

GLOSSARY OF TERMS

Abutment: The portion of the bridge substructure at either end of a bridge that transfers loads from the superstructure to the foundation and provides lateral support for embankment.

Acceleration/Auxiliary Lane: (1) A portion of a roadway adjoining the through traveled way for parking, speed changes, or other purposes supplementary to through traffic movement. (2) A roadway, without through traffic movement, traveled for parking, speed changes, etc.

Access: A facility providing entry or exit from one area to another.

Acquisition: Right-of-Way is acquired from a property owner and filed under the City's name. Any property acquired in this manner remains the City's until it is sold or transferred.

Addendum: Written alteration, clarification, or correction of the bidding documents or Contract Documents issued after the Notice to Bidders but before a bid opening; Outsourcing or Consultant Contract changes in scope of work or scope of services.

Admixture: Material other than water, aggregates, hydraulic cement, and fiber reinforcement used as an ingredient of concrete or mortar and added to the batch immediately before or during mixing.

Advertisement: A public announcement requesting services or bids for work or furnishing materials.

Aesthetics: The considerations of landscaping, land use and structures to insure that the proposed project is pleasing to the eye of the viewer from the roadway and to the viewer looking at the roadway.

Aggregate Base Course: The layer of material immediately beneath the pavement. It may be composed of crushed stone, crushed or uncrushed sand and gravel, or combinations of these materials. To provide the service intended, it must be uniform in strength to support the pavement.

Aggregate: Stone and gravel of various sizes, which compose the major portion of the surfacing material.

Alignment: The vertical and horizontal location of a street.

Alley: An established passageway for vehicles and pedestrians affording a secondary means of access in the rear to properties abutting on a street or highway.

Arterial Street: Denotes a street primarily for through traffic, usually on a continuous route with collector roads and streets joining it.

Asphaltic Cement: Brownish black, solid or semisolid mix of bitumens from native deposits or a petroleum by-product used in the manufacturing of asphaltic concrete.

Average Daily Traffic or ADT: A measurement of the number of vehicles, which use a street over the period of year or defined time period. If for a year, this is divided by 365 to obtain the average for a 24-hour period.

Award: Acceptance of a written offer to perform the work contained in the contract as an outcome of a proposal submitted with specific defining factors for services to be rendered.

Award Date: The date the City of Lincoln notifies the successful Bidder of the award/acceptance of a proposal.

Award Letter: A letter notifying the successful Bidder of the award of a contract/project.

Backfill: The operation involving the placement of materials in a trench, excavation, or adjacent to a structure. Also can refer to the material removed during construction.

Backslope: A downward-sloping surface toward a roadbed/street or other improvement. Also, the slope from the bottom of the ditch to natural ground on the opposite side of the foreslope.

Barrier: A device which provides a physical limitation through which a vehicle would not normally pass. It is intended to contain or redirect an errant vehicle. Ex: guardrail, crash cushions, and bridge railings.

Base, Base Course: A layer or layers of designed material (gravel, sand, dirt, crushed concrete, limestone) used to support the surfacing material.

Bicycle Lanes: Portions of a roadway set aside for bicycle use, with the lanes distinguished from the motor vehicle portion of the street by painted stripes, curbs, or parking blocks.

Bicycle Routes: There are three types: Bicycle Trails, Bicycle Lanes and Shared Streets (roadways)

Bid Date: The date in the Contract Documents that indicates the date on or before all proposals must be received by the City.

Bid Item: Specific work unit for which the contract provides a price.

Bid Opening: (1) The act of publicly declaring a portion or all of a Bidder's proposal. (2) The time in the Contract Documents that indicates the date on or before all proposals must be received by the City

Bidder: An individual or legal entity submitting a proposal for advertised work.

Bitumen: A natural asphalt or substance found in a natural state or a residue by-product from petroleum refinement.

Bituminous: Containing Bitumen.

Bond: A promissory note (bond) provided by a Surety.

Borrow Excavation: If there is insufficient earth along a project, the contractor is required to obtain the needed additional material from a source. The material is called borrow excavation.

Borrow Pit Restoration: Returning the area used for borrow material to a usable condition.

Borrow Pit: Excavation site providing material for use in another location.

Box Culvert: Cast-in-place or pre-cast reinforced concrete box shaped tube that is located under the embankment to drain water from one side of the street to the other.

Bridge Approach (Approach Slab): The section of pavement that is the transition between land and bridge measured from the end of floor to the centerline of the grade beam.

Bridge Deck Scarification: Removal of an existing concrete bridge driving surface in preparation for a concrete overlay usually using a cold milling machine (hardened steel bits attached to a revolving drum).

Bridge Deck: The floor of a bridge or the driving surface of a bridge.

Bridge Length: The distance measure along the line of survey stationing from end to end of a bridge floor. The bridge length shall not be less than the total clear opening of the structure.

Bridge Roadway Width: The distance measured at right angles from the longitudinal bridge centerline

Bridge Substructure: A portion of a bridge structure below the bearings of simple and continuous spans, skewbacks or arches, and tops of rigid frame footings, including backwalls, wingwalls, and wing protection railings.

Bridge Superstructure: A portion of a bridge structure excluding the bridge substructure.

Bridge: A structure, including supports, that spans between two elevations above a lower elevation having a centerline length of more than twenty (20) feet.

Buffer Pier: Supporting structure at the junction of connecting spans of a bridge.

Bypass Routes: A roadway that permits traffic to avoid part or all of an urban area.

Calendar Day: Every day, beginning and ending at midnight, shown on the calendar, including Sundays and holidays.

Capacity: Maximum number of vehicles having a reasonable expectation of passing over a given section of a lane or street, traveling in one direction, during a given time period under prevailing street and traffic conditions.

Capital Improvement Program (CIP): A capital improvement program is a multi-year budgeting tool that programs capital facilities for construction or acquisition.

Cement: A powdered product made by grinding clinkers of limestone, clay, and other materials, and which reacts with water to form a rock like substance used to bond aggregates together in concrete.

Centroid: An assumed point in a zone that represents the origin or destination of all trips to or from the zone. Generally, it is the center of trip ends rather than a geometrical center of zonal area. (also called Zone Centroid)

Channel: Path in which water will or does flow; natural or artificial watercourse.

Channel Change: The change in direction of the natural path of water flow.

Channel Clean Out: The removal of debris, soil deposits, or heavy brush in an existing path of water flow.

Channel Excavation: When a new bridge or drainage structure is constructed over an existing waterway, sometimes it is necessary to dredge out or straighten the existing waterway channel.

Channelization of a street: The direction of the traffic flow into definite paths, by means of traffic markings, islands, or other means.

Chip Seal: A method of street/road rehabilitation/repair, which consists of spraying a street/road with oil and spreading rock on the top.

City: The City of Lincoln. A municipal corporation established under the authority delegated by the Constitution of the State of Nebraska known as the City of Lincoln.

Coarse Aggregate: Mineral aggregate or portion of a mineral aggregate that retains on a #4 (6.4 mm) screen.

Cofferdam: During the construction of a bridge pier in, or adjacent to a stream, the contractor may be required to drive sheet piling into the stream. This creates a cofferdam. The mud and additional stream bed material must be excavated prior to the construction of the pier. This is called cofferdam excavation.

Cold Milling: When preparing an existing bridge deck or street pavement for resurfacing, the creation of a new street cross section and profile using a machine that has hardened steel bits in a revolving drum.

Commercial Driveways: Any driveway providing access to land which is used for industrial or commercial purposes.

Completion Date: A specific calendar date on or before the Contractor must complete all work.

Concrete: A building material made of sand and gravel bonded together with Portland cement into a hard, compact substance.

Condemnation (Eminent Domain): The taking of private property for public use by a governmental agency, usually against the will of the owner, but with payment of just compensation. The legal process includes a resolution of public need, a purchase offer, and if a purchase cannot be negotiated, then court proceedings are initiated to determine the fair market value.

Contract: Binding written agreement between two parties detailing the obligations of each to perform the prescribed work.

Contract Price: The moneys payable by City to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement.

Construction Contract Documents: Invitation for Bids, Proposal, Contract, Contract Bond, Specifications, Supplemental Specifications, Special Provisions, Materials Testing Manual, General

Conditions, Plans, Detailed Plans, Change Orders, Notice to Proceed, and any agreements required to satisfactorily complete the work, including authorized extensions thereof, all of which constitute one instrument.

Construction Plans: Show the details that are necessary to construct a specific project. They should be tailored to provide all the information necessary to accomplish the work in an orderly manner.

Contract Bond: An approved security executed by the Contractor or its Surety, or sureties, which guarantees completion of the specified work and payment of all legal debts pertaining to the work specified in the contract.

Contract Period: The period of time from the specified date to commence work to the date that the specified number of working days or calendar days has elapsed or to the specified completion date as indicated in the contract.

Contract Price: The moneys payable by the City to the Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement.

Contract Specifications: The requirements that are to be followed in the construction of projects for the City of Lincoln.

Contract Sum: Total monetary amount for all work contained within the Contract Documents.

Contract Time: Date, number of working days, or calendar days allowed to complete the Contract.

Contractor: An individual or legal entity contracted to perform the work

Control of Access (full): The authority to control access that allows access to select roads only and does not allow connections to driveways and grade crossings.

Control of Access (partial): Authority to control access that allows some access to select roads and may allow driveways and some grade crossing.

Controlled-access facility: A highway or street especially designed for through traffic and over, from, or to which owners or occupants of abutting land or other persons have no right or easement or only a controlled right or easement of access, light, air or view by reason of the fact that their property abuts upon such controlled-access facility or for any other reason; may be a parkway.

Controlling Operation: Operation that, if uncompleted, delays the completion of the work.

Corridor: An area of variable width between two points. Defined areas where the needs for improvements are studied.

Cost Benefit Ratio: Method of determining the economic justification of alternatives for improvements. The benefits and respective costs for each alternative are determined and the ratio of benefits to cost for each project is compared.

Cost Estimate: An estimate predicting cost based upon past experience and available information.

Crack Sealing: A method of street/road rehabilitation/repair consisting of applying asphalt rubber into the crack to seal it and prevent water from getting into/under the street.

Cul-de-sac: (1) A local street that terminates in a permanent turnaround, design is not intended to continue beyond its terminal point. (2) A local street that is open at one end only and allows for vehicles to turn around. (3) A local street open at only one end with special provision for turning around.

Culvert: (1) Any structure, not classified as a bridge, which provides an opening under the roadway or street.

Curb Cut: Curb cut shall mean the total width of the driveway approach at the edge of the roadway, representing the sum of the driveway throat width and the driveway return radii or tapers on both sides.

Dead end Street: A local street open at one end only with no special provisions for turning around.

Deceleration Lane: A portion of roadway that adjoins the through traveled way used for speed changes, or other purposes supplementary to through traffic movement.

Deck Slab Repair: Wearing surface of a bridge that must first be repaired before it receives a new wearing surface. Deck slab repair usually consist of partial and full depth patching followed by resurfacing.

Department of Roads: Nebraska's state highway agency which has the responsibility for initiating and carrying forward the planning, design, construction, and maintenance of highways on the state and federal highway systems, as well as intermodal and railroad liaison. Referred to as "NDOR".

Design Capacity: Maximum number of vehicles which can pass over a lane or street during one hour without operating conditions falling below a pre-selected design level.

Design Hourly Volume: A volume determined for use in design representing the traffic that is expected to use the street in any designated year. It is an hourly volume, usually the 30th highest hourly volume expected during the design year.

Design Life: The expected life of any infrastructure project.

Design Standard Specifications: Specifications for such design features as curvature, grades, roadway width, drainage facilities, etc.

Design Year: Year of initial construction, plus design life.

Destination: The zone in which a trip ends.

Detector Loop: A piece of wire placed under the pavement at an approach to a signalized intersection that sends a message to the traffic signal which notifies that a vehicle is approaching the intersection or is stopped at a red light.

Detour: The route used for through traffic around construction areas.

Dikes: A bank, usually of earth, constructed to control or confine water.

Dowel Bars: Steel bars placed at joints in concrete pavement used to facilitate the transfer of loads from one slab to another slab when vehicles travel along the pavement.

Drainage Easement: The right to use property of another for directing the flow of water. These may be temporary or permanent.

Drainage Structure: Structures used to promote or aid drainage other than drains, levees, and pumping plants. Term includes catch basins, bulkheads, spillways, pipe outlets, etc.

Drawing Number: A number assigned to the plans at the beginning of a project based on the sheet size to assist with archiving plans.

Drawings: Also known as plans – hard copy or electronic digital images showing the location, character, and dimensions of the prescribed work including layouts, profiles, cross sections and details.

Driveway Approach: Driveway approach shall mean the area of the public right-of-way between the roadway and the property adjacent to the public right-of-way, which is intended to provide access for vehicles from the roadway to the adjacent property.

Driveway Return Radius: Driveway return radius shall mean a circular transition or taper between the driveway approach and the roadway edge to facilitate the turning movement of vehicles.

Driveway Throat: Driveway throat shall mean the narrowest point of the driveway approach, usually at the property line, measured from edge to edge perpendicular to the centerline of the driveway approach.

Drop Structure: Type of drainage structure used to carry water under or away from the street with vertical drop built into the structure.

Easement: The right to use property of another for designated purposes. These may include, but are not limited to, construction easements, drainage easements, sight line easements, or slope easements. These easements may be either temporary or permanent.

Egress: Access from a land parcel to a public roadway.

Embankment: A raised structure of soil, soil-aggregate, sand or rock. The top of which is higher than the surrounding surface or the original surface.

Eminent Domain: In property law, condemnation is identical to eminent domain. See Condemnation.

Emulsified Asphalt: A common construction materials used to prime, seal or resurface a highway. Consist of asphalt that is chemically mixed with water in an emulsion.

Erosion Control Measures: Standards used to retard deterioration or destruction of the land surface.

Excavation Limits: Vertical and horizontal boundaries established to control the excavation process.

Excavation: (1) The act or operation of digging out and removing materials. (2) The cavity formed by cutting, digging or scooping. (3) Soil material removed during the process of cutting or digging in the ground.

Expressway: A divided arterial street with full or partial control of access.

Federal Agency: a Federal agency or officer acting in accordance with law to the powers, duties, jurisdiction, and authority of the agency or officer.

Fine Aggregate: Mineral aggregate or portion of a mineral aggregate that passes through a #4 (6.4mm) screen and retains on a #200 (75um) sieve.

Foreslope: a Downward-sloping surface away from a roadbed or other improvement. Also, the edge of the shoulder to the bottom of the ditch or to the bottom of the roadway fill.

Foundation Course: A layer of granulated material under Asphaltic concrete or Portland cement concrete pavement providing frost resistance and a stress-distributing medium.

Freeway: A divided arterial roadway with full control of access and general grade separations.

Frontage Road: A street located on the side of an arterial street that permits access to abutting properties and areas (residences and businesses) from the controlled intersection of the arterial street.

Full control of access: The right of owners or occupants of abutting land or other persons to access or view that is fully controlled by public authority having jurisdiction and that such control is exercised to give preference to through traffic by providing access connections with selected public roads only and by prohibiting crossings or intersections at grade or direct private driveway connections.

Functional Classification: Identification of a street by the function it serves.

Grade: The vertical location of a street or utility (water main, gas, electric, fiber optic, sewer line, etc)

Grade Separation: The crossing of a roadway, trail, or a railroad at different elevations, such as a bridge carrying the roadway over the railroad, etc. (Also see overpass, underpass, viaduct)

Ground cover: Grasses or other plants grown to keep soil from being blown or washed away.

Haul Road: A traveled way designated for hauling equipment, materials, or machinery.

Horizontal Curve: Bend from a straight line or course along a street.

Impact Attenuators: A crash cushion that collapses to dissipate the energy of an impacting vehicle to prevent injury. Impact attenuators are commonly used where streets or roadways separate or split.

Ingress: Access from a public roadway to a land parcel.

Internal Trip: As used in traffic studies, a trip with both origin and destination within the survey area.

Intersection Sight Distance: The minimum distance required at an intersection that will enable a vehicle that is stopped at the intersection to see oncoming traffic at a sufficiently long enough distance to allow them to safely cross the street or enter the street and accelerate to near the design speed.

Joint: (1) A formed or sawed groove placed in a pavement structure for the purpose of controlling the location and formation of cracks. (2) The location at which two or more abutting links of pipe material meet.

Land Use: The function for which various land areas is used or there are plans to use: agriculture, housing, education, cultural, recreational, religious, industrial and commercial uses.

Lateral Obstacle Clearance: An area relatively flat and free of obstacles beyond the edge of the travel way for the recovery of out-of-control vehicles.

Level of Service: The term used to indicate the quality of service provided by a facility under a given set of operating conditions.

Luminaire: Street light

Maintenance: The preserving and keeping of each type of roadway, roadside, structure, and facility as nearly as possible in its original condition as constructed or as later improved.

Maintenance and Operating Costs: The cost of keeping the street in operating condition (repair of pot holes, mowing, snow removal).

Materials Testing Manual: A manual developed by the City of Lincoln that indicates the testing or inspection guidelines for work to be completed either by the City of Lincoln or an individual or agency acting as a contracted partner with/for the City of Lincoln.

Median: The portion of a divided roadway/highway separating the traveled ways for traffic in opposite directions. (2) A planted or paved section between two or more lanes in or near the center of the street not intended for vehicular travel.

Mineral Aggregate: A relatively inert, granular material of mineral composition.

Notice to Proceed: Written notice to the Contractor instructing the Contractor to proceed with the work.

One-and Six Year Plans: The immediate one-year construction to be done in the current fiscal year and the proposed construction objectives for the next five fiscal years. These plans are updated annually to include the next fiscal year and submitted to the Department of Roads' Board of Classifications and Standards.

Operating Speed: The highest overall speed at which a driver can travel on a given street under favorable weather conditions and under prevailing traffic conditions without at any time exceeding the safe speed as determined by the design speed on a section-by-section basis.

Origin: Used in traffic studies, the zone in which a trip begins.

Origin-Destination Studies: The trip data obtained from vehicles (via license plate recording or other method) as to where the trip started, and determination by matching data, of where the trip ends. Used to forecast traffic patterns.

Over-All Speed: Used in traffic studies; total distance divided by total time, including all delays.

Overlay: A method of street/road rehabilitation/repair consisting of milling off the top 1.5 to 2 inches and replacing it with fresh asphaltic concrete to seal and revitalize the street/road.

Overpass: The uppermost feature of a grade-separated crossing.

Passenger Car: Includes passenger cars of all sizes, sport/utility vehicles, minivans, vans, and pick-up trucks.

Passing Sight Distance: The minimum sight distance available on a roadway that is sufficiently long enough to enable a vehicle traveling at or near the design speed to safely complete the passing maneuver without cutting off the passed vehicle in advance of meeting an opposing vehicle appearing during the maneuver.

Pavement Marking: The lane lines or symbols painted on pavement surfaces. Marking can be done with several different types of material.

Paving Section: The transition between the bridge approach slab and the typical roadway section measured from the centerline of the grade beam to the beginning of the typical roadway section.

Peak Hour: As used in traffic studies: the one-hour period during which the maximum amount of travel occurs. Generally, there is a morning peak and an afternoon peak and traffic assignments may be made for each period, if desired.

Pedestrian Crossing: Designated crossings where pedestrians may safely cross a busy street.

Pedestrian: Any person afoot or in a mechanized /hand propelled chair.

Permanent Easement: A strip of land within a larger area to which the property owner grants permanent right-of-access by an individual or legal entity. Permanent Easements are acquired for a specific purpose. Any property right-of-way acquired in this manner remains the City's until it is sold or transferred by the City.

Plans: The drawings, standard plans, profiles, typical cross sections and supplemental drawings which show the dimensions, locations, details and character of the work to be performed. All such documents are considered a part of the contract documents, whether attached to the plans or separate.

Pre-Cast Concrete: Conventionally reinforced (not pre-stressed) concrete products formed, cast, and cured in a casting yard and later incorporated into the work.

Pre-Stressed Concrete: Concrete subjected to compressive stresses, after hardening, using high strength tendons, for the purposes of eliminating or minimizing tensile like stresses in the concrete due to applied loads.

Private Roadway: Private roadway shall mean a designated area on an approved special permit, use permit, planned unit development, or subdivision, that is privately owned and that is use or is intended to be used for the principal purpose of serving as vehicular access to abutting property. Normally marked by blue colored street name signs.

Private Sewers: Private sewers shall mean all piping, conduits and appurtenances associated with building drains, wastewater services and non-public wastewater collectors including the point of connection or tap into the City of Lincoln Wastewater System public wastewater collector.

Private Water Main System: A private water main system shall mean the principal arteries of a water main system which is not owned, operated and maintained by the Lincoln Water System, including all piping, valves, fire hydrants, storage facilities metering equipment, backflow prevention devices and other appurtenances and which carry and/or distribute water to customer service piping. The private water main system shall include the connection or tap into the public Water Main but shall not include the customer service piping.

Professional Engineer (P.E.): One who has passed examinations pertaining to a specific selected engineering division (civil, landscaping, mechanical, chemical, electronic, etc.) By passing the examination by the State Board of Examiners for Engineering and Architects, they are recognized as a licensed Professional Engineer with the right to add P.E. behind their name and granted a Professional Engineering stamp to be used when accepting responsibility for plans.

Profile Grade: A line that represents the roadway's vertical alignment as seen in the profile view.

Program (noun): A priority listing of projects, usually for a defined period of time.

Program (verb): To establish and execute procedures.

Project Number: A number that is assigned to a project to identify it on correspondence, documents and plans.

Project: The specific work and appurtenances to be performed under the contract.

PS&E: Plans, Specifications, and Estimates. An assembly that should include complete sets of plans, proposal assembly including bidding documents/special provisions/required contract provisions, Engineer's estimate, and approved agreements with railroads, utilities and municipalities.

Public Participation: The involvement of citizens in governmental decision-making processes. Participation ranges from being given notice of public hearings to being actively included in decisions that affect them. Public participation includes identifying concerns and issues; providing information and opportunities for the public to comment.

Public Sanitary Sewer (Public Wastewater Collector): A public sanitary sewer shall mean public sewer that conveys wastewater, and into which storm, surface, ground and unpolluted waters are not intentionally admitted.

Public Street: Public roadway or thoroughfare in a city or town, usually with a sidewalk or sidewalks, which has been acquired or dedicated to the public and accepted by the appropriate governmental agencies for street purposes.

Public Water Main: A public water main shall mean any public pipe which is owned, operated and maintained by the Lincoln Water System.

Public Works & Utilities Department: see <http://www.lincoln.ne.gov/city/pworks/faq.htm>

Railroad At-Grade Crossing: The general area where a roadway and a railroad cross at the same level.

Raised Median: That portion of the street that is raised above the travel-way by means of a curb and is used to separate opposing traffic. Also known as Raised Island or Traffic Island.

Raised Pavement Marker (RPM): a reflective device used to delineate the end of an island or mark an object in an island.

Ramp: A connecting street/roadway between two intersection streets/roadways at a grade-separated intersection.

Reinforcement Bars (Rebar): Steel bars placed in concrete pavement or concrete structures to provide additional strength.

Retaining Wall: A structure used to contain an embankment or a backslope.

Right-of-Way (ROW): (1) Land, property or interest acquired for or devoted to storm drainage, sanitary sewer, water, or transportation purposes. (2) This term can include acquisition of city property by deed, purchase of permanent easements, and/or temporary easements.

Right-of-Way Appraisal: A determination of the market value of property including damages, if any, as of a specified date, resulting from an analysis of facts.

Riprap: Broken concrete or limestone rock placed to prevent erosion during construction of an embankment adjacent to a stream or lake.

Road: General term denoting a public way for purposes of vehicular or pedestrian travel (also called street or highway).

Roadbed: A graded portion of a street or alley prepared as the subgrade for construction of a pavement structure and shoulders.

Roadside Development: Items necessary to preserve or replace landscape materials and features.

Roadside: An area adjoining the outer edge of a street or road. Extensive areas between the roadways of a divided highway may also be considered roadside.

Roadway: The portion of a road or highway, including shoulders, for vehicular use.

Rural-to-Urban Transition for Streets (RUTS): A joint program between Lancaster County and the City of Lincoln for the planning, funding, design and construction of roads within the 3-mile jurisdiction.

rutting: Permanent unrecoverable deformation to the surface of an asphaltic concrete pavement structure characterized by a surface cross section no longer in its design position.

Seal Coat: An existing street can be rehabilitated or given a new wearing surface by spraying it with liquid asphalt followed by a uniform sprinkling of aggregate. Also called chip and seal.

Sector: As used in traffic studies: a combination of traffic zones which presents a more meaningful tabulation of traffic data.

Sediment Basin: A structure in which water moves slowed enough for suspended particles to settle.

Shoo-fly: A detour that is adjacent to construction.

Shop Drawing: A drawing furnished by the Contractor showing sufficient detailed information to build the object shown and described.

Shoulder: Portion of the roadway adjacent to the traveled way that can accommodate stopped vehicles for emergency use and for lateral support of base and surface courses. The shoulder can be made of turf, bituminous mixture, or concrete.

Sidewalk: A portion of the right-of-way constructed exclusively for pedestrian use.

Sight Distance: The line of sight available to the driver to see another car for passing sight distance or to see a fixed object for stopping sight distance. (See Intersection Sight Distance, Passing Sight Distance, and Stopping Sight Distance)

Signing: Visual method of providing the vehicle driver, bicycle rider, or pedestrian, with guide, warning and regulator information along a street or route.

Slope: An inclination of a line or surface.

Slurry Seal: A method of street/road rehabilitation/repair consisting of mixing oil and rock together prior to spreading them on the street/road. Differs from chip seal in that the oil is sprayed and then the rock placed on top of the oil.

Soil Erosion: Wearing away of soil by the action of water, wind or glacial ice.

Special Provisions: Additions, provisions, commitments for environmental mitigation contained in environmental documentation, requirements, addendums, and revisions to the Standard and Supplemental Specifications applicable to an individual project.

Specifications: The Standard Specifications, Supplemental Specifications, Special Provisions, and all written or printed agreements and instructions pertaining to the method and manner of performing the work or to the quantities and qualities of the materials to be furnished under the contract.

Stabilizing or Stabilization: The incorporation of materials into soils or aggregates to increase load-bearing capacity, firmness, and resistance to weathering or displacement.

Standard Plan (LSP): A detailed drawing, approved for repetitive use showing details to be used where appropriate, used to reduce the number of required drawings to be supplied for each project. They provide uniformity of design and construction where the details are the same from project to project.

Standard Specification: Written provisions and requirements approved for general application and repetitive use.

Stopping Sight Distance: The minimum sight distance available on a roadway that is sufficiently long enough to enable a vehicle traveling at or near the design speed to stop before reaching a stationary object in its path.

Subbase: Materials such as gravel, sand, crushed concrete, aggregate, emulsified oil, or tack oil used underneath a road/street permanent surface.

Subgrade: The top layer of a roadbed upon which the pavement structure, shoulders, and curbs are constructed.

Supplemental Agreement: A written and signed agreement by all parties to the contract to perform work beyond the scope, but in conjunction with the original contract, including any prior modifications.

Supplemental Specification: An approved addition or revision to the Standard Specifications.

Surety: An individual or legal entity, other than the Contractor, executing a bond furnished by the Contractor.

Surface Course: A pavement structure layer or layers constructed atop all other pavement layers and designed to accommodate the traffic load.

Surfacing: Material used to construct the upper layer (driving surface) of a pavement structure.

Temporary Easement: A strip of land within a larger area over which the property owner grants a temporary right-of-access to an individual or legal entity. Temporary Easements are acquired for a specific purpose, usually for construction purposes. Any property right-of-way acquired in this manner remains the City's until the construction of the project is complete.

Temporary Pavement: Pavement layers constructed to provide a temporary service to vehicular or pedestrian traffic.

Terminus: (1) The origin or destination of a trip. (2) The location of the starting point and ending point of a construction project.

Terrain: Physical features of land.

Through Trip: As used in traffic studies, a trip having both origin and destination outside the Survey Area, passing completely through the area and crossing a set up measurement location twice. To the curb bottoms, guard timbers, or lower risers.

Topography: Representation on maps or charts depicting natural and man-made features of an area or region.

Traffic: All types of vehicles, as well as pedestrians, using any street, road, or highway for the purposes of travel.

Traffic Control Device: (1) Any sign, signal, marking or installation placed or erected under public authority, for the purpose of regulating, warning, informing or guiding traffic.

Traffic Control Plan: A plan for handling traffic through a specific highway or street work zone or project.

Traffic Count: A count of total vehicular and pedestrian traffic passing a given point on a street during a specified time period.

Traffic Demands: The number of vehicles or pedestrians desiring to use a particular route.

Traffic Flow: The movement of vehicles or pedestrians on the street system or on a single route can be expressed in terms of volume (vehicles per hour), average speed (miles per hour) or traffic density (vehicles per mile). Thomas

Traffic Forecasting: Estimating future traffic patterns on the basis of known transportation variables.

Traffic Lane: Portion of the traveled way designated the movement of a single line of vehicles, pedestrians or bicyclists.

Traffic Marking: A traffic control device consisting of line, patterns, or colors on the pavement, curbs or other objects within or adjacent to the roadway; or words or symbols on the pavement.

Traffic Sign: A traffic control device mounted on a fixed or portable support that conveys a specific message by means of words or symbols. This is officially erected for the purpose of regulating, warning, or guiding traffic.

Traffic Signal: A power-operated traffic control device by which traffic is regulated, warned, or alternately directed to take specific actions.

Traffic Volume: The amount of traffic on a particular route.

Travel Time: The time of travel, including stops and delays, except those off the traveled way.

Traveled Way: Portion of the street for the movement of vehicle/pedestrian/bicycle use exclusive of shoulders and auxiliary lanes.

Treated Subgrade: A subgrade strengthened by using a stabilizing agent.

Trench Backfill: The materials used to backfill the excavation for utility construction

Trip: As used in traffic, and conducted for a specific purpose-a one-direction movement of a vehicle which begins at the origin start time and ends at the destination at the arrival time.

Trip Generation: (1) The number of trips starting or ending in a particular area in relation to the land use or socio-economic characteristics of that area.

Trucks: All buses, single-unit trucks, and combination trucks

Tubular Marker: Flexible, stands vertical with the end of an island or as a temporary pavement marking dividing one-way lanes of traffic into two-way lanes of traffic.

Underpass: The lowermost feature of a grade-separated crossing.

Vehicles Per day (VPD): As used in traffic, number of vehicles that pass a particular point on the street during a period of 24 consecutive hours.

Vertical Curve: A smooth transition between two sloping grade lines; a hill or valley. Also, a curve on the longitudinal profile of a street to provide for change of gradient.

Viaduct: A bridge made up of multi-spans supported on piers carrying the roadway over streets, highways, railroads and/or streams. (See grade separation)

Volume: The number of vehicles that pass over a given section of a lane or street during a specified time period. Volume can also be expressed in terms of daily traffic or annual traffic.

Wastewater Service Line (Sewer Service): Wastewater service line shall mean a private sewer beginning three (3) feet outside of a private building wall up to and including the connection or tap into the public sanitary sewer line or other place of disposal.

Water Service Line: Water service line shall mean the supply connection, supply pipe, service pipe, valves, and related apparatus from the public main to the meter located in either the customer's building or meter vault.

Watershed: The area contained within a divide above a specific point on a stream.

Waterway: A channel for the escape or passage of water.

Wetland: Areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support (and that under normal circumstances do support) a prevalence of vegetation typically adapted for life in saturated soil conditions.

Zoning: The division of an area into districts and the public regulation of the character and intensity of land use and improvement thereon.

REFERENCES, ABBREVIATIONS, AND ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
AC	Asphalt Cement – Asphalt specifically refined as to quality and consistency for use in the manufacture of asphalt pavements
ACEC	American Council of Engineering Companies
ACI	American Concrete Institute
ADA	Americans with Disabilities Act of 1990
ADT	Average Daily Traffic volume
AGC	Associated General Contractors
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
APTA	American Public Transit Association
APWA	American Public Works Association
ASCE	American Society of Civil Engineers
ASTM	American Standard of Testing Materials
ATIS	Advanced Traveler Information System
AWG	American Wire Gauge
AWS	Advanced Warning System
AWWA	American Water Works Association
BID	Business Improvement District
CBD	Central Business District
CE	Construction Engineering
CFR	Code of Federal Regulations
CIP	Capital Improvement Program
CMAQ	Congestion Mitigation and Air Quality
CMP	Corrugated Metal Pipe
CMS	Congestion Management System
COL	City of Lincoln
DBE	Disadvantaged Business Enterprise
DHV	Design Hourly Volume
DMS	Digital Message Sign
DOT	Department of Transportation
EA	Environmental Assessment
EEO	Equal Employment Opportunity
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
FR	Federal Register
FSS	Federal Specifications and Standards
GSA	General Services Administration
HDPE	High Density Polyethylene – Thermoplastic, high molecular weight, organic compound comprised of many molecules of ethylene

HOV	High Occupancy Vehicle
ID	Inside Diameter
IEEE	Institute of Electrical and Electronics Engineers
IMSA	International Municipal Signal Association
IPCEA	Insulated Power Cable Engineers Association
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITE	Institute of Transportation Engineers
LDPE	Low Density Polyethylene – Thermoplastic, low molecular weight, organic compound containing ethylene molecules
LMC	Lincoln Municipal Code
LOS	Level of Service
LRFD	Load and Resistance Factor Design
MPO	Metropolitan Planning Organization
MUTCD	Manual on Uniform Traffic Control Devices
NARD	Nebraska Association of Resources Districts
NDEQ	Nebraska Department of Environmental Quality
NDOR	Nebraska Department of Roads
NEC	National Electrical Code
NEPA	National Environmental Policy Act of 1970
NESC	National Electrical Safety Code
NHI	National Highway Institute
NHS	National Highway System
NHTSA	National Highway Traffic Safety Administration
NPDES	National Pollutant Discharge Elimination System
NRD	Natural Resources District
OSHA	Occupational Safety and Health Administration
PCC	Portland Cement Concrete – A construction material comprised of mineral aggregates coated and cemented together using Portland cement and other additives
PE	Preliminary Engineering
PG Binder	Performance Graded Binder – Asphalt Cement graded in accordance with the test procedures contained in AASHTO MP-1
Psi	Pounds per Square Inch
PVC	Polyvinyl Chloride – Synthetic resin prepared by the polymerization of vinyl chloride
PW&U	Public Works and Utilities
QBS	Qualification Based Selection
RCP	Reinforced Concrete Pipe – Concrete pipe containing rods or fibers to withstand greater stresses and strains
RFI	Request for Information
RFP	Request for Proposals
RFQ	Request for Qualifications
ROW	Right-of-Way
RTSD	Railroad Transportation Safety District
RUTS	Rural-to-Urban Transition for Streets
SHPO	State Historic Preservation Office
SHRP	Strategic Highway Research Program
SOV	Single Occupancy Vehicle
STIP	State Transportation Improvement Program

STP	Surface Transportation Program
TEA-21	Transportation Equity Act for the 21 st Century
TIF	Tax Increment Financing
TIP	Transportation Improvement Program
UL	Underwriters Laboratories Incorporated
USC	United States Code
USDOT	United States Department of Transportation
VCP	Vitrified Clay Pipe – Fired clay pipe generally used for sewers