

## ENGINEERING TECHNICAL II

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| <b>Employment Status:</b>  | Temporary, Full-Time, Up to 8 months  |
| <b>Compensation Range:</b> | \$34.07 - \$38.36 / 40 hours per week |
| <b>Location:</b>           | 1988 Gainsborough Rd, London, ON      |
| <b>Union/Non-union:</b>    | CUPE 101.5                            |

### POSITION OVERVIEW

Reporting to the County Engineer and/or Engineering Supervisor, the Engineering Technical II prepares plans for road reconstruction, carries out/assists with engineering surveys and construction layout, and provides bridge, culvert and contract construction inspection along with miscellaneous office duties. This is a unionized position within our CUPE 101.5 bargaining unit.

### QUALIFICATIONS

- Successful completion of a Civil Technology program at a recognized Community College and a minimum of five years' experience in drafting, surveying and inspection, or an equivalent combination of education and experience.
- Thorough knowledge of County Specifications and Standards, O.P.S.S. specifications and O.P.S.D. standard drawings for road and bridge construction, repair and inspection.
- A thorough knowledge of surveying methods, procedures and mathematics required to complete complicated pre-engineering surveys and construction layouts with minimal supervision along with an ability to supervise survey crew personnel.
- A thorough knowledge of Computerized Auto-Cad drafting procedures.
- A valid "G" driver's licence with a clean driver's abstract, and access to a vehicle to travel as required to fulfil job responsibilities.

### WHY CHOOSE MIDDLESEX COUNTY?

Middlesex County is a vibrant upper-tier municipality located in Southwestern Ontario. We offer a thriving business climate, easy access to transportation routes, and quality of life with exceptional healthcare facilities, affordable housing, an array of educational opportunities and bountiful recreation and cultural choices in a picturesque setting. The County's administration headquarters are located in London but Middlesex County is comprised of unique villages, towns and rural communities that have great attractions for residents and tourists. At Middlesex County, you will have a chance to make an impact in your everyday work and build lasting relationships in the communities in which we live and serve. We offer a culture that values inclusion, diversity of thought, and employee development. We invest in our people to help them leverage their strengths to achieve their career aspirations.

### HOW TO APPLY

If you are interested in this opportunity, please submit your cover letter and resume by email to [hr@middlesex.ca](mailto:hr@middlesex.ca) by **4:30 p.m. on August 9, 2024**.

We thank all applicants who apply, but only those applicants to be interviewed will be acknowledged. Personal information is collected under the authority of the Municipal Freedom of Information and Protection of Privacy Act and will be used for candidate selection purposes only.

### WHAT WE OFFER

- Flexible Work Opportunities
- Employee Recognition Events
- Professional Development
- Flex Time/Banked Time-Off
- OMERS Pension Plan
- Health and Dental Benefits or Pay in Lieu
- Employee and Family Assistance Program

### VISIT OUR CAREERS PAGE

<https://www.middlesex.ca/departments/human-resources/job-opportunities>

**Join our team and build a rewarding career!**

Middlesex County is an equal opportunity employer. We are committed to a diverse and inclusive workplace for everyone. Accommodations are available throughout the recruitment process. If you are contacted for an interview, please advise us of any accommodations that may be required. This information will be treated confidentially and only used for the purpose of providing an accessible recruitment experience.



## COUNTY OF MIDDLESEX JOB DESCRIPTION

**Title:** Engineering Technical II  
**Department:** Transportation  
**Reports To:** Engineering Supervisor  
**Effective Date:** May 2024 **Positions Supervised:** One

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### **JOB SUMMARY**

Under the direction of the County Engineer and/or Engineering Supervisor, prepares plans for road reconstruction, carries out/assists with engineering surveys and construction layout, and provides bridge, culvert, and contract construction inspection along with miscellaneous office duties.

### **PRIMARY JOB DUTIES AND RESPONSIBILITIES**

1. Prepares construction plans and related documents.
  - a) Interprets field data, land plans, municipal drain files, utility locates and other available information to draw base plans, profiles, and cross-sections.
  - b) With the assistance of the County Engineer and/or Engineering Supervisor uses County standards, O.P.S.S. standards, common construction practices, and general engineering principals to prepare preliminary designs for roads and bridges.
  - c) Performs mathematical calculations for horizontal curves, spiral curves, vertical curves, etc.
  - d) Brings to the attention of the Engineer and/or Engineering Supervisor design or construction problems.
  - e) Prepares design profiles, cross-sections, and details in support of detailed drawings.
  - f) Prepares detailed drawings for in-house and contract projects.
  - g) Prepares quantity estimates from plans, cross-sections, details and standards.
  - h) Completes as-built drawings and calculates final earth quantities from cross-sections.
2. Supervises survey crew by:
  - a) Ensuring that survey crew employees observe commonly accepted rules of personal conduct, appearance and punctuality while on duty.
  - b) Instructing crew members including Summer Students as to the proper methods for carrying out pre-engineering survey and construction layout operations.
  - c) Instructing survey crew employees as to proper safety precautions and equipment, and ensuring that these instructions are followed.
  - d) Bringing to the attention of County Engineer or Engineering Supervisor any survey crew employee who fails to observe any of the above standards of performance and conduct.
  - e) Advising Engineering Supervisor of disciplinary problems.
3. Executing pre-engineering survey operations by:
  - a) Obtaining through the office legal plans and "as built" construction drawings to set up the pre-engineering survey.
  - b) Ascertaining limits of right-of-way and establishing survey base line.
  - c) Picking up cross-sections and topography as directed.
  - d) Establishing vertical and horizontal controls.
  - e) Conducting volume surveys for granular materials.
  - f) Providing neat, clear, checked survey notes and accurate digital plans for all work.
  - g) Conducting other surveys as directed.
4. Executing construction layout operations by:



- a) Obtaining up-to-date plans from the office.
  - b) Establishing: right-of-way, road alignment, limits of sub-ex, grades for sub-ex, grades for granular, limits of paving, location of structures, grades for pipes and ditch work.
  - c) Providing other layout as directed.
5. Survey equipment shall be properly operated by:
- a) Ensuring that County equipment and rented equipment are working effectively and properly maintained.
  - b) Advising the Engineering Supervisor when major repairs are required
6. Provides contract inspection on a variety of road construction/repair contracts as assigned by:
- a) Interprets plans, specifications, files, locates and other available information to ensure that contracts are carried in accordance with County standards, O.P.S.S. standards, common construction practices, and general engineering principals.
  - b) Brings to the attention of the Engineer, and/or Engineering Supervisor unusual design or construction problems.
  - c) Maintains detailed daily log notes regarding contract progress and/or issues.
  - d) Maintains detailed records for contract pay items and provides quantities to Engineering Supervisor to support payments to the contractors.
  - e) Provides as-built information for file drawings and calculates final earth quantities from cross-sections.
  - f) Provides asphalt and granular testing services.
7. Provides services in the role of Instrument Person for obtaining pre-engineering data and for construction layout.
8. Maintains engineering files and performs general engineering office and drafting room duties.
9. Registers deeds, checks property ownership, and searches titles at the Land Registry Offices.
10. Carries out bridge and culvert inspections on all structures per O.S.I.M. manual, including:
- a) Visually inspecting all bridges and culverts in accordance with an established procedure and schedule.
  - b) Preparation/Updating reports as result of field inspections.
  - c) Advising the Engineering Supervisor of unusual situations or problems on bridges and culverts.
11. Conducts other related duties as assigned.

**MINIMUM JOB QUALIFICATIONS:**

1. Successful completion of a Civil Technology program at a recognized Community College and a minimum of five years' experience in drafting, surveying and inspection, or an equivalent combination of education and experience.
2. Thorough knowledge of County Specifications and Standards, O.P.S.S. specifications and O.P.S.D. standard drawings for road and bridge construction, repair and inspection.
3. Thorough knowledge of surveying methods, procedures and mathematics required to complete complicated pre-engineering surveys and construction layouts with minimal



supervision along with an ability to supervise survey crew personnel.

4. Thorough knowledge of Computerized Auto-Cad drafting procedures along with the ability to complete design projects with a minimum of direction.
5. Knowledge of the Land Titles Act and Registry Office procedures.
6. A valid "G" driver's licence with a clean driver's abstract, and access to a vehicle to travel as required to fulfil job responsibilities.