

STATE OF OHIO (DAS)CLASSIFICATION
SPECIFICATION**CLASSIFICATION SERIES:**

Design Specialist

SERIES NO.:

8582

MAJOR AGENCIES:

Ohio Department of Transportation

EFFECTIVE DATE:

01/09/2005

SERIES PURPOSE:

The purpose of the design specialist occupation is to review drawings, plans or designs.

At the developmental level, incumbents prepare or review designs.

At the first full performance level, incumbents prepare original design work.

At the second full performance level, incumbents coordinate review of drawings.

At the third full performance level, incumbents review designs for final approval & direct one or more sections, or plan projects to anticipate needs of state, region &/or community & monitor activities of personnel involved in planning or evaluation of plans.

Note: This class is restricted for employees who are not registered engineers.

CLASS TITLE

Design Specialist 1

CLASS NUMBER

85821

PAY RANGE

30

EFFECTIVE

04/27/1997

CLASS CONCEPT:

The developmental level class works under close supervision from design specialist 4 or exempt engineer & requires considerable knowledge of engineering in order to prepare, review & revise designs on state projects & prepare design information to include engineering calculations.

CLASS TITLE

Design Specialist 2

CLASS NUMBER

85822

PAY RANGE

31

EFFECTIVE

01/09/2005

CLASS CONCEPT:

The first full performance level class works under general supervision & requires considerable knowledge of engineering in order to prepare original design work for state projects, review work performed by engineers & suggest corrections & improvements, or act as lead worker over technicians involved in design work.

CLASS TITLE

Design Specialist 3

CLASS NUMBER

85823

PAY RANGE

33

EFFECTIVE

04/27/1997

CLASS CONCEPT:

The second full performance level class works under general supervision & requires thorough knowledge of engineering in order to coordinate & review plans, designs & specifications submitted by contractors or field districts & suggest revisions.

CLASS TITLE

Design Specialist 4

CLASS NUMBER

85824

PAY RANGE

34

EFFECTIVE

01/09/2005

CLASS CONCEPT:

The third full performance class works under direction & requires thorough knowledge of engineering in order to review drawings & plans for adequacy & feasibility & give final approval & direct subordinates in one or more sections, or plan projects to anticipate needs of state regions &/or community & monitor activities of personnel involved in planning or evaluation of plans.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>B. U.</u>	<u>EFFECTIVE</u>	<u>PAY RANGE</u>
Design Specialist 1	85821	13	04/27/1997	30

JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Prepares, reviews & revises designs on state projects.

Prepares design information including engineering calculations from field & inspects projects & determines quantities & safety of structures.

MAJOR WORKER CHARACTERISTICS:

Knowledge of engineering design. Skill in use of design equipment & art equipment. Ability to understand engineering design; interpret variety of instructions in written, oral, picture, or schedule form; use shop math or geometry & trigonometry; calculate fractions, decimals, & percentages; understand technical manuals & verbal instructions associated with engineering design; copy material; gather collate & classify information according to established method; work alone; cooperate with co-workers on group projects.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

2 years trg. &/or exp. in any one or combination of following areas: drafting, cartography, materials testing &/or control, bituminous plant inspection, construction project inspection, support surveying activities &/or other comparable engineering technical support function, of which included 1 course or 3 months trg. &/or exp. in shop math & 1 course or 3 months trg. &/or exp. in reading blueprints &/or specifications; or demonstrate proficiency.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:

N.A.

UNUSUAL WORKING CONDITIONS:

May be exposed to construction areas.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>B. U.</u>	<u>EFFECTIVE</u>	<u>PAY RANGE</u>
Design Specialist 2	85822	13	01/09/2005	31

JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Prepares original design work for various state projects; or designs projects (e.g., lighting, minor road or roadside construction) or re-designs projects to conform to all design criteria, processes change orders & design details not covered by standard drawings & lays out vertical & horizontal curves on construction plans.

Makes revisions, change orders & calculations on construction plans or reviews construction plans that have been prepared by others which may include monitoring activities of design team & field checks for obtaining information; or acts as lead worker (i.e., provides work direction & training) over design squad, coordinates work flow & assists supervisor as needed (e.g., recommends actions, attends meetings, seminars); writes project proposals, contract specifications, technical reports, assists in formulation of design criteria, policies & procedures; consults with contractors, local &/or other agency officials on plans & design criteria.

Attends meetings & acts as coordinator for design segment of projects; or instructs trainees in methods & procedures to complete or review plans; reviews &/or monitors review of preliminary or final plans to ensure conformity to design criteria, including work distribution & duty assignments; maintains computer programs for plans & designs; monitors project progress & analyzes data.

Works in field, checking survey data, reviewing plans, collecting data & revising projects; acts as liaison or coordinator on projects which overlap bureaus; meets with public to answer questions (e.g., landowners, city or county officials); assists in preparation for such meetings.

MAJOR WORKER CHARACTERISTICS:

Knowledge of supervision*; engineering or engineering design; computer programming*; office practices & procedures*; government structure*; public relations*. Skill in operation of calculator*; personal computer*. Ability to understand engineering design; define problems, collect data, establish facts & draw valid conclusions or understand practical field of study; interpret extensive variety of technical materials in books, journals, manuals; use algebra, geometry, trigonometry, statistical analyses &/or calculus; gather, collate & classify information; write contract specifications; cooperate with co-workers on group projects, work alone or establish friendly atmosphere.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

12 mos. exp. as Design Specialist 1, 85821 or in comparable position involving performance of engineering design work.

-Or 3 yrs. trg. &/or exp. in engineering or engineering design technology which included 1 course or 3 mos. trg. &/or exp. in one of following: shop math, geometry, trigonometry or calculus & 1 course or 3 mos. trg. &/or exp. in reading blueprints &/or specifications; or demonstrate proficiency.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:

N.A.

UNUSUAL WORKING CONDITIONS:

N.A.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>B. U.</u>	<u>EFFECTIVE</u>	<u>PAY RANGE</u>
Design Specialist 3	85823	13	04/27/1997	33

JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Coordinates review of drawings, plans or designs submitted by contractors or field districts, suggests revisions as needed, analyzes studies done for proposed projects, summarizes data, & makes judgments & writes reports, correspondence & manuals.

Initiates literature review & research to design studies & develop conventional field testing procedures; designs projects &/or revises designs for district offices; prepares or monitors preparation of divisional design & construction standards & specifications.

Assists supervisor; meets with public officials, contractors, consultants & others to confer on design of projects; acts as liaison with other bureaus or agencies for project programming & scheduling; coordinates activities with districts, consultants to expedite projects & conducts field investigations to verify progress.

MAJOR WORKER CHARACTERISTICS:

Knowledge of supervision*; office practices*; engineering. Ability to understand practical field of study; use trigonometry & geometry; establish friendly work atmosphere as coordinator.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

12 months experience as Design Specialist 2, 85822 or in comparable positions involving engineering design work.

-Or 4 years trg. &/or exp. in engineering or engineering design technology which included 1 course or 3 months trg. &/or exp. in one of following: shop math, geometry, trigonometry or calculus & 1 course or 3 months training &/or experience in reading blueprints &/or specifications; or demonstrate proficiency.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:

N.A.

UNUSUAL WORKING CONDITIONS:

N.A.

<u>CLASS TITLE</u>	<u>CLASS NUMBER</u>	<u>B. U.</u>	<u>EFFECTIVE</u>	<u>PAY RANGE</u>
Design Specialist 4	85824	13	01/09/2005	34

JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Plans projects to anticipate needs of state region &/or community & monitors activities or personnel involved in planning or evaluation of plans, assists in developing plans, programs & policies, transmits directives & promulgates programs & coordinates special planning programs;

OR

reviews drawings for final approval before construction, approves change orders, design changes for projects underway & approves material for project, reviews plans for adequacy, feasibility & conformance to criteria which includes reporting on all, or part of review, studies & resolves problems encountered during construction which involves conferring with other engineers, interpreting policy to district offices & other parties.

Implements studies to generate data for planning purposes; monitors studies in progress; develops review procedures & instructs subordinates (e.g., in system analysis, development of computer integration & other functions supportive to actual planning); provides technical assistance to officials or engineers; or directs one or more sections within bureau, assigns work to squad leaders, trains personnel & initiates all personnel actions, oversees preparation of standardized drawings, specifications &/or design directives & directs review of contractor plans for approval.

Administers &/or assists in administration of sections or bureaus which involves attending meetings on policy, budget & other payroll matters; certifies leave documents, requisitions, invoices & other documents; implements new policies or procedures by new program development or adjustment; replies to all pertinent correspondence; communicates with other agency or department officials; visits new installations or districts for meetings; meets with other department heads; holds conferences; maintains communications; acts as liaison between districts & central office; handles speaking engagements; writes reports on study results, progress reports on on-going projects & prepares graphs & charts for same; maintains records & files.

MAJOR WORKER CHARACTERISTICS:

Knowledge of budgeting*; management*; supervision; employee training & development; office management*; public relations; engineering; government structure*; office practices*. Ability to understand practical field of study; use algebra & trigonometry or statistical analyses; understand technical manuals & government regulations; write articles for technical journals; gather, collate & classify information.

(*)Developed after employment.

MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:

12 mos. exp. as Design Specialist 3, 85823 or in comparable position involving engineering design work.

-Or 5 yrs. trg. &/or exp. in engineering or engineering design technology which included 1 course or 3 mos. exp. in one of following: shop math, geometry, trigonometry or calculus, 1 course or 3 mos. trg. &/or exp. in reading blueprints &/or specifications & 6 mos. trg. &/or exp. as lead worker or supervisor or in administrative capacity; or demonstrate proficiency.

TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:

N.A.

UNUSUAL WORKING CONDITIONS:

N.A.