

Civil Engineering Technologists and Technicians

SOC: 17-3022 • Career Profile Report

■ Key Facts

<div>\$64,200</div> <div>Median Salary</div>	<div>64,900</div> <div>Employment</div>	<div>+2.0%</div> <div>Growth Rate</div>
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■ Requirements & Salary Range

Education: Associate's degree

■ Automation Risk Assessment

Low Risk - 17.0% probability of being automated in the next 10-20 years.
This job is relatively safe from automation due to its creative, social, or complex problem-solving requirements.

■ Work-Life Balance

8.0/10 - Excellent work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	8.2/10	Investigative	8.8/10
Artistic	6.4/10	Social	5.2/10
Enterprising	5.8/10	Conventional	6.6/10

■ Top Skills Required

Critical-thinking skills, Decision-making skills, Math skills, Observational skills, Problem-solving skills, Writing skills

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Civil Engineering Technologists and Technicians typically perform the following tasks:

- Calculate dimensions, square footage, profile and component specifications, and material quantities, using calculator or computer.
- Read and review project blueprints and structural specifications to determine dimensions of structure or system and material requirements.
- Draft detailed dimensional drawings and design layouts for projects to ensure conformance to specifications.
- Confer with supervisor to determine project details such as plan preparation, acceptance testing, and evaluation of field conditions.
- Analyze proposed site factors and design maps, graphs, tracings, and diagrams to illustrate findings.
- Prepare reports and document project activities and data.
- Report maintenance problems occurring at project site to supervisor and negotiate changes to resolve system conflicts.
- Inspect project site and evaluate contractor work to detect design malfunctions and ensure conformance to design specifications and applicable codes.
- Conduct materials test and analysis, using tools and equipment and applying engineering knowledge.
- Develop plans and estimate costs for installation of systems, utilization of facilities, or construction of structures.
- Develop project budgets by estimating the cost of project activities.
- Plan and conduct field surveys to locate new sites and analyze details of project sites.
- Respond to public suggestions and complaints.
- Negotiate with contractors on prices for new contracts or modifications to existing contracts.
- Operate drones for site surveying and inspection, providing detailed aerial views of project sites.