadways. |
| Rubble | Irregular pieces of rock produced by natural or man-made forces and used in masonry. |
| Sand | Granular material almost entirely passing the No. 4 sieve and predominantly retained on the No. 200 sieve. |
| Scalper screen | A wire mesh placed in a stream of aggregate to remove material of excessive size. |
| Screed | A bar, plate, or pan used to strike off fresh paving mixture to an established elevation and plane. |
| Seal coat | A thin surface treatment consisting of asphaltic material and cover aggregate. |
| Segregation | Non-uniform distribution of the various particle sizes within an aggregate. |
| Semi-automatic mixing plant | A plant which, after an initial input by the operator for each weighing, proportioning, and mixing sequence, will automatically complete the sequence. |
| Semi-final estimate | A tentative final estimate indicating the engineer has measured and reported all quantities. The department prepares and submits a semi-final estimate for the contractor's review before issuing a final estimate. |
| Shoulders | The portions of the roadway contiguous with the traveled way for accommodation of stopped vehicles, emergency use, and lateral support of base and surface courses. |
| Shrink mix | Concrete which has been partially mixed in a stationary plant, dumped into a truck mixer, and then has the mixing completed while in the truck. |
| Side slope | A surface pitched downward and away from the traveled way; an inslope. |
| Sieve | In materials testing work, a screen or series of screens having standardized square openings and used for subdividing a material into separate successive sizes. |
| Silica fume | A pozzolan used in Portland Cement Concrete to reduce the permeability of the concrete and increase compressive strengths. It can be used separately in bags, or by using a blended cement that contains the appropriate amount of silica fume. It is a co-product of the ferro-silicone industry. |
| Silt screen | A geotextile erected and anchored as a floating vertical barrier in a body of water in order to trap and retain residue resulting from construction operations, while allowing clear water to pass. |
| Slag cement | Formerly known as ground granulated blast furnace slag (GGBFS), slag cements are glassy, non-metallic, silicates and aluminosilicates of calcium, a co-product of the processing of iron ore in a blast furnace. The resulting molten material is quenched, or granulated, dried and then ground into a powder that is used as a partial replacement for portland cement in portland cement concrete. |
| Slope stake | A stake set at right angles to the centerline to mark the point at which the proposed finished highway backslope or side slope will intersect the existing ground surface. |
| Slump | Subsidence in height of a freshly mixed concrete sample, following its molding in a standard slump cone and immediate release from the cone. |
| Slurry seal | A seal coat consisting of a semi-fluid mixture of asphaltic emulsion and fine aggregate. |
| Soundness | The resistance of an aggregate to breakdown by expansion forces of freezing water or a crystallizing chemical. |
| Special compaction | The compactive effort applied to an earth embankment or base course in order to achieve a measured specific density. |

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| Special provisions | Written directions and requirements applicable to a specific project and not otherwise prescribed in the standard specifications. |
| Specifications | Written directions, provisions, and requirements contained in the standard specifications or special provisions, together with written agreements and documents referenced in the contract, pertaining to the method or manner of performing the work, the quantities of work, and the quality of materials to be furnished under the contract; as made part of the contract and contained in or referenced in the proposal. |
| Splitting | Reduction in the size of a material sample preparatory to testing by means of a standardized method. |
| Stabilization | Modification of soils or aggregates by incorporating materials that will increase load bearing capacity, firmness, and resistance to weathering or displacement. |
| Standard compaction | Compactive effort applied to an earth embankment or base course to achieve a state of visual non-deflection under the compaction equipment load. |
| Standard specifications | Written directions and requirements approved for general application and repetitive use for highway and structures construction and for administration of the contract. |
| Static roller | Compaction equipment achieving compactive effort by application of gravity only. |
| Statistically random sampling | Sampling at times or at locations determined in advance by using a table or numbers so arranged that every digit has an equal chance of occurring. |
| Storage hopper, silo | A closed, heated, and insulated container capable of storing asphaltic mixture up to 16 hours without significant heat loss. |
| Stringers | The longitudinal members supporting the flooring of a bridge. |
| Subbase | The layer or layers of specified or selected material of designed thickness placed on a subgrade to support base. |
| Subcontractor | The individual, partnership, corporation, limited liability company, or joint venture to which the contractor, with the department's written consent, sublets part of the contract. |
| Subfoundation course | An aggregate backfill placed below footings, or the bottom of box culvert slabs, in soft, muddy, or wet locations to provide support to the footing or slab. |
| Subgrade | The top surface of a roadbed upon which the pavement structure and shoulders are constructed. |
| Subletting | Agreement by the contractor with a third party for the third party to perform part of the work under the contract. |
| Substructure | All of the bridge below the bridge seats or below the tops of the caps of piling or framed trestles, including the wing walls, backwalls, and parapets of abutments. |
| Superelevation | Banking of a curve. |
| Superintendent | The contractor's authorized representative in responsible charge of the work. |
| Superstructure | All of the bridge above the bridge seats or above the tops of caps of piling or framed trestles, including flooring, but excluding wing walls, backwalls, and parapets of abutments. |
| Surety | The company executing a contract bond with the contractor. |
| Surface course | One or more layers of a pavement structure, the top layer of which resists skidding, traffic abrasion, and the disintegrating effects of climate. |
| Surface moisture | That part of the moisture content of aggregate that has not been absorbed into the particles. |
| Surface treatment | One or more applications of asphaltic material and cover aggregate, or a thin layer of asphaltic plant mix, over an old pavement or any element of a new pavement structure. |
| Surge bin | An open, unheated, and uninsulated container capable of storing asphaltic mixture without significant heat loss for no more than two hours. |

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| Tack coat | An application of asphaltic material to an existing pavement surface to provide bond with an asphaltic overlay. |
| Tie bar | A deformed (ridged) steel bar embedded in the concrete pavement and extending across a joint to prevent separation of abutting slabs. |
| Tiller | A machine having round, dull-edged discs with notched edges, used to anchor mulch by pressing it into the seed bed. |
| Time chart | A graph prepared by the project designer and submitted with the PS&E to identify controlling work items, and the time and sequencing needed for their completion. |
| Tining | Grooving of an unhardened concrete surface by means of a steel "comb." A macrotexture is produced that promotes surface water runoff, reduces hydroplaning, and improves friction. |
| Traffic lane | The portion of a traveled way provided for the movement of a single line of vehicles. |
| Transit mix | Concrete which has been produced by introducing uncombined mixture ingredients into a mixer truck and then subsequently combining and mixing entirely in the truck. |
| Traveled way | The portion of the roadway provided for the movement of vehicles, exclusive of shoulders and auxiliary lanes. |
| Tremie | An assembly of an intake hopper, tube, and discharge spout used for placing concrete under water. |
| Value engineering | An organized effort directed at analyzing the function of a highway-related component for the purpose of achieving the function at the lowest possible cost. |
| Vibratory roller | Construction compaction equipment capable of transmitting both a static and a dynamic load to the underlying surface. |
| Wale | A heavy, horizontal beam used as a guard or as a brace. In a cofferdam, wales brace the vertical sheet piles against lateral pressures. |
| Water-cementitious material ratio | The ratio of net water, total water in the mixture minus the water absorbed by the aggregates, to total cementitious materials in concrete by weight. |
| Wear | The abrasion of aggregates. The wear test measures the resistance of an aggregate to abrasion. |
| Web | The element of a "T", "H", "WF" or "I" shape structural steel beam that connects the flanges and provides stability to the beam section. |
| Well graded aggregate | An aggregate possessing proportionate distribution of successive particle sizes. |
| Work | The furnishing of all labor, materials, equipment, and incidentals and the performing of all tasks needed to complete the project or a specific part of the project as specified in the contract, together with fulfillment of all associated obligations and duties required by the contract. |
| Working day | A calendar day, except Saturdays, Sundays, department-specified holidays, and the period from November 16 to March 31, both dates inclusive, on which weather or other conditions not under the control of the contractor will allow construction operations to proceed for at least 8 hours of the day with the normal working force engaged in performing the controlling item of work which would be in progress at this time. |
| Working drawings | Stress sheets, shop drawings, erection plans, falsework plans, framework plans, cofferdam plans, bending diagrams for reinforcing steel or any other supplementary plans, computations or similar data which the contractor is or may be required to submit to the engineer for review. |
| Yield | The coverage or spread of a mixture. |