



Engineering Practice Report for the grade of Associate with the Chartered Institution of Building Services Engineers

Word Count: 4597

My Background

My career in the construction industry began with a week's work experience with a groundworks/concrete frame contractor before undertaking various placements in my school, college and university holidays. During the early placements I worked as a labourer before moving on to roles with more responsibility as my experience and knowledge grew. This led to me deciding to pursue a career in construction, by furthering my education with a Bachelor's degree in Civil Engineering at [REDACTED]

As I progressed further into my education, the placement roles developed and I started assisting various people in the site office, including setting up tender packages with the commercial team and checking that patresses were marked correctly on drawings for the dry liners. I then started more long term tasks, including snagging furniture, fixtures and equipment. With these later roles, I was trusted to manage my own workload and time to deliver the requirements of the role, as opposed to being given individual tasks to complete as during my earlier roles.

After graduating from university, my first full time job was working for a small company who exclusively specialised in the construction of luxury houses. I started as a Trainee Assistant Site Manager but, in reality, was the only employee of the main contractor on site full time. My Project Manager oversaw seven different projects and would come in to check on progress once or twice a week. The majority of the time I was predominantly left to manage the project myself. My role included planning labour, booking in subcontractors and deliveries, driving a pedestrian operated tower crane, setting out and quality control.

Following the completion of that project I accepted a job with a larger main contractor working on a tower in east London. Due to the nature of working on a larger project, the project was split into smaller packages and spread across the management team. My first role was to manage the interface between the main mechanical, electrical and plumbing contractor and the dry lining contractor. This piqued my interest in building services and I then expressed a desire to specialise in that part of the construction during appraisals with my line managers as well as assisting with the MEP snagging in the apartments. As the project progressed, I was handed the kitchens, joinery and white goods packages to manage.

The majority of the team, upon project completion, moved across to a similar project. Whilst the project was in the design stage, I had several conversations with my line manager who agreed to allow me to change roles, which lead to me starting on the project as the temporary electrics package manager, as well as the assistant manager on the main mechanical, electrical and plumbing (MEP) package. Part way through the project, I became the lead on the lift package too and I am presently working on this project, managing these three packages.

Summary of Projects



Company/Client: [REDACTED]
Dates: February 2013-June 2014
Construction value: £2million
Title: Assistant Site Manager
Role: Lead for the main contractor on the project and managed all trades.



Company/Client: [REDACTED]
Dates: June 2014-December 2016
Construction value/MEP value: £110million/£15million
Title: Assistant Site Manager
Role: Package manager for joinery, white goods and co-ordinated handovers between all fit-out trades.



Company/Client: [REDACTED]
Dates: December 2016-Present
Construction value/MEP value: £150million/£36million
Title: Assistant MEP Manager
Role: Package manager for temporary electrics, vertical transportation and assistant manager for the main MEP package.

A. Use a combination of general and specialist engineering knowledge and understanding to apply existing and emerging technology.

CIBSE Objective

Evidence Examples

A1 – Maintain and extend a sound theoretical approach to the application of technology in engineering practice

My career so far has been in the production side of the industry, initially construction in general (overseeing all trades on a small project) before specialising in the building services sector of construction on much larger projects. As a result of my experience, my strengths generally lie in on-site management; coordination between trades, on-site problem solving, planning and other similar management abilities.

As such, I am proactively working to improve my technical knowledge and skills. I feel that this is especially important when the scope and diversity of the building services sector of the industry is considered, particularly in comparison to other trades from within the industry. I'm a firm believer in the 70/20/10 theory of learning, where 70% of your learning is from experience, 20% from other people and 10% from courses/reading. In my case, the majority of my learning is through on-site experience and I supplement this with asking questions about anything I'm unsure of and conducting my own research. I'm currently reading books aimed at electrical apprentices (Fig 1) to give myself a good grounding in the theory and practical uses and find that the information I absorb the most is when there is a link to something I've experienced on site. For example, when the temporary electrics contractor was regularly installing transformers on site, I realised that I didn't know the theory behind how a transformer worked and read through a relevant chapter in the book, before discussing with an electrician on site to confirm my understanding.

I also push for formal training where possible and appropriate and am fortunate that the company I work for are more than happy to help develop their staff when showing an interest in education and improving. This includes a course on BS7671 18th Edition Wiring Regulations that I completed last year.

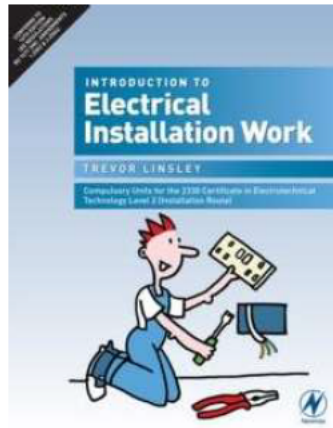
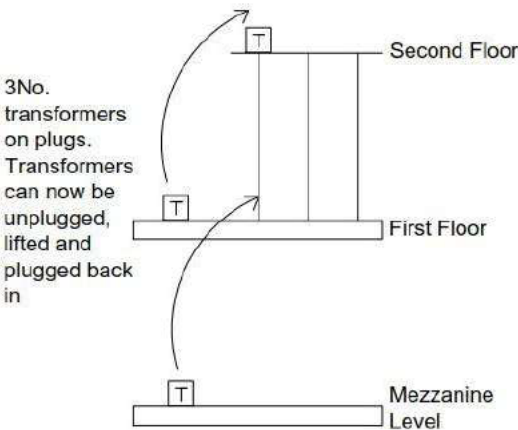


Fig1. Introduction to Electrical Installation Work – Trevor Linsley
One of the books that I have been studying

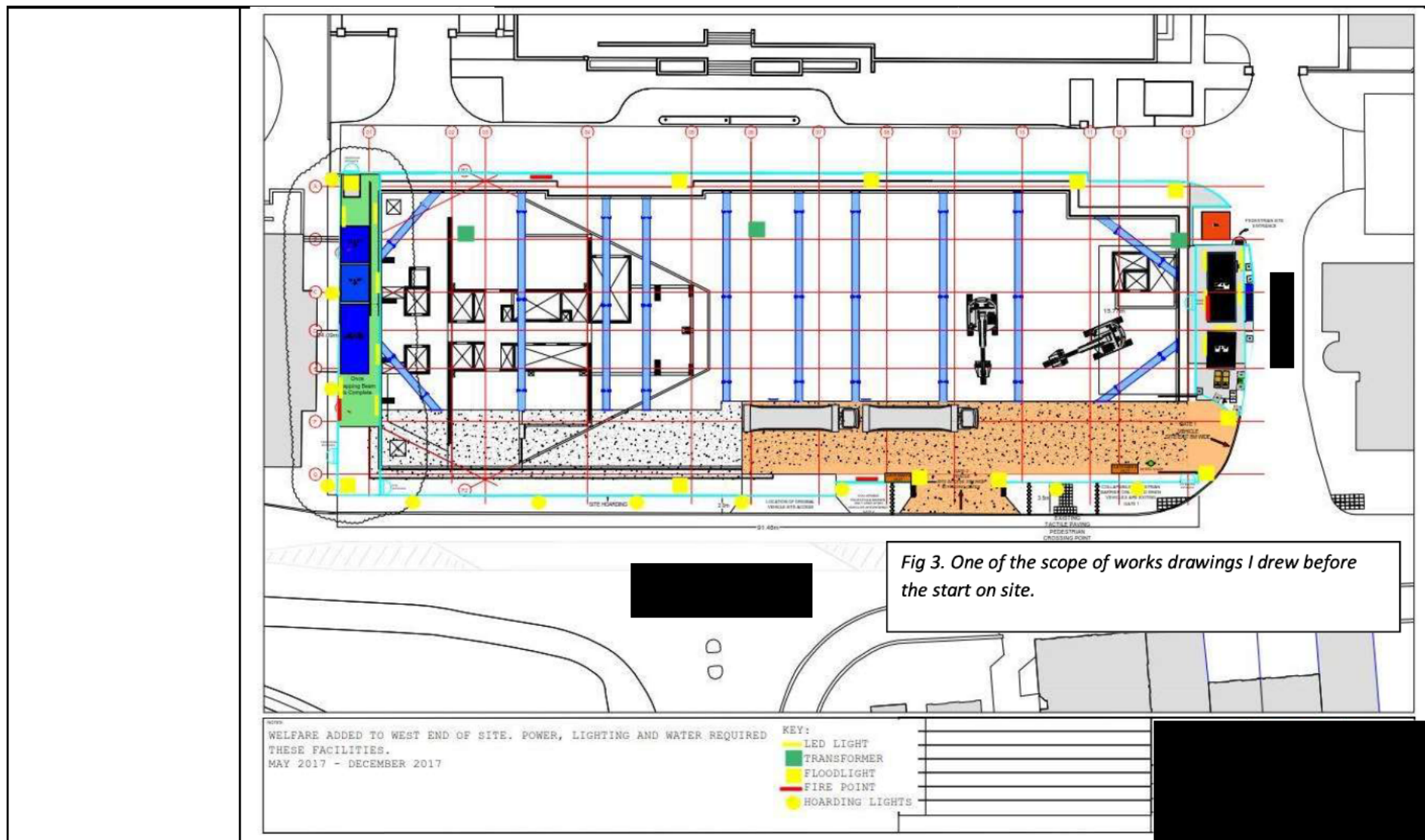
A. Use a combination of general and specialist engineering knowledge and understanding to apply existing and emerging technology.	
CIBSE Objective	Evidence Examples
<p>A2 – Use a sound evidence-based approach to problem-solving and contribute to continuous improvement.</p>	<p>We had an issue at [REDACTED] due to some misinformation from the concrete frame contractor. They specified their power requirements on the jump form system and the slabs, only to realise, once the power was installed, that the power that they had requested was nowhere near sufficient for the works that they needed to undertake. Over the next few months, they slowly requested more and more power until there was a total of five SWA cables connected to the jump form (via a riser from the basement) and an inadequate supply on the slabs. The main challenge was supplying power to the live slabs during the construction of those slabs.</p> <p>I came up with the solution of placing a Mains Distribution Unit (MDU) on the top of the jump form and running a single SY cable from the main basement MDU, through a riser, to the new jumpform MDU. This MDU then supplied all of the power requirements on the jump form itself, as well as the top slab below, by dropping a feed down to two transformers, installed with plug and couplers. This meant that the frame contractor could place these transformers in temporary locations, on the slabs that they were constructing at the time, and easily unplug them and move them as required (for example, when they poured concrete). This solution was also future proofed as I instructed the MDU to be installed with extra capacity, to allow the option of taking more feeds from it for more transformers or other electrical equipment. This solution required an initial upfront cost but saved money as the SWA cables that were feeding the jump form could be removed and didn't need to be extended going forward, as well as increasing productivity through the slab construction and a cheaper solution to any future power capacity issues. It also increased safety as the SY cable could be coiled, in a safe area, with less chance of being damaged during the hydraulic jacking of the jumpform, than the group of SWA cables.</p>

B. Apply appropriate theoretical and practical methods to design, develop, manufacture, construct, commission, operate, maintain, decommission and re-cycle engineering processes, systems, services and products.

CIBSE Objective	Evidence Examples
<p>B1 – Identify, review and select techniques, procedures and methods to undertake engineering tasks.</p>	<p>Whilst managing the temporary services package at the [REDACTED], I had several challenges to overcome. One of the biggest challenges was supplying power to the slabs on the tower, before being in a position to install the planned supplies through the risers. The concrete frame contractor required power to construct the core and the slabs but the power couldn't be supplied to these areas as there were no safe cable routes or anywhere to position site transformers until after the floors and walls had been built. I reviewed the programme to ascertain at what point the 'permanent temporaries' (the planned works from the temporary electrics contractor's contracted scope) could be installed and discovered that the period without this power was too great for the concrete frame contractor to continue to work effectively. This meant that a 'temporary-temporary' supply was required (a solution to bridge the gap before the main contract works).</p> <p>My solution was to install a MDU at the back of the tower with three transformers fed from it on long cables with plug and couplers, so that the transformers could be disconnected easily and safely and then be moved up or down the building as required (Fig 2). I asked the temporary electrics contractor for a quote, which I reviewed to ensure the materials, quantities and resources seemed reasonable before putting the proposal to the rest of my team and the concrete frame contractor.</p> <div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p>3No. transformers on plugs. Transformers can now be unplugged, lifted and plugged back in</p>  </div> <div style="flex: 1; border: 1px solid black; padding: 5px; margin-left: 20px;"> <p><i>Fig 2. A sketch of the plan for moving the transformers as part of the 'temporary temporary' power solution.</i></p> </div> </div>

B. Apply appropriate theoretical and practical methods to design, develop, manufacture, construct, commission, operate, maintain, decommission and re-cycle engineering processes, systems, services and products.	
CIBSE Objective	Evidence Examples
B2 – Contribute to the design and development of engineering solutions.	<p>For future projects, I keep a live document describing any issues that have either happened or could have potentially happened (with the above an example of an issue added). On any future projects I will consult my lessons learnt document to ensure that the power requirements are confirmed as early as possible and will check the temporary electric schematics to ensure that the power is strategically positioned in the most efficient manner, as well as consulting the document to attempt to avoid any other issues that I have previously encountered. I will also be able to use my experience to work out a rough guide of what is required and query the contractor if what they request is very different to what I expect.</p> <p>I share my lessons learnt with other projects and have assisted them in collaborative workshops to find solutions to similar problems. The principle of the solution described in A2 was developed with another project to overcome some of their issues during the start of their project.</p>
B3 – Implement design solutions and contribute to their evaluation.	<p>My role as vertical transportation package manager at the [REDACTED] was my first experience of managing a subcontractor of that type. As such I wanted to gain as much knowledge as possible. In order to do so, I spoke to contacts from the subcontractor and have read through their installation manuals for each of the lift types on the project as well as visiting their distribution holding centre and factories and test facilities in Hamburg and Helsinki respectively. I have also attended a seminar that they held in December 2018 where they ran through some of their innovative techniques for the future, including double-decker lifts and people flow management.</p>

C. Provide technical and commercial management	
CIBSE Objective	Evidence Examples
C1 – Plan for effective project implementation.	<p>My first task, as temporary services package manager at the [REDACTED] was to define the project requirements and use this to put together a comprehensive scope of works. I used my previous experience to identify potential issues and to decide on mitigation before writing these into the scope. For example, to reduce the risk of flooding, I suggested an electronic solenoid to switch off the water out of hours, reducing the chances, and the impact, of any leaks.</p> <p>I also discussed the temporary services requirements for the project with the other package managers of other disciplines/packages to ensure that the scope of works was sufficient. I produced a set of drawings (Fig 3 on page 9), showing the different requirements at different stages of the project, to aid with the planning, including agreeing a slot (with the main Mechanical, Electrical and Plumbing contractor) for a cable route in one of the risers to allow installation of the cables. I then positioned the MDUs throughout the tower in the ‘hoist apartments’ as this is the location that the MDUs can be left in the longest. The hoist apartments are the apartments on each level where the hoist is located on the outside of the building and as such, these apartments are the last apartments to be fitted out.</p>



C. Provide technical and commercial management

CIBSE Objective

Evidence Examples

C2 – Manage tasks, people and resources to plan and budget.

On the [redacted] I managed the temporary electrics package, having already planned the scope of works. This would involve booking in the specific tasks from the scope with the sub-contractor and then managing them on site.

The first step would be to advise the sub-contractor of the planned date, usually during the three week look ahead (Fig 4), which I held once a week with the temporary electrics supervisor. This would allow them time to order materials and ensure that the correct amount of labour and resources would be on site. They would then me their risk assessment and method statements which I would review. When reviewing, I would be looking for safe methods and assessed risks, with practical and realistic mitigations, with the correct resources, equipment and that the materials were fit for purpose and the relevant operatives were competent for the task before approving the RAMS and allowing the works to proceed.

I would then co-ordinate the works with the other package managers including co-ordinating the work areas, deliveries, access routes and re-directing other site personnel away from the work area. This is particularly important when the works take place in an access route and when the site has limited working area. For example, adding lighting to a main walkway would require a local exclusion zone and possibly re-routing the walkway temporarily.

During the works I would exchange contact details with the supervisors or operatives and regularly supervise them. This would include ensuring that the RAMS were briefed to all operatives and being followed on site. If an issue needs to be resolved, a site instruction could be required. In these cases, I would discuss the issue and any solutions with the sub-contractor before presenting the solution to my quantity surveyor, explaining the issue, benefits of the solution and the financial implications of each scenario.



Fig 4. A photo of my three week look ahead whiteboard calendar.

C. Provide technical and commercial management	
CIBSE Objective	Evidence Examples
<p>C3 – Manage teams and develop staff to meet changing technical and managerial needs.</p>	<p>Throughout The [REDACTED] I updated a whiteboard calendar for the temporary electrics contractor, which allowed me to plan works that are coming up in the not too distant future. I use this to plan the upcoming works, what risk assessments and method statements need to be approved (allowing plenty of time for revisions) and booking in operatives and materials. I hold a weekly informal meeting with their supervisor to go through the following three weeks (and any important or unusual tasks beyond those three weeks) to explain what works take priority and to request additional labour or materials if required. I also review what labour we have on site at these meetings, both in terms of volume but also in terms of what each operative’s strengths and weaknesses are and who has the relevant qualifications for each task.</p> <p>Every morning at 8:30 on site, we hold a daily activity briefing (DABs) where all of the [REDACTED] package managers and representatives from each sub-contractor discuss their planned works for the day and any upcoming milestones. I discuss my short term plans in the daily activity briefings a few days ahead of the works commencing. This ensures that the works are co-ordinated and any potential issues are resolved ahead of time. This is especially important with the temporary electrics package as some of the works require a temporary shut down of power or water and it is vital that other members of the site team are aware and plan their works accordingly, to avoid potential accidents or loss of productivity. I am also able to adjust my plans to suit any critical works for other members of the team or other disciplines. Following the 8:30 meeting, I would spend some of my time supervising the works and ensuring that the works are completed correctly and at the correct time.</p>
<p>C4 – Manage continuous quality improvement.</p>	<p>During the installation of the UK Power Networks (UKPN) temporary building supply (TBS) at [REDACTED] there were a few tasks, which could have been much more efficient and allowed for an easier installation. This was both in terms of the UKPN TBS, but also the setting up of the site temporary electrics, including the enabling works.</p> <p>It was my first time setting up the services for a construction site and this meant that there were problems that I hadn’t encountered before and, therefore, hadn’t prepared for either. Each problem that I encountered, I made sure that I came up with a solution to resolve the issue at the time, before also investigating solutions that could have prevented the issue from arising in the first place (by specifying it in the scope or adding an extra item) and added this to my lessons learnt document.</p> <p>A few months later a colleague moved onto a different project at the design stage. I discussed setting up the temporary services on his current project with him, including sharing my lessons learnt document and all of the issues that I had already encountered. I met him later, once most of his plans were in place, to double check for any issues that I could envisage arising. I feel that it is important to learn from any mistakes/issues, but also to share the knowledge to help others to learn from my experience too. I shared with him specific items that could’ve been improved, including ensuring that plenty of ducts were installed in the slab with draw wires to aid the installation of the temporary electrics.</p>

D. Demonstrate effective interpersonal skills.	
CIBSE Objective	Evidence Examples
D1 – Communicate in English with others at all levels.	<p>On the [REDACTED] Project, as the Vertical Transportation (VT) Package Manager I would chair regular progress meetings alongside my Project Director, Quantity Surveyor and the sub-contractor’s Contract Manager. Ahead of the meetings, I would prepare and issue an agenda, which I would run through during the meeting, before producing and issuing meeting minutes to clarify the discussions and any actions required. The minutes also act as a record, should a dispute arise at a later stage.</p> <p>At the start of the project, the meetings were pre-start meetings and scope of works meetings. These meetings required collating project requirements from each package and effectively communicating this information with the surveyors, my line managers, the VT sub-contractor management and the VT operatives when they began the work on site. As the project progressed, the meetings became progress meetings to discuss how the works were going and any issues that we had, from either side. This would include the quality of the works, progress against the programme and how the health and safety parts of the job were being managed.</p> <p>I developed a rapport and good working relationship with the contract manager of the VT sub-contractor and this allowed us the opportunity to discuss issues openly too resolve them in ways that were mutually beneficial to both parties.</p>
D2 – Present and discuss proposals	<p>I regularly present and created the presentation for the site induction to new starters on the project, which has been invaluable in developing my delivery skills. The inductions take place early each morning and are centred around health and safety. It’s imperative that the audience absorb as much information as possible and buy into the health and safety values of the project. Techniques I use include remaining standing and varying the tone and volume of my voice in order to create an engaging presentation. I would also tailor the presentation for each person. This could mean putting emphasis on a particular risk if it is relevant to the works that they will be undertaking or work area they are working in or slowing down and repeating aspects for people who aren’t native English speakers.</p>

D. Demonstrate effective interpersonal skills.

CIBSE Objective

Evidence Examples

At The [REDACTED] organised an event, with the assistance of a friend who works for a sports charity (London Sports Trust), to publicise International Women's Day (Fig 5). I managed to organise a venue to hold it by discussing it with the director of another charity (Lifetime Learning), who were based in the same building as our office and who had extra rooms in the building. The event was designed to raise money for the two charities, raise awareness of social inequality and to increase morale/relationships on site and with our neighbours. We did this by making the event open for our neighbours and everyone on site. I canvassed the building that our offices were based in to personally invite as many people as possible and encouraged each of our subcontractors to allow their operatives to have extended breaks for the day to be able to attend. The event included table tennis, a bake sale and a range of soft drinks. The event raised £800 for the sports charity and £188.46 for the second charity.

In my free time, I study German, with the objective of achieving fluency. I'm currently working towards taking my B2 exam (B2 class of the Common European Framework of Reference for Languages), which indicates an upper intermediate level, which is defined as "a capacity to achieve most goals and express oneself on a range of topics". I study in my free time using several methods, including; regular video call lessons, using a flash card app on my phone, playing video games in German and reading (Children's) German books.

D3 – Demonstrate personal and social skills.



Fig 5. A photo from the International Women's Day event

E. Demonstrate a personal commitment to professional standards, recognising obligations to society, the profession and the environment.	
CIBSE Objective	Evidence Examples
E1 – Comply with relevant codes of conduct.	<p>I have read through both the CIBSE and [REDACTED] codes of conduct and confirm that I follow them both. I would summarise both codes by saying that the common theme running through them is honesty. This can relate to personal conduct and finances or professional matters.</p> <p>The code of conduct also describes holding the correct up to date professional knowledge. An example of this is my completing the training for the wiring regulations BS7671 17th Edition: Amendment 3. I completed the training in 2017 despite knowing that the 18th Edition would be released in 2018 and I would have to complete the next course too as I feel it is important to have the most up to date information and knowledge available.</p>
E2 – Manage and apply safe systems of work.	<p>I review the task specific RAMS for each task that any package that I manage undertakes. I have completed a half day course on risk assessments and setting people to work as well as the Site Managers Safety Training Scheme and hold a Level 6 NVQ in Site Management. The above qualifications, combined with my site experience, make me competent to assess RAMS.</p> <p>I read through the method statements and assess against a [REDACTED] checklist to ensure that they are accurate and contain all of the required information. I then read through the RAMS again to double check the method and the mitigation against each risk to think about the possibility of finding a safer method to use. If anything can be improved, I would send them back to the sub-contractor who would revise and re-issue and this would be an iterative process until I'm happy for the works to start.</p> <p>Before the task starts, I sometimes witness the sub-contractor supervisor briefing the operatives and would then maintain a regular on-site presence to ensure compliance with the RAMS and question any aspect of the works which appear to be deviations from the RAMS.</p> <p>Due to the potentially fatal repercussions of an electrical incident, electrical contractors working for [REDACTED] need to submit, and have approved, an Electrical Safe System of Work. This must be approved by an authorising engineer and I assisted by collating the information and liaising between the authorising engineer and the sub-contractor until sign-off was achieved.</p> <p>In order to improve safety on The [REDACTED] I found several locations that suited the installation of electrical equipment. For example, the vehicle lift originally required a lift motor room, which was located in the basement adjacent to the vehicle lift (Fig 5 – on page 13). As the vehicle lift design progressed, it became apparent that the vehicle lift only required one small panel in the motor room and the rest of the room became free. I decided to locate the main temporary electrical panel in that room to convert it into a temporary electrical switch room. This allowed the panel to remain in that location for the duration of the project and could be made secure by installing doors and using a permit to access system to ensure that only authorised personal enter.</p>

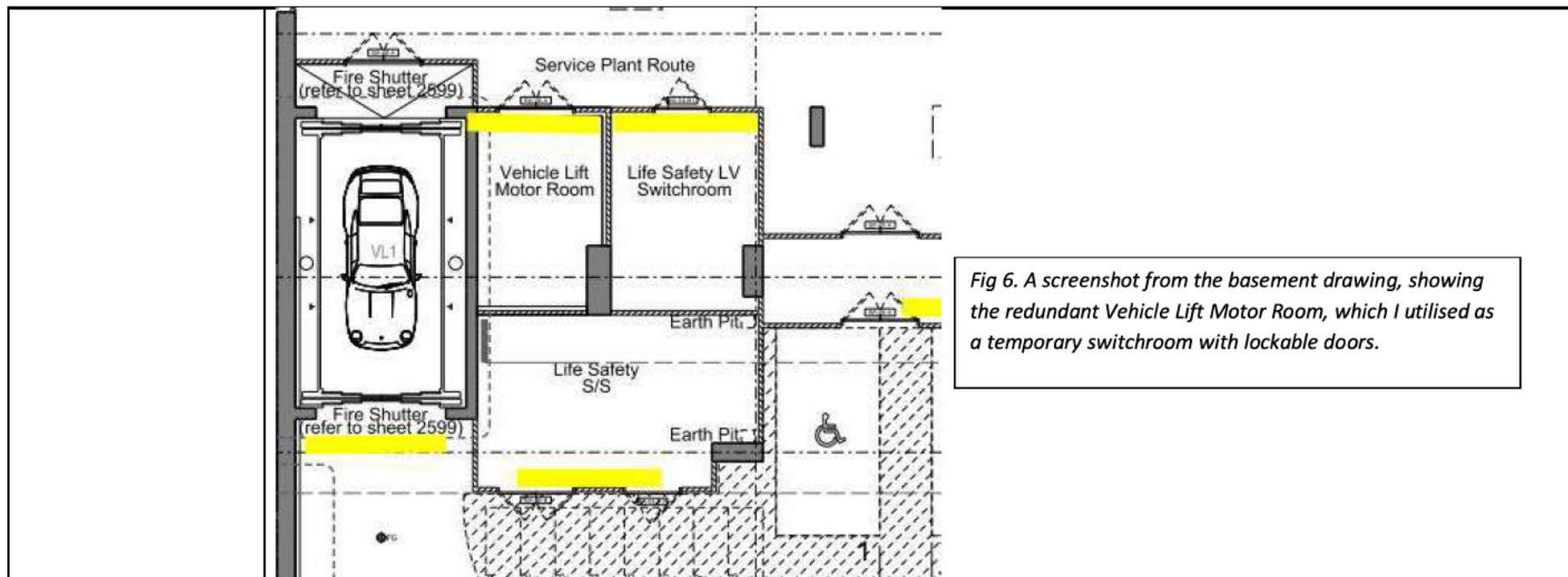


Fig 6. A screenshot from the basement drawing, showing the redundant Vehicle Lift Motor Room, which I utilised as a temporary switchroom with lockable doors.

E. Demonstrate a personal commitment to professional standards, recognising obligations to society, the profession and the environment.	
CIBSE Objective	Evidence Examples
E3 – Undertake engineering activities in a way that contributes to sustainable development.	<p>At The [REDACTED] we had two tower cranes to assist with movement of material and site logistics. The cranes, weather permitting, were in constant use but I was interested in the power consumption of the cranes and how efficient they were. I spoke to a colleague from the plant department who then organised some equipment to be set up on site to monitor. The devices took a reading every second and every few days I would take the readings from the device and send them back to my colleague who had access to the software required to analyse the power consumption of the cranes. The findings showed that despite higher peaks, only a small percentage of the crane’s capacity was used. This will be rolled out across other projects to validate the data, however, it shows that there are savings to be made in terms of cost as other projects are set up. We may be able to feed both cranes from one MDU, with the discrimination set up to allow the cranes to share breaker capacity.</p> <p>The floodlights installed by the temporary electrics contractor around the perimeter of The [REDACTED] were halogen lights and not as efficient as LED. I discussed this with them, as well as our quantity surveyors to organise paying for them to be changed in order to increase the efficiency of the project for the next two years. I then looked into the scope of works and organised a separate instruction to pro-actively change all the remaining floodlights to LED, before they were initially installed in order to save money on the double installation. I will also ensure that LEDs are specified in any scopes of works going forward and added this issue to my lessons learnt document to avoid the additional cost of a re-visit.</p>

E. Demonstrate a personal commitment to professional standards, recognising obligations to society, the profession and the environment.	
CIBSE Objective	Evidence Examples
E4 – Carry out and record Continuing Professional Development (CPD) necessary to maintain and enhance competence in one’s area of practice.	<p>I began my tenure with [REDACTED] in the role of Assistant Site Manager and very shortly after starting, had some involvement in the MEP aspects of the project as I ran the handover process between apartments from one trade to the next. By far, the biggest interface was between the MEP sub-contractor and the dry lining sub-contractor. This spiked my interest in MEP and I began working towards becoming a MEP Manager. I decided that in order to make this happen, I would need to gain both technical knowledge and working experience. I did this by:</p> <ul style="list-style-type: none"> • Signing up to the CIBSE training newsletter • Completing courses including the IOSH Avoiding Danger from Underground Services Course, CIBSE Introduction to Mechanical and Electrical Building Services Course (OL02) and the latest wiring regulations (BS7671 17th edition, amendment 3 – followed by 18th) • Signing up to become Deputy Utilities Co-ordinator (and taking responsibility for issuing permits to dig, involving reading services drawings and scanning for services) • Snagging MEP and Squad checking MEP drawings works alongside the current MEP Manager • Becoming the Temporary Electrics Package Manager and the Assistant MEP Manager for the main MEP works on the [REDACTED] Project • Becoming involved in MEP meetings, including the value engineering meetings, which would generally involve potentially innovative designs • Pushing to become the lead on the vertical transportation package <p>I recognise that the development must continue and in order to achieve that, my next targets are to:</p> <ul style="list-style-type: none"> • Regularly read the CIBSE journals, investigating articles of interest that could be applied to my project • Investigate more courses • Attend seminars, looking to find innovative ideas that could be applied to the project.
E5 – Exercise responsibilities in an ethical manner.	<p>Ethics, to me, is the simply doing the right thing and behaving in a way that shows integrity and honesty.</p> <p>I ensure that I always behave in a fair and just way and make the correct decision, even if it can be an unpopular one, including ensuring hours are correct on time sheets and materials used are correct.</p> <p>An example of my ethical behaviour is from The [REDACTED] when it was discovered that the wrong programme was used in the contract for the vertical transportation package. I was encouraged to attempt to deceive the subcontractor and use the dates we want as their yardstick for reviewing their performance. I resisted that approach and was honest with the subcontractor. I explained the situation and asked for their help. They were then able to bring the manufacture dates forward and adjust parts of the programme in order to bring the critical path dates forward to the dates that we needed to hit for our programme to be successful.</p>



Profile

An Assistant MEP Manager, currently building a 53 storey tower in London. I have effective analytical, problem solving, communication and teamwork skills honed with participation in team sports, many group coursework assignments and in my current role. I am committed to a career in construction management as I have proved by proactively securing seven placements before I had finished full time education and having already worked on a variety of construction projects at a relatively early stage in my career. I am looking to continue my challenging and rewarding career in this field.

Core Skills and Competencies

Teamwork – ability to organise, plan and work within a team. This has been shown with participation in team sports, including winning local football tournaments and professionally at work; for example, bringing three different parties together to seamlessly install the temporary electric building supply on time.

Communication – developed and enhanced communication skills through experience. Comfortable dealing with management, operatives, the professional team and others, as well as chairing meetings and presenting the induction to new starters.

Working Under Pressure – works effectively under pressure to achieve goals as shown particularly in my previous role at [redacted] during the handover period. I have also shown this by keeping the temporary electrics package ahead of requirements, which can be a considerable challenge, especially when site wide shut downs are required.

Commercial Awareness – comprehends the fact that value is not necessarily the cheapest option and understands the link between construction, cost and profit. Work closely with the Quantity Surveyors working on my packages and regularly meet with the Commercial Manager to improve knowledge.

IT Skills – computer skills, working knowledge of Microsoft Office, Asta Powerproject and AutoCad as further proven by an A grade in ICT at GCSE.

Problem Solving – able to find solutions to problems in a rational manner. An example of this is altering the route for the main MDU panel cable in order to gain site temporary power at an earlier date.

Education and Qualifications

[redacted] / **B.Eng - Civil Engineering.** **2009 - 2012**
Second Class Honours, Lower Division Degree Class.
Modules included Construction Management and Project Management.

[redacted] **2007 - 2009**
A Levels: Mathematics (A) Physics (A) Psychology (B)
AS Level: History (B)

[redacted] **2002 - 2007**
9 GCSEs and 2 half GCSEs, 2 A* Grade, 7 A Grade & 2 B Grade.

Vocational Qualifications

Site Management Safety Training Scheme (SMSTS) **Expires Nov 2023**
First Aid at Work (British Red Cross) **Expires Jan 2022**
Fire Marshall (BBCSUK) **2015**
Temporary Works Appreciation (Stuart Slatter Training) **2015**
Tower Crane Rescue (Taskmasters UK Limited) **2015**
Harness Training (IPAF) **2015**

NVQ Level 6 Construction Site Management
CPCS Competent Lifting Appointed Person
City and Guilds Confined Spaces
IOSH Avoiding Danger From Underground Services
Graduate Member of Chartered Institute of Building Services Engineers (CIBSE) 2015

Work Experience

**January 2016 – Present Assistant MEP Manager at [REDACTED] [REDACTED]
[REDACTED] [REDACTED], London**

Project: 53 storey residential tower.

Duties: Package manager for the temporary services and the vertical transportation package, as well as the assistant on the overall Mechanical, Electrical and Plumbing package. Other duties include: COSHH coordinator, assistant lifting appointed person, fire marshal, first aider, risk champion, confined spaces coordinator, utilities coordinator and part of the tower crane rescue team.

**June 2014 – December 2015 Assistant Site Manager at [REDACTED] [REDACTED]
[REDACTED], London**

Project: 44 storey residential tower with a 12 storey residential curved bar building.

Duties: Main role initially involved looking after the interface between the dry lining contractors and the mechanical, electrical and plumbing contractors and the handovers of areas between each of the trades. The role then evolved to become package manager for the carpentry sub-contractor and the white goods sub-contractor. Other duties include snagging and quality assurance and ensuring that the snags are dealt with fast enough to avoid delaying other trades. The curved bar building was a recipient of the NHBC Pride in the Job Award 2015.

**February 2013 – May 2014 Assistant Site Manager at [REDACTED]
[REDACTED], Surrey**

Project: Building of a new luxury house to be sold upon completion.

Duties: General management of the project, working under a Project Manager for support. Specific duties include the planning of labour and ordering of materials, driving a pedestrian operated tower crane, first aid, quality control and solving general site issues. I was given complete control and the responsibility to organise my own time in a professional capacity and the responsibility to ensure that the project was delivered on time and on budget.

Industrial Work Placements

June 2010 – September 2011 Various Work Placements with [REDACTED] [REDACTED] (working during University holidays)

Projects: [REDACTED] School and [REDACTED] School, [REDACTED] - building of new schools as part of the Building Schools for the Future (BSF) initiative.

Duties: snagging and de-snagging the project, furniture, fixtures and equipment and assistance with the commercial team, putting together packages and sending out for tender returns.

July 2006 - August 2009 Various Work Placements (working during school holidays)

Projects: Two [REDACTED] placements (school and student housing), one [REDACTED] [REDACTED] placement (Shoreham Airport) and one placement for [REDACTED] Contractors (groundworks).

Duties: All placements were general labouring placements, which involved working with site engineers, general tidying, protection for completed aspects (e.g. doors, window frames and flooring) and checking safety equipment.

Personal Interests

Sports: including boxing and weight training. I also enjoy spectating football, boxing and American football. Other interests I enjoy are; reading, film, playing the guitar, writing, travelling, learning German and socialising with friends.

Referees

Available upon request

Development Action Plan

Short Term Goals

I anticipate working on my current project until the end (end of 2020) in my current role. During that period I will continue to improve on my technical knowledge and on site experience. This will include improving my understanding of all of the systems being used in the project. This will start by looking each of the systems one at a time and reviewing the service from it's entry into site, through to the end user in each apartment (or plant room as applicable).

I plan to deliver the vertical transportation package successfully for all of the lifts on the project and to continue to improve my understanding of the design and installation of lifts, through on site experience, discussion and personal research. I will also continue to attend events that Kone are putting on, which present innovations in the industry and their latest products.

I will increase my attendance at CIBSE seminars and conferences and use the opportunities to find aspects that can be brought back and implemented on site or future projects that I'm involved in.

I will hopefully be selected to take part in a project this summer, through my company, where I will take my engineering skills and experience to assist a charity in building a bridge in Rwanda.

Medium Term Goals

To develop my role from Assistant MEP Manager on a large project into the MEP lead on a smaller project. This could be through my current company or with a different one.

I would also like to develop my design experience, possibly by joining this new project at an early stage and having an involvement with the MEP consultants at the design stage.

Long Term Goals

To gain experience as MEP lead on smaller projects and to then move onto MEP lead on large or complex projects.

I would also like to work abroad and to develop my experience, knowledge and ability by learning new methods and approaches from different cultures.