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Three Year Development Plan – Junior Engineer

Overview

When you join us as Junior or Graduate Engineer, you will be stepping into one of the more exciting sectors in engineering: data centre delivery. Your first three years with us are structured, supported, and focused on helping you become a highly capable engineer who understands complex systems, contributes real value, and grows into a leadership trajectory.

Year 1 - Foundations, Equipment Familiarity & Core Competence

Objective: Build confidence by understanding the equipment, systems, and tools that make a modern data centre work.

Your first year is all about exposure, learning, and building a strong technical foundation. You will be supported closely by senior engineers while gradually developing independence.

You will learn the fundamentals of:

Power Infrastructure

- High-voltage and medium-voltage substations
- Power transformers (MV/LV)
- MV switchgear
- LV switchgear and distribution boards
- Uninterruptible Power Supplies (UPS systems)
- Diesel generator systems
- Automatic Transfer Switches (ATS) and Static Transfer Switches (STS)
- Earthing, bonding, and protection systems

Mechanical & Cooling Systems

- Air Handling Units (AHUs)
- Chillers and cooling plant
- Condenser water systems
- Adiabatic cooling units
- CRAC/CRAH units
- CDU systems (cooling distribution units)
- Ductwork systems and air distribution
- Pipework systems (CHW, DHW, process water, etc.)
- Extract and supply fans

IT & White Space Infrastructure

- Server racks and cabinets
- Hot aisle / cold aisle containment
- Structured cabling
- Patch panels and network distribution
- Environmental monitoring systems

Controls & Monitoring

- Building Management Systems (BMS)
- Energy Power Monitoring Systems (EPMS)
- SCADA basics
- Instrumentation, sensors, and control loops

Supporting Systems

- Fire detection and suppression
- Leak detection
- Security systems
- Lighting and emergency lighting

You will also learn:

Software & Digital Tools

- Autodesk Construction Cloud (ACC)
- Procore
- IDA and data-driven reporting tools
- Gamma AR (augmented reality workflows)
- AR/VR tools for design and field coordination
- Microsoft 365 (Excel, SharePoint, Teams)
- Google Workspace tools
- Bluebeam, BIM viewers, and general digital construction workflows

Core Engineering Skills

- Reading and interpreting drawings, schematics, and one-lines
- Understanding specifications and method statements
- QAQC fundamentals
- Snagging and punch list management
- Walkdowns and inspection processes
- Cable testing basics
- Document control and project tracking

End-of-Year Outcome:
You will have a solid understanding of the equipment, systems, and processes that power a large-scale data centre, and you'll be able to carry out core QAQC and engineering tasks with guidance.

Year 2 — Autonomy, System Ownership & Project Responsibility

***Objective*:** Take on responsibility for defined systems and work scopes while deepening technical expertise.

In your second year, you'll begin to own parts of the project and represent the company more independently.

You will:

- Lead walkdowns for specific systems (electrical, mechanical, or controls depending on your interest).
- Manage documentation for system turnover, test packs, and commissioning readiness.
- Coordinate directly with contractors and client representatives.
- Perform detailed inspections on major equipment installations.
- Support commissioning of UPS systems, generators, MV/LV equipment, or cooling plant.
- Assist with functional testing of BMS and equipment automation.
- Lead small packages: containment areas, rack rows, cooling systems, or electrical rooms.
- Help develop internal systems — templates, workflows, digital processes.

End-of-Year Outcome:
You can independently manage defined systems or areas on a project, with strong technical understanding and confidence in client-facing situations.

Year 3 — Advanced Competence, Leadership Path & Specialisation

Objective: Become a fully capable engineer ready to lead major systems or move into a specialist track.

You will:

- Lead full systems through QAQC and commissioning (examples: UPS, LV distribution, chiller systems, BMS packages).
- Represent the company in client meetings.
- Mentor new graduates and junior engineers.
- Drive improvements in project systems, workflows, and digital coordination.

Specialise in a path aligned with your interests, for example:
• **QAQC Specialist** — deep quality expertise across critical systems

- **Commissioning Engineer** — FAT/SAT, IST prep, system start-ups
- **Controls/BMS Engineer** — automation, monitoring, sequences of operation
- **Electrical Engineer** — MV/LV distribution, UPS, generators
- **Mechanical Engineer** — cooling plant, air systems, fluid systems
- **Digital Delivery / Systems Engineer** — AR/VR, BIM workflows, digital field tools

End-of-Year Outcome:

You are a competent engineer capable of leading major systems, adding high value to clients, and stepping into Lead Engineer or Systems Lead roles.
