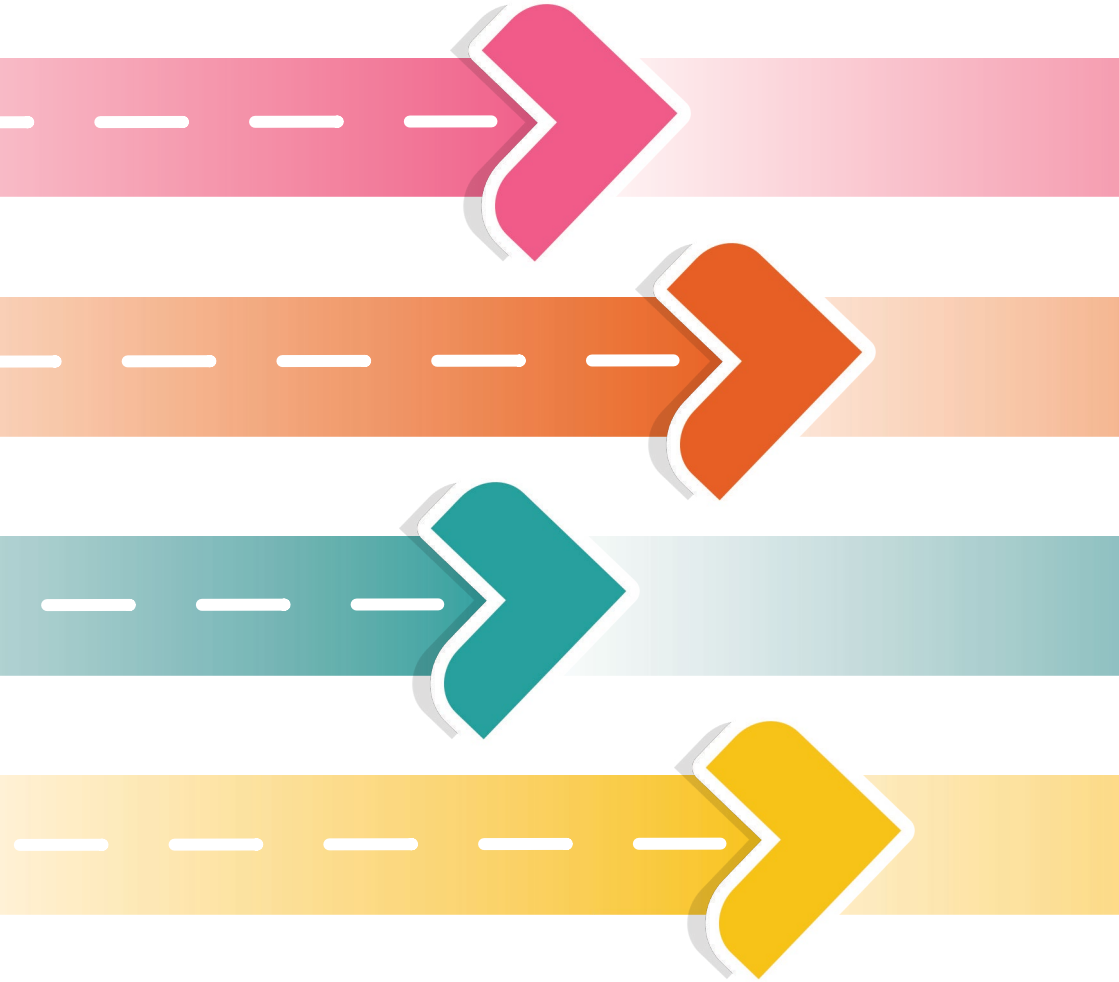
LMI - LABOUR MARKET INFORMATION

CONSTRUCTION & CIVIL ENGINEERING

Bexley, Greenwich, Newham, Enfield, Waltham Forest, Redbridge, Barking, Havering, Bromley



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THE CAREERS & ENTERPRISE COMPANY

SUPPORTED BY MAYOR OF LONDON

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WHAT IS CONSTRUCTION & CIVIL ENGINEERING?

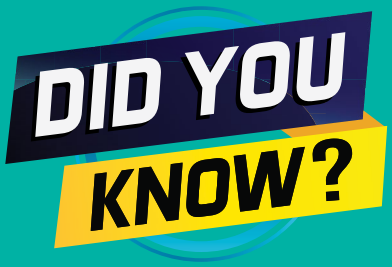
Construction and engineering careers focus on designing, building, and maintaining the structures and systems that shape the world around us. These fields play a vital role in creating safe, functional, and sustainable environments.

KEY CAREER AREAS INCLUDE:

Engineering & Infrastructure: East London hosts major projects like roads, bridges, and Crossrail, offering civil engineers roles in design and

Sustainable Construction: Eco-friendly projects offer roles in green design, renewable energy, and sustainable construction, like consultants and

Urban Development & Regeneration: East London's regeneration, like Stratford and Docklands, offers careers in urban planning, project management, and site engineering.



…there are **41,192** people employed in Construction and a further **35,786** people employed in Engineering jobs across East London?

INDUSTRY CHALLENGES

SKILLS SHORTAGES	High demand for specialised workers, but not enough qualified
RISING COSTS	High living costs make projects more expensive and impact worker
ENVIRONMENTAL REGULATIONS	Projects must adapt to stricter sustainability requirements.
URBAN SPACE CONSTRAINTS	Limited space in dense areas makes construction and infrastructure expansion challenging.

East London remains a key site for infrastructure projects, urban redevelopment, and green energy initiatives, driving demand for professionals in construction and engineering.

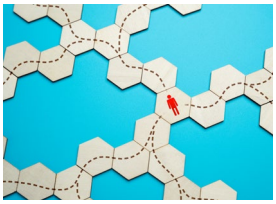
OPPORTUNITIES & TRENDS

Urban Regeneration:

Major projects like Thames Freeport and Crossrail create long-term career opportunities.

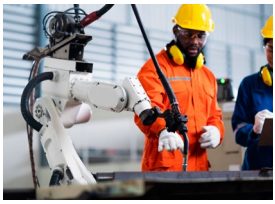
Green Building Practices:

The demand for sustainable construction is driving innovation and investment.



Diverse Career Pathways:

Apprenticeships and degree-level qualifications provide accessible entry routes into the sector.



Technological Advances:

Automation, BIM (Building Information Modelling), and robotics are transforming workflows.

CONSTRUCTION & CIVIL ENGINEERING

WHAT JOBS CAN I DO?

ENTRY LEVEL

CONSTRUCTION LABOURER

They assist with building tasks such as carrying materials, digging trenches and cleaning construction sites.

LISTENING · TEAMWORK · PROBLEM SOLVING

PLUMBING APPRENTICE

They train to install and repair water systems, working alongside professional plumbers.

LISTENING · TEAMWORK · PROBLEM SOLVING

TRAINEE BRICKLAYER

They learn how to build walls and structures by laying bricks and blocks gaining skills in masonry.

LISTENING · TEAMWORK · PROBLEM SOLVING

MID LEVEL

QUANTITY SURVEYOR

They estimate project costs, manage budgets, and ensure that construction projects stay within financial limits.

SPEAKING · AIMING HIGH · PROBLEM SOLVING

CIVIL ENGINEER

They design and oversee large-scale infrastructure projects such as roads, bridges and buildings.

AIMING HIGH · CREATIVITY · PROBLEM SOLVING

ARCHITECTURAL TECHNICIAN

They work with architects to create detailed drawings and plans for buildings and construction projects.

PROBLEM SOLVING · CREATIVITY · LISTENING

HIGHER LEVEL

CONSTRUCTION MANAGER

They oversee entire construction projects, coordinate teams, manage budgets and ensure timelines are met.

LEADERSHIP · PROBLEM SOLVING · TEAMWORK

SENIOR ARCHITECT

They design complex buildings and structures, lead architectural teams and ensure project specifications are met.

LEADERSHIP · AIMING HIGH · CREATIVITY

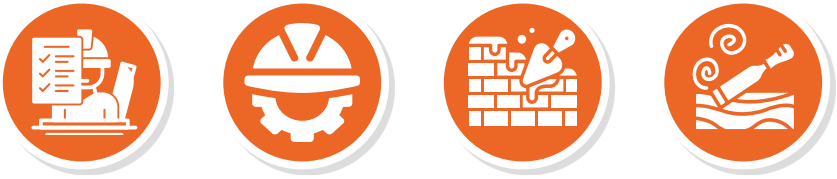
STRUCTURAL ENGINEER

They ensure buildings and infrastructures are safe and stable, overseeing the strength and design of structures.

CREATIVITY · PROBLEM SOLVING · LISTENING

WHERE ARE THE MOST JOBS NEEDED?

CIVIL ENGINEERING | STRUCTURAL ENGINEERING | ELECTRICAL ENGINEERING | ENVIRONMENTAL ENGINEERING



QUANTITY SURVEYING | SITE MANAGEMENT | BRICKLAYING & MASONRY | CARPENTRY & JOINERY

LOCAL COMPANIES INCLUDE

MOTT MACDONALD

ROOFF

MORGAN SINDALL

Balfour Beatty

mace

nationalgrid

TRANSPORT FOR LONDON
EVERY JOURNEY MATTERS

KIER

Breyer Group

McLAREN CONSTRUCTION

WILLMOTT DIXON

Skills Builder
UNIVERSAL FRAMEWORK

HOW DO ESSENTIAL SKILL HELP?

Understanding project requirements and instructions from supervisors and clients.

Clearly communicating with team members, supervisors, and clients.

Identifying and resolving issues that arise on the construction site.

Innovating and finding effective solutions for construction challenges.

Maintaining a positive attitude in a demanding and often physically challenging

Setting and achieving high standards for quality and safety.

Leading construction teams and managing projects effectively.

Working collaboratively with colleagues to complete construction projects efficiently.

Rate your ability in each skill on a scale of 1 to 5.
Can you provide any examples of when you have used each skill?

SKILL	RATING (1 - 5)	Examples of when you have used this skill.
		
		
		
		
		
		
		
		

CONSTRUCTION & CIVIL ENGINEERING

WHAT QUALIFICATIONS CAN HELP YOUR CAREER?

GCSE

SECONDARY SCHOOL

Maths: Essential for calculations and structural principles.

Science (Physics): Important for materials and forces.

Design and Technology: Useful for design and construction techniques.

Geography: Helps with land surveying and infrastructure planning.

ICT/Computing: For construction software and project management.

English: Necessary for communication and report writing.

FURTHER EDUCATION

A-LEVELS

Maths & Physics: Key for solving engineering problems and understanding forces/materials.

Design and Technology: Knowledge of construction techniques and materials.

Geography: Relevant for environmental and geographical factors.

SCAN OR CLICK THE QR CODE TO EXPLORE THE DIFFERENT PATHWAYS

VOCATIONAL COURSES

Construction: Covers practical skills in building, surveying, and civil engineering.

Civil Engineering: Focuses on construction site management, surveying, and materials.

Building Services Engineering: Covers design, installation, and maintenance of mechanical and electrical systems.

T-LEVELS

Construction: Planning, Project Management, and Design: Emphasises project management, planning, and construction design.

Building Services Engineering for Construction: Focuses on installation, maintenance, and repair of systems within

SCAN OR CLICK THE QR CODE TO EXPLORE THE AVAILABLE T-LEVEL SUBJECTS

APPRENTICESHIPS

Civil Engineering Technician: Involves supporting civil engineering projects, including road construction, drainage, and structural design.

Building Services Engineering: Covers the installation and maintenance of the mechanical and electrical systems in buildings.

Construction Site Manager: Focuses on managing construction sites, ensuring projects are completed on time, within budget, and to the required standards.

Click or Scan the QR code to visit the IfATE Occupational Maps to explore the different Apprenticeships available

HIGHER EDUCATION

UNDERGRADUATE DEGREE

Civil Engineering (BEng): A comprehensive degree focusing on the design, construction, and maintenance of infrastructure like roads, bridges, and buildings.

Construction Management (BSc): Specialises in managing construction projects, from planning to completion, ensuring projects are delivered on time and within budget.

Quantity Surveying (BSc): Teaches how to manage the financial and contractual aspects of construction projects.

Architecture (BArch / BSc): Focuses on building design, construction, and sustainable development.

POSTGRADUATE DEGREE / MASTERS

Masters in Structural Engineering (MSc): Specialise in advanced structural design.

Masters in Construction Management (MSc): Leadership and project management in construction.

Masters in Urban Planning (MSc): Focuses on city planning and sustainable development.

Masters in Quantity Surveying (MSc): Specialises in cost management and financial planning for construction projects.

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CONSTRUCTION & CIVIL ENGINEERING

CLASSROOM TO CAREER

How can you make a start on your career during your time in secondary school?

1. **LEARN & EXPLORE** — Focus on subjects like Maths, Physics, and Design Technology. Try free online courses in construction, architecture, or project management.
2. **GAIN EXPERIENCE** — Join school construction projects or volunteer for community building efforts. Look for part-time jobs in construction or with local contractors.
3. **DEVELOP SKILLS** — Practice hands-on skills like using tools and reading blueprints. Learn about safety standards and building regulations.
4. **NETWORK & CONNECT** — Attend construction career events or workshops. Join online forums or communities for builders, architects, or engineers.
5. **PLAN FOR THE FUTURE** — Research careers in construction management, civil engineering, or architecture. Explore apprenticeships or college programs in construction and the built environment.

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MORE INFORMATION

Scan or click on the QR codes to become more informed about the different jobs and education and training options available to you.

GO CONSTRUCT

Explore graduate roles, apprenticeships, or volunteering opportunities.

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NATIONAL CAREERS SERVICE

Explore over 750 different careers. Find out what a job involves and if it's right for you.

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BBC BITESIZE

Explore job profiles for tips and advice from young people working in the sector.

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LMI LONDON

Discover jobs, stories, and opportunities across London's industries.

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