



Directly responsible to the Deputy Director - Engineering.

The Materials and Research Division designs, manages, researches and tests highway materials used for constructing and maintaining a quality highway transportation system within the State of Nebraska.

**PORTLAND CEMENT & CONCRETE, CHEMICAL TESTS, PHYSICAL TESTS SECTION**

Directly responsible to the Materials and Research Engineer.

The Concrete Section provides written specifications, sampling and testing of concrete, cement, blended cements, and other materials.

The section also answers questions from other divisions and districts and investigates problems in the field.

The Chemistry Laboratory conducts chemical tests on various types of materials.

The Physical Tests Section tests and inspects numerous construction and maintenance materials, i.e., anchor bolts, concrete, metal and plastic pipe, electrical items, high tensile fasteners, bridge bearing devices, structural reinforcing, highway safety products and wood products.

Develop material specifications, standards, plans and policy for NDOR.

Provide technical support on material and specification related questions.

Perform pavement skid resistance tests.

**FLEXIBLE PAVEMENT AND QUALITY ASSURANCE SECTION**

Directly responsible to the Materials and Research Engineer.

The Flexible Pavement and Quality Assurance Section provides "Reports of Tests" on maintenance and construction materials; are conveniently available to make recommendations; and gives guidance and answers to questions on maintenance/construction materials, strategies and procedures.

Perform on-site inspections and testing.

Provide technical assistance and guidance in the field.

Administer technical control of the branch laboratories.

**PAVEMENT DESIGN SECTION**

Directly responsible to the Materials and Research Engineer.

The Pavement Design Section is responsible for making all pavement related determinations, specifications and final quantities for every new construction, rehabilitation or repair project.

**GEOTECHNICAL SECTION**

Directly responsible to the Materials and Research Engineer.

The Geotechnical Section performs exploration of existing subsurface conditions and evaluates risks posed by site and provides recommendations for the design and construction of roadway and structures for all NDOR projects as needed.

Test material properties of soil and aggregates and prepare soil and subgrade situation reports.

**ROADWAY ASSET MANAGEMENT SECTION**

Directly responsible to the Materials and Research Engineer.

The Roadway Asset Management Section is responsible for maintaining the GPS mainline survey for the State Highway System, the Digilog system, the Log Book, the GIS databases, and roadway geometric data in the Integrated Highway Inventory (IHI).

Responsible for collecting the pavement rating and profile data for the 10,000 mile State Highway system.

Report this information through the Needs Assessment, corporate measures, Pavement Optimization Program (POP), listings, and maps.

**RESEARCH, SITEMANAGER & OFFICE SERVICES SECTION**

Directly responsible to the Materials and Research Engineer.

The SiteManager and Office Services Section is responsible for implementing and managing the materials portion of SiteManager. SiteManager allows us to record, track, and maintain historical data on materials used in highway construction.

This section provides IT support staff for the 1400 Building and performs all clerical tasks within the division.

The shop maintains and repairs laboratory equipment in the central and branch laboratories.

The Research Section is responsible for fiscal and technical management of Nebraska's federally funded transportation research program.

Serve as the research project liaison, between academic researchers and transportation industry professionals.

**LOCAL PROJECTS SECTION**

The Local Projects Section (LPS) coordinates with Local Public Agencies (LPA's) to provide oversight for Federally-funded transportation projects, and with Game and Parks Commission to maintain and construct recreation roads. The LPS partners with the Federal Highway Administration (FHWA), other NDOR Divisions, and NDOR Districts, to ensure that Federal funds are expended in compliance with all applicable rules, laws, and regulations. LPS's oversight of LPA projects is consistent with NDOR's overall mission to provide and maintain a coordinated statewide transportation system for the movement of people and goods.

The duties and responsibilities of Local Projects Section are:

- Facilitating project initiation by assisting LPA's to program eligible transportation projects.
- Administering the local Federal-aid Surface Transportation Program (STP), other Federally funded transportation programs as well as State-funded programs (Recreation Roads, State Aid Bridge Fund).
- Communicating with stakeholders and monitoring project progress to facilitate efficient, timely, and cost effective project development and delivery.
- Assisting LPA's to maintain their Federal eligibility by providing technical and compliance assistance.
- In partnership with the University of Nebraska Local Technical Assistance Program (NE-LTAP) and NDOR training coordinators, developing and implementing comprehensive training for LPA staff who manage local Federal-aid transportation projects and NDOR staff providing oversight for those projects.
- Developing, evaluating, and managing quality assurance systems for oversight of local projects.
- Administer the Federal Fund Purchase Program.

**SECONDARY ROADS UNIT**

Directly responsible to the Local Projects Section Engineer.

The Secondary Roads Unit is responsible for the oversight of Federal-aid for county roadway and bridge projects, emergency relief and public lands highway projects. The unit also administers the Federal soft-match, Recreation Roads and Public Lands Highway Program and represents the Section on safety committees.

**URBAN UNIT**

Directly responsible to the Local Projects Section Engineer.

The Urban Unit is responsible for the oversight of Federal-aid for city street, roadway and bridge projects in First Class cities, Lincoln and Omaha. This includes three Metropolitan Planning Organizations: MAPA (Metropolitan Area Planning Agency in Omaha), LCLC (Lincoln City Lancaster County) and SIMPCO (Siouxland Interstate Metropolitan Planning Council, Sioux City). Represents the Section on safety committees.

**QUALITY MANAGEMENT UNIT**

Directly responsible to the Local Projects Section Engineer.

The Quality Management Unit develops quality control and assurance procedures for the LPS; Revises the LPA Guidelines Manual for Federal-aid Projects; qualifies LPA's to administer Federal-aid projects; trains and qualifies responsible charge (RC) persons; and performs internal audits on local projects, procedures and documentation; In partnership with Nebraska LTAP, the Unit also develops and administers a workforce development plan for LPS and LPA staff.