



# CIVIL ENGINEERING TECHNOLOGISTS AND TECHNICIANS

## TRANSPORTATION INDUSTRY

OCCUPATION OUTLOOK IN SOUTHEAST MICHIGAN, 2023

## OCCUPATION SUMMARY

Utilize the principles and theories of civil engineering to plan, design, and supervise the construction and maintenance of structures and facilities while working under the guidance of engineering staff or physical scientists. Primary responsibilities include gathering and processing information, working with computers, and communicating with individuals at every level within the organization.

Learn more at [onetonline.org](https://onetonline.org).

## JOB TITLES

The Civil Engineering Technologists and Technicians occupation refers to the entire industry in which someone works. Some examples of specific job titles for this occupation include:

- *Design Technicians*
- *Engineering Technicians*
- *Civil Engineering Technicians*
- *Occupancy Planners*
- *Field Technicians*

**Debt-free training and additional support may be available to jobseekers and those currently employed in this career**

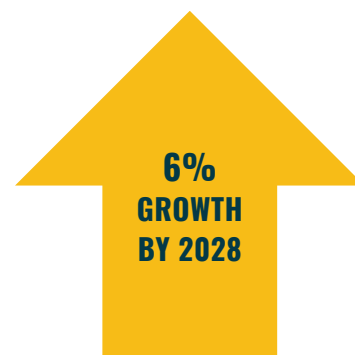
Contact your local **Michigan Works! Agency** to learn more  
[michiganworks.org/michigan-works-network](https://michiganworks.org/michigan-works-network)

## AVERAGE WAGE IN MICHIGAN

	Entry	Median	Experienced
Hourly	\$17.18	\$28.79	\$35.92
Annually	\$35,734	\$59,883	\$74,714

## OCCUPATIONAL GROWTH

Projected to grow faster than average (6%); 209 annual job openings are predicted.



## EARN WHILE YOU LEARN: REGISTERED APPRENTICESHIP

Employers or sponsors may provide apprenticeship opportunities, enabling individuals to acquire hands-on experience, engage in related instruction while receiving compensation. Completing a registered apprenticeship program can lead to career advancement and an average annual income of \$80,000. [Learn more.](#)

## GROW A CAREER WITH ADVANCED DEGREES AND CERTIFICATES

### PROFESSIONAL CERTIFICATIONS

- CompTIA Certification
- American Institute of Certified Planners (AICP) Certification
- International Software Testing Qualifications Board (ISTQB) Certification
- Project Management Professional Certification
- National Institute for Certification in Engineering Technologies (NICET) Certification

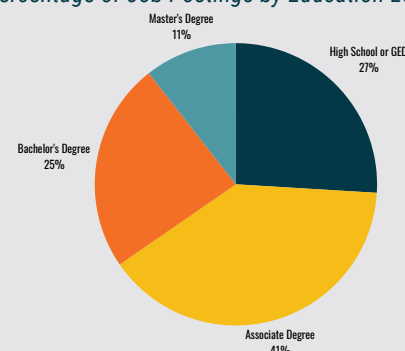
### ADVANCED DEGREES AVAILABLE

(Associate, Bachelor's and Master's Degrees)

- Architecture License
- Professional Engineer License
- Business
- Planning Professional

### EDUCATION

Percentage of Job Postings by Education Level



## A POTENTIAL PATH TO SUCCESS

Explore strategies for overcoming significant factors that can impact employment by clicking [here](#). The following illustration outlines a potential career trajectory based on labor market insights within this occupation.

### ENTRY LEVEL COMPETENCIES (0-2 YEARS EXPERIENCE)

Current employees who obtain training may be offered a new position, additional responsibility, and/or additional benefits.

#### Skills/knowledge in:

- Civil Engineering
- Construction
- Computer-Aided Design
- AutoCAD
- Microsoft Suite

#### Qualifications:

- Valid Driver's License

#### Skills/knowledge in:

- Construction Management
- Project Management
- Construction Inspection
- MicroStation (CAD Design Software)

#### Qualifications:

- ACI Concrete Field Testing
- CompTIA Certification

#### Skills/knowledge in:

- Calculations
- Business Intelligence
- Facility Management
- Microsoft Visio
- Data Mining
- Desktop Publishing
- Surveying
- Spreadsheets

#### Qualifications:

- Commercial Driver's License (CDL)

### MID-LEVEL COMPETENCIES (3-6 YEARS EXPERIENCE)

Continue gaining skills to stay relevant in an ever-changing ecosystem.

#### Skills/knowledge in:

- Drawing
- Financial Analysis
- Furniture Design
- Microsoft Project
- Space Planning
- Change Management
- Engineering Design Process
- SAP Applications

#### Qualifications:

- LEED Accredited Professional (AP)

#### Skills/knowledge in:

- Bill of Materials
- Architectural Drawing
- Submittals (Construction)
- Document Control
- Procurement
- Continuous Improvement Process
- Performance Management

#### Qualifications:

- Professional Engineer (PE) License

#### Skills/knowledge in:

- Project Controls
- Billing
- Construction Engineering
- Control Systems
- Information Model
- Organizational Structure
- Design Software
- Embedded Software

#### Qualifications:

- Pesticide Applicator License
- Cardiopulmonary Resuscitation (CPR) Certification
- First Aid Certification

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