

Civil Engineering Apprenticeship Roles and Career Pathways

This short guide has been developed by the Local Government Association in association with Spark & Associates, using the knowledge and experiences of Local Authorities (LAs) across England. It aims to help councils and their staff understand the career opportunities available through apprenticeships.

Building a Career Civil Engineering supported by Apprenticeships

What this Career Pathway Guide Shows

This pathway shows how careers in Civil Engineering and related infrastructure services within a council can be developed through apprenticeships, from entry-level support roles through to technical, professional, specialist and leadership positions.

This guide provides a broad Civil Engineering career pathway, illustrating how careers can develop across highways, transport, traffic management, structures, asset management, engineering operations, emergency planning and related infrastructure functions.

Civil Engineering services play a vital role in supporting safe, sustainable and connected communities. Apprenticeships provide structured routes to build technical skills, progress careers and develop specialist expertise across a range of engineering and infrastructure disciplines.

Why this matters (for councils and learners)

Councils continue to face recruitment and retention challenges across many engineering and infrastructure functions, competing with the private sector for specialist skills. Apprenticeships provide a practical way to attract new talent, develop existing staff and support long-term workforce and succession planning, including "grow your own" approaches to technical specialist and professional careers. Clear and well-communicated progression routes:

- support recruitment, retention and succession planning
- create opportunities for career development and progression
- help build sustainable in-house engineering and infrastructure capability.

How to use this Guide

This guide outlines typical entry points, progression routes and relevant apprenticeships across Civil Engineering and related infrastructure services.

Entry routes may include A Levels, T Levels, foundation apprenticeships, higher education, career change or internal progression from business support, operational, construction or related technical roles.

Development pathways are not always linear. Individuals may:

- move into specialist areas such as highways, transport, structures, traffic management, maintenance, emergency planning or asset management
- progress into technical, professional or leadership routes
- take sideways steps to build broader technical and infrastructure experience.

Job titles and roles may vary between councils, so apprenticeship suitability should be reviewed against role requirements and prior experience. Training providers and employers can support this through initial assessment and guidance.

Details of apprenticeship standards and career progression routes can be found on the [Skills England website](#), including their [Occupational Maps](#).

Understanding progression

The pathway diagram on page 3 illustrates how careers can develop across Civil Engineering and infrastructure roles, from entry-level to senior and specialist positions. It highlights:

- typical entry routes into civil engineering careers
- progression between technical, professional and specialist pathways
- relevant apprenticeships that support technical, specialist and leadership development.

Progression may involve changes in role, responsibilities or specialist area as skills develop.

Typical Career Progression Routes – Civil Engineering

This table shows typical job roles by level within Civil Engineering and Infrastructure Services in a council, alongside examples of relevant apprenticeships. It provides an overview of how individuals can enter these careers, develop technical and professional engineering skills and progress into senior specialist or leadership roles.

Guide to typical progression in Environmental Health and Public Protection careers linked to apprenticeship / qualification levels:

- **Entry (L2–3):** Build engineering, operational, maintenance and business support skills.
- **L4:** Develop specialist expertise in highways, transport, maintenance, traffic management and engineering operations.
- **L5–6:** Progress into professional, specialist, management or technical leadership roles.
- **L7:** Progress into senior professional, strategic or leadership roles (subject to policy/funding availability).

Career Stage	Typical Roles+	Example Relevant Apprenticeships
Entry and Early Careers (Level 2/3)	Engineering Assistant / Technical Assistant Technical Support Officer / Engineering Support Officer Highways Operative / Highways Maintenance Operative Business Support Officer Maintenance Operative	Business Administration (L2 and L3) Highways Maintenance Skilled Operative (L2) Lead Traffic Management Operative (L2)
Technical and Developing Roles (Level 3/4)	Civil Engineering Technician Highway Inspector Traffic Engineer Transport Planning / Transport Officer Engineering Technician Development Control / Development Engineer Maintenance Engineer / Asset Maintenance Engineer	Civil Engineering Technician (L3) Transport Planning Technician (L3) Maintenance and Operations Engineering Technician (L3) Highways Electrician and Service Operative (L3) Safety, Health and Environment Technician (L3) Associate Project Manager (L4)
Professional and Specialist Roles (Level 5/6)	Senior Civil Engineer Principal Engineer Project Engineer / Engineering Project Manager Highways Engineer Transport Planner / Strategy Officer Structures Engineer Emergency Planning / Resilience Officer	Civil Engineering Senior Technician (L4) Lead Engineering Maintenance Technician (L4) Improvement Specialist (L5) Project Manager (L6) Transport Planner (Degree) (L6) Civil Engineer (Degree) (L6) Resilience and Emergencies Professional (L6)
Strategic and Leadership Roles (Level 6/7)	Head of Highways / Transport Head of Engineering Principal Engineering Manager Director-level Infrastructure roles	Senior Leader (L7)* / other specialist or leadership development (subject to availability)

Civil Engineering and Infrastructure Pathway

Pre-Entry, e.g.:

- ✓ A Levels
- ✓ T-Levels (e.g. Design, Surveying and Planning for Construction; Management and Administration)
- ✓ Other relevant academic /

Business Administration L2 and (L3)

Lead Traffic Management Operative (L2)

Highways Maintenance Skilled Operative (L2)

Building Services Engineering Foundation (L2)

Safety, Health and Environment Technician (L3)

Transport Planning Technician L3

Improvement Technician (L3)

Highways Electrician or Service Operative (L3)

Maintenance and Operations Engineering Technician (L3)

Civil Engineering Technician (L3)

Associate Project Manager (L4)

Lead Engineering Maintenance Technican (L4)

Civil Engineering Senior Technician (L4)

Improvement Specialist L5

Project Manager (L6)

Resilience and Emergencies Professional (L6)

Transport Planner (L6)

Civil Engineer (L6)

Senior Leader (L7)*

*Apprenticeship availability is subject to policy changes. Funding for Level 7 apprenticeships is subject to current government policy and eligibility criteria. Also check **Skills England's Revisions Status Report** for apprenticeships undergoing revision, showing the review stage and reason for review

Working across infrastructure services

Civil Engineering roles often work closely with Highways, Transport, Planning, Property, Emergency Planning, Flood Risk, Environment and wider infrastructure teams. This creates opportunities for cross-service career development and collaborative apprenticeship delivery whilst helping councils build resilient technical workforces. Related opportunities may also exist in construction, building services and data or digital infrastructure roles.

Information correct as at June 2026