

**MICHIGAN CIVIL SERVICE COMMISSION  
JOB SPECIFICATION**

**FACILITIES ENGINEER**

**JOB DESCRIPTION**

Employees in this job function as professional facilities engineers, completing or overseeing a variety of assignments to carry out the construction, remodeling, renovation, and maintenance of buildings and facilities.

There are four classifications in this job.

**Position Code Title – Facilities Engineer-E**

Facilities Engineer 9

This is the entry level. As a trainee, the employee carries out a range of professional facilities engineer assignments while learning the methods of the work.

Facilities Engineer 10

This is the intermediate level. The employee carries out an expanding range of professional facilities engineer assignments in a developing capacity.

Facilities Engineer P11

This is the experienced level. The employee performs a full range of professional facilities engineer assignments in a full-functioning capacity. Considerable independent judgement is used to make decisions in carrying out assignments that have significant impact on services or programs. Guidelines may be available, but require adaptation or interpretation to determine appropriate courses of action.

**Position Code Title – Facilities Engineer-A**

Facilities Engineer 12

This is the advanced level. The employee may function as a lead worker or senior worker. At this level, employees are responsible for overseeing the work assignments of other professionals or have regular assignments which have been recognized by Civil Service as having significantly greater complexity than those assigned at the experienced level.

**JOB DUTIES**

**NOTE:** The job duties listed are typical examples of the work performed by positions in this job classification. Not all duties assigned to every position are included, nor is it expected that all positions will be assigned every duty.

## **FACILITIES ENGINEER**

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Examines and approves engineering and architectural drawings and design computations for public buildings and places of employment to ensure compliance with sound engineering practices and established standards, codes, and regulations.

Conducts preliminary surveys and prepares schematic, preliminary, and work drawings for the construction and maintenance of new or remodeled structures and facilities.

Estimates cost of projects, writes contracts and specifications for labor, materials and equipment for construction projects, and secures bids from contractors.

Conducts periodic inspections of work in progress and advises construction supervisors and contractors on interpretation of plans and specifications.

Inspects materials, workmanship, and architectural, mechanical and electrical installations for conformance to plans and specifications.

Evaluates and makes recommendations concerning changes in contract documents and ensures that authorized changes are implemented, in accordance with federal, state, and local building codes.

Reviews and approves shop drawings and cost breakdowns submitted by suppliers and contractors of construction projects.

Consults with architects, engineers, owners, and contractors regarding preliminary layout, construction procedures, and code requirements that apply to building projects.

Discusses plans, specifications, and work schedules with contractors and resolves problems associated with projects.

Maintains records of progress, quantities, changes, delays, and other pertinent factors affecting construction projects.

Conducts correspondence involving technical problems concerning structural engineering standards and code requirements.

Performs design computations involving determinations of strength of various materials through use of computers.

Designs and prepares plans of construction projects through use of computer aided design system.

Inspects existing facilities to ascertain their condition and prepares reports depicting the condition, deficiencies observed, designs necessary for repairs, and estimated cost of repairs.

Conducts health and safety surveys of structures and maintains associated equipment.

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Maintains records and prepares reports and correspondence related to the work.

Performs related work as assigned.

### **Additional Job Duties**

#### **Facilities Engineer 12 (Lead Worker)**

Oversees the work of professional staff by making and reviewing work assignments, establishing priorities, coordinating activities, and resolving related work problems.

#### **Facilities Engineer 12 (Senior Worker)**

Performs on a regular basis professional facilities engineer assignments which are recognized by Civil Service as more complex than those assigned at the experienced level.

### **JOB QUALIFICATIONS**

#### **Knowledge, Skills, and Abilities**

**NOTE:** Some knowledge in the area listed is required at the entry level, developing knowledge is required at the intermediate level, considerable knowledge is required at the experienced level, and thorough knowledge is required at the advanced level.

Knowledge of the engineering principles and practices of the facilities engineering service.

Knowledge of the standards, codes, and regulations pertaining to the construction, and maintenance of structures and facilities.

Knowledge of modern material, methods, and techniques of design, construction, installation, and maintenance of structures and facilities.

Knowledge of the development and use of contracts, estimates, and specifications.

Knowledge of the elements of cost in construction and maintenance including the determination of unit cost records.

Knowledge of building construction processes and procedures, equipment, tools, materials, and their application.

Knowledge of state, national, and local building codes and standards.

Knowledge of inspection and investigation techniques.

Skill in the use of engineering instruments and tools.

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Ability to prepare contracts and specifications.

Ability to make engineering designs and to prepare complete plans for projects.

Ability to read and interpret construction blueprints, plans, drawings, and specifications.

Ability to analyze costs of construction projects.

Ability to determine compliance of structures with specifications.

Ability to learn and utilize the computer aided design system.

Ability to maintain records, and prepare reports and correspondence related to the work.

Ability to use computers and available software to maintain records and prepare technical reports.

Ability to communicate effectively with others.

Ability to maintain favorable public relations.

### **Additional Knowledge, Skills, and Abilities**

#### **Facilities Engineer 12 (Lead Worker)**

Ability to organize and coordinate the work of others.

Ability to set priorities and assign work to other professionals.

### **Working Conditions**

Jobs require travel to construction sites to review work in progress.

### **Physical Requirements**

None.

### **Education**

Possession of a bachelor of science degree in engineering.

### **Experience**

#### **Facilities Engineer 9**

No specific type or amount is required.

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**Facilities Engineer 10**

One year of professional engineering experience involved in the construction, remodeling, and maintenance of buildings and facilities equivalent to a Facilities Engineer 9.

**Facilities Engineer P11**

Two years of professional engineering experience involved in the construction, remodeling, and maintenance of buildings and facilities equivalent to a Facilities Engineer, including one year equivalent to a Facilities Engineer 10.

**Facilities Engineer 12**

Three years of professional engineering experience involved in the construction, remodeling, and maintenance of buildings and facilities equivalent to a Facilities Engineer, including one year equivalent to a Facilities Engineer P11.

**Special Requirements, Licenses, and Certifications**

None.

**NOTE:** Equivalent combinations of education and experience that provide the required knowledge, skills, and abilities will be evaluated on an individual basis.

**JOB CODE, POSITION TITLES AND CODES, AND COMPENSATION INFORMATION**

**Job Code**  
FACLTENG

**Job Code Description**  
Facilities Engineer

**Position Title**  
Facilities Engineer-E  
Facilities Engineer-A

<b><u>Position Code</u></b>	<b><u>Pay Schedule</u></b>
FACENGE	H21-008
FACENGA	H21-013

ECP Group 2  
Revised 6/1/06  
TeamLeaders