

# ENGINEER INTERN, S10

## BASIC PURPOSE:

Positions in this job family are assigned responsibility for providing engineering expertise, guidance and technical assistance to state agencies, consultants, and the public. Incumbents accomplish this by performing engineering tasks and by reviewing and evaluating the work of consultants, contractors and facility operators, under the supervision of a professional engineer.

## TYPICAL FUNCTIONS:

The functions performed by employees in this job family will vary by level, but may include the following:

- Develops, prepares and/or reviews engineering plans and designs for structures, facilities and/or systems.
- Develops, prepares and reviews reports and studies to identify and recommend engineering solutions.
- Performs engineering inspections of systems operations and of structures and facilities during construction.
- Implements statutes and regulations.
- Reviews applications and issues permits.
- Performs physical and chemical tests to assure the quality of construction and facility operations and ambient conditions.
- Reviews engineering program activities to make recommendations for changes in policy and procedures.
- Conducts engineering research and provides technical assistance to consulting engineers, contractors, public officials, municipalities and industry.

## LEVEL DESCRIPTORS:

The Engineer Intern job family has five levels that are distinguished based on the complexity of the engineering assignment and the level of expertise required by a specific position.

### Level I:

Code: S10A

Salary Band: E1

This is the Engineer-in-Training level where incumbents will initially perform a variety of routine engineering tasks in a training status under close supervision. Incumbents will perform basic engineering tasks such as the review of less complex plans, performance of basic engineering calculations, the writing of permits, the performance of computer modeling, and the inspection of parts of an engineering project.

Knowledge, Skills and Abilities required to perform duties at this level include knowledge; of basic engineering principles and techniques; of engineering planning; of equipment and materials used in engineering operations; of specialized subjects used in the fields of engineering, such as mathematics, statistics, mechanics, power, physics and chemistry; and of strength of materials. Ability is required to apply engineering principles to practical engineering problems; to use engineering equipment and tools, including computer applications; to make, read and interpret engineering drawings and specifications; to express ideas clearly and concisely, both orally and in writing; to relate abstract ideas to actual needs and adopt an effective course of action; and to establish and maintain effective working relationships with others.

Education and Experience requirements at this level consist of a bachelor's degree in engineering from a college or university which is recognized by the Oklahoma State Board of Registration for Professional Engineers and Land Surveyors, in accordance with the standards of the Accreditation Board of Engineering Technology or a bachelor's degree in construction management with (heavy) or civil option.

Continued on the back.

## Engineer Intern -- continued

### Level II:

Code: S10B

Salary Band: E2

Incumbents in this level are engineering interns who perform technical engineering duties in support of a program or project. This level is generally limited to providing advice and guidance as opposed to directing engineering activities. The complexity of projects assigned, responsibility assumed and degree of supervision necessary will change as the individual advances through this level.

Knowledge, Skills and Abilities required at this level are the same as those required at Level I plus ability to analyze situations and determine sound courses of action; to organize and conduct several activities simultaneously; and to write reports.

Education and Experience requirements at this level consist of registration as an Engineer Intern.

### Level III:

Code: S10C

Salary Band: E3

Incumbents in this level are experienced engineering interns who perform advanced technical engineering duties in support of a program or project. This level provides advice and guidance as opposed to directing engineering activities. The complexity of projects assigned, responsibility assumed and degree of supervision necessary will change as the individual advances through this level.

Knowledge, Skills and Abilities required at this are the same as those required at Level II.

Education and Experience requirements at this level consist of registration as an Engineer Intern and one year experience in the practice of engineering subsequent to registration; or an equivalent combination of education and experience, substituting the completion of a master's degree in engineering for the required one year of experience in the practice of engineering.

### Level IV:

Code: S10D

Salary Band: E4

This is the career level for experienced engineering interns who perform advanced technical engineering duties in support of a program or project. This level provides advice and guidance as opposed to directing engineering activities.

Knowledge, Skills and Abilities required at this level are the same as those required at Level III, plus specialized knowledge of engineering as it relates to a specific job responsibility.

Education and Experience requirements at this level consist of registration as an Engineer Intern and two years of experience in the practice of engineering subsequent to registration; or an equivalent combination of education and experience, substituting a master's degree in engineering for one year of experience in the practice of engineering.

### Level V:

Code: S10E

Salary Band: E5

This is the leadership level where incumbents are assigned responsibility for performing, directing and supervising the work activities of an engineering section, program or project including direct supervision of other professionals. They will plan and organize the work to be done, assign projects to subordinate engineers and review and evaluate projects and programs to ensure compliance with established standards.

Knowledge, Skills and Abilities required at this level are the same as those required at Level III, plus knowledge of practices and principles of effective supervision and the ability to effectively supervise personnel.

Education and Experience requirements at this level consist of registration as an Engineer Intern and three years of experience in the practice of engineering subsequent to registration; or an equivalent combination of education and experience, substituting the completion of a master's degree in engineering for one year of the required experience in the practice of engineering.

## SPECIAL REQUIREMENTS:

Persons with out of state registration as an Engineer Intern must transfer their registration with the State of Oklahoma through the Oklahoma State Board of Registration for Professional Engineers and Land Surveyors no later than six months from the date of appointment. Persons will not be granted permanent classified status without a valid Oklahoma registration as an Engineer Intern.

# PROFESSIONAL ENGINEER, S11

## BASIC PURPOSE:

Positions in this job family are assigned responsibility for providing engineering expertise, guidance and technical assistance to state agencies, consultants, and the public. Incumbents accomplish this by performing professional engineering tasks and by managing, reviewing and evaluating the work of consultants, contractors and facility operators.

## TYPICAL FUNCTIONS:

The functions performed by employees in this job family will vary by level, but may include the following:

- Develops, prepares and/or reviews engineering plans and designs for structures, facilities and/or systems.
- Develops, prepares and reviews reports and studies to identify and recommend engineering solutions.
- Performs engineering inspections of systems operations and of structures and facilities during construction.
- Interprets, develops and implements statutes and regulations.
- Reviews applications and issues permits.
- Performs physical and chemical tests to assure the quality of construction and facility operations and ambient conditions.
- Reviews engineering program activities to make recommendations for changes in policy and procedures.
- Conducts engineering research and provides technical assistance to consulting engineers, contractors, public officials, municipalities and industry.

## LEVEL DESCRIPTORS:

The Professional Engineer job family has three levels that are distinguished based on the complexity of the engineering assignment, the level of expertise required by a specific position, and responsibility for providing leadership to others.

### Level I:

Code: S11A

Salary Band: E6

This is the basic level of professional engineering. Incumbents perform entry level professional engineering tasks and direct engineering activities in all but the most difficult and complex projects/programs, and provide technical advice and guidance to other professionals.

Knowledge, Skills and Abilities required to perform duties at this level include knowledge of engineering principles and techniques; of engineering planning; of equipment and materials used in engineering operations; of specialized subjects used in the fields of engineering, such as mathematics, statistics, mechanics, power, physics and chemistry; and of strength of materials. Ability is required to apply engineering principles to practical engineering problems; to use engineering equipment and tools, including computer applications; to make, read and interpret engineering drawings and specifications; to express ideas clearly and concisely, both orally and in writing; to relate abstract ideas to actual needs and adopt an effective course of action; to establish and maintain effective working relationships with others; to analyze situations and determine a sound course of action; to organize and conduct several activities simultaneously; and to write reports.

Education and Experience requirements at this level consist of registration as a professional engineer.

Continued on the back.

OKLAHOMA:	JOB FAMILY CODE: S11	ADOPTED: 11-1-99	REVISED: 2-28-17
-----------	----------------------	------------------	------------------

## Professional Engineer -- continued

### Level II:

Code: S11B

Salary Band: E7

This is the career level of professional engineers and represents the full performance level of the job family. Incumbents perform engineering duties at all levels of complexity.

Knowledge, Skills and Abilities required at this level are the same as those required at Level I plus ability to perform and direct difficult and complex engineering projects.

Education and Experience requirements at this level consist of registration as a professional engineer and a master's degree in engineering or registration as a professional engineer and one year of professional engineering experience subsequent to registration.

### Level III:

Code: S11C

Salary Band: E8

This is the specialist level where incumbents routinely serve as technical advisors to other professionals and the agency. They work in a consultative role with knowledge in a specific area of engineering. Duties may include supervising the work activities of an assigned program or project.

Examples of work performed may include but will not be limited to: (1) Development of design standards and/or Agency Policies, Rules and Regulations, (2) representation of the Agency on national and regional committees, (3) coordination of specialized agency programs, functions, and activities.

Knowledge, Skills and Abilities required at this level are the same as those required at Level II, plus the knowledge of engineering as it relates to a specific job responsibility.

Education and Experience requirements at this level consist of registration as a professional engineer, a master's degree in engineering and three years of professional engineering experience subsequent to registration; or an equivalent combination of education and experience, substituting one year of professional engineering experience, subsequent to registration, for the required master's degree.

### SPECIAL REQUIREMENTS:

Persons appointed to professional engineering positions must possess or obtain registration as a professional engineer with the Oklahoma State Board of Registration for Professional Engineers and Land Surveyors within six (6) months from the date of appointment.

# ENGINEERING MANAGER, S12

## BASIC PURPOSE:

Positions in this job family are assigned responsibility for overall management of a staff of engineers, technicians and other personnel who are responsible for providing engineering expertise, guidance and technical assistance to state agencies, consultants, and the public. They are differentiated from lower levels in the Professional Engineer job family in that their focus is on broader supervisory and management issues including planning, organizing, and integrating the functions that report to them.

## TYPICAL FUNCTIONS:

The functions performed by employees in this job family will vary by level, but may include the following:

- Selects, develops and motivates subordinate staff to ensure that resources are available to provide quality services and on-time performance for the agency or unit supported;
- Plans, organizes and manages the work of subordinate staff in the assigned unit to ensure that the work is accomplished consistent with agency requirements.
- Directs engineering activities of all or part of an agency's responsibility; e.g., section, branch, division, etc.
- Develops and conducts a specific work program within an agency in accordance with agencies' policies, priorities and budget constraints.
- Manages and/or develops budgets for an assigned unit including operating requirements and equipment and material purchases and ensures that actual expenses are consistent with the approved budget.
- Represents the department in contacts with the general public and public officials, answering questions and resolving complaints.
- Oversees consulting engineer's contracts and provides technical oversight.

## LEVEL DESCRIPTORS:

The Engineering Manager job family has five levels which are distinguished based on level of supervisory/management responsibility, areas and levels of interaction within and outside the agency, scope of responsibility, complexity and breadth of function, financial impact of the area managed and degree of autonomy with which the incumbent is permitted to function.

### Level I:

Code: S12A

Salary Band: E9

This is the basic management level where incumbents are typically responsible for assisting in the management of an engineering work unit.

The complexity of function will be somewhat focused, with the unit managed being responsible for a minimum number of basic functions involving somewhat similar tasks, or being responsible for an assigned program area. Basic functions as described herein might be project design, construction engineering, traffic engineering, etc. Examples of agency program areas might be public drinking water, ground water, surface water, storm water, municipal wastewater, industrial wastewater, etc.

Incumbents at this level are expected to exercise autonomy in decision-making in those matters regarding accomplishment of the unit's function.

Knowledge, Skills and Abilities required at this level consist of knowledge of engineering practices, principles and systems; of management principles; and of the principles of effective supervision. Ability is required to design and implement engineering activities; to organize projects; to establish and maintain effective working relationships with others; to supervise personnel; and to expressing ideas clearly and concisely, both orally and in writing.

Education and Experience requirements at this level consist of registration as a Professional Engineer.

### Level II:

Code: S12B

Salary Band: E10

This is the management level where incumbents are typically responsible for the management of an engineering work unit.

Knowledge, Skills and Abilities required at this level are the same as Level I plus knowledge of budget planning, development and control.

Continued on the back.

## **Engineering Manager -- continued**

**Education and Experience** requirements at this level consist of registration as a Professional Engineer and one year of supervisory experience in a professional engineering related field.

**Level III:**

**Code: S12C**

**Salary Band: E11**

At this level the incumbent will normally have supervisory responsibility over other Level I and II Engineering Managers and will be responsible for the management of engineering work units. Alternatively the incumbent at this level may have statewide responsibility for an agency program.

Complexity of function will be broad based encompassing all areas of the division's responsibility. Incumbents at this level may serve as an assistant to a division engineer or as section chief for engineering activities within a division of an agency.

Complexity of function of the units managed will still be focused as described in Level I. However, complexity of function of the job of the incumbent is increased due to the additional responsibility for oversight of multiple units and/or multiple program areas.

Incumbents at this level, with guidance from a higher level of authority, are expected to make decisions regarding matters of agency policy, rules and regulations.

**Knowledge, Skills and Abilities** required at this level are the same as those required at Level II plus ability to manage multiple work units or program areas.

**Education and Experience** requirements at this level consist of registration as a Professional Engineer and three years of supervisory experience in a professional engineering related field.

**Level IV:**

**Code: S12D**

**Salary Band: E12**

At this level, an incumbent will be responsible for directing, controlling and administering the affairs of a division of an agency involved in engineering.

Complexity of functions will be broad based encompassing all areas of the divisions' responsibilities.

Incumbents at this level will represent the agency in outside contacts, and make decisions and provide guidance to others regarding matters of agency policy, rules and regulations.

**Knowledge, Skills and Abilities** required at this level are the same as those required at Level III plus knowledge of finance and budget administration, and ability is required to establish budget controls, formulate and establish agency policies.

**Education and Experience** requirements at this level consist of registration as a Professional Engineer and five years of supervisory experience in a professional engineering related field, including two years of experience in an administrative or managerial capacity.

**Level V:**

**Code: S12E**

**Salary Band: E13**

At this level incumbents will be responsible for executive oversight over multiple divisions of an agency involved in engineering work.

The financial impact of the incumbent's responsibility will be greater than at any other level in the Engineering Manager job family, having responsibility for development of budgets, acquisition of funds, and oversight of expenditures of each of the divisions managed.

Complexity of function will be broad based encompassing all areas of each division's responsibilities and is increased over that of Level IV due to the additional responsibility inherent in the oversight of multiple divisions.

Incumbents at this level will represent the agency in outside contacts, and develop and establish general policies and procedures for the divisions to follow.

**Knowledge, Skills and Abilities** required at this level are the same as those required at Level IV, plus the ability to manage multiple divisions.

**Education and Experience** requirements at this level consist of registration as a Professional Engineer and six years of supervisory experience in a professional engineering related field, including three years in an administrative or managerial capacity.

**SPECIAL REQUIREMENTS:**

Persons appointed to engineering manager positions must possess or obtain registration as a professional engineer with the Oklahoma State Board of Registration for Professional Engineers and Land Surveyors within six (6) months from the date of appointment.

Continued on the back.

# TRANSPORTATION MANAGER

## BASIC PURPOSE:

Positions in this job family are responsible for performing various levels of transportation management duties. This may include supervision of a staff of professional, technical and support personnel involved in planning, construction, design, right-of-way or aerial survey activities, or maintenance of various types of transportation systems.

## TYPICAL FUNCTIONS:

The functions within this job family will vary by level, but may include the following:

- Selects, develops, trains, and motivates subordinate staff to ensure that resources are available to provide quality services and on-time performance for the agency or unit supported.
- Plans, organizes and manages the work of subordinate staff in the assigned unit to ensure that the work is accomplished consistent with agency requirements.
- Directs activities of all or part of an agency's responsibility; e.g., section, branch, division, etc.
- Develops, conducts, or administers a transportation program within an agency in accordance with agencies' policies, priorities and budget constraints.
- Manages and/or develops budgets for an assigned unit including operating requirements and equipment and material purchases and ensures that actual expenses are consistent with the approved budget.
- Represents the department in contacts with the general public and public officials, answering questions and resolving complaints.

## LEVEL DESCRIPTORS:

The Transportation Manager job family has five levels which are distinguished based on the level of supervisory/management responsibility, scope of responsibility, complexity and breadth of function, and degree of autonomy with which the position is permitted to function.

### Level I:

Code: T23A

Salary Band: M

At this level incumbents are responsible for performing supervisory or advanced transportation management work. Incumbents may serve as an assistant to the construction resident engineering manager or transportation manager. Within the Department of Transportation or Oklahoma Transportation Authority incumbents may direct or administer a highly technical transportation related program or project establishing policies and/or guidelines

Knowledge, Skills, and Abilities required at this level include knowledge of technical engineering practices and principles; of management principles; of engineering plans and specifications; of right-of-way activities; of all aspects of field roadway construction; of highway contracts administration; of supervisory principles and practices; and of transportation systems and planning principles. Ability is required to design and implement construction plans; to organize projects; to establish and maintain effective working relationships with others; to collect and organize data; and to conduct inspections.

Education and Experience requirements at this level consist of a bachelor's degree and three years of experience in technical engineering, planning, or transportation management, or an equivalent combination of education and experience, substituting one year of qualifying experience for each year of the required education.

### Level II:

Code: T23B

Salary Band: N

At this level incumbents are responsible for performing supervisory or advanced transportation management work. Incumbents may serve as a resident transportation manager or may direct a transportation branch within the Department of Transportation or Oklahoma Transportation Authority

Knowledge, Skills, and Abilities required at this level consist of those identified in Level I plus the ability to direct the activities of a transportation branch.

Education and Experience requirements at this level are the same as Level I plus one additional year of qualifying experience in a supervisory capacity.

NOTE: No substitution may be made for the required supervisory experience.



## Transportation Manager -- continued

**Level III:**

**Code:** T23C

**Salary Band:** O

At this level incumbents perform various managerial duties as a principal assistant to the head of a division. Incumbents at this level will be responsible for assisting in the planning and directing of the activities of a division.

**Knowledge, Skills, and Abilities** required at this level consist of those identified in Level II plus the ability to assist in the planning and directing of the activities of a division.

**Education and Experience** requirements at this level consist of those identified in Level II plus one year of qualifying experience in an administrative or managerial capacity.

NOTE: No substitution may be made for the required administrative or managerial experience.

**Level IV:**

**Code:** T23D

**Salary Band:** P

At this level incumbents are responsible for performing administrative and managerial work in the organization and direction of all operations in a division. Incumbents will coordinate all work of the division with other phases of the agency operations and appropriate federal agencies and programs and will plan and direct activities of a division through a staff of personnel in charge of each phase of operation.

**Knowledge, Skills, and Abilities** required at this level include knowledge of federal and state laws and regulations related to transportation systems and turnpikes; of the principles, methods and practices of the various programs being administered; of the principles and practices of public administration; of engineering principles; of highway planning construction and maintenance; of accounting and budgeting principles; of personnel administration; and of data processing concepts and principles. Ability is required to direct the work of others; to plan and evaluate transportation systems; to review, analyze and prepare budget work programs and revenue projections; to analyze and resolve highly complex administrative and personnel problems; and to establish and maintain effective working relationships with others.

**Education and Experience** requirements at this level consist of those identified in Level III plus one additional year of qualifying experience in an administrative or managerial capacity.

NOTE: No substitution may be made for the required administrative or managerial experience.

**Level V:**

**Code:** T23E

**Salary Band:** Q

At this level an incumbent will be responsible for executive oversight over multiple divisions in an agency. Incumbents at this level will have responsibility for development of budgets, acquisition of funds, and oversight of expenditures of each of the divisions managed. Incumbents develop and establish general policies and procedures for the divisions to follow.

**Knowledge, Skills, and Abilities** required at this level include knowledge of administrative principles; of budget development; of development of training programs; of public relations; of engineering plans and specifications; of state and federal highway programs. Ability is required to develop policy at the divisional level; to prepare and control budgets; to determine socioeconomic and environmental impact on proposed projects; to prepare and finalize maintenance and new construction plans; to work with civic, media and governmental groups on departmental projects; and to plan and implement projects and programs at the division and interdepartmental level.

**Education and Experience** requirements at this level consist of those identified in Level IV plus one additional year of qualifying experience in an administrative or managerial capacity.

NOTE: No substitution may be made for the required administrative or managerial experience.

# TRANSPORTATION SPECIALIST, T22

## BASIC PURPOSE:

Positions in this job family are responsible for planning, supervising, and performing technical and professional level transportation work. Responsibilities may be assigned in any area of transportation work, including research, planning and design, survey, environmental studies, bid lettings, construction, maintenance, or project management. Responsibilities may include all phases of highway and bridge construction, field management of utilities or property appraisal and acquisition, relocation assistance, traffic operations, materials testing and sampling, or materials laboratory management...

## TYPICAL FUNCTIONS:

The functions within this job family will vary by level, but may include the following:

- Performs sampling and testing of materials for use in highway construction and maintenance operation; performs plant inspections and prepares materials certifications.
- Surveys grade and alignment of highways using survey equipment.
- Collects statistics and documentation about the state highway system.
- Conducts traffic studies to aid in the determination of transportation system improvements.
- Performs or supervises the various functions required for the bid letting of construction projects, such as developing bid proposals from design plans, incorporating revisions to proposals, and disseminating information to contractors and industry throughout the letting progress.
- Inspects, reviews, or provides oversight for contractors, consultants or utility relocations associated with construction projects to ensure compliance with plans and contracts for highway construction activities; prepares progressive and final estimates for construction contractors.
- Performs planning and review functions for transportation systems such as rail, public transportation, waterways, and highways; determines existing service levels and future needs for transportation modes; considers social, economic, and environmental effects of proposed projects.
- Performs real estate duties in one or more of the following areas; property appraisal, acquisition of real property, or relocation assistance; prepares plans and reports for right-of-way projects.
- Performs audits on the effectiveness of research programs, the adequacy of right-of-way plans, the support of planning decisions by appropriate data, the reliance of materials testing, the reliability of surveys, and the accuracy of construction project documentation.
- Supervises employees in any area of transportation work.

## LEVEL DESCRIPTORS:

The Transportation Specialist job family has six levels which are distinguished by the level of job complexity, the extent of responsibility assigned for a task, the level of expertise required for completion of assigned tasks; and the responsibility assigned for supervision.

### Level I:

Code: T22A

Salary Band: F

Incumbents perform entry level technical work in a training status using standardized procedures to assist and/or perform tasks such as surveying, research, planning, highway constructions inspection, data collection, and/or materials sampling and testing. Responsibilities may be assigned in any area of transportation management work.

Knowledge, Skills, and Abilities required at this level include knowledge of basic geometry and algebra; basic laboratory equipment; construction materials; and the English language in order to follow written and oral instructions. Ability is required to measure distance; collect data; operate computer equipment; and operate transportation-related equipment.

Education and Experience None required.

### Level II:

Code: T22B

Salary Band: G

Incumbents perform technical tasks at the full performance level such as surveying, research, planning, highway construction inspection, and materials sampling and/or testing. Responsibilities may be assigned in any area of transportation management work.

Knowledge, Skills, and Abilities required at this level include those identified in Level I plus knowledge of construction methods; survey procedures; plans and specifications; and the basic principles of transportation planning or research. Ability is required to check and adjust survey equipment for accuracy; read and interpret plans and specifications; measure and calculate areas and volumes of work completed; and perform tests on materials using basic laboratory testing equipment in accordance with prescribed procedures.

Education and Experience requirements at this level consist of one year of experience in transportation related work; or an equivalent combination of education and experience, substituting two college courses in mathematics or engineering or a closely related field for the year of the required experience.

Continued on the back.

## Transportation Specialist - Continued

### Level III:

Code: T22C

Salary Band: H

Incumbents perform advanced technical and/or entry level professional transportation management work involving design, planning, construction, maintenance, or review of various types of transportation systems/projects. Responsibilities may be assigned in any area of transportation management work, including oversight of a single construction project of small or moderate size and scope.

Knowledge, Skills, and Abilities required at this level include those identified in Level II plus knowledge of technical engineering and/or environmental operations. Ability is required to exercise judgment in analyzing situations and determining sound courses of action; organize and conduct activities; provide training and guidance; make independent decision; and establish and maintain effective working relationships with others.

Education and Experience requirements at this level consist of three years of experience in transportation related work; or an equivalent combination of education and experience substituting 30 semester hours for each year of the required experience, including two college courses in mathematics, engineering, or a closely related field.

### Level IV:

Code: T22D

Salary Band: J

Incumbents perform professional transportation management work at the career level involving design, planning, construction, maintenance, or review of various types of transportation systems/projects. This represents the full-performance level and responsibilities may be assigned in any area of transportation management, including oversight of multiple construction projects of small or moderate size and scope, or a single project of considerable size and scope. This level may provide guidance to specialists or consultants, including the coordination and monitoring of work performed by contractors or vendors.

Knowledge, Skills, and Abilities required at this level include those identified in Level III plus knowledge of real estate practices and property acquisition; and transportation theory, laws and practices. Ability is also required to perform business calculations and negotiate resolutions with others; and communicate and express ideas effectively, both orally and in writing.

Education and Experience requirements at this level consist of a bachelor's degree plus one year of qualifying experience in transportation related work; or an equivalent combination of education and experience, substituting one year of qualifying experience for each year of the required education or a master's degree for one year of experience.

### Level V:

Code: T22E

Salary Band: K

Incumbents perform complex professional transportation work at the specialist level involving the design, research, planning, construction, maintenance, or review of various types of transportation systems/projects. Responsibilities may be assigned in any area of transportation management. Performs duties as a lead worker and provides direction to specialists. May provide guidance to consultants and coordinate and monitor work performed by contractors or vendors.

Knowledge, Skills, and Abilities required at this level are the same as those identified in Level IV plus knowledge of the specialized area to which the incumbent will be assigned and the ability to perform specialized tasks.

Education and Experience requirements at this level consist of those identified in Level IV plus one additional year of qualifying experience.

### Level VI:

Code: T22F

Salary Band: L

This is the leadership level where incumbents provide direct supervision to lower level staff. This is a supervisory level with responsibility assigned for directing the work and operational activities of a work unit or section involved in various functions or operations related to transportation.

Knowledge, Skills, and Abilities required at this level include those identified in Level V plus the ability to supervise staff.

Education and Experience requirements at this level consist of those identified in Level V plus one additional year of qualifying experience.

### SELECTIVE QUALIFICATIONS:

Based upon the specific work performed, some positions may require registration or certification in a designated profession or occupation.

### SPECIAL REQUIREMENTS:

Possession of a valid driver's license in order to perform necessary travel.

Applicants must be willing and able to fulfill all job-related travel normally associated with the position.

Some agencies may require applicants to take and pass a Physical Abilities Demonstration prior to appointment or entry into this job family.

# ENVIRONMENTAL/CHEMICAL LABORATORY SCIENTIST

## **BASIC PURPOSE:**

Positions in this family are responsible for planning, performing, implementing and supervising laboratory analyses, quality assurance and special studies. This includes analyses and studies used to determine compliance with state and federal rules, consumer protection regulations, agriculture products standards, highway construction materials specifications, and environmental quality of lakes, rivers, aquifers and air. These positions will provide consultation and assistance in the formulation of regulations and standards. Laboratory specialty areas will include chemistry, biology and physics.

## **TYPICAL FUNCTIONS:**

The functions within this job family will vary by level, but may include the following:

- Analyzes air, water, soil, waste, highway construction materials, and agricultural samples to determine levels of compliance with state and federal regulations or applicable specifications.
- Implements the use of approved methods and procedures in the analysis of samples, and of Quality Assurance practices and procedures in all analytical and study processes.
- Develops methods and procedures needed for laboratory analyses used in the determination of quality, formulation standards and compliance where no approved procedures exist.
- Plans or aids in the planning of special studies requiring the collection and analysis of samples leading to the protection of the public health and the environment.
- Maintains all equipment related to analysis within the laboratory.
- Maintains supply inventories necessary to perform all laboratory analyses.
- Serves as expert witness in the interpretation of laboratory analysis for the enforcement of state and federal regulations.
- Evaluates and prepares reports on the results of analyses and studies.
- Provides consultation on laboratory analyses and studies performed both within and outside of the laboratory for development of regulations and compliance standards, or evaluation of environmental situations.
- Researches, develops and assists in the implementation of long term planning for the efficient use of the state's air, water, land and agricultural resources.

## **LEVEL DESCRIPTORS:**

The Environmental/Chemical Laboratory Scientist job family has four levels of work which are distinguished by the complexity of assignments, the level of expertise required to perform the duties assigned, and the responsibility for providing leadership to others.

### **Level I:**

**Code:** R10A

**Salary Band:** J

This is the basic level of the job family where employees are assigned duties for performing routine entry level work in evaluating regulations concerning analytical data and methods, applying them to performance of assigned analysis, preparing technical reports for special studies, and making recommendations on remedial actions to correct problems. In this role they will perform tasks involved with routine chemical analysis and report preparation, and will assist with technical investigations, planning and implementing research projects, and complex chemical analysis. Assigned duties may include sample preparation and extraction, gas chromatography, gas chromatography mass spectrometry, liquid chromatography, atomic absorption spectrometry, inductively coupled plasma spectrometry (ICP) and ICP mass spectrometry, ion chromatography, flow injection, radio chemistry, wet chemical, biological, microbiological, and physical analyses.

**Knowledge, Skills and Abilities** required to perform work at this level include knowledge of chemical laboratory testing procedures and equipment; of instruments and test apparatus; of the purpose of the chemical analysis being performed and of the materials being analyzed. Ability is required to operate laboratory equipment, to write technical reports and to apply laboratory safety procedures.

**Education and Experience** requirements for entry at this level consist of a bachelor's degree in chemistry, biological or environmental science.

Continued on the back.

## Environmental/Chemical Laboratory Scientist -- continued

### Level II:

Code: R10B

Salary Band: K

This is the career level of the job family, where employees are assigned duties and responsibilities at the full performance level including performing less complicated analyses or studies in a specialized area such as metals, organics, or biology, and may assist with more complex analyses. Employees may further specialize by moving into more refined areas such as gas chromatography mass spectrometry. In this role they will plan and outline normal work activities, interpret data and results, maintain records, and make recommendations related to the analyses and studies performed. Emphasis is placed on the accuracy and precision of testing and in the achievement of optimum utilization of equipment methods and procedures used in laboratory analysis.

Knowledge, Skills and Abilities required to perform work at this level include those identified in Level I plus knowledge of current research in the field and ability to perform physical tests and analyses.

Education and Experience requirements for classification at this level consist of the requirements included in Level I, plus one year of professional level experience in a laboratory; OR a master's degree in chemistry or biological or environmental science.

### Level III:

Code: R10C

Salary Band: L

This is the specialist level of this job family where employees are routinely assigned responsibilities for performing highly independent research in a specialized laboratory area. This includes designing special studies and projects, developing and writing specifications, investigating inquiries and complaints from the field, and making recommendations and reports. Employees at this level will have a clear specialization in a laboratory science area and may be recognized as an expert in the specialty, and may serve as an expert witness and represent the agency at meetings or during legal proceedings. Some positions may be assigned occasional limited supervision of other laboratory employees during short-term special projects or highly complex analyses.

Knowledge, Skills and Abilities required to perform work at this level include the knowledge and skills identified in Level II plus additional knowledge of chemical research, of developments in the laboratory's specialty, and of physical science reference materials and ability to achieve acceptable test volume and quality targets and to present findings and research data to professional groups.

Education and Experience requirements for classification at this level consist of those identified at Level II and one additional year of professional experience in a laboratory.

### Level IV:

Code: R10D

Salary Band: L

This is the leadership level of the job family where employees are assigned responsibility for directing and supervising the work activities of a laboratory area, such as Gas Chromatography, Metals, Wet Chemistry, Radiochemistry, Mass Spectrometry Microbiology or Quality Assurance and control. This includes implementing Quality Assurance criteria and making recommendations on complex regulatory and non-regulatory matters related to analysis and studies performed. Positions are assigned responsibility for the supervision of other laboratory staff, including reviewing and assigning work, providing training and evaluating performance. This includes assigning and reviewing work of other laboratory staff, ensuring completion of assigned activities and providing training. It may also include responsibility for direct supervision, including administrative tasks such as completing performance evaluations, approving leave and initiating disciplinary action.

Knowledge, Skills and Abilities required to perform work at this level include those identified in Level III plus knowledge of supervisory practices and principles and ability to supervise and direct the work of others.

Education and Experience requirements for classification at this level consist of those identified at Level III.

### SELECTIVE QUALIFICATIONS:

Some positions may require education and experience in a specific degree or laboratory area.

**TRANSPORTATION  
TECHNICIAN POSITIONS  
WERE CONVERTED TO  
TRANSPORTATION  
SPECIALISTS POSITIONS  
IN OCTOBER 2012**