

WORK EXPERIENCE REPORT

FOR

THE CHARTERED

INSTITUTION OF

BUILDING SERVICES

ENGINEERS

LICENTIATE APPLICATION

Introduction

The purpose of this report is to document the work experience of [REDACTED] within the building services industry to date. It will show proof of competence as set out by CIBSE and the Engineering Council, in order to achieve Eng Tech LCIBSE status.

Career overview

I have always had an interest in engineering and technology so from an early age I knew I wanted to work in the construction/engineering industry. I was lucky enough to start my career on an advanced modern apprenticeship in electro technical technology in August 2006 with Central Electrical Services Ltd based in Hinckley, Leicestershire. I stayed at Central Electrical Services until March 2010. My apprenticeship was well structured through JTL and involved working for 6 weeks then attending college for 3 weeks continually for first two years; my final two years were totally site experienced based.

In 2009 I won JTL Electrical Apprentice of the Year awarded through Loughborough College and JTL. Upon winning this award I was given the opportunity to represent the UK construction industry with other apprentices on an apprenticeship exchange scheme which involved working in Germany for 3 weeks.

In March 2010 I moved to David Pearce Electrical Contractors and completed my apprenticeship where I was awarded NVQ Level 2 & 3 in Electro technical technology. Between 2010 to 2013 I worked my way from apprentice to senior installation electrician managing the site aspect of large installation projects, often having a number of apprentices and electricians under me. I aimed to further my career so I self funded and enrolled myself onto the city & guilds 2394 & 2395 in initial verification of electrical installations & periodic test, inspection and certification. With my additional qualifications and extra experience I was awarded Approved Installation Electrician status through the JIB.

In May 2013 I was promoted from Approved Installation Electrician to Electrical Contracts Supervisor at David Pearce Electrical. My primary role was contract managing, estimating and designing projects for electricians to install. To further my career I self funded myself onto 3 year higher apprenticeship in sustainable built environment. Upon completion of this I will receive a HND in Building Services Engineering and an NVQ level 5 in Construction Management.

During my time as a Contracts Supervisor I realised my passion was in design so in June 2014 I moved to an M&E Consultancy called Building Services Design as an Electrical Design Engineer where I am in my final year of my higher apprenticeship. Due to my continual distinction level work and for being the course representative for 3 years to all HNC/HND BSE students I was awarded

the Higher Education Student of the Year in Construction & the Built Environment in 2015.

The following pages describe and detail some of the projects I have worked on and described the tasks I undertake as part of my job in conjunction with the competence criteria.

1.02010-2013 Approved Installation Electrician at David Pearce Electrical Contractors

As a senior approved installation electrician my role varied greatly. One area of work was reactive and planned preventative maintenance for the data centre in Coalhill which was owned and ran by the highway agency. The data centre controlled vital signalling and information from M42, M6 and M1 so keeping the servers operational was paramount. The scope of our maintenance included emergency lighting systems, fire alarm systems, BMS system, UPS systems and generators. As an approved electrician I also took lead role in the electrical testing, inspection and certification.

One of the largest installations I managed on site was Listers Volkswagens new showroom in Worcestershire. I was involved in the weekly liaising with the main contractor to discuss progress as well the daily site management duties which included:

- Procurement of all materials for electricians
- Managing a team of 3 electricians and 2 apprentices for the installation
- Delegating tasks to other members of site team
- Installation of efficient LED lighting scheme in main showroom
- Installation of new analogue addressable fire alarm system
- Installation of structured cabling throughout the site
- Liaising with the consultant and raising RFI's
- Testing and commissioning finished project included all systems

After successfully completing this project I was promoted to Electrical Contracts Supervisor.

2.02013 – 2014 Electrical Contractors Supervisor at David Pearce Electrical Contractors

As a contractors supervisor I was responsible to the day to day operation of the business working closely with my contracts manager and managing director. My duties included:

- Meeting clients to discuss potential projects
- Survey potential projects
- Decide best way to complete the project by completing a design

- Ensuring my proposed design complies fully with BS7671, BS5839 and BS5266
- Use Cypher estimating software to produce accurate tenders

Once tenders had been won I would then move into a procurement and management role where I would organise the required labour for each project and order the required materials at the correct times to ensure the labour on site is kept busy without too much expensive materials being left laying around site.

The largest project I tendered during my time as a contracts supervisor was the Listers Volkswagen Eveshams Workshop for sum of £280,000+VAT electrical installation value which we successfully won. As I tendered this project I was also given the responsibility of liaising with the design team during the early construction stages of the project. I would attend site regularly during the construction phase and be the point of contact for the site based electricians should any situations arise. I held full responsibility for the estimating of the project and if any areas were missed from my tender the blame was on me.

I had also trained on Amtech and was responsible to writing up all certification on Amtech fast test and ensuring it fully complied before sending the finished certificates to the clients.

3.0 2014-Present Electrical Design Engineer at Building Services Design

In my role as an Electrical Design Engineer I work on a vast array of projects from small refurbishments to multimillion pound developments in London. I am now fully competent in using Dialux Lighting Design Software, Amtech Cable Calculation Software and AutoCad. I also have some experience in VES and Revit MEP. Some of my projects are listed below and included my personal enrolment on each project:

Loughborough University HEBS2

Building Services Design were appointed in the role of commissioning Manager to provide management and co-ordination of M&E building services for the deliverance of a full and complete commissioned building. HEBS 2 is a 500m² building over three floors; it houses the National Centre for Sports and Exercise Medicine and office based accommodation for postgraduates.

I was given the full duties of this project working closely with my mechanical counterpart. As the lead electrical commissioning engineer on the project I had the responsibility of ensuring all of the electrical related systems were installed to correctly standard and were operating correctly before handing the systems over to the client. This extend of the commissioning was weekly visits every Thursday for 4 months. In this time I had the following duties:

- Ensure correct operation of fire alarm system included automatic fire detection, manual call point and sounder.
- Ensuring the systems had been installed to the upstream consultants (Horea Lea) specification as well as Loughborough universities specification.
- Witness correct operation of disabled refuge system, disabled alarm system and nurse call system.
- Witness test 30% of the entire fixed installation
- Ensure lighting and emergency lighting lasted for correct duration of time and were not faulty
- Report on outstanding work and faults noted during witnessing
- Attend weekly progress meeting with the client and main contractor.

Silverstone FE Primary School

The scheme is a £4m new build 2FE primary school for Northamptonshire County Council. High emphasis on sustainability and low carbon design, thus all-LED architectural lighting scheme with automated lighting controls for full compliance with Building Regulations Part L2A 2013; air source heat pumps used for heating and cooling.

My responsibility for this project was as follows:

- Complete lighting design including control strategy
- Attended clients brief and created the room data sheets
- Complete small power and LV distribution drawings
- Attending design team meeting
- Completed base indicative fire & security scheme which involved liaising with specialist sub contractors and manufacturers.
- Issue complete tender package

The project has now been out to tender and shall be going into construction in 2016 where I shall be responding to all incoming RFI's and attending all site meetings.

Beaufort Park, Hendon C5,C6,C11 & C12 Blocks

Building Services Design were appointed by T Clarke Midlands for the detailed design of the Mechanical and Electrical services including 354 units with a construction value of £75million. This is a mixed use development consisting of residential and retail.

I assisted a senior electrical engineer during block C5, C6 and C11 on the design of the power, lighting, containment and LV distribution for the blocks. I became the lead electrical engineer on this project for block C12 which included the main schematic for the block, designing of 56 apartments from one bedroom studios

through to 3 bedroom penthouses and landlords small power and containment drawings.

4.0 Develop action plan

Short term goals: (1 – 2 years)

My plan is to continue to increase my knowledge within the industry; this would be by attending seminars, CPD training and by reading journals. I also intend to attend CIBSE. I would also be working on improving my professionalism and competence with latest regulations affecting building services and energy usage. My aim is to complete HND and NVQ level 5 this year and become registered EngTech LCIBSE member. I am looking to enrol onto BEng(Hons) Building Services Engineering at Leeds Beckett University next September.

Medium term goals: (2 – 3 years)

My medium term goal is to continue to develop my skill and knowledge both technical and personal. This should equip me with the necessary knowledge and skills for a more senior role. My intention is to start working towards becoming ACIBSE and to achieve IEng status. In becoming an Incorporated Engineer it will assist me in fulfilling another goal which is to work as a consulting engineer. I also have an interest in low energy design and energy management and will be developing this area. By this point I am hoping to have achieved my bachelor's degree in engineering.

Long term goals: (2 – 5 years)

My long term plan is to become a leading figure within the industry for low energy designs and be able to head up a team of design engineers. I am hoping to become a Chartered Engineer through CIBSE; therefore I intend to return to education once I have completed my bachelor's degree to allow me to complete an MSc programme.