

CATEGORIES DEFINED

ARCHAEOLOGY/PALEONTOLOGY (STATE): Intended to include (but not limited to) conducting Level I Record Searches, Level II Sample Surveys, and Level III Intensive Surveys to identify and document (maps, descriptions, GIS, project limits, findings) areas of potential effect associated with highway projects in compliance with the requirements of the State Historic Preservation Office (SHPO), the Tribal Historic Preservation Office (THPO), and the National Environmental Policy Act (NEPA).

BRIDGE DESIGN (STATE): intended to include (but not be limited to) structure hydraulics studies, design/analysis, specification development, plans preparation, construction support (shop plan reviews, field inspection, CCO design & plans, etc.) related to structure design and retrofits on highway projects for motorized and non-motorized modes of transportation.

BRIDGE EVALUATION/TESTING (STATE): intended to include (but not be limited to) non-destructive testing/evaluation (NDT/NDE) of structural connections and materials, physical testing of structural materials, fracture analysis, petrographic analysis, ultrasonic impact treatment, condition inspection, load rating and evaluation related to existing bridges and structural elements.

BRIDGE HYDRAULICS / HYDROLOGY (STATE): intended to include (but not be limited to) drainage & flood studies, hydraulic design, TS&L meetings, bridge scour determination, erosion protection recommendations, specification development, plans preparation, construction support (field inspection, reviews, CCO design, etc.) related to drainage features on highway projects for motorized and non-motorized modes of transportation.

BRIDGE INSPECTIONS (STATE): – intended to include (but not limited to) perform National Bridge Inspection Standards (NBIS) in-field bridge safety inspections and load analyses, complete AASHTOWare BrM inventory coding, and submit inspection reports and pictures detailing the condition of each structure.

BRIDGE PROTECTIVE COATING DESIGN (STATE): intended to include (but not be limited to) design, specification development, plans preparation, and construction support (field inspection, reviews, CCO design, etc.) related to bridge protective coatings.

CONSTRUCTION ADMINISTRATION/INSPECTION/TESTING (STATE): intended to include (but not be limited to) project administration (pay estimates, CCO preparation, project documentation etc.), construction inspection, and testing.

ENVIRONMENTAL STUDIES (STATE): Involves the identification and evaluation of environmental, social, and economic effects from proposed transportation improvements on the human and natural environment. Components include (but not limited to) the investigation and studies necessary to identify potential impacts, evaluate their significance, and recommend mitigation actions. Work shall meet the requirements of the Federal Highway Administration (FHWA) and the National Environmental Policy Act (NEPA) through the preparation and approval of a Categorical Exclusion, Environmental Assessment, or Environment Impact Study document. Special studies for specific disciplines may be required.

GEOTECHNICAL SERVICES (STATE): intended to include (but not limited to) investigative borings, sample collection, laboratory analysis, and soil parameters required for design of highway projects ranging from the suitability of surficial soils for construction to deep foundation design alternatives including construction support (field inspection and CCO design).

HAZARDOUS WASTE/PETROLEUM CONTAMINATION TESTING (STATE): Intended to include (but not limited to) environmental site assessments, field inspection, subsurface soil borings, sample collection, laboratory analysis, contamination remediation, soil and groundwater monitoring, and reports regarding materials and wastes regulated under Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Work may also require asbestos and lead inspection and abatement.

HISTORIC PRESERVATION (STATE): intended to include (but not be limited to) preservation of historic buildings and facades, restoration and reuse of historic structures and buildings, and interpretive displays at historic sites. All work must comply with the State Historic Preservation Office requirements.

LAND SURVEYING (STATE): intended to include (but not be limited to) the research and establishment of property boundaries, the marking of corner locations, and the proper filing of survey information in accordance with SDCL and preliminary survey collection and submission of topographic data to be used for planning and design purposes.

LANDSCAPE ARCHITECTURE (STATE): intended to include (but not be limited to) concept and graphic development, design/analysis, plans preparation, construction support (CCO design & plans, etc.) related to landscape development and irrigation systems on highway projects. Planting design projects may include vegetation, revegetation and landscape preservation, native plantings, living snow fences, visual screening, noise attenuation, and wetland mitigation. Projects may also include landscape architectural designs, aesthetic details and specifications for hardscape features such as walks, trails, retaining walls, bridge railings, sound walls, scenic pull-offs/overlooks and other landscape architectural and aesthetic treatments related to highway projects.

PHOTOGRAMMETRY AND LIDAR SURVEYS (STATE): intended to include (but not be limited to) land surveying, aerial photography, photogrammetric survey, lidar survey, land survey, stock pile survey LiDAR and drone surveys related to corridor preservation and design on highway projects.

PUBLIC INFORMATION/PUBLIC RELATIONS (STATE): Intended to include (but not limited to) developing and implementing processes for marketing and communication, including listening to and responding to concerns of the public, businesses, landowners, schools, and impacted agencies. Includes promotion of general public information related to Department project activities and Department initiatives. Includes informing and actively engaging the public and adjacent businesses of transportation pre-construction and/or construction project activities and progress to mitigate construction impacts on the traveling public while working within schedule constraints. May include any of the following: web site development,

planning and attending weekly construction meetings, photography and video production that may include aerial, drone or time-lapse video services, social media, press releases, engaging the news media, newsletters, info-graphics or other graphic design, event planning, developing a communication plan and other communication tools as needed for construction projects and other Department initiatives.

RAILROAD PLANNING, DESIGN, AND CONSTRUCTION ADMINISTRATION (STATE): intended to include (but not be limited to) design, analysis, specification development, plans preparation, State Rail Plans, rail traffic planning, construction support (CCO design & plans, etc.), construction administration and inspection related to railroad projects.

REAL ESTATE SERVICES (STATE): Project Management for right of way activities, Title research, Appraisals of real estate or billboards, Review appraisals of real estate or billboards, Acquisitions of real estate, billboards or relocation benefits, Provide relocation assistance and services. Appraisals services must be conducted by an SD licensed appraiser with a minimum 3 years' experience in the State.

ROADWAY DESIGN (STATE): intended to include (but not be limited to) design/analysis, specification development, plans preparation, environmental studies appropriate to the project, construction support (CCO design & plans, etc.) related to roadway design on highway projects for motorized and non-motorized modes of transportation.

SUBSURFACE UTILITIES ENGINEERING (SUE) / EXPLORATION (STATE): intended to include (but not be limited to) designating, surveying, mapping, conflict identification/analysis and Quality Level A (QLA) non-destructive locating of existing underground utilities to be used for planning and design purposes.

TRANSPORTATION PLANNING (STATE): intended to include (but not be limited to) conducting planning level studies such as transportation (intermodal) master plans, highway system, interchange and corridor studies for the state highway system to accommodate future traffic, land use, and access rights. Corridor studies may also include preparation of environmental scan documents to be used to determine NEPA actions as part of a Planning Environmental Linkage (PEL) type study. Category also includes the writing of grant applications for federal infrastructure funding. Examples of past studies can be found at <https://dot.sd.gov/projects-studies/projects/special-studies>.

UNDERWATER BRIDGE INSPECTIONS (STATE): – intended to conduct National Bridge Inspection Standards (NBIS) in-the-field underwater inspections using experienced dive teams in accordance with the Federal Highway Administration Report (FHWA-NHI-10-027), enter inspection data into AASHTOWare Bridge Management (BrM), perform basic scour investigation, and submit inspection reports and pictures detailing the condition of each structure.

UNMANNED AERIAL INSPECTION (STATE) – Including (but not limited to) the use of an unmanned aerial system to perform media coverage, search and rescue efforts, asset inspection (buildings, bridges, towers, overhead signs, etc.), geotechnical survey, vegetation survey, hazardous material inspection, pre- and post-construction documentation.

WETLAND DELINEATION/MITIGATION (STATE): Intended to include (but not limited to) the formal wetland identification, delineation, and documentation (narrative description of review area, maps, data sheets and photos) of wetlands in accordance with the 1987 U.S. Army Corps of Engineers Wetlands Delineation Manual (USACE, 1987) for Corps of Engineers 404 Permits and the Federal Highway Administration environmental approval process (NEPA); mitigation plan design; and wetland mitigation site monitoring and documentation based on performance criteria, and recommendations for repairs for wetland mitigations associated with highway projects.

AIRPORT PLANNING AND DESIGN (LOCAL): intended to include airport design, master plans, ALP development, construction engineering, PCI inspections, and approach obstruction surveys.

BRIDGE DESIGN (LOCAL): intended to include (but not be limited to) structure hydraulics studies and TS&L meetings, design/analysis, specification development, plans preparation, construction support (shop plan reviews, field inspection, CCO design & plans, etc.) related to structure design and retrofits on highway projects for motorized and non-motorized modes of transportation.

BRIDGE INSPECTION (LOCAL): intended to include (but not be limited to) perform in-field bridge safety inspections and load rating analysis, complete AASHTOWare BrM inventory coding, and submit inspection reports and pictures detailing the condition for each structure.

GEOTECHNICAL SERVICES (LOCAL): intended to include (but not limited to) investigative borings, sample collection, laboratory analysis, and soil parameters required for design of highway projects ranging from the suitability of surficial soils for construction to deep foundation design alternatives including construction support (field inspection and CCO design).

ROADWAY DESIGN (LOCAL): intended to include (but not be limited to) design/analysis, specification development, plans preparation, environmental studies appropriate to the project, construction support (CCO design & plans, etc.) related to roadway design on highway projects for motorized and non-motorized modes of transportation.

TRANSPORTATION PLANNING (LOCAL): intended to include (but not be limited to) conducting planning level studies such as transportation (intermodal) master plans, sidewalk / pedestrian plans, bicycle plans, asset management, and corridor studies to accommodate future traffic, land use, access rights for cities and counties. Examples of past studies can be found at <https://dot.sd.gov/projects-studies/projects/special-studies/spr>.